DATED 19 August **2024**

AGREEMENT

Pursuant to Section 106 of the Town and Country Planning Act 1990 and other powers relating to Off-Site Biodiversity Mitigation

Single Phase Habitat Bank at Puddington Moor, Puddington

(1) EBL HB LIMITED

(2) MID DEVON DISTRICT COUNCIL

CONTENTS

1 DEFINITIONS AND INTERPRETATION 4

2 STATUTORY AUTHORITY 9

3 CREATION OF COVENANT 9

4 ACKNOWLEDGEMENT AND AGREEMENT 9

5 GRANT OF RIGHTS 10

6 REGISTRATION AS A LOCAL LAND CHARGE 10

7 COMPLIANCE WITH LEGAL OBLIGATIONS 11

8 STEP-IN RIGHTS 11

9 DISPOSITION OF BIODIVERSITY LAND 12

10 LPAS' COVENANTS 12

11 GOOD FAITH 12

12 NOTICES, CONSENTS AND APPROVALS 13

13 RESTRICTIONS ON LIABILITY OF BIODIVERSITY PROVIDER AND LPA 13

14 EXPIRY OF THE COVENANT PERIOD 13

15 RELEASE AND LAPSE 13

16 RELEASE OF BIODIVERSITY LAND 14

17 VARIATION 14

18 WAIVER 14

19 RIGHTS AND REMEDIES 14

20 RIGHTS OF THIRD PARTIES 14

21 NOTIFICATION OF SUCCESSORS IN TITLE 14

22 GOVERNING LAW & JURISDICTION 15

23 SEVERANCE 15

24 COSTS 15

25 COMMENCEMENT 15

26 DELIVERY 15

SCHEDULE 1 THE BIODIVERSITY LAND 16

PART 1 16

PART 2 16

SCHEDULE 2 PLAN 17

SCHEDULE 3 BIODIVERSITY CALCULATION 18

SCHEDULE 4 PROFORMA ALLOCATION NOTICE 19

SCHEDULE 5 COVENANTS ON THE BIODIVERSITY PROVIDER 20

SCHEDULE 6 BREACHES AND ENFORCEMENT 22

SCHEDULE 7 MONITORING 24

THIS Deed is dated 19 August 2024

BETWEEN

(1) **EBL HB LIMITED** (Company Number 13489265) whose registered office is at 35 Ballards Lane, London N3 1XW ("**Biodiversity Provider**"); and

(2) **MID DEVON DISTRICT COUNCIL of** Phoenix House, Phoenix Lane, Tiverton, EX16 6PP **("LPA").**

(3) **RECITALS**

(A) The Biodiversity Provider is the long leasehold owner of the Biodiversity Land pursuant to a lease dated 21 April 2022 registered at the Land Registry under title number DN748857.

(B) The LPA is the local planning authority for the purposes of the 1990 Act for the area in which the Biodiversity Land is situated.

(C) The 2021 Act introduces a mandatory requirement for biodiversity net gain with consequential amendments being made to the 1990 Act which specify that the post-development Biodiversity Value of the Development must exceed the pre-development Biodiversity Value by at least 10%, where the Application is submitted on or after 12 February 2024 (and 2 April 2024 in the case of "small development" as defined in Regulation 3 of The Biodiversity Gain Requirements (Exemptions) Regulations 2024).

(D) The management of the Biodiversity Land pursuant to the Management Plan will generate Biodiversity Units which can be used to off-set biodiversity impacts of development and other activities.

(E) The Biodiversity Provider will manage the Biodiversity Land in accordance with the Management Plan.

IT IS AGREED

1 **DEFINITIONS AND INTERPRETATION**

1.1 In this Deed except where specifically defined:

1990 Act	the Town and Country Planning Act 1990;
2021 Act	the Environment Act 2021;
Allocation	means the attributing of all or part of the Biodiversity Units by the Biodiversity Provider toward a development's requirement to deliver biodiversity net gain and Allocate and Allocated and Allocations shall be construed accordingly;
Allocation Notice	means a notice served on the LPA by the Biodiversity Provider confirming the sale and purchase of Biodiversity Units in the form of the draft notice appended hereto at Schedule 4;

Application	any Qualifying planning application for development submitted to and validated by the LPA, and "**Applications**" shall be construed accordingly;
Authority	any statutory, public, local or other authority or any court of law or any government department or any of their duly authorised officers;
Biodiversity Net Gain Register	the register of biodiversity gain sites maintained by the Registrar as provided for in section 100 of the 2021 Act;
Biodiversity Metric	has the meaning given in Schedule 7A to the Act, and being the most up to date version of the Natural England Metric at the time when the Management Plan is submitted;
Biodiversity Objective	has the meaning given in paragraph 2 of Schedule 7A to the 1990 Act;
Biodiversity Unit	means a measure of the biodiversity gains that will result from the management of the Biodiversity Land pursuant to this Deed and which shall be calculated using the Biodiversity Metric or such other measure as may be agreed between the Biodiversity Provider and the LPA (acting reasonably);
Commenced	the carrying out of a "material operation" (as defined in section 56(4) of the Act) in connection with a Development (and "**Commencement**" and "**Commenced**" shall be construed accordingly);
Duration	means a period of 30 years from the date the habitat creation and enhancement works (as defined in the Management Plan) are completed or the date of this Deed whichever is later;
Biodiversity Land	the land set out in Schedule 11 and shown edged in red on the Plan;
Breach	occurs when: (a) a person bound by a negative obligation in this Deed breaches the obligation by— (i) doing something which it prohibits, or (ii) permitting or suffering another person to do such a thing. (b) a person bound by a positive obligation in this Deed fails to perform such obligation or (c) fails to do something that is required by an obligation in this Deed
Deed	means this Deed and all Schedules and appendices attached hereto;

Development	Qualifying development in accordance with a Permission;
Enactment	means any Act of Parliament or decree or other supranational legislation or decree having effect of law in the United Kingdom (including any EU law which has been applied to the UK by the terms of the European Union (Withdrawal Agreement) Act 2018 or 2020 and any other retained EU law which was preserved and converted into UK law at the end of the 12 month Brexit transition period);
Habitat Condition Assessment Report	a report prepared by an ecologist on behalf of the Biodiversity Provider (or by the Biodiversity Provider, where such person is duly qualified as an ecologist and holding the requisite experience and qualifications required to properly issue such Monitoring Reports) demonstrating how it has complied with its obligations in this Deed and the Management Plan in respect of its management and use of the Biodiversity Land, the first such report to cover the period since the date of this Deed and thereafter the period since the date of the previous Monitoring Report and where the results from monitoring show that conservation aims and objectives of the Management Plan for the Biodiversity Land are not being met, the Monitoring Report will set out how contingencies and/or remedial action will be identified, agreed and implemented;
Insolvency Event	means: (a) a winding up order is made by the Court; (b) an administrator is appointed pursuant to the provisions of Schedule B1 of the Insolvency Act 1986; (c) a receiver, liquidator provisional liquidator, administrative receiver is appointed in respect of it or any of its assets; (d) a resolution is passed for its winding up, liquidation or reorganisation (save for the purposes of a solvent reorganisation); (e) an order is made for a moratorium under Part A1 and Schedule ZA1 of the Insolvency Act 1986;
Management Actions Log	a detailed log setting out the management actions carried out at the Biodiversity Land pursuant to the Management Plan;
Management Plan	the Habitat Management and Monitoring Plan for the Biodiversity Land, a copy of which is annexed to this Deed at Appendix 1 (as may be updated or varied by agreement in writing from time to time such agreement not to be unreasonably withheld or delayed);

Material Breach	means where the Biodiversity Provider has committed a Breach of any of the obligations in this Deed which is material to the Common Purposes (as defined in clause 11.2);
Monitoring Fee	means the payment of [redacted] payable in accordance with clause 24.2 to cover the LPA's reasonable and proper costs of monitoring compliance with this Deed for the Duration;
Monitoring Report	means a pack prepared by the Biodiversity Provider for the purposes of monitoring the maintenance of the Biodiversity Land and compliance with the Management Plan, which shall contain: (a) a Habitats Condition Assessment Report; and (b) up to date Management Actions Log;
Permission	full or outline planning permission whether or not subject to conditions to be granted by the LPA pursuant to an Application (and for the avoidance of doubt shall include any modifications of such planning permission and variations of conditions attaching to such planning permission, and any minor or non-material amendments to such planning permission provided such modifications, variations or amendments do not increase the number of Biodiversity Units required for the Development and which is first approved in writing by the LPA), and "**Permissions**" shall be construed accordingly;
Plan	means the plan set out in Schedule 2;
Registrar	means the registrar of the Biodiversity Net Gain Register;
Relevant Event	means any of the following events: (a) a change in the law or (b) a decision of a Court, tribunal, Secretary of State, or other decision maker; (c) a change in government advice, custom or practice; that results in either: (a) developments not having to demonstrate biodiversity net gain in order for planning permission to be granted or for the construction, occupation of use of development; or (b) the market for the sale and purchase of biodiversity units ceasing to exist

Statement of Achievability	means a signed letter certifying the amount and type of Biodiversity Units to be generated from the Biodiversity Land, a copy of which is annexed to this Deed at Appendix 2;
Qualifying	means any proposed development (as defined by section 55 of the Act), save for such developments that are expressly exempted by The Biodiversity Gain Requirements (Exemptions) Regulations 2024 and for the avoidance of doubt, this definition shall include such developments for which the planning application was submitted prior to the implementation of Schedule 7A of the 1990 Act;
Working Day	means any day other than (i) a Saturday, Sunday or public holiday in England and Wales, (ii) Good Friday, (iii) any day falling between 22nd December in one year and 2nd January in the year next following it (both days inclusive) and "**Working Days**" shall be construed accordingly;

1.2 In this Deed unless the context otherwise requires:

1.2.1 words importing any gender include every gender, words importing the singular number include the plural number and vice versa and words importing persons include firms, companies and corporations and vice versa;

1.2.2 references to any clause, plan, paragraph and schedule or recital are references to the relevant clause, paragraph, schedule or recital in (or in the case of plans and appendices attached to) this Deed;

1.2.3 where any obligation is undertaken by two or more persons jointly, they shall be jointly and severally liable in respect of that obligation;

1.2.4 any obligation on any party not to do or omit to do anything shall include an obligation not to allow that thing to be done or omitted to be done;

1.2.5 where any party agrees to do something, they shall be deemed to fulfil that obligation if they procure that it is done;

1.2.6 any reference to 'the Biodiversity Land' includes any part or parts thereof;

1.2.7 the headings to the clauses, Schedules and paragraphs of this Deed shall not affect the interpretation;

1.2.8 a reference to writing or written excludes fax but includes email;

1.2.9 unless expressly provided otherwise in this Deed, a reference to legislation or a legislative provision is a reference to it as amended, extended or re-enacted from time to time. Unless expressly provided otherwise in this Deed, a reference to legislation or a legislative provision shall include all subordinate legislation made from time to time under that legislation or legislative provision;

1.2.10 references to any party to this Deed shall, to the full extent permitted by law, include successors in title to that party and to any person deriving title

through or under that party and in the case of the LPA the successors to their respective statutory functions; and

1.2.11 references to **the parties** shall mean the parties to this Deed and reference to a **party** shall mean any one of the parties.

2 STATUTORY AUTHORITY

2.1 This Deed is made pursuant to section 106 of the 1990 Act, section 33 of the Local Government (Miscellaneous Provisions) Act 1982 and section 1 of the Localism Act.

2.2 The covenants, restrictions and requirements imposed upon the Biodiversity Land under this Deed create covenants pursuant to section 106 of the 1990 Act and are enforceable by the LPA as the local planning authority against the Biodiversity Provider and/or their successors in title and any person deriving title in the Biodiversity Land or any part of it from the Biodiversity Provider.

2.3 To the extent that any of the obligations or covenants contained in this Deed are not planning obligations within the meaning of section 106 of the 1990 Act, they are entered into pursuant to the powers contained in section 33 of the Local Government (Miscellaneous Provisions) Act 1982 and section 1 of the Localism Act 2011 and all other powers so enabling.

3 CREATION OF COVENANT

3.1 The Biodiversity Provider HEREBY COVENANTS with the LPA for the Duration to observe and perform the covenants and other agreements as set out in Schedule 5 and this Deed.

4 ACKNOWLEDGEMENT AND AGREEMENT

4.1 The LPA hereby acknowledge and agree with the Biodiversity Provider that:

4.1.1 the management of the Biodiversity Land pursuant to the Management Plan would generate at least the Biodiversity Units as set out in the Statement of Achievability (calculated as at the date of this Deed);

4.1.2 subject to clause 4.2, the submission of a completed Allocation Notice in connection with a development shall be sufficient evidence that the relevant Development has acquired the number of Biodiversity Units stated on the Allocation Notice; and

4.1.3 it has no reason to believe that the management of the Biodiversity Land pursuant to the Management Plan would not meet the criteria necessary for the scheme to be registered on the Biodiversity Net Gain Register. In the event that this Deed cannot be registered on the Biodiversity Net Gain Register, then clauses 11.3 and 11.4 shall apply.

4.2 The Parties hereby agree that where a completed Allocation Notice is to be issued in connection with a development for which the planning application was submitted following the implementation of the 2021 Act, then clause 4.1.2 shall not apply:

4.2.1 unless or until this Deed and/or the Biodiversity Land is registered on the Biodiversity Net Gain Register; and

4.2.2 that allocation detailed in the Allocation Notice is registered on the Biodiversity Net Gain Register.

4.3 The Parties hereto acknowledge that the number of Biodiversity Units generated by the management of the Biodiversity Land pursuant to the Management Plan may increase over time. The Biodiversity Provider may submit to the LPA an updated Management Plan for approval (such approval not to be unreasonably withheld or delayed) to enable any increase in the number of Biodiversity Units generated at any time throughout the Duration PROVIDED THAT this clause does not breach the Act or the 2021 Act (as in force from time to time).

5 GRANT OF RIGHTS

5.1 The Biodiversity Provider grants to the LPA (and their authorised employees or agents) for the Duration the following rights, SUBJECT TO compliance by the LPA and their authorised employees and agents at all times with the Biodiversity Provider's site regulations and requirements, health and safety law and good practice, and SUBJECT ALSO TO the observance and performance of the covenants set out in clause 10:

5.1.1 the right for the LPA during the period on any Working Day having given not less than 7 days prior written notice, with or without vehicles, machinery, equipment and employees and/or invitees of the LPA:

5.1.1.a to enter on any part of the Biodiversity Land at all reasonable times:

5.1.1.a.i to inspect the state of repair and condition of the Biodiversity Land;

5.1.1.a.ii to comply with the LPA's obligations under this Deed;

5.1.1.a.iii to carry out any surveys (including subject to the prior written consent of the Biodiversity Provider taking samples and installing boreholes and trial trenches) on the Biodiversity Land and thereafter to carry out maintenance and repair of any boreholes installed and to take monitoring readings making good any damage caused; and

5.1.1.a.iv for all purposes connected with and necessary for the exercise of the step-in rights set out in clause 8 below.

5.2 The Biodiversity Provider shall not prevent the LPA and/or their authorised employees and/or agents from exercising their rights contained in clause 5.1 or obstruct the LPA and/or their authorised employees and/or agents in the exercise of those rights.

6 REGISTRATION AS A LOCAL LAND CHARGE

6.1 Within 10 Working Days following the date of this Deed, the LPA shall register this Deed as a local land charge under the Local Land Charges Act 1975.

6.2 Within 10 Working Days of any request made by the Biodiversity Provider following the end of the Duration, the LPA shall cancel all entries made in the local land charges register in respect of this Deed.

7 COMPLIANCE WITH LEGAL OBLIGATIONS

7.1 In performing its obligations under this Deed, the Biodiversity Provider shall comply with and ensure that the Biodiversity Land is compliant with all applicable Enactments.

8 STEP-IN RIGHTS

8.1 Without limiting any other rights and remedies that are available to the LPA under this Deed and at law, if the Biodiversity Provider is in Material Breach of this Deed and:

8.1.1 fails to remedy such breach in accordance with Schedule 6; and/or

8.1.2 there is an Insolvency Event following which the LPA has reasonable grounds to believe that the Biodiversity Provider is unable to deliver compliance with the objectives and obligations in this Deed including, without limitation, adhering to all objectives set out in the Management Plan so that the attainment of the Biodiversity Objective is at risk; and/or

8.1.3 there is an emergency or serious threat to the potential of the Biodiversity Land to deliver the Biodiversity Objective

the LPA may notify the Biodiversity Provider that the LPA and/or a third party appointed by the LPA ("**Contractor**") intends to perform or manage the obligations on the part of the Biodiversity Provider set out in this Deed including the Management Plan (in whole or in part) ("**Affected Obligations**").

8.2 On receipt of the notice referred to in clause 8.1, the Biodiversity Provider shall not, and shall procure that any sub-contractors they have engaged in relation to the Affected Obligations shall not, perform the Affected Obligations and, at no extra cost to the LPA, shall provide the LPA with such information as it requires in order to complete the Affected Obligations.

8.3 If the LPA is satisfied that the circumstances leading to step-in are no longer present and the Biodiversity Provider has demonstrated to the reasonable satisfaction of the LPA that it is able to resume responsibility for the Affected Obligations, the LPA will issue a written notice to the Contractor that:

8.3.1 it requires the Biodiversity Provider to resume performance of the Affected Obligations;

8.3.2 specifies the date on which the Biodiversity Provider shall resume such performance; and

8.3.3 sets out the actions that it (or the Contractor) actually took while stepped-in.

8.4 The Biodiversity Provider shall be liable to the LPA for all direct costs and expenses that are reasonably and necessarily incurred by the LPA in taking action under this clause 8.

9 DISPOSITION OF BIODIVERSITY LAND

9.1 The Biodiversity Provider warrants that no other party other than those identified in Part 2 of Schedule 1 (if any) has any legal or equitable interest in the Biodiversity Land.

9.2 The Biodiversity Provider shall notify the LPA of any conveyance, transfer, lease, assignment, mortgage or other disposition entered into in respect of any part of the Biodiversity Land or any change in ownership of any of the interests in the Biodiversity Land occurring before the expiry of the Duration and before the obligations under this Deed have been discharged, such notice to give:

9.2.1 the name and contact address of the party to whom the disposition was made (and in the case of a company the full name and registered office address) and

9.2.2 the nature and extent of the interest disposed of by a reference to a plan.

9.3 If any such sale or other disposition of the Biodiversity Land occurs before registration of this Deed under clause 6 the Biodiversity Provider shall:

9.3.1 ensure such sale or other disposition is made expressly subject to the objectives, terms and conditions of this Deed;

9.3.2 ensure the party to whom such sale or other disposition is made accepts that they are a successor of the Biodiversity Provider; and

9.3.3 ensure that the details of the party to whom such sale or other disposition is made are provided to the LPA.

PROVIDED THAT the obligations in clause 9 shall not apply to a statutory undertaker acquiring an interest in the Biodiversity Land for the purposes of its undertaking.

10 LPAS' COVENANTS

10.1 In the event the LPA exercises those rights of entry under clause 5 and/or clause 8, it covenants that it shall comply at all times with the Management Plan and leave the Biodiversity Land in a clean and tidy condition upon vacation of the same SAVE THAT the LPA shall not be required to place the Biodiversity Land into any better state of repair or condition than it was in at the date the LPA took entry of the same.

11 GOOD FAITH

11.1 The parties enter into this Deed in the knowledge that this Deed could be affected by future changes to the 2021 Act and subordinate legislation or guidance made or yet to be made under it.

11.2 Such changes may have the effect of undermining or frustrating the common purposes of this Deed, namely securing obligations to:

11.2.1 achieve the Biodiversity Objective;

11.2.2 ensure that an adequate number of Biodiversity Units is produced; and

11.2.3 enable the Biodiversity Land or any Allocation Notice to be recorded in the Biodiversity Net Gain Register in accordance with Schedule 5, Paragraphs 2 and 3.

(together, the "**Common Purposes**").

11.3 The parties agree to act in good faith to achieve the Common Purposes and the LPA shall, at the reasonable cost of the Biodiversity Provider, promptly provide such assistance as the Biodiversity Provider shall require to enable the registration of the Biodiversity Land and/or any Allocation Notice in the Biodiversity Net Gain Register.

11.4 The parties further agree to vary this Deed where necessary to achieve any one or more of the Common Purposes.

12 NOTICES, CONSENTS AND APPROVALS

12.1 Any notice or other consent, approval or other document given to a party under or in connection with this Deed shall be in writing and shall be delivered by hand or by pre-paid first-class post or other next working day delivery service at its registered office (if a company) or its principal place of business (in any other case) or such alternative address (which must be based in England or Wales) for the service of subsequent notices or other written communications.

12.2 Any notice or other consent, approval or other document shall be deemed to have been received:

12.2.1 if delivered by hand, at the time the notice is left at the proper address; or

12.2.2 if sent by pre-paid first-class post or other next Working Day delivery service, at 9.00 am on the second (2nd) Working Day after posting; or

12.2.3 if sent by email, at the time of transmission.

12.3 Any notice or other consent, approval or other document sent to the Biodiversity Provider must be marked for the attention of the 'General Counsel' with a copy being sent by email to admin@environmentbank.com.

12.4 This clause does not apply to the service of any proceedings or any documents in any legal action or, where applicable, any arbitration or other method of dispute resolution.

12.5 A notice given under this Deed is not valid if sent by fax.

13 RESTRICTIONS ON LIABILITY OF BIODIVERSITY PROVIDER AND LPA

13.1 No party shall be liable to any other party for breach of any term of this Deed to the extent that its performance or observance is or becomes illegal.

14 EXPIRY OF THE COVENANT PERIOD

Subject to the operation of clause 25, this Deed shall cease to have effect (except insofar only as it has not already been complied with) on the expiration of the Duration.

15 RELEASE AND LAPSE

15.1 It is hereby agreed that no person and/or any of their successors in title shall be liable for a breach of any of its obligations under this Deed (save for antecedent breaches) after the relevant person shall have parted with all of its interests in the Biodiversity Land.

16 RELEASE OF BIODIVERSITY LAND

16.1 The Biodiversity Provider may modify or release all or part of the Biodiversity Land from this Deed under s.129 of the 2021 Act in the following circumstances:

16.1.1 where, at the relevant time, no Biodiversity Units have been sold from the Biodiversity Land to offset development under Schedule 7A of the 1990 Act; or

16.1.2 where, at the relevant time, one or more Allocations have been made from the Biodiversity Land to offset development under Section 7A of the 1990 Act, in which case the Biodiversity Provider may only release from this Deed such part of the Biodiversity Land that has not been Allocated.

17 VARIATION

No variation of this Deed shall be effective unless it is in writing and executed as a deed by the parties required to sign it under the relevant legislation (or their authorised representatives).

18 WAIVER

18.1 A waiver of any right or remedy under this Deed or by law is only effective if given in writing and shall not be deemed a waiver of any subsequent right or remedy.

18.2 A failure or delay by a party to exercise any right or remedy provided under this Deed or by law shall not constitute a waiver of that or any other right or remedy, nor shall it prevent or restrict any further exercise of that or any other right or remedy. No single or partial exercise of any right or remedy provided under this Deed or by law shall prevent or restrict the further exercise of that or any other right or remedy.

19 RIGHTS AND REMEDIES

The rights and remedies provided under this Deed are in addition to, and not exclusive of, any rights or remedies provided by law.

20 RIGHTS OF THIRD PARTIES

The parties do not intend that any term of this Deed should be enforceable by any third party as provided by the Contracts (Rights of Third Parties) Act 1999 but any third party right which exists or is available independently of that Act is preserved.

21 NOTIFICATION OF SUCCESSORS IN TITLE

21.1 The Biodiversity Provider covenants with the LPA that it will give immediate written notice to the LPA of any change in the ownership of the Biodiversity Land if at such time the obligations contained in this Deed have not been fully discharged, such notice to give details of:

21.1.1 the transferee's full name and registered office (if a company or usual address if not);

21.1.2 the area of the Biodiversity Land transferred by reference to a plan;

21.1.3 a copy of the covenant provided by the transferee of the Biodiversity Land referred to in clause 9.2.

22 GOVERNING LAW & JURISDICTION

22.1 This Deed and any dispute or claim arising out of or in connection with it or its subject matter or formation (including non-contractual disputes or claims) shall be governed by and construed in accordance with the law of England and Wales.

22.2 Each party irrevocably agrees that the courts of England and Wales shall have exclusive jurisdiction to settle any dispute or claim arising out of or in connection with this Deed or its subject matter or formation (including non-contractual disputes or claims).

