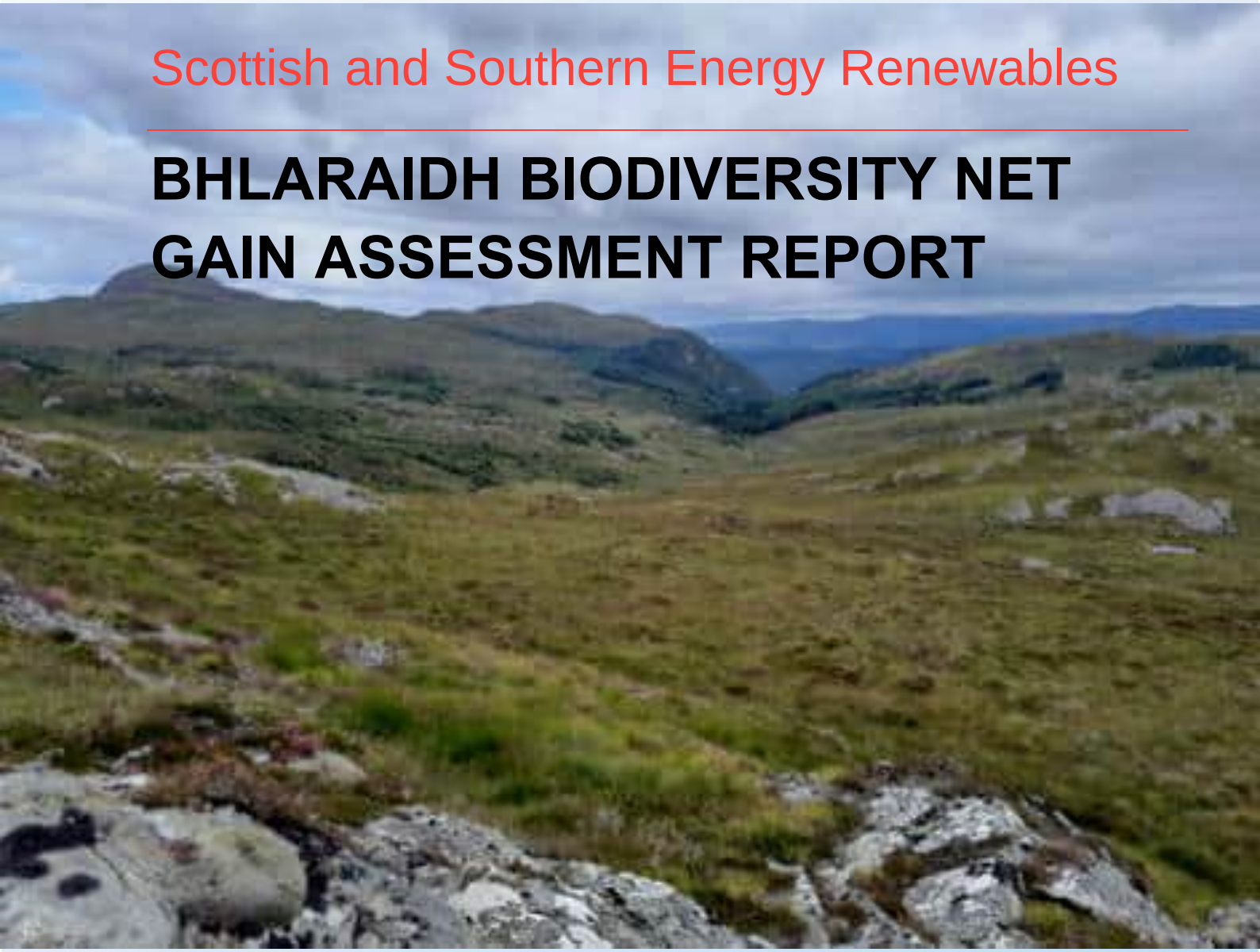
Bhlaraidh Wind Farm Extension Section 36C Variation

Technical Appendix 3.6c: Biodiversity Net Gain Report

Scottish Government - Energy Consents Unit - Application Details

Scottish and Southern Energy Renewables

BHLARAIDH BIODIVERSITY NET GAIN ASSESSMENT REPORT



001
SEPTEMBER 2024

CONFIDENTIAL

Scottish and Southern Energy Renewables

BHLARAIDH BIODIVERSITY NET GAIN ASSESSMENT REPORT

TYPE OF DOCUMENT (VERSION) CONFIDENTIAL

PROJECT NO. 70109493

OUR REF. NO. 001

DATE: SEPTEMBER 2024

WSP

110 Queen Street
Glasgow
G1 3BX

Phone: +44 141 429 3555

WSP.com

QUALITY CONTROL

Issue/revision	First Issue	Revision 1	Revision 2
Remarks	Draft for comment	Final	Amendment following THC Review
Date	December 2023	February 2024	September 2024
Prepared by	Sarah Macdonald-Smart/ Sarah Kydd		
Signature			
Checked by	Hannah Williams		
Signature			
Authorised by	Jon Seller		
Signature			
Project number	70109493	70109493	70109493
Report number			
File reference	\\uk.wspgroup.com\central data\Projects\70109xxx\70109493 - Bhlaraidh Ext\03 WIP\BNG	\\uk.wspgroup.com\central data\Projects\70109xxx\70109493 - Bhlaraidh Ext\03 WIP\BNG	\\uk.wspgroup.com\central data\Projects\70109xxx\70109493 - Bhlaraidh Ext\03 WIP\BNG

CONTENTS

TABLES

No table of figures entries found.

APPENDICES

APPENDIX A

FIGURES

EXECUTIVE SUMMARY

WSP was commissioned by Scottish and Southern Energy Renewables (SSER) to undertake a Biodiversity Net Gain (BNG) assessment in relation to the Bhlaraidh windfarm extension (herein referred to as the 'Development'). The Development is located at central grid reference NH 39476 20661, located north-west of Invermoriston, and is located within an area dominated by wet heath, blanket bog, and wet modified bog.

This assessment was undertaken using the Construction Industry Research and Information Association (CIRIA), Chartered Institute of Ecology and Environmental Management (CIEEM) and Institute of Environmental Management and Assessment (IEMA) BNG Good Practice Principles for Development and a Scottish-specific metric, produced by SSER and named as the Biodiversity Project Toolkit[1]. The aims of the BNG assessments were to:

- Quantify the potential biodiversity impacts of the Development by calculating the baseline Biodiversity Units for the Site (BU);
- Assess the extent of net loss in biodiversity as a result of the Development;
- Assess the change in biodiversity value as a result of habitat creation and enhancement which will be undertaken in-line with the Bhlaraidh Habitat Management Plan (HMP)[2]; and
- Assess the Development against the Good Practice Principles.

This report details the methodology and results of the BNG assessment for the Development. This BNG assessment concludes that the Development and its associated HMP meet with the requirements of NPF4 Policy 3, as follows:

- *Provides significant biodiversity benefits:* As evidenced through a 4% gain documented in the toolkit, and wider habitat enhancements (which cannot be quantified) which will occur through the Deer Management Plan (this will be reducing the grazing pressure, allowing habitat condition to improve, and natural woodland regeneration), along with improved habitats for black grouse and prey species for golden eagle, nesting provision for black throated divers and contribution to the Regional Eagle Conservation Management Plan.
- *Measures should include nature networks, linking to and strengthen habitat connectivity:* The proposed Caledonian woodland and montane scrub planting, will provide closer links to woodland located to the east.
- *Management arrangements for long term retention and monitoring:* Management and monitoring is set out within the HMP and will allow the success of the habitat restoration and enhancement to be tracked against the predicted BNG values.

[1] SSER (2023). Biodiversity Project Toolkit V1.2.

[2] WSP (2023) Bhlaraidh Habitat Management Plan

1 INTRODUCTION

1.1 BACKGROUND INFORMATION

1.1.1. WSP was commissioned by Scottish and Southern Energy Renewables (SSER) to undertake a Biodiversity Net Gain (BNG) assessment on a wind farm extension site (Bhlaraidh Extension), constituting 15 new turbines, hereafter referred to as 'the Site', located on the Glenmoriston Estate, north-west of Invermoriston, hereafter referred to as 'the Development'.

1.1.2. A Section 36 application (application reference ECU00001900) for Bhlaraidh Wind Farm Extension, consisting of 15 turbines with a tip height of up to 180 metres, was approved by the Scottish Government's Energy Consents Unit in August 2022. The application was accompanied by a full Environmental Impact Assessment (EIA) report and other supporting documents and a subsequent Additional Information Report (AIR).[3]

1.1.3. The Development is located west of Loch Ness and the Great Glen, on an area of high rocky plateau. This open, undulating moorland features several rocky outcrops, small hills, many lochs, lochans, watercourses, areas of bog, tracks, hydroelectric infrastructure, and turbines of the existing adjacent Bhlaraidh Wind Farm.

