

NATIONAL GRID ELECTRICITY TRANSMISSION

To

BARNLEY METROPOLITAN BOROUGH COUNCIL

UNILATERAL UNDERTAKING

in relation to the
proposed Peak East Visual Impact Provision (VIP) Project works
relating to land of Brook Hill Lane, Dunford Bridge, Barnsley, Sheffield
(including Wogden Foot LWS & River Don/Trans Pennine Trail)

Planning application: 2019/1013

THIS UNDERTAKING is given the day of
2020

10

September 2020

BY

- (1) **NATIONAL GRID ELECTRICITY TRANSMISSION** plc whose registered office is at 1-3 Strand, London, WC2N 5EH (England & Wales Company Number 2366977) ("National Grid") which expression shall include its successors in title, permitted assigns and permitted transferees

To

- (2) **BARNSELY METROPOLITAN BOROUGH COUNCIL** of 1 Westgate Plaza, Western St, Barnsley S70 2DR (The Council)

Background

- (A) National Grid is the operator for the national electricity transmission system in England and Wales. It is delivering the Visual Impact Provision (VIP) Project to conserve and enhance the natural beauty, wildlife and environmental heritage within some of the most protected landscapes.
- (B) One of the landscapes selected for VIP is an existing section of the 2KM overhead line in the area of Dunford Bridge. The section of overhead line runs from a Sealing End Compound at the eastern entrance of the Woodhead tunnel at Dunford Bridge, along the River Don Valley continuing east to the area of Wogden Foot, south west of the hamlet of Carlecotes.
- (C) The Council is the local planning authority for the purposes of the 1990 Act for the area within which the Property is situated.
- (D) National Grid is the registered proprietor of freehold interest in the land registered at the Land Registry under the title number as set out in Schedule 3
- (E) National Grid intends to secure the necessary land rights to carry out the development.
- (F) National Grid has submitted the Application to the Council reference 2019/1013 and it has been agreed that National Grid will enter into this Undertaking to secure the planning obligations contained in this Undertaking.
- (G) National Grid has agreed to complete works and make the appropriate contribution to secure the delivery of Biodiversity Net Gain as set out in this Undertaking.
- (H) This Undertaking is made pursuant to the provision of the 1990 Act.

OPERATIVE PROVISIONS

1. DEFINITIONS

1.1 In this Undertaking:

"Application" means the application for full planning permission submitted to the Council for the Development and allocated reference 2019/1013;

"Applied" means allocated to a particular topic of expenditure in accordance with with paragraph (2) of Schedule 2 hereto which on request will be confirmed in writing by the Council

"Biodiversity Net Gain Assessment" means the Visual Impact Provision (VIP), Peak District (East) Project, Metric 2.0 Biodiversity Net Gain Assessment of April 2020;

"Commencement of Development" means the date on which any material operation (as defined in Section 56(4) of the 1990 Act) forming part of the Development begins to be carried out other than (for the purposes of this Undertaking and for no other purpose) operations consisting of land clearance, archaeological investigations, investigations for the purpose of assessing ground conditions, erection of any temporary means of enclosure, the temporary display of notices or advertisements and "Commence Development" shall be construed accordingly;

"Compensatory Financial Contribution" means the sum calculated in accordance with Schedule 1, paragraph 2 which is to be used for the purposes of ecological and landscape enhancement as set out in Schedule 2.

"Crow Edge Site Outline Habitat Management Plan" means the management plan attached to this Unilateral Undertaking as Appendix 1, (or such revised or updated Plan as may be approved by the Council, (such approval not to be unreasonably withheld).

"Development" means the Development of the works as set out in the Application, namely the construction of a new sealing compound, including permanent access roads, a temporary haul road from Brook Hill Lane including widened bellmouth, a temporary Trans Pennine Trail Diversion to be used for approximately 12-18 months; following construction approximately 410m of said diversion surface to would be retained permanently; and election of two bridges (one temporary and one permanent) along the Trans Pennine Trail diversion; Temporary works to facilitate road works and construction access.

"Disputes Procedure " means the procedure set in in clause 8 hereto

"Index" means the 12 (twelve) month percentage change in the All Items Retail Price Index published by the Office for National Statistics contained in the Monthly Digest of Statistics (or contained in any official publication substituted therefore) or such other index as may from time to time be published in substitution therefore;

"Interest" interest at 4 per cent above the base lending rate of the Lloyds Bank PLC from time to time.

"LEMP" means the Outline Landscape and Ecological Management Plan dated July 2019 (or such revised or updated Plan as may be approved by the Council, such consent not to be unreasonably withheld).

"Plan" means the plan attached to this Undertaking.

"Planning Permission" means the planning permission to be granted pursuant the Application.

"Property" means the land registered at the Land Registry under the title number as set out in Schedule 3

"Site" means the land shown edged red on the drawing number 'Appendix A' contained within the Crow Edge Outline Habitat Management Plan, (or such other site as may be agreed between National Grid and the Council, such consent not to be unreasonably withheld).

"Unilateral Undertaking" means this deed

"Working Day" means a day (other than a Saturday or Sunday) on which banks are open for domestic business in the City of London.

"1990 Act" means the Town and Country Planning Act 1990 (as amended).

2. INTERPRETATION

- 2.1 The headings in this Undertaking are for convenience only and shall not be taken into account in the construction and interpretation of this Undertaking.
- 2.2 References in the Undertaking to Clauses are (unless otherwise expressly provided) references to relevant Clauses contained in this Undertaking.
- 2.3 References in this Undertaking to any statutes or statutory instruments include any statute or statutory instrument amending, consolidating or replacing them respectively from time to time in force, and references to a statute include statutory instruments, regulations and codes of practice made pursuant to it.
- 2.4 Words importing the singular meaning where the context so admits include the plural meaning and vice versa.
- 2.5 Words of the masculine gender include the feminine and neuter genders and words denoting actual persons include companies, corporations and firms and all such words shall be construed interchangeable in that manner.
- 2.6 Wherever there is more than one person named as a party and where more than one party undertakes an obligation all their obligations can be enforced against all of them jointly and severally unless there is an express provision otherwise.
- 2.7 Any reference to an Act of Parliament shall include any modification, extension or re-enactment of that Act for the time being in force and shall include all instruments, orders, plans, regulations, permissions and directions for the time being made, issued or given under that Act or deriving validity from it.

3. LEGAL BASIS

- 3.1 This Undertaking is made pursuant to S106 of the 1990 Act, Section 111 of the Local Government Act 1972 and section 2 of the Localism Act 2011 and all other enabling powers and enactments that are relevant.
- 3.2 The covenants, restrictions and requirements imposed upon National Grid under this Undertaking create planning obligations pursuant to Section 106 of the 1990 Act which bind the Property and are enforceable by the Council as a local planning authority against National Grid or its successors.

4. CONDITIONALITY

- 4.1 This Undertaking shall come into force on the date hereof but is conditional upon the grant of the Planning Permission.
- 4.2 This Undertaking shall cease to have effect (insofar only as it has not already been complied with) if Planning Permission shall be quashed, revoked or otherwise withdrawn or (without the consent of National Grid) it is modified by any statutory procedure save for any modification pursuant to section 73 or section 96A of the 1990 Act or expires prior to the Commencement of Development.
- 4.3 The provisions of this Undertaking (other than this clause which shall be of immediate effect) shall be of no effect until this Undertaking has been dated.

5. NATIONAL GRID'S UNDERTAKINGS

- 5.1 Subject to the terms of this Undertaking, National Grid undertakes with the Council that:
 - 5.1.1 Notification of Commencement - National Grid will not Commence Development until it has served notice on the Council clearly addressed and marked for the attention of the Council's S106 programme officer or such alternative officer as the Council may notify to National Grid in writing giving not less than 10 working days Notice of the date planned for the Commencement of Development.
 - 5.1.2 Delivery of Biodiversity Net Gain - National Grid will deliver Biodiversity Net Gain in accordance with the provisions of Schedule 1

6. MISCELLANEOUS

- 6.1 No provisions of the Undertaking be enforceable under the Contracts (Rights of Third Parties Act) 1999.
- 6.2 This Undertaking shall be registered as a local land charge by the Council.
- 6.3 Where the agreement, approval, consent or expression of satisfaction is required by National Grid from the Council under the terms of this Undertaking such agreement, approval or consent or expression of satisfaction shall not be unreasonably withheld or delayed and any such agreement, consent approval or expression of satisfaction shall be given on behalf of the Council by the Head of the Planning Development Management or other appropriate manager or delegated officer within the Council and any notices shall be deemed to have been properly served if sent by recorded delivery to the principal address or registered office (as appropriate) of the relevant party.
- 6.4 Insofar as any clause or clauses of this Undertaking are found (for whatever reason) to be invalid illegal or unenforceable then such invalidity illegality or unenforceability shall not affect the validity or enforceability of the remaining provisions of this Undertaking.

