



#### WASTE RECOVERY PLAN FOR THE DEPOSITION OF WASTE ON LAND AS A RECOVERY ACTIVITY FOR THE RESTORATION OF ESCRICK QUARRY TO THE SOUTH WEST OF ESCRICK IN NORTH YORKSHIRE

Report reference: PL/ES/NCW/5689/01/WRP June 2022



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This report has been prepared by MJCA with all reasonable skill, care and diligence, and taking account of the Services and the Terms agreed between MJCA and the Client. This report is confidential to the client and MJCA accepts no responsibility whatsoever to third parties to whom this report, or any part thereof, is made known, unless formally agreed by MJCA beforehand. Any such party relies upon the report at their own risk.



#### 1. Introduction

1.1 MJCA is commissioned by Plasmor Limited (Plasmor) to prepare a Waste Recovery Plan (WRP) for the deposition of waste on land as a recovery activity in order to restore Escrick Quarry to the south west of Escrick in North Yorkshire to agricultural and nature conservation interest.

- 1.2 Escrick Quarry (the site) is centred on National Grid Reference SE 617 405 approximately 1.7km south-south west of the village of Escrick, approximately 1.4km east-south east of Stillingfleet and approximately 1.5km north of the village of Riccall in North Yorkshire. The site location is shown on Figure 1. There are two main areas of the site which are separated by National Route NR65 of the National Cycle Network (NR65)/the Trans Pennine Trail (TPT) which runs in a generally north to south direction between the eastern area and the western area of the site. The site and surrounding area is shown on Figure 2. Phases 1 to 3 are located in the area of the site to the east of NR65/TPT and Phases 4 to 15 are located in the area of the site to the west of NR65/TPT. Access to the site is from the A19 approximately 570m south east of the eastern area of the site and a bridge to the western area of the site has been constructed over NR65/TPT. The layout of the site is shown on Figure 3.
- 1.3 With the exception of an area of former quarry which is now being restored by the importation of waste materials and is the subject of Environmental Permits references EPR/ZP3835JD and EPR/JB3934AE, the land surrounding the site is generally in agricultural use. There are isolated residential properties located in the area surrounding the site. The nearest residential property to the site is Mount Farm which is located approximately 55m from the north east boundary of the western area of the site. Glade Farm and Glade Farm Cottages and Bell Farm are located approximately 625m, 725m and 950m south-south east of the eastern area of the site respectively and approximately 580m and 680m east and 370m east-south east respectively of the western area of the site. Moor Farm is located approximately 420m south west of the western area of the site. Escrick Business Park is located adjacent to and north of the site access from the A19 and approximately 350m south-south east of the eastern area of the site. The site reception area is located adjacent to and west of Escrick Business Park. Bridleway 35.62/9/1 runs in a generally north south direction and crosses the western area of the site before turning south westerly and

running along the southern boundary of the western area of the site. Bridleway 35.62/9/1 will be temporarily diverted as part of the operations.

1.4 Planning permission reference C8/2019/0917/CPO for a '...new guarry to extract approximately 6 million tonnes of clay by 2053 and restoration of the site to agriculture and nature conservation with the importation of up to 2.67 million tonnes of inert materials...on land adjacent to and to the west and north of the current Escrick Quarry to the south west of Escrick, North Yorkshire, YO19 6ED' (the planning permission) was granted by North Yorkshire County Council (NYCC) on 29 March 2021. A copy of the planning permission is presented at Appendix A. The boundary of the planning permission is shown on Figures 1 and 2. The area the subject of the planning permission which will be the subject of clay extraction and restoration operations is approximately 37.5 hectares. As explained above the site will be restored in 15 phases using imported inert restoration materials and it is anticipated that up to 2,670,000m3 of inert restoration material will be imported to the site for use in the restoration of the site. Based on an input rate of up to 200,000 tonnes per annum it is anticipated that the restoration operations will be completed by 2059 which is seven years after the completion of mineral extraction operations<sup>1</sup>. The consented restoration scheme which is to agricultural and nature conservation interest including water bodies and wetland habitats is shown on drawing reference PL/ES/03-20/21229revE as supplemented by drawing reference ESC009Rev.B which was submitted to NYCC pursuant to Condition 32 of the planning permission. A copy of drawing reference PL/ES/03-20/21229revE is presented at Appendix B and a copy of drawing reference ESC009Rev.B is present at Appendix C.

1.5 A WRP presenting justification that the activity comprises recovery is presented in Section 2 of this report. Further to the agreement of the WRP by the Environment Agency an application will be submitted for a bespoke Environmental Permit.

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<sup>&</sup>lt;sup>1</sup> Condition 2 of the planning permission states that 'The permission hereby granted authorises the extraction of clay only until 30 years from the date of commencement of development as notified under condition 1 of this planning permission. The development hereby permitted shall be discontinued and all buildings, plant and machinery shall be removed from the site and the site shall be restored in accordance with the scheme approved under Condition 32 within 7 years of the completion of mineral workings or within such longer period as may be specifically approved in writing by the County Planning Authority.' The notice of commencement of the development was submitted to North Yorkshire Council in 2022.

#### 2. Waste Recovery Plan

2.1 The WRP has been prepared with reference to Article 3(15) of the Waste Framework Directive (2008/98/EC)<sup>2</sup> and the latest guidance on the deposition of waste on land as a recovery activity entitled 'Waste recovery plans and deposit for recovery permits' published by the EA on GOV.UK on 21 April 2021<sup>3</sup> (the recovery guidance). Article 3(15) of the Waste Framework Directive states that:-

'recovery' means any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function...'

2.2 The recovery guidance states that:-

'Waste recovery on land, or deposit for recovery, is when you use waste material instead of non-waste material to perform a function.'

2.3 The recovery guidance specifies that there are three main ways that can be used to demonstrate waste recovery. One of the three ways identified in the recovery guidance is to '... provide evidence that you are obliged to carry out the scheme.' In respect of an obligation it is specified in the recovery guidance that:-

'This could be because a regulator has imposed a requirement on you so you would have to do the work whether you use waste or non-waste. For example, if you operate a quarry and are required by planning conditions of an already implemented planning permission to restore it according to an approved plan.'

2.4 The recovery guidance is clear that where there is a specific obligation to undertake the work, rather than a general obligation, it is unnecessary to present in a WRP the information referred to under the headings 'Purpose of the work', 'Quantity of waste used' and 'Meeting quality standards' in the recovery guidance.

<sup>&</sup>lt;sup>3</sup> https://www.gov.uk/government/publications/deposit-for-recovery-operators-environmental-permits/waste-recovery-plans-and-deposit-for-recovery-permits Published on 21 April 2021.



<sup>&</sup>lt;sup>2</sup> https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008L0098&from=EN

#### The specific obligation

2.5 As described in Section 1, the restoration of Escrick Quarry the subject of this WRP is the subject of planning permission reference C8/2019/0917/CPO (the planning permission) granted by NYCC on 29 March 2021 (Appendix A). Condition 3 of the planning permission states that:-

'The development hereby permitted shall be carried out in accordance with the application details dated 31 July 2019, the accompanying Environmental Statement reference PL/ES/SE/1683/01/ESF dated July 2019, the Planning Statement reference PL/ES/SE/1683/01/PSF dated July 2019, the approved drawings and documents listed in the table below and the following conditions which at all times take precedence or in accordance with such other details as may be subsequently approved in writing by the County Planning Authority:'

- 2.6 Condition 3 lists amongst others the phasing plans for extraction and restoration and the approved restoration scheme. The plans referred to in Condition 3 are discussed in further detail below under the *'Evidence of the obligation'*.
- 2.7 It is clear that in granting planning permission reference C8/2019/0917/CPO, NYCC has imposed specific obligations in respect of restoring the site according to approved plans. In respect of specific obligations the EA states in the recovery guidance:-

'Obligations may specify the scheme you have to carry out. If you have specific obligations to complete the scheme you propose, the Environment Agency will normally accept recovery where your waste recovery plan includes:

- evidence of the obligation
- plans and cross sections that show your proposal matches the obligation on you
- evidence that the waste is suitable for the intended purpose'

Taking each of these points in turn.



#### Evidence of the obligation

2.8 As explained earlier, planning permission reference C8/2019/0917/CPO confirmed the specific obligations in respect of restoring the site according to the approved plans. Conditions 3, 5, 29, 32, 33 and 34 of the planning permission refer to the restoration of the site.

2.9 Condition 3 of the planning permission (Definition of development) states that:-

'The development hereby permitted shall be carried out in accordance with the application details dated 31 July 2019, the accompanying Environmental Statement reference PL/ES/SE/1683/01/ESF dated July 2019, the Planning Statement reference PL/ES/SE/1683/01/PSF dated July 2019, the approved drawings and documents listed in the table below and the following conditions which at all times take precedence or in accordance with such other details as may be subsequently approved in writing by the County Planning Authority: [inter alia]

Reference	Date	Drawing
		number/document
		and title
PL/ES/06-	05/05/20	Figure PS 5 - The
19/21220revE		proposed phasing of
		the clay extraction
		operations
		(Appendix D)
PL/ES/01-	09/04/20	Figure PS 5a - The
20/21221revC		proposed phasing of
		the clay extraction
		operations in Phases
		1 – 3 (Appendix D)
PL/ES/01-	09/04/20	Figure PS 5b - The
20/21222revC		proposed phasing of
		the clay extraction
		operations in Phases



		4 – 7 and the
		restoration
		operations in Phases
		1 – 3 (Appendix D)
PL/ES/01-	09/04/20	Figure PS 5c - The
20/21223revC		proposed phasing of
		the clay extraction
		operations in Phases
		8 – 11 and the
		restoration
		operations in Phases
		4 – 7 (Appendix D)
PL/ES/01-	09/04/20	Figure PS 5d - The
20/21224revC		proposed phasing of
		the clay extraction
		operations in Phases
		12 – 15 and the
		restoration
		operations in Phases
		8 – 11 (Appendix D)
PL/ES/01-	09/04/20	Figure PS 5e - The
20/21225revC		proposed phasing of
		the restoration
		operations in Phases
		12 – 15 (Appendix D)
PL/ES/03-	05/05/20	Figure PS 6 - The
20/21229revE		restoration plan
		(Appendix B)
	May	Restoration and
	2020	Outline Aftercare
		Strategy' (Appendix
		E)

The Appendices referenced in brackets refer to the Appendices in the WRP at which the drawings and documents are provided.

2.10 The reason stated in the planning permission for imposing Condition 3 is:-

'To ensure that the development is carried out in accordance with the application details.'

2.11 Condition 5 of the planning permission (Phased working and restoration) states:-

'The phased working and restoration of the site shall take place strictly in accordance with Figures PS 5 (drawing reference PL/ES/06-19/21220RevE); PS 5a (drawing reference PL/ES/01-20/21221RevC); PS 5b (drawing reference PL/ES/01-PS 20/21222RevC); 5c (drawing reference PL/ES/01-PS 20/21223RevC); 5d (drawing reference PL/ES/01-20/21224RevC) and PS 5e (drawing reference PL/ES/01-20/21225RevC).' (Appendix D).

The Appendix referenced in brackets refers to the Appendix in the WRP at which the drawings are provided.

2.12 The reason stated in the planning permission for imposing Condition 5 is:-

'To secure an orderly progression of working.'

2.13 Condition 29 of the planning permission (Landscaping and restoration) states that:-

'Prior to the commencement of development a scheme for the advanced and infill planting and landscaping works that will be undertaken prior to the commencement of development or within the first year of the commencement of development at the site shall be submitted to the County Planning Authority for approval. The scheme shall include for advanced planting on the boundaries of the site as shown on Figure PS 6 (drawing reference PL/ES/03-20/21229RevE) and the scrub planting on the bund to be constructed to the south west of Mount Farm.' (Appendix F).

The Appendix referenced in brackets refers to the Appendix in the WRP at which the approved scheme for the advanced and infill planting and landscaping is presented. A copy of drawing reference PL/ES/03-20/21229RevE is presented at Appendix B.



The scheme was initially submitted to NYCC on 15 September 2021. Based on consultation responses received further information was submitted to NYCC on 11 February 2022 including drawing reference ESC009Rev.B and together these submissions were approved by NYCC on 17 March 2022. A copy of drawing reference ESC009Rev.B is presented at Appendix C. The confirmation from NYCC that the scheme for the advanced and infill planting and landscaping has been approved, together with drawings references PL/ES/03-20/21229RevE and ESC009Rev.B, and is presented at Appendix G.

2.14 The reason stated in the planning permission for imposing Condition 29 is:-

'This is a pre-commencement condition and one which is considered warranted in the interests of achieving a high standard of landscaping and restoration.'

**2.15** Condition 32 of the planning permission (*Landscaping and restoration*) states that:-

'A detailed landscaping and restoration scheme for the restoration works to agricultural land and biodiversity including a programme for the implementation of the works shall be submitted to the County Planning Authority for written approval within six months of the date of this planning permission. The detailed landscaping scheme shall be based on Figure PS 6 (drawing reference PL/ES/03-20/21229RevE) and the Restoration and Outline Aftercare Strategy dated 12 May 2020. The landscaping scheme shall include methods of placement of soils, establishment of drainage and initial cropping of the land, planting schemes, species mixes. Once approved the landscaping and restoration scheme shall be adhered to at all times for the duration of the development. The approved landscaping and restoration scheme shall be implemented in a progressive manner.' (Appendix F).

The Appendix referenced in brackets refers to the Appendix in the WRP at which the approved scheme for the advanced and infill planting and landscaping is presented. A copy of drawing reference PL/ES/03-20/21229RevE is presented at Appendix B. The scheme was initially submitted to NYCC on 15 September 2021. Based on consultation responses received further information was submitted to NYCC on 11



February 2022 including drawing reference ESC009Rev.B and together these submissions were approved by NYCC on 17 March 2022. A copy of drawing reference ESC009Rev.B is presented at Appendix C. The confirmation from NYCC that the scheme for the advanced and infill planting and landscaping has been approved, together with drawings references PL/ES/03-20/21229RevE and ESC009Rev.B, and is presented at Appendix G.

2.16 The reason stated in the planning permission for imposing Condition 32 is:-

'In the interests of amenity and in the interests of achieving a high standard of landscaping and restoration.'

2.17 Condition 33 of the planning permission (Landscaping and restoration) states:-

'The soil profile of the area to be restored to agricultural land, as shown on plan reference PL/ES/03-20/21229revE will comprise 0.6m of onsite soils comprising 0.3m of topsoil and 0.3m of subsoil together with 0.6m of soil forming materials. The onsite soil resources used to restore the agricultural land will be suitable to restore the land to best and most versatile agricultural land.'

2.18 The reason stated in the planning permission for imposing Condition 33 is:-

'In the interests of amenity and in the interests of achieving a high standard of landscaping and restoration.'

2.19 Condition 34 of the planning permission (Landscaping and restoration) states:-

'The restored areas of the site under agricultural use will be the subject of a 5 year aftercare period. The restored areas of the site with habitat features for biodiversity including hedgerows, trees and woodland will be the subject of a 30 year aftercare period.'

**2.20** The reason stated in the planning permission for imposing Condition 34 is:-

'In the interests of amenity and in the interests of achieving a high standard of landscaping, restoration and aftercare.'



2.21 Notwithstanding that there are no restrictions within the planning permission in respect of whether the site is restored using non-waste or waste materials, a letter from NYCC confirming that the restoration of the site can be completed with suitable imported waste or non-waste inert restoration materials is presented at Appendix H.

- 2.22 In addition to the specific obligations imposed by the planning conditions in respect of the restoration of the site, Plasmor also have specific obligations pursuant to the clauses of a Deed of Agreement under Section 106 of the Town and Country Planning Act 1990 (as amended) to restore the site. A copy of the Section 106 Agreement is presented at Appendix I. The Clauses in Schedule 1 of the Section 106 Agreement provide for specific obligations on Plasmor to restore the site and implement the aftercare scheme.
- 2.23 Consistent with the requirements set out in the recovery guidance in respect of an obligation, it is clear that NYCC require Plasmor to assume the specific obligation of the approved phasing plans and schemes of planting, landscaping and restoration as conditions of obtaining planning permission. Plasmor are required to comply with the planning conditions and the clauses of a Deed of Agreement under Section 106 of the Town and Country Planning Act 1990 (as amended) and there is no evidence to suggest otherwise.

## Plans and cross sections that show your proposal matches the obligation on you

- As described earlier in Section 2 of this WRP, Conditions 3, 5, 29 and 32of the planning permission specify the relevant drawings and documents which comprise the approved restoration scheme. The final restored landform is shown on drawing reference PL/ES/03-20/21229revE (Appendix B) as supplemented by the subsequently approved detailed landscaping and restoration scheme for the restoration works (Appendix F) and drawing reference ESC009Rev.B entitled 'Advance Planting, Restoration Planting and Aftercare Plan' (Appendix B). Cross-sections through the eastern and western areas of the restored site are shown on Figure 4.
- 2.25 The total quantity of waste that will need to be deposited to complete the approved restoration scheme is limited by the final levels shown on the restoration scheme. It is proposed that drawings references PL/ES/03-20/21229RevE and ESC009Rev.B



presented at Appendices Band C respectively will comprise the relevant contour plans for the site to be specified in the Environmental Permit.

#### Evidence that the waste is suitable for the intended purpose

2.26 The waste types proposed to be accepted at the site which will be the subject of a bespoke Environmental Permit application are presented in Table 1. The waste types listed in Table 1 are specified in the guidance<sup>4</sup> as waste types that may not need to be tested, apart from classification testing.

- 2.27 Detailed waste acceptance procedures will be in place so that unacceptable waste materials are not accepted at the site and procedures will be in place for the rejection of non-conforming loads. The waste acceptance procedures will include robust waste characterisation and testing procedures. No wastes will be accepted from contaminated sites. Only waste that is suitable for the intended purpose will be imported as to do otherwise would undermine the potential to achieve the approved restoration scheme.
- 2.28 It is clear that Plasmor has specific obligations in respect of the approved scheme. The deposit of waste as a recovery activity will enable Plasmor to satisfy the specific obligations in respect of the restoration of the site.



<sup>4</sup> www.gov.uk/government/publications/deposit-for-recovery-operators-environmental-permits/waste-acceptanceprocedures-for-deposit-for-recovery

**TABLES** 

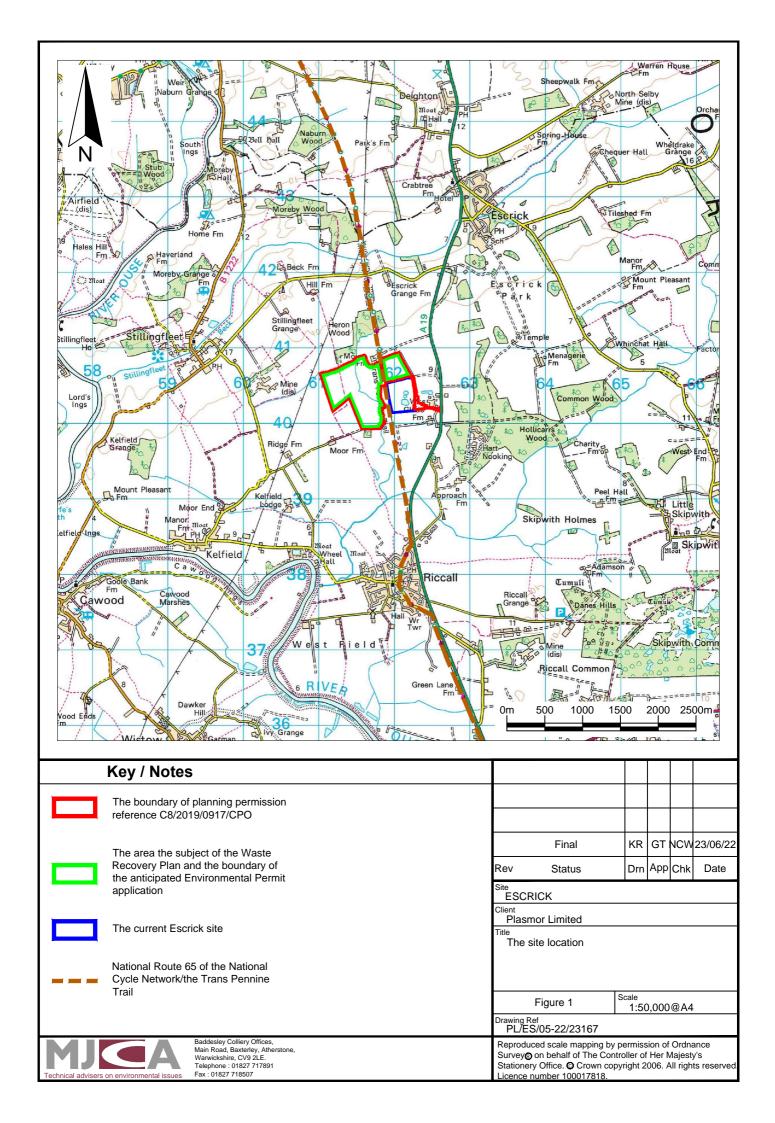
Table 1

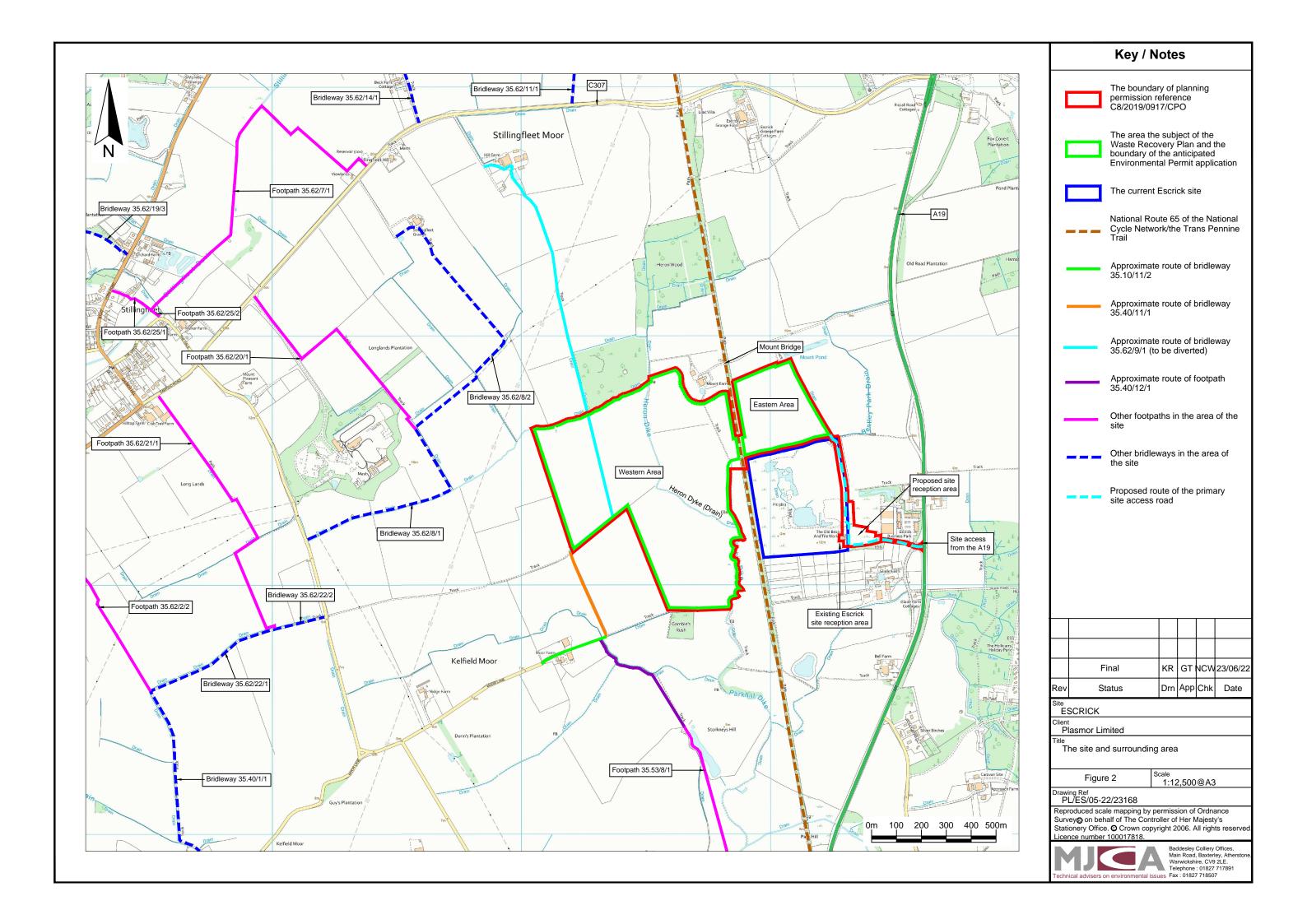
Waste types that may be accepted at Escrick Quarry for deposition as a recovery activity

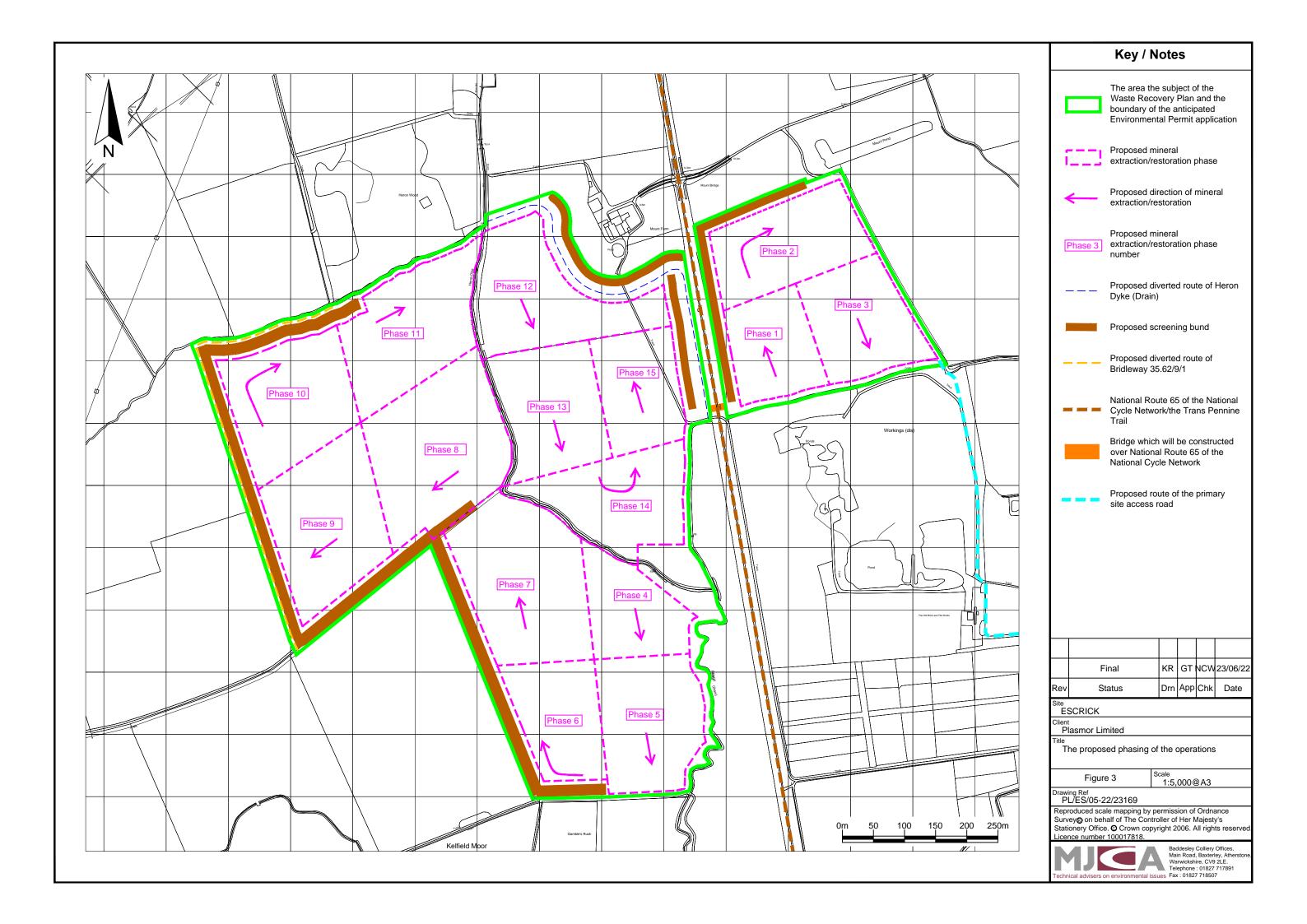
Waste Code	Description (consistent with SR2015_No39)	Restrictions (consistent with SR2015_No39)
01 01	wastes from mineral excavation	-
01 01 02	Wastes from mineral non-metalliferous excavation	Restricted to waste overburden and interburden only
01 04	wastes from physical and chemical processing of non-metalliferous minerals	-
01 04 08	Waste gravel and crushed rocks other than those mentioned in 01 04 06	-
01 04 09	Waste sand and clays	-
10 12	wastes from manufacture of ceramic goods, bricks, tiles and construction products	-
10 12 08	Waste ceramics, bricks, tiles and construction products (after thermal processing)	-
17 01	concrete, bricks, tiles and ceramics	-
17 01 01	Concrete	-
17 01 02	Bricks	-
17 01 03	Tiles and ceramics	-
17 01 07	Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06	Metal from reinforced concrete must have been removed.
17 05	soil stones and dredging spoil	-
17 05 04	Soil and stones other than those mentioned in 17 05 03	Restricted to topsoil, peat, subsoil and stones only.
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified	-
19 12 09	Minerals (for example sand, stones) only	Restricted to wastes from treatment of waste aggregates that are otherwise naturally occurring minerals. Does not include fines from treatment of any non-hazardous waste or gypsum from recovered plasterboard.
20 02	garden and park wastes	-
20 02 02	Soil and stones	Restricted to topsoil, peat, subsoil and stones only.