1.1.4. The assessment is based upon the findings of a Phase 1 Habitat Survey, conducted in May 2020, and assumptions made with respect to habitat condition in combination with UKHab survey data from 2023 for areas identified for enhancement as detailed within the Habitat Management Plan (HMP). The Site plus the habitat enhancement and creation areas, as detailed in the HMP, are referred to as the BNG Study Area.

1.1.5. The biodiversity baseline value has been quantified using a Scottish-specific metric, produced by SSER and named as the Biodiversity Project Toolkit (hereafter the 'toolkit'). The BNG assessment of the Site was undertaken in line with SSER Biodiversity Net Gain Toolkit User Guide[4] (herein referred to as the SSER Guidance).

1.1.6. Recommendations are provided in line with the Construction Industry Research and Information Association (CIRIA), Chartered Institute of Ecology and Environmental Management (CIEEM) and Institute of Environmental Management and Assessment (IEMA) BNG Good Practice Principles (hereafter referred to as 'Good Practice Principles') and the published UK guidance.

1.1.7. This assessment has been completed by an ecologist capable in BNG, in line with the CIEEM levels of competency[5].

1.2 BIODIVERSITY NET GAIN

1.2.1. All councils have a duty under the Nature Conservation (Scotland) Act 2004 to further the conservation of biodiversity and to report back on their biodiversity targets.

[3] WSP (2021) Bhlaraidh Wind Farm Extension EIAR. Available at: Bhlaraidh Extension | SSE Renewables [Accessed June 2023]

[4] SSER (2022) Biodiversity Net Gain Toolkit User Guide. Available at: user-guide.pdf (sserenewables.com) [Accessed June 2023]

[5] CIEEM (2021) Competency Framework. Available: cieem.net/wp-content/uploads/2022/01/Competency-Framework-2022-Web.pdf [Accessed June 2023]

1.2.2. The Planning (Scotland) Act 2019 requires the National Planning Framework 4 (NPF4)[6] to protect biodiversity from development, reverse biodiversity loss, deliver positive effects from development and strengthen nature networks. Policy 3 of NPF4 states*: Development proposals for national or major development, or for development that requires an Environmental Impact Assessment will only be supported where it can be demonstrated that the proposal will conserve, restore and enhance biodiversity, including nature networks so they are in a demonstrably better state than without intervention. This will include future management. To inform this, best practice assessment methods should be used.*

1.2.3. It is however noted that NPF4 was published in February 2022 after the Development was consented and as such the planning application was not subject to NPF4 policy requirements. The planning application set out commitments to enhance biodiversity in line with SSER's ambition (see Section 1.4). This BNG assessment has reflected on the requirements of Policy 3, alongside the requirements of planning condition 18, notably 18f which states that the HMP must include *a scheme for the delivery of biodiversity enhancement which shall include an emphasis on biodiversity enhancements for black grouse and golden eagle*.

1.2.4. Taking a BNG approach is a valid method to demonstrate positive effects for biodiversity. The Scottish Government has published draft planning guidance on biodiversity which sets out expectations for implementing NPF4 policies[7]. The guidance details that in the absence of a universally adopted Scottish methodology / tool to measuring biodiversity, developers may use an established metric or tool to demonstrate how Scotland's habitats and environmental conditions have been taken into account. The guidance also sets out that assessment may be qualitative or quantitative. This assessment has used a quantitative assessment to measure biodiversity change where possible to do so, along with a qualitative discussion for aspects which cannot be captured within a metric or tool.

1.2.5. The Highland Nature Biodiversity Action Plan 2021-2020[8] sets the requirement for biodiversity enhancements and compensation; see Action 1 on Planning and development decisions providing biodiversity:

"Commitment 1.1: The Highland Council will continue to develop Local Development Plans and policies that recognise the importance of biodiversity in line with the new Planning (Scotland) Act 2019 and the new National Planning Framework (NPF4) (…) and move towards implementation of a biodiversity net gain system for new development when the Environment Bill becomes law.

Commitment 1.3: Land managers have development plans that ensure the retention and creation of habitat that is good for nature. They must achieve an overall 'No Net Loss' on new infrastructure and achieve biodiversity net gain on projects gaining consent in 2025 onwards."

[6]National Planning Framework 4: Available: https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2023/02/national-planning-framework-4/documents/national-planning-framework-4-revised-draft/national-planning-framework-4-revised-draft/govscot%3Adocument/national-planning-framework-4.pdf [Accessed February 2024]

[7] https://www.gov.scot/binaries/content/documents/govscot/publications/advice-and-guidance/2023/11/scottish-government-draft-planning-guidance-biodiversity/documents/scottish-government-draft-planning-guidance-biodiversity/scottish-government-draft-planning-guidance-biodiversity/govscot%3Adocument/scottish-government-draft-planning-guidance-biodiversity.pdf [Accessed December 2023]

[8] Highland Council (2021). Highland Nature Local Biodiversity Action Plan. Available at: Highland Nature 2021 - 26 first discussion (highlandenvironmentforum.info) [Accessed June 2023]

1.2.6. Furthermore, Policy 60 in the Highland-wide Local Development Plan (2012)[9] states that:

"The Council will seek to safeguard the integrity of features of the landscape which are of major importance because of their linear and continuous structure or combination as habitat "stepping stones" for the movement of wild fauna and flora. (Article 10 Features). The Council will also seek to create new habitats which are supportive of this concept."

1.3 SCOPE OF REPORT

1.3.1. This report uses the toolkit, SSER BNG Toolkit User Guide[10] and the Good Practice Principles to produce an assessment report that:

- Includes a BNG assessment of the Development and HMP enhancement areas (BNG Study Area) shown on **Figure 1, Appendix A**, following the guidance outlined within SSER BNG Toolkit User Guide;
- Uses the toolkit to quantify and compare the baseline biodiversity value of existing habitats and the proposed post-development value to provide an indication of the overall predicted change in biodiversity value;
- Assesses the change in biodiversity value as a result of habitat creation and enhancement which will be undertaken in line with the HMP;
- Assesses the Development, along with its associated HMP against the Good Practice Principles; and
- To provide qualitative and quantitative assessment of biodiversity change to demonstrate how planning condition 18f has been met (18f requires *a scheme for the delivery of biodiversity enhancement which shall include an emphasis on biodiversity enhancements for black grouse and golden eagle*.)

1.4 SSER'S BIODIVERSITY AMBITION

1.4.1. SSER have a 10-point plan[11] with respect of BNG: the key elements of this relating to this Development are:

1.4.2. 1) to achieve no net loss (NNL) on all new infrastructure projects achieving consent from 2023 onwards

1.4.3. 2) net gain (NG) on all new infrastructure projects achieving consent from 2025 onwards.

1.4.4. 3) Embedded BNG ambitions in decision-making at each stage of a new project developments from 2023.

1.4.5. This Development was consented prior to 2023, but is now looking to achieve point 3, in terms of embedding BNG ambitions into the construction phase of the project.

[9] Highland Council (2012) Highland-wide Local Development Plan. Available at: Highland-wide Local Development Plan | Highland-wide Local Development Plan | The Highland Council [Accessed June 2023]

[10] SSER (2022) Biodiversity Net Gain Toolkit User Guide Available at: SSER Toolkit User Guide [Accessed June 2023]

[11] SSER (2022) Positive for the planet – Renewable energy with a Biodiversity Net Gain. Available at: https://www.sserenewables.com/media/vgsdoav3/sser-biodiversity-net-gain-report-nov-2022-final.pdf [Accessed June 2023]

2 METHODOLOGY

2.1 BIODIVERSITY ASSESSMENT OVERVIEW

2.1.1. A summary of the BNG assessment methodology and Development specific data sources, assessment limitations and assumptions are provided in this methodology section. This report should be read in conjunction with the toolkit, provided separately.

2.1.2. Any amendments to the Development, HMP enhancement areas or assumptions that were used for this BNG assessment will necessitate re-running the biodiversity unit calculations, to provide accurate BNG numbers.

2.1.3. The assessment was based on a combination of habitat survey data, from 2020 and 2023 and a desk-based review of publicly available datasets.

