Lochluichart Wind Farm Extension II S42

Supporting Environmental Information Report

Bluebell Wind Farm Limited

The Auction House, 63a George Street, Edinburgh,
EH2 2JG

Prepared by:

SLR Consulting Limited

The Tun, 4 Jackson's Entry, Edinburgh, EH8 8PJ

SLR Project No.: 405.065579.00001

23 October 2025

Revision: 1.0

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
1.0	23 October 2025	AJ Gourlay, J Kerr	A Brown	J Hazzard
	Click to enter a date.			

Basis of Report

This document has been prepared by SLR Consulting Limited (SLR) with reasonable skill, care and diligence, and taking account of the timescales and resources devoted to it by agreement with Bluebell Wind Farm Limited (the Client) as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

SLR shall not be liable for the use of or reliance on any information, advice, recommendations and opinions in this document for any purpose by any person other than the Client. Reliance may be granted to a third party only in the event that SLR and the third party have executed a reliance agreement or collateral warranty.

Information reported herein may be based on the interpretation of public domain data collected by SLR, and/or information supplied by the Client and/or its other advisors and associates. These data have been accepted in good faith as being accurate and valid.

The copyright and intellectual property in all drawings, reports, specifications, bills of quantities, calculations and other information set out in this report remain vested in SLR unless the terms of appointment state otherwise.

This document may contain information of a specialised and/or highly technical nature and the Client is advised to seek clarification on any elements which may be unclear to it.

Information, advice, recommendations and opinions in this document should only be relied upon in the context of the whole document and any documents referenced explicitly herein and should then only be used within the context of the appointment.

Table of Contents

Figures

Appendices

Acronyms and Abbreviations

AOD	Above Ordnance Datum
CAA	Civil Aviation Authority
COP15	The 2015 United Nations Biodiversity Conference of the Parties
CTMP	Construction Traffic Management Plan
dB	Decibel
EIA	Environmental Impact Assessment
FTE	FTE
GBF	Global Biodiversity Framework
GVA	Gross Value Added
GWh	Gigawatt hour
GWDTE	Groundwater Dependent Terrestrial Ecosystems
ha	Hectares
HES	Historic Environment Scotland
HET	Historic Environment Team
IoA	Institute of Acoustics Good Practice Guide
LCT	Landscape Character Type
LFA	Low Flying Area
LVIA	Landscape and Visual Impact Assessment
MOD	Ministry of Defence
MW	Megawatt
MWh	Megawatt hour
NATS	National Air Traffic Services
NPF4	National Planning Framework 4
NS	NatureScot
NSR	Noise Sensitive Receptor
NTS	Non-Technical Summary
PCA	Peat Condition Assessment
PP	Planning Permission
SEIR	Supporting Environmental Information Report
SM	Scheduled Monument
THC	The Highland Council
UKBF	UK Biodiversity Framework

1.0 Introduction

1.1 Background

This Supporting Environmental Information Report (SEIR) has been prepared in support of an application under Section 42 of the Town and Country Planning (Scotland) Act 1997 ('the 1997 Act'), being submitted by Bluebell Wind Farm Limited (hereafter referred to as 'the Applicant'), to The Highland Council (hereafter referred to as 'THC') in relation to Lochluichart Wind Farm Extension II (hereafter referred to as 'the Development'). The Applicant is seeking permission to construct the Lochluichart Wind Farm Extension II other than in accordance with planning conditions attached to the planning permission (Reference: 21/02985/FUL) issued by THC on the 30th of January 2023 ('the 2023 Planning Permission').

A full description of the proposed approach to the Section 42 application is provided in the Planning Statement and accompanying Supporting Statement. It is not the purpose or intention of this document to replicate that work.

This SEIR addresses environmental issues arising as relevant to the proposed amendments to planning conditions. It should be noted that no physical changes are proposed to the Development as approved.

1.2 Structure to the SEIR

This document seeks to:

- Provide background to the Section 42 application (Section 2);
- Provide confirmation of the proposed variation to a planning condition which is sought via this Section 42 application (Section 3);
- Provide an introduction to the approach taken within the subsequent technical sections (Section 4);
- Identify the relevant local, regional and national planning and renewable energy policy context and material considerations for determining the application, with an appraisal of the proposed condition variation undertaken in relation to this (Section 5);
- Provide a review and, where applicable, update to the technical assessments undertaken as part of previous environmental assessment work which supported the planning application for the Development, and ensure the assessments meet the requirements of any new or revised policy and guidance, particularly National Planning Framework 4 (NPF4) (Sections 7 – 14);
- Provide a summary and conclusions (Section 15); and
- Provide associated figures and appendices.

A Non-Technical Summary (NTS) of this SEIR is provided as a separate document.

1.3 Availability of the SEIR

Electronic copies of this SEIR, including all figures, appendices and accompanying documents are available to view on the project website https://www.lxxwindfarm.co.uk/downloads or via THC planning portal at https://wam.highland.gov.uk/wam/.

Hard copies of the full SEIR are available on request from the Applicant for £1,000, representing approximately the cost of printing and distribution. In addition, all documents are available on request (as a PDF for screen viewing only) on a USB for the cost of production and distribution.

1.4 Representations to the Application

Any representations to the application should be made directly to The Highland Council at the following email: eplanning@highland.gov.uk

1.5 Background to the Application

The Development application boundary ('the Site') lies approximately 18 km north-west of Dingwall and immediately south of the A835 in THC area. The central grid reference for the Site is British National Grid (BNG) 232984, 868776 and it occupies an area of 595 hectares (ha). The Site and location boundary are shown within **Figure 2.1**.

The Site itself is located between the hills of Meall Mhic Iomhair to the south-west and Sìdhearn nan Cearc to the east and is south of Loch Glascarnoch. The elevation of the Site ranges from 260 m to 500 m above ordnance datum (AOD).

The Development comprises upland habitats, including blanket bog, heathland and pockets of plantation woodland. Various waterbodies are present on the Site including Allt na Beinne Leìthe Bige, which flows west to east through the Site with a number of minor tributaries feeding into them. Allt Giubhais Mor flows north to south through the Site, eventually feeding into Loch Glascarnoch. A single lochan, Loch Na Salach, is located in the south of the Site.

The Section 42 application does not seek to amend the Site boundary or any physical characteristics of the Development.

The application for planning permission, submitted by the Applicant in April 2019, was accompanied by an Environmental Impact Assessment (EIA) Report, prepared in accordance with the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 1997 (as amended) (hereafter referred to as 'the 2019 EIA Report'). In November 2019, the Applicant submitted Supplementary Information (hereafter referred to as 'the 2019 SI') to THC, providing information on and environmental assessment of an amended proposed Development layout and design.

In July 2020, planning permission was granted for Lochluichart Extension II Wind Farm (THC 19/01284/FUL), a five-turbine Development with a maximum tip height of 133m and associated infrastructure.

In June 2021, the Applicant submitted a planning application to THC, seeking to:

- increase the maximum turbine tip height by 16.9m to 149.9m;
- increase the turbine hub height;
- increase the crane hardstanding to a total area of 1,850m²; and
- extend the operational lifetime of the Development from 25 to 40 years.

In April 2022, Further Environmental Information (FEI) was submitted to THC in response to feedback from statutory consultees

In January 2023, planning permission was granted (THC 21/02985/FUL) for the amended five-turbine Development with a maximum tip height of 149.9 m, and associated infrastructure (the 'Planning Permission').

All documentation submitted for Lochluichart Extension II can be found on the project website (https://www.lxxwindfarm.co.uk/downloads/).

The Development has an approved operational lifespan of 40 years. Condition 27 of the Planning Permission (21/02985/FUL) sets a 'Time Limit for the Implementation of this Planning Permission,' requiring that the development must commence no later than three years from the date of the decision notice. *If development has not commenced within this period, then*

this planning permission shall lapse." As planning permission was granted on 30th January 2023, this means development must begin by 30th January 2026. The Applicant is seeking to vary the wording of Condition 27 of Planning Permission 21/02985/FUL (granted in January 2023) to extend the implementation period by a further five years. The Section 42 application proposes only to change the wording of Condition 27 and does not propose any physical changes to the approved Development.

The Site location and the Development layout are unchanged and are shown as **Figures 2.1** and **2.2**. The Development comprises 5 turbines with a blade tip height of up to 149.9 m and an installed capacity of approximately 24 MW (**Figure 2.2)**.

1.6 Progress on 2023 Planning Permission Conditions

Of the 27 conditions attached to the 2023 planning permission, five have been submitted for discharge. Table 1-1 (below) outlines the progress made to date on the five conditions submitted for discharge.

As part of the discharge of Planning Condition 7, the Applicant submitted a Section 64 Non-Material Variation (NMV) request to THC in June 2023, following prior discussions. The request related to elements exceeding the 50m micrositing allowance and was therefore made as a tandem NMV. The proposed variations were:

1. Realignment of the western access track spur, which connects the existing main access track to turbines T6, T7, T8.
2. Relocation of the turning head to the north of T8, required as a consequence of T8's relocation (which in itself remained within the 50 m micrositing allowance, as outlined in the tandem submission under Condition 7).

The NMV was approved by THC in August 2023 and amends but does not replace the approval of 21/02895/FUL. See **Appendix 1.1** for the NMV request and delegated decision.