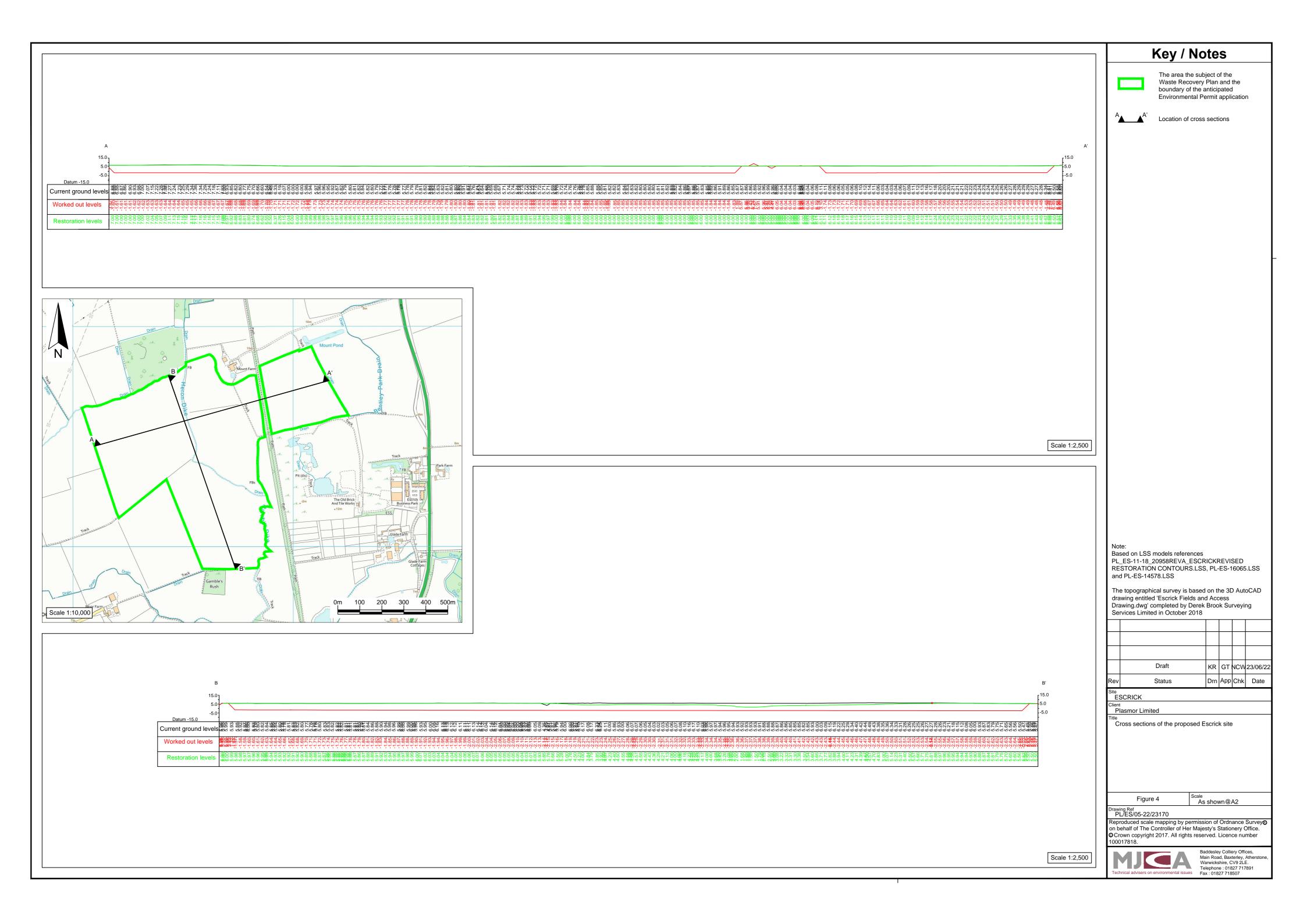


**FIGURES** 









**APPENDICES** 

#### **APPENDIX A**

A COPY OF PLANNING PERMISSION REFERENCE C8/2019/0917/CPO

# TOWN AND COUNTRY PLANNING ACT 1990 NORTH YORKSHIRE COUNTY COUNCIL

### NOTICE OF DECISION OF PLANNING AUTHORITY ON APPLICATION FOR PERMISSION TO CARRY OUT DEVELOPMENT

TO: Plasmor Ltd PO Box 44 Womersley Road Knottingley West Yorkshire WF11 0DN

C/o: MJCA

**Baddesley Colliery Offices** 

Main Road Baxterley Atherstone Warwickshire CV9 2LE

The above-named Council, being the Local Planning Authority for the purposes of your application accompanied by an Environmental Statement dated 31 July 2019 in respect of the application for the proposed new quarry to extract approximately 6 million tonnes of clay by 2053 and restoration of the site to agriculture and nature conservation with the importation of up to 2.67 million tonnes of inert materials together with the construction of new internal site access haul road, site compound, car park, site office, wheel washing facility, security fencing and gates and the construction of a temporary bridge crossing over the National Route 65 of the National Cycle Network on land adjacent to and to the west and north of the current Escrick Quarry to the south west of Escrick, North Yorkshire, YO19 6ED have considered your said application

- HAVING first taken into consideration the environmental information (including the Environmental Statement, which includes such information as is reasonably required to assess the environmental effects of the development and which the applicant could be reasonably required to compile and duly made representations about the environmental effects of the development) pursuant to Regulation 3 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017; and
- HAVING CONSIDERED the development to comply with the Development Plan for the
  area and there being no material considerations to indicate a decision other than in
  accordance with the Development Plan; and
- HAVING SECURED a Section 106 Legal Agreement providing for the following matters:
  - i. Detailed Restoration and Aftercare Scheme for a period of 30 years

FOR RIGHTS OF APPEAL PLEASE SEE END OF DECISION NOTICE

Continuation of Decision No.C8/2019/0917/CPO

Dated: 29 March 2021

have **GRANTED** planning permission for the proposed development

• **SUBJECT TO THE FOLLOWING CONDITIONS** imposed for the reasons thereafter given:

#### Time limit and commencement of development

1. The development to which this permission relates must be implemented no later than the expiration of three years from the date of this Decision Notice, the date of which shall be notified in writing to the County Planning Authority within 7 days of the commencement.

<u>Reason:</u> To comply with Section 91 of Town and Country Planning Act 1990 as amended by Section 51 of the Planning and Compulsory Purchase Act 2004.

#### **Duration of development**

2. The permission hereby granted authorises the extraction of clay only until 30 years from the date of commencement of development as notified under condition 1 of this planning permission. The development hereby permitted shall be discontinued and all buildings, plant and machinery shall be removed from the site and the site shall be restored in accordance with the scheme approved under Condition 32 within 7 years of the completion of mineral workings or within such longer period as may be specifically approved in writing by the County Planning Authority.

<u>Reason:</u> To reserve the rights of control of the County Planning Authority to ensure restoration of the land with the minimum of delay in the interests of amenity.

#### **Definition of development**

3. The development hereby permitted shall be carried out in accordance with the application details dated 31 July 2019, the accompanying Environmental Statement reference PL/ES/SE/1683/01/ESF dated July 2019, the Planning Statement reference PL/ES/SE/1683/01/PSF dated July 2019, the approved drawings and documents listed in the table below and the following conditions which at all times take precedence or in accordance with such other details as may be subsequently approved in writing by the County Planning Authority:

Reference	Date	Drawing number/document and title	
	31 July 2019	Application Form	
PL/ES/SE/1683/01/ESF	July 2019	Environmental Statement and accompanying appendices	
PL/ES/07-19/21321	31/07/19 05/05/20	Figure PS 3 - The planning application boundary	
PL/ES/06-19/21220revE		Figure PS 5 - The proposed phasing of the clay extraction operations	
PL/ES/01-20/21221revC	09/04/20	Figure PS 5a - The proposed phasing of the clay extraction operations in Phases 1 – 3	

#### Continuation of Decision No.C8/2019/0917/CPO

Dated: 29 March 2021

PL/ES/01-20/21222revC	09/04/20	Figure PS 5b - The proposed phasing of the clay extraction operations in Phases 4 - 7 and the restoration operations in Phases 1 - 3
PL/ES/01-20/21223revC	09/04/20	Figure PS 5c - The proposed phasing of the clay extraction operations in Phases 8 - 11 and the restoration operations in Phases 4 - 7
PL/ES/01-20/21224revC	09/04/20	Figure PS 5d - The proposed phasing of the clay extraction operations in Phases 12 - 15 and the restoration operations in Phases 8 - 11
PL/ES/01-20/21225revC	09/04/20	Figure PS 5e - The proposed phasing of the restoration operations in Phases 12 – 15
PL/ES/03-20/21229revE	05/05/20	Figure PS 6 – The restoration plan
PL/ES/07- 19/21322revA	09/04/20	Figure PS 7 - The proposed access route
PL/ES/06-19/21227	31/07/19	Figure PS 8 - The preliminary design of the proposed bridge over National Route 65 of the National Cycle Network
PL/ES/06-19/21228	31/07/19	Figure PS 9 - The layout of the proposed bridge over National Route 65 of the National Cycle Network
PL/ES/06-19/21230revA	13/02/20	Figure ES 10 - Cross Sections of the proposed Escrick site
MJ115-L097-008	May 2019	Figure ES 12 - Habitat Map
C599 Drawing No. 2	17/08/18	Figure ES 13 - Agricultural Land Classification
R19.9459/3/AP	17/7/19	Figure ES 14 - Assessment Locations (noise)
PL/ES/07-19/21317	31/07/19	Figure ES 15 - Locations of sensitive dust receptors
	May 2020	Restoration and Outline Aftercare Strategy
	11 February 2020	Biodiversity Mitigation, Monitoring and Management Plan for Land at Escrick
PL/ES/10-19/21463	11/02/20	Approximate extent of vegetation to be cleared to accommodate the crossing construction
MJCA115	January 2020	Arboricultural Impact Assessment and Arboricultural Method Statement: Land adjacent to and to the west and north of the current Escrick Quarry to the southwest of Escrick in North Yorkshire
PCAS job no. 2215 Site code: ECWM 19	May 2019 (amended July 2019)	Archaeological Mitigation Strategy, prepared by PCAS Archaeology on behalf of Andrew Josephs Associates

Reason: To ensure that the development is carried out in accordance with the application details.

#### **Hours of operation**

4. Except with the prior written approval of the County Planning Authority operations at the site shall only take place between the following times:

Activity	Times
Soil and overburden stripping	0630 – 1700 Mondays to Fridays

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Quarrying operations and exportation of clay from the site	0645 – 1700 Mondays to Fridays
Importation of inert restoration materials	0630 – 1700 Monday to Friday

Only essential maintenance work shall take place on Saturdays between the hours of 0715 and 1300 and no work on Saturdays outside these hours. No operations shall take place on Sundays or Bank or Public Holidays.

<u>Reason</u>: To ensure the rights of control of the County Planning Authority in the interests of amenity.

#### Phased working and restoration

5. The phased working and restoration of the site shall take place strictly in accordance with Figures PS 5 (drawing reference PL/ES/06-19/21220RevE); PS 5a (drawing reference PL/ES/01-20/21221RevC); PS 5b (drawing reference PL/ES/01-20/21223RevC); PS 5c (drawing reference PL/ES/01-20/21223RevC); PS 5d (drawing reference PL/ES/01-20/21223RevC).

Reason: To secure an orderly progression of working.

6. No extraction operations shall take place in any phase until materials within the immediately preceding phase have been worked out unless otherwise agreed in writing with the County Planning Authority

<u>Reason</u>: To secure an orderly progression of working and in the interests of controlling progressive restoration.

#### Noise

7. All plant, machinery and vehicles used on any part of the site shall be fitted with effective noise attenuating equipment which shall be regularly maintained. Where earthmoving plant is operating in proximity to residential properties, non-audible reverse warning alarm systems shall be deployed.

<u>Reason</u>: To ensure the rights of control of the County Planning Authority in the interests of amenity.

8. During the working hours specified in Condition 4, noise from mineral extraction and restoration operations on site shall not exceed the following measurements as measured at the following locations:

Location	LAeq,1 hour dB(A)
Hill Farm and Cottages	51
Lilac Villa	52
Escrick Grange Farm Cottages	52
Mount Farm	53
Moor Farm	50

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Brickworks House	55
Escrick Business Park	55
Glade Farm	55
Bell Farm	55

<u>Reason</u>: To ensure the rights of control of the County Planning Authority in the interests of amenity.

9. Noise from water pumping during the night-time period shall not exceed 42 dB L<sub>Aeq, 1h</sub> (free field) at noise-sensitive properties.

<u>Reason</u>: To ensure the rights of control of the County Planning Authority in the interests of amenity.

10. Noise monitoring shall be undertaken at the locations specified in Condition 8 and in accordance with Figure ES 14 - Assessment Locations (Noise Assessment Locations A-I) dated 17 July 2019, within two months of the clay extraction operations moving into a new phase of working as shown on Figure PS 5 (drawing reference PL/ES/06-19/21220RevE), and nonetheless at a frequency of not less than 12 monthly to assess the noise impact of the operations at those locations. Between noise surveys additional monitoring shall be carried out at the written request of the County Planning Authority. All results shall be made available within 10 working days of a written request to do so by the County Planning Authority and an annual summary of results shall be submitted to the County Planning Authority for consideration not later than 31 March in the following calendar year.

<u>Reason</u>: To ensure the rights of control of the County Planning Authority in the interests of amenity.

11. In the event that the noise levels specified in Condition 8 are exceeded, those operations at the site causing the excessive noise shall cease immediately and steps shall be taken to attenuate the noise level to be in compliance with the requirements of Condition 8 within 7 days.

<u>Reason</u>: To ensure the rights of control of the County Planning Authority in the interests of amenity.

12. At the reasonable request of the County Planning Authority or following a noise complaint the operator shall employ a qualified acoustician to carry out noise monitoring to determine if the noise limits has been exceeded. Where an exceedance is determined mitigation measures shall be determined and instigated to ensure that the levels are met. A report detailing the monitoring results, mitigation measures and any retesting shall be provided to the County Planning Authority within 4 weeks of the request being made.

<u>Reason</u>: To ensure the rights of control of the County Planning Authority in the interests of amenity.

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13. Notwithstanding the noise limits imposed within Condition 8 a temporary daytime noise limit of up to 70 dB L<sub>Aeq,1hour</sub> free-field is permitted for up to 8 weeks in a calendar year for temporary works on site such as soil stripping and bund construction.

<u>Reason</u>: To ensure the rights of control of the County Planning Authority in the interests of amenity.

14. Operations shall at all times adhere to the findings and recommendations contained within Appendix ES N of the Environmental Statement (Noise Assessment – ref. R19.9459/3/AP) dated 17 July 2019.

<u>Reason</u>: To ensure the rights of control of the County Planning Authority in the interests of amenity.

#### **Dust**

15. Prior to the commencement of development at the site a dust management and monitoring scheme generally in accordance with the dust controls set out in Table ES 7 of the Environmental Statement dated July 2019 shall be submitted to the County Planning Authority for approval. The dust control measures in the approved scheme shall be adhered to throughout the duration of the development.

<u>Reason</u>: This is a pre-commencement condition and one which is considered warranted in the interests of ensuring the rights of control of the County Planning Authority in the interests of amenity.

16. Dust control measures shall be employed to minimise the emission of dust from the site. Such measures shall include the spraying of working areas, roadways and stockpiles and discontinuance of soil movements during periods of high winds.

<u>Reason</u>: To ensure the rights of control of the County Planning Authority in the interests of amenity.

17. All stockpiled material shall be profiled and conditioned with water as necessary to minimise the wind entrainment of dust.

<u>Reason</u>: To ensure the rights of control of the County Planning Authority in the interests of amenity.

#### **Highways and access**

18. There shall be no access or egress between the highway and the application site by any vehicles other than via the existing access with the public highway. The access shall be maintained in a safe manner which shall include as necessary the cutting back of the vegetation at the access to ensure the necessary visibility splays onto the A19.

Reason: In the interests of both vehicle and pedestrian safety and the visual amenity of the area.

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19. There shall be no access or egress by any vehicles carrying clay or inert restoration materials between the highway and the application site until the new access road and site compound together with the vehicle wheel washing facilities have been installed in accordance with Figure PS 7 (drawing reference PL/ES/07- 19/21322revA) and for which details shall be submitted to and approved in writing by the County Planning Authority. The existing site compound that will be used by inert restoration material vehicles and the new access road and site compound that will be used by clay vehicles shall be kept in full working order at all times. All vehicles involved in the transport of clay or inert restoration materials to or from the site shall be thoroughly cleaned before leaving the site so that no mud, waste materials or debris are deposited on the public highway.

Reason: This is a pre-commencement condition and one which is considered warranted in the interests of highway safety and amenity.

20. All vehicles involved in the transport of clay from the site or inert restoration materials to the site shall be securely sheeted in such a manner as no material may be spilled onto the public highway.

Reason: In the interests of highway safety, amenity and convenience of highway users.

- 21. No development shall take place at the site until a Vehicles Management Statement for the development has been submitted to and approved in writing by the County Planning Authority in consultation with the Local Highways Authority. The approved Statement shall be adhered to throughout the life of the development. The statement shall provide for the following;
  - a. the parking of vehicles of site operatives and visitors;
  - b. loading and unloading of plant and materials;
  - c. storage of plant and materials used in the development;
  - d. erection and maintenance of facilities for public viewing where appropriate; and
  - e. a scheme for recycling/disposing of waste resulting from the development.

Reason: This is a pre-commencement condition and one which is considered warranted in the interests of providing for appropriate on-site vehicle parking and storage facilities, in the interests of highway safety and the general amenity of the area.

22. Prior to the commencement of development a scheme for the detailed design of the temporary bridge crossing the National Route (NR) 65 and the Trans Pennine Trail (TPT), including access during construction, the temporary diverted route of NR65/TPT during construction, the specification of the temporary diverted route, the design of the temporary bridge and details of the surfacing of the section of NCR65/TPT and the verges running under the temporary bridge once constructed will be provided for approval of the County Planning Authority in consultation with Sustrans, the Trans Pennine Trail Officer and the local Internal Drainage Board. No extraction operations will be carried out in the western extraction area (as shown on Figure PS 3 – drawing reference PL/ES/07-19/21321) until the temporary bridge has been constructed. The temporary bridge will be maintained following construction throughout the life of the

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development. The temporary bridge will be demolished and removed within 1 year of the completion of restoration operations in the western extraction area.

<u>Reason</u>: This is a pre-commencement condition and one which is considered warranted in the interests of ensuring the rights of control of the County Planning Authority in the interests of the safety of the highway network and amenity.

23. Once constructed but prior to the use of the temporary bridge referred to in condition 22, written notification shall be provided to the County Planning Authority within 7 days of completion of the temporary bridge construction.

<u>Reason</u>: To ensure the rights of control of the County Planning Authority in the interests of amenity.

24. No more than 60 HGVs associated with the extraction of clay shall visit the site in any single working day as per the hours of operation detailed in Condition 4, which is equivalent to 120 vehicle movements per day (60 in and 60 out).

<u>Reason</u>: In the interests of ensuring the safe and efficient operation of the strategic road network.

25. No more than 40 HGVs associated with the importation of inert restoration materials shall visit the site in any single working day as per the hours of operation detailed in Condition 4, which is equivalent to 80 vehicle movements per day (40 in and 40 out).

<u>Reason</u>: In the interests of ensuring the safe and efficient operation of the strategic road network.

26. Prior to the commencement of extraction operations in the western extraction area details of the diversion of Bridleway 35.62/9/1 including the surface of the diverted Bridleway shall be submitted to and agreed in writing with the County Planning Authority.

<u>Reason</u>: This is a pre-commencement condition for works in phase 4 and one which is considered warranted in the interests of amenity and protection of the existing bridleway.

#### **Archaeology**

27. Development at the site shall take place within the application area in accordance with 'Land at Escrick Clay Works, Selby, North Yorkshire: Archaeological Mitigation Strategy, prepared by PCAS Archaeology on behalf of Andrew Josephs Associates on behalf of Plasmor Ltd. May 2019 (amended July 2019)'.

Reason: In order to ensure the archaeological resources at the site are adequately investigated, understood, and where necessary safeguarded.

#### **Ecology**

28. A detailed Biodiversity Mitigation, Monitoring and Management Plan will be prepared and submitted to the County Planning Authority for approval prior to the commencement of the development. The detailed plan will be based on the Outline Biodiversity

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Mitigation, Monitoring and Management Plan submitted the County Planning Authority on 11 February 2020. The plan will include measures for:

- ecological surveys necessary prior to the commencement of operations in certain phases and the need for mitigation and monitoring as a result of the surveys, such as for badger and hobby;
- b. a management plan for invasive species particularly during the site establishment, vegetation removal and the diversion of Heron Dyke. The management plan will include information on identification of the species, controls necessary and timing of controls to minimise the spread of seeds or the procedure for removal and disposal of plants or spraying of the plants; and
- c. phased hedgerow removal where hedgerows will be removed as part of the development.

The biodiversity mitigation, monitoring and management measures approved will be implemented throughout the duration of the development.

Reason: This is a pre-commencement condition and one which is considered warranted in the interests of biodiversity mitigation.

#### Landscaping and restoration

29. Prior to the commencement of development a scheme for the advanced and infill planting and landscaping works that will be undertaken prior to the commencement of development or within the first year of the commencement of development at the site shall be submitted to the County Planning Authority for approval. The scheme shall include for advanced planting on the boundaries of the site as shown on Figure PS 6 (drawing reference PL/ES/03-20/21229RevE) and the scrub planting on the bund to be constructed to the south west of Mount Farm.

Reason: This is a pre-commencement condition and one which is considered warranted in the interests of achieving a high standard of landscaping and restoration.

30. Prior to the commencement of development an Arboricultural Method Statement and Tree Protection Plan shall be submitted to the County Planning Authority for approval. The Method Statement and Protection Plan shall be in accordance with BS5837.

Reason: This is a pre-commencement condition and one which is considered warranted in the interests of tree protection.

31. All existing boundary hedgerows which will not be removed as part of the development shall be gapped up with species of local provenance and maintained to a target height of 3m prior to the commencement of the development except where the hedgerows are located within 9m of a watercourse maintained by the Internal Drainage Board. The gapping up will be specified in the scheme to be approved in condition 29. From the commencement of the development until completion of aftercare all boundary hedgerows which will not be removed as part of the development shall be maintained in accordance with this condition.

<u>Reason</u>: In the interests of amenity and in the interests of achieving a high standard of landscaping and restoration.

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32. A detailed landscaping and restoration scheme for the restoration works to agricultural land and biodiversity including a programme for the implementation of the works shall be submitted to the County Planning Authority for written approval within six months of the date of this planning permission. The detailed landscaping scheme shall be based on Figure PS 6 (drawing reference PL/ES/03-20/21229RevE) and the Restoration and Outline Aftercare Strategy dated 12 May 2020. The landscaping scheme shall include methods of placement of soils, establishment of drainage and initial cropping of the land, planting schemes, species mixes. Once approved the landscaping and restoration scheme shall be adhered to at all times for the duration of the development. The approved landscaping and restoration scheme shall be implemented in a progressive manner.

<u>Reason</u>: In the interests of amenity and in the interests of achieving a high standard of landscaping and restoration.

33. The soil profile of the area to be restored to agricultural land, as shown on plan reference PL/ES/03-20/21229revE will comprise 0.6m of onsite soils comprising 0.3m of topsoil and 0.3m of subsoil together with 0.6m of soil forming materials. The onsite soil resources used to restore the agricultural land will be suitable to restore the land to best and most versatile agricultural land.

<u>Reason</u>: In the interests of amenity and in the interests of achieving a high standard of landscaping and restoration.

34. The restored areas of the site under agricultural use will be the subject of a 5 year aftercare period. The restored areas of the site with habitat features for biodiversity including hedgerows, trees and woodland will be the subject of a 30 year aftercare period.

<u>Reason</u>: In the interests of amenity and in the interests of achieving a high standard of landscaping, restoration and aftercare.

#### **Soils**

35. Following stripping all topsoils, subsoils and overburden shall be used for restoration except where it is necessary for screening purposes to construct a storage/screening bund. The management of soils on site will be the subject of a detailed soil management scheme that will be submitted for approval of the County Planning Authority prior to the commencement of soil stripping operations in Phase 1. The scheme will provide information on the location, type and management of soil stockpiles. All storage mounds that will remain in situ for more than 3 months, or over winter, shall be vegetated and managed in accordance with this scheme. Thereafter, soils shall be stored and managed in accordance with the approved scheme. The soil management scheme will include provision for an annual audit of all soil materials to be completed at the end of each soil moving season and submitted to the County Planning Authority. The audit will include:

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- a. drawings and tables to identify clearly the origin, intermediate storage and final location of the different soil types. The drawings and tables are to be prepared as part of the first soil audit to a format to be agreed with the County Planning Authority and are to be updated as part of each subsequent audit to provide the most accurate ongoing summary of soil management at the site; and
- b. volumetric information which is to be included in the tables.

Any recommendations resulting from each soil audit must be carried out in the timescale to the agreed with the County Planning Authority.

<u>Reason</u>: This is a pre-commencement condition for phase 1 and one which is considered warranted in order to ensure that the soil resources are correctly handled and safeguarded.

36. All topsoil, subsoil and overburden shall be permanently retained on site and used in restoration. Topsoil stripped in the course of working shall be directly placed for use in restoration or stored in bunds and seeded until used in site restoration.

Reason: To ensure soil resources are correctly handled and safeguarded.

- 37. Topsoil and subsoils shall only be stripped when they are in a dry and friable condition, movements of soils shall only occur:
  - a. during the months April to September inclusive, or
  - b. when all soil is in a suitable dry and friable condition that it is not subject to smearing, and
  - c. when topsoil is sufficiently dry that it can be separated from subsoil without difficulty.

Reason: To ensure soil resources are correctly handled and safeguarded.

- 38. The movement of soils and overburden shall be suspended if necessary during dry and windy conditions to minimise the emission of particulate matter to air.
  - i. All undisturbed areas of the site and all topsoil, subsoil, soil making material and overburden mounds shall be kept free from agriculturally noxious weeds as far as is reasonably practicable. Cutting, grazing or spraying shall be undertaken, as necessary, to control plant growth and the build-up of a seed bank of agricultural weed or their dispersal onto adjoining land.
  - ii. The soil storage/screening bunds shall be constructed on the site in accordance with the submitted application details and Figure PS 5 (drawing reference PL/ES/06-19/21220RevE), PS 5a (drawing reference PL/ES/01-20/21221RevC); PS 5b (drawing reference PL/ES/01-20/21222RevC); PS 5c (drawing reference PL/ES/01-20/21223RevC); PS 5d (drawing reference PL/ES/01-20/21224RevC) and PS 5e (drawing reference PL/ES/01-20/21225RevC). Topsoil bunds will be 3 metres high and subsoil bunds will be a minimum of 3 metres high and a maximum of 5 metres high.
  - iii. Prior to soil stripping no part of the site shall be excavated or traversed by heavy vehicles or machinery (except as necessary to strip that part of topsoil or subsoil) or used for a road or for the stationing of plant or buildings, or storage of subsoil or overburden or imported inert restoration materials or mineral deposits. In respect of soil storage it is necessary only to strip topsoil in areas where subsoil

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will be stored. Where overburden will be stored it is necessary to strip topsoil and subsoil.

iv. Prior to the commencement of soil stripping operations in the western extraction area, a scheme detailing the design, spacing and maintenance of the pipework beneath the temporary soil storage/screening bunds located within Flood Zones 2 and 3 shall be submitted to and approved by the County Planning Authority. Thereafter, the pipework shall be constructed and maintained in accordance with the approved scheme.

<u>Reason</u>: To ensure soil resources are correctly handled and safeguarded and in the interests of amenity.

#### Water and drainage

39. The water ingress to the void will be controlled by a series of sumps and trenches excavated in the base of the site as the extraction progresses. The water will as necessary be pumped to the Internal Drainage Board managed drainage ditches. Prior to the discharge of water from the site a detailed scheme for the management of water at the site will be submitted to and approved by the County Planning Authority.

<u>Reason</u>: This is a pre-commencement condition and one which is considered warranted in the interests of water management.

40. No discharge of water from the site shall be undertaken until a scheme for the provision, implementation and maintenance of a surface water management system has been approved by to the reasonable satisfaction of the County Planning Authority in consultation with the Internal Drainage Board. The rate of discharge will not exceed that of a "greenfield site" at 1.4 litres per second per hectare.

The following criteria should also be used:

- a. Storage volume should accommodate a 1:30 year event with no surface flooding and no overland discharge off the site in a 1:100year event.
- b. A 30% allowance for climate change should be included in all calculations.
- c. A range of durations should be used to establish the worst-case scenario.

<u>Reason</u>: This is a pre-commencement condition and one which is considered warranted in the interests of water management.

41. The series of waterbodies at the restored site will be linked to an outfall to Parkhill Dyke (Drain) to the east of the western area of the site and the discharge of water off site will be managed by a weir structure. Prior to the commencement of clay extraction in Phase 4 the detailed design of the outfall and weir will be the subject of detailed design to be submitted to the County Planning Authority for approval in consultation with the Internal Drainage Board. The rate of discharge shall be consistent with the restrictions provided in Condition 40 above.

<u>Reason</u>: This is a pre-commencement condition for phase 4 and one which is considered warranted in the interests of water management.

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42. There shall be no discharge of foul or contaminated drainage from the site into either groundwater or any surface waters, whether direct or via soakaway.

Reason: In the interests of pollution control.

43. No storage of fuels, lubricants oils or antifreeze will take place within the extraction area. Fuel will be stored in a self bunded mobile fuel storage tank and refuelling will be undertaken in accordance with the company environmental procedures to minimise the risk of spillage. Lubricants, oils and antifreeze will be stored in areas to contain spillage at the plant site.

Reason: In the interests of pollution control.

44. Prior to the commencement of the diversion a detailed scheme for the diversion of Heron Dyke shall be submitted to and approved by the County Planning Authority. The scheme shall include the line of the new dyke including the falls to demonstrate the flows will be similar as before into Parkhill Dyke, information on the construction of the new dyke such as materials management, and mammal protection measures will be included in the detailed scheme.

<u>Reason</u>: This is a pre-commencement condition and one which is considered warranted in the interests of the protection of the existing IDB drain.

45. A strip of land 9 metres wide adjacent to the top of both banks of all watercourses on site shall be kept clear of all new buildings and structures, including gates, walls, fences, hedging, planting and trees at all times and no mineral extraction will encroach on the 9-metre-wide stand-off, in accordance with reference PL/ES/06-19/21220revE.

Reason: In the interests of pollution control.

46. Full details of the proposed crossing of any watercourse must be approved with the County Planning Authority in consultation with the Internal Drainage Board prior to any such works commencing. A crossing must be constructed in accordance with the approved details.

<u>Reason</u>: In the interests of pollution control and protection of watercourses.

47. Full details of the proposed culverting of any watercourse must be approved with the County Planning Authority in consultation with the Internal Drainage Board prior to any such works commencing. A culvert must be installed in accordance with the approved details.

<u>Reason</u>: In the interests of pollution control and protection of watercourses.

#### **Other**

48. In addition to soils and overburden only imported inert restoration materials will be used to restore the site.

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<u>Reason</u>: In the interests of amenity and in the interests of achieving a high standard of landscaping and restoration.

49. No lighting shall be used on the site during the hours of darkness except in an emergency.

Reason: In the interests of amenity.

50. No materials shall be burned on the site.

Reason: In the interests of amenity.

51. The excavation of minerals from the site shall be carried out by means of excavator and no other method of extraction (e.g. pecker or explosives) shall be permitted.

<u>Reason</u>: To ensure the rights of control of the County Planning Authority in the interests of amenity.

52. In the event of mineral extraction permanently ceasing on site for a period in excess of 18 months before the completion of the development a revised scheme of restoration, landscaping and aftercare shall be submitted to the County Planning Authority for written approval within 18 months of the cessation. The approved scheme shall be implemented in accordance with the programme to be included within that scheme.

Reason: To ensure restoration is undertaken as soon as practicable in the interests of amenity.

53. An annual community liaison meeting shall be organised by the operator to review schemes of working, soil audit results, restoration, landscaping, aftercare, and any relevant issues raised by the local community in relation to the site. This meeting shall include nominated representatives from the relevant parish councils and technical advisers as required, together with the County Planning Authority and if necessary the Internal Drainage Board and the Environment Agency.

<u>Reason</u>: In the interests of ensuring compliance and an orderly and progressive pattern of working and restoration.

54. A copy of the planning permission and any agreed variations, together with all the approved plans shall be kept available at the site office at all times.

Reason: To ensure that site personnel are aware of the terms of the planning permission.

#### Informatives

1. The existing Public Right(s) of Way on the site must be protected and kept clear of any obstruction until such time as any alternative route has been provided and confirmed under an Order made under the Town and Country Planning Act 1990. Applicants are advised to contact the County Council's Access and Public Rights of team at County Hall, Northallerton via <a href="mailto:paths@northyorks.gov.uk">paths@northyorks.gov.uk</a> to obtain up-to-date information regarding the line of the route of the way. The applicant should discuss with the Highway Authority any proposals for altering the route.