2.2 DESK STUDY

2.2.1. Existing habitat survey data collected in 2020 to inform the planning application was provided by SSER for the Site[12]. The 2020 survey data was collected following Phase 1 Habitat Survey methodology[13]. Habitat Condition Assessment (HCA) data was not collected during this survey.

2.2.2. National Vegetation Classification[14] data collected during 2020 was also provided by SSER for the Site. The data was collected using NVC survey methodology[15] with no HCA conducted. The NVC data was subject to review to identify sufficient information to assign appropriate HCA classification to the Phase 1 Habitat Survey data.

2.2.3. The desk-based review of the NVC and Phase 1 habitat data was undertaken to assign HCA retrospectively as part of the BNG assessment using the following assumptions:

- Wet/dry modified bog was assigned poor condition based on this habitat type being modified and from the findings of the 2023 field survey (as detailed below), the majority of the bog in the wider area was found to be in poor condition; and
- All other habitats were assigned moderate condition.

2.2.4. Information from the following open-source datasets was reviewed to identify statutory and non-statutory designated sites within 2 km of the Site. The search results were restricted to those designated sites with qualifying ecological / biological interest (i.e., not solely geological). Designated sites of interest are as follows:

- Local Nature Conservation Sites (LNCS);
- Local Nature Reserves (LNR);
- National Nature Reserves (NNR);
- Sites of Special Scientific Interest (SSSI);

[12] SSER (2021) Bhlaraidh Extension – EIAR Volume 4_Appendix 5.1

[13] JNCC (2010) Handbook for Phase 1 Habitat Survey: A technique for environmental audit.

[14] Rodwell, J. S. (Eds) (1991 - 2000). British Plant Communities (5 volumes). Cambridge University Press.

[15] Rodwell, J. S. (Eds) (1991 - 2000). British Plant Communities (5 volumes). Cambridge University Press.

- Special Areas of Conservation (SAC);
- Special Protection Areas (SPA), and
- Ramsar sites.

2.2.5. Qualifying features of the designated sites were obtained from the NatureScot Site Link[16]. Where measurements are presented in the findings, these provide the closest distance of the designated site from the closest point of the Site. Citations for the sites within the 2km search parameter were then reviewed to assess the strategic significance scores.

2.2.6. The Highlands Nature Biodiversity Action Plan 2021-2026[17] was reviewed to assess the strategic significance scores, habitats listed within the action plan found within the BNG Study Area were assigned High Strategic Significance.

2.3 2023 HABITAT SURVEY

2.3.1. A UK Habitat Classification ('UKHab') and HCA survey was undertaken in July 2023 for the locations identified as suitable for peat restoration, riparian / Caledonian woodland planting and montane scrub planting within the outline Habitat Management Plan (oHMP) submitted as part of the planning application for the Proposed Development (application reference ECU00001900). Areas surveyed using UKHab methodology are shown in **Appendix A, Figure 1**. Where data collected also overlapped within locations under the development footprint, this data is used in preference to the 2020 data as it provides a more recent reflection of the habitats present, and also included HCA.

2.3.2. The HCA surveys followed the method presented in Natural England Biodiversity Metric V3.1 (herein referred to as 'Metric 3.1')[18]. All habitats were assigned UKHab Primary Habitats in line with UKHab User Manual (Version 1.1)[19]. All habitat mapping was undertaken in ArcMap Version 10.8.1.

2.4 IRREPLACEABLE HABITATS AND NATIONALLY PROTECTED SITES

2.4.1. It is important to note that BNG or NNL cannot be achieved for a Development as a whole if there is a negative impact on an irreplaceable habitat (see Principle 2 of Good Practice Principles). The extent and distribution of any irreplaceable habitat within the Site is discussed within the results section. Blanket bog in good or moderate condition is considered to be irreplaceable, based on SSER Guidance.

2.4.2. In these situations, the SSER Guidance dictates that any compensation offered to address impacts on irreplaceable habitats should be agreed directly with NatureScot as addressed within the HMP[20]. The EIA committed to restore and enhance a minimum of 6.93ha of peatland habitat within five years of commissioning of the Development and planning permission to compensate for the temporary and permanat loss of peatland. Planning permission has since been granted with an agreement to enhance the full area of peatland suitable for enhancement within the Site totaling 31.88ha to be restored.

[16] NatureScot (online). Site Link. Available: https://sitelink.nature.scot/map [Accessed June 2023]

[17] The Highland Council (2021) Highland Nature BAP 2021-2026. Available at: Highland Nature Biodiversity Action Plan 2021 to 2026 | Highland Nature Biodiversity Action Plan 2021 – 2026 [Accessed June 2023]

[18] Natural England (2021) The Biodiversity Metric 3.1 http://publications.naturalengland.org.uk/publication/6049804846366720 [Accessed June 2023]

[19] UK Habitat Classification (2020). The UK Habitat Classification User Manual. Version 1.1.

[20] WSP (2023) Bhlaraidh Windfarm Habitat Management Plan (under review at the time of writing)

2.5 BIODIVERSITY CALCULATIONS

2.5.1. The baseline calculations for this assessment were undertaken following the methodology outlined in Section 4 'SSER's Project Toolkit' in the SSER Guidance. The biodiversity values of the habitats within the Site were quantified in terms of Biodiversity Units (BU) using the toolkit, the data obtained through the desk study, site surveys and assumptions made on connectivity, strategic significance, and condition (See Section 2.2). The toolkit auto-populates habitat distinctiveness.

2.5.2. Connectivity followed 2019 Natural England Guidance[21] meaning all habitats of high distinctiveness were assumed to be of moderate connectivity; and all others assumed to be low.

2.5.3. The methodology used for calculating strategic significance is based on the Natural England 3.1 Metric as outlined in the SSER guidance.

2.6 STRATEGIC SIGNIFICANCE

2.6.1. The following habitats have been identified as priority habitats within the Highland Council LBAP and have therefore been assigned high strategic significance:

- Blanket bog and wet modified bog;
- Marsh/marshy grassland (this includes habitats identified on Site as purple moor grass rush pasture);
- Native pine woodlands; and
- Mountain heath and willow scrub;

2.6.2. The urban habitats associated with the permanent footprint of the Proposed Development have been assigned low strategic significance. The remaining wet dwarf shrub heath habitats have been assigned medium strategic significance.

2.7 GENERAL LIMITATIONS AND ASSUMPTIONS

2.7.1. The following assumptions have been made for the baseline BU calculations for the Development:

- The full dataset for the BNG assessment combines Phase 1 survey data from 2020 and UKHab and HCA survey data from 2023. To allow for both datasets to be used for the BNG assessment, the toolkit contains UKHab data for the areas subject to enhancement as outlined in the HMP and Phase 1 data for areas of habitat within Development permanent and temporary footprints;
- HCA has been assigned retrospectively for areas subject to Phase 1 survey in 2020 using assumptions with no updated UKHab survey. The use of assumptions for these areas of the Development is considered to have minimal impact on the toolkit output and final BNG assessment due to the assigned condition classifications generally matching the corresponding HCA results for similar habitats during the 2023 UKHab Survey;
- Area calculations are based on areas being rounded to two decimal places before being entered into the biodiversity toolkit. Therefore, there may be a difference of 0.01 between the Proposed Development site boundary area and total baseline habitat area based on rounding up or down of values. Additionally, areas smaller than 0.01 appear as 0.00 in the toolkit. The BU achieved from these small areas is negligible and therefore this does not affect the BNG calculations.

[21] Biodiversity metric 2.0 User Guide - Beta Test Final (1).pdf. Available: http://publications.naturalengland.org.uk/publication/5850908674228224

- Habitat distinctiveness values as based on the values within Natural England's Biodiversity Metric 3.1, with variations undertaken where considered appropriate to a Scottish context:
  - Modified blanket bog is set at high distinctiveness rather than very high, this is to account for the clear difference in biodiversity value between blanket bog and modified bog habitats, to ensure that the benefits that can be achieved through restoration of this habitat are captured within the toolkit.
- The difficulty to create habitats (Delivery risk) and the time (in years) to reach their target condition (Temporal risk) is based on Natural England's Biodiversity Metric 3.1 Technical Supplement[22], where considered appropriate to the local Scottish context, values have been adjusted to represent the local conditions. The following deviations have been made:
  - Difficulty for blanket bog restoration has been set at medium (rather than high) and the time to target condition to achieve the improvements has been set at 15 years (rather than 30+ years). This is based on SSERs experience of blanket bog restoration and the established practices that will be followed for the blanket bog restoration.
  - Difficulty for native pine woodland creation is set at medium (rather than high), based on the underlying heath habitat, which is considered to represent a suitable understorey base and the local conditions on site, it is considered that a medium level of difficulty is more appropriate. Time to target condition (poor) is set at 10 years, as per the Metric 3.1 value.
  - Time to target condition for heathland is set at 10 years (rather than 30 years), as the existing soils will be reused where possible and the presence of heathland surrounding these areas of habitat creation, ensure that there is suitable seedbank which will be augmented with planting.