23 SEVERANCE

If any term or provision in this Deed shall in whole or in part be held to any extent to be illegal or unenforceable under any Enactment or rule of law that term or provision or part shall to that extent be deemed not to form part of this Deed and the enforceability of the remainder of this Deed shall not be affected.

24 COSTS

24.1 The Biodiversity Provider agrees to pay before completion of this Deed the LPAs' reasonable and proper legal fees of [redacted] in connection with the negotiation, preparation and execution of this Deed.

24.2 The Biodiversity Provider agrees to pay the Monitoring Fee to the LPA on completion of this Deed.

25 COMMENCEMENT

25.1 This Deed comes into effect immediately upon being dated.

25.2 In the event that a Relevant Event occurs, this Deed shall cease to apply to any parts of the Biodiversity Land which are not subject to an Allocation Notice.

26 DELIVERY

26.1 The provisions of this Deed (other than this clause which shall be of immediate effect) shall be of no effect until this Deed has been dated.

IN WITNESS whereof the parties have executed this deed by on the day and year first before written

SCHEDULE 1 THE BIODIVERSITY LAND

PART 1

The Biodiversity Land is the land lying on the west side of the road leading from Henceford Cross to Chapel Cross Puddington registered under title number DN748857 and as is more particularly shown edged red on the Plan.

PART 2

List any third parties with any legal or equitable interest in the Biodiversity Land.

[redacted]

SCHEDULE 2 PLAN

These are the notes referred to on the following official copy

The electronic official copy of the title plan follows this message.

Please note that this is the only official copy we will issue. We will not issue a paper official copy.

This official copy was delivered electronically and when printed will not be to scale. You can obtain a paper official copy by ordering one from HM Land Registry.

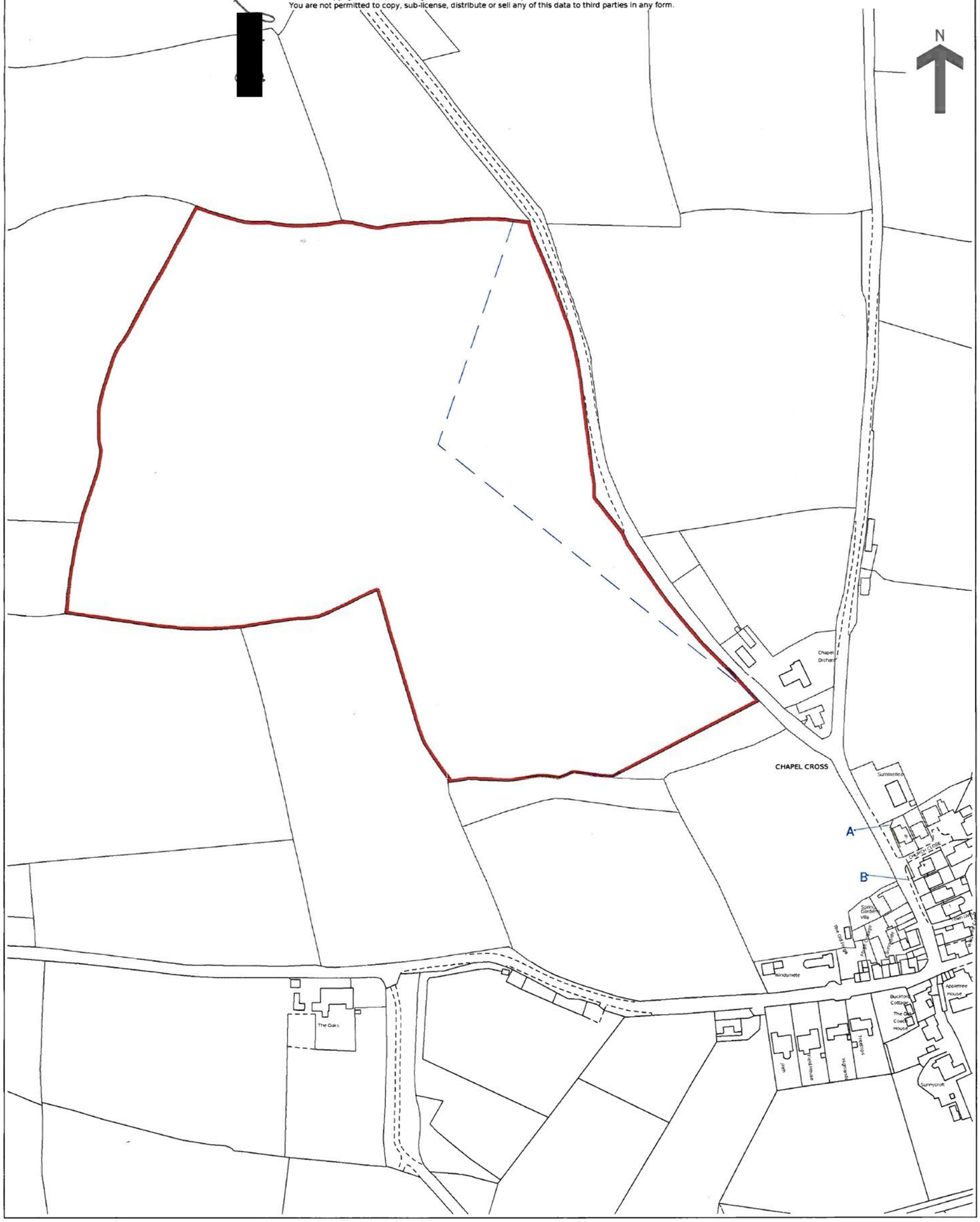
This official copy is issued on 10 July 2024 shows the state of this title plan on 10 July 2024 at 13:17:02. It is admissible in evidence to the same extent as the original (s.67 Land Registration Act 2002). This title plan shows the general position, not the exact line, of the boundaries. It may be subject to distortions in scale. Measurements scaled from this plan may not match measurements between the same points on the ground. This title is dealt with by the HM Land Registry, Plymouth Office .

[redacted]

HM Land Registry
Official copy of title plan

Title number **DN748857**
Ordnance Survey map reference **SS8310NW**
Scale **1:2500**
Administrative area **Devon : Mid Devon**

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This official copy is incomplete without the preceding notes page.

SCHEDULE 3 BIODIVERSITY CALCULATION

Completed Biodiversity Metric attached

SCHEDULE 4 PROFORMA ALLOCATION NOTICE

ALLOCATION NOTICE

Relating to Sale of Biodiversity Units

At land on Puddington Moor, Puddington

Pursuant to s.106 Agreement between

(1) Mid Devon District Council and (2) EBL HB Limited dated [date] 2024

Date

Purchaser of Units	Name: Address:
Development Offset by Units (if applicable)	Site Address: Application Reference:
Number/Type of Available Units	
Number/Type of Units being Purchased	
Remaining Number/Type of Units at the date of this Notice	

Signed for and on behalf of EBL HB Limited :

.....(Signature)

.....(Name in Capitals)

[.....(Position in Company)]

SCHEDULE 5 COVENANTS ON THE BIODIVERSITY PROVIDER

1 The Biodiversity Provider covenants with the LPA so as to bind the Biodiversity Land as follows:

1.1 For the Duration (and unless otherwise agreed in writing with the LPA):

1.1.1 the Biodiversity Provider shall implement the Management Plan in accordance with the timescales set out therein; and

1.1.2 the Biodiversity Land shall thereafter be managed and maintained in accordance with the Management Plan; and

1.1.3 the Biodiversity Provider shall not cause or permit anything to be done on the Biodiversity Land which is not in accordance with the Management Plan.

1.1.4 If any damage occurs to the Biodiversity Land so as to harm the vegetation thereon, the Biodiversity Provider shall:

1.1.4.a notify the LPA as soon as possible of the nature of the damage;

1.1.4.b provide a proposal for restoration of the damage;

1.1.4.c comply with any reasonable direction of the LPA relating to the restoration of the damage; and

1.1.4.d complete the restoration of the damage in a timely manner, at the Biodiversity Provider's cost and to the reasonable satisfaction of the LPA.

Sale of Biodiversity Units

2 Upon completion of any sale of Biodiversity Units the Biodiversity Provider shall within 10 Working Days send the relevant Allocation Notice to the LPA and submit an application to the Registrar for the registration of such allocation onto the Biodiversity Net Gain Register (or within 20 Working Days of the Registrar accepting such applications in the event that such allocation is made prior to the implementation of the 2021 Act).

3 The Biodiversity Provider shall register the Biodiversity Land on the Biodiversity Net Gain Register as soon as reasonably practicable. In the event this Deed cannot be registered on the Biodiversity Net Gain Register, then clauses 11.3 and 11.4 shall apply.

Monitoring

4 The Biodiversity Provider undertakes to the LPA to send a Monitoring Report in accordance with the Management Plan at the following intervals:

4.1.1 Annually for years 1 – 5; and

4.1.2 Every two years from years 5 – 9; and

4.1.3 Every five years from years 10 to the end of the Duration

Applications to the Biodiversity Net Gain Register

5 The Biodiversity Provider will provide the LPA with written notice of the submission of any application to (i) amend, (ii) withdraw, or (iii) remove any registration of this Deed, the Biodiversity Land or any allocation on the Biodiversity Net Gain Register within 10 Working Days of the said application being made.

6 The Biodiversity Provider will provide the LPA written notice of any decision made by the Registrar in relation to any application made to (i) amend, (ii) withdraw, (iii) remove, or (iv) add any registration of this Deed, the Biodiversity Land or any allocation on the Biodiversity Net Gain Register within 10 Working Days' of such decision being made.

SCHEDULE 6 BREACHES AND ENFORCEMENT

1 The Biodiversity Provider hereby covenants to comply with this Schedule 6

1.1 This schedule shall apply if there is a Breach or Material Breach by the Biodiversity Provider. It sets out a protocol for the enforcement (or otherwise) of that Breach or Material Breach; and

1.2 sets out the steps which the LPA may choose to take (jointly and severally), when considering enforcement in relation to Breach or Material Breach, unless it considers it appropriate to use its powers differently to ensure the proper exercise of its functions at the relevant time having regard to the circumstances.

1.3 Nothing in this Schedule shall prevent the LPA taking action in the event of an emergency or within six months prior to the expiry of a limitation period.

Part 1

2 Where a Breach occurs, the LPA may but are not obligated to, notify the Biodiversity Provider, who shall use all reasonable endeavours to remedy such breach as soon as reasonably practicable given the nature of the breach and the appropriate remedy.

3 Before taking enforcement action in relation to a Material Breach, the LPA may, but are not obligated to, where appropriate, take reasonable steps to give written notice to the Biodiversity Provider perform the obligation or remedy the Material Breach, stating the nature of the relevant breach, the steps required to remedy the breach and the timescale for remedying the Material Breach.

4 The Biodiversity Provider receiving notice referred to above will within ten Working Days of receiving the notice give notification to the Council of its response, setting out:

4.1 how it will remedy the Material Breach within the specified timescale; or

4.2 explaining to the LPA why the timescale set by the LPA for remedial measures is too short; or

4.3 that it rejects the LPA's notice for the reason it is not liable;

4.4 or no Material Breach has occurred.

5 The LPA may but is not obligated to hold discussions, where they are requested, about the steps required to remedy the Material Breach and timescale for remedying the Material Breach.

Part 2

6 If the Material Breach for which the Biodiversity Provider has been contacted by the LPA is not remedied within the timescale set, or the Biodiversity Provider fails to notify the LPA or rejects the notice, the LPA may before taking further enforcement action under the 1990 Act but is not obligated to, take reasonable steps to give notice to other parties which may be liable under this Deed, identifying the Material Breach, stating the steps requiring the breach to be remedied and the time within which the Material Breach is to be remedied. In the case of emergency, the LPA may take such steps as are appropriate. Otherwise, the party receiving such notice will, within ten Working

Days of receiving the notice, give written notification to the LPA of its response setting out:

6.1 how it will remedy the Material Breach within the timescale for remedying the relevant breach; or

6.2 explaining to the LPA why the timescale set by the Council for remedial measures is too short; or

6.3 that it rejects the LPA's notice for the reason it is not liable;

6.4 or no Material Breach has occurred.

7 The LPA may but are not obligated to give such persons as outlined above an opportunity to discuss the Material Breach and then remedy it.

8 In the event that the breach has not been remedied within the requisite timescale, or is not the subject of ongoing and diligent remedial action, the LPA may use the funds received from the Biodiversity Provider and may undertake relevant remedial works itself, or it may consider other legal remedies which are proportionate in the circumstances. The Biodiversity Provider shall allow the LPA to gain access to the Biodiversity Land to carry out such works as it reasonably estimates to be necessary to make good the Material Breach in accordance with clause 8.

SCHEDULE 7 MONITORING

1 The LPA shall:

1.1 Monitor the Biodiversity Provider's compliance with this Deed (including undertaking site visits to the Biodiversity Land during years 1, 2, 3, 4, 5, 10, 15, 25 and 30 of the Duration);

1.2 Carry out such enforcement or compliance or rectification work in respect of any Breach or Material Breach in accordance with this Deed and in accordance with the LPA's policies in force from time to time;

2 Nothing in this Schedule 7 prevents the LPA from exercising their power to monitor and enforce compliance with this Deed.

APPENDIX 1: Management Plan

HABITAT MANAGEMENT PLAN

MDEV07 – PUDDINGTON MOOR, PUDDINGTON

Ref: MDEV07-EB-HMP

Version: 03.00

Issued: 13/02/2024

A NEW PLAN FOR THE PLANET

ENVIRONMENT BANK

Report details	
Site code	MDEV07
Site name	Puddington Moor
Report title	Habitat Management Plan
Report reference	MDEV07-EB-HMP
Report version	03.00
Report author	Mike Waller ACIEEM (Senior Ecologist)
Checked by	Hannah Tracey MCIEEM (Principal Ecologist)
Approved by	Tom Rothero MCIEEM (Associate Director)
Date	13/02/2024

Disclaimer

To achieve the study objectives stated in this report, we were required to base our conclusions on the best information available during the period of the investigation and within the limits prescribed by our client in the agreement. Where information is provided by others, EBL shall bear no liability in respect of any advice given on the basis of that information. No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information. Thus, we cannot guarantee that the investigations (date, work, interpretation of that data or work) completely defined the degree or extent of e.g., species abundances, habitat management efficacy, conservation credit calculations and hence credit requirements, described in the report.

Contents

Management Plan Overview **5**
1 Site Information **6**
1.1 Habitat Bank Details 6
1.2 Principal Contacts 6
1.3 Management Context 7
2 Enhancement and Management Proposals **8**
2.1 Management Aims 8
2.2 Early Works - Habitat Creation, Establishment and Management 9
2.3 Early Works - Habitat Creation and Establishment Schedule 12
2.4 Long Term Habitat Management 14
2.5 Annual Management Schedule 17
3 Early Implementation Actions **18**
4 Deviation from Management Prescriptions **18**
5 Monitoring and Reporting **18**
5.2 Report of Actions Taken 19
5.3 Monitoring Survey 19
5.4 Annual Management Review 20
6 Scheme completion **21**
References **22**

Tables

Table 1: Site details 6
Table 2: Principal contact details 6
Table 3: Management context 7
Table 4: Aims for each habitat proposed for the site. 8
Table 5: Creation and establishment prescriptions for all areas 9
Table 6: Early works schedule 12
Table 7: Management prescriptions for all areas 14
Table 8: Annual management schedule (all proposals) 17

Table 9: Costed contingency proposals for each proposed habitat 20

Figures

Figure 1: Site Boundary 23
Figure 2: Proposed Habitats 24

Appendices

Appendix A: Management Objectives 25

Management Plan Overview

The purpose of this Habitat Management Plan (HMP) is to detail the habitat creation and long-term management proposals required to achieve the proposed habitats for Puddington Moor (Environment Bank Ltd Ref: MDEV07), hereafter referred to as the 'Site'. The Site Boundary is shown on Figure 1.

The management period is defined by net gain principles and planning obligations associated with the proposed development and so must cover a minimum 30-year period.

The plan is designed to be an adaptive, 'live' document and should be reviewed and amended regularly to ensure the management objectives remain fit to achieve their intended aims over the 30-year management period.

Third party oversight of the HMP will be carried out by the relevant Local Planning Authority, who will review progress of the habitat bank against the proposed management objectives. This is to provide the relevant Local Planning Authority confidence in the performance of the Habitat Bank in line with the Biodiversity Unit sales used as part of their planning process.

The land manager is responsible for implementing the management works in the HMP and reporting back progress to Environment Bank in accordance with the terms and funding provided within the signed Habitat Management Agreement (HMA).

The HMP ensures that works do not adversely affect any protected species within the site and is compliant with UK Wildlife Legislation.

1 Site Information

1.1 Habitat Bank Details

1.1.1 Table 1 below summarises the details of the Site subject to the HMP. The Habitat Bank Site Boundary is shown on Figure 1.

Table 1: Site details

Site Details	
Site	Puddington Moor
Address	Puddington Moor, Puddington, Mid Devon
National Grid Reference (Centroid)	SS829109
Local Planning Authority	Mid Devon District Council
National Character Area	The Culm
Land Ownership	Private

1.2 Principal Contacts

1.2.1 Table 2 contains the contact information for the Site.

Table 2: Principal contact details

Principal contact details	
Land Owner	Bella Lowes & William Lowes
Contact address	[redacted]
Land Manager	Bella Lowes & Toby Diggens

1.3 Management Context

1.3.1 Table 3 below details the management context associated with the Site and delivery of the HMP.

Table 3: Management context

Management context	
Existing Management	The Site is a large arable field.
Utilities	Water main in the centre of the site extending in from the road
Flooding	The site is not within a flood zone. Some surface water can occur after heavy precipitation events due to clay soils.
Public Access	None
Protected Species	No protected or notable priority species data was returned for within the site itself.
Invasive Species	No invasive species were noted on or within close proximity to the site.

2 Enhancement and Management Proposals

2.1 Management Aims

2.1.1 The aims of the HMP are included within in Table 4 below and the proposed habitats are shown within Figure 2.

2.1.2 The proposed condition criteria are in line with the Statutory Biodiversity Metric (Natural England, 2023) (the Metric) and are provided for each proposed habitat at Appendix A.

Table 4: Aims for each habitat proposed for the site.

Proposed habitat	Aims
MDEV07-ONG (Other neutral grassland)	To convert the majority of existing arable land into a species-rich neutral grassland and maintain in Good condition.
MDEV07-MXS (Mixed scrub)	To create and maintain new woody Mixed scrub margins of Moderate condition and a arger section of Mixed scrub in Good ecological condition in the southern area of the site.
MDEV07-Existing Hedgerows	To retain sections of existing hedgerow located on the lease boundary in Good condition.

2.2 Early Works - Habitat Creation, Establishment and Management

2.2.1 Table 5 below lists the works that will be undertaken at the beginning of the lease term to create, establish and manage the habitats and fulfil the management objectives described in full and provided within Appendix A. The actions are listed sequentially across all projects for ease of project planning.

Table 5: Creation and establishment prescriptions for all areas

Project ref	Action	Rationale	Timing	Delivery body	Objectives
MDEV07-ONG	Cease all fertiliser input. All inputs were ceased on occupation of the land by the current landowners in late 2020.	To reduce the soil nutrient levels.	2020 Onwards	Land Manager	1
MDEV07-ONG	Nutrient stripping crop of spring barley grown and harvested	To reduce the soil nutrient levels.	Spring 2021–September 2021	Land Manager	1
MDEV07-ONG	Field left fallow and successional vegetation allowed to develop	To begin soil recovery and reduce soil erosion.	September 2021–August 2022	Land Manager	1
MDEV07-ONG	Hay cut	Reduce sward and remove biomass.	August 2022	Land Manager	1, 5
MDEV07-ONG	Prepare ground for seeding. Harrow field to create at least 40 – 50% bare ground. Spot treat any undesirable weeds (e.g. nettle, thistles, docks, ragwort) by manual method of cutting or pulling. **No** chemicals or herbicides are to be used.	Seed must make contact with bare ground to increase success rate of germination. Reduce undesirable species and competition.	September 2022	Land Manager / Contractor	1, 5

Project ref	Action	Rationale	Timing	Delivery body	Objectives
MDEV07-ONG	Spread green hay from local donor site.	To establish species rich grassland Seeding prior to heavy rain events should be avoided. Rolling post seeding not suitable on the site due to the ground conditions and soil type.	September 2022	Land Manager / Contractor	1, 5
MDEV07-ONG	Establish yellow rattle (*Rhinanthus minor*)	Yellow rattle will suppress the growth of coarse grasses.	September 2022	Land Manager / Contractor	1, 5
MDEV07-ONG	Scrape creation.	Small very shallow (approx. 150mm) scrapes created to create wet patches of grassland across the site and provide a further niche habitat. Scrapes overseeded with a Culm seed mix so they become a part of the grassland.	October 2022	Land Manager / Contractor	1
MDEV07-MXS	Prepare ground for shrub planting – top existing sward height to 50-100 mm and remove arisings	To reduce competition.	November 2022	Land Manager/ Contractor	3
MDEV07-MXS	Lay locally sourced woodchip in areas of new shrub planting	Mulch the soil in areas of new shrub planting and encourage the development of the mycelial fungal network within the soil.	November 2022	Land Manager/ Contractor	1, 2
MDEV07-MXS	Plant native shrub and tree whips (various ages) at a density of approximately 1000/ha with lower planting densities towards the margins.	Plant native shrub and tree whips at mixed intervals to create a mosaic and open areas for glades to develop.	December 2022	Land Manager / Contractor	1, 2, 5
MDEV07-MXS	Fence off new scrub creation areas to prevent animal browsing/trampling whilst shrubs become established (whilst they graze the grassland).	Protect newly planted shrubs and allow them to establish	2022–2025	Land Manager / Contractor	2

Project ref	Action	Rationale	Timing	Delivery body	Objectives
MDEV07-MXS	Manage competitive growth of grasses and tall herbs through topping/cutting during first years of establishment until grazing commences.	To reduce competition and allow shrub establishment	As required (2022–2025)	Land Manager / Contractor	2, 3
MDEV07-MXS	Spot treat any undesirable weeds (e.g. nettle, thistles) by manual method of cutting or pulling. **No** chemicals or herbicides are to be used	To aid in achieving objective 3	Growing season 2023	Land Manager / Contractor	3
MDEV07-MXS	Replace failed planting stock	Maintain desired scrub habitat type	November/ December 2023	Land Manager / Contractor	1, 2
MDEV07-MXS	Allow grazing animals to browse within the scrub area	Allow animals to graze, browse and trample to open up areas of scrub and create edge habitats. Rotational grazing may be employed at first – this will be assessed when the scrub has developed.	Autumn 2026 onwards	Land Manager	2, 3, 4, 5

2.3 Early Works - Habitat Creation and Establishment Schedule

2.3.1 Table 6 below summarises the schedule of the early works actions as outlined in Table 5.

Table 6: Early works schedule

Project Ref	Prescription	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
MDEV07-ONG	Cease all fertiliser input	2020 Onwards												
MDEV07-ONG	Nutrient stripping cereal crop	2021												
MDEV07-ONG	Field left fallow	2021–2022												
MDEV07-ONG	Hay cut to remove biomass prior to seeding	2022												
MDEV07-ONG	Prepare ground for seeding, create a weed-free, fine seedbed. Spot treat any undesirable weeds (e.g. nettle, thistles, docks) by manual method of cutting or pulling. **No** chemicals or herbicides are to be used.	2022												
MDEV07-ONG	Spread green hay	2022												
MDEV07-ONG	Establish yellow rattle	2022												
MDEV07-ONG	Scrape creation	2022												
MDEV07-MXS	Prepare ground for shrub planting	2022												
MDEV07-MXS	Lay woodchip in areas of new shrub planting	2022												
MDEV07-MXS	Plant native shrub and tree whips at a density of approximately 1000/ha with lower planting densities towards the margins.	2022												

Project Ref	Prescription	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
MDEV07-MXS	Fence off new scrub creation areas to prevent grazing animals browsing/trampling whilst shrubs become established (whilst they graze the grassland).	2023–2025												
MDEV07-MXS	Manage competitive growth of grasses and tall herbs during first years of establishment, as required. Spot treat any undesirable weeds (e.g. nettle, thistles, docks).	2023												
MDEV07-MXS	Spot treat any undesirable weeds (e.g. nettle, thistles) by manual method of cutting or pulling. No chemicals or herbicides are to be used.	2023												
MDEV07-MXS	Replace failed planting stock.	2023												
MDEV07-MXS	Allow grazing animals to browse within the scrub area	2026–2053												

2.4 Long Term Habitat Management

2.4.1 Table 7 below lists the habitat enhancement and management works that will be implemented over the management period (30 years) following the initial establishment of the habitat during the Early Works. The actions are colour coded for each project for ease of reference.