- 6.5 No person shall be liable for any breach of any of the planning obligations or other provisions of this Undertaking after it shall have parted with its entire interest in the Property but without prejudice to liability for any subsisting breach arising prior to the parting with such interest.
- 6.6 Unless specifically stated otherwise nothing in this Undertaking shall prohibit or limit the right to develop any part of the Property in accordance with a planning permission (other than the Planning Permission) granted (whether or not on appeal) after the date of this Undertaking.
- 6.7 Nothing contained or implied in this Undertaking shall prejudice or affect the rights, discretions, powers, duties and obligations of the Council under all statutes, byelaws, statutory instruments, orders and regulations in exercise of their functions as a local authority.

7. WAIVER

- 7.1 No waiver (whether express or implied) by the Council of any breach or default in performing or observing any of the covenants terms or conditions of this Undertaking shall constitute a continuing waiver and no such waiver shall prevent the Council from enforcing any of the relevant terms or conditions or from acting upon any subsequent breach or default.

8. RESOLUTION OF DISPUTES

- 8.1 In the event of any Dispute arising between the parties then the parties will attempt to resolve that Dispute amicably including holding a meeting attended by at least one representative from each party.
- 8.2 If the parties are unable to resolve the Dispute amicably pursuant to clause 9.1, one party may by serving notice on all the other parties (the "Notice") refer the Dispute to an Expert for determination.
- 8.3 The Notice must specify:-
- 8.3.1 the nature, basis and brief description of the Dispute;
 - 8.3.2 the clause or paragraph of this Deed pursuant to which the Dispute has arisen;
and
 - 8.3.3 the proposed Expert.
- 8.4 In the event that the parties are unable to agree whom should be appointed as the Expert within 10 Working Days after the date of the Notice then either party may request the President of the Law Society to nominate the Expert at their joint expense, and the parties shall request that such nomination shall be made within 10 Working Days of the request, and any failure for such nomination to be made within 10 Working Days shall entitle any party to withdraw from the process of appointing an Expert and to refer the Dispute to the courts of England and Wales instead.

- 8.5 The Expert shall act as an expert and not as an arbitrator and his decision will (in the absence of manifest error) be final and binding on the parties hereto and at whose cost shall be at his discretion or in the event that he makes no determination, such costs will be borne by the parties to the Dispute in equal shares.
- 8.6 The Expert will be appointed subject to an express requirement that he reaches his decision and communicates it to the parties within the minimum practicable timescale allowing for the nature and complexity of the dispute and in any event not more than 20 Working Days from the date of his appointment to act.
- 8.7 The Expert will be required to give notice to each of the said parties inviting each of them to submit to him within 10 Working Days written submissions and supporting material and will afford to each of the said parties an opportunity to make counter submissions within a further 5 Working Days in respect of any such submission and material.

9. INDEXATION

- 9.1 Any sum referred to in this Undertaking shall be increased by an amount equivalent to the increase in the Index from the date of this Undertaking until the date on which such sum is payable.

10. INTEREST

- 10.1 If any payment due under this Undertaking is paid late, Interest will be payable from the date payment is due to the date of payment.

11. VAT

- 11.1 All consideration given in accordance with the terms of this Undertaking shall (unless otherwise stated) be exclusive of any value added tax properly payable.

12. CONTRACTS (RIGHTS OF THIRD PARTIES) ACT 1999

- 12.1 This Undertaking is entered into solely on the basis that only National Grid and the Council may enforce the terms of this Undertaking and no third party may enforce such a term under the Contracts (Rights of Third Parties) Act 1999.

13. OTHER CONSENTS

- 13.1 Nothing in this Undertaking prohibits or limits the rights of National Grid to use or repair, replace, maintain, or remove any part of the Property under the consents already in place and/or in accordance with and to the extent permitted by a certificate of lawful use, planning permission, or other statutory authority granted, made or which came into force before or after the date of this Deed.

14. GOVERNING LAW AND DISPUTES

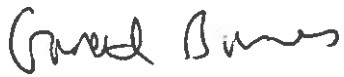
- 14.1** This application and interpretation of this Undertaking shall in all respects be governed by English Law.
- 14.2** The English courts shall have exclusive jurisdiction to determine any dispute or difference arising in connection with this Undertaking save that any decision, judgement or award of such courts may be enforced in the courts of any jurisdiction.

Delivered as a deed on the date of this document.

EXECUTION PAGE

Signed as a Deed by NATIONAL GRID ELECTRICITY TRANSMISSION LIMITED

acting by Authorised Signatory

A handwritten signature in black ink, appearing to read "Gerald Barnes".

in the presence of

A handwritten signature in black ink, appearing to be a stylized "B" followed by a flourish.

SCHEDULE 1

NATIONAL GRID'S COMMITMENTS TO ENSURE THE DELIVERY OF BIODIVERSITY NET GAIN

Part 1

Delivering Biodiversity Net Gain

1 The Commitment to Works.

1.1 Crow Edge - National Grid undertakes to:-

- 1 Create, and**
- 2 Manage and maintain**

the Site as set out in accordance with the specifications set out in Part 2 of this Schedule.

1.2 LEMP - National Grid undertakes to implement the LEMP in accordance with the terms and provisions contained within it.

1.3 National Grid will submit a written Monitoring Report to the Council for its approval in accordance with Part 3 of this Schedule:-

(a) in the year of the fourth, ninth, fourteenth, nineteenth, and twenty fourth anniversary of the Commencement of Development on the outcome of the management of the Site.

(b) in last quarter of the twenty fourth year after the Commencement of Development

on the outcome of the management of the Site.

1.4 In the event of any identified or anticipated shortfall in the intended biodiversity net gain in any of the Reports made in accordance 1.2 above then National Grid will inform the Council of any reasonable proposed additional actions and/or works to secure the intended outcomes to deliver biodiversity net gain.

1.5 If within 20 Working Days of the notification given under paragraph 1.4 the Council has not commented or asked to discuss the proposed works or actions with National Grid then the works or actions may be carried out by National Grid at such time and in such a manner as it shall in its own discretion decide.

1.6 If within 20 Working Days of the said notification the Council has commented or asked to discuss the proposed works or actions with National Grid then National Grid and the Council shall work together with a view to reaching agreement on future management requirements, all parties acting reasonably and any consents required not to be unreasonably withheld.

1.7 In the event that:-

- (i) National Grid is unable to propose additional actions and or works under paragraph 1.3, or**
- (ii) National Grid and the Council are unable to reach agreement about additional works under paragraph 1.5**

and there is a continuing shortfall in the provision of biodiversity net gain then Paragraph 2 below shall apply.

2 The Compensatory Financial Contribution

2.1 In the event that the Council acting reasonably, notifies National Grid that the intended Biodiversity Net Gain is not reasonably capable of being delivered then the Council will:-

- (i) within 20 Working Days of reaching that conclusion notify National Grid in writing or by email that the Compensatory Financial Contribution will be paid,
- (ii) within 20 Working Days of that notification pay the Compensatory Financial Contribution in accordance with the calculation in 2.2 below.

2.2 The Compensatory Financial Contribution shall be the amount calculated as follow :-

- (i) the maximum sum of £15,000 per biodiversity unit as calculated in accordance with the DEFRA Biodiversity Metric v2.0, and set out in Appendix G of the Biodiversity Net Gain Assessment, amounting to a maximum Compensatory Financial Contribution of £1,308,750, and
- (ii) the maximum Compensatory Financial Contribution shall be reduced pro rata by the number of biodiversity units that have been delivered as
- (iii) identified in any approved Monitoring Report (approved in accordance with Part 3)

Part 2 - Crow Edge

Habitat Management will be carried out in accordance with the specification set out in Chapters 4, 5, and 6 of the Crow Edge Site Outline Habitat Management Plan

Part 3 - Monitoring Report

Monitoring Reports will be prepared in accordance with:-

- (i) the specification set out in Chapter 7 of the Crow Edge Site Outline Habitat Management Plan, and
- (ii) Chapter 6 of the LEMP
 - 1.
- (iii) Will set out what has been achieved in terms of biodiversity net gain compared with what was planned to be achieved in accordance with the Crow Edge Site Outline Habitat Management Plan and the LEMP and
 - 2.
- (iv) If there is a shortfall between what was planned and what has been achieved the Monitoring Report will set out the shortfall in terms of biodiversity units.
 - 3.