2.7.2. With respect to the post-construction habitats within the Site, the following assumptions have been applied:

- It is assumed that permanent loss areas will be converted to Phase 1 Code: J5 other habitat: this includes:
  - turbine hardstanding;
  - new access tracks;
  - turning heads; and
  - substation;
- It is assumed that temporary loss areas include:
  - temporary hardstanding (for turbine construction);
  - existing access tracks;
  - batching plant search area;
  - borrow pit search area;
  - hydro borrow pit search area;
  - satellite construction compound; and
  - primary construction compound;
- Areas of permanent habitat loss associated with the turbines is assumed to be a diameter of 6.5m from the turbine centrepoint;

[22] Natural England (2022) Biodiversity Metric 3.1 Technical Supplement

- Areas of temporary habitat loss associated with the turbines is assumed to be a diameter of 23m from the turbine centrepoint excluding the permanent loss areas; and

  Blanket bog subject to temporary loss is assumed to be restored to original habitat type and condition within 2 years due to following appropriate habitat removal, storage and reinstatement techniques identified within the Outline Construction Environmental Management Plan (CEMP)[23]and is therefore excluded from the BNG assessment.

2.7.3. With respect to the post-construction habitats within the HMP enhancement areas, the following assumptions have been applied:

- Caledonian woodland planting areas will be subject to creation of native pine woodland with a sparse planting density to preserve the existing heath habitat as a woodland understorey, targeting poor condition; and
- Montane scrub planting areas will be subject to enhancement of heath to create mountain heath and willows scrub covering between 15 and 30% of the baseline habitat, targeting good condition.

[23] Outline Construction Environmental Management Plan (CEMP) Bhlaraidh Wind Farm Extension Environmental Impact Assessment Report (EIAR), Appendix 2.1, SSER 2021.

3 RESULTS

3.1.1. This section provides a summary of the BNG quantitative assessment.

3.2 BASELINE BIODIVERSITY

3.2.1. Baseline habitats are shown in **Appendix A, Figure 2**.

3.2.2. The Site is predominantly comprised of blanket bog, degraded blanket bog and various heath habitats including wet dwarf shrub heath, upland heath and mountain heath and willow scrub. There is a small area of marshy grassland associated with one of the larger watercourses to the north of the Site. The Site has a baseline value of 413.82 BU. Full details on these habitats can be found in Chapter 5 of the Bhlaraidh Extension EIA.

3.2.3. The Caledonian planting area to the south of the Site is comprised of upland heath in moderate or good condition. The montane scrub planting area is comprised of upland heath in good condition and montane heath and willow scrub in moderate condition. The blanket bog restoration areas are located around the Site and comprise of blanket bog, primarily in moderate condition and modified blanket bog, primarily in poor condition. Full details on these habitats can be found in the HMP.

3.2.4. Overall, the BNG Study Area has a baseline value of 1692.85 BU.

3.3 POST-DEVELOPMENT BIODIVERSITY

3.3.1. The post-development habitats after construction are based on the Development, HMP and the assumptions set out above in Section 2.5. Post Development Phase 1 or UKHab classifications are shown in **Appendix A, Figure 3**.

3.3.2. Full information on habitat establishment, management and monitoring associated with the HMP are reported separately within the HMP.

3.3.3. Overall, the Proposed Development and HMP enhancements have a post development value of 1761.73 BU.

3.4 SUMMARY OF BIODIVERSITY CHANGE

3.4.1. **Plate 3-5** shows the dashboard results from the toolkit and summarises the changes in BU generated for the combination of the Proposed Development and HMP enhancements within the BNG Study Area.

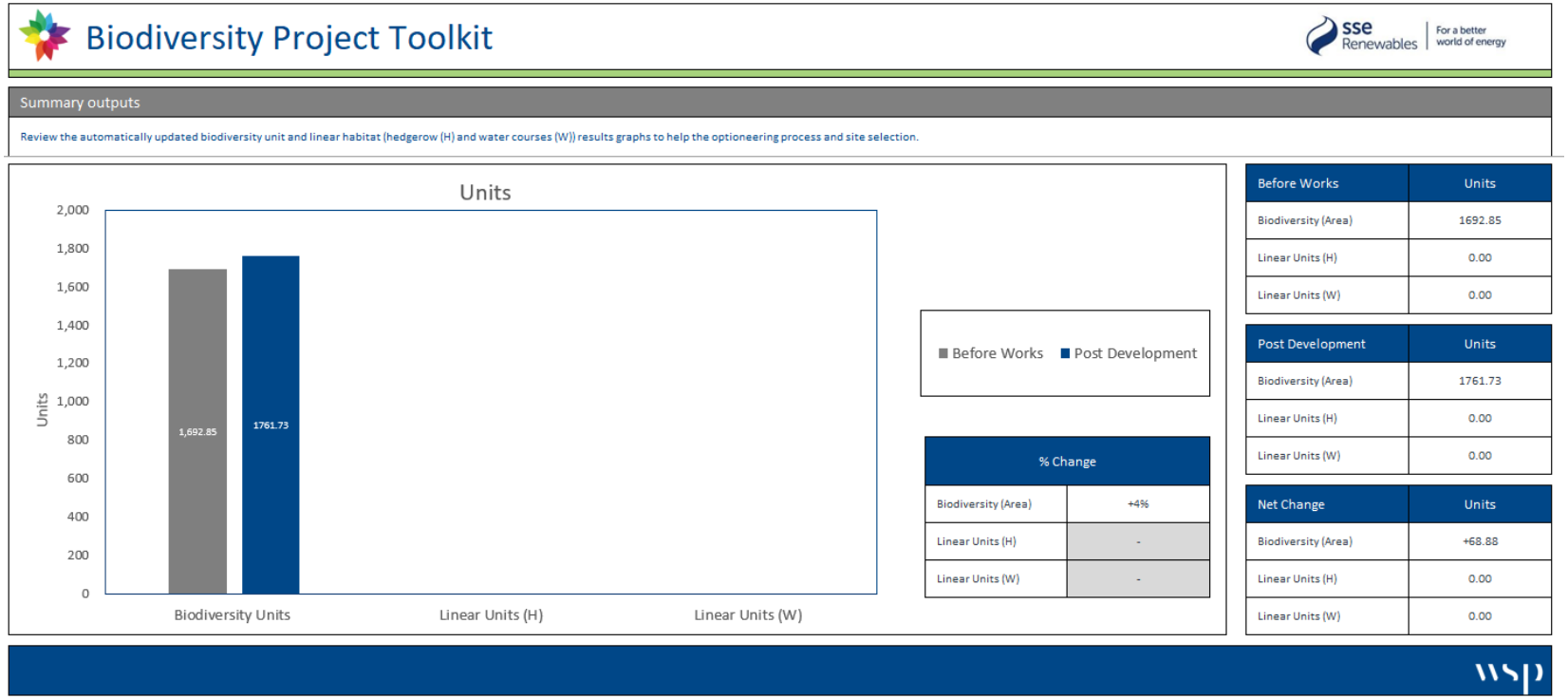


Plate 3-5: Toolkit dashboard for combined Proposed Development and HMP Enhancements

3.4.2. On its own in the absence of the HMP, the Proposed Development is predicted to achieve a **quantitative scheme-wide biodiversity net loss of** 70% (- 291.71 BU).

3.4.3. Overall, the Proposed Development and HMP habitat enhancements are predicted to achieve **quantitative scheme-wide net gain for biodiversity** with a 4% change in BU (+68.88 BU).

3.4.4. With respect to the quantitative gain, the predicted numbers of units has been explored further. The toolkit currently uses the Natural England Metric 3.1 as its base for the risk factors which are considered with respect to habitat creation, namely the difficulty associated with habitat creation and the time it is predicted for habitats to reach their target condition. It is known that these multipliers may not always be applicable in a Scottish context. To consider the effects of the risk multipliers, the habitats to be created and enhanced were entered in a separate toolkit and considered from the perspective of their baseline value (i.e. taking each proposed habitat and condition to assess what is value would be calculated in the absence of risk multipliers). This gives a predicted baseline value 2368 BU, which would equate to a 40% change from the current baseline. This is a substantial difference to the 4% change currently predicted through the toolkit and demonstrates how the values calculated should not be taken as a concrete position but are designed to ensure the complexity of habitat creation and enhancement is not underestimated. As per the HMP, monitoring will be undertaken to determine the progress of the habitat creation and enhancement towards its targeted condition. By undertaking condition assessment reviews, it will be possible to track the extent of biodiversity change to determine the change in biodiversity actually achieved.