Table 1-1: Progress made on 2023 Planning Permission Conditions

Condition Number	Condition Detail	Progress To Date
7	Micrositing in accordance with condition criteria to be approved by ECoW, beyond condition criteria to be approved by LPA< SEPA and SNH.	Submitted as a NMV request on 13/6/2023 following discussion with THC. NMV S64 delegated decision received 1/8/23.
10	Traffic Management Plan	Submitted 13/6/2023. Registration 16/6/2023. No THC response to date. No objection from Transport Scotland or THC Transport Planning; THC should be able to partially discharge.
11	Roads Wear and Tear Agreement	Submitted 13/6/2023. Registration 16/6/2023. No THC response to date. No objection from Transport Scotland or THC Transport Planning; THC should

Condition Number	Condition Detail	Progress To Date
		be able to partially discharge
16	Compensatory Tree Planting	Submitted 13/6/2023. Registration 16/6/2023. Final CPP Report issued to THC for approval 5th March 2024 No THC response to date. Scottish Forestry in support of the forestry plan.
24	Decommissioning and Restoration Financial Guarantee	Decommissioning Bond submitted 15/6/2023. Registration 16/6/2023. Level/value has been agreed plus details of intended bond wording/approach. THC should now be able to partially discharge.

2.0 Proposed Variation to Planning Condition 27

2.1 Proposed Variation

The Section 42 application seeks to amend Condition 27, attached to the Planning Permission, to extend the time to implement the Planning Permission. Further details and the proposed revised wording of Condition 27 can be seen in the Planning Statement and Supporting Statement submitted as part of the Section 42 application.

3.0 Supporting Technical Information

Overall, there is little change to the information previously presented in the 2021 EIA Report and 2022 FEIR, given that, with the exception of minor micro-siting (as agreed with THC), there is no physical change to the Development layout or design. However, with respect to the policy framework, it is noted that the 2023 Planning Permission was granted prior to the adoption of National Planning Framework 4 (NPF4) in February 2023. The Planning Statement to accompany the S.42 application addresses the updated policy position; there has been a passage of time since the earlier assessments were undertaken.

The SEIR provides an update to and/or relevant commentary on the environmental assessments carried out in connection with the 2023 Planning Permission. The below sections summarise if and how this has impacted the technical assessments completed for the 2021 EIA Report and 2022 FEIR in order to confirm whether the conclusions remain valid. This is provided as a general update to the previous assessment of the Development as a whole, including a review and, where appropriate, update to the baseline Site conditions and any update to guidance. No changes to any assessed environmental impacts are predicted.

The only technical topics for which it was considered appropriate to update the original assessments, to allow appropriate appraisal of the Development's compliance with the 2017 Regulations and relevant NPF4 policies, are: Landscape and Visual; Ecology; Hydrology, Hydrogeology, Geology and Soils; and Cultural Heritage.

Additionally, due to the time since the baseline surveys were completed for the 2021 EIA Report and 2022 FEIR, an ecological site walkover and ornithology surveys have been

undertaken (2023 and 2024) to confirm the ecological and ornithological baseline has not materially changed.

For all other technical topics as presented in the 2021 EIA Report and 2022 FEIR, a statement is provided in the relevant sections below, confirming that there are no changes to the Development or to recent policy or guidance, which would result in any change to the significance of effects as previously assessed. The numbering of the sections below mirrors that of the 2021 EIA Report.

4.0 Policy Review

A stand-alone Planning Statement has been included as part of this application and includes an assessment of the relevant updated planning policy.

5.0 Climate Change

5.1 Introduction

The 2021 EIA Report undertaken as part of the planning application (**Chapter 5**, **Volume 1**) for the Development considered the carbon dioxide (CO_2) emissions and savings from the Development.

The scope of the assessment comprised the following:

- considerations of emissions associated with the manufacture and construction of the Development;
- considerations of the contribution the Development would make to reducing CO_2 emissions; and
- completion of the Scottish Government's web-based Carbon Calculator tool (C-CalcWebV1.5.0).

A recent review of the Carbon Calculator tool introduced several updates, including revised fixed input values. The recent review also included reduction in the 'average' onshore wind capacity factor from 34% to 25.9%. However, for the Development specifically, the capacity factor is estimated to be 26.2%, based on site-specific information and analysis.

Based on the estimated capacity factor, 26.2%, it is expected the Development would result in the production of 55,038 MWh annually, equating to 2,203 GWh throughout the operational life of the Development.

To consider the above-noted changes to the Carbon Calculator tool, an updated assessment has been undertaken. At the time of submission, the online tool is not accessible, and therefore the assessment has been undertaken using the Carbon Assessment Tool spreadsheet (v2.14.1), issued by SEPA. The input parameters and key outputs from the tool are provided in **Appendix 5.1**.

Based on the updated Carbon Calculator tool outputs, the Development is anticipated to result in a net reduction in carbon emissions, with an estimated carbon payback period of 2.1 years when compared to the 'fossil fuel mix' of electricity generation – broadly similar to the 1.7 years estimated in the 2019 EIA Report, with the slight increase likely being attributable to the changes to fixed input values used in the model (as noted above).

The updated assessment indicates that over its 40-year operational lifespan, the Development could result in the following CO_2 emissions savings, depending on the electricity source it displaces:

- Approximately 55,193 tonnes of CO_2 per year over coal-fired electricity (2.21 million tonnes over a 40-year lifespan);
- Approximately 10.652 tonnes of CO_2 per year over grid-mix of electricity (0.43 million tonnes over a 40-year lifespan); or
- Approximately 23,796 tonnes of CO_2 per year over a fossil fuel mix of electricity (0.95 million tonnes over a 40-year lifespan).

5.2 Summary

Given that there is no proposed physical change to the Development layout or design, the only changes to the carbon balance analysis relate to updates to the carbon calculator model and amendments to some of the standard input values since the previous assessment. Based on the updated calculations of total CO_2 emissions saving and payback time for the Development, it is expected to take 2.1 years to repay the carbon exchange to the atmosphere (the CO_2 debt) through construction of the wind farm compared to fossil fuel-mix electricity generation (4.7 years in relation to grid-mix and 0.9 years in relation to coal-fired electricity generation).

6.0 Socio-Economics, Tourism and Recreation and Land Use

6.1 Introduction

The socio-economic effects of the Development were assessed for the 2019 EIA Report (**Chapter 6**) and 2019 SI (**Chapter 6**) and concluded that there would be no significant effects on socio-economics, tourism and recreation and land-use receptors. The 2021 EIA Report considered that the 2019 EIA Report and 2019 SI baseline was unchanged and remained applicable. The 2021 EIA Report (**Chapter 6**, **Volume 1**) considered the socio-economic benefits from the Development. The socio-economic effects of the Development were considered in the 2019 EIA Report and 2019 Supplementary Information (SI).

The assessment of the potential socio-economic effects for the Proposed Development considered several key factors, including:

- The scope of local investment and community benefits;
- Potential effects on the local supply chain;
- Short-term construction impacts; and
- Operational and long-term economic effects.

The socio-economic benefits associated with the Proposed Development are outlined in the 2019 EIA Report, 2019 SI and 2021 EIA Report. During the development and construction phase, it is estimated that the Development could generate up to:

- £31.68 million Capital Expenditure (CAPEX), supporting local employment through construction and related activities; and
- Short-term, beneficial effects through increased employment opportunities in the local and regional economies.

The Development will also provide opportunities for local, regional, and Scottish suppliers in various sectors, including civil engineering, project management, and installation services. Additionally, during the construction phase, it is expected that the local workforce will benefit from skills development and employment retention.

In line with Scottish Government's Good Practice Principles for Community Benefits from Onshore Renewable Developments (Scottish Government, 2019), the Development is set to provide £5,000 per MW in annual community benefits. This is equal to around £120,000 annually, or £4.8 million over the Development's 40-years lifetime. How this funding is spent will reflect the priorities of these communities. Therefore, at this stage it is not possible to estimate the impact of this spending as this will be dependent on what the money is spent on.

The Applicant has undertaken conversations with local stakeholders about community needs and aspirations of the local area and will continue to work with local communities to ensure the most appropriate structures are set up to ensure that the community benefits fund can be used in a way that meets with local community expectations and ultimately helps to facilitate community wealth building (relevant to NPF4 Policy 25).

Based on the presence of existing onshore wind developments in the area, the potential for cumulative effects was considered within the 2019 EIA Report assessment. The analysis found that, given existing and approved onshore developments, there could be additional benefits towards strengthening the local onshore wind supply chain.

With regard to the 'Developing a Community Wealth Building Strategy' which was published by THC after the current permission was granted, please see **Appendix 6.1 – Developer response to the Highland Council document 'Developing a Community Wealth Building Strategy'**.

6.2 Summary

Given that there are no changes proposed to the layout or design of the Development, nor material changes to the socio-economic baseline, there are no updates or changes to the assessment of socio-economic or tourism-related effects.

7.0 Noise

7.1 Introduction

The 2021 EIA Report (**Chapter 7, Volume 1**) considered the ability of the Development to meet appropriate operational noise limits, both in standalone operation and when considered with potentially cumulative wind farm developments.

The scope of the assessment comprised the following:

- scoping consultation with THC Environmental Health Department;
- evaluation of noise effects associated with construction of the Development;
- evaluation of noise effects associated with operation of the Development;
- specification of appropriate mitigation, where necessary; and
- evaluation of residual effects.

At the time of assessment there were a number of operational wind turbines within the area, therefore the Applicant did not undertake a baseline noise survey, relying instead upon baseline noise measurements undertaken prior to the construction of these turbines. Corrections, in accordance with the IoA Good Practice Guide (GPG), were applied to the baseline measurements, in agreement with THC. One Noise Sensitive Receptor (NSR) was considered within the assessment and the predicted noise levels in both standalone operation and cumulative operation at this NSR met the derived noise limits as recommended within THC's supplementary guidance.