Table 7: Management prescriptions for all areas

Area	Action	Rationale	Timing	Delivery body	Objectives
MDEV07-ONG	Top grassland to 50-100 mm and remove cuttings or graze with animals	Spring cut/graze to reduce competitive grasses. Spring topping not permitted after mid-April. Avoid undertaking in damp conditions to prevent soil compaction – it is understood this will be difficult on this site.	Every year from 2023 (March to April)	Land Manager	1, 2, 4, 5
MDEV07-ONG	Top grassland to 50-100 mm. Leave cuttings to dry and drop seed, collect and remove from site.	Summer topping not to be carried out before August 15th and not after 30th September. In exceptional circumstances such as hot summers an earlier cut may be acceptable, an ecologist from Environment Bank should approve any deviations from this management prescription.	Every year from 2023 (August 15th–September 30th)	Land Manager	1, 2, 4, 5
MDEV07-ONG	Manage/remove undesirable weeds (e.g. nettle, thistles, docks, ragwort) by manual method of cutting or pulling. **No** chemicals or herbicides are to be used.	Control to include topping/pulling spot treatment only. **No** chemicals or herbicides are to be used.	April–September every year	Land Manager	5

Area	Action	Rationale	Timing	Delivery body	Objectives
MDEV07-ONG	Low intensity aftermath graze with animals	Grazing helps create a grassland sward of varying length and greater diversity. Animals also create areas of bare ground.	Every year from 2023 (March to May inclusive) Every year from 2023 post hay cut	Land Manager	1, 2, 3
MDEV07-MXS	Coppice 25% of shrubs in years 10, 20 and 30 in rotation to encourage different height classes amongst the shrubs.	Maintain variation in height and structure. Creates some areas of young regrowth. Coppiced shrubs to be selectively thinned. Scrub cutting is not permitted between 28th February to 1st September to avoid nesting bird season – later cutting is preferred. Delay where possible cutting shrubs with berries until January / February to provide a foraging resource for birds and mammals.	October–February (2033, 2043 and 2053)	Land Manager	1, 2
MDEV07-MXS	Maintain the scrub edge.	Manage the scrub edge to reduce in height along the edge to the grassland field. To maintain the margin to the created neutral grassland. Cut back any scrub which is encroaching onto the grassland. Cut the grassland edge once a year ensuring the grassy scrub edge is maintained.	Every year once established in October	Land Manager	4
MDEV07-MXS	Replace failed planting stock.	Maintain desired scrub habitat type	Every year from year 3 October/November	Land Manager	1, 2
MDEV07-MXS	Manage and remove any undesirable species and invasive non-native species.	Control to include topping/pulling spot treatments only. **No** chemicals or herbicides are to be used.	October–February 2023–2053	Land Manager	3

Area	Action	Rationale	Timing	Delivery body	Objectives
MDEV07-MXS	Graze with animals	Allow animals to graze, browse and trample to open up areas of scrub and create edge habitats. Rotational grazing may be employed at first – this will be assessed when the scrub has developed.	August to November 2026 March to May and August to November from 2027 In line with the grassland grazing regime	Land Manager	2, 3, 4, 5

2.5 Annual Management Schedule

2.5.1 Table 8 below summarises the schedule of management works to be implemented over the course of the 30-year management agreement. For additional details regarding each prescription refer to Table 7.

Table 8: Annual management schedule (all proposals)

Project Ref	Prescription	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
MDEV07-ONG	Top grassland / or spring graze with animals	2023–2053												
MDEV07-ONG	Top grassland to 50-100 mm to remove biomass. Leave cuttings to dry and drop seed, collect and remove from site	2023–2053												
MDEV07-ONG	Manage/remove undesirable weeds (e.g. nettle, thistles, docks, ragwort). **No** chemicals or herbicides are to be used.	2022–2053												
MDEV07-ONG	Aftermath or continued grazing	2023–2053												
MDEV07-MXS	Coppice 25% of shrubs in years 10, 20 and 30 in rotation to encourage different height classes amongst the shrubs.	2033, 2043 and 2053												
MDEV07-MXS	Maintain the scrub edge.	2023–2053												
MDEV07-MXS	Replace failed planting stock.	2025–2053												
MDEV07-MXS	Manage and remove invasive non-native and undesirable species. **No** chemicals or herbicides are to be used.	2022–2053												
MDEV07-MXS	Grazing with animals	2025–2053												

3 Early Implementation Actions

3.1.1 The 'Early Implementation Actions' are the habitat establishment actions (as defined within the Habitat Management Agreement (HMA)) that, once complete, confirm that the land is formally being managed as a Habitat Bank for habitat creation and restoration purposes and in turn, starts the 30-year management time period required of all Biodiversity Net Gain delivery sites. The following actions are the Early Implementation Actions for this Habitat Bank:

Table 9: Early implementation actions

Proposed Habitat	Prescription
MDEV07-ONG (Other neutral grassland)	Scrape creation
MDEV07-MXS (Mixed scrub)	Plant native shrub and tree whips

3.1.2 There will be a requirement to formally document and demonstrate that these Early Implementation Actions have been completed and on which date. This will be achieved through a signed declaration that works were carried out in line with prescriptions, accompanied by timestamped photos of any management works taken before and after implementation. Correspondence between Environment Bank, Land Manager and contractors can also be used for this purpose.

4 Deviation from Management Prescriptions

4.1.1 It is vital that all steps within the habitat management plan are followed precisely. However, it is inevitable that slight deviations may be required in certain years due to variable elements such as weather conditions.

4.1.2 Any deviation from the management prescriptions in Table 5 and Table 7 should be agreed in writing with and Environment Bank ecologist. It is not acceptable to not undertake a management activity without prior agreement and sign off.

5 Monitoring and Reporting

5.1.1 The HMP and associated activities on site will be subject to monitoring, review and reporting by Environment Bank. This will ensure that:

A. the provisions of the management actions are fulfilled in accordance with the terms of the habitat management agreement and subsequent funding; and,
B. the management remains appropriate to achieve the target habitat types and condition.

5.1.2 To inform this approach, information about the delivery of the enhancement/management works and the status of the habitats will be collated for the duration of the management period February 2023–February 2053. This information will comprise the following:

5.2 Report of Actions Taken

5.2.1 Each year the Land Manager must complete a 'Report of Actions Taken' form. The Land Manager must complete the form to show they have completed all actions required in the management plan for that particular year.

5.2.2 Acceptable evidence of works includes:

A. Invoices/receipts from approved enhancement/management contractors; and,
B. A signed declaration that works were carried out in line with management prescriptions, accompanied by timestamped photos of any management works taken before and after implementation.

5.2.3 The form will give the Land Manager an opportunity to comment on the management prescriptions, and this will be used to inform Environment Banks monitoring visits and annual management review process.

5.3 Monitoring Survey

5.3.1 Environment Bank will undertake an annual monitoring visit to ensure that management is being undertaken correctly in line with the management plan and to monitor the progress of the habitat creation.

5.3.2 In addition to this, field monitoring surveys such as habitat surveys, condition assessments, soil analysis, invertebrate and bird surveys will be carried out in accordance with the Monitoring Strategy Report whether by a member of Environment Bank staff or an approved Environment Bank sub-contractor.

5.3.3 Each habitat will be mapped and assessed against the relevant habitat condition criteria as detailed in Appendix A.

5.3.4 Data compiled during this surveillance will be summarised within the Habitat Bank Monitoring Report.

5.4 Annual Management Review

5.4.1 A review of the HMP will be undertaken every year. The review will determine if the management actions proposed remain appropriate to achieve the aims of the plan and/or what, if any, amendments, or contingency will be needed to remediate any shortfalls.

5.4.2 The review will be informed from data and comments provided by the Land Manager in the 'Report of Actions Taken' form, the monitoring surveys and any further discussions between the Land Manager and Environment Bank.

5.4.3 Table 9 below outlines the costed contingency proposals included as part of this management plan along with some other examples of common management amendments.

5.4.4 Habitats will be monitored annually, and Environment Bank will propose interventions as early as possible in order to avoid delays in the time to target condition. During the establishment period for each habitat type, professional judgement will be used to assess the status of any transitionary habitat in order to decide if it is at the expected pre-target condition and moving towards target condition within the expected time period.

Table 9: Costed contingency proposals for each proposed habitat

Area	Trigger	Contingency
MDEV07-ONG	Invasive non-native species identified.	Adjust the management to include topping/pulling or spot treatment of the invasive species.
	Cover of undesirable species and physical damage over 5%.	Review the grazing stock type and density. Review with the land manager or contractor the use of machinery within the habitat (if applicable). Adjust the management plan in line with the outcomes to reduce physical damage.
	Sward height is uniform and does not provide the varied structure.	Review the grazing stock type and density. Consider the intermittent introduction of mechanical cutting on parts of the site to artificially vary the sward height.
	Cover of bracken over 20% and cover of scrub over 5%	Introduce bracken and scrub removal actions into the management plan.
	Target sward composition or diversity not achieved	Plug planting may be necessary to increase species diversity or additional overseeding to improve sward composition.
MDEV07-MXS	Failure of tree/shrub planting	Replacement planting acccunted for at 10% (as required)
	Invasive non-native species identified.	Adjust the management to include **increased** topping/pulling. **No** chemicals or herbicides are to be used.

Area	Trigger	Contingency
	Lack of a well-developed edge	Adjust the cutting of the scrub edge to ensure that the grassland margin is maintained. Review the grazing stock type and density.
	Lack of a good age range of shrubs within the habitat.	Additional planting of seedings or young shrubs where required to provide the diverse habitat structure.
MDEV07-Existing Hedgerows	New scrub margins begin encroaching on grassland	Management to maintain the width of the scrub margins will be put in place.

5.4.5 The condition of habitats will be monitored annually, and interventions will be proposed as early as possible in order to avoid delays in the time to target. During the establishment period for each habitat type, professional judgement will be used to assess the status of any transitionary habitat in order to decide if it is at the expected pre-target condition and moving towards target condition within the expected time period.

5.4.6 In addition to the above, amendments to the timings or prescriptions of the management plan can be made subject to the provision of evidence to justify the relevant management change. It is essential all changes receive prior agreement with Environment Bank before they can be implemented.

6 Scheme completion

6.1.1 The enhancement and management proposals set out in this report will be implemented over a period of 30 years from 2022 – 2053. On completion of the final year of management, the final review of the HMP and monitoring surveys will be undertaken. Once complete, a final Habitat Bank Monitoring Report will be completed in addition to a covering note outlining scheme completion.

References

Defra (2023a). The Statutory Biodiversity Metric Calculation Tool – macro-enabled. Available at Statutory biodiversity metric tools and guides - GOV.UK (www.gov.uk)

Defra (2023b). The Statutory Biodiversity Metric User Guide (draft). Available at Statutory biodiversity metric tools and guides - GOV.UK (www.gov.uk)

Defra (2023c). The Statutory Biodiversity Metric Condition Technical Annex 1: Condition Assessment Sheets and Methodology. Available at Statutory biodiversity metric tools and guides - GOV.UK (www.gov.uk)

UKHab Ltd (2023). *The UK Habitat Classification Version 2.0* at http://ukhab.org

Figure 1: Site Boundary

Figure 2: Proposed Habitats



ENVIRONMENT BANK

Figure 1
Site Boundary

Legend:

Site Boundary

Puddington Moor



Licence
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Site code		Figure ref	
MDEV07		MDEV07-HMP-F01	
Date	Version	Drawn	Approved
18/01/24	01	BH	SW

N

0 30 60 90 m

Scale at A4 - 1:2,500



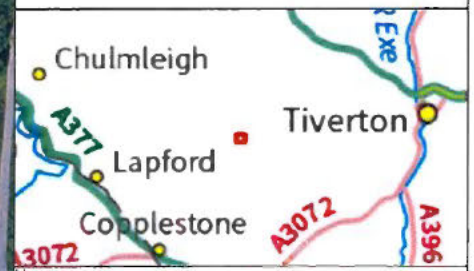
ENVIRONMENT BANK

Figure 2
Proposed Habitats

Legend:

- Site Boundary
- MDEV07-ONG (Other Neutral Grassland)
- MDEV07-MXS (Mixed Scrub)
- MDEV07-Existing Hedgerows

Puddington Moor



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Site code	Figure ref
MDEV07	MDEV07-HMP-F02

Date	Version	Drawn	Approved
18/01/24	01	BH	SW

N

0 30 60 90 m

Scale at A4 - 1:2,500

Appendix A: Management Objectives

The aims of the HMP will be achieved through the following objectives.

MDEV07-ONG – Other Neutral Grassland

A species-rich neutral grassland will be created on 8.68 ha of existing arable land within the site. The phosphorous index score for the identified arable field was 4+ at the last time of testing in March 2021. Since testing, nutrient inputs have ceased and a nutrient stripping crop of Spring Barley (*Hordeum sp.*) has been grown and harvested in 2021 and a hay cut of the successional vegetation taken in August 2022, both actions aiding to lower this value. Lowering of nutrient levels is key prior to the successful creation of species-rich grassland. The target habitat will deliver a species-richness of (on average) 9 to 15 species/m^2).

To achieve the target condition of Good for Other neutral grassland in line with the Metric, it requires the fulfilment of at least five the following criteria, including essential criterion A and F, within 10 years:

A. The parcel represents a good example of its habitat type "Other neutral grassland" (UKHab Ltd, 2023), with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to suboptimal species which may be listed in the UKHab description.
B. Sward height is varied (at least 20 % of the sward is less than 7 cm and at least 20 % is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.
C. Cover of bare ground between 1 % and 5 %, including localised areas, for example, rabbit warrens.
D. Cover of bracken *Pteridium aquilinum* less than 20 % and cover of scrub (including bramble *Rubus fruticosus* agg.) less than 5 %.
E. Combined cover of species indicative of suboptimal condition[1] and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species (as listed on Schedule 9 of WCA5) are present, this criterion is automatically failed.
F. There are 10 or more vascular plant species per m^2 present, including forbs that are characteristic of the habitat type (invasive non-native plant species and species indicative of suboptimal condition cannot contribute towards this count).

[1] Species considered undesirable for this habitat type include: Creeping Thistle *Cirsium arvense*, Spear Thistle *Cirsium vulgare*, Curled Dock *Rumex crispus*, Broad-leaved Dock *Rumex obtusifolius*, Common Nettle *Urtica dioica*, Creeping Buttercup *Ranunculus repens*, Greater Plantain *Plantago major*, White *Clover Trifolium repens*, Cow Parsley *Anthriscus sylvestris*.

The Habitat Management Objectives for MDEV07-ONG are as follows:

1. Deliver 10 to 15+ grassland species in 2m x 2m quadrat samples (averaged).
2. Deliver a variable sward height where at least 20 % of the sward is less than 7 cm and at least 20 % is more than 7 cm.
3. Deliver bare ground cover (1–5 % coverage).
4. Maintain/reduce scrub coverage to less than 5 % and bracken less than 20 %.
5. Remove the presence of invasive species. Combined area of physical damage and species indicative of sub-optimal condition and to less than 5 %.

MDEV07-MXS - Mixed Scrub

1.58 ha of Mixed scrub creation is proposed throughout the Site.

0.28 ha of mixed native woody scrub will be achieved through natural succession/ regeneration within the corners of the Site. Scrub species associated with the nearby, existing hedgerow network will self-seed and spread, providing a local source from which the habitat will establish. This low intervention, extensive management technique is expected to achieve a target condition of Moderate.

Land to the south of the site will be prepared with native shrub and tree whip planting to deliver a larger 1.30 ha area of mixed, native, woody scrub habitat in good condition.

To achieve the target condition of Moderate for mixed scrub in line with the Metric it requires the fulfilment of at least three of the following criteria within five years. Whereas to achieve the target condition of Good requires the fulfilment of all of the following criteria within 10 years:

A. The parcel represents a good example of its habitat type - the appearance and composition of the vegetation closely matches its UKHab description 'Mixed scrub' (UKHab Ltd, 2023) (where in its natural range).
   - At least 80 % of scrub is native,
   - There are at least three native woody species,
   - No single species comprises more than 75 % of the cover (except Hazel *Corylus avellana*, Common Juniper *Juniperus communis*, Sea Buckthorn *Hippophae rhamnoides* or Box *Buxus sempervirens*, which can be up to 100 % cover).

B. Seedlings, saplings, young shrubs and mature (or ancient or veteran) shrubs are all present.

c. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and species indicative of sub-optimal condition[2] make up less than 5 % of ground cover.

[2]Species indicative of sub-optimal condition for this habitat type include: non-native conifers, Tree-of-heaven *Alianthus altissima*, Holm Oak *Quercus ilex*, European Turkey Oak *Quercus cerris*, Cherry Laurel *Prunus laurocerasus*, Snowberry *Symphoricarpos* spp., Shallon *Gaultheria shallon*, American Skunk Cabbage *Lysichiton americanus*, *buddleia Buddleja* spp., cotoneaster *Cotoneaster* spp., Spanish Bluebell *Hyacinthoides hispanica* and hybrid bluebells *Hyacinthoides* x *massartiana*.

D. The scrub has a well-developed edge with scattered scrub and tall grassland and/or forbs present between the scrub and adjacent habitat.
E. There are clearings, glades or rides present within the scrub, providing sheltered edges.

The Habitat Management Objectives for MDEV07-MXS are as follows:

1. Deliver habitat including at least three woody species, with no one species comprising over 75 % of habitat area.
2. Deliver a range of shrub ages, including seedlings, young and mature shrubs.
3. Remove the presence of invasive species. Area of undesirable species must be less than 5 %.
4. Deliver well-developed edge habitats.
5. Deliver glades and rides within the scrub.

MDEV07-Existing Hedgerows

The existing hedgerows that form the lease site boundary are to remain subject to their current management regime from the outside of the site boundary. Internally, physical management interventions will cease and the hedgerows be allowed to self-seed and widen, forming wider scrub margins around the outside of the proposed grassland. This will enable them to remain in Good condition whilst creating wider benefits for biodiversity on site.

MONITORING STRATEGY

MDEV07 - PUDDINGTON MOOR, PUDDINGTON

Ref: MDEV07-EB-MNS
Version: 01.00
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A NEW PLAN FOR
THE PLANET

ENVIRONMENT BANK

Report details	
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Disclaimer

To achieve the study objectives stated in this report, we were required to base our conclusions on the best information available during the period of the investigation and within the limits prescribed by our client in the agreement.

Where information is provided by others, Environment Bank shall bear no liability in respect of any advice given on the basis of that information. No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information. Thus, we cannot guarantee that the investigations (date, work, interpretation of that data or work) completely defined the degree or extent of e.g. species abundances, habitat management efficacy, conservation credit calculations and hence credit requirements, described in the report. Nor does Environment Bank accept any liability for any decisions made by the client on the basis of the information, consultancy or advice provided by Environment Bank.

Table of Contents

Executive Summary **4**

1. Overview **5**

1.1 Delivering Biodiversity Net Gain 5

1.2 Monitoring Biodiversity Net Gain 5

2. Methods **7**

2.1 Competency 7

2.2 UK Habitat Assessment – Initial Walkover 7

2.3 Monitoring Survey 9

2.4 Adaptive Management 13

2.5 Reporting 13

3. Monitoring Schedule for MDEV07 ..... **14**

List of Tables

Table 1: Variables for which data may be collected during a monitoring survey, which will be site- and habitat-type dependant 9

Table 2: Monitoring schedule for MDEV07 showing the habitat type to be surveyed, the type of monitoring survey to be carried out, and the frequency of survey in relation to the time to target 15

List of Figures

Figure 1: Target Habitats (UKHab) for MDEV07 19

Figure 2: Target Habitats – Target Condition for MDEV07 20

Executive Summary

This report outlines the monitoring strategy of a Habitat Bank at Puddington Moor (Environment Bank Ltd Ref: MDEV07) within the Local Planning Authority of Mid Devon. Hereafter referred to as MDEV07 or 'the Site'.

Environment Bank Ltd produces a Biodiversity Appraisal Report for each of our Habitat Banks which details the baseline habitats and flora found within each site following an initial ecological assessment. The Biodiversity Appraisal Report also provides information on the target habitats and target condition that is our aim, i.e. the uplift in Biodiversity Net Gain (BNG). The current and target habitats, and condition, for each site follow those in The Statutory Biodiversity Metric (the Metric) (Defra, 2023a,b,c); the majority of which follow definitions set out by the UK Habitat Classification (UKHab Ltd, 2023). Refer to the Biodiversity Appraisal Report for the Habitat Bank at MDEV07 for details of the habitats present within the site prior to creation/enhancement; the target habitats and target conditions; and the overall biodiversity increase (Biodiversity Units) for the Site.

A Habitat Management Plan is also formulated for each Site. The site- and habitat-specific BNG management objectives including detailed activities for creation, establishment and subsequent habitat management are found in the Habitat Management Plan. Refer to the MDEV07 Habitat Management Plan for the management objectives and activities.

Environment Bank's Monitoring Strategy is to provide data on progress towards BNG for each defined habitat within a Habitat Bank, providing the quantifiable evidence to measure gains (or otherwise) against set targets and enable us to employ adaptive management. The Monitoring Strategy will meet the monitoring requirements of the British Standard requirements for Habitat Banks (BS 8683; British Standards Institution, 2021) for survey methods; timing and frequency of resurvey; qualifications and experience required of surveyors; and arrangements for retaining and sharing raw survey data to aid future interpretation and assessment of change. Monitoring surveys will be bespoke, tailored to the habitat features present and those to be enhanced or created.

At the Site, monitoring surveys may include the Metric condition assessment; botanical surveys including structured walks and detailed quadrats; whole feature assessments of vegetation structure and composition; soil chemistry; breeding bird surveys; and Report of Actions Taken (management survey). The bespoke Monitoring Schedule for the Site with frequency of surveys by type is provided in Table 2: Monitoring schedule for MDEV07 in this document.

As part of the monitoring strategy for the Site, Environment Bank will undertake an annual visit to ensure that management is being undertaken correctly in line with the prescriptions in the Habitat Management Plan formulated for the site and that it aligns with the responses in the Report of Actions taken submitted annually by the Land Manager.

1. Overview

1.1 Delivering Biodiversity Net Gain

1.1.1 Environment Bank Ltd are establishing a national network of Habitat Banks across England. From January 2024, under Schedule 14 of the Environment Act 2021[1] all developments will need to deliver at least a 10 % increase in biodiversity as a result of their proposals; Biodiversity Net Gain (BNG). This can be delivered on-site or off-site. Habitat Banks are one-off solutions that unlock more sustainable development locally and meet wider nature recovery objectives. They are large-scale habitat creation and enhancement projects that deliver an uplift in biodiversity value and restore nature at scale. The uplift in biodiversity is measured by the Defra Biodiversity Metric, currently The Statutory Biodiversity Metric released in November 2023 (the Metric) (Defra, 2023a,b,c) and translated into Biodiversity Units (BU) that can then be sold to developers to meet their mandatory BNG obligations. Habitat enhancement works at each of **Environment Bank's** Habitat Banks will commence in advance of BU sales.

1.2 Monitoring Biodiversity Net Gain

1.2.1 Monitoring is more than the activity of recording: monitoring is a programme of repeated surveys carried out to a pre-defined standardized method, with a baseline against which subsequent surveys are compared. Monitoring surveys have a specific purpose and aim to determine whether a management objective and/or target has been achieved or whether progress is being made towards achieving that target. A well-designed monitoring survey should detect changes in the data over time and trigger responses if any of the changes are undesirable.

1.2.2 Monitoring BNG activities are an essential component in securing the success of BNG delivery within a site. CIEEM has published a collaborative document on good practice principles for BNG (CIRIA, 2019). Chapter 13 *Maintenance and monitoring* highlights the need to:

- Implement the BNG management and monitoring plan.
- Use monitoring data to employ adaptive management and to demonstrate progress towards BNG.
- Use monitoring data to present quantifiable evidence on achieving measurable gains in biodiversity. Such monitoring should be over a timeframe that is commensurable with the specific features of the net gain design.
- Share the monitoring findings widely with industry and the project stakeholders.

[1] https://www.legislation.gov.uk/ukpga/2021/30/schedule/14/enacted

1.2.3 Environment Bank produces a Biodiversity Appraisal Report for each of our Habitat Banks which details the baseline habitats and flora found within each site. This document also provides information on the target habitats and target condition, that is our aim, i.e. the uplift in BNG. The current and target habitats and condition for each site follow those in the Metric; the majority of which follow definitions set out by the UK Habitat Classification (UKHab) (UKHab Ltd, 2023).