3.5 REVIEW AGAINST GOOD PRACTICE PRINCIPLES

3.5.1. **Table 1** sets out the review of the Development and the associated HMP against the Good Practice Principles. This review has identified that four of the Principles have been achieved, and five are on-target to be achieved; one of these relates to transparency, noting that opportunities for sharing the lessons learned on the project will be sought, the others can only be achieved once the proposed habitat restoration and creation, reaches its target habitat type and condition. Principle 2 relates to irreplaceable habitat and cannot be achieved as irreplaceable blanket bog will be permanently lost, however compensation will be provided for this, as detailed in the HMP.

TABLE 1: RECOMMENDATIONS FOR ACHIEVING GOOD PRACTICE PRINCIPLES

Principle	Outcomes	Progress
1. Apply the mitigation hierarchy	The mitigation hierarchy has been followed through the design development and EIA undertaken as part of the planning application.	Achieved
2. Avoid losing biodiversity that cannot be offset by gains elsewhere	In total 0.75ha of blanket bog which is considered irreplaceable (i.e., blanket bog recorded in moderate or good condition) will be permanently lost as result of the Development. As this is irreplaceable habitat, this cannot be offset elsewhere, however compensation for this loss will	No – but compensation is provided in line with details set out in within the

Principle	Outcomes	Progress
	be provided. The HMP details that 31.88ha of blanket bog which is currently either degraded blanket bog or blanket bog in poor or moderate condition will be restored to good condition.	EIA and HMP, planning permission granted
3. Be inclusive and equitable	Through the EIA process discussions were held with the landowner to explore and agree approaches for habitat restoration, as developed in the HMP. A Deer Management Plan (DMP[24]) will be developed to compliment the HMP, this will be produced in consultation with the landowner.	Achieved
4. Address risks	The habitat reinstatement in the areas of temporary loss will follow recognised best practice techniques to minimise the risk of damage to the soils and habitats being temporarily stored. For habitats which are reinstated, it is recommended that monitoring is undertaken to record details on condition, to ensure these areas reach their target condition, and should habitat reinstatement be unsuccessful in any location, appropriate habitat management creation / measures are designed and implemented. A monitoring programme has been set within the HMP to capture progress and identify where adaptive management may be needed.	Achieved
5. Make a measurable NG contribution	A clear goal has been made by SSER in respect of BNG: to achieve NNL on all new infrastructure projects achieving consent from 2023 onwards and NG on all new infrastructure projects achieving consent from 2025 onwards. This project is projected to a achieve a 4% net gain, along with wider positive effects for biodiversity, which will be achieved through the DMP, through a reduction in grazing pressure.	On-target
6. Achieve the best outcomes for biodiversity	The HMP sets out a detailed plan to restore blanket bog in the areas around the proposed windfarm. The measures set out in the HMP, look to target habitats which would naturally occur within the environment, namely Caledonian woodland and montane scrub, which are	On-target

[24] WSP (2024) Bhlaraidh Extension Deer Management Plan

Principle	Outcomes	Progress
	currently absent/ suppressed by grazing pressures. These habitat restoration and creation measures are in line with local and national targets.	
7. Be additional	The EIA details that to compensate for the temporary and permanent loss of blanket bog an area of 6.93 ha would need to be restored. An additional area of 24.95 ha of peatland habitat has been identified as suitable for peatland restoration within the Site and will be restored taking the total to 31.88ha. In addition to this the following measures will be provided through the HMP (which are not mitigation items): • Provision of nesting raft for black throated divers • Planting of 23.64ha of Caledonia woodland • Planting of 23.25ha of montane scrub • The woodland planting includes species which will provide a food source for black grouse and will be done appropriately to maintain areas of open ground for golden eagle foraging. The woodland and montane scrub habitats should improve habitats for golden eagle prey species, such as grouse and hares, which in turn will benefit golden eagle. • The HMP for Bhlaraidh Ext. Wind Farm will be the purchase of satellite tags, assistance in satellite tagging work within Natural Heritage Zone (NHZ) 10 and NHZ 7 and the satellite transmission costs (and/or equivalent value) for 10 years for each satellite tag as part Regional Eagle Conservation Management Plan (the "RECMP"). This HMP commits to fund between 2 and 3 satellite tags over the period of the operation of the Bhlaraidh Ext. Wind Farm. • The DMP is likely to result in wider enhancemnt to habitats through a reduction is grazing pressure. Studies have shown that even in absence of deer fencing deer culling can result in the expansion of native woodland through natural regeneration[25].	On-target

[25] Gulley et al (2023) Woodland expansion in the presence of deer: 30 years of evidence from the Cairngorms connection landscape restoration partnership. Journal of Applied Ecology https://besjournals.onlinelibrary.wiley.com/doi/10.1111/1365-2664.14501

Principle	Outcomes	Progress
8. Create a Net Gain Legacy	The combined use of the HMP and DMP will ensure net gain generates long-term benefits by adaptive management planning and dedicated funding for long-term management as detailed within the HMP and ensuring grazing pressure if reduced.	On-target
9. Optimise sustainability	All SSER projects have key Sustainability Team members within project teams from the start so Environment and Sustainability are considered at the outset. Through the design process changes were made to the design to avoid areas of deep peat and to simplify watercourse crossings. Track alignments were designed to take the most direct possible while accounting for environmental constraints. The tracks also looked to maximise use of existing infrastruction (i.e. existing tracks).	Achieved
10. Be transparent	SSER are keen to ensure that approaches following on this project are shared to ensure that any lessons learnt through the implementation of the HMP can be factored into future projects. Opportunities to share information on the project and its approach to BNG and the HMP will be sought.	On going

4 DISCUSSION AND CONCLUSIONS

4.1.1. In conclusion the BNG assessment recorded a BNG Study Area biodiversity baseline of 1692.85 BU and a Post Development value of 1761.69 BU. The Proposed Development and HMP enhancements are predicted to result in a net gain of 69.04 BU thus **achieving a quantitative scheme-wide biodiversity net gain of 4%.** From a review of the Good Practice Principles, four of the Principles are achieved, five are on target to be achieved is on-going and one cannot be achieved due to the loss of irreplaceable habitat, although the HMP provides compensation for this loss.

4.1.2. As discussed above it is noted that the 4% gain, reflects the risk multipliers applied to the difficulty and time take to create and enhance habitats. If purely assessing the value of the habitats to be created and enhanced in the absence of these multipliers, the changes in habitat type and condition represent a 40% gain in biodiversity value (with a value of 2368 BU.) Point 7 of the SSER plan for BNG is to contribute research projects and the creation of knowledge around BNG in the renewables sector. This project will be used to do this, through tracking the success of the habitat creation and enhancement and the changes in biodiversity value in time to review how the risk multipliers work in practice. As per the HMP, monitoring will be undertaken to determine the progress of the habitat creation and enhancement towards its targeted condition. By undertaking condition assessment reviews, it will be possible to track the extent of biodiversity change to determine the biodiversity value actually achieved.

4.1.3. It should also be noted that the toolkit, does not capture biodiversity enhancements relating to species which will arise from the habitat creation and restoration detailed in the HMP and additional measures that are detailed in the HMP. These are captured through qualitative assessment which has identified the following:

- With respect to species the following positive biodiversity enhancements are identified:
  - Provision of nesting raft for black throated divers;
  - The Caledonian woodland planting includes species which will provide a food source for black grouse and will be done appropriately to maintain areas of open ground for golden eagle foraging. The woodland and montane scrub habitats should improve habitats for golden eagle prey species, such as grouse and hares, which in turn will benefit golden eagle;
  - The HMP for Bhlaraidh Ext. Wind Farm will be the purchase of satellite tags, assistance in satellite tagging work within NHZ 10 and NHZ 7 and the satellite transmission costs (and/or equivalent value) for 10 years for each satellite tag as part of the RECMP. This HMP commits to fund between 2 and 3 satellite tags over the period of the operation of the Bhlaraidh Ext. Wind Farm. The RECMP" was set up in 2014 to enhance the conservation of breeding golden eagles within NHZ 10. The primary aims of this RECMP was 'to provide context to the constraints operating in this landscape and, where possible, to undertake practical conservation management actions to enhance the golden eagle population by increasing its size and productivity.' The RECMP funded a project officer for 25 years from 2014. The associated works carried out by the project officer and funded by SSE includes the establishment of territories within NHZ10 that are occupied each breeding season that are not covered by the volunteers of the local raptor study group. Although Bhlairaidh Ext. wind farm is in NHZ 7 it is immediately adjacent to NHZ10 and therefore offers an opportunity to research

golden eagle behaviour across the northern boundary of NHZ10 and southern boundary of NHZ 7.