The Chapter concluded that the predicted wind turbine noise levels associated with standalone and cumulative operation of the Development met derived day and night-time noise limits at all the identified representative NSRs, for all wind speeds. Noise effects due to operation were therefore considered not significant. In addition, predicted noise levels associated with construction activities met threshold noise levels set out in the relevant guidance at all identified representative NSRs, during weekday daytimes and Saturday mornings. Noise effects from construction activities were therefore considered not significant.

The 2021 EIA Report (**Chapter 7, Volume 1**) considered the redesign of the Development and assessed an updated candidate turbine during operation, and minor amendments to crane hardstandings during construction. The Chapter concluded that the Redesigned Proposed Development would comply with the noise limits set out by the planning conditions for the Development.

There have been no changes to the baseline conditions which would materially affect the previous assessment of noise effects. No new receptors have been identified in the proximity of the Development, and no substantial noise sources have been introduced, which would be expected to affect the baseline noise environment.

It is not considered necessary to update the cumulative assessment to reflect the current cumulative scenario, given that assessments for proposed wind farms that have been submitted as applications subsequent to the approval of the Development will have incorporated the Development into their cumulative assessments as required and appropriate. Additionally, as noted in Section 7.26 of the 2021 EIAR, "*The noise limit in the Planning Conditions for the Consented Development apply to the [Development] in isolation. As such, demonstrating compliance with the existing planning condition ensures that the effects are no greater than already consented, thereby negating the requirement to undertake a further assessment of cumulative operational effects*".

Therefore, given that there are no material changes to the baseline, and no proposed changes to the candidate turbine or the Development layout, there are no changes to the anticipated significance of noise effects, from what was previously assessed and reported.

7.2 Summary

The effects of the Development on NSRs are considered in Chapter 8 of the 2019 EIA Report and Chapter 7 of the 2021 EIA Report. The assessments considered noise arising from operation and construction of the wind turbines in line with ETSU-R-97. The assessments concluded that predicted wind turbine noise levels associated with operation of the Development meet the consented noise limits, and anticipated noise effects are therefore 'not significant'.

It is concluded that the assessment of anticipated noise impacts from the Development have been appropriately assessed and considered the nearby potential NSRs. Given that there are no material changes to the baseline since the previous assessment, and there is no proposed change to the Development layout, design or candidate turbine model, there is no change to the assessment of noise effects.

8.0 Landscape and Visual

8.1 Introduction

This section provides a summary of the updated Landscape and Visual Assessment relevant to the 2021 EIA Report (**Chapter 8, Volume 1**, **Appendix 8.A** and **Volume 3 LVIA Figures**). The methodology used to undertake the Landscape and Visual Impact Assessment is

attached to this SEIR as **Appendix 8.1**; the full updated report is attached as **Appendix 8.2** (Landscape and Visual Assessment)**.**

8.2 Summary of Updated Landscape and Visual Updated Assessment

The assessment, presented as **Appendix 8.2**, maintains the same methodology used as the 2021 EIA Report (**Chapter 6, Volume 1**), but it has been rewritten so that it is in line with the new policy and guidance, as discussed in the updated LVIA Chapter (**Appendix 8.2**). It draws the same conclusions as the 2021 EIA Report assessment, namely that significant visual effects are generally expected to be contained within a maximum of approximately 12.2 km of the Development turbines. Significant effects on landscape character are likely to be contained within a maximum radius of approximately 8.2 km from the Development turbines (with this distance arising only in unusual circumstances; the maximum extent of a significant effect elsewhere is approximately 7 km).

The assessment (**Appendix 8.2**) also draws the same conclusions as those summarised in the 2022 FEIR. The supplementary 2022 FEIR assessment sought to address concerns expressed by THC regarding the number and size of turbines both reports concluding that the Development will give rise to a small number of significant landscape and visual effects, albeit from short-term construction effects at close-range.

The assessed significance of effects on landscape and visual receptors has not changed from that presented in the 2021 EIA Report and 2022 FEIR.

The Development was approved planning permission in the context of the November 2020 cumulative scenario (and cut off for the LVIA as presented in the 2021 EIA Report). Usual practice dictates that any changes to the cumulative baseline after permission is granted, falls to the more recent projects to assume responsibility for assessing cumulative effects. Notwithstanding this context, a review of the current 2025 cumulative baseline and implications for the permitted Lochluichart Extension II has been included in Section 8.3.

LVIA figures and visualisations have not materially been updated, as the Development design has not changed. However, the Figure titles have been changed to reflect the Section 42 Application and any updated licence agreements for digital data.

As there have been no changes to the content or findings of the landscape and visual impact assessment (which formed part of the 2021 EIA Report for the Development) all of the LVIA supporting figures and visualisations which were previously submitted as part of the 2021 EIA Report remain current and have not been resubmitted.

8.3 Cumulative Wind Farm Review

Introduction

This section presents an updated cumulative position (reflecting EIA Regulations) and considers the implications of any changes to the cumulative wind farm baseline, in relation to the (now permitted) Development. Precedent of working on similar Section 42 applications, for which a ‘consented’ development presents no changes to the development description (as is the case here), has meant that there was no requirement to update the cumulative assessment. This position reflects usual practice in EIA, that projects that come in after the agreed cut-off date (for establishing the cumulative baseline) assume the responsibility for assessing cumulative effects.

Furthermore, an updated cumulative assessment would need to account for the Development as part of the ‘consented’ projects baseline, which would mean assessing the proposed Development (in the context of the Section 42 application) against the permitted Development.

NatureScot Guidance[1] recognises that cumulative assessment of wind farms can be complex and advocates clarity and transparency in any approach and assessment. With this in mind, an updated 2025 cumulative baseline has been provided and the implications of the addition of the Development to this baseline has been reviewed. To make this review meaningful and understandable, the Development is referred to without specific reference to its permitted status, thereby avoiding the complexity and 'distraction' of attempting to assess the same Development against itself. This approach is purely to enable the focus of the review to remain on the updated 2025 cumulative baseline and whether there is the likelihood of any material change to the findings of the 2021 EIA Report LVIA assessment of cumulative effects (and thus establish whether a cumulative assessment of the Development proposal is required).

Updated Cumulative Baseline

There is no change to the parameters or project description of the Development and the previous cumulative assessment of effects (2021 EIA Report), which largely focussed on the cumulative change in addition to the operational developments of Corriemoillie, and Lochluichart and the application development at Kirkan (all within 5km of the permitted Lochluichart Extension II Development).

An updated cumulative trawl was conducted out to a more limited distance of 20km, beyond which it was felt that the potential for significant cumulative effects, stemming from a changed future cumulative baseline (with consented and application developments) would be unlikely.

Furthermore, the landscape assessors were aware that no other wind energy development has become operational in the intervening years within 20km. This observation was verified by the cumulative trawl conducted which identified that there is no change to the current cumulative landscape and visual baseline over that assessed in 2021 i.e. all the developments that were operational in November 2020 (cut off point for the previous cumulative trawl) are operational in 2025, but with no other operational developments coming forward within a 20km radius.

The cumulative trawl has identified that in relation to potential future landscape and visual baseline (the future cumulative baselines) there are a limited number of changes (emboldened) set out in Table 8.1 below.

Table 8-1: Cumulative Wind Farms with a 20km Study Area

Cumulative Baseline LVIA (November 2020 cut off)		Updated Cumulative Baseline (May 2025 cut off)		No. of turbines	Blade tip height (m)	Distance and direction from the Development
Wind Farm	**Status**	**Wind Farm**	**Status**			
Corriemoillie	Operational	Corriemoillie	Operational	17	125	0km SE
Fairburn	Operational	Fairburn	Operational	20	100	17km SSE
Lochluichart Wind Farm	Operational	Lochluichart Wind Farm	Operational	17	125	1km S
Lochluichart Wind Farm Extension	Operational	Lochluichart Wind Farm Extension	Operational	6	125	0km S

[1] NatureScot (2021) Guidance – Assessing the cumulative landscape and visual impact of onshore wind energy developments

Cumulative Baseline LVIA (November 2020 cut off)		Updated Cumulative Baseline (May 2025 cut off)		No. of turbines	Blade tip height (m)	Distance and direction from the Development
Novar	Operational	Novar	Operational	34	55.5	20km ENE
Novar Extension	Operational	Novar Extension	Operational	16	99.5	20km ENE
Kirkan	***Application***	***Kirkan***	***Consented***	***17***	***175***	***1km E***
		Carn Fearna	***Application***	***9***	***Max. 200m***	***9km SE***
		Tarvie	***Scoping***	***11***	***200m***	***12km SSE***

*(*Bold & italic denotes projects not yet operational)*

As there is no change in the 'existing baseline', between 2020 and 2025, the cumulative effects assessed on the existing baseline for the Development in 2021 will remain relevant to the existing 2025 baseline. The changes to this baseline that need further consideration are:

- Kirkan Wind Farm gained Section 36 consent in July 2023 for a development comprising 17 turbines of 175m blade tip height. The cumulative LVIA (CLVIA) as presented in the 2021 EIA Report assessed the application proposal of Kirkan, which was the same scale of development (numbers and blade tip heights). Consent gives a greater weight to the level of certainty that this development will be built, but until the proposal becomes operational it is still considered as part of a future baseline scenario (rather than part of the current 2025 baseline).
- Carn Fearna is a proposed Section 36 application for 9 wind turbines (blade tip height a maximum of 200m) and would form part of a future cumulative baseline scenario comprising operational (with no change from that assessment in 2021), consented (Kirkan) and proposed wind energy developments.
- Tarvie Wind Farm is a scoping development comprising 11 turbines 200m blade tip height. In line with NatureScot guidance, due to the early stage of this proposal and geographically separate location and more speculative nature Tarvie is not considered further.