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Date: 29 March 2021

Corporate Director, Business and Environmental Services

#### NOTE:-

No consent, permission or approval hereby given absolves the applicant from the necessity of obtaining the approval, under the Building Regulations, of the District Council in whose area the site of the proposed development is situated; or of obtaining approval under any other byelaws, local acts, orders, regulations and statutory provisions in force; and no part of the proposed development should be commenced until such further approval has been obtained.

# Statement of Compliance with Article 35(2) of the Town and Country Planning (Development Management Procedure) (England) Order 2015

In determining this planning application, the County Planning Authority has worked with the applicant adopting a positive and proactive manner. The County Council offers the opportunity for pre-application discussion on applications and the applicant, in this case, chose to take up this service. Proposals are assessed against the National Planning Policy Framework, Replacement Local Plan policies and Supplementary Planning Documents, which have been subject to proactive publicity and consultation prior to their adoption. During the course of the determination of this application, the applicant has been informed of the existence of all consultation responses and representations made in a timely manner which provided the applicant/agent with the opportunity to respond to any matters raised. The County Planning Authority has sought solutions to problems arising by liaising with consultees, considering other representations received and liaising with the applicant as necessary. Where appropriate, changes to the proposal were sought when the statutory determination timescale allowed.

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#### **RIGHTS OF APPEAL**

(1) If you are aggrieved by the decision of your local planning authority to refuse permission for the proposed development, or to grant it subject to conditions, then you can appeal to the Secretary of State under Section 78 of the Town and Country Planning Act 1990.

If you want to appeal against your local planning authority's decision then you must do so within 6 months of the date of this notice.

Appeals must be made using a form which you can get from the Secretary of State at Temple Quay House, 2 The Square, Temple Quay, Bristol BS1 6PN (Tel: 0303 444 5000) or online at

https://acp.planninginspectorate.gov.uk

The Secretary of State can allow a longer period for giving notice of an appeal but will not normally be prepared to use this power unless there are special circumstances which excuse the delay in giving notice of appeal.

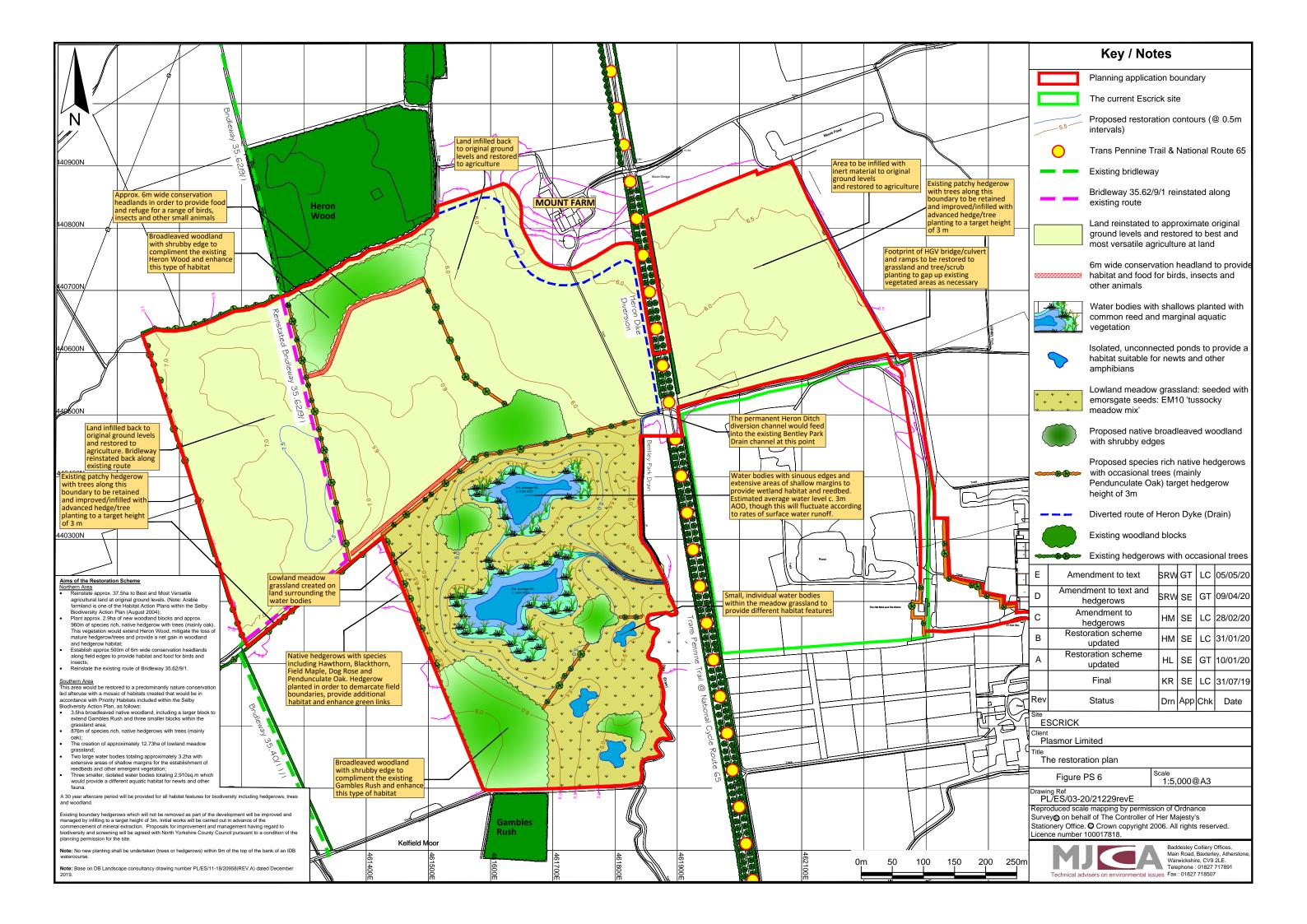
The Secretary of State need not consider an appeal if it seems to the Secretary of State that the local planning authority could not have granted planning permission for the proposed development or could not have granted it without the conditions they imposed, having regard to the statutory requirements, to the provisions of any development order and to any directions given under a development order.

(2) If permission to develop land is refused or granted subject to conditions, whether by the local planning authority or by the Secretary of State for Communities and Local Government, and the owner of the land claims that the land has become incapable of reasonably beneficial use in its existing state and cannot be rendered capable of reasonably beneficial use by the carrying out of any development which has been or would be permitted, he/she may serve on the Council of the county district in which the land is situated, a purchase notice requiring that Council to purchase his/her interest in the land in accordance with the provisions of Part VI of the Town and Country Planning Act 1990.

PLASMOR ESCRICK

## **APPENDIX B**

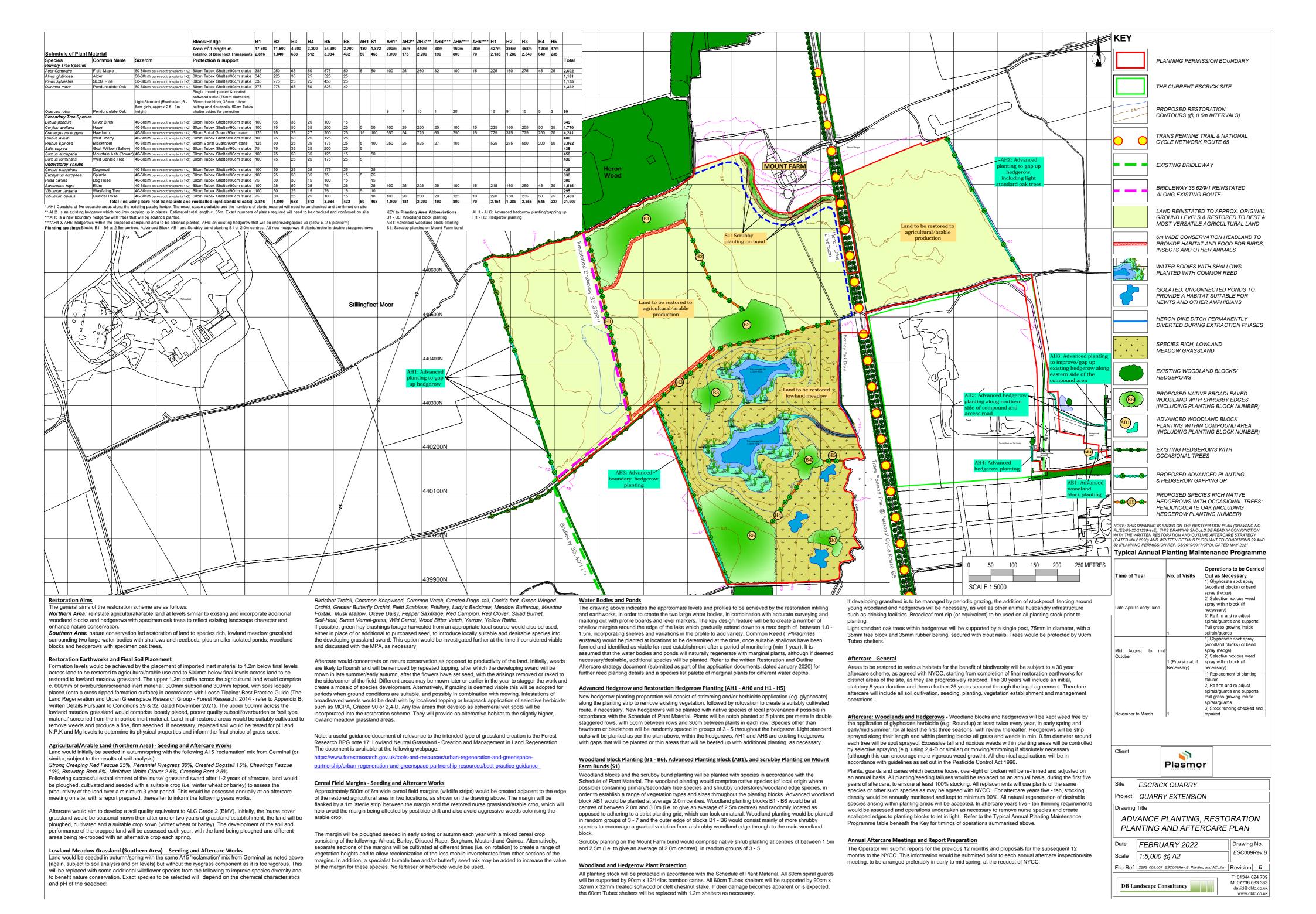
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PLASMOR ESCRICK

# **APPENDIX C**

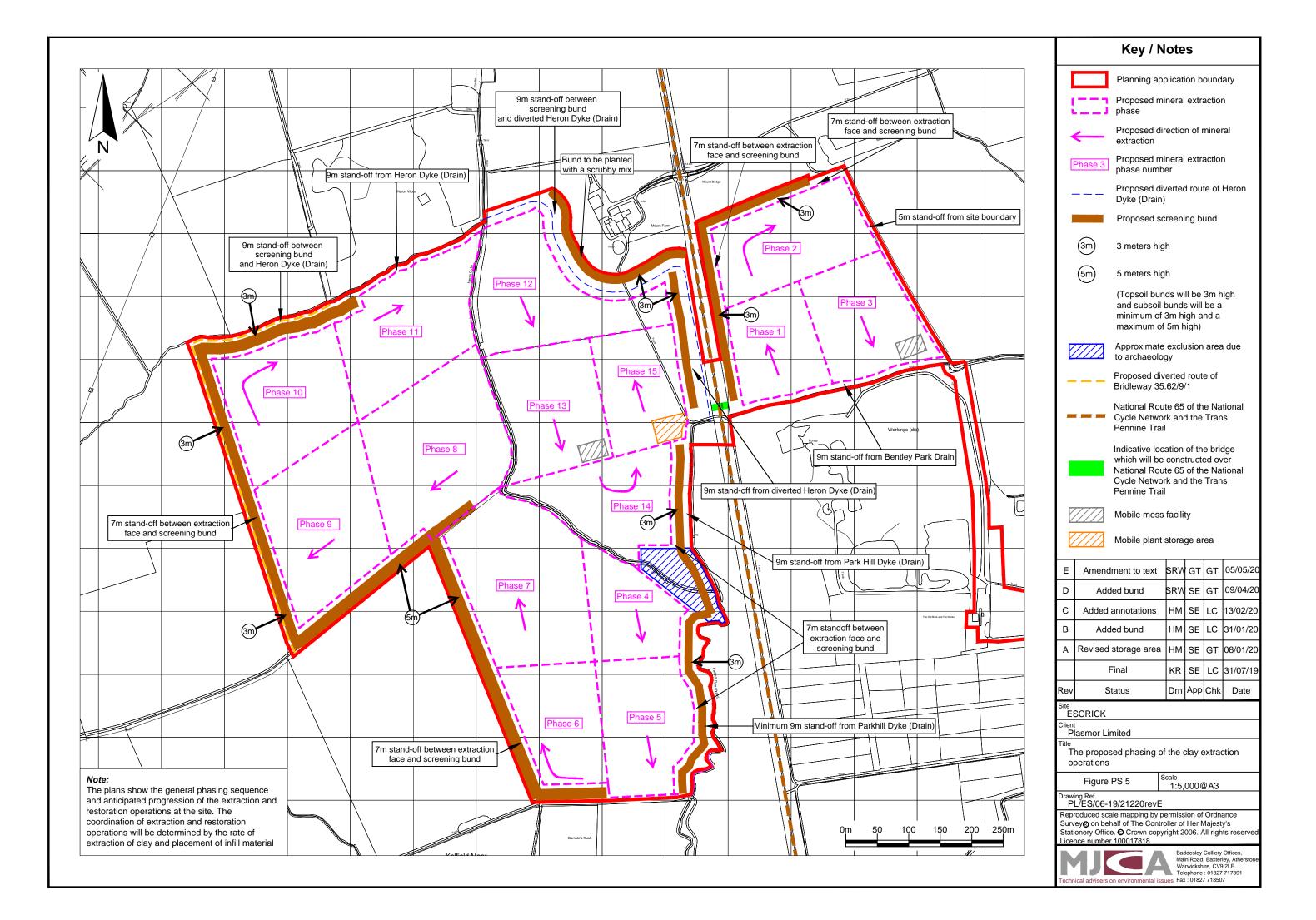
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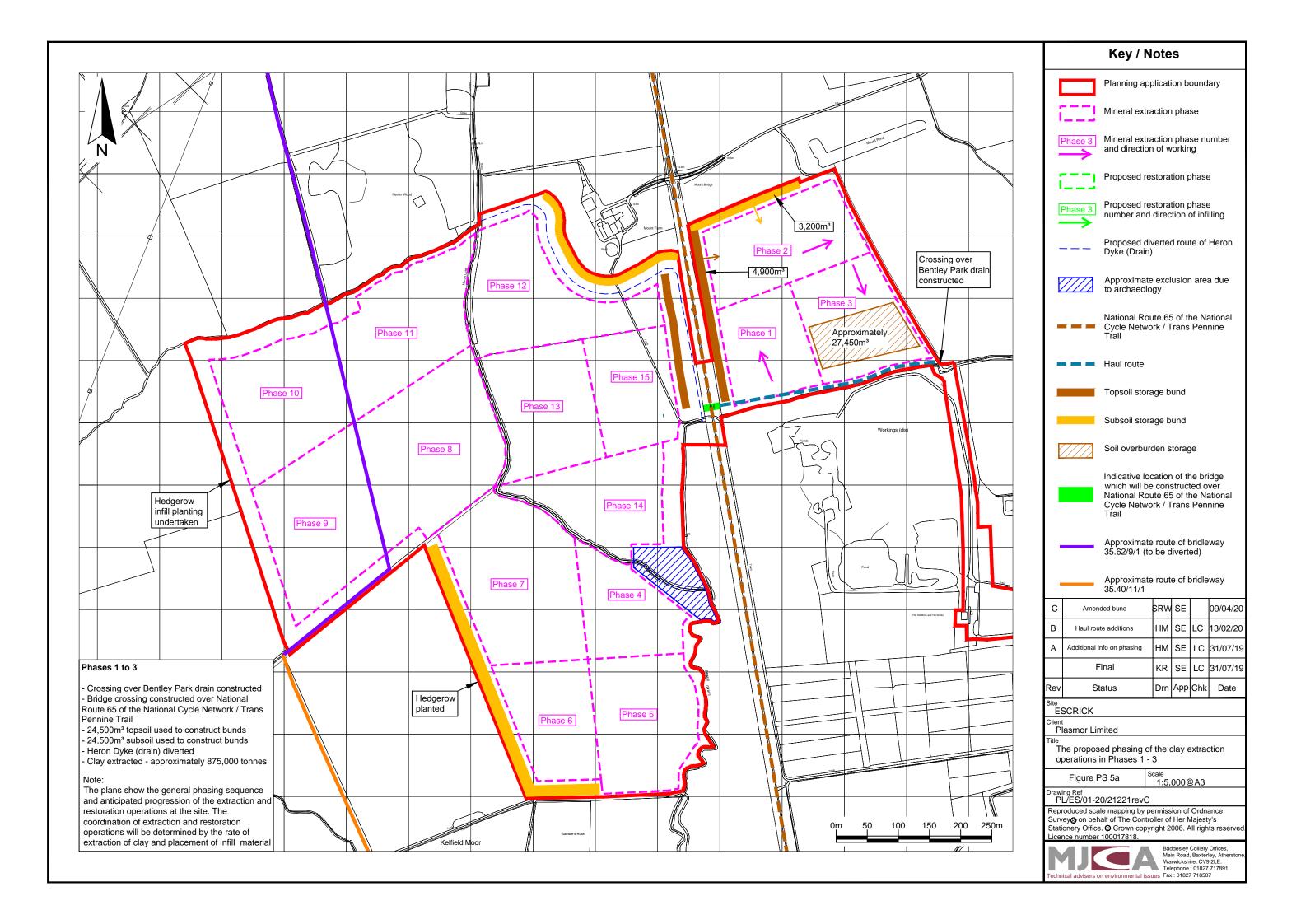


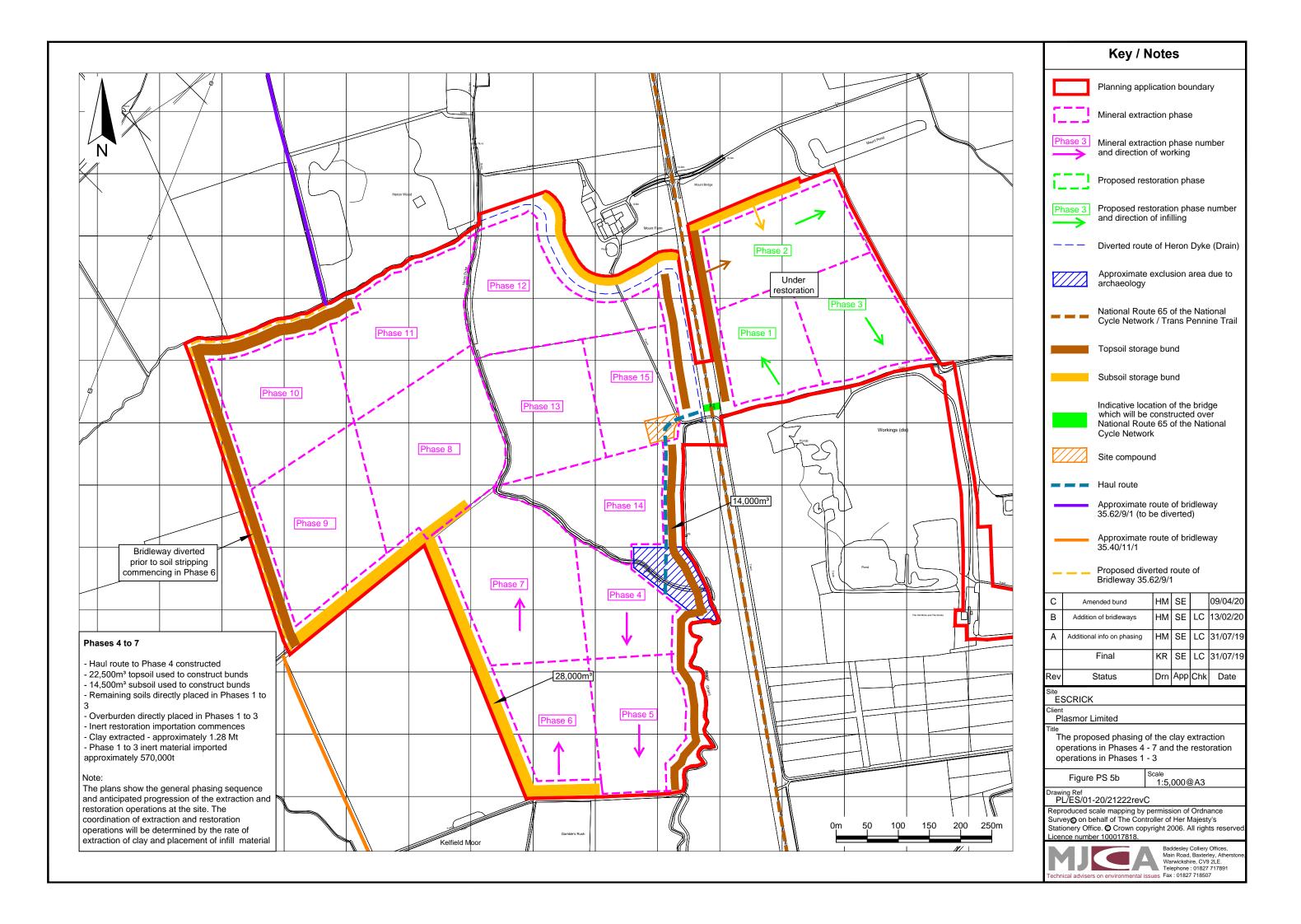
PLASMOR ESCRICK

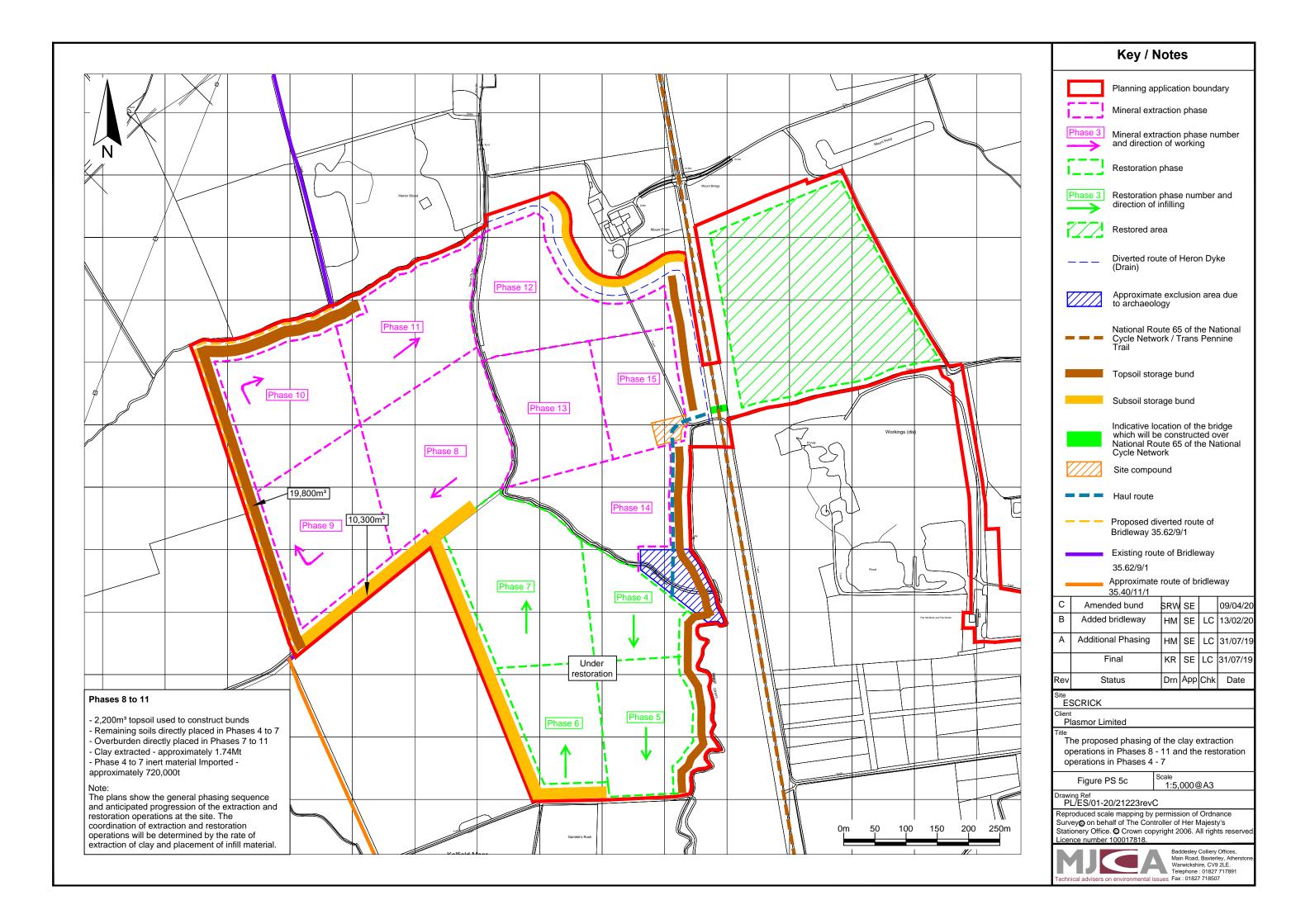
#### **APPENDIX D**

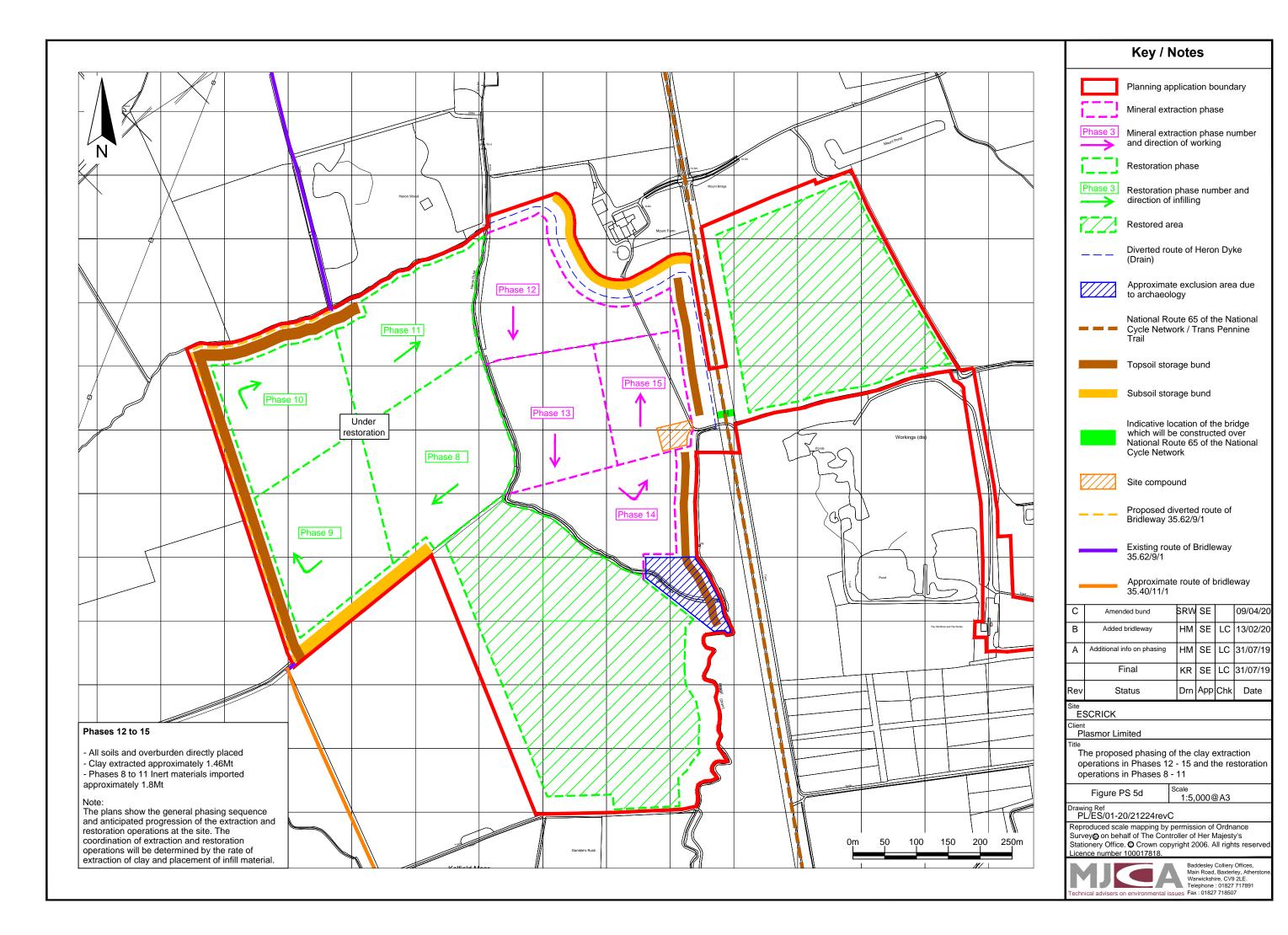
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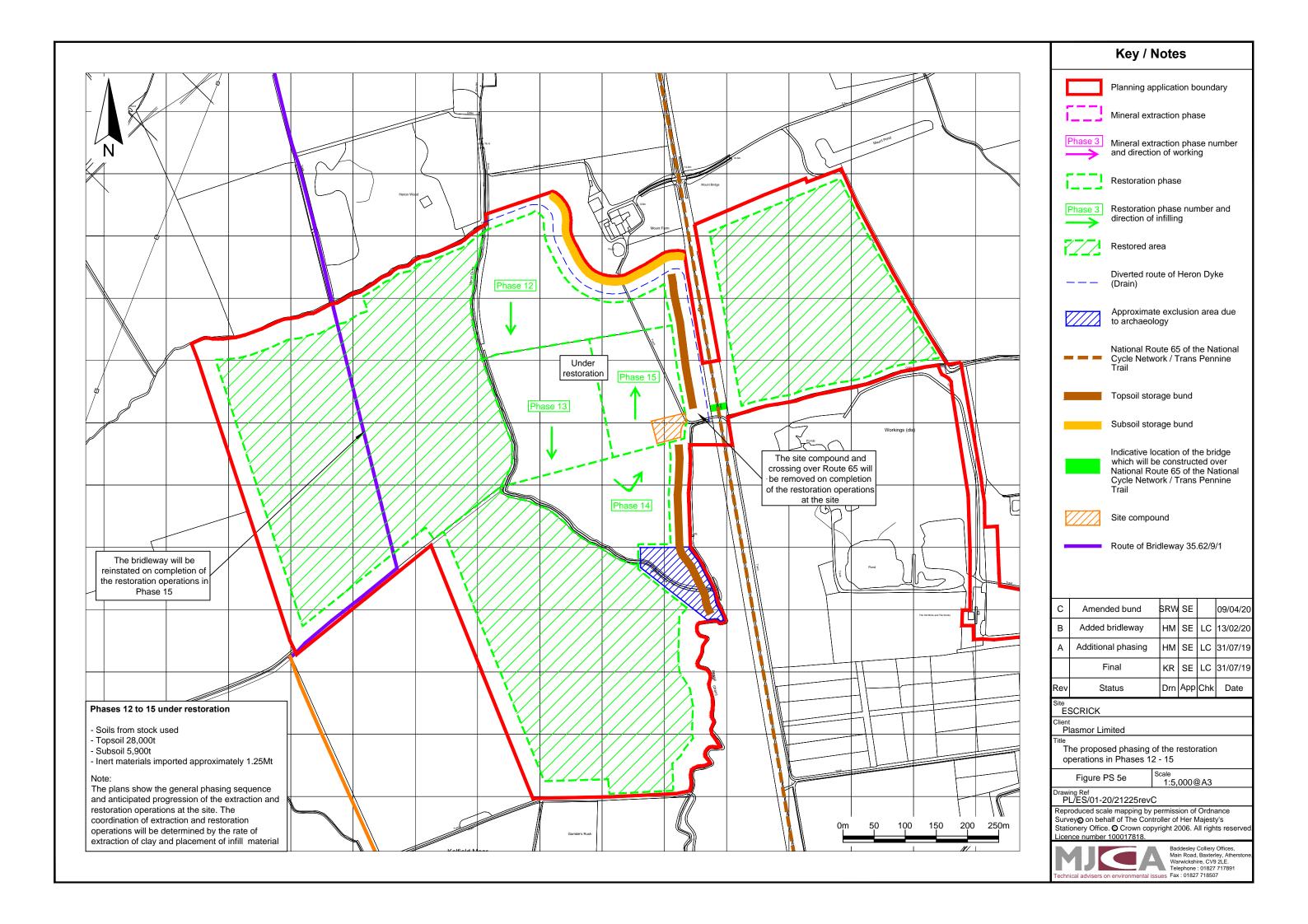


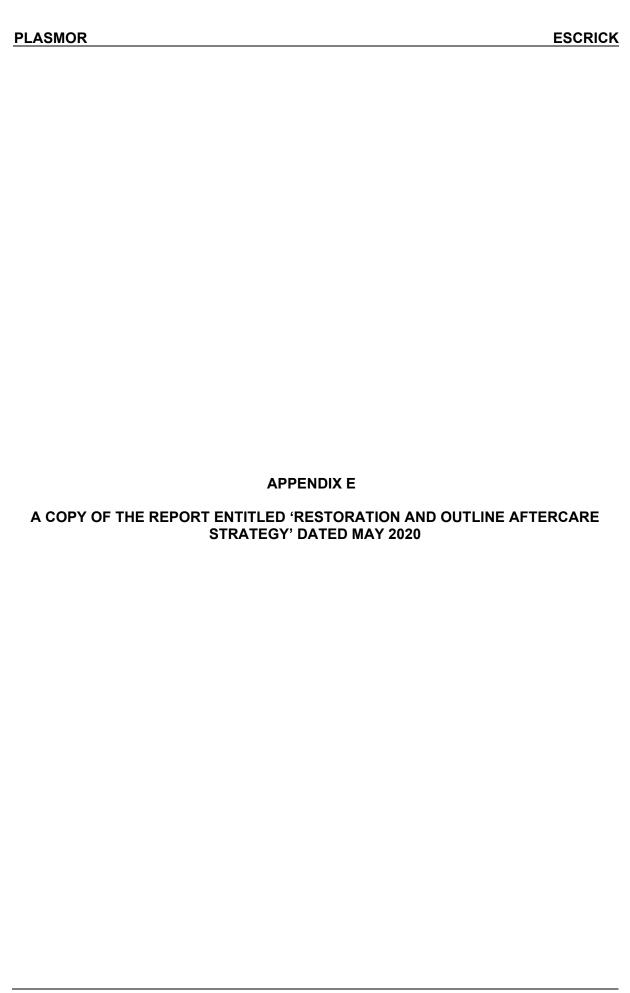














# ESCRICK QUARRY, STILLINGFLEET, NORTH YORKSHIRE

Planning Application for Quarry Extension

Restoration and Outline Aftercare Strategy

May 2020



Document Title: Restoration and Outline Aftercare Strategy

# **Foreward**

This Restoration and Outline Aftercare Strategy was produced by DB Landscape Consultancy Ltd. (DBLC) for Plasmor for the specific purpose of accompanying a planning application to extend operations at the current Escrick site into adjacent land, and restore the worked areas with imported inert material. At the closest point, the land is located approximately 1.75 kilometres (km) to the southeast of the village of Stillingfleet, North Yorkshire.