(v) The Council will have 20 Working Days to either approve the Monitoring Report or to respond in writing identifying any discrepancies in the report and if no response is given within the said 20 Working Days the Monitoring Report will be deemed to be approved.

4.

(vi) In the event that the Council responds detailing any discrepancies in the Monitoring Report the parties will liaise and endeavour to reach agreement within a further 20 Working Days such that the Monitoring Report is approved by the Council

5.

(vii) If the Monitoring report remains un-approved by the Council within the said further 20 Working Days (or such longer period as may be agreed between the parties) either party may refer the matter to the Disputes Procedure

SCHEDULE 2
WORKS TO BE UNDERTAKEN BY THE COUNCIL

The Compensatory Financial Contribution (if any) shall be used as follows:-

- (1)** Applied for any works or projects as shall be decided by the Council as representing the next most appropriate use of the funds to secure Biodiversity Net Gain within their administrative area,
- (2)** and any sums which are not Applied to appropriate works or a relevant project (decided by the Council) within 24 months of payment shall be returned to National Grid.

SCHEDULE 3 PROPERTY

1.1 The Property:-

1.1.1 is the Dunford Bridge Cable Sealing End compound registered at the Land Registry under Title Number SYK56438 and described as land lying to the North West of Windle Edge, Dunford Bridge, Sheffield,

1.1.2 until such time as the Council transfers the freehold title to land required for the Wogden Foot Cable Sealing End Compound shown within the Development which shall then become the Property.

1.2 For the avoidance of doubt once National Grid becomes the owner of the land required for the Wogden Foot Cable Sealing End Compound then the obligations of this Unilateral Undertaking previously attached to the Dunford Bridge Cable Sealing End Compound shall attach instead to the land required for the Wogden Foot Cable Sealing End Compound.

1.3 For the further avoidance of doubt the obligations of this Unilateral Undertaking shall cease to attach to the Dunford Bridge Cable Sealing End Compound once they have transferred the land required for the Wogden Foot Cable Sealing End Compound.

APPENDIX 1

Crow Edge Site Outline Habitat Management Plan

Visual Impact Provision (VIP)

Peak District (East) Project

Banks Renewables Crow Edge Site Outline Habitat
Management Plan

National Grid

April 2020

Quality information

Prepared by	Checked by	Verified by	Approved by
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Revision History

Revision	Revision date	Details	Prepared by	Reviewed by	Approved by
1	24 th April 2020	FINAL	CH	CM	RP
2					

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The conclusions and recommendations contained in this Report take into account information provided by the Client about the Proposed Project and upon the assumption that all relevant information has been provided by those parties from whom it has been requested and that such information is accurate. Information obtained by AECOM has not been independently verified by AECOM, unless otherwise stated in the Report.

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Where field investigations are carried out, these have been restricted to a level of detail required to meet the stated objectives of the services. The results of any measurements taken may vary spatially or with time and further confirmatory measurements should be made after any significant delay in issuing this Report.

This report has been prepared and provided in accordance with the Code of Professional Conduct of the Chartered Institute of Ecology and Environmental Management.

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1. Introduction

- 1.1.1. AECOM Ltd was commissioned by National Grid to produce an Outline Habitat Management Plan (OHMP) for a site at Crow Edge in the parish of Dunford Bridge, South Yorkshire. This forms part of the supporting documents to demonstrate how the commitment to at least a 10% biodiversity net gain is being achieved and delivered for the Peak District (East) Visual Impact Provision (VIP) Project (herein terms as the Proposed Project) as detailed in Chapter 2 of the Environmental Assessment Report (EAR).
- 1.1.2. It is UK Government policy that planning decisions should minimise impacts on and provide net gain for biodiversity (National Planning Policy Framework 2019). The Local Plan for Barnsley¹ states that one of its objectives is to protect and enhance Barnsley's environmental assets and achieve net gains in biodiversity. It also states that Barnsley Council will seek to protect, maintain, enhance and create, an integrated network of connected and multi-functional Green Infrastructure assets.
- 1.1.3. The Environment Bill, published by the UK Government in October 2019² and reintroduced into parliament (January 2020), includes proposals to make Biodiversity Net Gain a mandatory requirement within the planning system in England. Once enshrined in law it will require all developments³ to achieve a minimum of 10% net gain in biodiversity units relative to the site's baseline biodiversity.
- 1.1.4. This OHMP provides the level of detail required to provide the necessary assurances on how the offsite biodiversity net gain calculations detailed in the accompanying Visual Impact Provision – Peak East Update on Metric 2.0 Biodiversity Net gain Assessment will be achieved. At this point it does not include full prescriptive details. These details would follow in a Detailed Habitat Management Plan to be produced following the grant of planning permission for the Proposed Project.
- 1.1.5. The location and details of the proposed Crow Edge Enhancement Site (herein termed as the Site), are provided in Section 2, current habitats and their condition outlined in Section 3, principles for habitat management set out in Section 4, future habitats and their condition outlined in Section 5, year based actions presented in Section 5 and monitoring and reporting summarised in Section 6. A UK Habitat Classification Map is included as Appendix A and a detailed Habitat Description and Condition Assessment Table presented as Appendix B. A representative set of photographs of the Site are included in Appendix C.

¹ Barnsley Local Plan (January 2019)

² Environment Bill (2019). The House of Commons, 15 October 2019.

³ All development within the scope of the Town & Country Planning Act

2. Site Location and Details

- 2.1.1. The Site (as shown on Appendix A) comprises 13.52 hectares of unenclosed upland to the south east of the Banks Renewables Hazelwood Wind Farm at Crow Edge, near Sheffield. The Site is located approximately 1.5km north east of the Proposed Project and lies between the A616 to the north east and the B106 (Bents Road) at the south; being accessible by a single public footpath from either road. The Site is located within the Dunford Parish, within Barnsley Metropolitan Borough, South Yorkshire.
- 2.1.2. The Site is characterised by flat topography on higher ground in the north, near the operational boundary of the Hazelwood Wind Farm; with land sloping down towards enclosed agricultural pasture in the surrounding lowland farmed landscape to the south.
- 2.1.3. The elevation of the site ranges from 314m at the road to the south to 331m at the northern boundary. The central grid reference is SE18565 04150. The Site is entirely owned by Banks Renewables.

3. Current Habitats and Condition

3.1.1. Current habitats have been mapped and are shown on the UK Habitat Classification Map at Appendix A.

3.1.2. In summary, the 13.52ha of habitats present on Site comprise:

- 10.04ha of heathland and acid grassland mosaic;
- 3.17ha of young conifer dominated mixed woodland;
- 0.28ha of mixed, young self-seeded birch (*Betula* spp.) woodland; and
- A small 0.03ha pond surrounded by soft rush (*Juncus effusus*).

3.1.3. These habitats have been separated in eight habitat units (HU). The condition of the habitats in each HU is described in detail in Appendix B. Photographs illustrating the current condition of habitats on Site are shown in Appendix C.

3.1.4. Most of the Site supports Priority Habitat upland heathland dominated by heather (*Calluna vulgaris*) of moderate age; and acid grassland communities dominated either by wavy hair grass (*Deschampsia flexuosa*) or mat grass (*Nardus stricta*). There is a small area of recently self-seeded birch woodland at the south-eastern boundary of the Site. A larger area of mixed woodland occupies most of the north east part of the site. This woodland would appear to have originated from planting and is dominated by non-native conifer; with a smaller component of native broadleaved species, principally birch and alder (*Alnus glutinosa*).

3.1.5. The condition of heathland and acid grassland mosaic habitat on the Site has been assessed against the Defra Metric 2.0 Condition Assessment Guidance for Heathland Habitats with results detailed in Appendix B. The majority of heathland mosaic habitat has been assessed as currently being in Moderate condition; meeting criteria for cover of dwarf shrubs and supporting heather which does not show signs of detrimental management practices such as cutting and burning of sensitive areas, or over-grazing of heather shoots.