1.2.4 A Management and Monitoring Plan (MMP) is also required to meet the British Standard requirements for Habitat Banks (BS 8683; British Standards Institution, 2021). Environment Bank provides two separate documents that together meet the requirements of the MMP. The site- and habitat-specific BNG management objectives including detailed activities for creation, establishment and subsequent habitat management are found in the Habitat Management Plan. The monitoring aspects of the MMP are provided in this document, the Monitoring Strategy Report, which under BS 8683 (8.2 Monitoring), shall be implemented to:

a. Cover all habitats and features that have contributed towards the BNG calculations.
b. Check that habitat types and features are achieving the planned condition and functioning ecologically as intended according to timescales anticipated in the calculations.
c. Provide information to aid future interpretation and assessment of change.
d. Meet MMP requirements for survey methods, timing and frequency of resurvey, qualifications and experience required of surveyors and arrangements for retaining and sharing raw survey data to aid future interpretation and assessment of change.

1.2.5 Environment Bank's monitoring strategy is to provide data on progress towards BNG for each defined habitat within a Habitat Bank site, providing the quantifiable evidence and scientifically rigorous data required to measure gains (or otherwise) against set targets and enable us to employ adaptive management.

2. Methods

2.1 Competency

2.1.1 All Environment Bank staff that carry out monitoring surveys are highly experienced botanical surveyors, with the knowledge and skills required to meet the competency requirements of the Metric. We are using the Botanical Society of the British Isles (BSBI) Field Identification Skills Certificate (FISC) test to determine the botanical skill level of our surveyors.

2.1.2 All river condition assessments for BNG calculations and ongoing monitoring will be carried out by Environment Bank staff members trained and certified in MoRPh5 (Modular River Survey). Environment Bank staff includes trained and certified MoRPH5 assessors in every regional team.

2.1.3 Faunal surveys will be carried out by Environment Bank staff where a suitably qualified surveyor is available in-house, but otherwise will be carried out by a suitably qualified sub-contractor.

2.2 UK Habitat Assessment – Initial Walkover

2.2.1 A walkover survey and ecological assessment is undertaken for every proposed Habitat Bank to establish a baseline for the Site, as well as understand the local ecological priorities for biodiversity enhancement design, and to inform the proposed management measures that would need to be actioned for the lifetime of the project. In accordance with best practice (CIEEM, 2021), each site is also assessed to determine the presence of, and/or the opportunities for, protected, notable or invasive species within the Site in order to inform future proposals. Further surveys, including soil nutrient sampling and hydrological assessments, are also undertaken to further inform micro-siting of habitats.

2.2.2 The results of the initial walkover survey of a Habitat Bank (the Site) is provided in the Biodiversity Appraisal Report. This initial baseline survey identifies the habitats present using UKHab, taking into account the habitat requirements for the Metric, and provides an assessment of their condition. This initial survey facilitates our habitat creation and enhancement proposals and enables us to: formulate habitat-specific targets; specify the management activities required to achieve those targets; and to set the timeframe in which the targets must be achieved. Refer to the full Biodiversity Appraisal Report and associated Habitat Management Plan documents for further details.

Habitat Creation

2.2.3 In habitat creation projects, where the baseline habitat is lost and replaced with another target habitat (e.g. creating a grassland on a former arable field; creating a

stand of mixed scrub in an area of former grassland; or pond creation) a bespoke survey as detailed below will be formulated to collect data on clearly defined measurable objectives, set out in the Habitat Management Plan, within the boundary of the new habitat features. This will take place prior to or shortly after capital works take place to create the new habitat, depending on the habitat type in question.

Habitat Enhancement

2.2.4 In the case of habitat enhancement where the habitat is retained but there is a targeted improvement in condition (e.g. Poor to Good) or a change to a higher distinctiveness habitat in the same broad habitat group (such as enhancing Modified grassland to Lowland meadows habitat), the walkover survey of the site may be used as the baseline for our monitoring survey if it fulfils the data requirements to assess progress against our measurable objectives. Alternatively, a bespoke survey will be formulated as stated in 2.2.3 and carried out immediately before or after capital works takes place.

Habitat Retention

2.2.5 **Habitat retention or 'retained habitats' are those habitats (area or linear)** that do not provide an uplift in biodiversity units but are deemed to form an integral element of the habitat bank, such as an existing hedgerow that provides essential connectivity or a small woodland copse around which a larger woodland area is to be created.

2.2.6 The Metric User Guide (draft) (Defra 2023b) states that Habitat retention should be chosen when:

- *there is no loss of habitat*
- *habitat is retained in its baseline condition*
- *there is no action to enhance the habitat*

2.2.7 The Metric User guide also states that *Habitats subject to retention may still require ongoing intervention to maintain their baseline condition.*

2.2.8 Retained habitats therefore require monitoring to ensure that management activities by the land manager are maintaining the baseline condition (as a minimum) and to identify any need for intervention/adaptive management. Retained habitats will require a periodic habitat condition assessment.

Habitat Exclusion

2.2.9 **Habitat exclusion or 'excluded habitats' are those habitats which do not provide any** uplift in biodiversity units and are not considered integral to the Habitat Bank. The habitats do not form part of the habitat bank, despite residing within the Site boundary. Excluded habitats will not require a periodic habitat condition assessment.

2.3 Monitoring Survey

Survey Components

2.3.1 Environment Bank's monitoring survey for each Site will be bespoke, tailored to the habitat features present and those to be enhanced or created. Most Sites will have more than one habitat type in the creation/enhancement design: consequently, there will be more than one monitoring method employed.

2.3.2 The monitoring survey will provide data to complete a Metric habitat condition assessment and will provide additional data on the ecological functioning of the habitat and Site. Both quantitative and qualitative data will be recorded on several different variables that are predicted to change during habitat creation and/or enhancement through capital works and habitat management. The method of data collection for these surveys/data variables is shown in Table 1 and discussed below.

2.3.3 A bespoke Monitoring Schedule for MDEV07 is provided in Section 2.4

Table 1: Variables for which data may be collected during a monitoring survey, which will be site- and habitat-type dependant

Survey	Data variables	Methods
Habitat condition assessment	Botanical composition & cover, frequency of key indicators, vegetation structure, invasive non-natives, habitat damage, physical structure (rivers).	Various including: quadrats, assessment of defined sections (linear features), structured walks, whole feature assessment, MoRPh5, National Pond Survey.
Soil chemistry	pH, Phosphorous, Nitrogen, Potassium & Magnesium; Textural Class & composition; Organic Matter.	Averaged per field/land parcel, or stratified sampling by 1 ha grid squares.
Water chemistry	As required	Whole feature sampling (where required)
Management activities	Stock animal & livestock units, timing of grazing, timing of cutting, other management actions.	Report of Actions Taken: an annual questionnaire for the Land Manager to complete and submit.
Faunal surveys	Breeding/wintering birds, mammals (protected species), invertebrates, amphibians and reptiles.	Species/taxa/group-specific methods as appropriate

Terrestrial Habitats Including Wetland

Quadrats

2.3.4 Quadrats will be the survey method employed in most terrestrial habitats (with an 'area' spatial feature type) to assess the botanical composition of each habitat feature within a Site. Percentage cover of all vascular plant species will be recorded in homogeneous stands of vegetation. Quadrat positions will not be fixed due to the well-documented difficulties inherent (and time taken) in relocating quadrat markers and the impact on data analysis of localised damage on swards in fixed quadrat locations: quadrats will be appropriately spaced across the habitat feature with a 10-figure grid reference recorded for each, and subsequent surveys will record quadrats in the same general area in representative, homogeneous vegetation stands.

2.3.5 Quadrat size will largely follow the sampling methods of the National Vegetation Classification (NVC) (Rodwell, 1991 et seq.), which are scaled in relation to the structural variation in habitats. The variation within shorter, more species-rich habitat types can generally be 'captured' in small quadrats than that in taller and/or species-poor vegetation. Quadrat sizes are likely to be:

- 2 × 2 m in short herbaceous vegetation (e.g. grassland) and dwarf-shrub heaths.
- 4 × 4 m in short woodland field layers, tall herbaceous vegetation (e.g. tall-herb fen), sub-shrub heaths and open vegetation (e.g. open mosaic habitats).
- 10 × 10 m in dense scrub and very tall woodland field layers.
- 50 × 50 m in woodland canopy and shrub layers

2.3.6 Generally square quadrats are preferable, but shape is dependent on the shape of the habitat feature: linear or narrow features may require rectangular quadrats.

2.3.7 Quadrat number will vary with the size of the habitat feature. A general aim would be five quadrats per habitat feature for shorter vegetation, but this may be impractical in smaller areas of a habitat type. Fewer quadrats are likely to be recorded in new woodland and scrub areas as these tend to be limited in area (ha) in Environment Bank's Sites. Consequently, for analysis purposes, quadrat data will be averaged for the feature.

2.3.8 For those habitats where number of species per m^2 is included in the UKHab definition and/or condition assessment criteria in the Metric, a nested quadrat method (1 × 1 m within a 2 × 2 m quadrat) will be used.

2.3.9 The vegetation composition data recorded in quadrats will enable Environment Bank to determine similarity to the habitat definitions in the UKHab descriptions, which forms one of the Metric condition assessment criteria for many habitat types, and therefore our progress towards achieving the specified target habitat type and condition. Change in species composition attributes, similarity to NVC community types and other quantitative data may form part of the analysis.

Structured walks

2.3.10 Structured walks to assess vegetation composition are employed in Common Standards Monitoring of designated nature conservation sites (JNCC, 2019); in the assessment of Higher Level Stewardship (HLS) Farm Environment Plan (FEP) features (Natural England, 2010); and in the Baseline Evaluation of Higher Tier Agreements (BEHTA) (Natural England, 2016). They offer a standardised method of assessing progress towards attribute and target criteria that define favourable or unfavourable condition. They are particularly valuable in assessing whether, for example, grassland stands meet the Priority Habitat (Section 41 habitats and species[2]; NERC Act, 2006).

2.3.11 During a W-shaped or other representative walk, the surveyor stops at roughly regular intervals along the walk. Usually, 10 stops is sufficient unless the stand is very large when 20 stops may be recorded. At each stop the surveyor records data in the square metre in front of them, such as frequency data on positive and negative indicator species for the habitat, cover of individual or groups of plant species (e.g. % cover of: qualifying forb and sedge species, rye-grasses *Lolium* spp., or white clover *Trifolium repens*), cover of bare ground or litter, and sward height.

2.3.12 Environment Bank will employ structured walks in those habitats where frequency data of positive and/or negative indicator species, and aggregate cover of plant species/groups will inform on whether our habitat creation/restoration feature is meeting the definitions of the target habitat in UKHab and meeting the condition criteria in the Metric. For example, condition assessment of high distinctiveness grasslands requires frequency data on positive and negative indicator species, whilst assessment of heathland requires frequency data on dwarf-shrub species, heather age-classes and grazing impacts.

2.3.13 Structured walk data will contribute to Environment Bank's assessment of whether a favourable condition Priority habitat has been successfully achieved (where this was the target).

Whole feature assessment

2.3.14 Some attributes such as canopy cover of native trees in woodland; canopy cover of scattered trees in heathland; cover of scrub in grasslands; physical damage or excessive poaching in grasslands; or visual evidence of pollution in coastal saltmarsh are best assessed at the whole habitat feature level but will be determined following a walk-over of the habitat feature.

[2] Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 habitats and species of principal importance in England.

Linear features

2.3.15 The monitoring baseline data for habitat features with a 'line' spatial feature type, (such as hedgerows or line of trees) will be recorded by linear section at the length (m) specified in the Metric and/or in the habitat definition in UKHab, plus at the whole feature level (i.e. entire length of linear feature). Re-surveys of created/enhanced sections will inform on progress towards Metric condition criteria, such as the successful establishment of the requisite number of woody species per 30 m section in species-rich hedgerow creation.

Aquatic Habitats

Rivers

2.3.16 MoRPh5 (Modular River Survey) assessments will be carried out as a baseline for rivers, where included within a site, and subsequent resurvey will follow these methods.

2.3.17 Marginal vegetation will follow the methods set out for terrestrial habitats.

2.3.18 Further aquatic plant or macro-invertebrate surveys would be considered where appropriate and carried out by Environment Bank staff or an approved Environment Bank sub-contractor.

Ponds

2.3.19 The baseline for newly created ponds will take place following capital works to create the water body. The baseline survey for the pond will gather data at the whole feature level that specifically addresses the condition assessment criteria in the Metric for Pond habitat type.

2.3.20 In addition, in accordance with the methods of the National Pond Survey (Biggs *et al.*, 1998), Environment Bank surveyors will record:

- A complete list of wetland plants present on the outer boundary of the pond with a measure of their abundance.
- The extent of emergent, floating-leaved and submerged plants stands with the approximate abundance of dominant species.

2.3.21 Repeat surveys will be carried out to identify change in the plant community of the pond and progress towards the targets set in the condition assessment criteria and HMP.

Ditches

2.3.22 As with terrestrial linear features, ditches will be recorded by linear section at the length (m) specified in the Metric and/or in the habitat definition in UKHab, plus at the whole feature level (i.e. entire length of linear feature). Re-surveys of created/enhanced sections will inform on progress towards Metric condition criteria,

such as the successful establishment of the requisite number of emergent, submerged and floating-leaved plants per 20 m section or % cover of marginal vegetation.

Survey Frequency

2.3.23 The frequency of each type of survey will be dependent on the habitat type and the time to target condition set by the Metric and will be adaptive where needed (e.g. if habitat features are not achieving gains towards the set targets as expected, adaptive management and an increase in monitoring frequency may be triggered).

2.3.24 A bespoke Monitoring Schedule for MDEV07 is provided in Section 2.4.

Management – Report of Actions Taken

2.3.25 **Each year the Land Manager must complete a 'Report of Actions Taken'** (RAT) form. The Land Manager must complete the form to show they have completed all actions required in the management plan for that particular year. The report will be used to inform Environment Banks monitoring visits and annual management review process – refer to the HMP for more detail.

2.3.26 Data on stock animal used and stocking density, dates during which stock were on the Site, and shutting-up and cutting dates – where applicable – will be collected.

2.4 Adaptive Management

2.4.1 The results of the monitoring survey will be used in combination with the annual review of the HMP and the Report of Actions Taken provided by the Land Manager to identify and implement any management changes required to achieve target condition – refer to the annual HMP Review and the costed contingency proposals in the HMP document.

2.5 Reporting

2.5.1 Data compiled during the monitoring survey will be summarised within the Habitat Monitoring Report. This will include an assessment of the condition of each habitat type within the Site and an appraisal of whether the habitats are making the expected gains towards achieving target habitat type and condition, within the Time to Target.

2.5.2 Environment Bank will provide a copy of the Habitat Monitoring Report to the LPA every 5 years, or more frequently if requested.

3. Monitoring Schedule for MDEV07

3.5.1 Environment Bank will undertake an annual visit to ensure that management is being undertaken correctly in line with the prescriptions in the HMP and that it aligns with the responses in the Report of Actions taken.

3.5.2 A bespoke Monitoring Schedule for MDEV07 is provided in Table 2: Monitoring schedule for MDEV07 below, which will be carried out by Environment Bank ecologists who meets the competency standards required, or an approved Environment Bank sub-contractor.

3.5.3 Each habitat will be mapped and assessed against the relevant habitat condition criteria in the Metric.

Table 2: Monitoring schedule for MDEV07 showing the habitat type to be surveyed, the type of monitoring survey to be carried out, and the frequency of survey in relation to the time to target

Key habitat types: ONG – Other neutral grassland; MXS - Mixed Scrub; Ret. – Retained habitat

Key survey types: CA – Metric condition assessment; SW – Structured walk; Q – Quadrats; WF – Whole feature assessment; BBS – Breeding Bird Survey; RAT – Report of Actions Taken (Management Survey); [ ] – If required.

Habitat Type	Site	ONG	MXS	MXS	Ret.
Time to target (years)		10	5	10	N/A
Baseline survey (Capital Works phase)	Soils Invert BBS	N/A	N/A	N/A	CA
Year 1 (Feb 2023 onwards)	RAT	CA Q WF	CA WF	CA WF	
Year 2	RAT	SW	Q WF	Q WF	
Year 3	RAT	SW	Q CA	WF	
Year 4	RAT	SW	Q CA	WF	
Year 5	Soils RAT	SW Q CA	Q CA	Q CA	CA
Year 6	RAT	SW		WF	
Year 7	RAT	SW	WF	WF	
Year 8	RAT	SW Q CA		Q CA	
Year 9	RAT	SW Q CA		Q CA	
Year 10	Soils RAT	SW Q CA	Q CA	Q CA	CA
Year 11	RAT	SW			
Year 12	RAT	SW	WF	WF	
Year 13	RAT	SW			
Year 14	RAT	SW			
Year 15	Soils RAT	SW Q CA	Q CA	Q CA	CA
Year 16	RAT	SW			
Year 17	RAT	SW	WF	WF	
Year 18	RAT	SW			

Habitat Type	Site	ONG	MXS	MXS	Ret.
Time to target (years)		10	5	10	N/A
Year 19	RAT	SW			
Year 20	Soils RAT	SW Q CA	Q CA	Q CA	CA
Year 21	RAT	SW			
Year 22	RAT	SW	WF	WF	
Year 23	RAT	SW			
Year 24	RAT	SW			
Year 25	Soils RAT	SW Q CA	Q CA	Q CA	CA
Year 26	RAT	SW			
Year 27	RAT	SW	WF	WF	
Year 28	RAT	SW			
Year 29	RAT	SW			
Year 30 End	RAT	SW Q CA	Q CA	Q CA	CA

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Figure 1: Proposed Habitats (UKHab) for MDEV07



ENVIRONMENT BANK

Figure 2
Proposed Habitats

Legend:

- Site Boundary
- Other Neutral Grassland
- Mixed Scrub
- Hedgerows

Puddington Moor



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Site code		Figure ref	
MDEV07		MDEV07-MNS-F01	
Date	Version	Drawn	Approved
19/01/24	01	BH	SW

N

0 30 60 90 m

Scale at A4 - 1:2,500

Figure 2: Proposed Habitats – Proposed Condition for MDEV07



ENVIRONMENT BANK

Figure 2
Proposed Condition

Legend:

- Site Boundary

Condition

- Good
- Moderate
- Good

Puddington Moor



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Site code	Figure ref
MDEV07	MDEV07-MNS-F02

Date	Version	Drawn	Approved
19/01/24	01	BH	SW

N

0 30 60 90 m

Scale at A4 - 1:2,500

BIODIVERSITY APPRAISAL

MDEV07 - PUDDINGTON MOOR, PUDDINGTON

Ref: MDEV07-EB-BAR
Version: 02.00
Issued: March 2024

A NEW PLAN FOR THE PLANET

ENVIRONMENT BANK

Report details	
Site Code	MDEV07
Site Name	Puddington Moor
Report title	Biodiversity Appraisal Report
Report reference	MDEV07-EB-BAR
Report version	02.00
Report author	Mike Waller ACIEEM (Senior Ecologist)
Checked by	Hannah Tracey MCIEEM (Principal Ecologist)
Approved by	Tom Rothero MCIEEM (Associate Director)
Date approved	March 2024

Disclaimer

To achieve the study objectives stated in this report, we were required to base our conclusions on the best information available during the period of the investigation and within the limits prescribed by our client in the agreement.

Where information is provided by others, Environment Bank shall bear no liability in respect of any advice given on the basis of that information. No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information. Thus, we cannot guarantee that the investigations (date, work, interpretation of that data or work) completely defined the degree or extent of e.g., species abundances, habitat management efficacy, conservation credit calculations and hence credit requirements, described in the report. Nor does Environment Bank accept any liability for any decisions made by the client on the basis of the information, consultancy or advice provided by Environment Bank.

Table of Contents

Executive Summary **6**

1. Overview **8**

1.1 Delivering Biodiversity Net Gain 8

1.2 Purpose of the Report 8

1.3 Accompanying Information 8

1.4 Site Description 9

2. Legislative and Policy Context **9**

3. Data Collation Methods **9**

3.1 Desktop Study 9

3.2 Habitats and Flora 10

3.3 Fauna 11

3.4 Additional Surveys 12

3.5 Strategic Significance 13

3.6 Limitations 13

4. Data Collation Results **13**

4.1 Desktop Study 13

4.2 Habitats and Flora 15

4.3 Fauna 16

4.4 Additional Surveys 18

4.5 Strategic Significance 21

5. Evaluation **21**

5.1 Designated Sites 22

5.2 Habitats and Flora 22

5.3 Fauna 23

5.4 Strategic Significance 23

6. Habitat Creation and Enhancement Proposals **24**

6.1 Design Approach 24

6.2 Proposed Habitats 24

6.3 Benefits to Fauna 26

7. Biodiversity Accounting of Proposals **27**

7.1 Biodiversity Accounting Assessment 27
8. Conclusions 28
References 29

List of Tables

Table 1: Sources of information 9
Table 2: Summary of designated sites desk study data 14
Table 3: Summary of habitat enhancement opportunities 15
Table 5: Soil Analysis Summary (2021) 18
Table 6: Soil Analysis Summary (2023) 19
Table 7: Weather conditions and timings for breeding bird surveys 19
Table 8: Breeding bird survey results 20
Table 9: Available Biodiversity Units for habitats 28

List of Figures

Figure 1: Site Boundary 30
Figure 2: Baseline Habitats 31
Figure 3: Baseline Habitat Condition 32
Figure 4: Breeding Bird Survey 33
Figure 5: Baseline Strategic Significance 35
Figure 6: Proposed Habitats 36
Figure 7: Proposed Habitat Condition 37
Figure 8: Proposed Strategic Significance 38

List of Appendices

Appendix A: Legislation and Policy 39
Appendix B: Recent Desktop Study Records 41
Appendix C: Baseline Photographs 42
Appendix D: Baseline Grassland Habitat Assessment 44
Appendix E: Baseline Habitat Condition Assessment 45

Appendix F: Soil Sampling Results 50
Appendix G: Implications on Designated Sites, Habitats and/or Species 63

Executive Summary

This report outlines the biodiversity appraisal of a proposed Habitat Bank within the Local Planning Authority of Mid Devon.

The Habitat Bank comprises 10.26 ha of predominantly arable Cropland (Cereal crops) with a thin strip of Modified grassland at Puddington Moor (Environment Bank Ltd Ref: MDEV07), Puddington (the Site). The creation of Priority Habitats within a network of supporting semi-natural habitats will provide an off-site solution to Biodiversity Net Gain.

An ecological assessment was undertaken to establish a baseline for the Site, as well as understand the local ecological priorities for biodiversity enhancement design, and to inform the proposed management measures that would need to be actioned for the lifetime of the project. Further surveys, including two separate soil nutrient sampling and analysis, were undertaken to further inform micro-siting of habitats.

The baseline habitats for the Site are:

- Modified grassland (0.08 ha) in Good condition
- Cereal crops (10.18 ha) in condition assessment N/A
- Native hedgerow (0.10 km) in Good condition
- Species-rich native hedgerow - associated with bank or ditch (0.34 km) in Good condition
- Species-rich native hedgerow with trees - associated with bank or ditch (0.84 km) in Good condition

Following the detailed assessment including desk study and field survey, the following habitats are proposed which are considered beneficial for the Site, the local area, and which contribute to local ecological targets.

The proposed habitats for the Site are:

- Other neutral grassland (8.68 ha) in Good condition
- Mixed scrub (1.58 ha) in Moderate and Good Condition

These habitats are deemed the most suitable for the prevailing soil conditions and will complement the boundary hedges and existing areas of wildlife interest near to the Site while supporting locally declining species such as Yellowhammer and Skylark. The Site will help to create a stepping stone through the agricultural landscape, helping to bolster connectivity and contribute to Devon's Nature Recovery Network.

Prior to creation works, the baseline habitats equated to 20.85 habitat Biodiversity Units (BU).

Following creation works, the Site will provide a total net gain in 93.35 habitat BU, before baseline has been accounted.

The creation of a Habitat Bank at Puddington Moor will produce an overall biodiversity increase of 72.51 habitat BU.

The Habitat Bank has been secured for 33 years by legal agreement with the Land Owner to legally ensure the highest quality delivery of the habitats.