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# **Document Control**

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# **Contact Details:**

David Brittain
DB Landscape Consultancy Ltd.
david@dblc.co.uk

tel: 01344 624 709 mob: 07736 083 383

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# 1 Introduction

1.1 This document should be read in conjunction with The Restoration Plan (drawing no: PL/ES/03/20/21229revE, dated 05/0520). This drawing has been included as Appendix A.

1.2 This document includes sub-sections dealing with both 'restoration' and 'aftercare' and differentiates between the two in broad accordance with various information contained within the Restoration and Aftercare of Mineral Sites sub-section (Paragraphs 036 to 059) of the Minerals section of Planning Practice Guidance (published 29/11/16, updated 22/10/18).

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# 2 Aims of the Proposed Restoration Scheme

As a result of consultation responses received from North Yorkshire County Council, the originally submitted Restoration Plan (PL.ES.11-18.20958, dated June 2018) has been altered, with the new layout shown on the aforementioned The Restoration Plan. That plan, together with this written Restoration and Outline Aftercare Strategy, forms the overall Restoration Scheme.

2.2 The site is currently characterised by its flat, very open appearance with a lack of woodland cover and relatively long distance views across the agricultural landscape. Large fields are divided by managed hedgerows, occasionally extending along deep drainage ditches, with the hedges including frequent mature trees which are features in the landscape.

2.3 Site restoration would reinstate this type of agricultural landscape at original ground levels across the northern part of the site, and would be consistent with the local landscape character, as defined within the Wharfe-Ouse River Corridor local Landscape Character Area (LCA) included within the document Landscape Assessment of Selby District (January 1999). Restoration of the northern area would include two areas of proposed woodland and a hedgerow with trees. This vegetation would help mitigate the loss of trees as a result of mineral extraction and would enhance the nature conservation value of the northern area.

2.4 The character of the southern part of the site would be predominantly nature conservation led, with a mosaic of different land uses combining to provide significant enhancements to biodiversity. In addition, the restored landscape would contribute positively to the rural character of the wider landscape and would accord with one of the key characteristics of the Wharfe-Ouse River Corridor local LCA in that it would create an area of wetland interest with marshy shallow margins/reedbeds and a large area of lowland meadow (a type of unimproved neutral grassland).

2.5 The key restoration aims of the Restoration Scheme can be summarised as follows:

#### Northern Area

 Reinstate approximately 37.5ha to Best and Most Versatile agricultural land at original ground levels. (Note: Arable farmland is a Habitat Action Plan (HAP) within the Selby Biodiversity Action Plan (BAP) dated August 2004;

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- Plant approximately 2.9ha of broadleaf native woodland blocks with scrubby edges and 960m of species rich, native hedgerow with oak trees, including approximately 95m of hedgerow/scrubby trees to reinstate existing hedgerow to be removed in order to construct the vehicle bridge over National Cycle Route 65. This vegetation (together with the southern area covered below) would extend Heron Wood, mitigate the loss of mature trees and provide a net gain in woodland and hedgerow habitat;
- Establish approximately 500m of 6m wide conservation headlands (totalling c. 3,000m²)
   along field edges to provide habitat and food for birds and insects;
- Reinstate the existing route of Bridleway 35.62/9/1

#### Southern Area

The area would be restored to a predominantly nature conservation led afteruse with a mosaic of habitats created that would be in accordance with Priority Habitats included within the Selby Biodiversity Action Plan, as follows:

- Plant approximately 3.5ha of broadleaved native woodland, including a larger block to extend Gambles Rush and three smaller blocks within the grassland area;
- Plant approximately 876m of species rich, native hedgerows with trees (mainly oak);
- The creation of approximately 12.73ha of lowland meadow grassland;
- The creation of two large water bodies totalling approximately 3.2ha with extensive areas of shallow margins for the establishment of reedbeds and other emergent vegetation;
- The creation of three smaller, isolated water bodies totalling approximately 2,910sq.m
   which would provide a different aquatic habitat for newts and other fauna.

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# 3 Selby Biodiversity Action Plan (July 2004)

- 3.1 The Site lies within the area covered by the Selby Biodiversity Action Plan (BAP) which was jointly produced by North Yorkshire County Council, Selby District Council and the Selby BAP partnership. While the Selby BAP is now somewhat dated, the information contained within it is still entirely relevant and has been used in this document to guide and advise the approach to site restoration and aftercare.
- 3.2 The Selby BAP seeks to achieve the following:
  - Ensure national targets for species and habitats (in the UK BAP, which has been superseded by the UK Post-2010 Biodiversity Framework) are translated into effective action at the local level;
  - Identify targets for species and habitats of local value;
  - Develop effective, long-term local partnerships;
  - Raise awareness of the need for biodiversity conservation;
  - Consider opportunities for conservation of the whole biodiversity resource;
  - Set up a monitoring programme for local priorities; and
  - Set up a reporting programme.
- 3.3 As mentioned in the bullet list above at point 2.4, the southern area would be restored with a predominantly nature conservation afteruse, incorporating a number of landscape features and habitats included in the Selby BAP. Sub-section 5 below deals with each of these habitat types in more detail.
- 3.4 A number of habitats included on the Restoration Plan are included in the Selby BAP as Habitat Action Plans (HAP's) including the following of relevance:
  - Woodland HAP
  - Ancient and/or species rich hedgerows HAP
  - Arable farmland HAP
  - Reedbed HAP
  - Lakes and Ponds HAP
- 3.5 In addition, Table 1 in the Selby BAP lists six Regionally Important Habitats that are found within the Selby district, including the following three of relevance to the Proposed Development

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- Cereal Field Margins
- Lowland Meadows
- Reedbeds

ersion

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# 4 Progressive Restoration

- 4.1 The site would be worked in a phased manner, as indicated on the phased working scheme plans included in the submitted application. The worked land would be progressively restored by the importation and placement of inert material into engineered cells. This would entail Heavy Goods Vehicles (HGV's) with approved loads entering the site, travelling to the tipping area and placing the material into the void. Dozers and other plant machinery would compact the material into the cell.
- 4.2 In this manner, restoration works would progress as soon as possible following mineral extraction and inert cell preparation, which would entail the engineered construction of a clay liner to a suitable density. The liner would be Construction Quality Assurance (CQA) tested in order to assess its integrity and quality.
- 4.3 The key aim of progressive restoration works is to minimise areas of worked out but unrestored land and to bring areas back to productive use at the earliest opportunity. The rate of progressive restoration is governed largely by the speed at which mineral is removed from each phase, the availability of suitable inert material and the approved number of lorry movements into and out of the site each day.



# **5** Restoration Proposals

#### Introduction

5.1 This section summarises the various habitats that would be created as a result of the site restoration. The information includes habitat aims, habitat creation details and outline aftercare notes. It is noted that these proposals are subject to alteration and modification throughout the duration of the progressive restoration works, over a number of years, based on the actual on site experience of those charged with creating the various habitats and implementing the works.

# Agricultural/Arable Land (Northern Area)

#### **Habitat Aims**

Approximately 37.5 hectares (ha) of land in the northern part of the site, including the area to the east of National Cycle Route 65, would be restored using Type 1 soils to Grade 2 Best and Most Versatile agricultural land (as now) at original ground levels. This would replicate the high quality farmland that exists across this land at present and would also maintain this type of land in accordance with the Arable Farmland HAP within the Selby BAP. In addition, agricultural restoration of this type would be consistent with the local landscape character, as defined within the Wharfe-Ouse River Corridor local Landscape Character Area (LCA) included within the document Landscape Assessment of Selby District (January 1999). Furthermore, the benefit of Best and Most Versatile Agricultural Land is recognised in the National Planning Policy Framework (NPPF, 2019).

# Restoration Profile and Earthworks

- The land would be raised to formation (ie. pre soiling) levels, which are assumed to be approximately 1.0m below the final land surface, by the placement of imported inert material. (Note: details on soil types and depths are to be recorded during soil stripping works). The penultimate 700 800mm depth would comprise subsoil which would be recovered from bunds and loosely placed in accordance with best practice to avoid compaction. If necessary, the formation surface beneath the subsoil would be cross ripped to relieve compaction prior to soil placement.
- 5.4 The final 200 300mm depth would comprise topsoil which would be recovered from bunds and loosely placed in accordance with best practice to avoid compaction. If necessary, the subsoil surface beneath the topsoil would be cross ripped to relieve compaction prior to topsoil

placement. It is recommended that the Modified Loose Tipping Procedure for Soil Replacement (Peninsula Method) developed by Dr. Stuart McRae is used for final placement of the topsoil resource, in order to minimise the chances of soil compaction and the need for subsequent remedial works. Refer to Appendix B for further details.

#### Ground Preparation, Cultivation and Seeding

- 5.5 Following restoration earthworks, emerging weeds would be sprayed off using glyphosate or repeatedly topped, with dead vegetation ploughed into the soil. The land would then be cultivated with a disc or power harrow to provide a fine, firm seed bed.
- The land would be seeded in early spring with a suitable neutral grassland seed mixture, such as Germinal A15 mix (Reclamation Landfill) or similar. This mix establishes rapidly, performs on variable soil types and is suitable for newly restored land, in order to improve the soil structure as part of an initial aftercare programme. It can also be used for light stock grazing if necessary, or mown for a summer hay cut. The mix would be sown at approximately 25g/sq.m. The mix is as follows:

•	Strong Creeping Red Fescue	35%
•	Perennial Ryegrass	30%
•	Crested Dogstail	15%
•	Chewings Fescue	10%
•	Browntop Bent	5%
•	Miniature White Clover	2.5%
•	Creeping Bent	2.5%

#### Agricultural/Arable Land Aftercare

Agricultural Land Classification (ALC) it is currently, over the course of a five year aftercare scheme. The A15 mix specified above would act as a 'nurse' cover for the first year or two while the soil recovers from being bunded for a number of years, with the actions of rooting grass and worms together with aeration provided by tilling would improve soil structure. The use of fertiliser to encourage sward growth is not recommended at this stage although a decision would be taken on application if growth rates were considered to be particularly slow/poor. Advice on this aspect would be taken as necessary (i.e. from an experienced agronomist).

- The grassland would ideally be managed by selective grazing by sheep (or possibly cattle) which may require the installation of suitable infrastructure such as stockproof fences and drinking facilities. If grazing is not viable, the areas would be managed by mowing, which take the form of a hay cut in mid late summer to provide a source of income while the land is under aftercare.
- 5.9 In order to assess the productivity of the restored agricultural soil, the nurse grassland would be ploughed up, the land cultivated and a suitable crop would be sown onto the land at an appropriate time to be determined at the annual aftercare meeting. This is likely to be one or two years after the commencement of the aftercare period and nurse grassland establishment.
- 5.10 An initial suitable crop would be maize or perhaps winter wheat or barley (cassia), all of which would need to be successfully supported by the area(s) for at least 3 or 4 (depending on the timing of crop sowing) growing seasons in order for the area(s) to be considered as having successfully completed the 5 year aftercare period.
- 5.11 Crop management operations such as chalk/lime application, fertiliser application, rabbit control and drainage provision would be assessed during the aftercare period as necessary. If restored areas become waterlogged due to settlement or display poor drainage after a year or two, measures to address this would be discussed, including surcharging the areas with additional soil or possibly the installation of piped underground drainage system if all other means of remediation have been tried and have failed.

## Species Rich Lowland Meadow (Southern Area)

#### **Habitat Aims**

The character of the southern part of the site would be predominantly nature conservation led, with a mosaic of different habitats combining to provide significant enhancements to biodiversity. This presents the opportunity to create an area of approximately 12.72ha of UK BAP priority habitat Lowland Meadow (based on NVC community MG5: Cynosurus cristatus - Centaurea nigra). This would also meet the requirements of Section 41 of the NERC Act 2006 list priority habitats. In addition, it would accord with one of the key characteristics of the Wharfe-Ouse River Corridor local LCA in that it would create a large area of lowland meadow (classified as a specialist type of unimproved neutral grassland). Furthermore, lowland meadows are one of the six identified Regionally Important Habitats identified in the Selby BAP as represented in the Selby District.

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5.13 According to the Habitat Statement included in Biodiversity: the UK Steering Group Report volume 2 (1995), "Unimproved neutral grassland habitat has undergone a remarkable decline in the 20th century, almost entirely due to changing agricultural practice". The principal characteristics that make this type of neutral grassland distinct from agriculturally improved grassland are the less lush sward, greater range of taller grasses and herbs and in general a perennial rye grass cover of less than 25%.

# **Restoration Profile and Earthworks**

The land would be restored intentionally to a lower quality in terms of the upper soil profile, as a poorer fertility soil would be preferable to the ALC Grade 2 soil present across the site. The land would be raised to formation levels, which would be approximately 500m below the final land surface, by the placement of imported inert material. The final 500mm depth would comprise poorer quality subsoil or overburden which would be recovered from bunds and loosely placed in accordance with best practice to avoid compaction. If necessary, the formation surface beneath the subsoil would be cross ripped to relieve compaction prior to soil placement. The pH of this upper substrate would need to be between 5 and 6.5 in order to create the lowland meadow grassland intended.

5.15 Alternatively, the final 500mm depth would comprise manufactured 'soil type material' (possibly supplemented by indigenous overburden material, if available) which would be screened from suitable imported inert material. As above, the 'soil type material' would be loosely placed and if necessary the formation surface beneath the soil would be cross ripped.

### Ground Preparation, Cultivation and Seeding

The ground would be prepared, cultivated and seeded identically to the aforementioned agricultural/arable land pasture grassland, but without the ryegrass component as it is too vigorous and dominant. However, some additional wildflower species selected from the following palette and sourced from a reputable local supplier would be added to the grass mix to improve species diversity and benefit nature conservation (Note: the exact species to be used and the percentage of each species within the total mix would be discussed and agreed at the time, following soil testing and once land is ready to be seeded):

(Birdsfoot Trefoil, Common Knapweed, Common Vetch, Crested Dogs –tail, Cock's-foot, Green Winged Orchid, Greater Butterfly Orchid, Field Scabious, Fritillary, Lady's Bedstraw, Meadow Buttercup, Meadow Foxtail, Musk Mallow, Oxeye Daisy, Pepper Saxifrage, Red Campion, Red

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Clover, Salad Burnet, Self-Heal, Sweet Vernal-grass, Wild Carrot, Wood Bitter Vetch, Yarrow, Yellow Rattle).

5.17 In addition, opportunities to introduce appropriate and desirable local wildflower species by forage harvesting hay brashings from suitable local donor site(s) and spreading these onto the soil surface (either in place of or in addition to using purchased seed, depending on the volume and quality of brashings available) would be investigated at the appropriate time, prior to seeding operations taking place.

## Species Rich Lowland Meadow Management

- 5.18 This grassland would be developed as a more conservation 'type' meadow grassland which would provide some grazing interest but would also provide increased species diversity within the sward. The management of these grassland areas would therefore be controlled more by the exact nature of the grass mix, including wildflower components, and the mowing or grazing regime adopted, which would be less intensive than across the agricultural/arable land to the north.
- 5.19 It is very likely that weeds would appear during the first year following sowing and these need to be cut regularly (min height 50mm and not if ground nesting birds present, the season for which runs from February to August inclusive) and removed to prevent them from competing with the developing wildflower species. Perennials are unlikely to flower during the first season but annuals (such as Yellow Rattle) may flower so should be left to set seed if possible, until approximately late July/early August, when another cut would be appropriate. Grazing is usually not appropriate during the first establishment year, while the sward is developing.
- 5.20 The following years would see faster growing perennials appear with slower growing species developing later, providing more species diversity. It is usual to have one main late summer/early autumn hay cut, but this can sometimes be staggered for different areas at different times, from late June to the end of August. In between the main hay cut (if taken) low density, selective grazing is the best way to manage the emerging sward as it benefits sward structure and development.
- 5.21 The mowing regime and timings (if used), stock type/numbers and grazing frequency would all be discussed on a regular basis between the operator, grazier/land manager and NYCC as necessary, with the management regime tweaked when required in response to the success of the developing lowland meadow grassland areas.

5.22 Note: a useful guidance document of relevance to the intended type of grassland creation is the Forest Research BPG note 17: Lowland Neutral Grassland – Creation and Management in Land Regeneration. The document is available at the following webpage:

https://www.forestresearch.gov.uk/tools-and-resources/urban-regeneration-and-greenspace-partnership/urban-regeneration-and-greenspace-partnership-resources/best-practice-guidance/

# **Cereal Field Margins**

#### **Habitat Aims**

5.23 Approximately 3.000m² cereal field margins (502m x 6m wide) would be created along the edge of two of the agricultural fields within the northern part of the site. The aim of the margins would be to provide a range of plant and invertebrate food sources for birds using the close by woodland and hedgerows, both in the winter and summer months. In addition, cereal field margins are one of the six identified Regionally Important Habitats identified in the Selby BAP as represented in the Selby District.

## **Restoration Profile and Earthworks**

5.24 The land would be restored to the same profile and in the same manner as the agricultural/arable land summarised in points 5.3 and 5.4 above.

# Ground Preparation, Cultivation and Seeding

- 5.25 The ground would be prepared and cultivated identically to the neutral pasture grassland within which the margin would be located. The margin would be seeded in early spring with a mixed cereal crop consisting of the following:
  - Wheat
  - Barley
  - Oilseed Rape
  - Sorghum
  - Mustard, and
  - Quinoa

# Cereal Field Margin Management

5.26 The margins would be managed with the aim of maximising the benefits to wildlife, so the following guidelines will be adopted as necessary:

- The margin would not be sprayed with any herbicides or fertiliser of any kind added, at any time; and
- Cereals (and any arable wildflowers that colonise the margin) would be left to set seed and provide food over summer and through autumn and winter, as necessary.

# **Native Tree and Shrub Planting**

#### **Habitat Aims**

- 5.27 The Proposed Development would not result in the loss of any woodland areas, although 35 individual mature trees would be lost as a result of the works, as detailed in the Arboricultural Impact Assessment dated December 2019 (Ecological Services Ltd). Mitigation for this loss has been covered in the Hedgerow Planting paragraphs below (from point 5.36), as replacement trees would be included in the proposed new hedgerow mix.
- 5.28 Approximately 6.4ha of native woodland with scrubby edges would be created as part of the progressive restoration scheme. The woodland blocks would provide a net gain of approximately 6.4ha in comparison to the existing situation and would add vertical interest, structure and enhance nature conservation. Woodland is also one of the thirteen Habitat Action Plans (HAP) included in the Selby BAP.

#### **Restoration Profile and Earthworks**

- 5.29 It is proposed that a total depth of at least 500mm of indigenous topsoil/subsoil or is loosely placed onto areas to be planted with trees and shrubs, with the formation surface below the soil thoroughly cross ripped if necessary to ensure decompaction.
- 5.30 It considered that a minimum depth of 500mm of loosely placed soil is sufficient to provide a suitable rooting medium for trees and shrubs, in order for the vegetation to thrive and flourish, along with adequate decompaction as mentioned above, good ongoing maintenance operations, and sufficient water, to be provided by rainfall.

#### Ground Preparation, Cultivation and Seeding

5.31 The ground would be prepared, cultivated and seeded identically to the species rich lowland meadow habitat type above, so without a ryegrass component but with enough other grassland species to suppress extensive weed growth and provide ground cover between the tree/shrub planting stations. The seeded ground should ideally be left for a year prior to planting operations to let the grass establish.

#### **Plant Species and Planting Specification**

5.32 The woodland and scrubby edge planting would comprise native species (of local origin where possible) containing tree species (nurse and climax species) and shrubby understorey/woodland edge species in order to establish a range of vegetation types and sizes throughout the planting blocks. Native tree and shrub species would be selected from the following pallete lists:

#### Native Trees:

- Field Maple Acer Campestre
- Alder Alnus glutinosa
- Silver Birch Betula pendula
- Hazel Corylus avellana
- Common Hawthorn Crataegus monogyna
- Common Beech Fagus sylvatica
- Scots pine Pinus sylvestris
- Black poplar Populus nigra
- Aspen Populus tremula
- Wild Cherry Prunus avium
- Pedunculate Oak Quercus robur
- Goat Willow or Sallow Salix caprea
- Common Whitebeam Sorbus aria
- Rowan (mountain ash) Sorbus aucuparia
- Wild Service Tree Sorbus torminalis

#### **Native Shrubs**

- Blackthorn Prunus spinosa
- Dogwood Cornus sanguinea

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- Guelder Rose Viburnum opulus
- Wayfaring tree Viburnum lantana
- Spindle Euonymus europaea
- Grey Willow Salix cinerea
- Elder Sambucus nigra
- 5.33 The woodland blocks are not required for screening purposes so it is suggested a plant spacing of an average 2.5m centres would be appropriate. Plants would be planted at centres of between 2.0m and 3.0m (i.e. to give an average of 2.5m centres) and randomly located as opposed to adhering to a strict planting grid, which can look unnatural.
- 5.34 Plants would be planted in random groups of 3 7 and the outer edge of each block would consist mainly of more shrubby species at an average spacing of 2m centres, to encourage a gradual variation from the adjacent grassland fields to a shrubby woodland edge through to the main woodland block.
- 5.35 All woodland plants would be individually protected by 60cm Tubex standard tree or shrub shelters (if necessary, due to bushy habit) and supported by 90cm x 32mm x 32mm treated softwood stakes, well secured in the ground and left upright and wind-firm on completion. If deer browsing is thought to be problematic on site, 1.2m Tubex shelters would replace the 60cm shelters, to be supported by 1.5m stakes.

## **Hedgerow Planting**

#### **Habitat Aims**

- 5.36 The Proposed Development would result in the loss of approximately 719m of hedgerow as a result of the works, as detailed in the aforementioned Arboricultural Impact Assessment. 240m of this would be linked to the diversion of Heron Dike so that the land can be worked for mineral and 95m would be linked to the construction works for the vehicle access bridge over National Cycle Route 65. The remaining 384m would be removed in relation to the installation of a two-way bridge over Bentley Park Drain and removal of hedgerows within phases to be worked across the site.
- 5.37 However, approximately 2,180m of species rich native hedgerows would be planted as part of the progressive restoration scheme. As part of this, 95m of hedgerow with trees would be reinstated to mitigate removal of hedgerow due to construction of the bridge over the National

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Cycle Route 65. The remaining 2,085m of hedgerow would be planted to create new hedgerows, and to mitigate the loss of the 240m removed due to the Heron Dike diversion, as shown on the revised Restoration Plan.

- 5.38 The proposed hedgerows would incorporate 75 (pendunculate) oak trees at random along their length, in part to mitigate (in time) the loss of 35 mature trees due to the Proposed Development (as identified in the Arboricultural Impact Assessment). Hedgerows with individual, mature oak trees are a feature of the landscape which helps to add vertical structure and interest to the relatively large and open field patterns. The proposed hedgerows with trees would provide a net gain of approximately 1,461m in comparison to the existing situation. Species rich hedgerows are also one of the thirteen Habitat Action Plans (HAP) included in the Selby BAP.
- 5.39 The species rich native hedgerows and trees/woodland that would be planted both on restored land and other land within or along the site boundary would be established progressively as the restoration operations advance to provide final restoration features as early as possible. The timing of advanced planting will be shown on detailed phasing drawings which are currently being prepared and would be agreed with North Yorkshire County Council pursuant to an appropriately worded planning condition.

#### **Restoration Profile and Earthworks**

As with the woodland blocks, it is proposed that a depth of at least 500mm of indigenous topsoil/subsoil is loosely placed onto strips of land to be planted with hedgerows, with the formation surface below the soil thoroughly cross ripped if necessary to ensure decompaction.

## Plant Species and Planting Specification

- 5.41 The hedgerow planting would comprise a selected range of native shrub species supplemented by tree species (of local origin where possible). Hedgerows would comprise approximately 50% Hawthorn and Blackthorn but would also include 40% other native shrub species such as Hazel, Guelder Rose, Elder and Field Maple in order to increase hedgerow diversity. Common Oak would be planted randomly at intervals along the hedgerows to allow for larger hedgerow trees to develop.
- 5.42 Hedgerows would be planted at 5 plants per linear metre in two staggered rows, with 50cm between each plant in each row and 30cm between each row. Species in the mix other than Hawthorn or Blackthorn would be randomly located throughout the length of the hedgerow.

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Hawthorn and Blackthorn within the hedgerows would be protected by 60cm clear or translucent spiral rabbit guards supported by 90cm x 12/14lbs bamboo canes, well secured in the ground and left upright and wind-firm on completion. All other trees within hedgerows would be protected as specified above for the tree and shrub planting blocks.

Water Bodies and Ponds (Southern Area)

**Habitat Aims** 

5.43 Two large water bodies totalling approximately 3.2ha would be created in the southern area to

enhance nature conservation in line with the aims of the Selby BAP, to provide a net benefit in

terms of various types of habitat when compared to the baseline agricultural land and to

contribute to local landscape character by introducing varying land uses which are still

compatible with a predominantly rural location.

5.44 The water bodies are designed to incorporate extensive areas of shallow margins and shelves at

varying depths for the establishment of reed-beds and areas of other emergent vegetation

which benefits a range of species.

5.45 The aim for the three individual, isolated ponds is to create alternative water based landscape

features which would complement the larger water bodies, providing a different type of habitat

for species that would otherwise not thrive in far larger lakes, particularly newts

(smooth/common and Great Crested) which are often not found in water bodies containing

predators such as fish, which are likely to colonise the large water bodies in due course.

**Restoration Profile and Earthworks** 

5.46 The water bodies would be created progressively, as an integral part of the inert infilling

operations. The edge profile of the lake and the extent, width and depth of the shallow margins

would be set out by a surveyor prior to commencement of infilling in the southern area, or at a

time deemed suitable by the person responsible for the works, so that the correct lake profile

can be formed as material is backfilled and compacted in the southern area. Careful control on

the material placement would be required during this phase of the restoration works in order

to form the lake contours and sinuous edge profile required.

5.47 Shelves and shallow margins would be incorporated into the design of the lakes, at depths

ranging from approximately 0.2m to 1.2m, with variable widths and laid out in a random pattern

to avoid uniformity. The intention would be to create as naturalistic an appearance as possible

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around the edges of the water bodies. The deepest part of the lakes would be in the middle area, although this should not go deeper than about 3 – 4m.

- 5.48 Due to the nature of the lakes, the water level would be governed by the amount of surface water runoff and not by being linked to a drainage channel, stream or other form of water source. This means that the water level would fluctuate according to the seasonal supply of surface water, which may be very limited during periods of low rainfall, which would mean that the water level in the lakes would fall. The average water level is predicted to be approximately 3m AOD although in times of high rainfall this would rise, possibly up to 4m AOD.
- 5.49 Once the formation profile has been achieved for the water body, it would be made water tight using puddled (i.e. compacted) natural clay if possible, depending on the quality and suitability of clay available for this work, obtained either from the site itself or from an alternative local source. A good clay liner will last many decades if installed correctly and will help improve water quality. However, all clays are not suitable for lake sealing so the advice of a soil scientist or aquatic specialist should be sought at the time of installation to advise on the material intended for this use.
- 5.50 An alternative method of sealing the lakes would be to use 'enhanced soil sealants' such as sodium bentonite clays or a chemical product known as ESS13 which are much less expensive than synthetic liners, especially for the size of lakes to be constructed in the southern part of the site. An experienced applicator is required in order for this method to be successful.
- 5.51 Natural clay liners and soil sealants also offer an ability to absorb and trap huge amounts of excess nutrients which may be an issue over time at the site due to the likelihood of nutrients finding their way into the water from the adjacent arable land. Furthermore, the thick layer at the bottom of the lake is much more resilient against puncture and/or damage than a comparatively thin synthetic liner.
- 5.52 Synthetic liners (EPDM rubber or plastic) are an alternative to natural clay or soil sealants when considering how the lakes can be sealed. However, these materials are not ideal for use on large water bodies due to their relatively high cost, the requirement to very carefully engineer the basal profile and provide a protective underlayer and their propensity to tear and leak if damaged by the placement of rocks for instance. Plastic or rubber liners are not as aesthetically pleasing as clay or soil sealants, do not last as long, are usually not as successful in establishing a natural pond habitat and will not hold natural elements well such as soil due to their slick

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surface, so establishing planting mediums on shelves/margins can be problematic and expensive. It is therefore advised that if at all possible, natural clay or soil sealants are used to make the lakes water tight.