Scope of further cumulative assessment

To inform whether an assessment of cumulative effects is required as part of this SEIR which accompanies the Section 42 application, the key findings of the CLVIA within the 2021 EIA Report LVIA have been detailed below to ensure transparency in the conclusions made.

This information is presented on the basis that, if the addition of the Development to the 2021 EIA Report existing baseline (and the 2021 future application baseline with Kirkan) introduced widespread (material) significant cumulative effects, then in all likelihood the addition of the Development to a changed 2025 cumulative baseline, which *also* contains the Carn Fearna Wind Farm, could potentially increase the level of cumulative effects (over that previously assessed). In this context further cumulative assessment against an updated future baseline may be required.

However, if the previous cumulative assessment conducted in 2021, assessed that the addition of the Development to that baseline, resulted in limited (non-material cumulative effects), then an updated baseline containing the proposal at Carn Fearna would not materially alter these localised levels of cumulative effect. Any 'additional' cumulative effects arising would be attributed to the inclusion of Carn Fearna to the baseline, as opposed to the Development. In this context that there is no material change to the levels of effect identified in the 2021 LVIA for the Development, further cumulative assessment of the Development would not be required.

Findings of the 2021 EIA Report CLVIA

The assessment of cumulative effects of the (then proposed) Development against landscape and visual receptors is contained with **Sections 8.7 and 8.8** of the 2021 EIA Report.

Cumulative effects on landscape character

Section 8.7 of the 2021 EIA Report considers the assessment of effects of the (then proposed) Development against the existing baseline comprising all operational development, and a future baseline scenario containing the Kirkan application. This identified the following cumulative landscape effects on the existing baseline:

Table 8-2: Comparison of cumulative effects on existing and future landscape character baselines

Landscape Character Receptor	Proposed Development 2021 Significance of Effect	Cumulative Effect Existing Baseline	Cumulative Effect Future Baseline
Rounded Hills LCT – Ben Wyvis LCU	The magnitude of change will be medium-low and effect of the Proposed Development will be **not significant** during both the construction and operational stages, the magnitude of change limited principally by the separation distance, as well as the relatively small number of additional turbines and their association with the operational turbines, which already have an indirect influence on the baseline character of the Ben Wyvis LCU.	Cumulative effects will relate to the Proposed Development in conjunction with the Operational Wind Farms. The Proposed Development will add visibility of wind farm development to very small, localised areas with a **low** magnitude of change and **a not significant effect**.	Cumulative effects will relate principally to the Proposed Development in conjunction with application stage Kirkan Wind Farm. The addition of the five proposed turbines to a cumulative context characterised by 57 application and operational turbines will give rise to **a low cumulative magnitude of change and not significant effects**. Reflecting the close proximity of the proposed turbines to the operational turbines which will ensure it appears as an extension, the concentration of this type of development within this lower-lying landscape and the small number of turbines being added to a larger group.

Landscape Character Receptor	Proposed Development 2021 Significance of Effect	Cumulative Effect Existing Baseline	Cumulative Effect Future Baseline
Rounded Hills LCT – Lochluichart LCU	Visibility of Proposed Development largely concentrated on the eastern edge of the LCU where the operational and proposed turbines are located. The direct magnitude of change will be **medium** and indirect **medium-low** change to the rest of this LCU. Proposed Development will be set behind the closer range, and therefore, more prominent turbines of the Operational Wind Farms. Whilst it will add to the extent of wind farm development, the indirect effect of the Proposed Development, compared to the direct effect of the Operational Wind Farms **not significant** due to effects combined with the operational wind farms.	Across the majority of the Lochluichart LCU, visibility of the Proposed Development will not only be seen in conjunction with one of more of the Operational Wind Farms, but their influence will also be close range with the turbines appearing large in scale. The cumulative magnitude of change will be medium-low as the Proposed Development will have an influence across a similar extent to where an existing influence from the Operational Wind Farms occurs, by the virtue of the design of the Proposed Development to integrate with the landscape and the Operational Wind Farms. The existing influence of the Operational Wind Farms will moderate the cumulative effect, such that the addition will lead to a **not significant** cumulative effect.	Across the majority of the Lochluichart LCU, visibility of the Proposed Development coincides with visibility of Kirkan Wind Farm as well as one of more of the Operational Wind Farms. The addition of the five proposed turbines will have a limited effect as they will form only a small proportion of the wider extent of wind farm development, and as such the cumulative magnitude of change is **medium-low** and the addition will lead to a **not significant** cumulative effect.
Rounded Hills LCT – Inchbae LCU	Visibility of the Proposed Development largely coincides with the extent to which the operational turbines are already visible. The five additional turbines will be located to the north of the existing turbines, making them closer to the Inchbae LCU, albeit seen as an extension to the existing group and associated through their close location and similar appearance. Magnitude of change during operation is assessed as **low**, and n**ot significant**.	The cumulative magnitude of change will be medium-low as the Proposed Development will have an influence across a similar extent to where an existing influence from the Operational Wind Farms occurs. While the Proposed Development will marginally increase the proximity of wind farm relative to the Inchbae LCU, this addition will lead to a **not significant** cumulative effect. This is because only five turbines will be added to an existing group of 40 and will be seen contained within the same LCU as the operational turbines.	The addition of the five proposed turbines to a cumulative context characterised by 57 application and operational turbines will give rise to a low cumulative magnitude of change. This reflects the close proximity of the proposed turbines to the operational turbines which will ensure they appear as an extension, the concentration of this type of development within this lower-lying landscape to the south of Inchbae LCU and the small number of turbines being added to a larger group. The in-conjunction cumulative

Landscape Character Receptor	Proposed Development 2021 Significance of Effect	Cumulative Effect Existing Baseline	Cumulative Effect Future Baseline
			effect for Scenario 1 will be **not significant**.
Rounded Hills LCT – Aultguish LCU	The additional extent formed by the five proposed turbines will form a small proportion of the overall group of 40 turbines. This incremental increase will moderate the magnitude of change to **medium-low**. The level of effect will be not significant over the long-term operational stage, owing to the integration of the proposed turbines with the operational turbines.	The Proposed Development will contain wind farm development within a landscape where wind farm development is already a characterising feature and where the northern extent provides sufficient capacity to accommodate the additional turbines.	Across the majority of the Aultguish LCU, visibility of the Proposed Development will be seen in-conjunction with visibility of Kirkan Wind Farm, as well as one or more of the Operational Wind Farms. Cumulative magnitude of change will be **low** and the addition will lead to a **not significant** cumulative effect.

2021 LVIA Cumulative effects on landscape character - summary

The LVIA presented in the 2021 EIA Report concluded that the (then proposed) Development would introduce medium-low to low magnitude of change (acknowledging that direct effects on Site landscape character would be medium but localised) and not significant effects on the baseline landscape character. The cumulative change with existing operational wind farms would be medium-low, the effects assessed as not significant by virtue of the proximity to, and design integration with, these existing wind farms.

The cumulative change on a future baseline with the application stage Kirkan Wind Farm, concluded that the magnitude of change would be medium-low to low and cumulative effect arising with the addition of the Development to this future baseline, would be not significant, again reflecting the close proximity of the Development turbines to the operational turbines ensuring they appear as an extension.

Cumulative Effects on Visual Receptors

The 2021 EIA Report Section 8.9 assessed the cumulative effects of the (then proposed) Development against a future baseline (containing the existing operational wind farms and the application development at Kirkan) and identified the following significant cumulative visual effects:

Table 8-2: Comparison of cumulative effects on existing and future visual receptor baselines

Visual Receptor (within 20km)	Proposed Development 2021 Operational significance of effect	Cumulative effect – existing baseline	Cumulative effect Future baseline
VP1 Aultguish Inn 2km distance	**Medium-low** magnitude of change, **significant** effect on residents, and a **not significant** effect on road users.	**Significant** effect	Not significant effect
VP2 A835 Black Bridge Road 3.96km distance	**Medium-low** magnitude of change and a **not significant** effect	Not significant effect	Not significant effect
VP 3 Garve Bridge 12.94km distance	**Low** magnitude of change and a **not significant** effect	Not significant effect	Not significant effect
VP4 Old Drover's Road, Corriemoillie 3.95km distance	**Medium-low** magnitude of change and a **not significant** effect	Not significant effect	Not significant effect
VP 5 Ben Wyvis (Glas Leathad Mor) 12.29km distance	**Low** magnitude of change and a **not significant** effect	Not significant effect	Not significant effect
VP6 Coileachan 8.07km distance	**Low** magnitude of change and a **not significant** effect	Not significant effect	Not significant effect
VP7 Sgurr Mor 12.19km distance	**Low** magnitude of change and a **not significant** effect	Not significant effect	Not significant effect
VP8 Beinn a Chaisteil 9.19km distance	**Medium-low** magnitude of change and a **not significant** effect	Not significant effect	Not significant effect
VP10 Sgurr a Mhuilinn 14.27km distance	**Low** magnitude of change and a **not significant** effect	Not significant effect	Not significant effect
VP12 Beinn Dearg 13.64km distance	**Medium-low** magnitude of change and a **not significant** effect	Not significant effect	Not significant effect

2021 EIA Report LVIA Cumulative effect on visual receptors - summary

For the majority of the viewpoint visual receptors a medium-low and low magnitude of change was assessed for the addition of the (then proposed) Development, reflecting that in many views the horizontal extent of the proposed turbines would sit within the horizontal extent of operational wind farms such that there would be no increase in the lateral spread of

development. The influence of the Development is moderated by its location where there is already an influence of operational wind energy. Whilst in some views these turbines are closer to the visual receptors, their slightly larger scale will not typically be apparent over the distances assessed.