- With respect to the DMP, further habitat enhancements to those which are been quantified are likely to occur, as result of the reduction in grazing pressure, but it is not possible to quantify the scale and extent of these:
    - Natural regeneration: The habitat surveys undertaken noted that within areas of upland heath habitat, tree growth was restricted through grazing pressure, as well as limiting the species diversity within the heath. Chapter 5 of the Bhlaraidh Extension EIA recorded 1513ha of habitat, dominated by wet heath and blanket bog. The reduction in deer grazing across this area should improve the condition of these habitats and potentially may result in further woodland establishment through natural regeneration. It is well documented that deer can affect plants, trees, and other wildlife, through the impacts of grazing, browsing and trampling and a key part of the Scottish Biodiversity Strategy is to deliver substantially reduced deer densities across Scottish landscapes[26]. It is not possible to accurately predict the extent of change that may occur as result of the deer management, in terms of scale of area over which habitat condition may change, or extent of woodland regeneration that may occur.

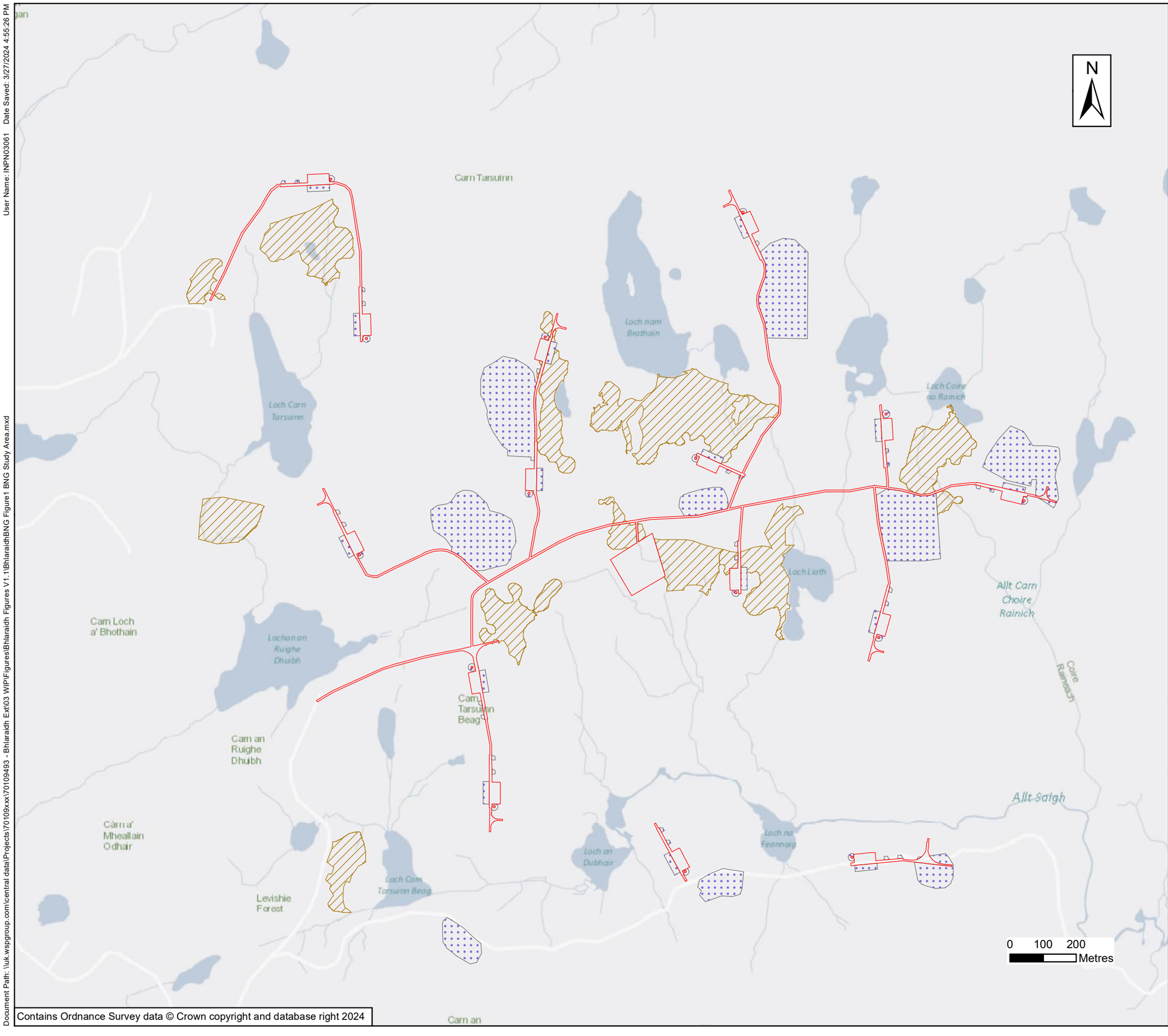
4.1.4. Taking the above into account the requirements of planning policy 18f, the quantitative and qualitative BNG assessment demonstrates that the scheme provides biodiversity enhancements, with an emphasis on enhancements for black grouse and golden eagle. In addition, although the Development was consented in advance of the requirements for adhere to Policy 3 of NPF4, it is considered that the Development and associated HMP meet with the requirements, as follows:

- *Provides significant biodiversity benefits:* As evidenced through the 4% gain documented in the toolkit, and wider habitat enhancements which will occur through the DMP, along with improved habitats for black grouse and prey species for golden eagle, nesting provision for black throated divers and contribution to the RECMP.
- *Measures should include nature networks, linking to and strengthen habitat connectivity:* The proposed Caledonian woodland and montane scrub planting, will provide closer links to woodland located to the east.
- *Management arrangements for long term retention and monitoring:* Management and monitoring is set out within the HMP and will allow the success of the habitat restoration and enhancement to be tracked against the predicted BNG values.

[26] scottish-biodiversity-strategy-2045-tackling-nature-emergency-scotland.pdf (www.gov.scot)

Appendix A

FIGURES



Contains Ordnance Survey data © Crown copyright and database right 2024

Legend

- Permanent Development Footprint
- Temporary Development Footprint
- Peatland Restoration