- 5.53 The lakes would be too large to be initially filled by bowser so an alternative water source would be investigated, such as pumping water from Bentley Park Drain or another suitable source such as a borehole. In addition, surface water runoff would enter the lakes and help to raise water levels over time. It is not envisaged that groundwater would be moving through the ground at a high enough elevation to form part of the water source for the lakes.
- 5.54 In terms of the three ponds, if possible they would be sealed using natural clay which would be puddled (compacted) in situ but if not, the use of a synthetic liner is far less problematic for relatively small ponds than for larger lake features. The ponds would also be created with sinuous edge profiles and submerged shelves approximately 500mm 1.0m below the water surface, but would be independent of each other and not linked to any other water feature or body. In this way, the chances of them remaining free of fish is enhanced which improves the chances of colonisation by newts and other fauna.

#### **Establishment of Fringing Reed**

- 5.55 While the water bodies would gradually be naturally colonised by suitable plants around the edge, this would take a number of years and the fluctuating water level means that the water line would vary throughout the year, leaving higher areas to dry out during dry periods which is likely to affect plant life. Therefore, selected shallow margins would be targeted for planting with common reed (*Phragmites australis*) which can survive being out of water and in damp ground for a number of months until water levels rise again.
- 5.56 The design of reedbeds for nature conservation as opposed to sustainable commercial cutting requires smaller, more diverse reed areas which lends itself to the type of shallow margins that would be created in the southern part of the site. Fringing reed (i.e. reed at the edges of open water) would be the type of habitat to be targeted at the site and further discussion would be required in terms of reedbed creation and management once the lakes had been constructed and had established themselves over a year or two.
- 5.57 A good source of detailed information on reedbed creation and management is located at the following webpage: <a href="https://assets.sussexwildlifetrust.org.uk/create-and-manage-reedbeds-2.pdf">https://assets.sussexwildlifetrust.org.uk/create-and-manage-reedbeds-2.pdf</a>

5.58 However, some general design parameters for reedbed creation are as follows:

• Water levels need to be at least 300mm in late winter and throughout spring, following winter rainfall, although this is likely to reduce in drier summer months. At all times,

the top 1/3 of the plants must be above the water surface;

There needs to be sufficient low level and gently sloping shallow margins on which to

locate the reedbed planting blocks;

If possible, a good local source of reeds which can be harvested and transported to the

site for placement/planting, ideally when water levels are approximately 5 - 10cm

above the surface;

• If there is not a local source of established reeds from which to harvest, then reed

rhizomes (the matted roots of the reed plants) or individually potted seedlings can be

purchased and planted into blocks which need to be protected from predation by

chicken wire netting supported by strong treated timber stakes.

Transporting reeds from other areas can introduce invasive species such as Crassula so

this should be borne in mind if this method of reed establishment is considered;

5.59 As mentioned above, other plants would naturally colonise the edges of the lakes over time

although some selected shallow margins may be considered suitable for planting with species

other than common reed. Further discussion would take place regarding this once the lakes had

been formed and the water level regime had been observed for one or two seasons at least. A

pallete of species to consider would be as follows:

Zone A Species (10 species, water depth 0 – 30cm)

Arrowhead (Sagittaria sagittifolia)

Lesser pond sedge (Carex acutiformis)

Yellow flag Iris (Iris pseudacorus)

Brooklime (Veronica beccabunga)

Hard rush (Juncus inflexus)

• Soft rush (Juncus effuses)

• Compact rush (Juncus conglomeratus)

• Creeping water cress (Ririppa nasturtium aquaticum)

• Marsh yellow cress (Ririppa islandica)

• Common spike-rush (*Eleocharis palustris*)

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#### Zone B Species (7 Species, water depth 30 – 80cm)

- Branched bur-reed (Sparganium erectum)
- Water dock (Rumex x hydrolapathum)
- Amphibious bistort (Persicaria amphibia)
- Common club-rush (Schoenoplectus lacustris)
- Water plaintain (Alisma plantago-aquatica)
- Spiked water-milfoil (*Myriophyllum spicatum*)

#### Zone B Species (6 Species, water depth 80 – 200cm)

- Broad leaved pondweed (*Potamogeton natans*)
- Fennel leaved pondweed (Potamogeton pectinatus)
- Yellow water-lily (Nuphar lutea)
- Starwort (Callitriche sp.)
- Stonewort (Char sp. & Nitella sp.)
- Water crowfoots (Ranunculus sp.)
- 5.60 It is envisaged that the edges and shallow margins of the three individual ponds would naturally regenerate with suitable species although if considered desirable, plugs would be planted to increase the rate of vegetation development. As for the larger water bodies, the species selected would be based on the pallete list above, in discussion with an ecologist if necessary.
- 5.61 Table 1 below summarises habitat types/restoration land uses to be created through site restoration:

Table 1: Summary of Restoration Habitats/Land Use and Net Loss/Gain

Habitat/Land Use	Approximate Area/ Length	Approximate Net Gain or Loss in Habitat/Land use
Agricultural/arable farmland	37.5ha	Net loss of c. 23.18ha (taken up by lowland meadow, cereal field margins, water bodies/ponds and woodlands)
Lowland meadow grassland	12.73ha	Net gain of c. 12.73ha
Cereal field margins	500m x 6m wide = 3,000m <sup>2</sup>	Net gain of c. 3,000m <sup>2</sup>

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Native woodland planting	6.4ha	Net gain of c. 6.4ha
Native, species rich hedgerow planting	2,180m	Net gain of c. 1,461m (1,836m planted minus 719m removed due to works)
Mature trees within hedgerows or standing individually along old field boundaries/ditches	75, planted within new hedgerows	Net gain of 40 (65 planted minus 35 to be removed due to works)
Large water bodies	3.2ha	Net gain of c. 3.2ha
Individual ponds (3 no.)	2,910m <sup>2</sup>	Net gain of c. 2,910m <sup>2</sup>

## Reinstatement of Bridleway 35.62/9/1 and the Trans Pennine Trail/National Cycle Network Route 65

- 5.62 The Proposed Development would necessitate the temporary diversion of an approximate 640m section of Bridleway 35.62/9/1 which passes through the site. However, the restoration scheme provides for this section of Bridleway to be reinstated along its existing route and a hedgerow with trees would be planted along the eastern side of the route to provide structure and better delineate the Bridleway. A post and wire fence would be installed along the western side of the route, allowing for a Bridlepath width of 3m between it and the outer edge of the proposed hedgerow.
- The Proposed Development would also require the temporary diversion of an approximate 120m long section of National Cycle Route 65in order to construct the bridge crossing over the route. The diversion route through the field to the west of National Cycle Route 65 would be approximately 160m long, as shown on Drawing Ref. PL/ES/10-19/21463 dated 20/11/19 (MJCA). In addition, this plan also shows the approximate extent of the existing vegetation to be removed in order to facilitate the diversion route, which would include removal of 12 trees and 90m of hedgerow (as stated in the Arboricultural Impact Assessment)
- 5.64 This vegetation would be reinstated at the earliest opportunity as part of the restoration works using species appropriate to the location such as oak, lime, hawthorn, blackthorn, hazel, spindle and field maple.

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5.65 Apart from Bridleway 32.62/9/1, no other Public Rights of Way (PRoW) would be physically affected by the Proposed Development

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#### 6 Restoration Aftercare & Management

#### **Duration of Aftercare**

6.1 Sub-section 5 above includes outline aftercare information related to each type of habitat to be created. This sub-section provides further, more general aftercare information to supplement the information above. In line with recommendations received from North Yorkshire County Council, it is proposed that aftercare would last for 30 years, starting from final restoration earthworks for areas of the site as they are progressively restored, including a five year statutory duration and then a further 25 years secured through a legal agreement.

### Agricultural Farmland (while initially sown to grassland) and Lowland Meadow – Control of Weeds

- 6.2 Under the provisions of the Weeds Act 1959 and the Ragwort Control Act 2004, it is the responsibility of all occupiers of land, whether used for agriculture or not, to control noxious or pernicious weeds, so that they do not spread. Control of weeds within the grassland areas would generally be carried out by grazing along with the annual hay cut in July/early August as part of the grassland management operations.
- 6.3 However, during the initial one or two seasons following seeding, weeds are likely to be more problematic and more cuts would be necessary, including during early mid spring once visible and again in mid late summer, prior to setting seed, if regrowth appears.
- Applications of selective herbicide would only be used as a last resort, for serious infestations, as they would result in the loss of many wildflowers. If necessary, spring/summer applications of approved selective herbicides such as MCPA, Grazon 90 or 2, 4-D would be applied by either knapsack or sprayer for small problematic spots or quad bike/tractor mounted weed wipe for larger areas, as necessary.
- 6.5 Fertiliser would not be applied to any of the grassland areas unless considered absolutely necessary.

#### Settlement of Land

Any areas that clearly settle and require remediation would be infilled with surplus soil in order to raise levels to marry in with the surrounding land. The areas would be re-seeded with a suitable grassland mix (as above).

#### Woodland Blocks and Hedgerows – Control of Weeds

6.7 All grass and weeds in a minimum 80cm diameter spot around each tree/shrub would be controlled by applications of glyphosate herbicide (eg. Roundup) for the first five seasons. Excessive noxious and pernicious weed growth within planting blocks would be controlled by applications of an appropriate selective herbicide (eg. 2,4-D). Strimming or mowing is discouraged as that usually promotes further vigorous regrowth but may be carried out, if weeds are too large to effectively spray.

#### Woodland Blocks and Hedgerows – Replacement of Losses

- All plant losses would be replaced like for like for the first two seasons after planting, and thereafter only with those species which appeared to be thriving on site, to achieve min. 90% stocking after five years. All natural regeneration of desirable species arising within planting areas would be accepted to boost stocking density.
- 6.9 Any plants that become loosened by wind, frost or soil cracking will be re-firmed and straightened. Shelters, stakes, ties or guards which become loose, over-tight, broken or otherwise ineffective will be replaced or adjusted as necessary.

#### Woodland Blocks and Hedgerows – Annual Maintenance Visits

6.10 A typical programme of maintenance visits is described in Table 2 below and would be undertaken during the first three years following planting operations to ensure the successful establishment of the planting. Maintenance operations for the fourth and fifth years would be ascertained at the time, depending on the results of the preceding three years.

**Table 2: Typical Annual Planting Maintenance Programme** 

Time of Year	Number of Visits	Operations to be Carried Out as Necessary
Late April to early June	1	<ul> <li>Glyphosate spot spray (woodland blocks) or band spray (hedge)</li> <li>Selective noxious weed spray within block (if necessary)</li> <li>Re-firm and re-adjust guards and supports</li> </ul>

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Mid August to mid October	1 (provisional, if necessary)	•	Glyphosate spot spray (blocks) or band spray (hedge) Selective noxious weed spray within block (if necessary)
November to March	1	•	Replacement of planting failures Re-firm and re-adjust guards and supports Stock fencing checked and repaired (if necessary)

#### Record of Aftercare Operations and Aftercare Meetings

- 6.11 The applicant would keep detailed records of all aftercare operations undertaken and, if required, would submit reports for the previous twelve months and proposals for the subsequent twelve months to North Yorkshire County Council (NYCC).
- 6.12 The report and proposals would be submitted prior to each annual aftercare inspection/site meeting, to be arranged preferably in early spring, at the request of NYCC. Representatives at the meeting should include the applicant (and/or applicant's consultant specialist), NYCC, and tenant farmer/grazier (if appropriate).

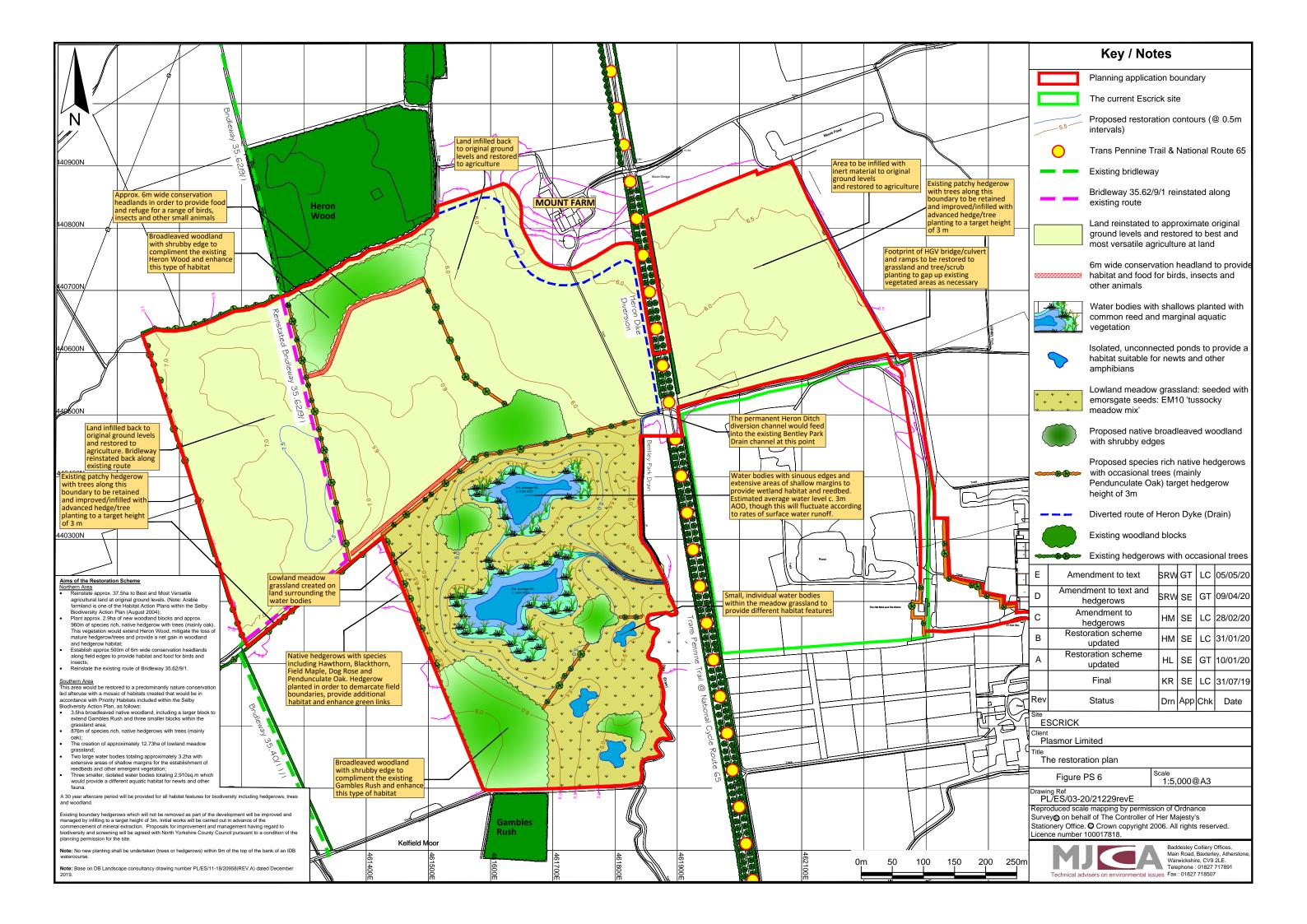


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Appendix A: Drawing PL/ES/03-20/21229revE: The Restoration Plan

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Appendix B: Modified Loose Tipping Procedure for Soil Replacement (Peninsula Method)

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## Soil Handling - Modified Loose Tipping Procedure for Soil Replacement. (The Peninsula or Lateral Heap Methods)

The following describes two methods of loose tipping originally devised by John Jones (Excavation) Ltd and Stoke Plant Hire to whom due acknowledgement is made.

- In order to avoid compaction and other structural damage to soils during restoration operations
  a so-called "loose tipping" method is normally recommended. The basic principle of the
  method is to minimise or even totally avoid trafficking over replaced soils, particularly by
  wheeled vehicles.
- 2. Two "loose tipping" methodologies are described in the DEFRA *Good Practice Guide for Handling Soils*, hereafter referred to simply as the *Guide*. This is available on the internet at www.defra.gov.uk/farm/environment/land-use/soilguid/index.htm (note, there is no final "e" on soilguid).
- 3. One method, often referred to as the "dump-truck and back-acter" method is described in Sheet 4 *Soil Replacement with Excavators and Dump Trucks* and is illustrated in Figures 4.1 to 4.4 below, taken from the *Guide*.
- 4. In this procedure the subsoil is delivered to the area being restored by dump-trucks which are only allowed to travel on the substrate. It is then levelled out with the blade of an excavator which is itself situated on the substrate. This means that the restoration has to be carried out in strips or "beds", the widths of which are determined by the maximum reach of the excavator arm.
- 5. Topsoil is then tipped alongside the strip being restored, with the dump trucks again restricted to running only on the substrate. The topsoil is then lifted by the excavator and spread out to the required thickness over the strip of previous laid subsoil.
- 6. Criticisms of this method are that it is slow, requires very skilled personnel and can lead to losses of topsoil since not all the delivered topsoil can be cleanly picked up by the excavator. Also the substrate is compacted by the dump truck trafficking and this may be a marked disadvantage if the substrate is required, like the over-lying soils, to be permeable to assist overall site drainage.

- 7. However, loosening operations on the substrate can be carried out before the soil is placed but has again to be done in narrow strips or beds. Methods of achieving this are provided by the *Guide*, Sheets 18 *Soil Decompaction by Excavator Bucket* and 19 *Soil Decompaction by Bulldozer Drawn Tines*.
- 8. A second kind of "loose tipping" methodology uses bulldozers rather than excavators to spread the soils. It is described Sheet 15 *Soil Replacement with Bulldozer & and Dump Trucks* and is illustrated in Figures 15.1 to 15.3 below, taken from the *Guide*.
- 9. This procedure differs from the dump truck and back-acter method in that the subsoil is levelled out not by an excavator standing on the substrate but by a light, tracked bulldozer running over and "pushing out" the delivered subsoil to the required thickness.
- 10. The operation of the bulldozer compacts the surface over which it runs but often the next "push" re-loosens the material. Thus it is only the final surface which has some compaction and then only in the surface few centimetres. This has to be removed by the loosening methods mentioned above i.e. Sheets 18 Soil Decompaction by Excavator Bucket and 19 Soil Decompaction by Bulldozer Drawn Tines
- 11. The topsoil is then delivered by dump trucks which attempt to tip it onto the edge of the subsoil. In practice, however, they usually have to reverse some way onto the subsoil layer, hence causing compaction and collapse of the edge of the subsoil layer. The sharp self-standing edge of the subsoil layer shown in the uppermost diagram of Figure 15.3 is never achieved in practice.
- 12. The delivered topsoil is then spread out to the required thickness by a light, tracked bulldozer. There is again the likelihood of some surface compaction but this can readily be corrected, often as part of the agricultural operations carried out for the first crop.
- 13. The description of this procedure in Sheet 15 implies that, like the dump-track and backacter method, this is also carried out in relatively narrow strips. This is, in fact, not necessarily the case. The limiting factor is the distance to which a bulldozer can "push out" a heap of soil into a thinner covering and, in practice, this can be done over a much wider area than the narrow strips which are a necessity of the dump truck and back acter method (Sheet 4).

- 14. Of the two methods, the one using excavators to lift and spread the soil is relatively complex and may result in loss of topsoil, while the one using bulldozers, although simpler, can cause some compaction and can also involve topsoil losses. The compaction is, however, not so severe as would be caused by wheeled traffic and much of it is removed by the spreading action of the bulldozer. Only slight surface compaction has to be dealt with and this is easily achieved.
- 15. A modified version of the dump truck and excavator/bulldozer methods is outlined below which overcomes the problem of potential soil loss as well as being operationally easier to carry out. It differs from these methods essentially in the way in which the topsoil is delivered to and spread over the area being restored.
- 16. It is described for topsoil and subsoil replacement but could be further modified to deal with substrate replacement particularly where it is required that the substrate, as well as the soil layers, should be free of significant compaction. Figures RPS1, RPS2 and RPS3 illustrate the procedure.
- 17. The procedure for subsoil replacement is the same as described above i.e. subsoil is delivered by dump-trucks running over the substrate and end-tipping the soil in heaps. These are then levelled out either by an excavator or light tracked bulldozer as per Sheets 4 or 15 of the *Guide*. Figures RPS 1, RPS 2 and RPS 3 show a bulldozer being used and the sequence of operations described below also assumes this, and should be re-interpreted for a situation where an excavator is used instead.
- 18. If a bulldozer is used to level out the subsoil, there may be some residual surface compaction. This can either be removed by deep subsoiling after topsoil replacement or preferably before topsoil replacement either by a light tracked bulldozer fitted with tines or by an excavator whose bucket has been replaced by a tined implement. These are described in Sheets 18 Soil Decompaction by Excavator Bucket and 19 Soil Decompaction by Bulldozer Drawn Tines of the Guide respectively.
- 19. If compaction is restricted to only the surface few centimetres, as is likely to be the case, then sufficient loosening can normally be achieved simply by "combing" the surface with a toothed bucket on an excavator arm (Sheet 18).

- 20. The modified method differs from the dump truck and excavator/bulldozer methods described in the *Guide* in the method of topsoil placement. This is done in the modified method by delivering topsoil with dump trucks. However, instead of tipping it alongside or attempting to drop it onto the edge of the replaced subsoil strip, they build a relatively thick "peninsula" of topsoil progressively out over the centre of the area of respread subsoil. This is done by the dump trucks reversing along the topsoil "peninsula" and loose tipping the topsoil at the end, thus progressively extending the "peninsula" (see RPS 1).
- 21. Accordingly the method is often referred to as the Peninsula Method, assuming that the heap is constructed down the centre of the area being restored, as on RPS 1, 2 and 3, and the soils pushed to either side. However, the method is equally applicable to a situation where the heap of topsoil is built along the entire edge of the area being restored and is then pushed out over it. Thus the method might usefully be referred to in future as the "Peninsula or Lateral Heap Method".
- 22. The amount of topsoil to be built into the peninsula must be calculated in advance from the area of the section being re-instated and the final spread thickness of topsoil required. If the topsoil is in a lateral heap then the volume does not necessarily have to be calculated in advance. It can simply be spread out as far as possible to the specified thickness before the operation is repeated.
- 23. When all the topsoil needed has been delivered, a light tracked bulldozer is used to spread out the soil from the "peninsula" or lateral heap to the required thickness over the rest of the section being re-instated in the same way as described in Sheet 15 of the *Guide* and as shown in RPS 2.
- 24. This operation will largely remove any compaction caused to the topsoil during the building of the "peninsula" or lateral heap but any remaining compaction can be removed by loosening with a tined implement (see Sheet 19 of the *Guide*), by using an excavator bucket fitted with tines (see Sheet 18 of the *Guide*) or as part of the subsequent agricultural operations.
- 25. It should be noted that although some compaction will be caused by the operation of the bulldozer during both subsoil and topsoil spreading this will be far less than if trafficked by wheeled machinery. In many cases, the moving around of the soil by the bulldozer blades will be sufficient to loosen the soil sufficiently. If deemed necessary the de-compaction methods mentioned above can be employed.

- 26. In many cases, the slightly consolidated, but not compact, surface left after blading out with a dozer is beneficial as its greater load bearing strength helps in the early years of arable cropping whereas completely loose tipped subsoil may be too loose and result in wheel sinkage and rutting.
- 27. It should also be borne in mind that, in general, topsoil is a more "robust" material than subsoil. It is regularly disturbed and run over during normal agricultural operations and is always sufficiently near the surface that any deliberate loosening can be easily carried out.
- 28. The sequence of operations in the modified procedure is as follows, assuming that no loosening of the substrate is required (see RPS 3):-

Ensure that the soils which are to be respread are in a suitable condition for mechanised handling

Mark out the section of the site to be re-instated. This is normally about 1-2 hectares in area and need not be in a narrow strip.

Bring subsoil by dump-truck to the section being restored and loose tip it at the edge of the working area. Work back from the furtherest point to be restored so that dump trucks only run over substrate and not over any replaced subsoil.

Spread out the tipped subsoil to the required thickness as indicated by marker boards using a light tracked bulldozer which will be the only machinery allowed on the respread subsoil.

If it is considered necessary, remove any surface compaction either by bulldozer drawn tines or by tines fitted to an excavator arm.

Calculate the amount of topsoil required to cover the section being worked on to the required thickness.

Progressively bring this volume of topsoil by dump-truck to the section being restored and begin to build a "peninsula" of topsoil out towards the furthest point of the section being restored (i.e. the reverse direction to which the subsoil replacement was done). Alternatively, build a lateral heap along the entire edge of the area in the same general manner.

Make the dump trucks reverse along the topsoil "peninsula" and loose tip the topsoil at the end, thus progressively extending the "peninsula". If the lateral heap method is used it should be build up by dump trucks reversing across the heap and loose tipping at the edge. In either case do not allow the dump trucks to travel over any of the respread subsoil. Depending on circumstances it may be necessary to use a light tracked bulldozer to create a suitable running surface for the dump-trucks.

When all the soil needed has been delivered, use a light tracked bulldozer to spread out the soil from the "peninsula" or lateral heap to the required thickness over the rest of the section.

Inspect the soils and institute any soil loosening operations considered necessary.

29. If a loose, permeable substrate is required, then running over it with dump trucks must also be avoided. In such a case then the same peninsula or lateral heap method should be used for subsoil delivery and spreading as for the topsoil method described above.

Dr Stuart G McRae 18<sup>th</sup> November 2008



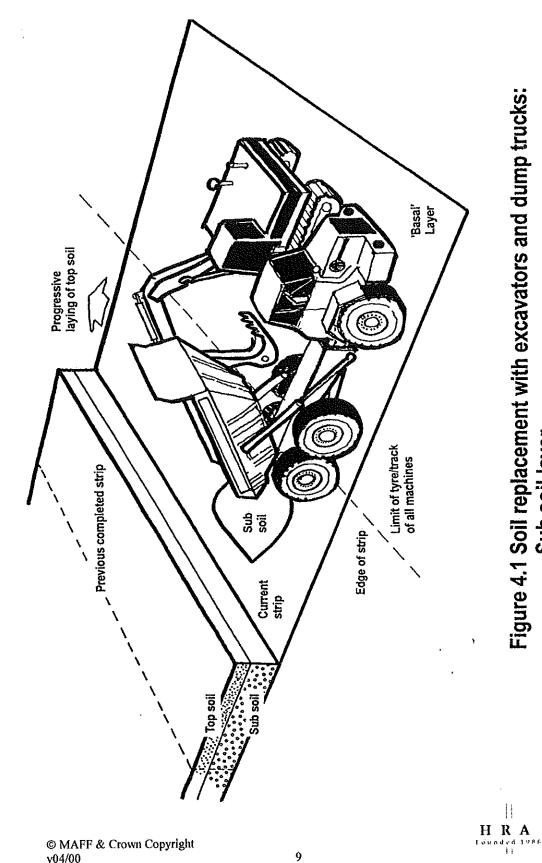
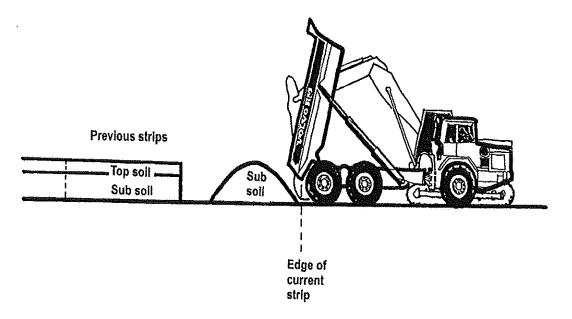


Figure 4.1 Soil replacement with excavators and dump trucks: Sub soil layer

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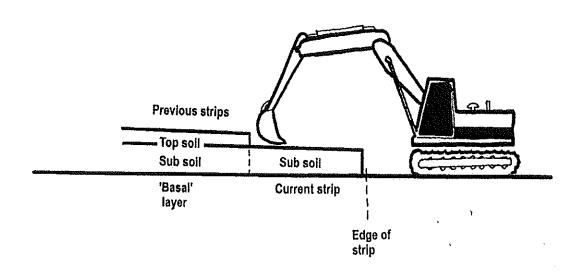
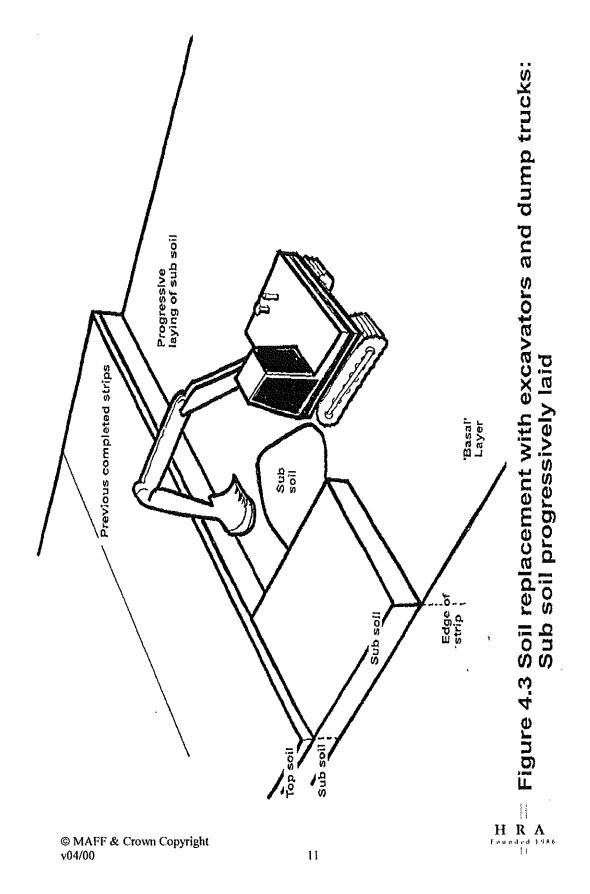


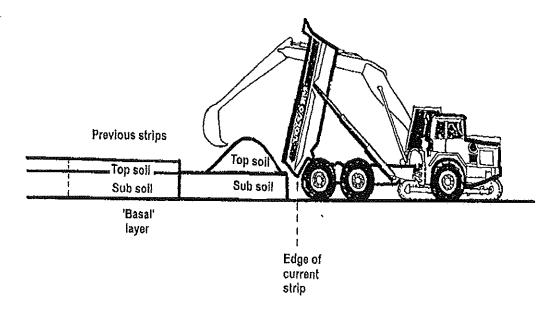
Figure 4.2 Soil replacement with excavators - dump trucks
Sub soil layer

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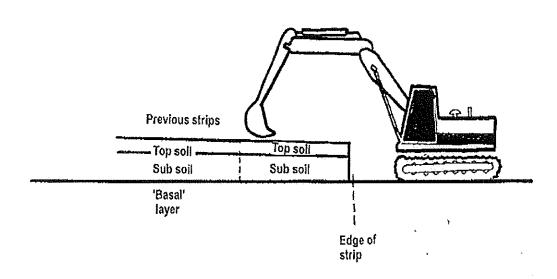