1. Overview

1.1 Delivering Biodiversity Net Gain

1.1.1 Environment Bank Ltd (EBL) are establishing a national network of Habitat Banks across England. All developments will need to deliver at least a 10 % increase in biodiversity as a result of their proposals; Biodiversity Net Gain (BNG). This can be delivered on-site or off-site. Habitat Banks are one-off solutions that unlock more sustainable development locally and meet wider nature recovery objectives. They are large-scale habitat creation and enhancement projects that deliver an uplift in biodiversity value and restore nature at scale. The Habitat Bank has been secured by legal agreement with the Land Owner to legally ensure the highest quality delivery of the habitats. The uplift in biodiversity is measured by the current version of the Statutory Biodiversity Metric (Defra, 2023) (the Metric) and translated into Biodiversity Units (BU) that can then be sold to developers to meet their BNG obligations that are to become mandatory by January 2024. Habitat enhancement works at the Site will commence in advance of BU sales.

1.2 Purpose of the Report

1.2.1 This Biodiversity Appraisal outlines the ecological assessment of a Habitat Bank within the Local Planning Authority of Mid Devon District Council. The Site, Puddington Moor (EBL Ref: MDEV07) is located at the village of Puddington in Mid Devon.

1.2.2 This report aims to:

- Outline the approach to data collection undertaken for the Site and surrounding landscape;
- Provide an overview of the ecological baseline and context of the Site;
- Interpret the baseline and contextual data to inform the design of the Habitat Bank, target habitats and condition;
- Provide the biodiversity assessment result of the Site; and
- Demonstrate how many biodiversity units of each habitat type the site can provide.

1.3 Accompanying Information

1.3.1 This Biodiversity Appraisal Report forms part of a suite of documents which together provide a full breakdown of the biodiversity delivery at the Site:

- Habitat Bank Vision
- Statutory Biodiversity Metric Calculation Tool
- Habitat Management Plan
- Monitoring Strategy

- Statement of Achievability

1.4 Site Description

1.4.1 Puddington Moor is situated on the northern edge of the village of Puddington, Mid Devon. The site is a single 10ha arable field that has been subject to intensive arable management since the 1960's. A narrow strip of grassland is present along the southern edge and the Site is bordered by hedgerows.

1.4.2 The site is a high point within an agricultural landscape at 202m above sea level and is surrounded by improved and unimproved pasture, with a large dairy holding to the north. The boundary of the site is shown in Figure 1.

2. Legislative and Policy Context

2.1.1 A review of planning guidelines, international commitments, legislation and planning policies relevant to the protection, conservation and enhancement of nature conservation interests was undertaken. Specific legislation and local policy taken into account as part of this appraisal is provided in Appendix A.

3. Data Collation Methods

3.1 Desktop Study

3.1.1 Ecological information relating to the Site was collated from the sources listed in Table 1 below. This collated data gives a useful indication of the distribution and abundance of ecological receptors at a given locale. In addition to statutory protected sites and relevant policy, consideration has also been made regarding the presence of protected or otherwise notable species in order to ensure legislative and policy compliance, as well as informing habitat creation prescriptions and management measures.

Table 1: Sources of information

Source of information	Nature of information
Magic Map	Statutory designated wildlife sites (Ramsar and National Site Network sites) within 10 km Other statutory designated wildlife sites of national to regional importance within 5 km Natural England licences within 2 km of the Site Habitats of value to biodiversity on and within 1 km of the Site

Source of information	Nature of information
Land Manager	Site History information generated from a standard Environment Bank questionnaire issued to the Land Owner at registration and through ongoing discussion
Devon Biological Records Centre (DBRC)	Non-statutory designated wildlife sites of local importance within 1km Protected species records within 1 km within the last 10 years Species include those listed under the following: - European Protected Species (EPS) - Schedule 1 of the Wildlife and Countryside Act 1981, as amended (WCA1); - Schedule 5 of the Wildlife and Countryside Act 1981, as amended (WCA5); - Schedule 8 of the Wildlife and Countryside Act 1981, as amended (WCA8); - Schedule 9 of the Wildlife and Countryside Act 1981, as amended (WCA9); - Species of Principal Importance under Section 41 of the Natural Environment and Rural Communities Act 2006 (S41); - UK Biodiversity Action Plan Priority Species (BAP) - Protection of Badgers Act 1992 (PBA); - Red and Amber listed Birds of Conservation Concern (BoCC Red / Amber/ BAm [BTO]); and - Devon Biodiversity Action Plan (DBAP).
Local Plans, policies, strategic documents	Mid Devon Local Plan (https://www.middevon.gov.uk/media/354365/local-plan-review-2013-2033-adopted-11112022-accessible.pdf) Devon Nature Recovery Network map (https://www.devonlnp.org.uk/our-work/nature-recovery-network/nature-recovery-network-map/) Devon Biodiversity Action Plan (https://www.devon.gov.uk/environment/wildlife/the-devon-biodiversity-action-plan-bap)
GIS	Ordnance & aerial survey mapping and satellite photography

3.2 Habitats and Flora

UK Habitat Assessment - Baseline

3.2.1 An initial walkover and full UKHab assessment of the Site was undertaken by Environment Bank surveyor Tom Rothero MCIEEM on the 26th August 2021 and updated by Hannah Tracey MCIEEM on 5th July 2022. The habitats present were assessed using the UK Habitat Classification System (UKHab) (Butcher et al, 2020), taking into account the habitat category requirements for the Metric.

3.2.2 During the initial site walkover and UKHab survey, any invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 and protected and/or notable plant species were recorded.

Habitat Condition Assessment - Baseline

3.2.3 A condition assessment of the baseline habitats was undertaken alongside the UKHab survey on 5th July 2022. This assessment was undertaken in the current metric at the time (Biodiversity Metric 3.1) in accordance with Biodiversity Metric 3.1 – User Guide (Panks et al, 2022) and Biodiversity Metric 3.1 – Habitat Condition Assessment Sheets.

3.2.4 The Statutory Biodiversity Metric (Defra, 2023) was released in November 2023. However, as habitat creation works for the Site began in September 2021, the condition assessments for the habitats was retrospectively updated taking in account any new or changes in criteria.

3.3 Fauna

3.3.1 In accordance with best practice (CIEEM, 2021), during the UKHab survey, the Site was also assessed to determine the presence of, and/or the opportunities to support protected and notable species, including statutory protected species, Species of Principal Importance under Section 41 of the Natural Environment and Communities Act 2006 and priority species listed on the Local Biodiversity Action Plan.

Invertebrates

3.3.2 The importance of the terrestrial habitats for invertebrates was assessed, as were the waterbodies and watercourses for aquatic invertebrates. Any incidental sightings of notable invertebrates were recorded.

Amphibians

3.3.3 The habitats within the Site were assessed for their potential to support amphibian species. Any pond within the site were recorded. Additional ponds within 500m of the Site were identified using aerial photography and OS mapping. If present, a habitat suitability assessment of these ponds for great crested newt was undertaken.

Reptiles

3.3.4 The habitats within the Site were assessed for their potential to support reptiles. Any features such as logs, brash piles, large debris etc. were noted as potential hibernation habitat and an assessment of the potential for habitats to provide foraging, basking and sheltering opportunities was made.

Birds

3.3.5 The importance of the site for use by breeding and overwintering birds was assessed, including any areas of woodland and scrub, and hedgerows. Any mature trees were

assessed for their potential to provide nesting sites for birds of prey, such as barn owl (*Tyto alba*).

Bats

3.3.6 The Site and surrounding accessible habitats were assessed for their potential to support roosting and foraging bats. Any trees within the Site that may offer bat roosting potential were noted, along with potential commuting corridors and foraging habitat within/immediately adjacent to the Site.

Otter and Water Vole

3.3.7 Any suitable habitats for otter and water vole on-Site and immediately off-Site were identified and assessed.

Hazel Dormouse

3.3.8 An assessment of the potential for the habitats within the Site to support hazel dormouse was made. Connectivity to off-Site habitats was also assessed.

Badger

3.3.9 The Site was inspected for signs of badger activity, including sett entrances, latrines, footprints, runs through vegetation, guard hairs caught on fences and snuffle holes, and its suitability to support this species assessed.

Other Protected Species

3.3.10 Where applicable, during the survey, evidence was recorded of any other protected or notable species, including UK BAP priority species. Habitats with the potential to support additional protected or notable species were also recorded, if present, during the survey.

3.4 Additional Surveys

Soil Chemistry

3.4.1 A soil survey was undertaken in 2021 by the current land managers prior to EB's occupation on the land. Samples were taken from the land for analysis to determine the existing soil conditions. Lab analysis of samples was carried out by Lancrop Laboratories who tested soil cores for pH, phosphorus, potassium and magnesium.

3.4.2 A further, more detailed soil survey was undertaken in February 2023 by Gown Engineers Ltd. Soil cores were collected from the entirety of the Site to determine the existing soil conditions. These were completed in line with Natural England Technical Information Note 35 'Soil sampling for habitat recreation and restoration' (Natural England, 2008) and lab analysis carried out by Natural Resource Management (a trading division of Cawood Scientific Ltd.).

Breeding Birds

3.4.3 A breeding bird survey was carried out by Nash Ecology comprising two survey visits in May and July 2022.

3.5 Strategic Significance

3.5.1 Strategic significance is defined as *'the local significance of the habitat based on its location and habitat type'*, and is a measurement assessed for each individual baseline parcel within the Metric calculation tools. This is based on whether the habitat is identified as being ecologically important in a local strategy or if the location is identified within the local strategy, map or plan as being ecologically important (high strategic significance); or if professional judgement can deem it ecologically desirable (medium strategic significance). When none of the above apply the habitat is assigned low strategic significance. Strategic significance is considered separately for each individual baseline habitat.

3.6 Limitations

3.6.1 The surveys were carried out within the recommended field season for habitat surveys. Whilst efforts were made to record all species using flowering or vegetative characteristics, some earlier flowering species may have been under-estimated, particularly during the later August visit. Given the selection of habitats recorded on site, this is not considered to have constrained habitat classification or habitat condition assessments.

3.6.2 Since the UK Habitat Assessment was undertaken in July 2022, new versions the UK Habitat Classification Version 2.0 (UKHabs, 2022) and the Statutory Metric (Defra, 2023) have been release resulting in changes to habitat nomenclature and classification as well as condition assessment criteria. However, there has been little change relating to the habitats present within the Site (Modified grassland and Cropland) as such this is not considered to have constrained habitat classification or habitat condition assessments.

4. Data Collation Results

4.1 Desktop Study

4.1.1 A summary of the desktop results relevant to the Site is set out below. It should be noted that an absence of records does not confirm the absence of protected or notable species from the search area.

Designated Sites

4.1.2 Table 2 summarises the results of the desk study for statutory sites (Ramsar and National Site Network sites) within 10 km of the Site, other statutory designated sites of national and regional importance within 5 km, and non-statutory designated sites within 1 km.

Table 2: Summary of designated sites desk study data

Designated sites	
Statutory sites (10km):	
Ramsar	There were no Ramsar sites within 10 km of MDEV07
National Site Network sites	Culm Grasslands SAC (UK0012679) located 9.5 km to the north
Statutory sites (5km):	
Sites of Special Scientific Interest (SSSI)	There were no SSSIs within 5 km of MDEV07
National Nature Reserves (NNR)	There were no NNRs within 5 km of MDEV07
Local Nature Reserves (LNR)	There were no LNRs within 5 km of MDEV07
Non-statutory sites (1km):	
County Wildlife Sites	Hence Ford (SS81/033) located 0.6km to the north-west
Other Sites of Wildlife Interest	Henceford Brook (SS81/032)
Unconfirmed Wildlife Site	Hudgery Woods (SS80/005) Hudgery (SS80/006) Puddington Wood (SS80/034)

Protected and Notable Species Records

4.1.3 Devon Biological Records Centre (DBRC) provided recent records (within the last 10 years) of a number of protected and notable species within 1 km of the Site. Those identified on-Site, require consideration during works, or have the potential to benefit from Habitat Bank creation are discussed within Sections 4.2 and 4.3. The full results are provided at Appendix B.

Local Plan and Notable Habitats

4.1.4 Table 3 provides a summary of the Site's nature conservation context.

Table 3: Summary of habitat enhancement opportunities

Habitat enhancement opportunities	
National nature network	The Site is not situated within the National Nature Network
Local ecological networks	The Site is not situated within the Devon Nature Recovery Network
Priority habitats	The Site is bound by species-rich native hedgerows
LBAP habitats	The Site is bound by species-rich native hedgerows

4.2 Habitats and Flora

UK Habitat Assessment - Baseline

4.2.1 The results of the survey are presented in Figure 2 and illustrative photographs of the botanical communities present on Site detailed in Appendix C. For grassland communities, species composition used to determine grassland type are included in Appendix D. The habitats present within the Site are listed below, with subsequent descriptions of each habitat also provided:

- Modified grassland (0.08 ha)
- Cereal crops (10.18 ha)
- Native hedgerow (0.10 km)
- Species-rich native hedgerow - associated with bank or ditch (0.34 km)
- Species-rich native hedgerow with trees - associated with bank or ditch (0.84 km)

Modified Grassland

4.2.2 A narrow strip of species-poor grassland along the southern boundary of the site with a damp grassland area in the southwestern corner of the site.

Cereal Crops

4.2.3 The majority of the site consisted of Cereal crops with common and widespread arable weeds.

Hedgerows

4.2.4 Three types of hedgerows border the entire Site (Native hedgerow, Species-rich native hedgerow - Associated with bank or ditch and Species-rich Native Hedgerow with Trees - Associated with bank or ditch) totalling 1.27 km.

Protected Plant Species

4.2.5 No protected plant species were recorded on site.

Invasive Plant Species

4.2.6 No invasive plant species were recorded on site.

Condition Assessment – Baseline Habitats

4.2.7 A condition assessment for the Modified grassland strip and hedgerows were originally carried out using the condition assessment sheets for Biodiversity Metric 3.1. This has since been updated to the condition assessment sheets for the Statutory Biodiversity Metric. Although, there has been minor changes to the wording of some conditions, this has not affected the condition score.

4.2.8 No condition assessment is required for the Cereal crop on site. The cropland is automatically assigned a condition of N/A within the Biodiversity Metric 3.1 and the Statutory Biodiversity Metric.

4.2.9 The detailed results which provide the evidence for each condition assessment for each of the baseline habitats are presented within Appendix E and shown on Figure 3.

4.3 Fauna

Invertebrates

4.3.1 The desk study returned no records of notable invertebrate species within 1km of the Site. During the walkover survey undertaken in July 2022, several different species of butterfly were observed.

4.3.2 The Site offers limited opportunities for invertebrates, being dominated by arable land which was likely subject to pesticide application. The hedgerows and grassland strip offer some suitable habitat; however, the grassland was narrow and species-poor. Very few microclimates are present on Site. Due to the lack of habitat variation, the invertebrates present within the Site would be limited to an average assemblage.

Amphibians

4.3.3 The desk study returned no records of great crested newt or other amphibians within 1km of the Site.

4.3.4 The Site lacks aquatic habitats; however, four ponds were identified within 500m of the Site. One of the ponds was located approximately 480m north of the site. This pond is located within woodland. Although, this pond is connected to the site via a small strip of woodland and hedgerows, this would increase the actual distance between the site and the pond. Given this and the high-quality terrestrial habitat immediately adjacent to the pond, if great crested newts were present, great crested

newt from this pond would be unlikely to be present on site. The remaining three ponds are located over 450m to the south of the Site. The village of Puddington and a minor road, situated between the ponds and the site provides a potential barrier to dispersal.

4.3.5 The Site is dominated by intensively managed arable cropland with a narrow strip of modified grassland which offer very limited potential for Great Crested Newt. Hedgerows are present at the boundaries of the Site and these may offer sheltering, foraging and commuting opportunities for Great Crested Newt, albeit their relatively small extent limits their value.

4.3.6 The hedgerows within the Site will be fully retained as part of the Habitat Bank creation and therefore, any Great Crested Newt present within the Site are unlikely to be adversely impacted.

Reptiles

4.3.7 No records of reptiles were obtained from DBRC within 1 km of the Site. The Site provides limited opportunities for foraging and dispersing reptiles as it lacked the mosaic of habitats required to support reptile species. Given the lack of records and limited habitat, a resident population of reptiles is considered unlikely to be present within the Site, although there is potential for reptiles to pass through the Site on occasion, utilising the hedgerows as commuting features.

Birds

4.3.8 A single record of skylark *Alauda arvensis* was returned from DBRC approximately 600m from the site.

4.3.9 The hedgerows around the site offer suitable nesting and foraging habitat for a range of bird species. The arable land and the modified grassland offer opportunities for ground nesting birds such as skylark.

4.3.10 Overall, the Site offers some nesting and foraging opportunities for a range of bird species but is not considered to be of elevated value for birds in the local area.

Bats

4.3.11 The desk study returned no recent records of any bat species within 1km of the Site.

4.3.12 Although several trees were present within the hedgerows bordering the site, two trees were identified as having features potentially suitable for roosting bats. The hedgerows and associated trees will be retained as part of the Habitat Bank creation. As such, there will be no loss of bat roosting provision.

4.3.13 The arable land offers limited opportunities for foraging bats as the invertebrate prey source is likely to be low. The hedgerows provide suitable commuting and foraging habitat and provide connectivity to other hedgerows within the wider landscape.

Otter and Water Vole

4.3.14 No records of otter or water vole were obtained within 1 km of the Site. The Site does not offer any suitable aquatic habitat for these species. As such, it is highly unlikely that these species are present within the Site.

Dormouse

4.3.15 No records of hazel dormouse were returned from the DBRC from within 1 km of the Site. The hedgerows present along the boundaries of the Site do offer some value to dormouse for foraging and commuting. However, lack good connectivity to well established woodland.

Badger

4.3.16 The desk study returned no records of badger within 1km of the Site. No badger setts or signs of badger were recorded during either of the walkover survey. This site is considered to be of limited value to the local badger population.

Other Protected and Notable Species

4.3.17 The desk study returned no records of other protected species within 1 km of the Site.

4.4 Additional Surveys

Soil Chemistry

4.4.1 The landowners have provided soil analysis data for the site. Four samples were analysed in March 2021. A summary of the results can be found within Table 4 below.

Table 4: Soil Analysis Summary (2021)

Sample	pH	Phosphorus (Index)	Potassium (Index)	Nitrogen (%)
E412604/01	5.9	4+ V. high	4+ V. high	0.160
E412604/02	6.1	3.2 High	3.9 High	Not provided
E412605/01	5.9	High	High	0.160
E412605/02	6.1	4+ V. high	3.9 High	0.167

4.4.2 Since the initial soil analysis, a nutrient stripping crop of barley was grown on the site and harvested in Autumn 2021 and a further hay cut taken of the successional vegetation in August 2022 to reduce nutrient levels. Existing phosphorus levels were considered too high to target any high distinctiveness grassland habitat on site.

4.4.3 A second soil survey and analysis was undertaken in early 2023 by Gown Engineers to assess the effectiveness of the soil stripping outlined above. The results of this second round of soil analysis is outlined below in Table 5.

Table 5: Soil Analysis Summary (2023)

Sample	pH	Phosphorus (Index)	Potassium (Index)	Nitrogen (%)
Sample Area 1	6.9	31.4 (3)	298 (3)	0.218
Sample Area 2	6.7	27.4 (3)	322 (3)	0.223
Sample Area 3	6.5	25.8 (3)	294 (3)	0.223
Sample Area 4	6.6	25.0 (2)	345 (3)	0.255
Sample Area 5	6.6	28.8 (3)	327 (3)	0.248

4.4.4 Detailed results of the soil sampling are included in Appendix F.

Breeding Birds

A breeding bird survey was carried out by Nash Ecology comprising two survey visits in May and July 2022. Timings and survey conditions are outlined in Table 6. As the lease for the Habitat Bank was signed in early May, a survey visit could not be undertaken in April.

Table 6: Weather conditions and timings for breeding bird surveys

Visit	Survey date	Start time	End time	Weather	Survey conditions
1	26/05/2022	05:25	06:25	12°C, Beaufort 2, cloud 100%	Excellent
2	28/06/2022	05:20	06:20	14°C, Beaufort 1, cloud 30%	Excellent

The breeding bird surveys confirmed two BoCC red list species (Skylark *Alauda arvensis and* Yellowhammer *Emberiza citrinella*) and one BoCC green list species (Wren *Troglodytes troglodytes*) were breeding on-site. A further two BoCC green list species (Chaffinch (*Fringilla coelebs*) and European Goldfinch (*Carduelis carduelis*)) could have been breeding on-site. However, this was not confirmed. All other bird species recorded within the Habitat Bank Boundary were not likely to be breeding on site. The results of the breeding bird surveys are detailed in Table 7 and presented in Figure 4.

As the proposals for the Habitat Bank involve the creation of open species-rich grassland across most of the site. Ground nesting species such as skylark will continue to benefit from the site. Also, the mixed scrub creation will provide additional nesting and foraging resource and protection from predation.

Table 7: Breeding bird survey results

BTO code	Species	Visit 1	Visit 2	Status	BoCC v5
S.	Skylark *Alauda arvensis*	3	7	Confirmed breeding. Likely three pairs	Red
Y.	Yellowhammer *Emberiza citrinella*	4	1	Confirmed breeding. Likely three pairs	Red
WR	Winter Wren *Troglodytes troglodytes*	3	3	Confirmed breeding. Likely three pairs	Green
CH	Chaffinch *Fringilla coelebs*	1	0	Possibly breeding on site. One pair at most.	Green
GO	European Goldfinch *Carduelis carduelis*	6	1	Possibly breeding on site. One pair at most.	Green
HS	House Sparrow *Passer domesticus*	2	1	Not breeding on site	Red
SG	Common Starling *Sturnus vulgaris*	0	6	Not breeding on site	Red
CM	Mew (Common) Gull *Larus canus*	1	2	Not breeding on site	Amber
SD	Stock Dove *Columba oenas*	1	0	Not breeding on site	Amber
B.	Common Blackbird *Turdus merula*	1	2	Not breeding on site	Green
BT	Blue tit *Cyanistes caeruleus*	0	1	Not breeding on site	Green
BZ	Common Buzzard *Buteo buteo*	1	0	Not breeding on site	Green
C.	Carrion Crow *Corvus corone*	1	0	Not breeding on site	Green
CD	Eurasian Collared Dove *Streptopelia decaocto*	0	1	Not breeding on site	Green
GS	Great spotted woodpecker *Dendrocopos major*	0	1	Not breeding on site	Green

BTO code	Species	Visit 1	Visit 2	Status	BoCC v5
JD	Eurasian Jackdaw *Corvus monedula*	0	2	Not breeding on site	Green
R.	Robin *Erithacus rubecula*	1	0	Not breeding on site	Green
WP	Common Wood Pigeon Columba palumbus	2	2	Not breeding on site	Green
PH	Common Pheasant *Phasianus colchicus*	1	0	Not breeding on site	Introduced

4.5 Strategic Significance

4.5.1 The strategic significance values attributed to the baseline habitats present at the Site are illustrated in Figure 8, near the bottom of this report.

4.5.2 The existing Cereal crop and Modified grassland currently present on site have been attributed a Low strategic significance. These habitats are not identified within the local BAP and the Site at Puddington Moor is not identified within any local strategy documents, plan or policy. Furthermore, the existing arable and modified grassland are of very low value for biodiversity and does not contribute to providing connectivity throughout the wider landscape.

4.5.3 Species-rich hedgerows are identified as a priority habitat within the Devon LBAP (Devon Biodiversity Partnership, 2009). As such, the Species-rich native hedgerow with trees - associated with bank or ditch and Species-rich native hedgerow - associated with bank or ditch has been assessed as Medium strategic significance. Due to the lack species present throughout the hedgerow, the native hedgerow has been assessed as Low strategic significance.

5. Evaluation

5.1.1 This section evaluates the data collected to guide the design of the Habitat Bank.

5.1.2 Any implications during the creation works phase on designated sites, habitats and/or protected and notable species as well as any additional surveys and/or reports required has been considered in Appendix G.

5.1 Designated Sites

Statutory

5.1.1 The only statutory site within the 10 km search radius is the Culm Grasslands Special Area of Conservation (SAC), a portion of which lies approximately 9.5km to the north.

5.1.2 MEDV07 is not directly connected to this designated site via watercourses or other corridors of habitat and therefore any potential adverse impacts generated during the habitat creation phase can be satisfactorily screened out without the requirement for a full Habitat Regulations Assessment (HRA).

5.1.3 However, the Other neutral grassland habitat proposed for the site will act to increase the coverage of species-rich grassland present in the district and therefore complement the disparate patches of remaining culm grasslands designated under the SAC.

5.1.4 Efforts will be made to ensure that the species composition for the proposed Other neutral grassland will bare a similar profile to the local culm grassland composition. A local seed source will be identified and harvested to achieve this.

Non-statutory

5.1.5 Hence Ford County Wildlife Site (CWS) and the Henceford Brook Other Site of Wildlife Interest (OSWI) are the only notable non-statutory sites within the 1 km search area.