3.1.6. The principal threat to the heathland mosaic habitat on Site has been identified as the current encroachment by self-seeding conifer and birch trees as well as the presence of the non-native invasive species rhododendron; which, without management, are expected to increase; further shading out and suppressing dwarf shrub and acid grassland species in the course of succession to woodland and invasive scrub. A small area of heathland at the eastern boundary has been assessed as currently being in Poor condition, due to the particularly high cover of self-seeded trees and scrub encroaching from the nearby woodland.

3.1.7. The Site appears to be currently unmanaged apart from essential health and safety works and, in addition to a public footpath, is crossed by several unofficial un-made footpaths used by the public for exercise and dog walking. The public footpath appears to easily become water-logged in places, resulting in its widening through the adjacent heathland and grassland vegetation, potentially resulting in trampling damage to dwarf shrub species.

3.1.8. The condition of woodland habitats on the Site has been assessed against the Defra Metric 2.0 Condition Assessment Guidance for Woodland Habitats with results detailed in Appendix B. The condition of both areas of woodland has currently been assessed as Fairly Poor; the small area of self-seeded birch being very recently established and lacking in species, structural and age diversity; and the much larger area of mixed woodland being dominated by non-native conifer species of similar age.

4. Principles for Habitat Management

4.1.1. The primary focus of management is to achieve an improvement in condition of each of the eight HUs on Site, with the exception of the small pond which is a non-priority habitat.

4.1.2. The principles underpinning this OHMP are as follows;

- To promote appropriate management of habitats on Site appropriate to the setting in South Yorkshire;
- To preserve and enhance the existing habitats on Site of wildlife value for a prescribed period of time;
- To remove invasive non-native species;
- To avoid introducing or encouraging species that are inappropriate in the South Yorkshire context; and
- To achieve a biodiversity net gain for the Peak District (East) VIP Project in excess of 10%.

4.1.3. The level of improvement to be achieved through implementation of this management plan is summarised in Table 1 below.

Table 1: Site at Crow Edge – Current and Target Habitat Condition for each Habitat Unit (HU)

Plot ID (AECOM)	Area (ha)	UK Habitat Classification	Current Habitat Condition	Target Habitat Condition
HU1&2	5.141083	Heathland and scrub – Upland heathland	Moderate	Good
HU3	0.283935	Woodland and forest - Other lowland mixed deciduous woodland	Fairly Poor	Fairly Good
HU4	3.171496	Woodland and forest – other woodland; mixed	Fairly Poor	Fairly Good
HU5	0.155682	Heathland and scrub – Upland heathland	Moderate	Good
HU6	0.283701	Heathland and scrub – Upland heathland	Poor	Moderate
HU7	0.170531	Heathland and scrub – Upland heathland	Moderate	Good
HU8	4.291428	Heathland and scrub – Upland heathland	Moderate	Good
HU1a	0.029227	Pond (non-priority habitat)	Moderate	Moderate
Total Area	13.527083			

Heathland

- 4.1.4. One of the condition assessment criteria in the Defra Metric 2.0 Condition Assessment Guidance for Heathland Habitats is that a range of age classes of heather is indicative of good condition; with cover of young (pioneer stage) heather between 10% and 15% and cover of old (late mature/degenerate stages) between 10% and 30%.
- 4.1.5. Although all age classes of heather are present on Site; most of the heather is currently of moderate age, with pioneer and degenerate stages each representing less than 10% of heather cover overall.
- 4.1.6. Whilst, over time, natural succession without grazing or other management pressure is likely to increase the diversity of heather age range; as the currently moderate-aged plants reach late-mature and degenerate stages of growth and current pioneer stage heather reaches maturity; without management, the opportunity for pioneer heather to establish is likely to be impeded by encroaching self-seeded trees and scrub.
- 4.1.7. Removal of scrub, self-seeded trees and invasive species will halt succession to woodland and scrub and provide gaps in the heather canopy allowing new pioneer growth of heather. Additional small areas of turf-stripping in acidic grassland areas around more isolated patches of dwarf shrubs will also provide opportunities for the spread of pioneer heather growth via seed from existing heather plants on Site. Although dwarf shrub species such as bilberry (*Vaccinium myrtillus*) and crowberry (*Empetrum nigrum*) are present on Site in addition to heather – they are at much lower cover levels. The introduction of Site or other locally sourced seed/propagules of these species to parts of the Site with lower dwarf shrub species diversity, notably where trees are removed, would provide opportunity to increase the diversity of heathland vegetation species composition overall.

Woodland

- 4.1.8. Progressive thinning of the similar-aged dominant non-native conifer woodland canopy will create gaps in the woodland canopy and allow establishment of young native tree and shrub species, including by natural regeneration; diversifying the species composition, age and structure of the woodland. This will be supplemented by limited planting of native, deciduous tree and shrub species local to the area and appropriate to the site conditions.
- 4.1.9. Allowing standing and fallen deadwood to remain within the woodland will enhance the woodland habitat value over time for species groups including invertebrates, birds and bats.
- 4.1.10. The small area of self-seeded birch woodland is currently unmanaged. Thinning of the birch canopy as it matures over time will encourage natural regeneration and the development of a more diverse age and height structure of the woodland. Allowing standing and fallen deadwood to remain within the woodland will enhance the biodiversity value of the woodland as it develops.
- 4.1.11. Diversification of native broadleaved species composition could be achieved through additional introduction of seeds or saplings of other locally native species on Site such as oak (*Quercus* spp.) in drier areas and alder and willow (*Salix* spp.) in wetter areas. Where opportunities arise, seedlings of suitable broadleaved species removed from heathland areas as part of the heathland management would also be replanted in suitable locations in the retained areas of woodland. The precise mix of species and number of trees to be planted will be determined ahead of the first year of woodland management and be kept under review during the timeframe covered by this OHMP.

5. Future Habitats and Condition

Heathland

5.1.1. The aims of habitat management and target condition for each heathland habitat parcel are described in detail in Appendix B. The overall aim is to enhance the majority of heathland on Site from Moderate to Good Condition through:

- Removal of the invasive non-native *Rhododendron ponticum* and self-seeded pine and birch with regular follow-up to prevent encroachment of these species and succession of heath to birch/pine woodland and consequential shading out heather;
- Providing gaps in the heather canopy through removal of invasive scrub and self-seeded conifers; and through turf-stripping of localised areas of dense acidic grassland around existing heather plants; allowing new pioneer growth of heather and establishment of other dwarf shrubs with the aim of achieving greater age and species diversity of heathland vegetation communities on Site;
- Spreading of propagules/seed gathered from existing plants of bilberry and crowberry into areas of heathland where these dwarf shrubs are of lower abundance; and
- Rationalising the footpath network.

5.1.2. The aim of these interventions is to maintain at least 50% cover of dwarf shrubs (with bilberry/crowberry becoming more frequent in addition to heather) and to achieve a varied range of age classes of heather. Overall cover of trees and scrub will be maintained well below 15%; with undesirable species pine and birch below 5%, and non-native invasive species, rhododendron, appropriately controlled.

5.1.3. *Rhododendron* is a long-lived, evergreen, woody shrub which spreads via seeds and stem layering. Plants of this species produce seeds at age 10 years or more, usually 12 to 20 years (regrowth from mature cut stumps can produce seeds after two years). The seed bank can persist for up to three years; however, seeds rarely remain viable for more than one year (particularly in wetter soil). Once populations become well established and mature, control can become extremely difficult.

5.1.4. Manual removal by pulling out young shoots, digging out using hand tools and cutting back will be deployed on smaller stands of rhododendron. As much of the root system as possible will be removed; however, only root stock close to the surface, near the main shoot, will regrow. If no seeds are present, removed plants will be chipped onsite or removed from site as green waste. If seeds are present, removed material will be taken off site by a suitably licenced carrier and disposed of as green waste (for incineration) or taken to a landfill suitably licenced to receive contaminated waste.

5.1.5. Collectively, these measures will contribute to enhancement of those areas of the heathland currently assessed as Poor to Moderate Condition and those areas of the heathland currently assessed as Moderate to Good Condition over the 15-year time to target Condition for this habitat type.

Woodland

5.1.6. The aims of habitat management and target condition for each woodland parcel are described in detail in Appendix B. The overall aim is to enhance the majority of woodland on Site from Fairly poor to Fairly Good Condition through:

- Thinning of the self-seeded birch woodland canopy to encourage natural regeneration and the development of a more diverse age and height structure of the woodland;
- Control of invasive non-native *Rhododendron ponticum* to enhance species composition of the areas of woodland;
- Diversification of native broadleaved species composition through additional introduction of seeds or saplings of appropriate native species such as oak, with alder and willow on lower, wetter parts of the Site;

- Thinning of the similar-aged dominant non-native conifer woodland canopy through to create gaps in the canopy to allow establishment of young native tree and shrub species, diversifying the age and structure of the woodland;
- Opportunities will be taken where seedlings of suitable broadleaved species are removed from heathland areas to replant these in suitable locations within the retained areas of woodland; and
- Standing and fallen deadwood to be left in situ.