Figure 4.4 Soil replacement with excavators and dump trucks
Top soil layer



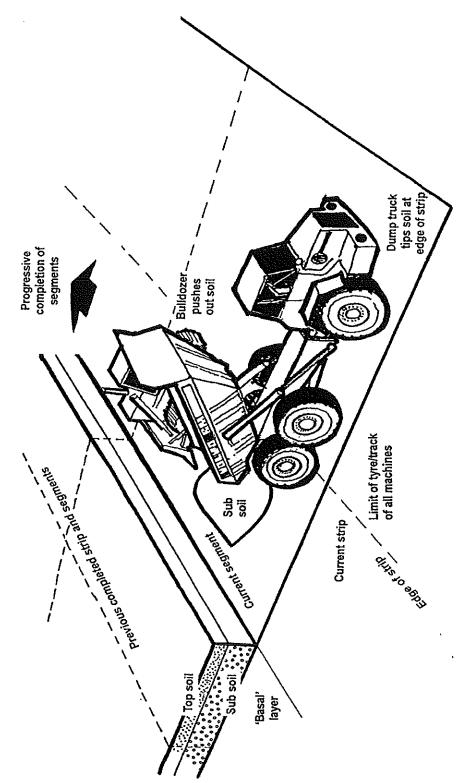
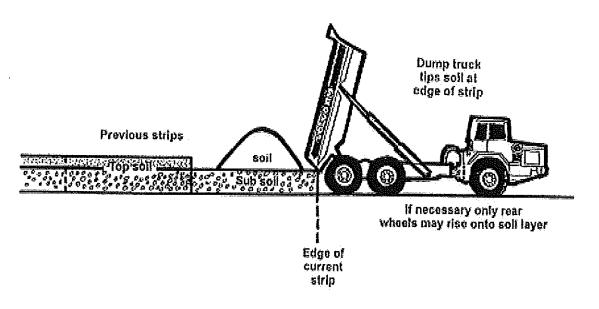


Figure 15.1 Soil replacement by bulldozers and dump trucks:
Sub soil layer





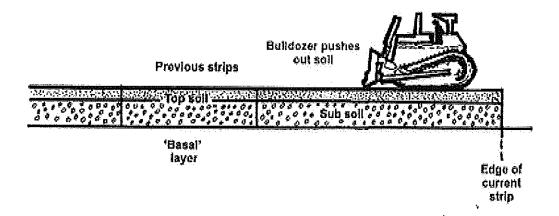
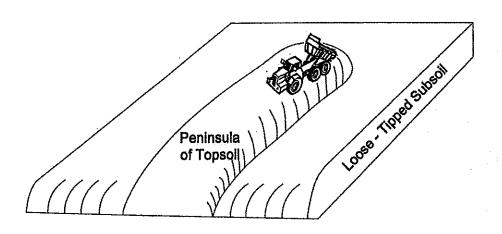
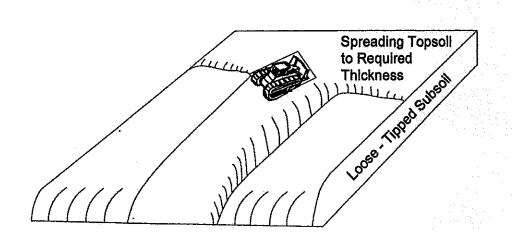


Figure 15.3 Soil replacement by bulldozers and dump trucks:

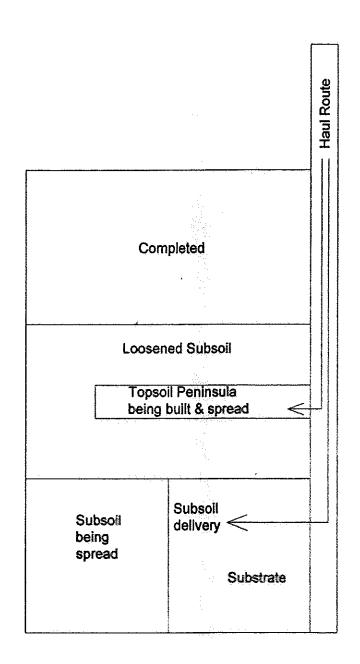
Top soil layer



METURS PRS 1 WODIFIED LOOSE FIRME WEFFING WEFF



MEGUPS PPS 2 WODIFISD LOOSE CIPPING WECTOD.
COPSOIL SPREADING



HEUFS PPS 8 MODIFIED LOSS FIFTING MOSLOD. SCONSICS OF OPSTAGIOUS

PLASMOR ESCRICK

#### **APPENDIX F**

A COPY OF THE REPORT ENTILED 'DETAILS PURSUANT TO PLANNING CONDITIONS 29 AND 32: ADVANCED/RESTORATION LANDSCAPING WORKS AND AFTERCARE (PLANNING PERMISSION REFERENCE C8/2019/0917/CPO)' DATED SEPTEMBER 2021



# ESCRICK QUARRY, STILLINGFLEET, NORTH YORKSHIRE

Details Pursuant to Planning Conditions
29 and 32: Advanced/Restoration
Landscaping Works and Aftercare
(Planning Permission reference:
C8/2019/0917/CPO)

September 2021

#### **Notice**

This document was produced by DB Landscape Consultancy Ltd. (DBLC) for Plasmor (the client) for the specific purpose of addressing details pursuant to planning conditions 29 and 32 of planning permission reference C8/2019/0917/CPO relating to advanced planting works, phased restoration works including ground preparation, seeding/planting works and subsequent 30 year aftercare works at Escrick Quarry, Stillingfleet, North Yorkshire.

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#### **Document Control**

Version	Date	Author	Checked by	Change Description
Draft ver. 1	22/01/21	D. Brittain (DBLC)	S Evans (MJCA)	Draft version issued for review/comment
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#### **Contact Details:**

David Brittain CMLI MIQ
DB Landscape Consultancy Ltd.

tel: 01344 624 709 mob: 07736 083 383

email: <a href="mailto:david@dblc.co.uk">david@dblc.co.uk</a>
web: <a href="mailto:www.dblc.co.uk">www.dblc.co.uk</a>

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Drawing No. ESC009: Restoration Planting and Aftercare Plan

Appendix B: Loose Tipping: Best Practice Guide (Forest Research, 2014)

**Appendix C:** Restoration and Outline Aftercare Strategy (written document submitted as part of the planning application, dated May 2020)

#### 1 Introduction

#### Introduction

- DB Landscape Consultancy Ltd (DBLC) has been commissioned by Plasmor to provide details pursuant to planning conditions 29 and 32 relating to Escrick Quarry, Stillingfleet, North Yorkshire. The conditions are contained within planning permission reference C8/2019/0917/CPO dated 29th March 2021 (the planning permission) This document should be read in conjunction with the following drawing (included as Appendix A):
  - Drawing No. ESC009: Restoration Planting and Aftercare Plan

#### 2 Planning Condition 29

#### Introduction

2.1 Condition 29 of the planning permission states the following:

"Prior to the commencement of development a scheme for the advanced and infill planting and landscaping works that will be undertaken prior to the commencement of development or within the first year of the commencement of development at the site shall be submitted to the County Planning Authority for approval. The scheme shall include for advanced planting on the boundaries of the site as shown on Figure PS 6 (drawing reference PL/ES/03-30/21229RevE) and the scrub planting on the bund to be constructed to the southwest of Mount Farm.

"Reason: This is a pre-commencement condition and one which is considered warranted in the interests of achieving a high standard of landscaping and restoration."

- 2.2 Refer to Drawing No. ESC009: Restoration Planting and Aftercare Plan (which is based on The Restoration Plan, Drawing Ref. PL/ES/03-20/21229RevE, dated 5<sup>th</sup> May 2020) which shows advance and early planting to be carried out within the first year of the commencement of development at the site. The areas to be subject to advance/early planting operations include the following:
  - Existing patchy hedgerow AH1, located along the western boundary of the site. This
    hedgerow requires infilling along approximately five gaps in the hedge, ranging from c.
    60m to c. 16m. However, this is not definitive and will need to be checked and confirmed
    on site prior to planting operations taking place;
  - New hedgerow AH2 to be planted to the west of the existing office building, taking into
    account the position of the proposed office building and the proposed car park area,
    both of which have been added to Drawing No. ESC009; and
  - New hedgerow AH3 to be planted to the northeast of the existing office building.
- 2.3 Refer to Drawing No. ESC009 which includes a Schedule of Plant Material along with planting and specifications relevant to the advance/early planting areas mentioned above.

#### 3 Planning Condition 32

#### Introduction

3.1 Condition 32 of the planning permission states the following:

"A detailed landscaping and restoration scheme for the restoration works to agricultural land and biodiversity including a programme for the implementation of the work shall be submitted to the County Planning Authority for written approval within six months of the date of this planning permission. The detailed landscaping scheme shall be based on Figure PS 6 (drawing reference PL/ES/03-30/21229RevE) and the Restoration and Outline Aftercare Strategy dated 12 May 2020. The landscaping scheme shall include methods of placement of soils, establishment of drainage and initial cropping of the land, planting schemes, species mixes. Once approved the landscaping and restoration scheme shall be adhered to at all times for the duration of the development. The approved landscaping and restoration scheme shall be implemented in a progressive manner.

Reason: In the interests of amenity and in the interests of achieving a high standard of landscaping and restoration."

#### **Programme of Implementation**

#### **Timing of Advanced Planting Works**

3.2 Point 2.2 above lists advance planting operations that will be implemented at the earliest available opportunity, which is likely to be the winter 2021 - 2022 planting season (i.e.  $1^{st}$  November 2021 to  $31^{st}$  March 2022).

#### **Timing of Restoration Planting Works**

- 3.3 Other areas of proposed planting will be implemented at the earliest available opportunity once land has been infilled and the approved final restoration contours have been achieved, with replacement of indigenous overburden and/or soil material, as necessary. Land to be seeded or planted would be cultivated as required with seeding carried out either in autumn or in spring, depending on the timing of restoration earthworks and logistical constraints.
- 3.4 Refer to Table 1 below which provides a broad estimated guide as to when each phase of the development would commence aftercare following restoration earthworks, cultivation, seeding and planting operations, in accordance with the approved restoration plan. As shown in the

table, phases restored to agricultural land would be subject to 5 years of aftercare (i.e. Phases 1, 2, 3, 8, 9, 10, 11, 12, 13 & 15). Phases restored to nature conservation and habitat creation would be subject to 30 years aftercare (i.e. Phases 4, 5, 6, 7 & 14). In addition, woodland and hedgerows within Phases 11, 12 & 13 restored to agriculture would also be subject to 30 years aftercare.

3.5 It should be noted that Table 1 is a broad estimate of when certain operations would occur and is subject to variations in extraction and infilling rates, the effects of market forces, weather conditions and various other operational constraints that arise during the course of time. It is likely that one or more phases will not adhere to the Programme of Works as estimated in the table and in that case, it is recommended that the table be reviewed and, if need be, updated at regular intervals.

DB/Final version 08/09/2021

**Table 1: Broad Estimated Programme of Aftercare Works** 

PHASE	Approx. year following final restoration earthworks in Phase 1 to 3	1	2	3 4	1 5	6	7	8 9	9 10	0 11	1 12	2 1	3 14	1 15	5 16	5 1	7 18	19	20	21	1 2:	2 23	3 2	4 25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
1	Note: Phases 1 - 3 likely to be	33 33					8 6			0.0		80	*	0.0		- 60	**	0.0		00		0.0		80		0.0		(C)				60=8				(X) - 10				to - 00			
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3	aftercare would commence a the same time							33	**	5.8		00	Ĭ	0.0		00		0.00		00		0.0				0.0		00-0				80-0				00-0				\$\$ <del></del> 33	9		
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14		20-0		0.8	500		8 6	337	100	5.2		92	2			-	-															20 3								20 30			
15		39 — 31 32 — 31			10							33		3 .		83				8		30						8 3				8 3				80-3				80 - 31 80 - 61	- 3		
Table I	Key				+																																						
	Restoration seeding, planting	g an	d i	niti	al 5	yea	ırs	of s	stati	utor	y af	ter	are																														
	Second five year block of afte	erca	re :	seci	ure	d th	ro	ugh	the	eleg	al a	gre	eme	nt (I	For F	Pha	ses 4	, 5,	6, 7	& 1	4)																						
	Third five year block of aftero	are	se	cure	ed t	thro	ug	h t	he le	egal	agre	eem	ent	(Fo	r Ph	ase	s 4, 5	, 6,	7&	14)																							
	Fourth five year block of afte	rcar	e s	ecu	irec	l th	rou	ıgh	the	lega	al ag	ree	mer	t (F	or P	has	es 4,	5, 6	5, 7	& 1	4)																						
	Fifth five year block of afterca	are s	sec	ure	d ti	hroi	ugh	n th	e le	gal a	gre	em	ent (	For	Pha	ses	4, 5,	6, 7	7 & :	14)																							
	Sixth five year block of aftero	are	sec	ure	ed t	hro	ugl	h th	ne le	gal	agre	em	ent	(For	Pha	ases	4, 5	, 6,	7&	14)																							
	Woodland and hedgerows w						_							-								in th	ies	Pha	ises	suh	iect	to	5 ve	ars a	afte	rcar	e					Т					

#### Agricultural/Arable Land Restoration (Northern Area)

- 3.6 Refer to Drawing No. ESC009 which shows the extent of land to be progressively restored to agricultural/arable land. This land consists of the area to be worked to the east of the Trans Pennine Trail/ National Cycle Network Route 65 (Phases 1 3) and then land within the northern part of the site to the west of the Trans Pennine Trail/National Cycle Network Route 65 (Phases 8 13 and Phase 15)
- 3.7 The total area of land to be restored to agricultural/arable land is approximately 37.5 hectares (ha). The areas would be restored using indigenous Type 1 soils, which would be recovered from soil storage bunds, to Grade 2 Best and Most Versatile (BMV) agricultural land.
- 3.8 Refer to the written Restoration and Outline Aftercare Strategy document dated May 2020, (submitted as part of the planning application and included at Appendix C) for full details of the following:
  - Restoration profile and method of soil placement The restoration profile will be created by the placement of inert material, overburden and the loose placement of soils.
     The uppermost 600mm (approximately) will comprise subsoil (c. 300mm) and topsoil (c. 300mm), loosely placed above the formation layer, which itself will be thoroughly cross ripped to relieve compaction, as necessary;
  - Note: The Restoration and Outline Aftercare Strategy recommends that the Modified Loose Tipping Procedure for Soil Replacement (Peninsula Method) developed by Dr. Stuart McRae is used for final placement of the topsoil resource, in order to minimise the chances of soil compaction and the need for subsequent remedial works. The procedure was included as Appendix B in that document. However, it is now considered that a more up to date document is preferable and should be referred to in place of the aforementioned document. The replacement document is the Loose Tipping Best Practice Guidance Note, dated 2014, produced by Forest Research. This document is included at Appendix B;
  - Ground preparation, cultivation, nurse grass seeding and initial cropping the
    restored land will be cultivated in order to remove weeds and to prepare the soil surface
    for seeding. The land will then be seeded in autumn or spring with an appropriate mix,
    such as the Germinal A15 mix for reclamation, at a rate of approximately 25g/sq.m. The
    mix has been reproduced below:
    - Strong Creeping Red Fescue 35%



•	Perennial Ryegrass	30%
•	Crested Dogstail	15%
•	Chewings Fescue	10%
•	Browntop Bent	5%
•	Miniature White Clover	2.5%
•	Creeping Bent	2.5%

- Agricultural/arable land aftercare works The restored land will be managed in order to develop a soil quality equivalent to ALC Grade 2 BMV, which will take approximately 5 years following restoration works. Initially, management of the 'nurse cover' grassland will help to improve soil structure, by the use of seasonal mowing to keep the length of the establishing sward down. After one or two years of grassland establishment, the land will be ploughed, cultivated and a suitable crop sown (winter wheat or barley), in order to assess the developing productivity of the restored land. The performance of the cropped land will be assessed each year, with the land being ploughed and different areas being re-cropped with an alternative crop each spring. Assessment will involve digging a series of min. 600mm depth holes to allow inspection of the soil structure, root penetration, root development and stoniness. It is anticipated that an experienced soil scientist/agronomist will undertake this assessment work on behalf of the Mineral Planning Authority and will prepare a report which will inform the following years' aftercare works.
- Settlement of land and installation of piped under drainage any areas that settle to a noticeable degree (to be agreed at the annual aftercare meeting) will be surcharged by the placement and grading out of suitable soil material, in order to smooth out the land surface. Piped under drainage will be considered if, after an initial period of minimum 1 2 years following restoration earthworks, areas of poor drainage are repeatedly evident, where surface water has collected and grassland/crops have failed. A specialist drainage contractor will, in that instance, be invited to assess the requirements and prepare a drainage installation design involving the creation of a herringbone pattern of buried pipework, sat in gravel lined trenches, leading to a single outfall location, draining into a water body.

**Species Rich Lowland Meadow Grassland (Southern Area)** 

- 3.9 Refer to Drawing No. ESC009 which shows the extent of land to be progressively restored to species rich lowland meadow. This land will be located in the southern part of the site and will surround the two proposed water bodies.
- 3.10 The total area of land to be restored to UK BAP priority habitat Lowland Meadow (based on NVC community MG5: Cynosurus cristatus Centaurea nigra) is approximately 17.72ha. The principal characteristics that make this type of grassland distinct from agriculturally improved grassland are the less lush sward, greater range of taller grasses and herbs and in general a perennial rye grass cover of less than 25%.
- 3.11 Refer to the written Restoration and Outline Aftercare Strategy document for details of the following:
  - Restoration profile and method of soil placement As with the agricultural/arable land, the restoration profile will be created by the placement of inert material, overburden and soils. However, the upper 500mm would consist of poorer quality subsoil/overburden or 'soil type material' screened from imported inert material, with a pH of between 5 and 6.5, in order to create the lowland meadow grassland intended. The upper 500mm of material would be loosely placed and if necessary the formation level beneath cross ripped to relieve compaction;
  - Ground preparation, cultivation, nurse grass seeding and initial cropping The ground will be prepared, cultivated and seeded identically to the aforementioned agricultural/arable land pasture grassland. The ryegrass component will however be removed as it is too vigorous and some additional wildflower species selected from the following palette and sourced from a reputable local supplier will be added to the grass mix to improve species diversity and benefit nature conservation. The exact species to be included will be selected following soil testing at the time, in order to assess the chemical characteristics and the pH of the soil substrate:

(Birdsfoot Trefoil, Common Knapweed, Common Vetch, Crested Dogs –tail, Cock's-foot, Green Winged Orchid, Greater Butterfly Orchid, Field Scabious, Fritillary, Lady's Bedstraw, Meadow Buttercup, Meadow Foxtail, Musk Mallow, Oxeye Daisy, Pepper Saxifrage, Red Campion, Red Clover, Salad Burnet, Self-Heal, Sweet Vernal-grass, Wild Carrot, Wood Bitter Vetch, Yarrow, Yellow Rattle).

 In addition, opportunities to introduce appropriate and desirable local wildflower species by forage harvesting hay brashings from suitable local donor site(s) and spreading these onto the soil surface (either in place of or in addition to using purchased seed, depending on the volume and quality of brashings available) will be investigated at the appropriate time, prior to seeding operations taking place;

Species rich grassland aftercare work, including settlement of land and drainage -Management of the developing sward would concentrate more on nature conservation rather than establishment of productive land. Grazing (only from year 2) or mowing would be guided by this and reviewed each year, or on a more frequent basis if necessary. Initially, weeds are likely to flourish and will be removed by repeated topping, after which the developing sward will be mown in late summer/early autumn, after the flowers have set seed, with arisings raked to the site/corner of the field. Different areas may be mown later or earlier in the year to stagger the work and create a mosaic of species development. Alternatively, if grazing is deemed viable this will be adopted for periods when ground conditions are suitable, and possibly in combination with mowing. Exact details of the regime to be followed each year will be determined in early spring depending on the resources available and the aftercare aim(s) for the following year. Any infestations of broadleaved weeds would be dealt with by either localised topping or knapsack application of a selective herbicide such as MCPA, Grazon 90 or 2,4-D. It is not anticipated that surcharging land or piped under drainage would be necessary within the grassland, as any low areas that develop as ephemeral wet spots will be incorporated into the restoration scheme. They will provide an alternative habitat to the slightly higher, lowland meadow grassland areas.

#### **Cereal Field Margins (Wildlife Strip)**

- 3.12 Refer to Drawing No. ESC009 which shows the areas to be cultivated as 6m wide cereal field margins (otherwise known as wildlife strip), totalling approximately 500m in length, which will be established for the benefit of nature conservation. The margin will be flanked by a 1m 'sterile strip' between the margin and the restored nurse grassland/arable crop, which will help avoid the margin being affected by pesticide drift and also avoid aggressive weeds colonising the arable crop.
- 3.13 The margin will develop a range of habitat niches which will be attractive to invertebrates and birds that feed on cereal seeds and invertebrates themselves as well as providing valuable shelter to a range of fauna.

- 3.14 As stated in the Restoration and Outline Aftercare Strategy, the margin will be ploughed seeded in early spring with a mixed cereal crop consisting of the following: Wheat, Barley, Oilseed Rape, Sorghum, Mustard and Quinoa. In addition, a specialist bumble bee and/or butterfly seed mix may be added to increase the value of the margin for these species.
- 3.15 The margin will not be cropped or sprayed with fertilisers/herbicide and any wildflowers that develop within the margin will be left to develop and set seed, as they provide pollen, nectar, seeds and prey. The margin will be ploughed up and re-seeded in spring and/or autumn of each year, depending on the type of cereal to be planted. Alternatively, separate sections of the margins will be cultivated at different times (i.e. on rotation) to create a range of vegetation heights and to allow recolonization of the less mobile invertebrates from other sections of the margins. This will be discussed and agreed at the annual aftercare meeting.

### **Native Tree and Shrub Planting**

- 3.16 Refer to Drawing No. ESC009 which shows the extent of proposed woodland and hedgerow planting, including advanced planting and planting to occur within the first year of operations within the extension area. In addition, the drawing shows planting to occur on the 3m high bund to be constructed on land to the south west of Mount Farm.
- 3.17 As stated in the written Restoration and Outline Aftercare Strategy, areas to be planted with woodland trees and shrubs would be restored with a minimum combined 500mm depth of loosely placed topsoil/subsoil material, with the formation layer beneath decompacted by cross ripping before soil placement. Following cultivation, land would be seeded to provide grass cover and restrict the growth of weeds prior to tree/shrub planting operations.
- 3.18 Refer to Drawing ESC009 which features a Schedule of Plant Material for each woodland block and hedgerow to be planted, including details of plant species, size, protection, numbers and totals. The Schedule is reproduced below as Table 2 on page 14. In addition, Drawing ESC009 includes details of ground works and cultivation, planting specifications and annual aftercare works.

There would be no requirement for drainage beneath the woodland or hedgerow planting areas. If those areas were evidently poorly drained following restoration earthworks, they would be surcharged with additional material to address this prior to planting works.

**Table 2: Schedule of Plant Material** 

Primary Tree Species Acer Camestre Fi Alnus glutinosa Al Pinus sylvestris Si	Field Maple Alder Scots Pine Pendunculate Oak	60-80cm bare root transplant (1+2) 60-80cm bare root transplant (1+2)	Area m²/Length m Total no. of Bare Root Transplants Protection & support  60cm Tubex Shelter/90cm stake 60cm Tubex Shelter/90cm stake	2,816		4,300 688		24,900 3,984			200m 1,000				427m 2.135			236m		47m 235	
Species C Primary Tree Species Acer Camestre Fi Alnus glutinosa Al Pinus sylvestris S	Field Maple Alder Scots Pine Pendunculate Oak	60-80cm bare root transplant (1+2) 60-80cm bare root transplant (1+2) 60-80cm bare root transplant (1+2)	Total no. of Bare Root Transplants Protection & support  60cm Tubex Shelter/90cm stake		1,840	688	512	3,984	432	468	1,000	175	575	175	2.135	1.280	2.340	1 190	640	235	+
Primary Tree Species Acer Camestre Fi Alnus glutinosa Al Pinus sylvestris Si	Field Maple Alder Scots Pine Pendunculate Oak	60-80cm bare root transplant (1+2) 60-80cm bare root transplant (1+2) 60-80cm bare root transplant (1+2)	60cm Tubex Shelter/90cm stake	200													_,_,_	11,100	UTU	200	
Acer Camestre Fi Alnus glutinosa Al Pinus sylvestris Si	Alder Scots Pine Pendunculate Oak	60-80cm bare root transplant (1+2) 60-80cm bare root transplant (1+2)		200				1													Total
Alnus glutinosa Al Pinus sylvestris Si	Alder Scots Pine Pendunculate Oak	60-80cm bare root transplant (1+2) 60-80cm bare root transplant (1+2)		200																1	1
Pinus sylvestris S	Scots Pine Pendunculate Oak	60-80cm bare root transplant (1+2)	60cm Tubex Shelter/90cm stake	200	140	65	50	280	50	50	100	25	75	25	225	160	275	130	45	25	1,920
	Pendunculate Oak	/		200	100	35	25	279	25												664
Quercus robur Pr		60-80cm bare root transplant (1+2)	60cm Tubex Shelter/90cm stake	200	125	25	25	275	25											Ī	675
		oo ooonii baro root tranopiant (1+2)	60cm Tubex Shelter/90cm stake	225	125	65	50	325	42												832
		Light Standard (Rootballed, 6 -	Single, round, peeled & treated softwood stake (75mm diameter),																		
Quercus robur Po		8cm girth, approx. 2.5 - 3m height)	35mm tree block, 35mm rubber belting and clout nails								9	1	3	1	16	9	15	9	5	2	70
Secondary Tree Species																		Ĺ'	<u> </u>		
Betula pendula Si	Silver Birch	40-60cm bare root transplant (1+2)	60cm Tubex Shelter/90cm stake	175	100	35	25	200	15												550
Corylus avellana Ha	Hazel	40-60cm bare root transplant (1+2)	60cm Tubex Shelter/90cm stake	175	125	50		275	25		100	25	65	25	225	160	255	130	50	25	1,795
Crataegus monogyna H	Hawthorn	40-60cm bare root transplant (1+2)	60cm Spiral Guard/90cm cane	175	125	25	27	275	25	100	350	54	150	54	725	375	775	380	250	70	3,935
Prunus avium W	Wild Cherry	40-60cm bare root transplant (1+2)	60cm Tubex Shelter/90cm stake	175	125	50		250	25												650
Prunus spinosa BI	Blackthorn	40-60cm bare root transplant (1+2)	60cm Spiral Guard/90cm cane	125	100	25	25	225	25	100	250	25	132	25	525	275	550	280	200	50	2,937
Salix caprea G	Goat Willow (Sallow)	40-60cm bare root transplant (1+2)	60cm Tubex Shelter/90cm stake	100	125	33	25	275	25												583
Sorbus aucuparia M	Mountain Ash (Rowan)	40-60cm bare root transplant (1+2)	60cm Tubex Shelter/90cm stake	150	125	50	35	250	15	50									<u> </u>		675
Sorbus torminalis W	Wild Service Tree	40-60cm bare root transplant (1+2)	60cm Tubex Shelter/90cm stake	125	125	25	25	225	25												550
Understorey Shrubs																					
Cornus sanguinea De	Dogwood	40-60cm bare root transplant (1+2)	60cm Tubex Shelter/90cm stake	125	75	25	25	125	25	25								Ĺ'	<u> </u>		425
Euonymus europaea S	Spindle	40-60cm bare root transplant (1+2)	60cm Tubex Shelter/90cm stake	116	50	50	35	125	15	25											416
Rosa canina Do	Dog Rose	40-60cm bare root transplant (1+2)	60cm Tubex Shelter/90cm stake	125	75	30	15	175	15	15	-										450
Sambucus nigra El	Elder	40-60cm bare root transplant (1+2)	60cm Tubex Shelter/90cm stake	125	50	50	25	125	25	25	100	25	75	25	215	160	250	130	45	30	1,480
Viburnum lantana W	Nayfaring Tree	40-60cm bare root transplant (1+2)	60cm Tubex Shelter/90cm stake	175	75	25	15	125	15	10											440
Viburnum opulus G	Guelder Rose	40-60cm bare root transplant (1+2)	60cm Tubex Shelter/90cm stake	125	75	25	25	175	15	18	100	20	75	20	220	150	235	130	50	25	1,483
			rootballed light standard oaks)								1,009		575	175	2,151	1,289	2,355	1,189	645	227	20,530
AH1 Consists of five separa	rate areas along the ex	sisting patchy hedge. The exact	space available and the numbers of	f plants	required	مم النب	1.4								-			-			

<sup>\*\*</sup> AH4 is an existing hedgerow which requires gapping up in places. Estimated total length c. 35m. Exact numbers of plants required will need to be checked and confirmed on site Key: B1 to B6 = Woodland planting blocks, AH1 - AH4 = Advanced hedgerow planting/gapping up, H1 - H6 = Hedgerow planting, S1 = Scrubby planting on bund

#### **Water Bodies and Ponds**

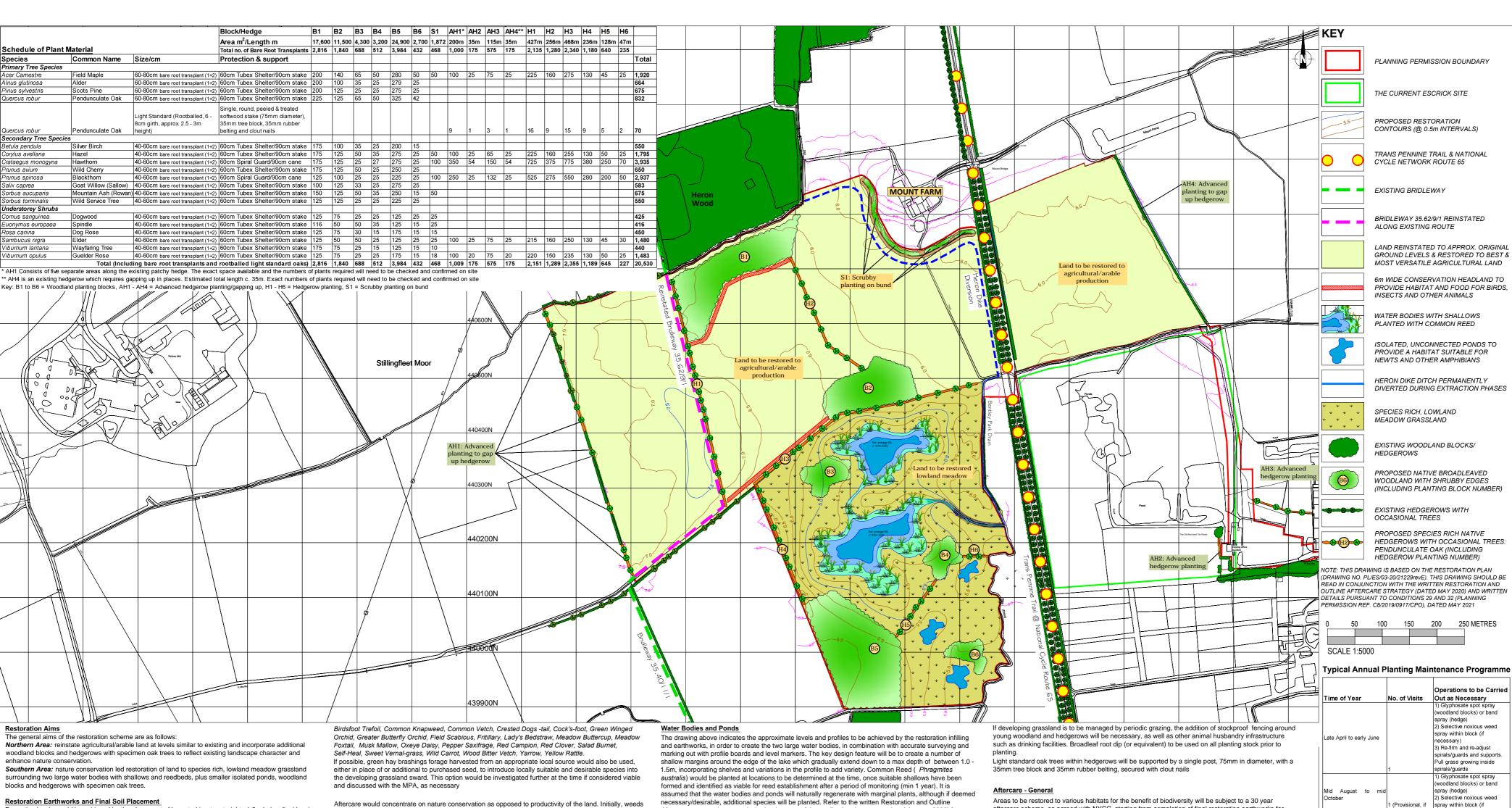
- 3.19 Refer to Drawing No. ESC009 for the location of the two main water bodies and ponds to be created as part of the restoration works for the southern area. The water bodies will total approximately 3.2ha and will incorporate extensive areas of shallow margins and shelves at varying depths for the establishment of reed-beds and areas of other emergent vegetation which benefits a range of species. The three isolated ponds will total approximately 2,758m² and will provide an alternative aquatic habitat, which will complement the larger water bodies.
- 3.20 Refer to the written Restoration and Outline Aftercare Strategy for further details relating to the method of creating the water bodies and ponds through progressive restoration earthworks. The initial key design issue would be obtaining the correct levels so careful control of material placement to form the lake profiles would be essential, informed by regular survey work and the placement of profile boards and level markers by a land surveyor, as necessary. Land surrounding the lakes would be infilled and would be raised while the lake profiles would be lower, so the process would, in effect, be the inverse of creating a lake through excavation of land. At Escrick, the lakes would be formed by the placement of material to eventually leave a lake profile which would take into account the estimated average final water level.
- 3.21 It is recognised that such work is inherently difficult, often slow (as it is progressive, as different phase areas are worked and then infilled) and subject to a number of problems such as water ingress, very muddy conditions and so on. It is also recognised that the exact lake profiles indicated on Drawing No. ESC009 are unlikely to be recreated on the ground and this is not considered problematic. As long as the principle of the design is adhered to and the main design elements are followed, with the intention of creating lakes of high nature conservation value incorporating many areas of gently sloping margins, then the long term outcome will be positive.
- 3.22 The two main water bodies would be planted with common reed (*Phragmites australis*) at locations to be determined at the time, once the restoration earthworks have been completed, the lake shallows are evident and water levels have been monitored for an appropriate period (min one year) in order to gauge what the average water level is likely to be. Refer to the Restoration and Outline Aftercare Strategy for further details of reedbed planting and establishment, possible additional aquatic planting (including a species list pallete for different water depths) if natural regeneration alone is not considered satisfactory at the time.