From VP1 Aultguish Inn a significant effect was assessed on residents staying at the hotel (who have a higher sensitivity to change) with the addition of the Development. The medium magnitude of change reflects that the turbines would extend existing wind energy development, and in the close proximity of view (where the building is orientated towards the Site), the turbines would be notably more prominent than the operational turbines.

In relation to the cumulative effect of the Development with the existing baseline operational wind farms, cumulative Zone of Theoretical Visibility (CZTV) analysis indicated that the extent to which the theoretical visibility is combined, means that the Development would always be seen in conjunction with the operational wind farms and would not introduce visibility of wind farm development into new areas. This results in 'not significant' effects reflecting the limited additional influence that the Development will have in a cumulative context already defined by the presence of the Operational Wind Farms.

Cumulative effects of the Development with a future baseline scenario of existing and the application Kirkan Wind Farm, are assessed for all visual receptors as introducing a low magnitude of change and not significant effects. This assessment stemming from the small proportion of additional turbines being added, their appearance as an extension to the cumulative group of operational and application turbines, and the favourable scale comparison presented by the larger Kirkan turbines, limits the cumulative magnitude of change.

Summary and conclusion with respect to the updated cumulative baseline

The review above demonstrates that the LVIA previously undertaken for the Development identified that the addition of this development to the existing baseline resulted in no material change to the cumulative baseline with operational developments, and no material change to a future baseline that contained the application at Kirkan. This is by virtue of the very localised levels of change and not significant effect on landscape and visual receptors.

The 2025 updated cumulative baseline is different to that previously assessed only in relation to two aspects of relevance:

- Kirkan Wind Farm has been consented, which gives a greater level of certainty to this development in terms of likely change and effects arsing. With no changes to the parameters of Kirkan Wind Farm in relation to the cumulative assessment carried out in in the LVIA presented in the 2021 EIA Report, the assessments of change and 'not significant' effects arising can be relied upon and do not need to be re-assessed.
- Carn Fearna, an application development is proposed at approximately 10km distance from the operational group of wind energy development.

The Development was designed as an extension to the existing operational wind farms, the relative success of which is reflected in the assessment of cumulative effects and the non-material changes its addition made to that existing baseline. In this context, as assessed in 2021, the inclusion of Kirkan Wind Farm to that baseline, did not materially change the level of cumulative effects identified with the addition of the Development.

In the same context, an updated 2025 baseline with Carn Fearna, would not materially change the level of cumulative effects previously assessed in 2021 with the addition of the Development. It is therefore considered that further cumulative assessment of the Development against the 2025 baseline (containing Carn Fearna) is unlikely to identify any

material change to this finding and therefore no further detailed cumulative assessment has been undertaken.

9.0 Cultural Heritage

9.1 Introduction

The original 2019 EIA Report submitted as part of the planning application for the Development (Chapter 10, Volume 1) and the 2019 SI (Chapter 10) each considered potential physical impacts upon heritage assets within the Development Site boundary and potential effects of the Development on the settings of heritage assets in the wider landscape (up to 20 km).

The scope of the assessment comprised the following:

- consultation with Historic Environment Scotland (HES) and THC's Historic Environment Team (HET);
- walkover reconnaissance field survey;
- evaluation of potential physical impacts on heritage assets within the Site boundary;
- evaluation of effects on the settings of heritage assets in the wider landscape;
- evaluation of appropriate mitigation, where necessary; and
- evaluation of residual effects.

Overall, no significant adverse effects were identified.

9.2 Summary of Likely Effects of Consented Development

Conclusions of Chapter 10 of the 2019 EIA Report Archaeology and Cultural Heritage assessment, which were unchanged in Chapter 10 of the 2019 SI, are summarised as follows:

Direct (physical) effects and mitigation during construction and decommissioning

Without mitigation, there was identified potential for an adverse physical impact of minor significance on a metal chimney/borehole (C3531919) within the Development Site boundary, as a result of excavation works for a borrow pit during the construction phase of the Development.

There was also identified potential for accidental physical damage to Lochluichart/Cintin, a possible standing stone (MHG55902), from uncontrolled plant movement.

There was a predicted negligible potential for physical construction impacts on previously unrecorded cultural heritage assets within the Development Site boundary.

As per Planning Permission 21/02985/FUL (30th January 2023), physical impacts were to be mitigated by a programme of archaeological works agreed with THC HET through submission of an Archaeological Management Plan (AMP) (Condition 9).

Following implementation of the AMP, the assessment identified that there would be no greater than negligible residual physical effects as a result of the Development.

No decommissioning effects were predicted, and no mitigation was required in this regard.

Operational effects and mitigation

Potential operational effects upon the setting of cultural heritage assets in the surrounding area of the Development were considered to be of no greater than of negligible significance (possible standing stone (MHG55902) within the Site boundary; and former fish merchants'

road (MHG53677), Aultguish Bridge (MHG29869), and Aultguish Inn (MHG50726) out with the Site boundary).

No significant operational effects were predicted on the setting of cultural heritage assets from the operation of the Development and no mitigation was therefore proposed.

Cumulative effects

It was considered that, as no setting effects of more than negligible significance were predicted, there was no potential for cumulative impacts to occur from the operation of the Development.

9.3 Potential for Material Change/Significant Effects

The Development was previously assessed in terms of Policy tests set out in paragraphs 135-151 of Scottish Planning Policy (SPP, June 2014); the Section 42 application now therefore requires consideration of the Development with regards to the Policy tests set out in NPF4, which was introduced in February 2023.

Policy 57 Natural, Built and Cultural Heritage of the Highland-wide Local Development Plan (HwLDP, adopted in April 2012) remains extant.

Baseline

The cultural heritage baseline against which the Development was assessed is largely unchanged since the 2019 EIA Report and subsequent 2021 EIA Report were prepared.

A site visit was undertaken on the 1st of November 2023 during preparation of the AMP for the Development as required by Condition 9 of Planning Permission 21/02985/FUL, to confirm the presence and location of chimney/borehole (C3531919) at the location of a borrow pit required for the Development. The site visit determined the feature comprising characteristics of a borehole capping, probably excavated as part of the geotechnical investigations for the borrow pit location. Given it seems like that the borehole was excavated, capped and removed within the last decade, it should no longer be considered a heritage asset.

No further heritage assets are known within the Site boundary and the assessment of archaeological potential remains unchanged.

As no physical changes to are proposed to the Development as consented, no additional physical impacts are therefore anticipated.

In consideration of setting effects outside the Site boundary, one new heritage asset has been designated within 20 km of the Development Site since production of the 2019 and 2021 EIA Reports: SM13745 ‘Henge, 135m SW of Fiodh Mhor’, which was designated in 2021. This scheduled monument is located 19.6 km south-east of the Development and lies out with its ZTV. No impact is anticipated.

Methodology

An EIA carried out using current methodology and guidance against the Section 42 application’s parameters would reach the same conclusions as the 2019 and 2021 EIA Reports.

Mitigation during construction

Proposed mitigation for physical impacts has already been agreed with THC HET through submission of an AMP (LWFH23: Headland Archaeology, October 2023). It was agreed that archaeological monitoring of all groundbreaking works will be required during construction and will be implemented in accordance with NPF4 Policy 7(o) (as opposed to SPP paragraphs 150-151, as was applicable to the Development when planning permission was granted) and

would result in no material change to the 2019 and 2021 EIA Reports, their conclusions or proposed mitigation.

Operational effects

In relation to the assessment of the setting of the Category B listed building LB51706 Loch Glascarnoch Dam, SPP presented a statutory obligation that '*special regard must be given to the importance of preserving and enhancing the building, its setting and any features of special architectural or historic interest'*, as per the Planning (Listed Buildings and Conservation Areas) (Scotland) Act (1997). The NPF4 test in relation to listed buildings is provided by Policy 7(c) which states '*Development proposals affecting the setting of a listed building should preserve its character, and its special architectural or historic interest'*. The 2019 and 2021 EIA Reports identified no impact on the listed building's significance due to change in setting, and the change in the Policy wording would not affect this conclusion. The character, and the special architectural or historic interest of the listed dam would be preserved.

In relation to the assessment of the setting of non-designated assets, NPF4 Policy 7(o) requires that '*Non-designated historic environment assets, places and their setting should be protected and preserved in situ wherever feasible'*. The 2019 and 2021 EIA Reports identified no more than negligible effects on the setting of non-designated heritage assets, and the NPF4 Policy test would not affect this conclusion.

The findings reviewed against the NPF4 Policy tests therefore remain the same, as the threshold for a significant effect is not reached, resulting in no material change to the 2019 and 2021 EIA Reports, their conclusions or proposed mitigation.

Cumulative effects

As no more than negligible setting effects are identified, there is no potential for significant cumulative effects, resulting in no material change to the 2019 and 2021 EIA Reports' conclusions.

Conclusions

The conclusions of the 2019 and 2021 EIA Reports would not be affected by the Section 42 application proposal for an extension to the implementation period by a further five years.

9.4 Conclusion

There is no proposed change to the Development layout or design.

No additional significant effects or intensification of any identified or existing effects are anticipated upon archaeology and cultural heritage.

The findings reviewed against the NPF4 Policy tests remain the same, resulting in no material change to the 2019 and 2021 EIA Reports' conclusions.

The threshold for a significant effect is not reached upon archaeology and cultural heritage as a result of the Section42 variation application.