5.1.7. As on the heathland area, manual removal by pulling out young shoots, digging out using hand tools and cutting back will be deployed on smaller stands of rhododendron. As much of the root system as possible will be removed; however, only root stock close to the surface, near the main shoot, will regrow. If no seeds are present, removed plants will be chipped onsite or removed from site as green waste. If seeds are present, removed material will be taken off site by a suitably licenced carrier and disposed of as green waste (for incineration) or taken to a landfill suitably licenced to receive contaminated waste.

5.1.8. Collectively, these measures will contribute to enhancement of the two areas of woodland currently assessed as Fairly Poor to Fairly Good Condition over the 25-year time to target Condition for this habitat type.

Table 3: Woodland Management Measures over Time to Target for each Habitat Unit (HU)

Habitat Map Unit Reference	Condition Change Aim	Time to Target	Year 1	Year 5	Year 10	Year 15	Year 20	Year 25
HU3	Fairly Poor to Fairly Good	25 years	<p>Pre-management photographs of habitats on site from fixed points</p> <p>Canopy thinning (15%); leaving some brash piles from thinning in the woodland</p> <p>Rhododendron control</p> <p>Planting broadleaved native saplings and seeds (oak and alder or willow in wetter areas)</p>	<p>Fixed point photographs to be repeated</p> <p>Canopy thinning (10%); leaving some brash piles from thinning in the woodland</p> <p>Follow-up control of Rhododendron</p>	<p>Fixed point photographs to be repeated</p> <p>Canopy thinning (5%); leaving some brash piles from thinning in the woodland</p> <p>Follow-up removal of Rhododendron</p>	<p>Fixed point photographs to be repeated</p> <p>Follow-up control of Rhododendron</p> <p>Planting broadleaved native saplings and seeds (oak and alder or willow in wetter areas)</p>	<p>Fixed point photographs to be repeated</p> <p>Follow-up control of Rhododendron</p>	<p>Fixed point photographs to be repeated</p> <p>Follow-up control of Rhododendron</p>
HU4	Fairly Poor to Fairly Good	25 years	<p>Canopy thinning of (20%) of non-native pine – prioritising areas where trees are shading heather, leaving some brash piles from thinning in the woodland</p> <p>Check for and control of encroachment of Rhododendron</p> <p>Planting of native broadleaved tree species such as oak, alder, hazel, blackthorn and hawthorn</p>	<p>Check for and control of encroachment of Rhododendron</p>	<p>Canopy thinning of (10%) of non-native pine – prioritising areas where trees are shading heather, leaving some brash piles from thinning in the woodland</p> <p>Check for and control of encroachment of Rhododendron</p>	<p>Canopy thinning of (10%) of non-native pine – prioritising areas where trees are shading heather, leaving some brash piles from thinning in the woodland</p> <p>Check for and remove any encroachment of Rhododendron</p> <p>Planting of native broadleaved tree species such as oak, alder, hazel, blackthorn and hawthorn</p>	<p>Canopy thinning of (10%) of non-native pine – prioritising areas where trees are shading heather, leaving some brash piles from thinning in the woodland</p> <p>Check for and remove any encroachment of Rhododendron</p>	<p>Check for and remove any encroachment of Rhododendron</p>

6. Year Based Actions

6.1.1. Habitat management measures designed to enhance the condition of heathland and woodland habitats on site are detailed in Appendix B.

6.1.2. The proposed habitat management measures and timescales for each habitat parcel (shown on the Plan at Appendix A) are set out in Table 2 (Heathland Habitat Units) and Table 3 (Woodland Habitat Units) below.

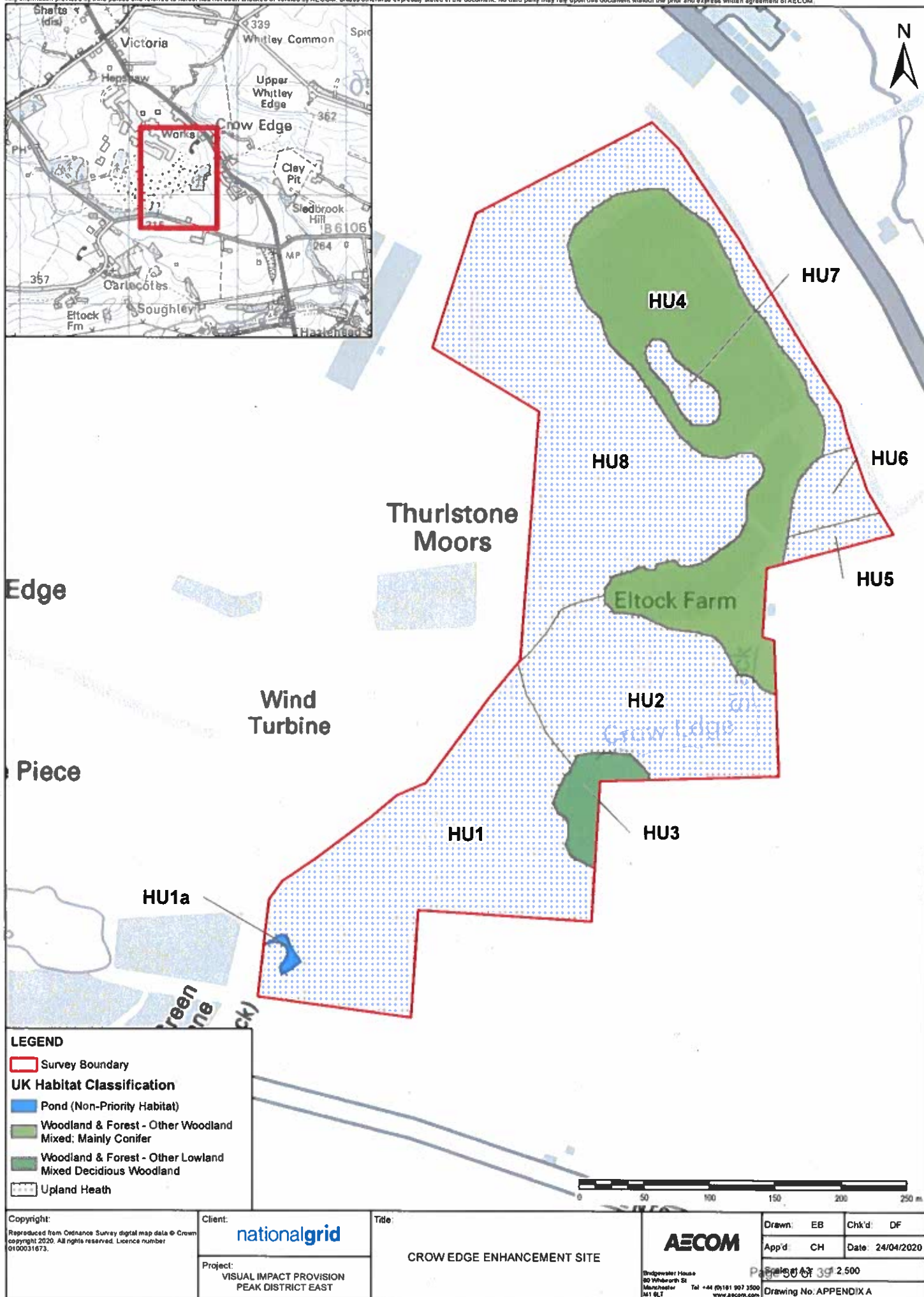
Table 2: Heathland Management Measures over Time to Target for each Habitat Unit (HU)