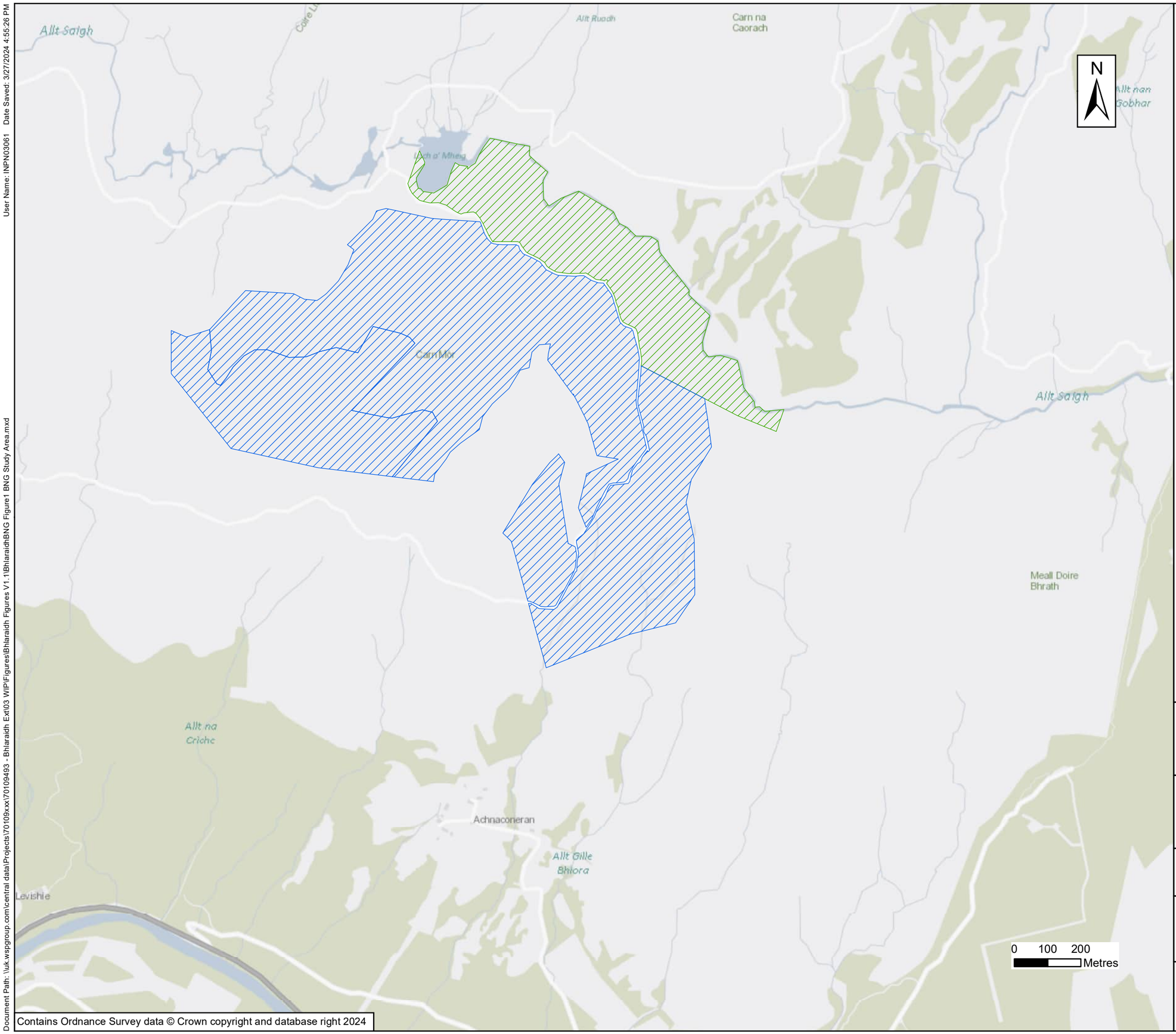
wsp

Client: SSER

Project: Bhlaraidh Extension BNG

Title: Figure 1: BNG Overview Sheet 1 of 2

Drawing No:	Figure 2	Drawn:	SMS
Date:	3/27/2024	Checked:	SK
Scale:	11,000 @ A3	Approved:	AG



Legend

- Montane Scrub Restoration
- Caledonian Woodland Restoration

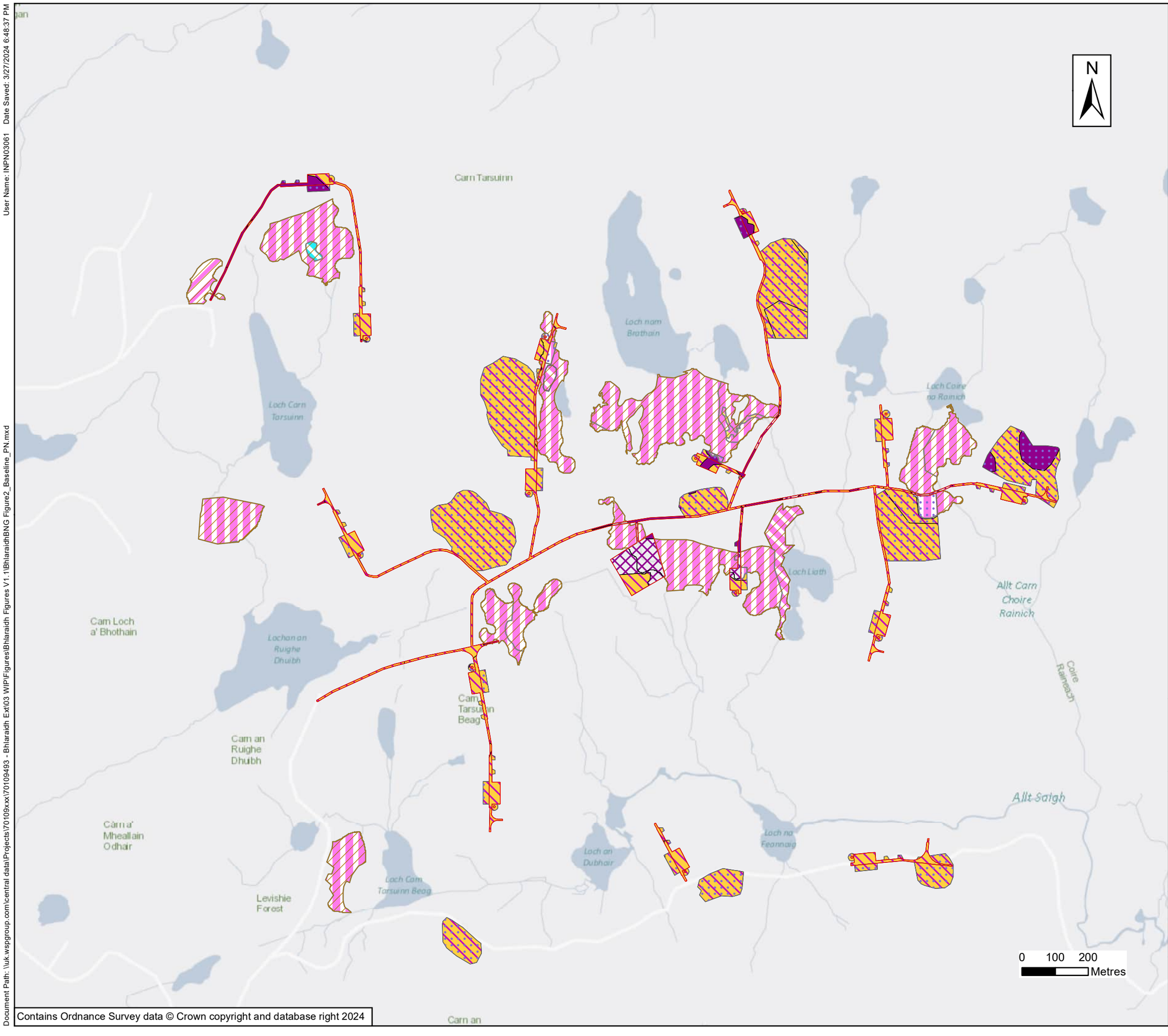
wsp

Client: SSER

Project: Bhlaraidh Extension BNG

Title: Figure 1: BNG Overview Sheet 2 of 2

Drawing No:	Figure 2	Drawn:	SMS
Date:	3/27/2024	Checked:	SK
Scale:	11,000 @ A3	Approved:	AG



Legend

- Permanent Development Footprint
- Temporary Development Footprint
- Peatland Restoration

Baseline Habitats

- E1.7 - Wet modified bog
- D2 - Wet dwarf shrub heath
- E1.6.1 - Blanket sphagnum bog
- f1a - blanket bog
- f1a5 - blanket bog (H7130)
- f1a6 - degraded blanket bog
- f2b - purple moor grass and rush pasture
- r1c - oligotrophic and dystrophic lakes