10.0 Ecology

10.1 Introduction

While extensive surveys were completed to inform the baseline within the 2021 EIA Report Chapter (**Chapter 10: Ecology**) and additional surveys were undertaken in 2021 to inform the 2022 FEIR, updated surveys have been undertaken to confirm that the baseline has not materially changed since then. This section reflects the results of updated ecological surveys completed in 2023 and 2024.

10.2 Legislation and Planning Policy

The following Legislation and Planning Policy updates have occurred since Chapter 7 of the EIA Report was prepared in 2021. Where these updates have resulted in changes required within the assessment, these are referenced.

10.2.1 Legislation - UK Biodiversity Framework 2024

The UKBF 2024[2] was published in December 2022, replacing the UK Post-2010 Biodiversity Framework[3]. The new Framework sets out shared objectives for co-operation and collaboration across the four countries of the UK, providing a means to communicate on individual and collective efforts to meet the UK's international biodiversity commitments. The UKBF was developed in response to the Kunming-Montreal GBF at COP15[4] of the Convention on Biological Diversity. The UKBF outlines the strategic direction for biodiversity conservation in the UK and emphasises integrating biodiversity considerations into all sectors.

10.2.2 Policy - National Planning Framework 4 (2023)

NPF4, adopted in 2023[5], sets out the requirements for development to deliver positive effects by contributing to the enhancement of biodiversity, primarily under Policy 3. The Draft Planning Guidance on Biodiversity[6] assists in implementation and delivery of Policy 3 by setting out core principles to help secure biodiversity enhancement and other wider policy objectives.

For national or major developments, Policy 3b notes that such proposals will only be supported where they can demonstrate significant biodiversity enhancement, alongside any proposed mitigation, leaving biodiversity in a better state than before. For example, in relation to 'priority peatland habitat', guidance (published after this application's consent) now suggests that compensation for loss is now expected to be 1:10, plus a 10% enhancement multiplier. This means that for every 1 ha of 'priority peatland habitat' lost, 11 ha would need to be restored[7].

Furthermore, NPF4 advises local planning authorities to conserve and enhance biodiversity when considering planning applications, by applying principles aimed at protecting and enhancing biodiversity and designated sites and incorporating biodiversity in and around developments.

10.3 Summary of Updated Ecological Surveys

Pre-construction surveys were carried out in accordance with Planning Condition 9 (21/02985/FUL). These surveys are summarised in the following update:

- Protected species surveys were conducted in July 2023 and June 2024, within the Development boundary and an appropriate survey buffer. The 2023 and 2024 survey results were broadly similar to previous surveys conducted for the 2021 EIA Report and the 2022 FEIR. There was no evidence of any new protected species of

[2] JNCC on behalf of the Four Countries' Biodiversity Group (2024). *UK Biodiversity Framework*. JNCC, Peterborough. Available at: https://hub.jncc.gov.uk/assets/19a729f6-440e-4ac6-8894-cc72e84cc3bb

[3] JNCC and Defra (on behalf of the Four Countries' Biodiversity Group) (2012). UK Post-2010 Biodiversity Framework. July 2012. Available at: https://hub.jncc.gov.uk/assets/587024ff-864f-4d1d-a669-f38cb448abdc

[4] Available at: https://www.cbd.int/gbf

[5] Scottish Government (2023). *National Planning Framework 4 (NPF4)*. Last updated 9 October 2024. Available at: https://www.gov.scot/publications/national-planning-framework-4/documents/

[6] Scottish Government (2023). *Biodiversity: Draft Planning Guidance.* Available at: https://www.gov.scot/publications/scottish-government-draft-planning-guidance-biodiversity/

[7] Nature Scot (2023). *Advising on peatland, carbon-rich soils and priority peatland habitats in development management at: https://www.nature.scot/doc/advising-peatland-carbon-rich-soils-and-priority-peatland-habitats-development-management*

conservation importance recorded breeding in the study area. A Species Protection Plan (SPP) was produced as a result of the 2023 survey, with an update in 2024 following the 2024 survey (**Appendix 10.1**)

- An electrofishing survey was carried out in September 2023 on Allt Giubhais Mor. The 2023 survey results were broadly similar to previous surveys conducted for the 2021 EIA Report. (**Appendix 10.2**)
- While no additional habitat surveys have been carried out, habitats have been monitored during the ecological surveys conducted in 2023 and 2024. There have been no perceivable differences in the habitat and communities present compared to those previously recorded in surveys undertaken for the 2021 EIA Report. No new habitat types have been recorded within the study area.

10.4 Biodiversity enhancement

Within Chapters 10 and 11 of the 2021 EIA report, and Chapters 2 and 3 of the 2022 FEIR, no significant ecological or ornithological residual effects were predicted associated with the construction and operation of the Development. Given that there are no physical changes to the Development layout and design, and the updated surveys have identified no material change to the baseline, the assessment of no likely significant residual effects is unchanged.

In accordance with Condition 16 of Planning Consent (Ref: 21/02985/FUL), a Forestry Compensatory Planting Plan (FCPP) was submitted to THC in 2024 (Appendix 10.3). The FCPP requires a minimum of 6.11 ha of compensatory planting; however, the proposed plan includes a significantly larger area of approximately 23 hectares, which also incorporates 0.25 ha of compensatory planting for the associated grid connection. The planting will predominantly consist of native broadleaved species, offsetting habitat loss and contributing to biodiversity enhancement.

To discharge Condition 15 (which the applicant would like to replicate and apply to any subsequent permission), a Habitat Management Plan (HMP) will be prepared and submitted to THC prior to the commencement of the development. The HMP will outline further biodiversity enhancement and mitigation measures, building on the findings of site surveys and existing policies. The following initial aims have been identified for inclusion in the HMP:

1. Enhance the biodiversity and structure of forest habitats within the vicinity of the site.
2. Increase the quality and extent of bog habitats within the site boundary.
3. Improve available resources for wild fauna within the site.
4. Minimise negative impacts on birds (particularly black grouse, divers, and golden eagle).

These proposed enhancement measures will be subject to further review and refinement during the development of the HMP. The final plan will provide detailed, site-specific actions to ensure that biodiversity enhancement is effectively delivered and aligned with the ecological priorities of the area.

10.5 Summary

In summary, the updated surveys have identified no material change to the baseline, and therefore no anticipated changes to the assessed significance of effects on ecological receptors, as presented in the 2021 EIA Report and 2022 FEIR. Significant biodiversity enhancement will be delivered through the HMP, which will be submitted to THC prior to commencement of the development. The HMP will provide detailed proposals for habitat enhancement and mitigation, ensuring long-term ecological benefits.

11.0 Ornithology

11.1 Introduction

While extensive surveys were completed to inform the baseline within the 2021 EIA Report and 2022 FEIR, updated pre-construction surveys have been undertaken in 2023 and 2024. This section reflects the results of these updated surveys.

11.2 Legislation and Planning Policy

The following Legislation and Planning Policy updates have occurred since Chapter 8 of the EIA Report was prepared in 2021. Where these updates have resulted in changes required within the assessment, these are referenced.

11.2.1 Legislation – UK Biodiversity Framework 2024

The UK Biodiversity Framework (UKBF) 2024[8] was published in December 2022, replacing the UK Post-2010 Biodiversity Framework[9]. The new Framework sets out shared objectives for co-operation and collaboration across the four countries of the UK, providing a means to communicate on individual and collective efforts to meet the UK's international biodiversity commitments. The UKBF was developed in response to the Kunming-Montreal Global Biodiversity Framework (GBF)[10] at COP15 of the Convention on Biological Diversity. The UKBF outlines the strategic direction for biodiversity conservation in the UK and emphasises integrating biodiversity considerations into all sectors.

11.2.2 Policy – National Planning Framework (2023)

NPF4 2023[11] sets out the requirements for development to deliver positive effects by contributing to the enhancement of biodiversity, primarily under Policy 3. The Draft Planning Guidance on Biodiversity[12] assists in implementation and delivery of Policy 3 by setting out core principles to help secure biodiversity enhancement and other wider policy objectives.

For national or major developments, Policy 3b notes that such proposals will only be supported where they can demonstrate significant biodiversity enhancement, alongside any proposed mitigation, leaving biodiversity in a better state than before.

Furthermore, NPF4 advises local planning authorities to conserve and enhance biodiversity when considering planning applications, by applying principles aimed at protecting and enhancing biodiversity and designated sites and incorporating biodiversity in and around developments.

11.3 Summary of Updated Ornithological Surveys

Pre-construction surveys were carried out in accordance with planning condition 9cix (21/02985/FUL). The surveys covered the area of the Development, as well as the proposed

[8] JNCC on behalf of the Four Countries' Biodiversity Group (2024). *UK Biodiversity Framework*. JNCC, Peterborough. Available at: https://hub.jncc.gov.uk/assets/19a729f6-440e-4ac6-8894-cc72e84cc3bb

[9] JNCC and Defra (on behalf of the Four Countries' Biodiversity Group) (2012). UK Post-2010 Biodiversity Framework. July 2012. Available at: https://hub.jncc.gov.uk/assets/587024ff-864f-4d1d-a669-f38cb448abdc

[10] Available at: https://www.cbd.int/gbf

[11] Scottish Government (2023). *National Planning Framework 4 (NPF4)*. Last updated 9 October 2024. Available at: https://www.gov.scot/publications/national-planning-framework-4/documents/

[12] Scottish Government (2023). *Biodiversity: Draft Planning Guidance.* Available at: https://www.gov.scot/publications/scottish-government-draft-planning-guidance-biodiversity/

grid connection, and appropriate buffers. These surveys are summarised in the following update:

- Moorland breeding bird surveys, breeding raptor surveys and breeding diver surveys were conducted in the 2023 and 2024 breeding seasons (March to August). Lekking surveys for black grouse were conducted in 2023 and 2024 (April to May). The results of these surveys were broadly similar to previous surveys conducted for the 2021 EIA Report and 2022 FEIR. There was no evidence recorded of any new bird species of conservation importance recorded breeding in the study area.
- A Breeding Bird Protection Plan (BBPP) was produced in 2023, and updated in 2024, following these surveys (**Appendix 11.1**).