Habitat Unit Reference	Condition Change Aim	Time to Target	Year 1	Year 5	Year 10	Year 15
HU1, HU2, HU5, HU7 and HU8	Moderate to Good	15 years	A series of pre-management representative photographs will be taken of habitats on site from fixed points	Fixed point photographs to be repeated	Fixed point photographs to be repeated	Fixed point photographs to be repeated
HU6	Poor to Moderate		Removal of Rhododendron ponticum and self-seeded pine and birch	Follow-up removal of Rhododendron ponticum and self-seeded pine and birch	Follow-up removal of Rhododendron ponticum and self-seeded pine and birch	Follow-up removal of Rhododendron ponticum and self-seeded pine and birch
			Turf-stripping of small areas dominated by dense acidic grassland around more isolated patches of heather and bilberry	Turf-stripping of small areas dominated by dense acidic grassland around more isolated patches of heather and bilberry.		
			Spreading of propagules/seed of bilberry and crowberry gathered from Site or other local source into areas of heathland on Site where these dwarf shrubs are of lower abundance	Spreading of propagules/seed of bilberry and crowberry gathered from Site or other local source into areas of heathland on Site where these dwarf shrubs are of lower abundance	Spreading of propagules/seed of bilberry and crowberry gathered from Site or other local source into areas of heathland on Site where these dwarf shrubs are of lower abundance	
			Creation of a well-defined footpath network	Carry out any remedial works required to maintain the public access route	Carry out any remedial works required to maintain the public access route	Carry out any remedial works required to maintain the public access route

7. Monitoring and Reporting

- 7.1.1. Ecological monitoring and reporting is required to determine the success of the management measures specified for target habitats, as well as to identify whether any adaptations are necessary to ensure the required change in condition is achieved.
- 7.1.2. Monitoring surveys of the target habitat areas will be undertaken between June and August both ahead and following the completion of planned management actions. These monitoring surveys (years 4&5, 9&10, 14&15, 19&20 and 24&25) will be undertaken to:
- Assess the condition of the target habitats against the baseline habitat condition;
 - Identify any necessary adaptations to the habitat management prescriptions to deliver the future habitat conditions required (years, 4, 9, 14, 19 and 24);
 - Identify where regrowth of rhododendron requires further control (years, 4, 9, 14, 19 and 24); and
 - Confirm the management works undertaken (years, 5, 10, 15 and 20).
- 7.1.3. A final inspection visit (year 15 for heathland and year 25 for woodland) will comprise a full walkover survey of the target habitat areas to:
- Determine the actual future habitat condition; and
 - Identify any further management actions required.
- 7.1.4. Reporting after each monitoring survey and final inspection will include reference to habitat management works needed or undertaken (relating to the target habitat areas). This information to be provided to Banks Renewables and Barnsley Metropolitan Borough Council.

Appendix A Site Location and UK Habitat Classification Map



Appendix B Habitat Description and Condition Assessment

Appendix B1: Baseline Habitat Condition Assessment Rationale – Habitat Units HU1-HU8

Habitat type	Habitat condition assessment	Survey reference data	Habitat condition sheet	Assessment	Assigned condition
<p>Heathland and scrub – Upland heathland Map reference parcel HU1 & HU2</p> <p>(Just outside enclosed agricultural land; quarry land adjacent shown at 331 m contour on map)</p>	<p>Upland heathland and acid grassland mosaic. Heathland component dominated by <i>Calluna vulgaris</i> (D); with bilberry (<i>Vaccinium myrtillus</i>) (O), crowberry (<i>Empetrum nigrum</i>) (R), pleurocarpous moss (LA), <i>Deschampsia flexuosa</i> (O), <i>Festuca ovina</i> (O), <i>Carex</i> sp. (R) and <i>Cladonia lichens</i> (O). Acid grassland: frequent grass species - <i>Nardus stricta</i>, <i>Holcus lanatus</i> and <i>D. flexuosa</i> with <i>Juncus squarrosus</i> (R) and infrequent patches of <i>Calluna vulgaris</i> and <i>Vaccinium myrtillus</i>. Infrequent forbs: <i>Rumex acetosa</i>, <i>Galium saxatile</i>, <i>Potentilla erecta</i>, <i>Digitalis purpurea</i>, <i>Cirsium palustre</i>. Mosses <i>Polytrichum</i> sp. and <i>Rhytidadelphus squarrosus</i> also noted. On slightly lower ground, a strip of vegetation becomes dominated by <i>Juncus effusus</i> in waterlogged ground conditions with some standing water. At the edge of the <i>Juncus effusus</i> vegetation, a green <i>Sphagnum</i> sp. (LA) was recorded together with <i>Eriophorum angustifolium</i> (LA) and <i>Molinia caerulea</i> (O) in a small area. Cover of dwarf shrubs over the whole habitat parcel estimated at approximately 50% (mainly <i>Calluna vulgaris</i>). All age classes of heather are present, although % cover requirements for degenerate and pioneer stages are not met. No grazing of heather shoots noted. No signs of cutting or burning of sensitive areas; or physical damage (except for some potential damage to vegetation through recreational use - widening of waterlogged public access path along the northern boundary of this habitat parcel). Overall cover of undesirable species <i>rhododendron</i>, <i>Digitalis purpurea</i>, bramble, pine and birch in this habitat parcel is estimated at approximately 11%.</p>	18 th March 2020 - Condition Assessment	Heathland Habitat Types	Professional judgement	Moderate – Meets criteria 1 for dwarf shrub cover, (although note additional dwarf shrubs not at required frequency) and fails 3 other criteria (2, 5 & 7).
<p>Woodland and forest - Other lowland mixed deciduous woodland (includes woodland self-sown or recently established in either urban or rural situations)</p>	<p>A small area of young birch woodland (with mainly complete canopy cover) over acid grassland ground vegetation has the appearance of self-seeding. Native species dominant. Less than 3 different native trees and 3 shrub species in an average 10m radius. On sloping boggy ground with some standing water in lower part. Natural drainage occurring through the woodland. Little variation in woodland age or height structure. No deadwood noted. No damage noted. No grazing damage. Inappropriate management or agricultural operations noted</p>	18 th March 2020 - Condition Assessment	Woodland Broad Habitat Type	Professional judgement	Fairly Poor – A small recently self-seeded area dominated by birch; currently unmanaged. Does not meet criteria 3, 6 or 12.

Habitat type	Habitat condition assessment	Survey reference	data	Habitat condition sheet	Assessment	Assigned condition
Map reference parcel HUS	or signs of significant nutrient enrichment. Rhododendron noted at <5%.					
Woodland and forest – other woodland; mixed Map reference parcel HU4	Woodland with complete canopy cover is dominated by non-native conifer (Pinus spp.) with some birch (Betula sp.) larch (Larix europaeus) and alder (Alnus glutinosa). Non-native trees of a similar age are the dominant component, although some pine and birch regeneration also present. Less than 3 different native trees and 3 shrub species in an average 10m radius. Limited variation in woodland age or height structure. Limited deadwood noted. No grazing damage, drainage channels or inappropriate management/agricultural operations noted or signs of significant nutrient enrichment.	18 th & 31 st March 2020 - Condition Assessment	Woodland Broad Habitat Type	Professional judgement	Fairly Poor – Falls criteria 2, 3 and 12. Non-native conifer species of similar age dominant	
Heathland and scrub – Upland heathland Map reference parcel HUS	Heathland dominated by Calluna vulgaris of mostly moderate age with some pioneer stage of growth. Cover of dwarf shrubs over 50%. No signs of burning/cutting and no obvious evidence of grazed heather shoots noted, although physical damage has occurred as a result of the public footpath. Cover of trees/scrub <15%. Undesirable species including self-seeded pine and broom (Cytisus scoparius) <5%.	18 th March 2020 - Condition Assessment	Heathland Habitat Types	Professional judgement	Moderate – Meets criteria 1 (although additional dwarf shrubs not at required frequency) but does not meet condition criteria 2 and 7.	
Heathland and scrub – Upland heathland Map reference parcel HU6	Heathland dominated by Calluna vulgaris of mostly moderate age with some pioneer stage of growth. No grazing, burning or cutting damage noted. Cover of trees/scrub >15%. Undesirable species including self-seeded pine, birch and broom (Cytisus scoparius) estimated at >15% cover. An un-made recreational path is potentially impacting on vegetation.	18 th & 31 st March 2020 - Condition Assessment	Heathland Habitat Types	Professional judgement	Poor – Meets criterion 1 (although additional dwarf shrubs not at required frequency) but does not meet criteria 2, 5, 6 and 7.	
Heathland and scrub – Upland heathland Map reference parcel HU7	Heath vegetation occupying small glades within the footprint of HU4 woodland. All growth stages of heather are present, but neither the pioneer or degenerate stage exceeds 10% cover. >75% cover of Calluna vulgaris within the open glade areas. No other dwarf shrub species noted. No signs of burning or cutting or of grazing or physical damage. Although the cover of undesirable species is under 5% in the central glade areas the heath areas are surrounded by pine and other woody species which are encroaching on heath vegetation and some heather persists beneath woodland edge; therefore estimated cover of undesirable species affecting this heathland area is >5% overall.	31 st March 2020 - Condition Assessment	Heathland Habitat Types	Professional judgement	Moderate – Meets criterion 1 (although additional dwarf shrubs not recorded) but does not meet criteria 2 and 5	