5.1.6 Both sites lie adjacent along the Henceford Brook between 0.6 and 0.9km to the north-west of the Site.

5.1.7 Hence Ford CWS is designated for its unimproved neutral and marshy grassland whereas Henceford Brook OSWI is designated for its broadleaved secondary woodland and scrub.

5.1.8 Both sites are connected to MDEV07 via hedges and a narrow strip of woodland but not via any watercourses.

5.1.9 Neither sites will be adversely affected by the habitat creation proposals outlined here. However, the habitats proposed for creation will complement the existing habitats associated with these two sites and will help to enhance connectivity in the local landscape.

5.2 Habitats and Flora

5.2.1 The dominant baseline habitat on site is Cereal crop with a small strip of Modified grassland along the southern boundary of the site.

5.2.2 Land cultivated for cereal crops is characterised by a very low biodiversity value and this is reflected in the Biodiversity Metric. Therefore, the area provides an opportunity to significantly enhance the biodiversity value of the site.

5.2.3 Other neutral grassland is well suited to creation on former cereal crop land as most plant species which comprise this habitat type can withstand higher nutrient levels in the early establishment phase.

5.2.4 The introduction of mixed scrub in areas around the periphery of the Site and a larger area at the southern end of the site will help to bolster the adjacent boundary hedgerows; improving connectivity and resilience.

5.3 Fauna

5.3.1 The proposed habitat creation and enhancement works have the potential to benefit priority and/or notable species identified within the 1 km data search area and field surveys including Skylark, Yellowhammer, Brown hairstreak and bat species in addition to populations of scarce or declining species which are likely to be present locally such as Hazel dormouse and Hedgehog.

5.3.2 Species-rich grassland (in this case Other neutral grassland) supports a significantly higher number of invertebrate species rather species-poor pastures which largely dominate the local area. This greater abundance and range of invertebrates will help to sustain and support populations of reptiles, amphibians, birds and mammals which may only be present in very low densities at present.

5.3.3 Similarly, scrub is now a very rare habitat in the wider agricultural landscape yet this habitat is critical as nesting and cover resource for a wide range of species. This habitat may particularly benefit brown hairstreak which has been recorded locally and may provide additional foraging habitat for Hazel dormouse.

5.4 Strategic Significance

5.4.1 The location of the Habitat Bank is not identified within any local strategy documents, plan or policy. Therefore, none of the targeted habitats could be identified as having high strategic significance within the biodiversity metric. However, the Site at Puddington Moor is located within the North Devon Biosphere Reserve and is a parcel of the River Taw headwaters. The site sits as a high point locally and will act as a stepping-stone for wildlife across the local landscape which is dominated by agriculture. The Site also includes opportunity for the restoration of intensive arable land into species rich grassland habitat within the Culm National Character Area.

5.4.2 The site also presents opportunities for the creation of habitats identified on the Devon LBAP (Devon Biodiversity Partnership, 2009) such as flower-rich meadows and pasture.

6. Habitat Creation and Enhancement Proposals

6.1 Design Approach

6.1.1 The proposed habitats to be created and enhanced on the Site have been identified in collaboration with the Land Manager, taking into account: the practical challenges of managing the Site over time; the findings of the biodiversity appraisal and soil chemistry surveys; site topography and wider environmental conditions; local biodiversity targets; and the strategic context of the wider natural landscape.

Retained Habitats

6.1.2 The hedgerows which border the entire Site (classified as three distinct types – Native hedgerow, Species-rich native hedgerow - Associated with bank or ditch and Species-rich Native Hedgerow with Trees - Associated with bank or ditch) will be retained within the Habitat Bank. These hedgerows will continue to be managed by the Land Manager to maintain their current Good condition.

6.2 Proposed Habitats

6.2.1 Below describes all proposed habitats within the Site as present in the Metric. The rationale for selecting the specific proposed habitats for the Site is provided, with the detailed methodology for the creation, enhancement and long-term management of these habitats provided within the Habitat Management Plan (HMP) (MDEV07-EB-HMP-v03.00, Environment Bank, 2024). Figure 6 shows which habitats are to be created and/or enhanced.

- Other neutral grassland (8.68 ha)
- Mixed scrub (1.58 ha)

6.2.2 The target condition of each proposed habitat was set utilising the Metric and selected to ensure they can realistically be achieved. The target condition for each habitat is shown in Figure 7.

6.2.3 As with the baseline, strategic significance was measured for each proposed habitat taking into account the local strategy, map or plan and which habitats are ecologically desirable. Strategic significance is considered separately for each individual habitat entry in the Metric. The areas of strategic significance are represented in Figure 8.

Other Neutral Grassland

6.2.4 A medium distinctiveness (average 9+ species/m^2) Other neutral grassland' will be created on the majority of the Site. This will be managed as a traditional hay meadow.

6.2.5 The phosphorous index score for the identified arable field was 4+ at the first time of testing in March 2021. Since this first testing, nutrient inputs ceased and a nutrient

stripping crop of spring barely (*Hordeum* sp.) was grown and harvested in 2021 and a further hay cut taken in August 2022.

6.2.6 A subsequent soil survey and analysis was undertaken in early 2023 (see Section 4.4). This demonstrated an expected decline in available phosphorus to an average of 3 for areas earmarked for grassland creation. This level of phosphorus is still considered high and therefore it was deemed more suitable to target Other neutral grassland in a Good condition rather than target Lowland meadows which has a higher distinctiveness score. This was deemed a more realistic approach than targeting Lowland meadows which requires lower soil fertility and is therefore more difficult to create in light of less favourable soil conditions present on Site. Despite the high phosphorus levels, this is not expected to significantly hinder the establishment of typical plant species associated with Other neutral grassland.

6.2.7 The grassland will then be subject to at least one spring cut followed by an annual hay cut. Cattle will be introduced to aftermath graze the grassland. Progress will be monitored closely over time by Environment Bank ecologists and management plan adjusted if required.

6.2.8 Other neutral grassland is identified within the Devon LBAP (Devon Biodiversity Partnership, 2009) as flower-rich meadows and pasture. Therefore, the creation of Other neutral grassland has been assessed as Medium strategic significance.

Mixed scrub

6.2.9 Land to the south of the site will be prepared with native shrub and tree whip planting to deliver a larger area of mixed, native, woody scrub habitat in Good condition. Any failed stock will be replaced and once established the scrub will be managed through a coppice of 25% of the shrubs every 10 years on rotation, ensuring a diversity of structure within the scrub. Eventually cattle will be allowed to graze the scrub creating glades and rides. It is anticipated a Good condition will be achieved.

6.2.10 The mixed native woody scrub within the corners will be achieved through natural succession/regeneration. Scrub species associated with the nearby, existing hedgerow network will self-seed and spread, providing a local source from which the habitat will establish. This low intervention, extensive management technique is expected to achieve a proposed condition of Moderate.

6.2.11 As the mixed scrub is not present within any local strategy documents nor a priority habitat within the Devon LBAP, this habitat has been assigned to a low strategic significance.

6.3 Benefits to Fauna

Invertebrates

6.3.1 Species-rich grassland (in this case Other neutral grassland) supports a significantly higher number of invertebrate species rather species-poor pastures which largely dominate the local area. This greater abundance and range of invertebrates will help to sustain and support populations of reptiles, amphibians, birds and mammals which may only be present in very low densities at present.

6.3.2 The wide range of wildflower species will help to support local populations of pollinating insects and provide a vital stepping stone through the agricultural landscape.

6.3.3 The new scrub habitat may particularly benefit brown hairstreak which has been recorded locally, relying specifically on blackthorn.

Amphibians

6.3.4 Longer, more species diverse grasslands provide good forage and cover for amphibians such as common frog and smooth newt which are likely to be present locally.

6.3.5 Furthermore, the creation of shallow scrapes across the Site may provide seasonal breeding opportunities provided that there is sufficient rainfall during the spring months.

Reptiles

6.3.6 Though no records of reptiles were returned in the area, the proposed grassland and mixed scrub habitats will provide suitable opportunities for foraging and breeding reptiles.

Birds

6.3.7 Yellowhammer has been recorded as breeding on site and Skylark records were returned from the data search.

6.3.8 The creation of areas of scrub will provide excellent nesting opportunities for Yellowhammer as well as other bird species. Similarly, the taller species-rich grassland will provide ample breeding and foraging opportunities for Skylark.

6.3.9 The damp scrape areas will also likely provide good wintering foraging areas for species such as snipe and spring forage for passage migrants like yellow wagtail.

Bats

6.3.10 The increase in plant species and added structural benefit of scrub will significantly improve the area for a range of invertebrate prey relied upon by bats. It is therefore likely that the Site will become an important foraging area within the local area.

Hazel Dormouse

6.3.11 No Hazel dormouse records were highlighted in the 1km data search although it is likely that this species is present in the adjacent hedgerows as Devon is a national hotspot for this species. The new areas of mixed scrub have the potential to provide foraging and hibernation habitat for hazel dormouse.

Badger

6.3.12 The proposed grassland, mixed scrub and woodland will provide increased foraging opportunities for Badger which is almost certainly present in the area.

7. Biodiversity Accounting of Proposals

7.1 Biodiversity Accounting Assessment

7.1.1 In line with CIEEM's latest guidelines, the Statutory Biodiversity Metric Calculation Tool was used to quantify the change in BU from the baseline to the proposed habitats. The Metric considers the below variables pre- and post- intervention of the Habitat Bank to result in an overall BU uplift. The data was collated using the above methods and the following factors are utilised within the calculator to determine biodiversity value in unit:

- Habitats – UKHab Classification (see methods above).
- Area – Calculated using GIS software.
- Habitat Distinctiveness – Fixed within the Metric.
- Habitat Condition – Based on condition assessment (see methods above).
- Strategic Significance – See above.
- Temporal and difficulty risk multipliers – Fixed within the Metric based on habitat enhancement or creation scenario.
- Spatial Risk Multiplier – Determined at the point of BU sale.

7.1.2 At this stage, no temporal variation has been applied to the temporal risk multiplier; as it is expected that year 1 of the Habitat Bank will take place concurrently with sales of BU to development, and not in advance.

7.1.3 The Spatial Risk Multiplier for the Site is currently assessed as '*The metric is being used by an off-site provider*'. At the point of sale of any BU to a developer, the true Spatial Risk Category, as appropriate for the Habitat Bank location in relation to each development, will be determined and calculated.

7.1.4 The full biodiversity calculations for the Habitat Bank are detailed within the Metric calculation tool provided as part of the Strategy Pack (MDEV07-EB-MST-v01.00 - Statutory Biodiversity Metric).

Biodiversity Net Gain

7.1.5 Following satisfaction of trading rules across the habitat bank, the BU generated associated with turning the Site from Cropland (Cereal crops) and Modified grassland and to Other Neutral Grassland and Mixed Scrub has been calculated using the Metric, which provides a full breakdown of the baseline and proposed habitats as well as evidence that trading rules are satisfied.

7.1.6 Prior to creation works, the baseline habitats equated to 20.85 habitat BU.

7.1.7 Following creation works, the Site will provide a total of 93.35 habitat BU, before the baseline has been accounted for.

7.1.8 The Site will produce an overall biodiversity increase of 72.51 habitat BU

7.1.9 Table 8 shows the available BU for each habitat type. The available BU for each habitat type are calculated in year 0 and are subject to change over the lifetime of the Site.

Table 8: Available Biodiversity Units for habitats

Distinctiveness	Habitat Type	Biodiversity Units
Medium	Other neutral grassland	59.39
Medium	Mixed scrub	13.12

8. Conclusions

8.1.1 The creation of a Habitat Bank at MDEV07 will result in the creation of high-quality habitats, which will be used to compensate for unavoidable impacts to development and deliver Biodiversity Net Gain. This will result in a 347.81 % increase in BU on site.

8.1.2 Habitat Bank creation and enhancement works will lead to a transformation of the Site into a wildlife-rich oasis, providing a vital resource to complement existing fragments of wildlife habitat and reinforce connectivity across the landscape.

8.1.3 It will help to support protected, priority and declining species known be present locally including yellowhammer, skylark and brown hairstreak.

8.1.4 The Habitat Bank has been secured for 33 years by legal agreement with the Land Owner to legally ensure the highest quality delivery of the habitats.

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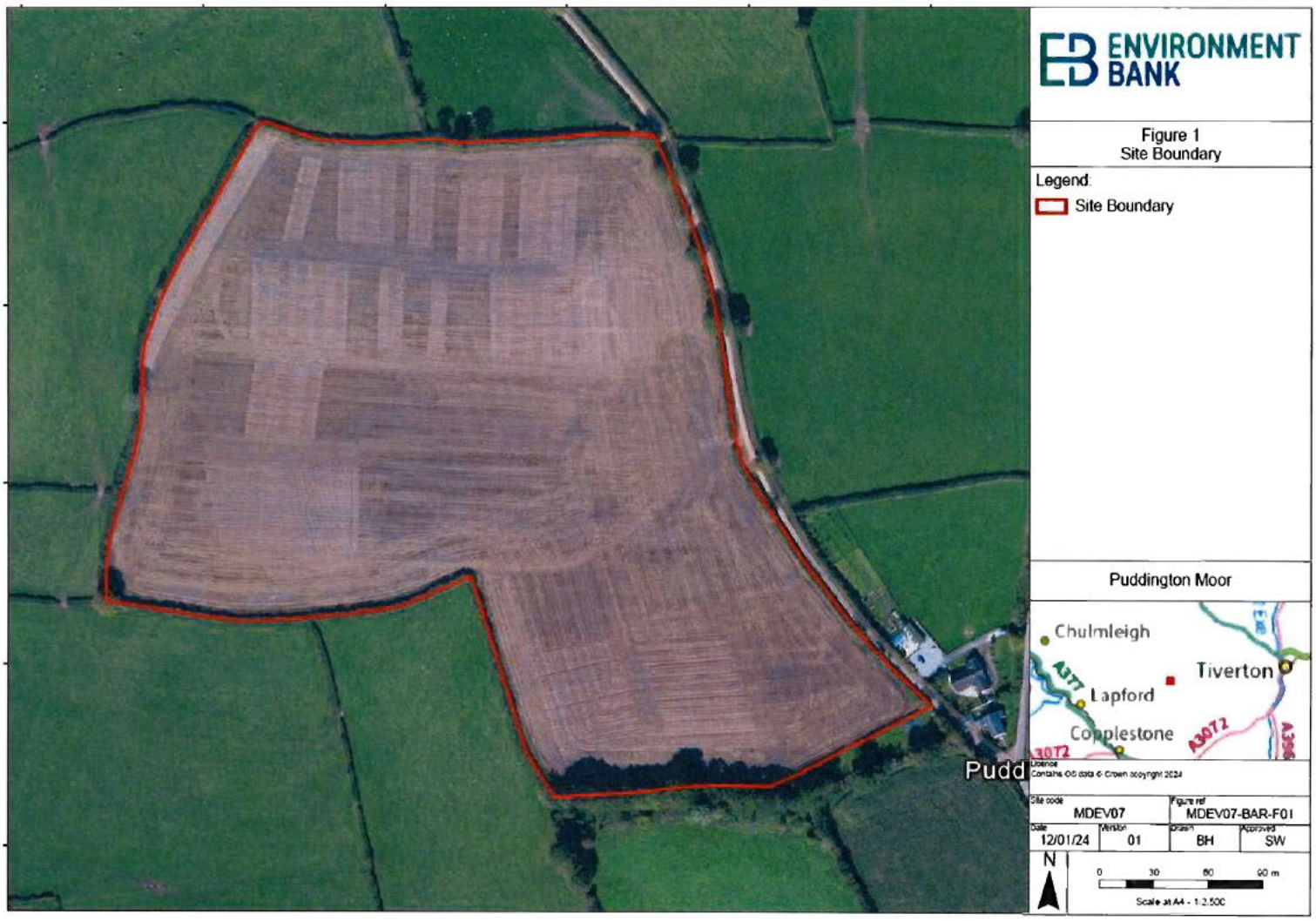
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Figure 1: Site Boundary



ENVIRONMENT BANK

Figure 1
Site Boundary

Legend:

Site Boundary

Puddington Moor

Licence
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Site code	Figure ref
MDEV07	MDEV07-BAR-F01

Date	Version	Drawn	Approved
12/01/24	01	BH	SW

N

0 30 60 90 m

Scale at A4 - 1:2,500

Figure 2: Baseline Habitats



ENVIRONMENT BANK

Figure 2
Baseline Habitats

Legend:

- Site Boundary
- Modified Grassland
- Cereal Crops
- Hedgerow

Puddington Moor



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Site code	Figure ref
MDEV07	MDEV07-BAR-F02

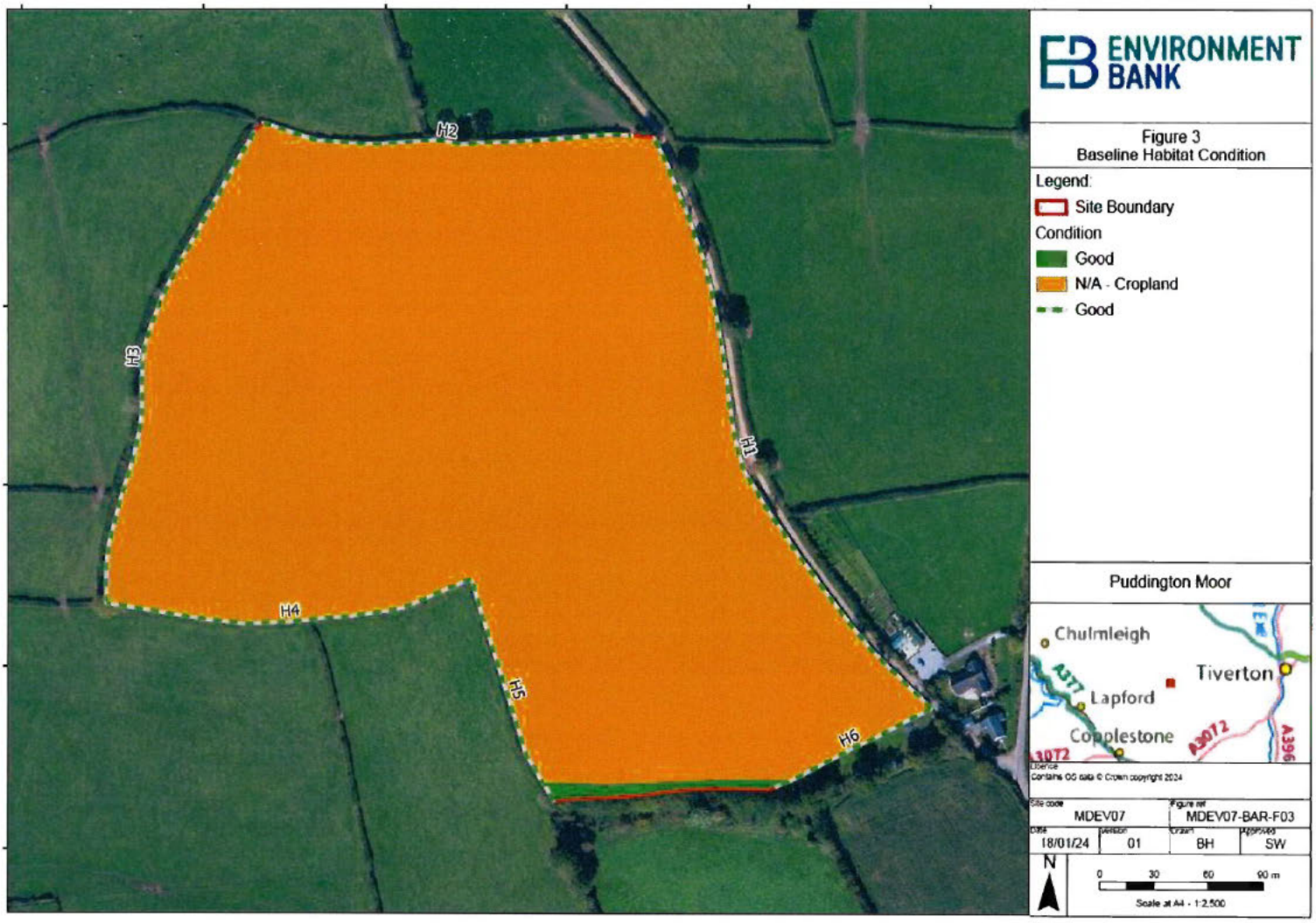
Date	Version	Drawn	Approved
12/01/24	01	BH	SW

N

0 30 60 90 m

Scale at A4 - 1:2,500

Figure 3: Baseline Habitat Condition



ENVIRONMENT BANK

Figure 3
Baseline Habitat Condition

Legend:

Site Boundary

Condition

Good

N/A - Cropland

Good

Puddington Moor

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Site code	Figure ref
MDEV07	MDEV07-BAR-F03

Date	Version	Drawn	Approved
18/01/24	01	BH	SW

N

0 30 60 90 m

Scale at A4 - 1:2,500

Figure 4: Breeding Bird Survey



ENVIRONMENT BANK

Figure 4a
Breeding Bird Survey - Visit 1

Legend:

- Site Boundary
- Calling
- Singing
- Flying
- Simultaneous Song by Different Birds

BTO Code	Species	BTO Code	Species
B.	Blackbird	PH	Pheasant
BZ	Buzzard	R.	Robin
C.	Carrion Crow	S.	Skylark
CH	Chaffinch	SD	Stock Dove
CM	Common Gull	WP	Woodpigeon
GO	Goldfinch	WR	Wren
HS	House Sparrow	Y.	Yellowhammer

Puddington Moor



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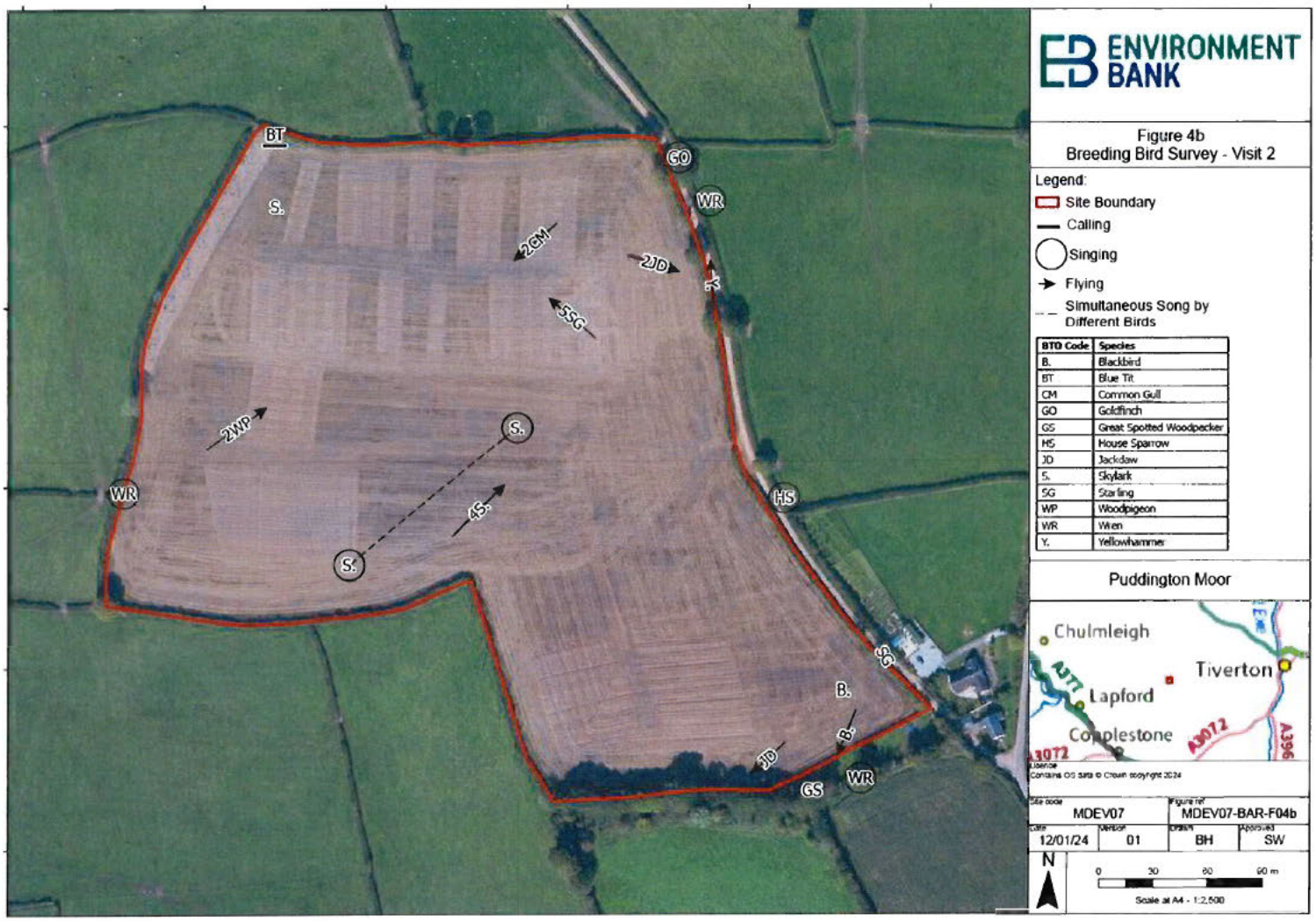
Site code	Figure ref
MDEV07	MDEV07-BAR-F04a