11.4 Summary

In summary, the updated surveys have identified no material change to the baseline, and therefore no anticipated changes to the assessed significance of effects on ornithological receptors, as presented in the 2021 EIA Report and 2022 FEIR.

12.0 Hydrology, Hydrogeology, Geology and Soils

12.1 Introduction

The 2021 EIA Report submitted as part of the planning application for the (then proposed) Development considered the potential effects on hydrology, hydrogeology, geology and soils.

Since the submission of the 2021 EIA Report, the following key legislation, policy and guidance changes of relevance have been made:

- NPF4 (Scottish Government, 2024);
- Advising on peatland, carbon-rich soils and priority peatland habitats in development management (NatureScot, 2023);
- Climate change allowances for flood risk assessment in land use planning (SEPA, 2024);
- Guidance on Assessing the Impacts of Developments on Groundwater Dependent Terrestrial Ecosystems (SEPA, 2024); and
- Guidance on Assessing the Impacts of Development on Groundwater Abstractions (SEPA, 2024).

As there are no proposed changes to the design or layout of the Development, no additional surveys or updates to Technical Appendices from the 2021 EIA Report have been undertaken, and the study area for assessment of receptors is unchanged.

Embedded mitigation measures have been incorporated into the design of the Development, which are outlined within the 2021 EIA Report. Embedded design measures include the avoidance of peat where practicable, and implementation of 50 m watercourse buffers. Additionally, best practice mitigation measures to be adopted during construction are outlined within the Construction Environmental Management Plan (CEMP) (2019 EIA Report, **Appendix 13.A**). Condition 9 of the extant permission requires submission of an updated CEMP. This document is currently being prepared.

12.2 Baseline

While there are two private water supplies within 1 km of the Site boundary, there are no groundwater abstractions identified within 250 m of infrastructure, and no groundwater abstractions planned as part of the Development.

Assessment of potential Groundwater Dependent Terrestrial Ecosystems (GWDTEs) onsite was previously undertaken, which found there to be no GWDTEs present. The habitats are assessed to be ombrogeneous due to their location and steep topography, and to be dependent on surface water run-off and precipitation.

Flood risk mapping produced by SEPA was reviewed within the 2021 EIA Report which identified a minor area associated with the Allt Giubhais Beag as being at high risk from fluvial flooding. For this assessment, updated SEPA Flood Maps have been reviewed, which identified areas onsite associated with minor watercourses to be at medium to high risk of surface water and small watercourses flooding. The Development includes two proposed new watercourse crossings (no change from what was presented in the 2021 EIA Report). These will be designed to accommodate 1 in 200-year flood event plus climate change, in accordance with required climate change allowances as noted in SEPA Guidance. These proposed crossings would be agreed with SEPA prior to construction. As all Development infrastructure is sited out with 50 m from watercourses and existing tracks have been utilised to minimise additional watercourse crossings, there is no change to the significance of effects as assessed in the 2021 EIA Report, and a separate Flood Risk Assessment is not considered to be required.

As part of the 2019 EIA Report (also informing the 2021 EIA Report), peat depth surveys were undertaken across the Development Site, with peat identified on gentle slopes in the east and west. Of the peat probe locations undertaken, 80% recorded no peat or peat less than 1.0 m peat thickness. Through embedded mitigation and design iterations, areas of deep peat have been avoided where practicable. In accordance with the Outline Peat Management Plan (oPMP) (2019 EIA Report **Appendix 13.C**; 2019 SI **Appendix 13.B**), it is noted that all excavated peat can be re-used onsite. Reinstatement of peat onsite will be undertaken in accordance with committed mitigation measures outlined within the oPMP, which include best practice measures for the handling, and storage of peat. These works will be overseen by the onsite Environmental Clerk of Works (EnvCoW).

12.3 Summary

As outlined within the assessment, embedded mitigation was integrated into the design of the Development. Committed best practice mitigation measures will be outlined within the CEMP prior to construction, which will reduce potential effects on identified receptors. In addition, and in accordance with the conditions attached to the 2023 Planning Permission (9cii), prior to construction a Stage 2 Peat Management Plan (PMP) will be undertaken.

Chapter 12 of the 2021 EIA Report, taking account of mitigation measures, assessed there to be no significant effects on hydrological, hydrogeological, geological and soil receptors. As there are no proposed changes to the Development layout or design, there is therefore no change to the assessment of effects on hydrology, hydrogeology, geology and soils. Residual effects on these receptors are therefore considered to be not significant in terms of the EIA Regulations.

13.0 Shadow Flicker

13.1 Introduction

The 2021 EIA Report (**Chapter 13**, **Volume 1)** considered the potential safety impacts and the risk of shadow flicker effects on residential receptors, arising from the Development.

The scope of the assessment comprised the following:

- Consultation with THC; and

- Search for any relevant receptors within an appropriate shadow flicker study area, based on the Development turbine layout and candidate turbine dimensions.

The assessment identified that due to the 2 km distance from the nearest residential property to the Development turbines, shadow flicker effects were not anticipated. Furthermore, THC agreed that an assessment of shadow flicker could be scoped out of the EIA process.

Given that there is no change to the Development design or candidate turbine dimensions, and no new or additional receptors have been identified within 2 km of Development turbines, no significant shadow flicker effects are expected, and no further assessment is required.

13.2 Summary

The potential impacts of shadow flicker were addressed in Chapter 13 of the 2021 EIA Report. As there is no proposed change to the Development layout or design, the assessment of shadow flicker effects remains unchanged. Should any complaints arise during operation, these can be investigated, and mitigation measures can be implemented if necessary. These measures may include the planting of tree belts or shutting down individual turbines during periods when shadow flicker could theoretically occur. However, no shadow flicker effects are anticipated.

14.0 Transport

14.1 Introduction

The original 2019 EIA Report undertaken as part of the planning application (Chapter 7, Volume 1) for the Development considered the effects in regard to traffic during construction, operation and decommission of the Development.

The scope of the assessment comprised the following:

- consultation with the THC Transport Department and Transport Scotland;
- description of the existing access network and transport baseline;
- assessment of potential effects including direct, indirect and cumulative effects;
- evaluation of significance of effects on receptors;
- description of the mitigation measures proposed to address likely significant effects; and
- assessment of the residual effects remaining following implementation of mitigation.

During construction, access to the Development will be via the existing Lochluichart Wind Farm access junction on the A835. Bulk materials, including cement, sand, and aggregate, will be sourced from local suppliers and delivered via the A835 from the south. Specialist loads, such as turbine components, will be transported to the site from Invergordon or Nigg using specialised vehicles, traveling along the A9 and A835.

The traffic assessment undertaken in the original 2019 application finds that the maximum traffic impact associated with the construction phase is predicted to occur in Month 8. During this month, an average of 51 vehicle movements were predicted per day. Table 7.10 of Chapter 7 of the 2019 EIA Report provides a summary of the projected total number of vehicles that will arise during the construction phase and Table 7.11 shows the percentage increases at various locations along the road network also identified.

Traffic levels are not expected to exceed the 30% or 10% threshold for total traffic within the study area.

The assessment concluded that there are minor, non-significant effects that could be expected along the A835 during construction, relating to the increase in traffic operating on route. The traffic effects during the operational phase of the Development were assessed as likely to be insignificant.

The 2019 application did not propose any substantial mitigation measures, however THC did request a Construction Traffic Management plan (CTMP), Section 96 Wear & Tear Agreement, an Operational Traffic Management review and Outdoor Access Management Plan (Conditions 10 -13). The Applicant accepted these in full.

The 2021 redesign application (21/02985/FUL) did not include any new or revised transport review. The 2019 traffic generation figures form the baseline.

14.2 Changes since the 2019 Application

A review of THC's planning portal[13] and THC Wind Turbine Map[14] did not reveal any additional built or consented developments that should be included in an updated consideration of cumulative matters.

A review of the online resource www.crashmap.co.uk[15] noted that there had been four accidents occurring within a 10 kilometre (km) radius of the Development access junction within the period 2019 – 2023. Of these, one was classified as "Slight" (damage only) and three as "Serious" accidents. No fatal accidents were reported.

The "Slight" accident occurred at Lochdrum and involved a Heavy Goods Vehicle (HGV) and no other vehicle in winter. One "Serious" accident involved a sole HGV and no other vehicles. Of the remaining accidents, one involved a car and motorcycle collision and one involved a single car at a bend to the east of the development, in winter months.

There are no apparent reasons to consider that the Development traffic will exacerbate the accident rate within the immediate area of the access junction.

There are no significant changes to baseline conditions on the transport network in the study area. As such, the proposed assessment and its associated traffic impact are still considered valid.

Should additional development be consented, it would need to consider the Development as a committed scheme. Future consented projects would therefore need to apply traffic management measures to accommodate any future additional flows.

14.3 Summary

Given that there is no proposed change to the Development layout or design, there is no change to the assessment of traffic and transport effects. Whilst the Development would lead to a temporary increase in traffic volumes during the construction phase, traffic volumes would decrease considerably outside peak periods of construction. Overall, the construction period would be transitory in nature and all impacts would be short lived and temporary.