**Record of Aftercare Operations and Annual Aftercare Meeting** 

- 3.23 As stated in the written Restoration and Outline Aftercare Strategy, the operator will keep detailed records of all aftercare operations undertaken and, if/when required, will submit reports for the previous twelve months and proposals for the subsequent twelve months to North Yorkshire County Council (NYCC).
- 3.24 The report and proposals will be submitted prior to each annual aftercare inspection/site meeting, to be arranged preferably in early spring, at the request of NYCC. Representatives at the meeting should include the operator (and/or operator's consultant), NYCC, and tenant farmer/grazier (if appropriate). In addition, a specialist agricultural consultant may be asked to attend in order to give an expert assessment of the development of the restored agricultural/arable land, and provide recommendations for ongoing aftercare operations.

# **Appendix A: Drawings**

Drawing ESC009: Restoration Planting and Aftercare Plan (based on The Restoration Plan,
 Drawing Ref. PL/ES/03-20/21229revE, dated 5<sup>th</sup> May 2020)



surrounding two large water bodies with shallows and reedbeds, plus smaller isolated ponds, woodland blocks and hedgerows with specimen oak trees.

Formation levels would be achieved by the placement of imported inert material to 1.2m below final levels across land to be restored to agricultural/arable use and to 500mm below final levels across land to be restored to lowland meadow grassland. The upper 1.2m profile across the agricultural land would comprise c. 600mm of overburden/screened inert material, 300mm subsoil and 300mm topsoil, with soils loosely placed (onto a cross ripped formation surface) in accordance with Loose Tipping: Best Practice Guide (The Land Regeneration and Urban Greenspace Research Group - Forest Research, 2014 - refer to Appendix B, vritten Details Pursuant to Conditions 29 & 32, dated January 2021). The upper 500mm across the lowland meadow grassland would comprise loosely placed, poorer quality subsoil/overburden or 'soil type material' screened from the imported inert material. Land in all restored areas would be suitably cultivated to remove weeds and produce a fine, firm seedbed. If necessary, replaced soil would be tested for pH and N,P,K and Mg levels to determine its physical properties and inform the final choice of grass seed.

#### Agricultural/Arable Land (Northern Area) - Seeding and Aftercare Works Land would initially be seeded in autumn/spring with the following A15 'reclamation' mix from Germinal (or

similar, subject to the results of soil analysis): Strong Creeping Red Fescue 35%, Perennial Ryegrass 30%, Crested Dogstail 15%, Chewings Fescue 10%, Browntop Bent 5%, Miniature White Clover 2.5%, Creeping Bent 2.5%.

Following successful establishment of the 'nurse' grassland sward after 1-2 years of aftercare, land would be ploughed, cultivated and seeded with a suitable crop (i.e. winter wheat or barley) to assess the productivity of the land over a minimum 3 year period. This would be assessed annually at an aftercare meeting on site, with a report prepared, thereafter to inform the following years works.

Aftercare would aim to develop a soil quality equivalent to ALC Grade 2 (BMV). Initially, the 'nurse cover' grassland would be seasonal mown then after one or two years of grassland establishment, the land will be ploughed, cultivated and a suitable crop sown (winter wheat or barley). The development of the soil and performance of the cropped land will be assessed each year, with the land being ploughed and different areas being re-cropped with an alternative crop each spring.

# Lowland Meadow Grassland (Southern Area) - Seeding and Aftercare Works

Land would be seeded in autumn/spring with the same A15 'reclamation' mix from Germinal as noted above (again, subject to soil analysis and pH levels) but without the ryegrass component as it is too vigorous. This will be replaced with some additional wildflower species from the following to improve species diversity and to benefit nature conservation. Exact species to be selected will depend on the chemical characteristics and pH of the seedbed:

are likely to flourish and will be removed by repeated topping, after which the developing sward will be nown in late summer/early autumn, after the flowers have set seed, with the arisings removed or raked to the side/corner of the field. Different areas may be mown later or earlier in the year to stagger the work and create a mosaic of species development. Alternatively, if grazing is deemed viable this will be adopted for periods when ground conditions are suitable, and possibly in combination with mowing. Infestations of adleaved weeds would be dealt with by localised topping or knapsack application of selective herbicide such as MCPA, Grazon 90 or 2,4-D. Any low areas that develop as ephemeral wet spots will be incorporated into the restoration scheme. They will provide an alternative habitat to the slightly higher, lowland meadow grassland areas.

Note: a useful guidance document of relevance to the intended type of grassland creation is the Forest Research BPG note 17: Lowland Neutral Grassland - Creation and Management in Land Regeneration. The document is available at the following webpage:

 $\underline{\text{https://}\underline{\text{www.forestresearch.gov.uk/tools-and-resources/urban-regeneration-and-green space-}}$  $partner ship/urban-regeneration- and \hbox{-} green space-partner ship-resources/best-practice-guidance$ 

# Cereal Field Margins - Seeding and Aftercare Works

Approximately 500m of 6m wide cereal field margins (wildlife strips) would be created adjacent to the edge of the restored agricultural area in two locations, as shown on the drawing above. The margin will be flanked by a 1m 'sterile strip' between the margin and the restored nurse grassland/arable crop, which will help avoid the margin being affected by pesticide drift and also avoid aggressive weeds colonising the

The margin will be ploughed seeded in early spring or autumn each year with a mixed cereal crop consisting of the following: Wheat, Barley, Oilseed Rape, Sorghum, Mustard and Quinoa. Alternatively, separate sections of the margins will be cultivated at different times (i.e. on rotation) to create a range of vegetation heights and to allow recolonization of the less mobile invertebrates from other sections of the margins. In addition, a specialist bumble bee and/or butterfly seed mix may be added to increase the value of the margin for these species. No fertiliser or herbicide would be used.

necessary/desirable, additional species will be planted. Refer to the written Restoration and Outline Aftercare strategy document (submitted as part of the application documents, dated January 2020) for further reed planting details and a species list palette of marginal plants for different water depths

# Advanced Hedgerow and Restoration Hedgerow Planting (AH1 - AH3 and H1 - H7)

Hedgerow planting preparation will consist of strimming and/or herbicide application (eg. glyphosate) along necessary. Hedgerow's will be planted with native species of local provenance if possible in accordance with the Schedule of Plant Material. Plants will be notch planted at 5 plants per metre in double staggered rows, with 50cm between rows and 30cm between plants in each row. Species other than hawthorn or blackthorn will be randomly spaced in groups of 3 - 5 throughout the hedgerow. Light standard oaks will be planted as per the plan above, within the hedgerow

# Woodland Block Planting and Scrubby Planting on Moubt Farm Bunds (B1 - B6 & S1)

Woodland blocks and the scrubby bund planting will be planted with species in accordance with the Schedule of Plant Material. The woodland planting would comprise native species (of local origin where possible) containing primary/secondary tree species and shrubby understorey/woodland edge species, in order to establish a range of vegetation types and sizes throughout the planting blocks. Woodland planting would be at centres of between 2.0m and 3.0m (i.e. to give an average of 2.5m centres) and randomly located as opposed to adhering to a strict planting grid, which can look unnatural. Woodland planting would be planted in random groups of 3 - 7 and the outer edge of each block would consist mainly of more shrubby species to encourage a gradual variation from a shrubby woodland edge through to the main

Scrubby planting on the bunds would comprise native shrub planting at centres of between 1.5m and 2.5m (i.e. to give an average of 2.0m centres), in random groups of 3 - 5.

# Woodland and Hedgerow Plant Protection

All planting stock will be protected in accordance with the Schedule of Plant Material. All 60cm spiral guards will be supported by 90cm x 12/14lbs bamboo canes. All 60cm Tubex shelters will be supported by 90cm x 32mm x 32mm treated softwood or cleft chestnut stake. No deer are thought to be present on site currently, but if evidence suggests otherwise, the 60cm Tubex shelters will be replaced with 1.2m shelters as

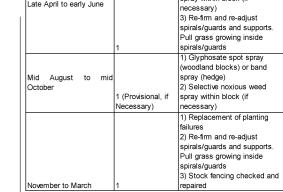
Areas to be restored to various habitats for the benefit of biodiversity will be subject to a 30 year aftercare scheme, as agreed with NYCC, starting from completion of final restoration earthworks for distinct areas of the site, as they are progressively restored. The 30 years will include an initial. statutory 5 year duration and then a further 25 years secured through the legal agreement. Therefore aftercare will include all soil cultivation, seeding, planting, vegetation establishment and management

Aftercare: Woodlands and Hedgerows - Woodland blocks and hedgerows will be kept weed free by the application of glyphosate herbicide (e.g. Roundup) at least twice every year, in early spring and early/mid summer, for at least the first three seasons, with review thereafter. Hedgerows will be strip sprayed along their length and within planting blocks all grass and weeds in min. 0.8m diameter around each tree will be spot sprayed. Excessive tall and noxious weeds within planting areas will be controlled by selective spraying (e.g. using 2,4-D or similar) or mowing/strimming if absolutely necessary (although this can encourage more vigorous weed growth). All chemical applications will be in accordance with guidelines as set out in the Pesticide Control Act 1996.

Plants, guards and canes which become loose, over-tight or broken will be re-firmed and adjusted on an annual basis. All planting/seeding failures would be replaced on an annual basis, during the first five years of aftercare, to ensure at least 100% stocking. All replacements will use plants of the same species or other such species as may be agreed with NYCC. For aftercare years five - ten, stocking density would be annually monitored and kept to minimum 90%. All natural regeneration of desirable species arising within planting areas will be accepted. In aftercare years five - ten thinning requirements would be assessed and operations undertaken as necessary to remove nurse species and create scalloped edges to planting blocks to let in light. Refer to the Typical Annual Planting Maintenance Programme table beneath the Key for timings of operations summarised above.

# Annual Aftercare Meetings and Report Preparation

The Operator will submit reports for the previous 12 months and proposals for the subsequent 12 months to the NYCC. This information would be submitted prior to each annual aftercare inspection/site meeting, to be arranged preferably in early to mid spring, at the request of NYCC.



Client Plasmor ESCRICK QUARRY

Project QUARRY EXTENSION Drawing Title ADVANCE PLANTING, RESTORATION PLANTING AND AFTERCARE PLAN

SEPTEMBER 2021 ESC009 Scale 1:5,000 @ A2 File Ref. 2109\_008.007\_ESC009\_Planting and Aftercare Plan Revision 0 T: 01344 624 709 M: 07736 083 383

DB Landscape Consultancy www.dblc.co.uk Appendix B: Loose Tipping: Best Practice Guide (The Land Regeneration and Urban Greenspace Research Group – Forest Research, 2014)



### Introduction

Reinstatement of soil materials has been recognised as one of the most crucial operations in restoration. Poor practice at this stage can cause irreparable damage, especially compaction, and consequently greater risk of vegetation failure and soil erosion. There has been much discussion on methods of handling soil materials for replacement during restoration. Two methods are commonplace in the UK:

- 1. Using motor-scrapers to drop soils followed by dozers to spread them.
- 2. The 'loose tipping' method using truck and shovel (Figure 1): dump trucks are used to transport and drop soil materials, and a tracked hydraulic 360° excavator is used to spread them. The excavator stands on the overburden, and the re-laid soil is not traversed by earth-moving machinery.

Considerable research since the 1980s for government departments responsible for setting reclamation standards has shown the value of the loose tipping approach over the motor-scraper method (see for example: Bending *et al.*, 1999; Land Research Associates, 1997, 2000; Moffat and Bending, 2000).

### Advantages of loose tipping

There are many wide-ranging advantages:

- A constructive reclamation ethos is encouraged. There is no need to undo damage caused by trafficking (compared with compaction caused by motor-scrapers).
- A more open, less dense soil structure is formed. Resistance to penetration by roots of vegetation is low.
- Infiltration is encouraged, reducing the risk of water erosion.
- A loose profile of any desirable thickness can be constructed in a one-pass operation.
- Profiles containing two layers can be constructed, e.g. soil over soil-forming materials, without compacting the lower layer.
- There is no need for ripping or decompacting operations.
- There are greater opportunities for operations under wet weather, compared to spreading using motor-scrapers. Time between the end of restoration and the beginning of aftercare (planting) can be saved.
- The operation is easier to monitor and supervise.
- There is greater opportunity to remove stone and obstructions.
- There is more opportunity to incorporate inorganic and organic amendments such as biosolids or composts. For further details, see BPG Note 6: Application of sewage sludges and composts.
- Improved vegetation establishment reduces costs of repair, replacement and maintenance. In tree planting schemes, reduced beating up leads to a shorter period when weed control is necessary.





Figure 1 Reinstatement of soil materials using the loose tipping method.

As with soil stripping, a detailed plan and method statement should be prepared in order to ensure smooth working and co-ordination between excavator and dump truck. The method entails working to a strip system, and replacing soils sequentially across the site (see Figure 2 a-f). The underlying material is cultivated prior to loose tipping with a wing-tined industrial ripper (Figure 2a). In each strip, soil materials are replaced to replicate the original soil, with soil-forming materials and subsoil followed by topsoil materials. Only when the strip has been completed is the next one started. Dump trucks bring soil materials to the area where they are to be replaced. Soils are dropped from the back of the truck against the strip completed last. The excavator stands on the overburden next to the newly dropped soil and spreads this into a layer. The width of the strip is determined by the excavator arm length and is typically 5–8 m. If there is to be more than one soil layer (i.e. if both topsoil and subsoil are available for replacement) then the whole length of the strip should be restored with subsoil before the process is repeated with topsoil.

If materials are massive in structure, the spreading operation can be used to break up the blocks, using the excavator bucket to smash or slice them up. Large stones can be removed during the levelling operation and collected on the overburden for later removal, or placed so that they are buried by the next drop of subsoil.

Research has demonstrated that loose tipping can take place in wetter soil conditions than conventional soil replacement using earth-scrapers without harm to soil physical properties. Nevertheless, it is advisable to restrict activities to times when soils are dry and to cease operations during and for some time after rainfall. It is important to recognise that the benefits of truck and shovel restoration will be lost if dump trucks are permitted to traverse across laid soils as such trafficking will cause soil compaction. Further information on the loose tipping method is given in *Soil replacement with excavators and dump trucks* (MAFF, 2000).

Figure 2 Schematic diagram of loose tipping.

#### Further reading

Bending, N.A.D., McRae, S.G. and Moffat, A.J. (1999). Soil-forming materials: their use in land reclamation. The Stationery Office, London.

Doick, K.J. and Ashwood, F. (2011).
Brownfield regeneration to a soft-end use:
Barriers to using a quality planting medium.
Reclamation. British Land Reclamation Society.

Land Research Associates (1997). Agricultural quality of restored land at Bush Farm. Land Research Associates, Derby.

Land Research Associates (2000). Evaluation of mineral sites restored to agriculture. MAFF, London.

MAFF (2000). Good practice guide for handling soils. Sheet 4: Soil replacement with excavators and dump trucks. FRCA, Cambridge.

Moffat, A.J. and Bending, N.A.D. (2000). Replacement of soil and soil-forming materials by loose tipping in reclamation to woodland. *Soil Use and Management* 16, 75–81 **Appendix C: Restoration and Outline Aftercare Strategy (written document** submitted as part of the planning application, dated May 2020)



# ESCRICK QUARRY, STILLINGFLEET, NORTH YORKSHIRE

Planning Application for Quarry Extension

Restoration and Outline Aftercare Strategy

May 2020



Document Title: Restoration and Outline Aftercare Strategy

# **Foreward**

This Restoration and Outline Aftercare Strategy was produced by DB Landscape Consultancy Ltd. (DBLC) for Plasmor for the specific purpose of addressing consultation comments on a planning application for the extraction of clay from land to the north and west of the current Escrick site, and restoration of the site with soils, overburden and imported inert material. At the closest point, the land is located approximately 1.4 kilometres (km) to the southeast of the village of Stillingfleet, North Yorkshire.

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### **Document Control**

Version	Date	Author	Reviewed/ Checked By	Change Description
Draft Ver.1	14/01/2020	D Brittain (DBLC)	S Evans (MJCA)	Document created
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# **Contact Details:**

David Brittain
DB Landscape Consultancy Ltd.
david@dblc.co.uk

tel: 01344 624 709 mob: 07736 083 383



Document Title: Restoration and Outline Aftercare Strategy

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Document Title: Restoration and Outline Aftercare Strategy

# 1 Introduction

1.1 This document should be read in conjunction with the revised Restoration Plan (drawing no: PL/ES/03/20/21229revE, dated 5<sup>th</sup> May 2020). This drawing has been included as Appendix A.

1.2 This document includes sub-sections dealing with both 'restoration' and 'aftercare' and differentiates between the two in broad accordance with various information contained within the Restoration and Aftercare of Mineral Sites sub-section (Paragraphs 036 to 059) of the Minerals section of Planning Practice Guidance (published 29/11/16, updated 22/10/18).

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# 2 Aims of the Proposed Restoration Scheme

As a result of consultation responses received from North Yorkshire County Council, the originally submitted Restoration Plan (PL/ES/06-19/21152, dated July 2019) has been revised to take into consideration input in terms of ecology and landscape. The restoration plan has been agreed by North Yorkshire County Council and is presented on drawing reference PL/ES/03/20/21229revE. That plan, together with this written Restoration and Outline Aftercare Strategy and Outline Biodiversity Mitigation, Monitoring and Management plan for land at Escrick, forms the overall Restoration Scheme.

2.2 The site is currently characterised by its flat, very open appearance with a lack of woodland cover and relatively long distance views across the agricultural landscape. Large fields are divided by managed hedgerows, occasionally extending along deep drainage ditches, with the hedges including frequent mature trees which are features in the landscape.

2.3 Site restoration would reinstate this type of agricultural landscape at original ground levels across the northern part of the site, and would be consistent with the local landscape character, as defined within the Wharfe-Ouse River Corridor local Landscape Character Area (LCA) included within the document Landscape Assessment of Selby District (January 1999). Restoration of the northern area would include two areas of proposed woodland and a hedgerow with trees. This vegetation would help mitigate the loss of trees as a result of mineral extraction and would enhance the nature conservation value of the northern area.

2.4 The character of the southern part of the site would be predominantly nature conservation led, with a mosaic of different habitats combining to provide significant enhancements to biodiversity. In addition, the restored landscape would contribute positively to the rural character of the wider landscape and would accord with one of the key characteristics of the Wharfe-Ouse River Corridor local LCA in that it would create an area of wetland interest with marshy shallow margins/reedbeds and a large area of lowland meadow (a type of unimproved neutral grassland).

2.5 The key aims of the Restoration Scheme can be summarised as follows:

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#### Northern Area

 Reinstate approximately 37.5ha to Best and Most Versatile agricultural land at original ground levels. (Note: Arable farmland is a Habitat Action Plan (HAP) within the Selby Biodiversity Action Plan (BAP) dated August 2004;

Plant approximately 2.9ha of broadleaved native woodland blocks with scrubby edges
and 960m of species rich, native hedgerow with oak trees, including approximately 95m
of hedgerow/scrubby trees to reinstate existing hedgerow to be removed in order to
construct the vehicle bridge over National Cycle Route 65. This vegetation (together
with the southern area covered below) would extend Heron Wood, mitigate the loss of
mature trees and provide a net gain in woodland and hedgerow habitat;

Establish approximately 500m of 6m wide conservation headlands (totalling c. 3,000m²)
 along field edges to provide habitat and food for birds and insects;

• Reinstate the existing route of Bridleway 35.62/9/1

#### Southern Area

The area would be restored to a predominantly nature conservation led afteruse with a mosaic of habitats created that would be in accordance with Priority Habitats included within the Selby Biodiversity Action Plan, as follows:

 Plant approximately 3.5ha of broadleaved native woodland, including a larger block to extend Gambles Rush and three smaller blocks within the grassland area;

• Plant approximately 876m of species rich, native hedgerows with trees (mainly oak);

• The creation of approximately 12.73ha of lowland meadow grassland;

 The creation of two large water bodies totalling approximately 3.2ha with extensive areas of shallow margins for the establishment of reedbeds and other emergent vegetation;

• The creation of three smaller, isolated water bodies totalling approximately 2,910sq.m which would provide a different aquatic habitat for newts and other fauna.

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# 3 Selby Biodiversity Action Plan (July 2004)

- 3.1 The Site lies within the area covered by the Selby Biodiversity Action Plan (BAP) which was jointly produced by North Yorkshire County Council, Selby District Council and the Selby BAP partnership. While the Selby BAP is now somewhat dated, the information contained within it is still entirely relevant and has been used in this document to guide and advise the approach to site restoration and aftercare.
- 3.2 The Selby BAP seeks to achieve the following:
  - Ensure national targets for species and habitats (in the UK BAP, which has been superseded by the UK Post-2010 Biodiversity Framework) are translated into effective action at the local level;
  - Identify targets for species and habitats of local value;
  - Develop effective, long-term local partnerships;
  - Raise awareness of the need for biodiversity conservation;
  - Consider opportunities for conservation of the whole biodiversity resource;
  - Set up a monitoring programme for local priorities; and
  - Set up a reporting programme.
- 3.3 As mentioned in the bullet list above at point 2.4, the southern area would be restored with a predominantly nature conservation afteruse, incorporating a number of landscape features and habitats included in the Selby BAP. Sub-section 5 below deals with each of these habitat types in more detail.
- 3.4 A number of habitats included on the Restoration Plan are included in the Selby BAP as Habitat Action Plans (HAP's) including the following of relevance:
  - Woodland HAP
  - Ancient and/or species rich hedgerows HAP
  - Arable farmland HAP
  - Reedbed HAP
  - Lakes and Ponds HAP
- 3.5 In addition, Table 1 in the Selby BAP lists six Regionally Important Habitats that are found within the Selby district, including the following three of relevance to the Proposed Development

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- Cereal Field Margins
- Lowland Meadows
- Reedbeds

ersion

8





Document Title: Restoration and Outline Aftercare Strategy

# 4 Progressive Restoration

- 4.1 The clay at the site would be extracted in a phased manner, as indicated on the phased working scheme plans included in the submitted application. The extraction area would be progressively restored using on-site overburden and imported inert restoration material. This would entail Heavy Goods Vehicles (HGV's) with approved loads entering the site, travelling to the tipping area and placing the material into the void. Dozers and other plant machinery would compact the material into the cell.
- 4.2 The key aim of progressive restoration works is to minimise areas of worked out but unrestored land and to bring areas back to productive use at the earliest opportunity. The rate of progressive restoration is governed largely by the speed at which clay is removed from each phase, the availability of suitable inert restoration material and the approved number of lorry movements into and out of the site each day.

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# **5** Restoration Proposals

#### Introduction

This section summarises the various habitats that would be created as a result of the site restoration. The information includes habitat aims, habitat creation details and outline aftercare notes. It is noted that these proposals are subject to alteration and modification throughout the duration of the progressive restoration works, over a number of years, based on the actual on site experience of those charged with creating the various habitats and implementing the works. The progression of the restoration operations, the monitoring and aftercare will be regularly reported to the planning authority at the annual liaison meeting. Any amendments to the restoration scheme will be discussed at the meetings and if necessary formally agreed in writing with the planning authority.

# Agricultural/Arable Land (Northern Area)

#### **Habitat Aims**

Approximately 37.5 hectares (ha) of land in the northern part of the site, including the area to the east of National Cycle Route 65, would be restored using Type 1 soils to Grade 2 Best and Most Versatile agricultural land (as now) at original ground levels. This would replicate the high quality farmland that exists across this land at present and would also maintain this type of land in accordance with the Arable Farmland HAP within the Selby BAP. In addition, agricultural restoration of this type would be consistent with the local landscape character, as defined within the Wharfe-Ouse River Corridor local Landscape Character Area (LCA) included within the document Landscape Assessment of Selby District (January 1999). Furthermore, the benefit of Best and Most Versatile Agricultural Land is recognised in the National Planning Policy Framework (NPPF, 2019).

#### **Restoration Profile and Earthworks**

5.3 The land would be raised to formation (ie. pre soiling) levels, which are assumed to be approximately 1.2m below the final land surface, by the placement of overburden and imported inert material. (Note: details on soil types and depths are to be recorded during soil stripping works). The penultimate 0.3mdepth would comprise subsoil which would be recovered from bunds or directly placed from a stripped phase and loosely placed in accordance with best practice to avoid compaction. If necessary, the formation surface beneath the subsoil would be cross ripped to relieve compaction prior to soil placement.

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The final 0.3m (300mm) depth would comprise topsoil which would be recovered from bunds or directly placed from a stripped phase and loosely placed in accordance with best practice to avoid compaction. If necessary, the subsoil surface beneath the topsoil would be cross ripped to relieve compaction prior to topsoil placement. It is recommended that the Modified Loose Tipping Procedure for Soil Replacement (Peninsula Method) developed by Dr. Stuart McRae is used for final placement of the topsoil resource, in order to minimise the chances of soil compaction and the need for subsequent remedial works. Refer to Appendix B for further details.

## Ground Preparation, Cultivation and Seeding

- 5.5 Following restoration earthworks, emerging weeds would be sprayed off using glyphosate or repeatedly topped, with dead vegetation ploughed into the soil. The land would then be cultivated with a disc or power harrow to provide a fine, firm seed bed.
- 5.6 The land would be seeded in early spring with a suitable neutral grassland seed mixture, such as Germinal A15 mix (Reclamation Landfill) or similar. This mix establishes rapidly, performs on variable soil types and is suitable for newly restored land, in order to improve the soil structure as part of an initial aftercare programme. It can also be used for light stock grazing if necessary, or mown for a summer hay cut. The mix would be sown at approximately 25g/sq.m. The mix is as follows:

•	Strong Creeping Red Fescue	35%
•	Perennial Ryegrass	30%
•	Crested Dogstail	15%
•	Chewings Fescue	10%
•	Browntop Bent	5%
•	Miniature White Clover	2.5%
•	Creeping Bent	2.5%

# Agricultural/Arable Land Aftercare

5.7 The intention would be to develop this restored land to a quality equivalent to the Grade 2 Agricultural Land Classification (ALC) it is currently, over the course of a five year aftercare scheme. The A15 mix specified above would act as a 'nurse' cover for the first year or two while the soil recovers from being bunded for a number of years, with the actions of rooting grass and worms together with aeration provided by tilling would improve soil structure. The use of fertiliser to encourage sward growth is not recommended at this stage although a decision

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would be taken on application if growth rates were considered to be particularly slow/poor.

Advice on this aspect would be taken as necessary (i.e. from an experienced agronomist).

5.8 The grassland would ideally be managed by selective grazing by sheep (or possibly cattle) which

may require the installation of suitable infrastructure such as stockproof fences and drinking

facilities. If grazing is not viable, the areas would be managed by mowing, which take the form

of a hay cut in mid – late summer to provide a source of income while the land is under aftercare.

5.9 In order to assess the productivity of the restored agricultural soil, the nurse grassland would be

ploughed, the land cultivated and a suitable crop would be sown onto the land at an appropriate

time to be determined at the annual aftercare meeting. This is likely to be one or two years after

the commencement of the aftercare period and nurse grassland establishment.

5.10 An initial suitable crop would be maize or perhaps winter wheat or barley (cassia), all of which

would need to be successfully supported by the area(s) for at least 3 or 4 (depending on the

timing of crop sowing) growing seasons in order for the area(s) to be considered as having

successfully completed the 5 year aftercare period.

5.11 Crop management operations such as chalk/lime application, fertiliser application, rabbit

control and drainage provision would be assessed during the aftercare period as necessary. If

restored areas become waterlogged due to settlement or display poor drainage after a year or

two, measures to address this would be discussed, including surcharging the areas with

additional soil or possibly the installation of piped underground drainage system if all other

means of remediation have been tried and have failed.

**Species Rich Lowland Meadow (Southern Area)** 

**Habitat Aims** 

5.12 The character of the southern part of the site would be predominantly nature conservation led,

with a mosaic of different habitats combining to provide significant enhancements to

biodiversity. This presents the opportunity to create an area of approximately 12.72ha of UK

BAP priority habitat Lowland Meadow (based on NVC community MG5: Cynosurus cristatus -

Centaurea nigra). This would also meet the requirements of Section 41 of the NERC Act 2006 list

priority habitats. In addition, it would accord with one of the key characteristics of the Wharfe-

Ouse River Corridor local LCA in that it would create a large area of lowland meadow (classified

as a specialist type of unimproved neutral grassland). Furthermore, lowland meadows are one

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of the six identified Regionally Important Habitats identified in the Selby BAP as represented in the Selby District.

5.13 According to the Habitat Statement included in Biodiversity: the UK Steering Group Report volume 2 (1995), "Unimproved neutral grassland habitat has undergone a remarkable decline in the 20th century, almost entirely due to changing agricultural practice". The principal characteristics that make this type of neutral grassland distinct from agriculturally improved grassland are the less lush sward, greater range of taller grasses and herbs and in general a perennial rye grass cover of less than 25%.