Habitat type	Habitat condition assessment	Survey reference	data	Habitat condition sheet	Assessment	Assigned condition
Heathland and scrub – Upland heathland Map reference parcel HUG	Upland heathland and acid grassland mosaic. Heathland component dominated by <i>Calluna vulgaris</i> with crowberry (<i>Empetrum nigrum</i>) (R), and bilberry (<i>Vaccinium myrtillus</i>) (R). Mainly moderate-aged heather with occasional degenerate stage of growth in the northern corner. Pine saplings frequent and birch occasional. <i>Rhododendron</i> (R). Acid grassland in the northern part of this parcel. <i>D. flexuosa</i> (A), <i>D. caespitosa</i> (O), <i>Juncus effusus</i> (O-LA), Mosses (F), <i>Holcus lanatus</i> (F) with occasional patches of heather. Unmanaged with some signs of rabbit grazing. <i>Rhododendron</i> (R). Bramble (LA). Acid grassland in the south of this parcel: a sparse short-rabbit-grazed acidic grassland vegetation interspersed with bare ground and patches of acrocarpous mosses. <i>D. flexuosa</i> dominant. <i>Cladonia</i> lichens (LF), <i>Peltigera</i> lichen (R) and occasional patches of heather. Track compaction. Tree and scrub (pine, birch) encroachment in areas nearest the woodland at HU4. Cover of undesirable species is estimated at >10% across the parcel overall (includes pine, birch, bramble, <i>rhododendron</i> and mats of acrocarpous mosses).	31 st March 2020 - Condition Assessment		Heathland Habitat Types	Professional judgement	Moderate – meets descriptor for dwarf shrub cover – estimated at 45% overall (although note additional dwarf shrubs not quite at required frequency). Meets criteria 3, 4, & 6, but fails on criteria 2, 5 and 7.
Pond Habitat) Map reference parcel HU1a	Open water with <i>Juncus effusus</i> abundant at margins. Occasional floating vegetation in central part of pond (possibly <i>Glycyetia</i> sp) but pond itself not accessed. <i>Salix</i> sp. occasional at margins. <i>Epilobium</i> sp (O). Water quality appears good with clear water and no obvious sign of pollution. There is semi-natural riparian land for 10m buffer at margin. The pond is not dominated by plants. The pond is little shaded. No fish noted. Pond does not appear connected to other waterbodies via a ditch. Invasive non-native species (INNS) absent. Less than 10% algae or duckweed.	18 th March 2020 - Condition Assessment		Pond Habitat Type	Professional judgement	Moderate – Meets most criteria but submerged and floating plants are limited

Appendix B2: Post Intervention Habitat Condition Assessment Rationale – Habitat Units HU1-HU8

Habitat type	Habitat measure	Habitat condition assessment	Habitat condition sheet	Assessment	Target condition
Heathland and scrub – Upland heathland Map reference parcel HU1-HU2	Enhanced	Initial removal of INNS Rhododendron ponticum and self-seeded pine and birch with regular follow-up to prevent encroachment of invasive species and succession of heath to birch/pine woodland, shading out heather. Spreading of propagules/seed gathered from existing plants of bilberry and crowberry into areas of heathland where these dwarf shrubs are of lower abundance. Removal of scrub, self-seeded trees and invasive species will provide gaps in the heather canopy allowing new pioneer growth of heather and establishment of other dwarf shrubs bilberry and crowberry, whilst under continuation of current land-use regime the now predominantly moderate-aged stands of heather start to move into the more mature and degenerate stages of growth (followed by some subsequent re-growth of pioneer stage); and current pioneer stages become moderate-aged over the 15-year time to target. Additional small areas of turf-stripping in acidic grassland areas around more isolated patches of dwarf shrubs to provide opportunities for the spread of pioneer heather growth from seed from existing heather plants. The aim of these interventions is to maintain at least 50% cover of dwarf shrubs (with bilberry/crowberry frequent in addition to heather) and to achieve a varied range of age classes of heather. Overall cover of trees and scrub will be maintained well below 15%; with undesirable species pine and birch below 5% and INNS rhododendron appropriately controlled. Potential damage to vegetation adequately controlled through footpath works.	Heathland Habitat Types	Professional judgement	From Moderate to Good (15-year time to target for Enhancement of upland heathland with Distinctiveness unchanged)
Woodland and forest – Other lowland mixed deciduous woodland Map reference parcel HU3	Enhanced	Currently unmanaged woodland. Thinning of the birch canopy as it matures over time will encourage natural regeneration and the development of a more diverse age and height structure of the woodland. Standing and fallen deadwood to be left in situ. Diversification of native broadleaved species composition through additional introduction of seeds or saplings of other native species such as oak with alder and willow (on lower wetter parts of the slope). Removal of INNS Rhododendron.	Woodland Habitat Type	Professional judgement	From Fairly Poor to Fairly Good (25-year time to target for Enhancement of lowland mixed deciduous woodland with Distinctiveness unchanged)
Woodland and forest – other woodland; mixed Map reference parcel HU4	Enhanced	Thinning and diversification of the similar-aged dominant non-native conifer woodland canopy through planting of native tree species. Aim of intervention to create gaps in the canopy to allow establishment of young native tree and shrub species, diversifying the age and structure of the woodland over the 20-year time to target; achieving a mixed woodland with a high proportion of native broadleaved tree	Woodland Broad Habitat Type	Professional judgement	From Fairly Poor to Fairly Good (25-year time to target condition for enhancement of other woodland; mixed with

Habitat type	Habitat measure	Habitat condition assessment	Habitat condition sheet	Assessment	Target condition
Heathland and scrub – Upland heathland Map reference parcel HUS	Enhanced	Initial removal of self-seeded pine and birch with regular follow-up to prevent succession of heath to scrub/birch/pine woodland, shading out heather. Spreading of propagules/seed gathered from existing plants of bilberry and crowberry into areas of heathland where these dwarf shrubs are of lower abundance. Removal of scrub, self-seeded trees and invasive species will provide gaps in the heather canopy allowing new pioneer growth of heather and establishment of other dwarf shrubs bilberry and crowberry; whilst under continuation of current land-use regime the now predominantly moderate-aged stands of heather start to move into the more mature and degenerate stages of growth (followed by some subsequent re-growth of pioneer stage); and current pioneer stages become moderate-aged over the 15-year time to target. The aim of these interventions is to maintain existing levels of cover of dwarf shrubs (with bilberry/crowberry frequent in addition to heather); to achieve a varied range of age classes of heather, with overall cover of trees and scrub maintained well below 15%; with undesirable species pine, broom and birch below 5% and any encroachment of INNS rhododendron appropriately controlled.	Heathland Habitat Types	Professional judgement	From Moderate to Good (15-year time to target for Enhancement of upland heathland Distinctiveness unchanged)
Heathland and scrub – Upland heathland Map reference parcel HUG	Enhanced	Initial removal of self-seeded pine and birch with regular follow-up to prevent encroachment of invasive species and succession of heath to scrub/birch/pine woodland, shading out heather. Spreading of propagules/seed gathered from existing plants of bilberry and crowberry into areas of heathland where these dwarf shrubs are of low abundance. Removal of scrub, self-seeded trees and invasive species will provide gaps in the heather canopy allowing new pioneer growth of heather and establishment of other dwarf shrubs bilberry and crowberry; whilst under continuation of current land-use regime the now predominantly moderate-aged stands of heather start to move into the more mature and degenerate stages of growth and current pioneer stages become moderate-aged over the 15-year time to target. The aim of these interventions is to maintain existing levels of cover of dwarf shrubs (with bilberry/crowberry frequent in addition to heather); to achieve a varied range of age classes of heather, with overall cover of trees and scrub maintained well below	Heathland Habitat Types	Professional judgement	From Poor to Moderate (15-year time to target for Enhancement of upland heathland Distinctiveness unchanged)