There are no substantial changes to baseline conditions and as such the previous assessment is still considered valid.

[13] https://wam.highland.gov.uk/wam/search.do?action=simple&searchType=Application (accessed March 2025)

[14] https://highland.maps.arcgis.com/apps/webappviewer/index.html?id=5ec04b13a9b049f798cadbd5055f1787 (accessed March 2025)

[15] https://www.crashmap.co.uk/Search (accessed March 2025)

With the implementation of the proposed planning conditions, such as a Construction Traffic Management Plan (CTMP), Section 96 Agreement and Outdoor Access Management Plan no significant effects are anticipated in respect of traffic and transport issues.

15.0 Infrastructure

15.1 Aviation

15.1.1 Introduction

The 2021 EIA Report (**Chapter 15**, **Volume 1**) considered the impacts from the Development on aviation and radar.

The scope of the assessment comprised the following:

- Consultation with the Ministry of Defence (Mod), Highlands and Islands Airports Limited (HIAL) and National Air Traffic (En Route) Services (NATS/NERL) stakeholders;
- Assessment of the potential effects on aviation and radar systems from the Development;
- Consideration of any residual effects; and
- Consideration of any cumulative effects.

The 2021 EIA Report assessed the potential impacts of the Development on civil and military aviation. Consultation with the MoD indicated that they “may have concerns” regarding the Development. However, based on the MoD's responses to the operational wind farm developments in the immediate vicinity, it is expected that they will not raise an objection to the Development.

Neither the HIAL nor NATS objected to the 2021 planning application.

15.1.2 Summary

Given that there is no proposed change to the Development layout, design or candidate turbine model, there is no change to the assessment of aviation and radar effects. No significant adverse effects are anticipated.

15.2 Telecommunication

15.2.1 Introduction

The 2021 EIA Report (**Chapter 15**, **Volume 1**) considered the likely effects of the Development on existing and planned telecommunications infrastructure.

The scope of the assessment comprised the following:

- consultation with relevant telecommunications stakeholders;
- assessment of the potential effects from the Proposed Development;
- consideration of any residual effects; and
- consideration of any cumulative effects.

Table 15.1 of the 2021 EIA Report provides a summary of the consultation responses from identified operators. No objections were raised to the Development with regards to

telecommunications infrastructure. No impacts or effects were identified and therefore no mitigation measures were deemed necessary.

Given that there is no proposed change to the Development layout or design, there is no change to the assessment of effects on telecommunications infrastructure. No impacts on telecommunications or broadcasting installations are predicted.

15.2.2 Summary

Given that there is no proposed change to the Development layout or design, there is no change to the assessment of effects on telecommunications infrastructure. No impacts on telecommunications or broadcasting installations are predicted.

15.3 Forestry

15.3.1 Introduction

The Forestry Chapter **(Chapter 15)** of the 2021 EIA Report provided an assessment of the potential effects of the Development on forest areas. The overall forestry assessment remains unchanged.

The total Forestry Study Area extends to 296.97 ha and under private ownership remains the same.

The felling requirements within this Forestry Study area is unchanged from the 2021 EIA Report (Chapter 15) and would reduce the woodland area by 3.45 ha. This will be mitigated against by the provision of at least the equivalent area of compensatory planting. Combined with the grid connection, woodland loss arrangements are in place for compensatory planting of 6.11 ha in line with Condition 16 of the Planning Permission (THC 19/01284/FUL).

With adherence to UK Forestry Standard[16] (UKFS) and timely compensatory planting in line with the Scottish Government Control of Woodland Removal Policy[17] (CoWRP) there would be no adverse effect to forestry.

There would be a small increase in the volume of forest products as round wood or biomass with each growing season. This would not be a significant change due to the low yield class of the trees to be removed.

The introduction of NPF4 Policy 6: Trees, Woodland and Forestry in 2023 has placed a greater emphasis on the protection of ancient woodlands, ancient and veteran trees, and preventing adverse impacts on native woodlands, hedgerows and individual trees of high biodiversity value or identified for protection in the Forestry and Woodland Strategy. The Site contains no ancient woodlands. The trees to be removed are within areas listed in the Native Woodland Survey of Scotland (NWSS) dataset, planted in 1985; they do not have high biodiversity value.

UKFS has been reissued as Version 5 in 2023, any updates to the Long Term Forest Plan would need to be in compliance with this updated guidance.

16 Forest Research (2022), The UK Forestry Standard, available at https://cdn.forestresearch.gov.uk/2023/10/The-UK-Forestry-Standard.pdf accessed on 06/03/2025

17 The Scottish Government's Policy on Control of Woodland Removal, available at https://www.forestry.gov.scot/publications/285-the-scottish-government-s-policy-on-control-of-woodland-removal Accessed on 06/03/2025

Table 15-1: Summary of changes

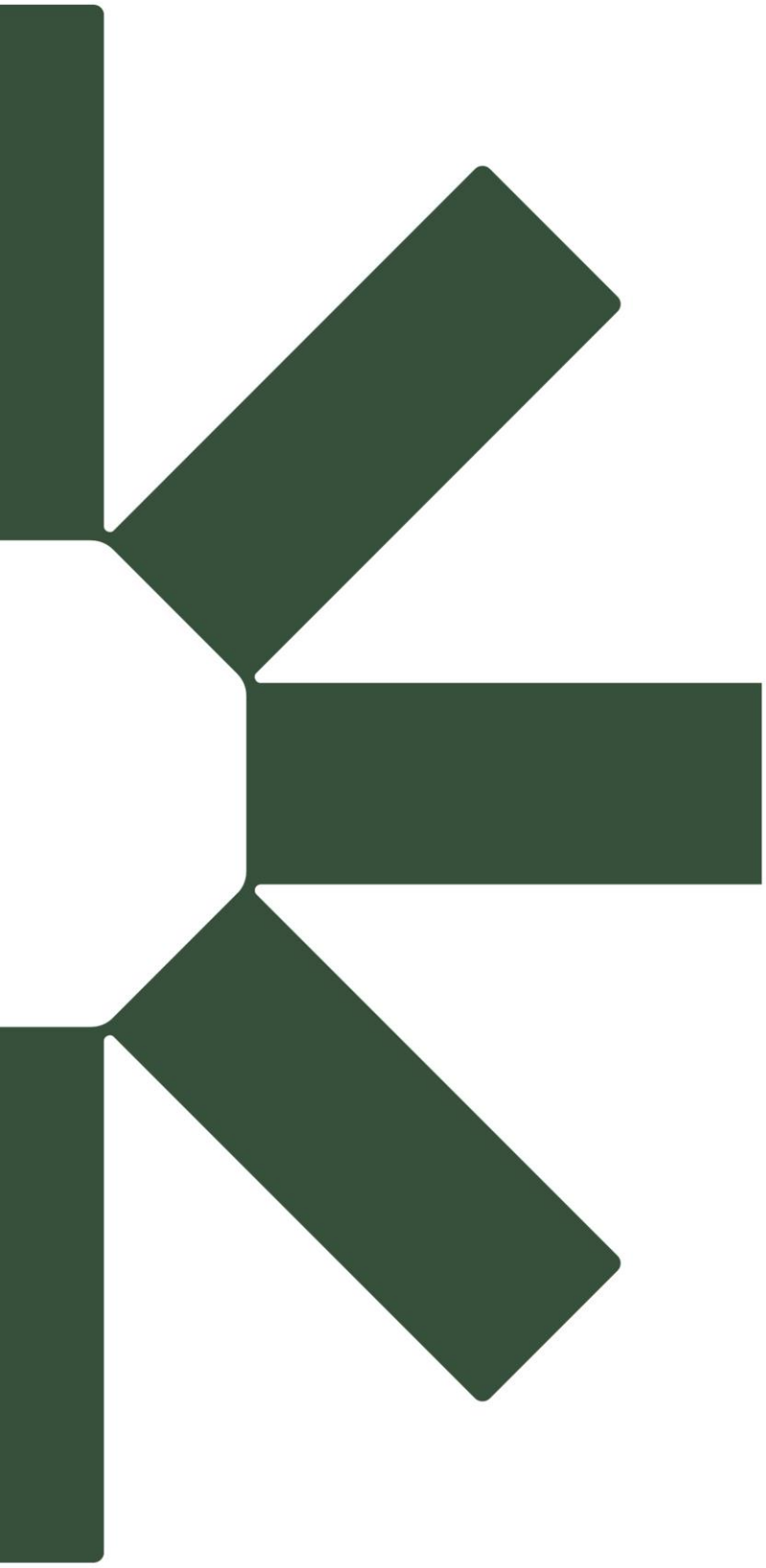
	2021 EIAR	SEIR
Study area	296.97 ha	No Change
Woodland Loss and compensatory planting	3.45 ha	No Change
Timber removal	Approximately 421.27 m^3	An increase of approximately 6m^3/ha/year
National Planning Framework	NPF3, Scottish Planning Policy	NPF4: Policy 6 Trees, Woodland and Forestry
UKFS	Version 4	Version 5

16.0 Conclusion

This document has provided a summary of the relevant environmental and technical assessments undertaken for the Section 42 application, which seeks to amend Planning Condition 27 that was attached to Planning Permission ref. 21/02985/FUL, granted by THC in January 2023 for the Development.

There are no proposed physical changes to the Development layout or design, and no material changes to the baseline environment have been identified through updated desk study and site survey work. Changes to the baseline, planning policy and relevant guidance have been taken into account, however these do not result in any changes to the assessed significance of environmental effects.

Figures



Making Sustainability Happen