Date	Version	Drawn	Approved
12/01/24	01	BH	SW

N

0 30 60 90 m

Scale at A4 - 1:2,500



ENVIRONMENT BANK

Figure 4b
Breeding Bird Survey - Visit 2

Legend:

- Site Boundary
- Calling
- Singing
- Flying
- Simultaneous Song by Different Birds

BTO Code	Species
B.	Blackbird
BT	Blue Tit
CM	Common Gull
GO	Goldfinch
GS	Great Spotted Woodpecker
HS	House Sparrow
JD	Jackdaw
S.	Skylark
SG	Starling
WP	Woodpigeon
WR	Wren
Y.	Yellowhammer

Puddington Moor

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Site code	Figure ref
MDEV07	MDEV07-BAR-F04b

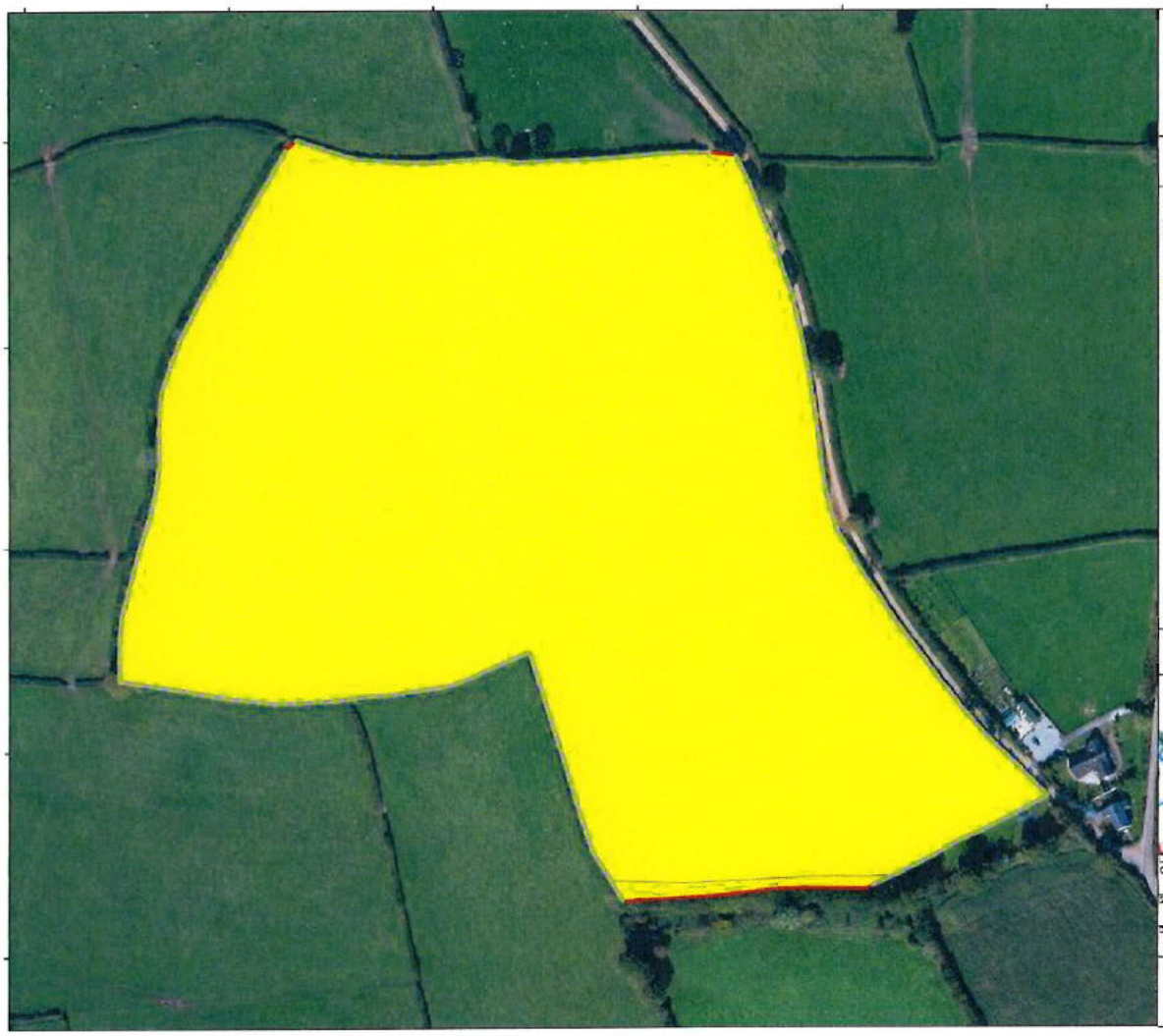
Date	Version	Drawn	Approved
12/01/24	01	BH	SW

N

0 30 60 90 m

Scale at A4 - 1:2,500

Figure 5: Baseline Strategic Significance



ENVIRONMENT BANK

Figure 5
Baseline Strategic Significance

Legend:

Site Boundary

Strategic Significance

Low

Medium

Puddington Moor



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Site code	Figure ref
MDEV07	MDEV07-BAR-F05

Date	Version	Drawn	Approved
12/01/24	01	BH	SW

N

0 30 60 90 m

Scale at A4 - 1:2,500

Figure 6: Proposed Habitats



ENVIRONMENT BANK

Figure 7
Proposed Habitats

Legend:
- Site Boundary
- Other Neutral Grassland
- Mixed Scrub
- Hedgerow

Puddington Moor



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Site code	Figure ref
MDEV07	MDEV07-BAR-F07

Date	Version	Drawn	Approved
12/01/24	01	BH	SW

N

0 30 60 90 m

Scale at A4 - 1:2,500

Figure 7: Proposed Habitat Condition

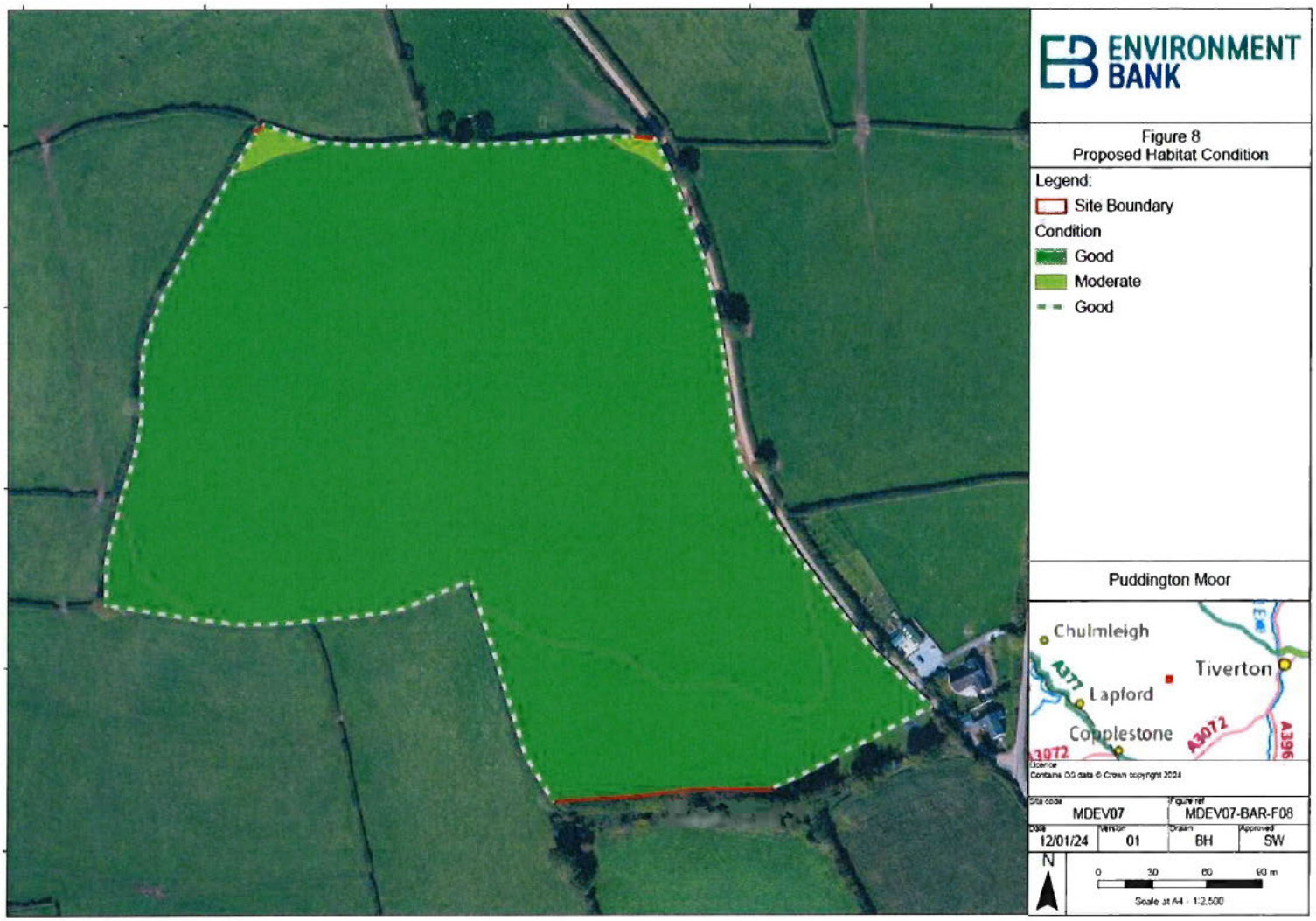
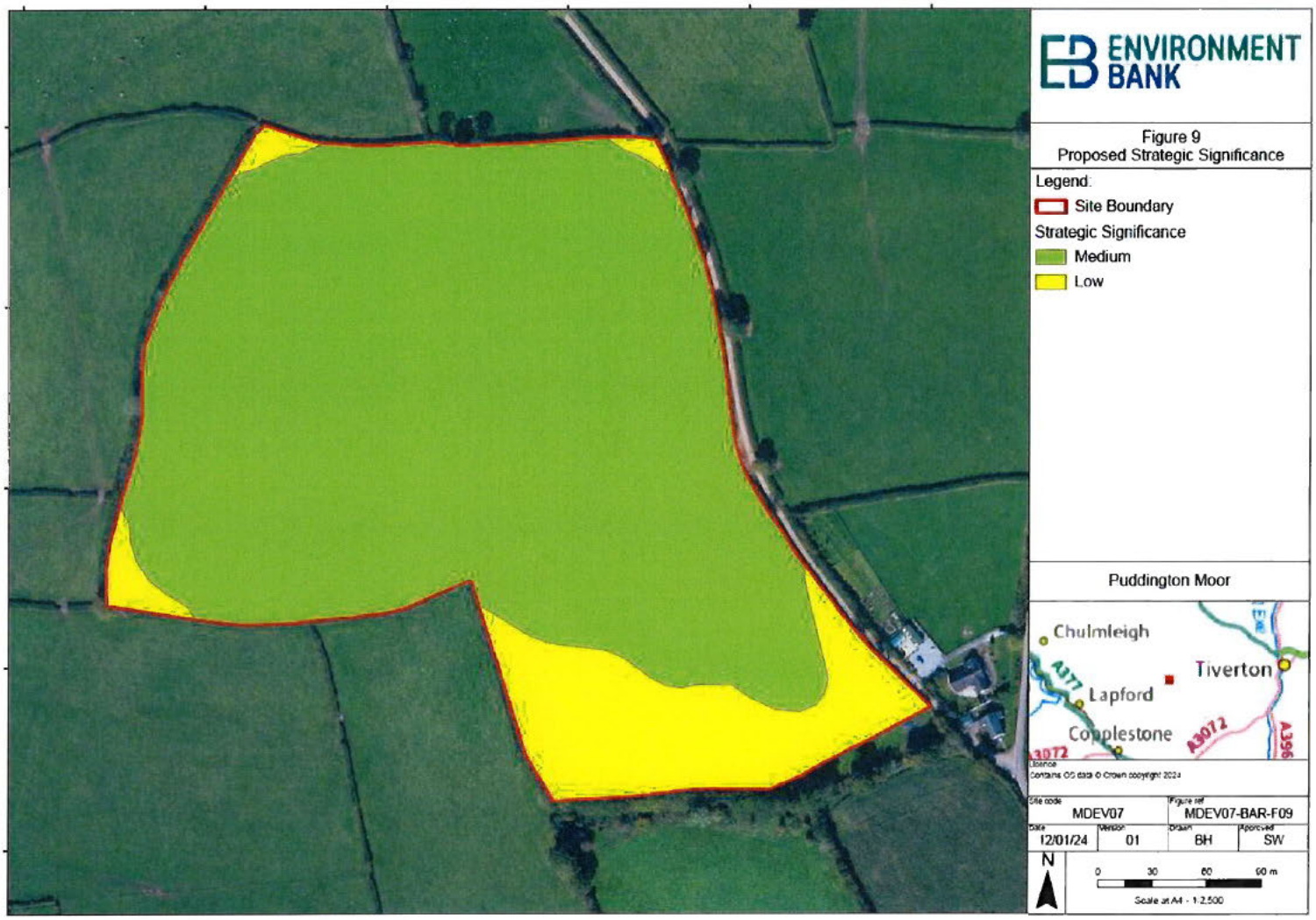

ENVIRONMENT BANK
Figure 8
Proposed Habitat Condition
Legend:
Site Boundary
Condition
Good
Moderate
Good
Puddington Moor
Chulmleigh
Tiverton
Lapford
Copplestone
A377
A3072
A396
Contains OS data © Crown copyright 2024
Site code
MDEV07
Figure ref
MDEV07-BAR-F08
Date
12/01/24
Version
01
Drawn
BH
Approved
SW
N
0
30
60
90 m
Scale at A4 - 1:2,500

Figure 8: Proposed Strategic Significance


ENVIRONMENT BANK
Figure 9
Proposed Strategic Significance
Legend:
Site Boundary
Strategic Significance
Medium
Low
Puddington Moor
Chulmleigh
Tiverton
Lapford
Crediton
A377
A3072
A396
Licence
Contains OS data © Crown copyright 2024
Site code
MDEV07
Figure ref
MDEV07-BAR-F09
Date
12/01/24
Version
01
Drawn
BH
Approved
SW
N
0
30
60
90 m
Scale at A4 - 1:2,500

Appendix A: Legislation and Policy

Legislation

- The Environment Act 2021 mandates that all planning applications will be required to demonstrate how a development will enhance biodiversity and protect habitats from November 2023. This is to be achieved through a measurable 10 % BNG for at least 30 years, in association with development through the use of the most up to date Biodiversity Metric;
- National Planning Policy Framework ('NPPF', as revised 2021) sets out how planning policies and decisions should contribute to and enhance the natural and local environment through amongst other things, ensuring BNG through development and protect ecological important sites and networks;
- The Conservation of Habitats and Species Regulations 2017 (as amended) details the regulations for the protection of European Protected Habitat and Species. Such European Protected Species (EPS) include all species of bats, great crested newt *Triturus cristatus*, dormouse *Muscardinus avellanarius*, and European otter *Lutra lutra*, amongst others;
- The Wildlife and Countryside Act ('WCA') 1981 (as amended) covers the legislation for endangered species in England and the framework for the designation of Sites of Special Scientific Interest (SSSIs);
- The Countryside and Rights of Way ('CRoW') Act 2000 reinforces the wildlife legislation listed in the WCA and places a duty of government departments to consider biodiversity, and provides governmental department powers for the protection and maintenance of SSSIs;
- The Natural Environment and Rural Communities Act ('NERC') 2006 places a duty upon local authorities to promote and enhance biodiversity in all their functions. Specifically, habitats and species of principal importance to the conservation of biodiversity in regards to the planning process;
- The Hedgerow Regulations 1997 provides protection by prohibiting the destruction or damage to important countryside hedges; and
- The Protection of Badgers Act 1992 includes the protected of badgers under the act and that it is unlawful to wilfully kill, injure, take, possess or cruelly ill-treat badgers or attempt to do so.

Local Policy

The Mid Devon Local Plan (Mid Devon District Council, 2020) has the following policies relating to biodiversity:

Policy S1– Sustainable development priorities states that;

> *"all developments are required to minimise the impacts on biodiversity and geodiversity by recognising the wider benefits of ecosystems, delivering natural environment objectives, providing a net gain in biodiversity and the protection of designated sites"*

Policy DM26 – Green infrastructure in major development states that;

> *"major development proposals must demonstrate biodiversity mitigation, resulting in a net gain in biodiversity"*

Devon County Council have released a draft supplementary planning document "Devon Planning Guidance for Biodiversity Compensation and Net Gain" (Devon County Council, 2022) which provides advice on calculating and delivering biodiversity compensation and biodiversity net gain in a Devon context. The guidance supports off-site biodiversity delivery options when the BNG requirements cannot be met on-site.

Appendix B: Recent Desktop Study Records

Name of Species	Legislation	Number of Records Returned	Closest Record to Site (m)
Flowering Plants			
Primrose (*Primula vulgaris*)	DBAP	1	812
Birds			
Skylark (*Alauda arvensis*)	BAP, BoCC Red	1	601
Terrestrial Mammals			
Badger (*Meles meles*)	PBA	1	601

Key:
BAP - UK Biodiversity Action Plan Priority Species
DBAP – Devon Biodiversity Action Plan species
PBA - Protection of Badgers Act 1992
BOCC Red – Bird of Conservation Concern Red List species

Appendix C: Baseline Photographs

Photograph 1: Aerial Photograph of the site taken in March 2021 by the landowner of the tilled bare ground after a crop of spring barley was sown.



Photograph 2: The spring barley crop in situ during the Environment Bank Baseline Habitat Assessment 26th August 2021. Baseline habitat recorded as Arable – Cereal crop.



Photograph 3: The spring barley crop in situ during the Environment Bank Baseline Habitat Assessment 26th August 2021. Baseline habitat recorded as Arable – Cereal crop.



Photograph 4: A view North along hedgerow H1 during the Baseline Habitat Assessment 26th August 2021 with the spring barley crop extending into the field.



Photograph 5: Strip of Modified Grassland in Good condition during the Baseline Habitat Assessment 26th August 2021, present along the southern boundary backed by the offsite woodland strip



Photograph 6: A view south along hedgerow H1 during the Baseline Habitat Assessment 26th August 2021 – the spring barley crop extending south toward the southern boundary of the site.



Appendix D: Baseline Grassland Habitat Assessment

Species List for Modified grassland strip

Species	DAFOR	Q1	Q2	Q3
Creeping Buttercup (*Ranunculus repens*)	A	✓	✓	✓
Yorkshire Fog (*Holcus lanatus*)	A	✓	✓	✓
Creeping Bent (*Agrostis stolonifera*)	F	✓	✓	✓
Marsh Foxtail (*Alopecurus geniculatus*)	O	✓	✓	
Rough Meadow-grass (*Poa trivialis*)	O	✓		
Perennial Rye-grass (*Lolium perenne*)	A	✓		✓
Broad-leaved Willowherb (*Epilobium montanum*)	O		✓	✓
Floating Sweet-grass (*Glyceria fluitans*)	O		✓	✓
Common Couch (*Elymus repens*)	R			✓

Appendix E: Baseline Habitat Condition Assessment

Grassland

Condition assessment for Modified Grassland

Condition Assessment Criteria		Criterion Passed (Yes/No)
A	**Metric 3.1:** There must be 6-8 species per m2. If a grassland has 9 or more species per m2 it should be classified as a medium distinctiveness grassland habitat type. **NB - this criterion is essential for achieving moderate condition.** **Statutory Metric:** There are 6–8 vascular plant species per m^2 present, including at least 2 forbs. **Note - This criterion is essential for achieving Moderate or Good condition.**	Yes
B	**Both:** Sward height is varied (at least 20 % of the sward is less than 7 cm and at least 20 % is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	Yes
C	**Metric 3.1:** Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20 % of total grassland area. Note - patches of shrubs with continuous (more than 90 %) cover should be classified as the relevant scrub habitat type. **Statutory Metric:** Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus* agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Yes
D	**Both:** Physical damage is evident in less than 5 % of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	No
E	**Both:** Cover of bare ground is between 1 % and 10 %, including localised areas (for example, a concentration of rabbit warrens).	Yes
F	**Both:** Cover of bracken *Pteridium aquilinum* less than 20 %.	Yes
G	**Both:** There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981).	Yes
	Condition	**Good**

Hedgerows

Condition assessment for Hedgerows

Condition Assessment Criteria			H1	H2	H3	H4	H5	H6
A1. Height	>1.5 m average along length	**Both**: The average height of woody growth estimated from base of stem to the top of shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees. Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice). A newly planted hedgerow does not pass this criterion (unless it is >1.5 m height).	Yes	Yes	Yes	Yes	Yes	Yes
A2. Width	>1.5 m average along length	**Both**: The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees. Outgrowths (e.g. blackthorn suckers) are only included in the width estimate when they >0.5 m in height. Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).	Yes	Yes	Yes	Yes	Yes	Yes
B1. Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90 % of length (unless 'line of trees')	**Both:** This is the vertical 'gappiness' of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth. Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).	Yes	Yes	Yes	Yes	Yes	Yes

Condition Assessment Criteria			H1	H2	H3	H4	H5	H6
B2 Gap - hedge canopy continuity.	Gaps make up <10 % of total length and · No canopy gaps >5 m	**Both:** This is the horizontal gappiness of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small). Access points and gates contribute to the overall gappiness but are not subject to the >5 m criterion (as this is the typical size of a gate).	Yes	Yes	Yes	Yes	Yes	Yes
C1. Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90 % of length: · measured from outer edge of hedgerow, and · is present on one side of the hedge (at least)	**Both:** This is the level of disturbance (excluding wildlife disturbance) at the base of the hedge. Undisturbed ground should be present for a least 90% of the hedgerow length, greater than 1, in width and must be present along at least one side of the hedge. This criterium recognises the value of the hedge base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches	Yes	Yes	Yes	Yes	Yes	Yes
C2. Undesirable perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20 % cover of the area of undisturbed ground	**Both:** The indicator species used are nettles (*Urtica spp.*), cleavers (*Galium aparine*) and docks (*Rumex spp.*). Their presence, either singly or together, should not exceed the 20 % cover threshold.	No	No	No	No	No	No

Condition Assessment Criteria			H1	H2	H3	H4	H5	H6
D1. Invasive and neophyte species	>90 % of the hedgerow and undisturbed ground is free of invasive non-native and neophyte species	**Metric 3.1:** Neophytes are plants that have naturalised in the UK since AD 1500. For information on neophytes see the JNCC website and for information on invasive non-native species see the GB Non-Native Secretariat website. **Statutory Metric:** Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives. For information on archaeophytes and neophytes see the JNCC website4, as well as the BSBI website5 where the 'Online Atlas of the British and Irish Flora'6 contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website	Yes	Yes	Yes	Yes	Yes	Yes
D2. Current damage	>90 % of the hedgerow or undisturbed ground is free of damage caused by human activities	**Both:** This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes. This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (e.g. excessive hedge cutting).	Yes	Yes	Yes	Yes	Yes	Yes
Additional group - applicable to hedgerows with trees only								
E1. Tree age	At least one mature tree per 30 m stretch of hedgerow. A mature tree is one that is at least 2/3 expected fully mature height for the species.	**Both:** This criterion addresses if there are sufficient mature trees (within the scope of planning timescales) which are of higher value to biodiversity.	Yes	No	No	N/A	N/A	N/A

Condition Assessment Criteria			H1	H2	H3	H4	H5	H6
E2. Tree health	At least 95 % of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	**Both:** This criterion identifies if the trees are subject to damage which compromises the survival and health of the individual specimens.	Yes	Yes	Yes	N/A	N/A	N/A
		Condition	**Good**	**Good**	**Good**	**Good**	**Good**	**Good**

Appendix F: Soil Sampling Results

Soil Sampling Results 2021

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Oliver Seeds

Analysis Results (SOIL)