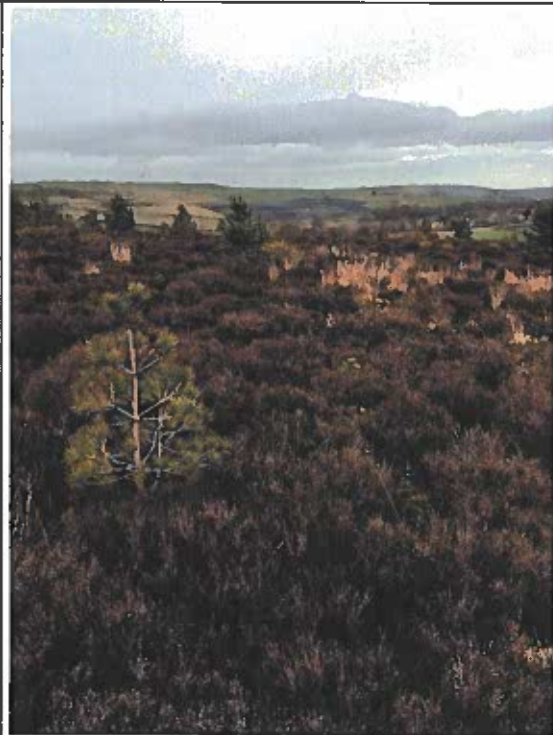


Habitat type	Habitat measure	Habitat condition assessment	Habitat condition sheet	Assessment	Target condition
Heathland and scrub – Upland heathland Map reference parcel HU7	Enhanced	Initial removal of self-seeded pine with regular follow-up to prevent encroachment and succession of heath to scrub/birch/pine woodland, shading out heather. Removal of scrub and self-seeded trees will provide gaps in the vegetation allowing new pioneer growth of heather; whilst under continuation of current land use regime the now predominantly moderate-aged stands of heather begin to move into the degenerate stages of growth, and current pioneer stages become moderate-aged over the 10-year time to target. The aim of these interventions is to achieve a range of age classes of heather, with overall heather cover 50% or above, with overall cover of trees and scrub maintained well below 15%; with undesirable species pine, broom and birch below 5% and any encroachment of INNS rhododendron appropriately controlled.	Heathland Habitat Types	Professional judgement	From Moderate to Good (15-year time to target for Enhancement of upland heathland with Distinctiveness unchanged)
Heathland and scrub – Upland heathland Map reference parcel HU8	Enhanced	Initial removal of self-seeded pine, rhododendron, bramble and birch; with regular follow-up to prevent encroachment of invasive species and succession of heath to scrub/birch/pine woodland, shading out heather. Spreading of propagules/seed gathered from existing plants of bilberry and crowberry into areas of heathland where these dwarf shrubs are of low abundance. Additional small areas of turf-stripping in acidic grassland areas around more isolated patches of dwarf shrubs to provide opportunities for the spread of pioneer heather growth from seed from existing heather plants. Removal of scrub, self-seeded trees and invasive species will provide gaps in the heather canopy allowing new pioneer growth of heather and establishment of other dwarf shrubs bilberry and crowberry; whilst under continuation of current land-use regime the now predominantly moderate-aged stands of heather start to move into the more mature and degenerate stages of growth (followed by some subsequent re-growth of pioneer stage) over the 15-year time to target. The aim of these interventions is to increase current levels of cover of dwarf shrubs (with bilberry/crowberry frequent in addition to heather); to achieve a varied range of age classes of heather; with overall cover of trees and scrub maintained well below 15%; with undesirable species pine, broom and birch below 5% and any encroachment of INNS rhododendron appropriately controlled.	Heathland Habitat Types	Professional judgement	From Moderate to Good (15-year time to target for Enhancement of upland heathland with Distinctiveness unchanged)

Appendix C Site Photographs



HU1- HU2: Heathland and acid grassland habitat with encroaching Rhododendron



HU1- HU2: Large areas of mainly moderate-aged heather on higher ground with self-seeding pine



Waterlogged public access route running across the Site



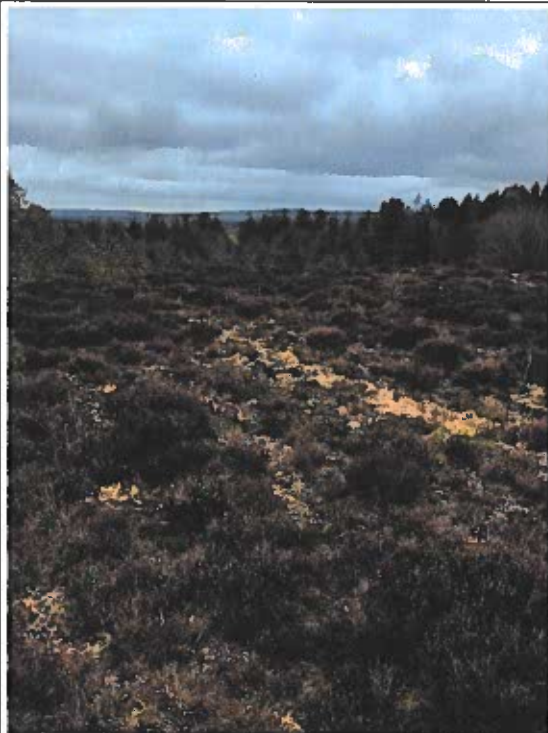
HU1-HU2: encroachment of self-seeded pine and Rhododendron



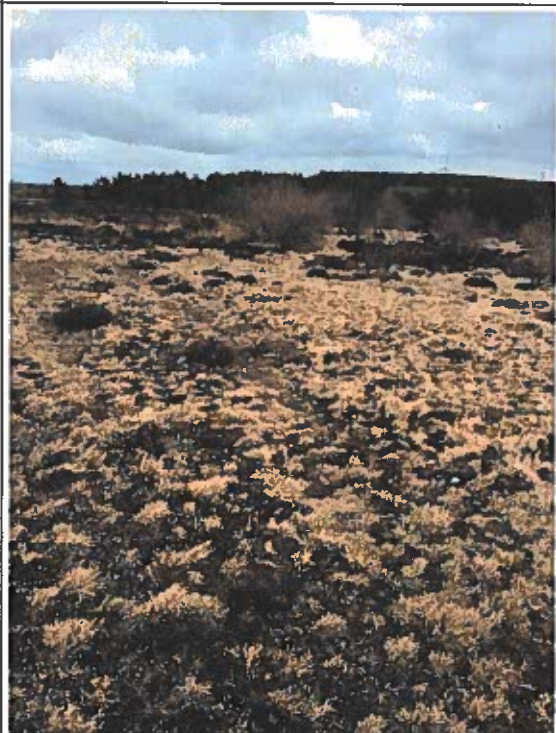
HU3: young self-seeded birch woodland with rhododendron encroaching



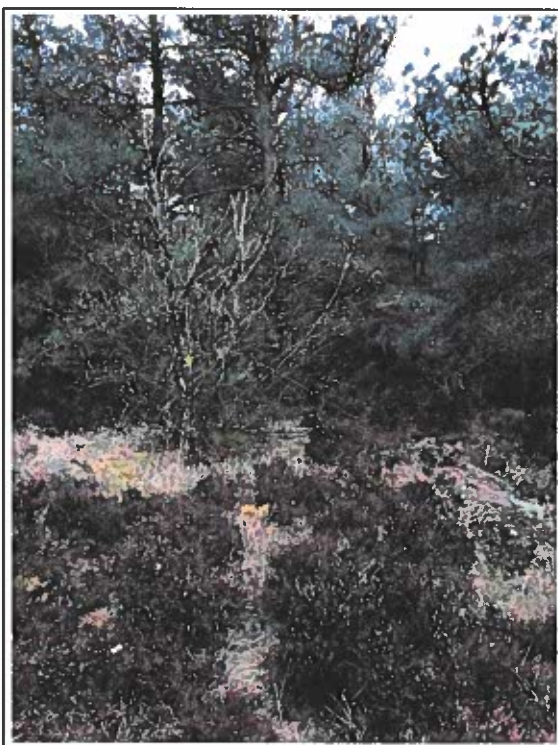
HU6: Heathland adjacent to conifer-dominated woodland is in Poor condition with high cover of self-seeded trees and scrub



HU8: Heathland habitat with encroachment of self-seeded trees from adjacent conifer-dominated woodland



HU8: Heathland and acid grassland habitat with self-seeded trees

	
<p>HU4 & HU7: Heathland persists in glades within conifer-dominated woodland</p>	<p>HU1-HU2 Gaps in heather canopy with bryophytes and lichens</p>