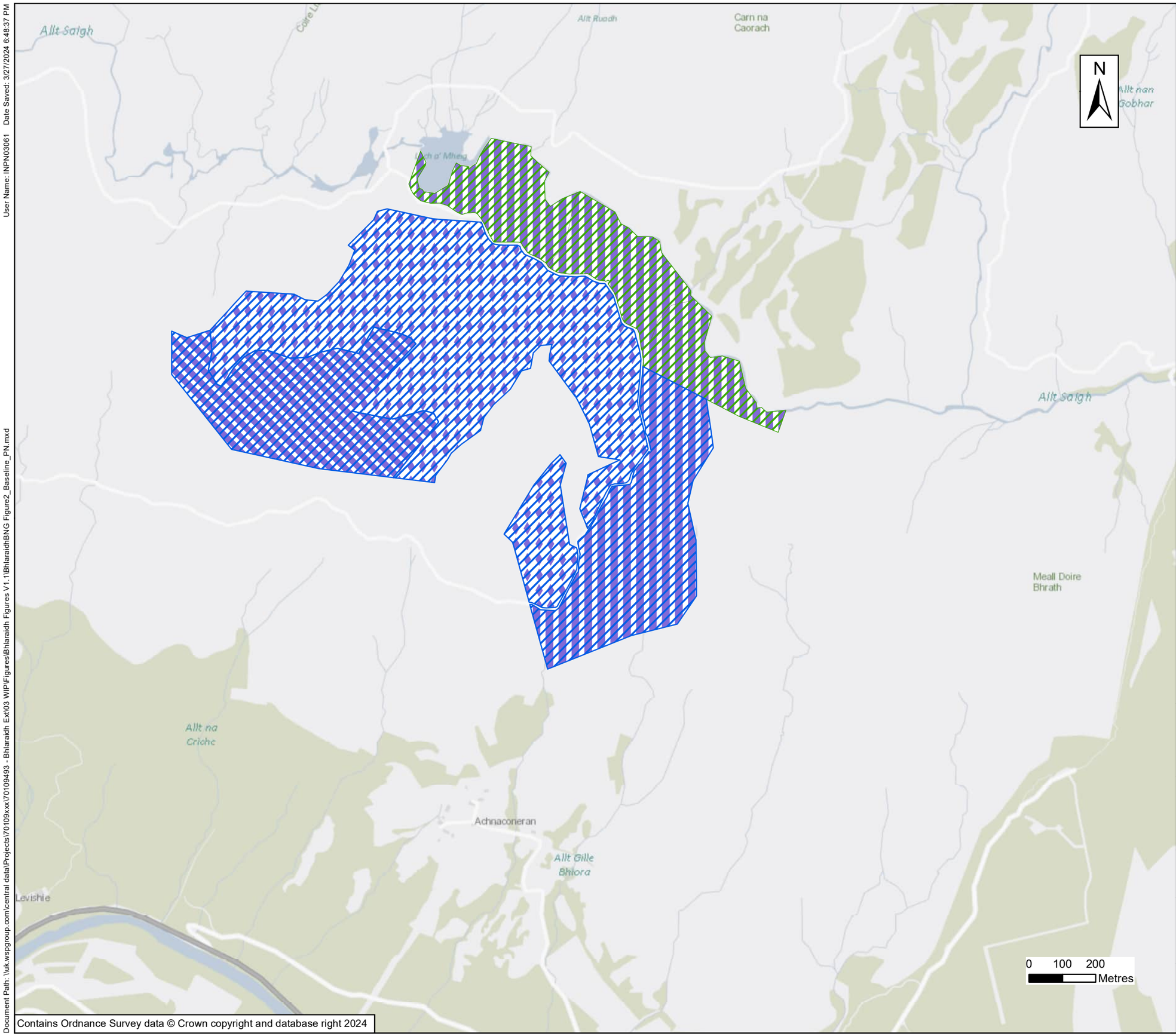
wsp

Client: SSER

Project: Bhlaraidh Extension BNG

Title: Figure 2 BNG: Habitat Baseline Sheet 1 of 2

Drawing No:	Figure 2	Drawn:	SMS
Date:	3/27/2024	Checked:	SK
Scale:	11,000 @ A3	Approved:	AG



Legend

- Montane Scrub Restoration
- Caledonian Woodland Restoration

Baseline Habitats

- f1a5 - blanket bog (H7130)
- h1b - upland heathland
- h1b5 - dry heaths, upland (H4030)
- h1c - mountain heaths and willow scrub

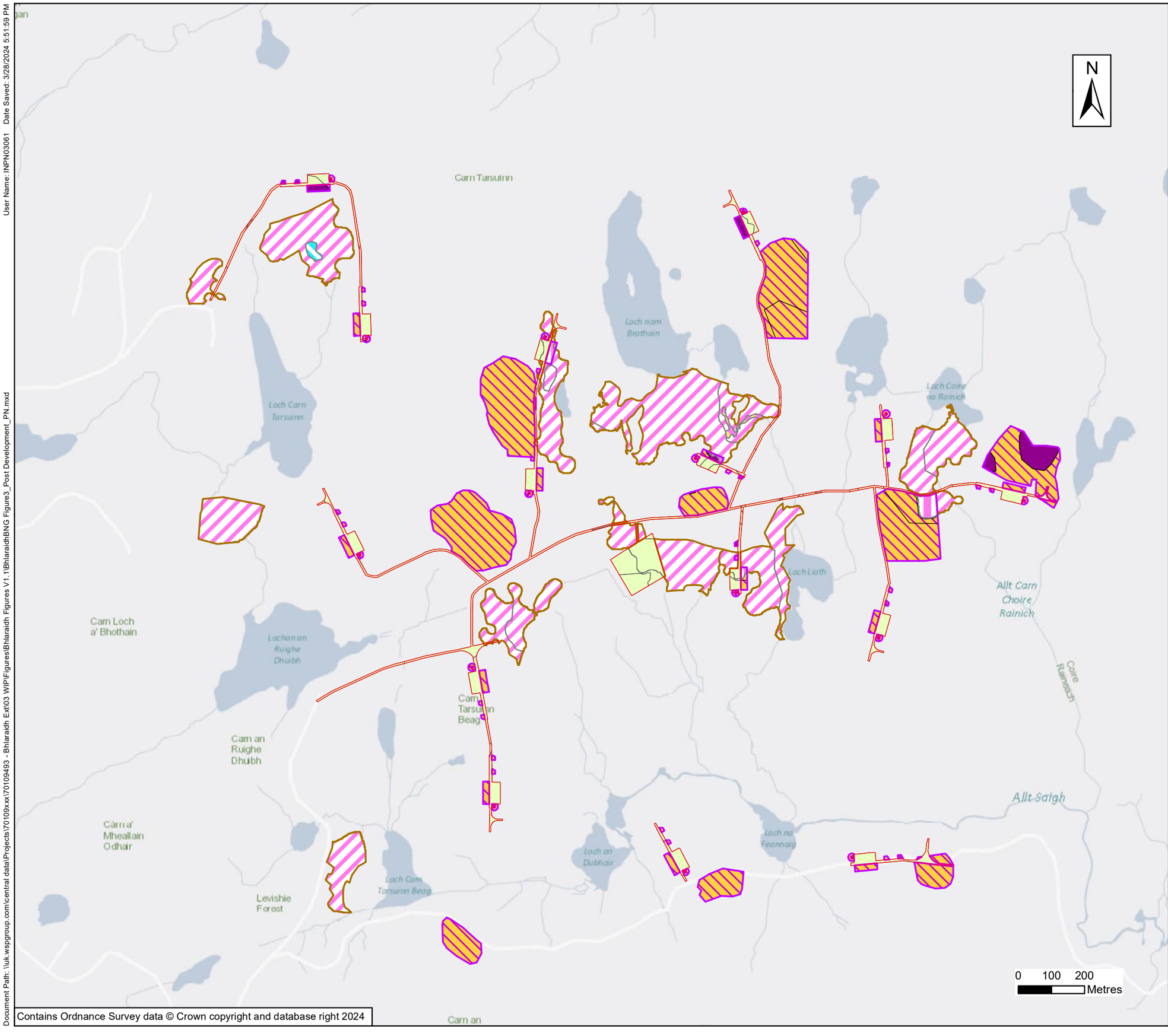
wsp

Client: SSER

Project: Bhlaraidh Extension BNG

Title: Figure 2 BNG: Habitat Baseline Sheet 2 of 2

Drawing No:	Figure 2	Drawn:	SMS
Date:	3/27/2024	Checked:	SK
Scale:	11,000 @ A3	Approved:	AG



Legend

- Permanent Development Footprint
- Temporary Development Footprint
- Peatland Restoration

Post Development Habitat

- J5 - Other
- E1.7 - Wet modified bog
- D2 - Wet dwarf shrub heath
- E1.6.1 - Blanket sphagnum bog
- f1a5 - blanket bog (H7130)
- f1a6 - degraded blanket bog
- f2b - purple moor grass and rush pastures
- r1c - oligotrophic and dystrophic lakes

wsp

Client: SSER

Project: Bhlaraidh Extension BNG

Title: Figure 3: Post Development Habitats Sheet 1 of 2

Drawing No:	Figure 3	Drawn:	SMS
Date:	3/28/2024	Checked:	SK
Scale:	11,000 @ A3	Approved:	AG

Allt Saigh
Allt Ruadh
Carn na Caorach
Allt nan Sobhar
Allt Saigh
Meall Doire Bhrath
Allt na Criche
Achnaconeran
Allt Gille Bhiora
Levishie

N

0 100 200 Metres

Legend

- Montane Scrub Restoration
- Caledonian Woodland Restoration h1c/
- h1bc- mountain heaths and willow scrub and mosaic and dry heaths, upland mosaic
- w2a - native pine woodlands

wsp

Client: SSER

Project: Bhlaraidh Extension BNG

Title: Figure 3: Post Development Habitats Sheet 2 of 2

Drawing No:	Figure 3	Drawn:	SMS
Date:	3/28/2024	Checked:	SK
Scale:	11,000 @ A3	Approved:	AG

110 Queen Street
Glasgow
G1 3BX

wsp.com