Customer	DIGG & CO ASH BARN WITHERIDGE TIVERTON	**Distributor**	OLIVER SEEDS - JOHN HARRIS
Sample Ref	PUDDINGTON MIDDLE	**Date Received**	23/03/2021 (Date Issued: 29/03/2021)
Sample No	E412604/01		
Crop	BARLEY (SPRING)		

Soil Characteristics	Result	Low	Normal	High
pH	5.9			
Org. Matter - DUMAS (%)	3.2			
Lime Req. (t/ha)	6.0			
C.E.C (meq/100g)	13.9			
Soil Respiration (mg/kg)	127			
C:N Ratio	11.6			
Texture Class	SASILO			
Org. Carbon Stock (t/ha)	36.3			

Major Nutrients	Result	0	1	2-	2+	3	4+
Phosphorus (ppm)	59						
Potassium (ppm)	480						
Magnesium (ppm)	169						

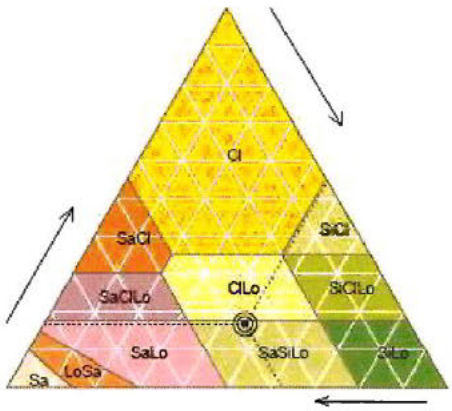
Secondary and Micro Nutrients	Result	Deficient	Maintenance	High
Calcium (ppm)	1598			
Sulphur (ppm)	6			
Sodium (ppm)	35			
Boron (ppm)	1.40			
Copper (ppm)	4.5			
Iron (ppm)	1118			
Manganese (ppm)	146			
Molybdenum (ppm)	0.03			
Zinc (ppm)	6.2			

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Analysis	Result (%)
Sand	37.42
Silt	45.63
Clay	16.95
Soil Type	SaSiLo Sandy Silt Loam

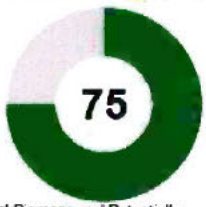
Property	Assessment
Available Water	Low to Medium
Drainage Rate	Rapid
Inherent Fertility	Low to Medium
Potential C.E.C.	Low to Medium
Leaching Risk	High to Moderate
Warming Rate	Rapid

Biological Analysis

SOLVITA

Analysis	Result	Ideal
Solvita Burst CO2-C (ppm)	127	>70
Organic Carbon (%)	1.9	
Total Nitrogen (%)	0.160	
C:N Ratio	11.6	10-12
Calculated Parameters	**Result**	
Microbial Biomass (mg/kg)	135	
Solvita Potentially Mineralizable Nitrogen (kg N/ha)	1	
Soil Assessment Score	75/100	

Soil Assessment Score



Microbial Biomass and Potentially Mineralizable N are calculated from the Solvita CO2-C Burst. The Potentially Mineralizable N assumes ideal conditions. Soil Assessment Score is calculated from biological, chemical and physical results.

pH impact on soil biology



Increasing Acidity
Fungi thrive
Bacterial activity declines
Nutrient cycling drops

Neutral
Desirable fungal and bacterial activity
Good earthworm activity
Nutrient cycling thrives

Increasing Alkalinity
Fungal activity declines
Bacteria thrive
Nutrient cycling drops

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Oliver Seeds

			Low. An acidic environment will reduce soil nutrient availability and the efficiency of any applied fertilisers or organic materials. A sub-optimum pH will also impact on soil microbial populations and rates of activity. Refer to lime requirement.
			Good. Soils with medium to high levels of organic matter would generally be expected to have a good potential fertility and good structure, moisture retention and water infiltration. Ensure appropriate soil management practices are used to maintain organic matter levels.
			Cation Exchange Capacity indicates a slightly low nutrient holding ability - soil applied nutrients could be readily leached. Where possible foliar applied nutrients should be recommended.
	127	70	Typical aerobic microbial activity and mineralisation potential. Soil management practices may further improve biological fertility.
C:N Ratio	11.6	10.0	Normal. A low C:N ratio in the soil encourages microbial activity and the amount and rate of nutrients made available to the plants through mineralisation. A ratio of 10 - 12 indicates the potential for a good rate of decompostion of organic residue and retention of applied organic materials.
Texture Class	SASILO		
Org. Carbon Stock (t/ha)	36.3	34.0	The calculated level of organic carbon (active + humus) within one hectare when soil bulk density is either assumed (1.3g/cm3) or has been overwritten with a disturbed soil measured value (if SCA Extra has been requested) and soil depth is 15cm. Please see footnotes for calculation if you wish to adapt. Multiply the OC stock value by the field area (hectares) to indicate level of carbon stored within the field.
Phosphorus (ppm)	59	16	**(Index 4.5)** Possible interference with availability of Fe,Cu,Zn.
Potassium (ppm)	480	121	**(Index 4.4)** Possible interference with the availability of Magnesium.
Magnesium (ppm)	169	50	**(Index 3.9)** Adequate level.
Calcium (ppm)	1598	1600	Low priority on this crop. Other crops may be affected.
Sulphur (ppm)	5	10	CONSIDER TREATMENT.
Sodium (ppm)	35	90	Low priority on this crop. Other crops may be affected.
Boron (ppm)	1.40	1.60	Consider treatment with Boron.

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Oliver Seeds

Analysis Results (SOIL)

Customer	DIGG & CO	**Distributor**	OLIVER SEEDS - JOHN HARRIS
Sample Ref	PUDDINGTON MIDDLE	**Date Received**	23/03/2021 (Date Issued: 29/03/2021)
Sample No	E412604/01		
Crop	BARLEY (SPRING)		

Analysis	Result	Guideline	Comments
Copper (ppm)	4.5	4.1	Adequate level.
Iron (ppm)	1118	50	Adequate level.
Manganese (ppm)	148	15	Adequate level.
Molybdenum (ppm)	0.03	0.60	Low priority on this crop. Other crops may be affected.
Zinc (ppm)	6.2	4.1	Adequate level.

Additional Comments
Where applicable soil applied P,K and pH recommendations are taken from AHDB Nutrient Management Guide (RB209)

Any indicated Lime Requirement assumes a medium textured soil.
Additional technical bulletins are available at www.lancrop.com

Please Note
Whilst every care is taken to ensure that the Results from Analysis are as accurate as possible, it is important to note that the analysis relates to the sample received by the laboratory, and is representative only of that sample. No warranty is given by the laboratory that the Results from Analysis relates to any part of a field or growing area not covered by the sample received. It is important to ensure that any soil, leaf, silage or fruitlet sample sent for analysis is representative of the area requiring analysis and that samples are obtained in accordance with established sampling techniques. A leaflet containing instructions on how to take soil, leaf, herbage, silage and fruit samples for analysis is available from the laboratory on request. Uncertainty measurements of results are available on request.

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Oliver Seeds

Analysis Results (SOIL)

Customer	DIGG & CO ASH BARN WITHERIDGE TIVERTON	**Distributor**	OLIVER SEEDS - JOHN HARRIS
Sample Ref	PUDDINGTON B LEFT	**Date Received**	23/03/2021 (Date Issued: 29/03/2021)
Sample No	E412604/02		
Crop	BARLEY (SPRING)		

Analysis	Result	Guideline	Interpretation	Comments
pH	6.1	6.5	Slightly Low	Slightly low. An acidic environment will reduce soil nutrient availability and the efficiency of any applied fertilisers or organic materials. A sub optimum pH will also impact on soil microbial populations and rates of activity. Refer to lime requirement.
Phosphorus (ppm)	30	16	High	**(Index 3.2)** Adequate. Use soil analysis every 3-5 years to ensure level is maintained.
Potassium (ppm)	391	121	High	**(Index 3.9)** Adequate. Use soil analysis every 3-5 years to ensure level is maintained.
Magnesium (ppm)	167	50	Normal	**(Index 3.9)** Adequate level.
Lime Req. (t/ha)	5.0			

Additional Comments
Where applicable soil applied P,K and pH recommendations are taken from AHDB Nutrient Management Guide (RB209)

Any indicated Lime Requirement assumes a medium textured soil.
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Page : 1 / 1

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Oliver Seeds

Analysis Results (SOIL)

DIGG & CO
ASH BARN
WITHERIDGE
TIVERTON

OLIVER SEEDS - JOHN HARRIS

PUDDINGTON B RIGHT

23/03/2021 (Date Issued: 29/03/2021)

E412605/01

BARLEY (SPRING)

pH	6.1	6.5	Slightly Low	Slightly low. An acidic environment will reduce soil nutrient availability and the efficiency of any applied fertilisers or organic materials. A sub optimum pH will also impact on soil microbial populations and rates of activity. Refer to lime requirement.
Phosphorus (ppm)	35	16	High	Adequate. Use soil analysis every 3-5 years to ensure level is maintained.
Potassium (ppm)	365	121	High	Adequate. Use soil analysis every 3-5 years to ensure level is maintained.
Magnesium (ppm)	177	50	Normal	**(Index 4.0)** Adequate level.
Lime Req. (t/ha)	5.0			

Additional Comments

Where applicable soil applied P,K and pH recommendations are taken from AHDB Nutrient Management Guide (RB209)

Any indicated Lime Requirement assumes a medium textured soil.
Additional technical bulletins are available at www.lancrop.com.

Please Note

Whilst every care is taken to ensure that the Results from Analysis are as accurate as possible, it is important to note that the analysis relates to the sample received by the laboratory, and is representative only of that sample. No warranty is given by the laboratory that the Results from Analysis relates to any part of a field or growing area not covered by the sample received. It is important to ensure that any soil, leaf, silage or fruitlet sample sent for analysis is representative of the area requiring analysis and that samples are obtained in accordance with established sampling techniques. A leaflet containing instructions on how to take soil, leaf, herbage, silage and fruit samples for analysis is available from the laboratory on request. Uncertainty measurements of results are available on request.

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Oliver Seeds

Analysis Results (SOIL)

Customer	DIGG & CO ASH BARN WITHERIDGE TIVERTON	**Distributor**	OLIVER SEEDS - JOHN HARRIS
Sample Ref	PUDDINGTON T LEFT	**Date Received**	23/03/2021 (Date Issued: 29/03/2021)
Sample No	E412605/02		
Crop	BARLEY (SPRING)		

Soil Characteristics	Result	Low	Normal	High
pH	6.1			
Org. Matter - DUMAS (%)	3.2			
Lime Req. (t/ha)	5.0			
C.E.C. (meq/100g)	15.4			
Soil Respiration (mg/kg)	99			
C:N Ratio	11.1			
Texture Class	CLLO			
Org. Carbon Stock (t/ha)	36.3			

Major Nutrients	Result	0	1	2-	2+	3	4+
Phosphorus (ppm)	52						
Potassium (ppm)	388						
Magnesium (ppm)	176						

Secondary and Micro Nutrients	Result	Deficient	Maintenance	High
Calcium (ppm)	1966			
Sulphur (ppm)	3			
Sodium (ppm)	32			
Boron (ppm)	1.34			
Copper (ppm)	4.3			
Iron (ppm)	893			
Manganese (ppm)	115			
Molybdenum (ppm)	0.03			
Zinc (ppm)	5.6			

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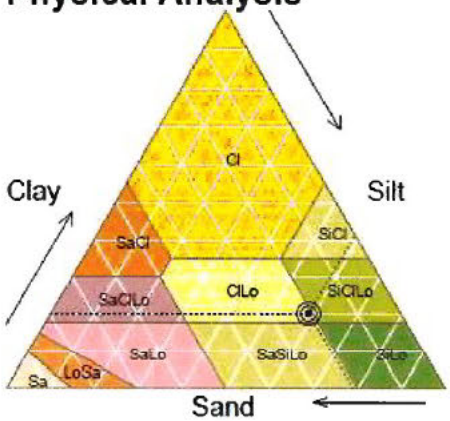
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Oliver Seeds

Analysis Results (SOIL)

Customer	DIGG & CO	**Distributor**	OLIVER SEEDS - JOHN HARRIS
Sample Ref	PUDDINGTON T LEFT	**Date Received**	23/03/2021 (Date Issued: 29/03/2021)
Sample No	E412605/02		
Crop	BARLEY (SPRING)		

Physical Analysis



Analysis	Result (%)
Sand	20.94
Silt	58.69
Clay	20.37
Soil Type	ClLo Clay Loam

Property	Assessment
Available Water	Medium to High
Drainage Rate	Medium to Slow
Inherent Fertility	Medium to High
Potential C.E.C.	Medium to High
Leaching Risk	Moderate to Low
Warming Rate	Medium

Biological Analysis

SOLVITA

Analysis	Result	Ideal
Solvita Burst CO2-C (ppm)	99	>70
Organic Carbon (%)	1.9	
Total Nitrogen (%)	0.167	
C:N Ratio	11.1	10-12

Calculated Parameters	Result
Microbial Biomass (mg/kg)	107
Solvita Potentially Mineralizable Nitrogen (kg N/ha)	1
Soil Assessment Score	71/100

Soil Assessment Score



Microbial Biomass and Potentially Mineralizable N are calculated from the Solvita CO2-C Burst. The Potentially Mineralizable N assumes ideal conditions. Soil Assessment Score is calculated from biological, chemical and physical results.

pH impact on soil biology



Increasing Acidity
Fungi thrive
Bacterial activity declines
Nutrient cycling drops

Neutral
Desirable fungal and bacterial activity
Good earthworm activity
Nutrient cycling thrives

Increasing Alkalinity
Fungal activiy declines
Bacteria thrive
Nutrient cycling drops

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Oliver Seeds

Analysis Results (SOIL)

Customer	DIGG & CO	**Distributor**	OLIVER SEEDS - JOHN HARRIS
Sample Ref	PUDDINGTON T LEFT	**Date Received**	23/03/2021 (Date Issued: 29/03/2021)
Sample No	E412605/02		
Crop	BARLEY (SPRING)		

Analysis	Result	Guideline	Comments
pH	6.1	6.5	Slightly low. An acidic environment will reduce soil nutrient availability and the efficiency of any applied fertilisers or organic materials. A sub optimum pH will also impact on soil microbial populations and rates of activity. Refer to lime requirement.
Org. Matter - DUMAS (%)	3.2	3.0	Good. Soils with medium to high levels of organic matter would generally be expected to have a good potential fertility and good structure, moisture retention and water infiltration. Ensure appropriate soil management practices are used to maintain organic matter levels.
Lime Req. (t/ha)	5.0		
C.E.C. (meq/100g)	16.4	15.0	Cation Exchange Capacity indicates a soil with a good nutrient holding ability.
Soil Respiration (mg/kg)	99	70	Typical aerobic microbial activity and mineralisation potential. Soil management practices may further improve biological fertility.
C:N Ratio	11.1	10.0	Normal. A low C:N ratio in the soil encourages microbial activity and the amount and rate of nutrients made available to the plants through mineralisation. A ratio of 10 - 12 indicates the potential for a good rate of decompostion of organic residue and retention of applied organic materials.
Texture Class	CLLO		
Org. Carbon Stock (t/ha)	36.3	34.0	The calculated level of organic carbon (active + humus) within one hectare when soil bulk density is either assumed (1.3g/cm3) or has been overwritten with a disturbed soil measured value (if SCA Extra has been requested) and soil depth is 15cm. Please see footnotes for calculation if you wish to adapt. Multiply the OC stock value by the field area (hectares) to indicate level of carbon stored within the field.
Phosphorus (ppm)	52	16	**(Index 4.2)** Possible interference with availability of Fe,Cu,Zn.
Potassium (ppm)	388	121	**(Index 3.9)** Adequate. Use soil analysis every 3-5 years to ensure level is maintained.
Magnesium (ppm)	176	50	**(Index 4.0)** Adequate level.
Calcium (ppm)	1966	1600	Adequate level.
Sulphur (ppm)	3	10	CONSIDER TREATMENT.
Sodium (ppm)	32	90	Low priority on this crop. Other crops may be affected.
Boron (ppm)	1.34	1.60	Consider treatment with Boron.

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Oliver Seeds

Analysis Results (SOIL)

Customer	DIGG & CO	**Distributor**	OLIVER SEEDS - JOHN HARRIS
Sample Ref	PUDDINGTON T LEFT	**Date Received**	23/03/2021 (Date Issued: 29/03/2021)
Sample No	E412605/02		
Crop	BARLEY (SPRING)		

Analysis	Result	Guideline	Comments
Copper (ppm)	4.3	4.1	Adequate level.
Iron (ppm)	893	50	Adequate level.
Manganese (ppm)	115	25	Adequate level.
Molybdenum (ppm)	0.03	0.60	Low priority on this crop. Other crops may be affected.
Zinc (ppm)	5.6	4.1	Adequate level.

Additional Comments
Where applicable soil applied P,K and pH recommendations are taken from AHDB Nutrient Management Guide (RB209)

Any indicated Lime Requirement assumes a medium textured soil.
Additional technical bulletins are available at www.lancrop.com

Please Note
Whilst every care is taken to ensure that the Results from Analysis are as accurate as possible, it is important to note that the analysis relates to the sample received by the laboratory, and is representative only of that sample. No warranty is given by the laboratory that the Results from Analysis relates to any part of a field or growing area not covered by the sample received. It is important to ensure that any soil, leaf, silage or fruitlet sample sent for analysis is representative of the area requiring analysis and that samples are obtained in accordance with established sampling techniques. A leaflet containing instructions on how to take soil, leaf, herbage, silage and fruit samples for analysis is available from the laboratory on request. Uncertainty measurements of results are available on request.

This report has been generated by Yara's Megalab™ software.

Soil Sampling Results 2023









pH **Potassium (mg/l)** **Magnesium mg/l**

Soil Description: The soil is clay with frequent gravel present throughout the field.

Other Notes: Field was saturated with ponding slightly to the north of the site centre (where Sample areas 1 - 4 meet)

Notes

GOWN ENGINEERS

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ANALYTICAL REPORT

Report Number	59907-23	Y745	GOWN ENGINEERS LTD	Client	GOWN
Date Received	27-FEB-2023		THREE WINDS		21998
Date Reported	14-MAR-2023		DOWNSIDE		PUDINGTON MOOR
Project	GOWN 21998		SHEPTON MALLET		
Reference	PUDINGTON MOOR		SOMERSET		
Order Number			BA4 4FH		

Laboratory Reference		SOIL613049	SOIL613050	SOIL613051	SOIL613052	SOIL613053					
Sample Reference		1	2	3	4	5					
Determinand	**Unit**	**SOIL**	**SOIL**	**SOIL**	**SOIL**	**SOIL**					
pH water [1:2.5]		6.9	6.7	6.5	6.6	6.6					
Available Phosphorus (Index)	mg/l	31.4 (3)	27.4 (3)	25.8 (3)	25.0 (2)	28.8 (3)					
Available Potassium (Index)	mg/l	298 (3)	322 (3)	294 (3)	345 (3)	327 (3)					
Available Magnesium (Index)	mg/l	122 (3)	116 (3)	128 (3)	141 (3)	131 (3)					
Textural Class		Clay Loam	Clay Loam	Clay	Clay	Clay					
Sand 2.00-0.063mm	% w/w	24	25	22	22	20					
Silt 0.063-0.002mm	% w/w	42	40	42	40	41					
Clay <0.002mm	% w/w	34	35	36	38	39					
Organic Matter LOI	% w/w	4.7	4.6	5.0	5.5	5.3					
Total Nitrogen	% w/w	0.218	0.223	0.223	0.255	0.248					

Notes

Analysis Notes: The sample submitted was of adequate size to complete all analysis requested.
The results as reported relate only to the item(s) submitted for testing.
The results are presented on a dry matter basis unless otherwise stipulated.

Document Control: **This test report shall not be reproduced, except in full, without the written approval of the laboratory.**

Reported by: *Myles Nicholson*

Natural Resource Management, a trading division of Cawood Scientific Ltd.
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Appendix G: Implications on Designated Sites, Habitats and/or Species

Fauna group / species	Implications during Habitat Bank creation works	Further survey or reports required
Designated sites	No designated Sites lie within the Site boundary. No creation works will have an impact upon nearby designated sites.	No
Habitats	Only arable habitats of low to medium distinctiveness will be lost as part of the scheme and replaced with medium to very high distinctiveness habitats.	No
Invertebrates	At present, the habitats that will be lost as part of the habitat bank creation have minimal value for invertebrates.	No
Amphibians	No evidence of Great Crested Newts was found during the field surveys and are considered unlikely to be present on-Site. However, the boundary hedgerows provide hibernation and foraging opportunities for other amphibians. While there will be no overall loss of breeding or terrestrial habitat for amphibians, there could be implications to the species during the meadow creation, scrub planting. Works will be conducted under RAMs, for both amphibians and reptiles to ensure potential harm/injury is avoided. Methods for example will include vegetation stimming (or gazing) to 150 mm and then left for a few days in order to allow animals to vacate the fields prior to seeding and planting.	Yes: Reasonable Avoidance Measures (RAMs) document.
Reptiles	No records of reptiles were obtained within 1 km of the Site. The boundary hedges afford some hibernation and foraging opportunities suitable for reptile species. It is possible that reptiles will roam from the better quality habitats near the Site, onto the grassland strip. A precautionary approach is therefore required during the meadow and scrub creation. As per amphibians, works will be conducted under RAMs to ensure potential harm/injury is avoided.	Yes: Reasonable Avoidance Measures (RAMs) document.

Fauna group / species	Implications during Habitat Bank creation works	Further survey or reports required
Birds	Skylark and Yellowhammer were recorded as breeding on site with a range of species recorded within 1km of the Site. The hedgerows around the Site offer suitable nesting and foraging habitat for a range of bird species. These will be retained as part of the Habitat Bank. The arable fields and grassland strip offer opportunities for ground nesting birds. Works on these areas for grassland creation and enhancement will be conducted under RAMs.	Yes: Reasonable Avoidance Measures (RAMs) document.
Bats	All hedges, which are likely to be used as foraging and commuting features, will be retained as part of the Habitat Bank and will be unaffected by habitat creation processes.	No
Otter and Water Vole	No records of otter or water vole were obtained within 1km of the Site. The Site does not offer any suitable aquatic habitat for these species. As such, it is highly unlikely that these species are present within the Site and will be unaffected by the habitat creation processes proposed.	No
Hazel dormouse	No records of hazel dormouse were returned within 1km of the Site. The hedgerows present along the boundaries of the Site offer some value to dormouse for foraging and commuting, however, they lack good connectivity to well established woodland. All hedgerows will be retained.	No
Badger	No badger setts or signs of badger were recorded during either of the walkover surveys, therefore the Site is likely utilised infrequently or not at all.	No

APPENDIX 2: Statement of Achievability

ENVIRONMENT BANK

Environment Bank
The Catalyst
Baird Lane
York
YO10 5GA

March 2024

Planning department
Mid Devon District Council
Phoenix House
Phoenix Lane
Tiverton
EX16 6PP

Dear whom it may concern,

I hereby certify that delivery of the Biodiversity Units (shown in Table 1) as calculated using the Natural England Statutory Biodiversity Metric, are achievable at Puddington Moor Habitat Bank (Environment Bank Ltd Ref: MDEV07) through the management actions described in the Habitat Management Plan dated 13th February 2024 with reference code MDEV07-EB-HMP-v03.00, having regard to:

1. the habitat classification and condition assessment survey, dated 5th July 2022;
2. the desktop study data received from Devon Biological Records Centre dated 22rd April 2022;
3. the soil chemistry survey, dated 15th March 2023;
4. the establishment, management, and monitoring plans for the site, as detailed in the Habitat Management Plan.

Table 1: Minimum Biodiversity Units generated for sale at Habitat Bank MDEV07

Distinctiveness	Habitat Type	Biodiversity Units
Medium	Other neutral grassland	59.39
Medium	Mixed scrub	13.12

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Signed: [redacted] Mike Waller ACIEEM (Senior Ecologist)

Date: March 2024

Countersigned: [redacted] Tom Rothero MCIEEM (Associate Director)

Date: March 2024

EXECUTED as a **Deed** by)
EBL HB LIMITED acting by a director)
in the presence of:-) Director

[redacted]
Witness signature

[redacted]
Witness name

[redacted]
Witness address

SOLICITOR
Witness occupation

EXECUTED as a **Deed** by))
affixing the Common Seal of))
))
MID DEVON DISTRICT COUNCIL)
in the presence of:-

[redacted]
Authorised signatory signature

Document Number 11437

[redacted]
Authorised signatory name