### **Restoration Profile and Earthworks**

The land would be restored intentionally to a lower quality in terms of the upper soil profile, as a poorer fertility soil would be preferable to the ALC Grade 2 soil present across the site. The land would be raised to formation levels, which would be approximately 500m below the final land surface, by the placement of overburden and imported inert material. The final 500mm depth would comprise poorer quality subsoil or overburden which would be recovered from bunds or directly placed from a stripped phase and loosely placed in accordance with best practice to avoid compaction. If necessary, the formation surface beneath the subsoil would be cross ripped to relieve compaction prior to soil placement. The pH of this upper substrate would need to be between 5 and 6.5 in order to create the lowland meadow grassland intended.

5.15 Alternatively, the final 500mm depth would comprise manufactured 'soil type material' (possibly supplemented by indigenous overburden material, if available) which would be screened from suitable imported inert material. As above, the 'soil type material' would be loosely placed and if necessary the formation surface beneath the soil would be cross ripped.

#### Ground Preparation, Cultivation and Seeding

The ground would be prepared, cultivated and seeded identically to the aforementioned agricultural/arable land pasture grassland, but without the ryegrass component as it is too vigorous and dominant. However, some additional wildflower species selected from the following palette and sourced from a reputable local supplier would be added to the grass mix to improve species diversity and benefit nature conservation (Note: the exact species to be used and the percentage of each species within the total mix would be discussed and agreed at the time, following soil testing and once land is ready to be seeded):

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(Birdsfoot Trefoil, Common Knapweed, Common Vetch, Crested Dogs –tail, Cock's-foot, Green Winged Orchid, Greater Butterfly Orchid, Field Scabious, Fritillary, Lady's Bedstraw, Meadow Buttercup, Meadow Foxtail, Musk Mallow, Oxeye Daisy, Pepper Saxifrage, Red Campion, Red Clover, Salad Burnet, Self-Heal, Sweet Vernal-grass, Wild Carrot, Wood Bitter Vetch, Yarrow, Yellow Rattle).

5.17 In addition, opportunities to introduce appropriate and desirable local wildflower species by forage harvesting hay brashings from suitable local donor site(s) and spreading these onto the soil surface (either in place of or in addition to using purchased seed, depending on the volume and quality of brashings available) would be investigated at the appropriate time, prior to seeding operations taking place.

#### Species Rich Lowland Meadow Management

- 5.18 This grassland would be developed as a more conservation 'type' meadow grassland which would provide some grazing interest but would also provide increased species diversity within the sward. The management of these grassland areas would therefore be controlled more by the exact nature of the grass mix, including wildflower components, and the mowing or grazing regime adopted, which would be less intensive than across the agricultural/arable land to the north.
- 5.19 It is very likely that weeds would appear during the first year following sowing and these need to be cut regularly (min height 50mm and not if ground nesting birds present, the season for which runs from February to August inclusive) and removed to prevent them from competing with the developing wildflower species. Perennials are unlikely to flower during the first season but annuals (such as Yellow Rattle) may flower so should be left to set seed if possible, until approximately late July/early August, when another cut would be appropriate. Grazing is usually not appropriate during the first establishment year, while the sward is developing.
- 5.20 The following years would see faster growing perennials appear with slower growing species developing later, providing more species diversity. It is usual to have one main late summer/early autumn hay cut, but this can sometimes be staggered for different areas at different times, from late June to the end of August. In between the main hay cut (if taken) low density, selective grazing is the best way to manage the emerging sward as it benefits sward structure and development.

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5.21 The mowing regime and timings (if used), stock type/numbers and grazing frequency would all be discussed on a regular basis between the operator, grazier/land manager and NYCC as necessary, with the management regime tweaked when required in response to the success of the developing lowland meadow grassland areas.

5.22 Note: a useful guidance document of relevance to the intended type of grassland creation is the Forest Research BPG note 17: Lowland Neutral Grassland – Creation and Management in Land Regeneration. The document is available at the following webpage:

https://www.forestresearch.gov.uk/tools-and-resources/urban-regeneration-and-greenspace-partnership/urban-regeneration-and-greenspace-partnership-resources/best-practice-guidance/

# **Cereal Field Margins**

#### **Habitat Aims**

5.23 Approximately 3.000m² cereal field margins (502m x 6m wide) would be created along the edge of two of the agricultural fields within the northern part of the site. The aim of the margins would be to provide a range of plant and invertebrate food sources for birds using the close by woodland and hedgerows, both in the winter and summer months. In addition, cereal field margins are one of the six identified Regionally Important Habitats identified in the Selby BAP as represented in the Selby District.

#### **Restoration Profile and Earthworks**

5.24 The land would be restored to the same profile and in the same manner as the agricultural/arable land summarised in points 5.3 and 5.4 above.

#### Ground Preparation, Cultivation and Seeding

- 5.25 The ground would be prepared and cultivated identically to the neutral pasture grassland within which the margin would be located. The margin would be seeded in early spring with a mixed cereal crop consisting of the following:
  - Wheat
  - Barley
  - Oilseed Rape

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- Sorghum
- · Mustard, and
- Quinoa

### Cereal Field Margin Management

- 5.26 The margins would be managed with the aim of maximising the benefits to wildlife, so the following guidelines will be adopted as necessary:
  - The margin would not be sprayed with any herbicides or fertiliser of any kind added, at any time; and
  - Cereals (and any arable wildflowers that colonise the margin) would be left to set seed
     and provide food over summer and through autumn and winter, as necessary.

# **Native Tree and Shrub Planting**

#### **Habitat Aims**

- 5.27 The Proposed Development would not result in the loss of any woodland areas, although 35 individual mature trees would be lost as a result of the works, as detailed in the Arboricultural Impact Assessment dated December 2019 (Ecological Services Ltd). Mitigation for this loss has been covered in the Hedgerow Planting paragraphs below (from point 5.36), as replacement trees would be included in the proposed new hedgerow mix.
- 5.28 Approximately 6.4ha of native woodland with scrubby edges would be created as part of the progressive restoration scheme. The woodland blocks would provide a net gain of approximately 6.4ha in comparison to the existing situation and would add vertical interest, structure and enhance nature conservation. Woodland is also one of the thirteen Habitat Action Plans (HAP) included in the Selby BAP.

#### **Restoration Profile and Earthworks**

- 5.29 It is proposed that a total depth of at least 500mm of indigenous topsoil/subsoil or is loosely placed onto areas to be planted with trees and shrubs, with the formation surface below the soil thoroughly cross ripped if necessary to ensure decompaction.
- 5.30 It considered that a minimum depth of 500mm of loosely placed soil is sufficient to provide a suitable rooting medium for trees and shrubs, in order for the vegetation to thrive and flourish,

along with adequate decompaction as mentioned above, good ongoing maintenance operations, and sufficient water, to be provided by rainfall.

#### Ground Preparation, Cultivation and Seeding

5.31 The ground would be prepared, cultivated and seeded identically to the species rich lowland meadow habitat type above, so without a ryegrass component but with enough other grassland species to suppress extensive weed growth and provide ground cover between the tree/shrub planting stations. The seeded ground should ideally be left for a year prior to planting operations to let the grass establish.

#### Plant Species and Planting Specification

5.32 The woodland and scrubby edge planting would comprise native species (of local origin where possible) containing tree species (nurse and climax species) and shrubby understorey/woodland edge species in order to establish a range of vegetation types and sizes throughout the planting blocks. Native tree and shrub species would be selected from the following pallete lists:

#### Native Trees:

- Field Maple Acer Campestre
- Alder Alnus glutinosa
- Silver Birch Betula pendula
- Hazel Corylus avellana
- Common Hawthorn Crataegus monogyna
- Common Beech Fagus sylvatica
- Scots pine Pinus sylvestris
- Black poplar Populus nigra
- Aspen Populus tremula
- Wild Cherry Prunus avium
- Pedunculate Oak Quercus robur
- Goat Willow or Sallow Salix caprea
- Common Whitebeam Sorbus aria
- Rowan (mountain ash) Sorbus aucuparia
- Wild Service Tree Sorbus torminalis

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#### **Native Shrubs**

- Blackthorn Prunus spinosa
- Dogwood Cornus sanquinea
- Guelder Rose Viburnum opulus
- Wayfaring tree Viburnum lantana
- Spindle Euonymus europaea
- Grey Willow Salix cinerea
- Elder Sambucus nigra
- 5.33 The woodland blocks are not required for screening purposes so it is suggested a plant spacing of an average 2.5m centres would be appropriate. Plants would be planted at centres of between 2.0m and 3.0m (i.e. to give an average of 2.5m centres) and randomly located as opposed to adhering to a strict planting grid, which can look unnatural.
- 5.34 Plants would be planted in random groups of 3 7 and the outer edge of each block would consist mainly of more shrubby species at an average spacing of 2m centres, to encourage a gradual variation from the adjacent grassland fields to a shrubby woodland edge through to the main woodland block.
- 5.35 All woodland plants would be individually protected by 60cm Tubex standard tree or shrub shelters (if necessary, due to bushy habit) and supported by 90cm x 32mm x 32mm treated softwood stakes, well secured in the ground and left upright and wind-firm on completion. If deer browsing is thought to be problematic on site, 1.2m Tubex shelters would replace the 60cm shelters, to be supported by 1.5m stakes.

# **Hedgerow Planting**

#### **Habitat Aims**

5.36 The Proposed Development would result in the loss of approximately 719m of hedgerow as a result of the works, as detailed in the aforementioned Arboricultural Impact Assessment. 240m of this would be linked to the diversion of Heron Dike so that the land can be worked for clay and 95m would be linked to the construction works for the vehicle access bridge over National Cycle Route 65. The remaining 384m would be removed in relation to the installation of a two-

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way crossing over Bentley Park Drain and removal of hedgerows within phases to be worked across the site.

- 5.37 However, approximately 2,180m of species rich native hedgerows would be planted as part of the progressive restoration scheme. As part of this, 95m of hedgerow with trees would be reinstated to mitigate removal of hedgerow due to construction of the bridge over the National Cycle Route 65. The remaining 2,085m of hedgerow would be planted to create new hedgerows, and to mitigate the loss of the 240m removed due to the Heron Dike diversion, as shown on The Restoration Plan.
- 5.38 The proposed hedgerows would incorporate 75 (pendunculate) oak trees at random along their length, in part to mitigate (in time) the loss of 35 mature trees due to the Proposed Development (as identified in the Arboricultural Impact Assessment). Hedgerows with individual, mature oak trees are a feature of the landscape which helps to add vertical structure and interest to the relatively large and open field patterns. The proposed hedgerows with trees would provide a net gain of approximately 1,461m in comparison to the existing situation. Species rich hedgerows are also one of the thirteen Habitat Action Plans (HAP) included in the Selby BAP.
- 5.39 The species rich native hedgerows and trees/woodland that would be planted on restored land within the site boundary would be established progressively as the restoration operations advance to provide final restoration features as early as possible. The advanced planting would include the gapping up of approximately 173m of hedgerow and the planting of 9 hedgerow trees and an assessment of the retained hedgerows on site to determine if gapping up is needed. The timing of advanced planting will be shown on detailed phasing drawings which are currently being prepared and would be agreed with North Yorkshire County Council pursuant to an appropriately worded planning condition

#### **Restoration Profile and Earthworks**

5.40 As with the woodland blocks, it is proposed that a depth of at least 500mm of indigenous topsoil/subsoil is loosely placed onto strips of land to be planted with hedgerows, with the formation surface below the soil thoroughly cross ripped if necessary to ensure decompaction.

### Plant Species and Planting Specification

5.41 The hedgerow planting would comprise a selected range of native shrub species supplemented by tree species (of local origin where possible). Hedgerows would comprise approximately 50%

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Hawthorn and Blackthorn but would also include 40% other native shrub species such as Hazel, Guelder Rose, Elder and Field Maple in order to increase hedgerow diversity. Common Oak would be planted randomly at intervals along the hedgerows to allow for larger hedgerow trees to develop.

5.42 Hedgerows would be planted at 5 plants per linear metre in two staggered rows, with 50cm between each plant in each row and 30cm between each row. Species in the mix other than Hawthorn or Blackthorn would be randomly located throughout the length of the hedgerow. Hawthorn and Blackthorn within the hedgerows would be protected by 60cm clear or translucent spiral rabbit guards supported by 90cm x 12/14lbs bamboo canes, well secured in the ground and left upright and wind-firm on completion. All other trees within hedgerows would be protected as specified above for the tree and shrub planting blocks.

# Water Bodies and Ponds (Southern Area)

#### **Habitat Aims**

5.43 Two large water bodies totalling approximately 3.2ha would be created in the southern area to enhance nature conservation in line with the aims of the Selby BAP, to provide a net benefit in terms of various types of habitat when compared to the baseline agricultural land and to contribute to local landscape character by introducing varying land uses which are still compatible with a predominantly rural location.

5.44 The water bodies are designed to incorporate extensive areas of shallow margins and shelves at varying depths for the establishment of reed-beds and areas of other emergent vegetation which benefits a range of species.

5.45 The aim for the three individual, isolated ponds is to create alternative water based landscape features which would complement the larger water bodies, providing a different type of habitat for species that would otherwise not thrive in far larger lakes, particularly newts (smooth/common and Great Crested) which are often not found in water bodies containing predators such as fish, which are likely to colonise the large water bodies in due course.

### **Restoration Profile and Earthworks**

5.46 The water bodies would be created progressively, as an integral part of the restoration operations. The edge profile of the lake and the extent, width and depth of the shallow margins would be set out by a surveyor prior to commencement of restoration in each phase in the

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southern area, or at a time deemed suitable by the person responsible for the works, so that the correct lake profile can be formed as material is placed and compacted in the southern area. Careful control on the material placement would be required during this phase of the restoration works in order to form the lake contours and sinuous edge profile required.

- 5.47 Shelves and shallow margins would be incorporated into the design of the lakes, at depths ranging from approximately 0.2m to 1.2m, with variable widths and laid out in a random pattern to avoid uniformity. The intention would be to create as naturalistic an appearance as possible around the edges of the water bodies. The deepest part of the lakes would be in the middle area, although this should not go deeper than about 3 4m.
- 5.48 Due to the nature of the lakes, the water level would be governed by the amount of surface water runoff. This means that the water level would fluctuate according to the seasonal supply of surface water. The average water level is predicted to be approximately 3m AOD although in times of high rainfall this would rise, possibly up to 4m AOD.
- 5.49 Once the formation profile has been achieved for the water body, it would be made water tight using puddled (i.e. compacted) natural clay if possible, depending on the quality and suitability of clay available for this work, obtained either from the site itself or from an alternative local source. A good clay liner will last many decades if installed correctly and will help improve water quality. However, all clays are not suitable for lake sealing so the advice of a soil scientist or aquatic specialist should be sought at the time of installation to advise on the material intended for this use.
- 5.50 Natural clay liners offer an ability to absorb and trap excess nutrients which may be an issue over time at the site due to the likelihood of nutrients finding their way into the water from the adjacent arable land. Furthermore, the thick layer at the bottom of the lake is much more resilient against puncture and/or damage than a comparatively thin synthetic liner.
- 5.51 Synthetic liners (EPDM rubber or plastic) are an alternative to natural clay or soil sealants when considering how the lakes can be sealed. However, these materials are not ideal for use on large water bodies due to their relatively high cost, the requirement to very carefully engineer the basal profile and provide a protective underlayer and their propensity to tear and leak if damaged by the placement of rocks for instance. Plastic or rubber liners are not as aesthetically pleasing as clay or soil sealants, do not last as long, are usually not as successful in establishing a natural pond habitat and will not hold natural elements well such as soil due to their slick

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surface, so establishing planting mediums on shelves/margins can be problematic and expensive. It is therefore advised that if at all possible, natural clay or soil sealants are used to make the lakes water tight.

- 5.52 The lakes would be too large to be initially filled by bowser so an alternative water source would be investigated, such as pumping water from Bentley Park Drain or another suitable source such as a borehole. In addition, surface water runoff would enter the lakes and help to raise water levels over time. It is not envisaged that groundwater would be moving through the ground at a high enough elevation to form part of the water source for the lakes.
- 5.53 In terms of the three ponds, if possible they would be sealed using natural clay which would be puddled (compacted) in situ but if not, the use of a synthetic liner is far less problematic for relatively small ponds than for larger lake features. The ponds would also be created with sinuous edge profiles and submerged shelves approximately 500mm 1.0m below the water surface, but would be independent of each other and not linked to any other water feature or body. In this way, the chances of them remaining free of fish is enhanced which improves the chances of colonisation by newts and other fauna.

#### **Establishment of Fringing Reed**

- 5.54 While the water bodies would gradually be naturally colonised by suitable plants around the edge, this would take a number of years and the fluctuating water level means that the water line would vary throughout the year, leaving higher areas to dry out during dry periods which is likely to affect plant life. Therefore, selected shallow margins would be targeted for planting with common reed (*Phragmites australis*) which can survive being out of water and in damp ground for a number of months until water levels rise again.
- 5.55 The design of reedbeds for nature conservation as opposed to sustainable commercial cutting requires smaller, more diverse reed areas which lends itself to the type of shallow margins that would be created in the southern part of the site. Fringing reed (i.e. reed at the edges of open water) would be the type of habitat to be targeted at the site and further discussion would be required in terms of reedbed creation and management once the lakes had been constructed and had established themselves over a year or two.
- 5.56 A good source of detailed information on reedbed creation and management is located at the following webpage: <a href="https://assets.sussexwildlifetrust.org.uk/create-and-manage-reedbeds-2.pdf">https://assets.sussexwildlifetrust.org.uk/create-and-manage-reedbeds-2.pdf</a>

5.57 However, some general design parameters for reedbed creation are as follows:

• Water levels need to be at least 300mm in late winter and throughout spring, following winter rainfall, although this is likely to reduce in drier summer months. At all times,

the top 1/3 of the plants must be above the water surface;

There needs to be sufficient low level and gently sloping shallow margins on which to

locate the reedbed planting blocks;

If possible, a good local source of reeds which can be harvested and transported to the

site for placement/planting, ideally when water levels are approximately 5 - 10cm

above the surface;

• If there is not a local source of established reeds from which to harvest, then reed

rhizomes (the matted roots of the reed plants) or individually potted seedlings can be

purchased and planted into blocks which need to be protected from predation by

chicken wire netting supported by strong treated timber stakes.

Transporting reeds from other areas can introduce invasive species such as Crassula so

this should be borne in mind if this method of reed establishment is considered;

5.58 As mentioned above, other plants would naturally colonise the edges of the lakes over time

although some selected shallow margins may be considered suitable for planting with species

other than common reed. Further discussion would take place regarding this once the lakes had

been formed and the water level regime had been observed for one or two seasons at least. A

pallete of species to consider would be as follows:

Zone A Species (10 species, water depth 0 – 30cm)

• Arrowhead (Sagittaria sagittifolia)

Lesser pond sedge (Carex acutiformis)

Yellow flag Iris (Iris pseudacorus)

Brooklime (Veronica beccabunga)

Hard rush (Juncus inflexus)

• Soft rush (Juncus effuses)

• Compact rush (Juncus conglomeratus)

• Creeping water cress (*Ririppa nasturtium aquaticum*)

Marsh yellow cress (Ririppa islandica)

• Common spike-rush (*Eleocharis palustris*)

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#### Zone B Species (7 Species, water depth 30 – 80cm)

- Branched bur-reed (Sparganium erectum)
- Water dock (*Rumex x hydrolapathum*)
- Amphibious bistort (*Persicaria amphibia*)
- Common club-rush (Schoenoplectus lacustris)
- Water plaintain (Alisma plantago-aquatica)
- Spiked water-milfoil (*Myriophyllum spicatum*)

#### Zone B Species (6 Species, water depth 80 – 200cm)

- Broad leaved pondweed (Potamogeton natans)
- Fennel leaved pondweed (Potamogeton pectinatus)
- Yellow water-lily (Nuphar lutea)
- Starwort (Callitriche sp.)
- Stonewort (Char sp. & Nitella sp.)
- Water crowfoots (Ranunculus sp.)
- 5.59 It is envisaged that the edges and shallow margins of the three individual ponds would naturally regenerate with suitable species although if considered desirable, plugs would be planted to increase the rate of vegetation development. As for the larger water bodies, the species selected would be based on the pallete list above, in discussion with an ecologist if necessary.



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5.60 Table 1 below summarises habitat types/restoration land uses to be created through site restoration:

Table 1: Summary of Restoration Habitats/Land Use and Net Loss/Gain

Habitat/Land Use	Approximate Area/ Length	Approximate Net Gain or Loss in Habitat/Land use
Agricultural/arable farmland	37.5ha	Net loss of c. 23.18ha (taken up by lowland meadow, cereal field margins, water bodies/ponds and woodlands)
Lowland meadow grassland	12.73ha	Net gain of c. 12.73ha
Cereal field margins	500m x 6m wide = 3,000m <sup>2</sup>	Net gain of c. 3,000m <sup>2</sup>
Native woodland planting	6.4ha	Net gain of c. 6.4ha
Native, species rich hedgerow planting	2,180m	Net gain of c. 1,461m (2,180m planted minus 719m removed due to works)
Mature trees within hedgerows or standing individually along old field boundaries/ditches	75, planted within new hedgerows	Net gain of 40 (75 planted minus 35 to be removed due to works)
Large water bodies	3.2ha	Net gain of c. 3.2ha
Individual ponds (3 no.)	2,910m <sup>2</sup>	Net gain of c. 2,910m <sup>2</sup>

# Reinstatement of Bridleway 35.62/9/1 and the Trans Pennine Trail/National Cycle Network Route 65

5.61 The Proposed Development would necessitate the temporary diversion of an approximate 640m section of Bridleway 35.62/9/1 which passes through the site. However, the restoration scheme provides for this section of Bridleway to be reinstated along its existing route and a hedgerow with trees would be planted along the eastern side of the route to provide structure and better delineate the Bridleway. A post and wire fence would be installed along the western side of the

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route, allowing for a Bridlepath width of 3m between it and the outer edge of the proposed hedgerow.

- The Proposed Development would also require the temporary diversion of an approximate 120m long section of National Cycle Route 65 in order to construct the bridge crossing over the route. The NR65 will only be diverted during the construction of the bridge, on completion of construction of the bridge it will continue on the original line. The diversion route through the field to the west of National Cycle Route 65 would be approximately 160m long, as shown on Drawing Ref. PL/ES/10-19/21463 dated 20/11/19 (MJCA). In addition, this plan also shows the anticipated approximate extent of the existing vegetation to be removed in order to facilitate the diversion route, which would include removal of up to 12 trees and 90m of hedgerow (as stated in the Arboricultural Impact Assessment). The extent of tree and hedgerow removal will be reviewed as part of the detailed design of the bridge and minimised where possible.
- 5.63 The vegetation would be reinstated at the earliest opportunity as part of the restoration works when the bridge is removed using species appropriate to the location such as oak, lime, hawthorn, blackthorn, hazel, spindle and field maple.
- 5.64 Apart from Bridleway 32.62/9/1, no other Public Rights of Way (PRoW) would be physically affected by the Proposed Development

### 6 Restoration Aftercare & Management

Sub-section 5 above includes outline aftercare information related to each type of habitat to be created. This sub-section provides further, more general aftercare information to supplement the information above. A biodiversity mitigation, monitoring and management plan for land at Escrick has been prepared and submitted to NYCC. The plan provides the structure of the information that will be provided in detail as a condition of the planning permission. In line with recommendations received from North Yorkshire County Council, it is proposed that aftercare would last for 30 years, starting from final restoration earthworks for areas of the site as they are progressively restored, including a five year statutory duration and then a further 25 years secured through a legal agreement.

## Agricultural Farmland (while initially sown to grassland) and Lowland Meadow – Control of Weeds

- 6.2 Under the provisions of the Weeds Act 1959 and the Ragwort Control Act 2004, it is the responsibility of all occupiers of land, whether used for agriculture or not, to control noxious or pernicious weeds, so that they do not spread. Control of weeds within the grassland areas would generally be carried out by grazing along with the annual hay cut in July/early August as part of the grassland management operations.
- 6.3 However, during the initial one or two seasons following seeding, weeds are likely to be more problematic and more cuts would be necessary, including during early mid spring once visible and again in mid late summer, prior to setting seed, if regrowth appears.
- Applications of selective herbicide would only be used as a last resort, for serious infestations, as they would result in the loss of many wildflowers. If necessary, spring/summer applications of approved selective herbicides such as MCPA, Grazon 90 or 2, 4-D would be applied by either knapsack or sprayer for small problematic spots or quad bike/tractor mounted weed wipe for larger areas, as necessary.
- 6.5 Fertiliser would not be applied to any of the grassland areas unless considered absolutely necessary.

#### Settlement of Land

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Any areas that clearly settle and require remediation would be infilled with surplus soil in order to raise levels to marry in with the surrounding land. The areas would be re-seeded with a suitable grassland mix (as above).

#### Woodland Blocks and Hedgerows – Control of Weeds

6.7 All grass and weeds in a minimum 80cm diameter spot around each tree/shrub would be controlled by applications of glyphosate herbicide (eg. Roundup) for the first five seasons. Excessive noxious and pernicious weed growth within planting blocks would be controlled by applications of an appropriate selective herbicide (eg. 2,4-D). Strimming or mowing is discouraged as that usually promotes further vigorous regrowth but may be carried out, if weeds are too large to effectively spray.

#### Woodland Blocks and Hedgerows – Replacement of Losses

6.8 All plant losses would be replaced like for like for the first two seasons after planting, and thereafter only with those species which appeared to be thriving on site, to achieve min. 90% stocking after five years. All natural regeneration of desirable species arising within planting areas would be accepted to boost stocking density.

6.9 Any plants that become loosened by wind, frost or soil cracking will be re-firmed and straightened. Shelters, stakes, ties or guards which become loose, over-tight, broken or otherwise ineffective will be replaced or adjusted as necessary.

#### Woodland Blocks and Hedgerows – Annual Maintenance Visits

6.10 A typical programme of maintenance visits is described in Table 2 below and would be undertaken during the first three years following planting operations to ensure the successful establishment of the planting. Maintenance operations for the fourth and fifth years would be ascertained at the time, depending on the results of the preceding three years.

Document Title: Restoration and Outline Aftercare Strategy

**Table 2: Typical Annual Planting Maintenance Programme** 

Time of Year	Number of Visits	Operations to be Carried Out as Necessary
Late April to early June	1	<ul> <li>Glyphosate spot spray (woodland blocks) or band spray (hedge)</li> <li>Selective noxious weed spray within block (if necessary)</li> <li>Re-firm and re-adjust guards and supports</li> </ul>
Mid August to mid October	1 (provisional, if necessary)	<ul> <li>Glyphosate spot spray (blocks) or band spray (hedge)</li> <li>Selective noxious weed spray within block (if necessary)</li> </ul>
November to March	1	<ul> <li>Replacement of planting failures</li> <li>Re-firm and re-adjust guards and supports</li> <li>Stock fencing checked and repaired (if necessary)</li> </ul>

#### Record of Aftercare Operations and Aftercare Meetings

- 6.11 The applicant would keep detailed records of all aftercare operations undertaken and, if required, would submit reports for the previous twelve months and proposals for the subsequent twelve months to North Yorkshire County Council (NYCC).
- 6.12 The report and proposals would be submitted prior to each annual aftercare inspection/site meeting, to be arranged preferably in early spring, at the request of NYCC. Representatives at the meeting should include the applicant (and/or applicant's consultant specialist), NYCC, and tenant farmer/grazier (if appropriate).

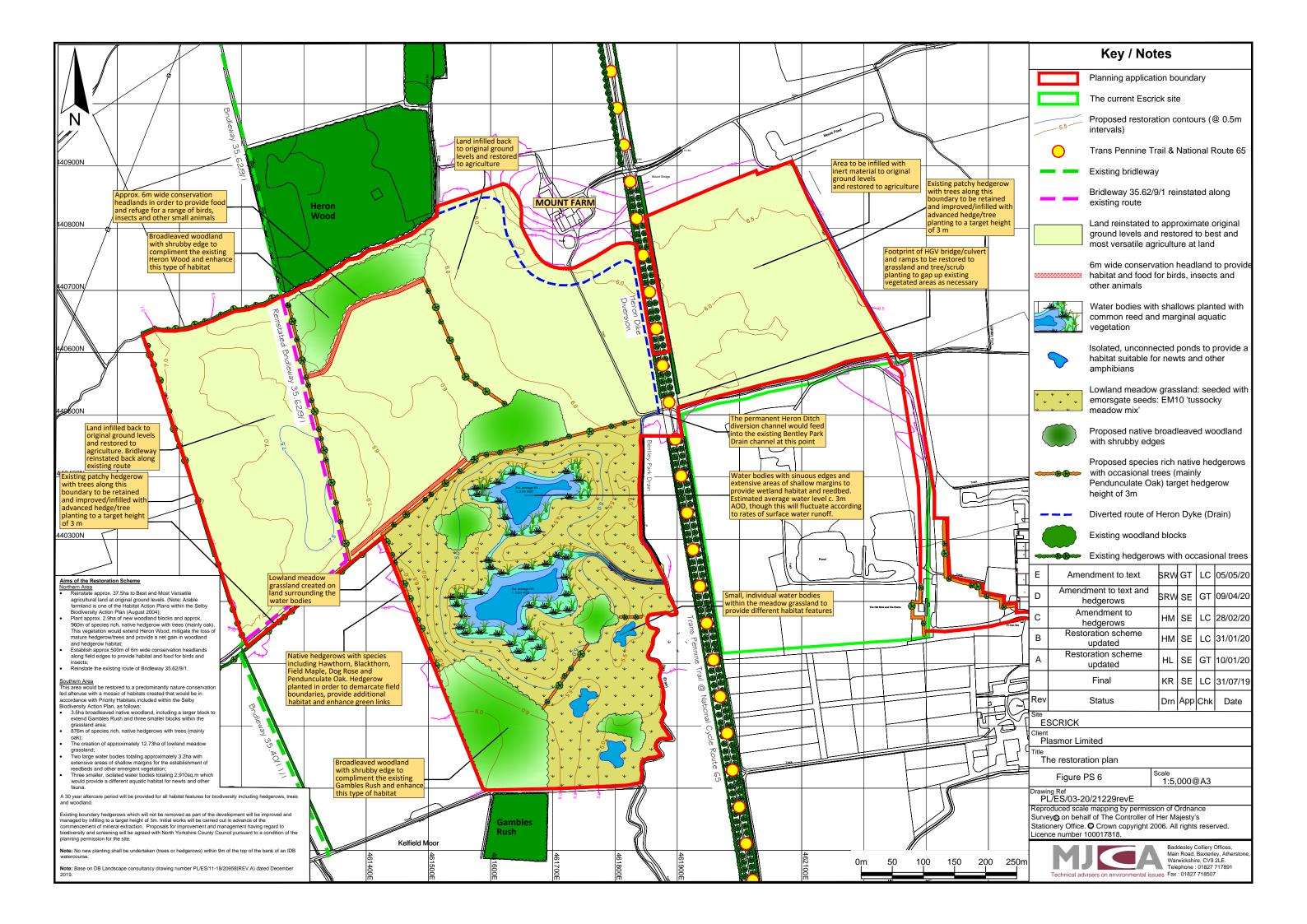
DB Landscape Consultancy

Document Title: Restoration and Outline Aftercare Strategy

Appendix A: Drawing PL/ES/03-20/21229revE: The Restoration Plan

DB Landscape Consultancy

Issue Version 12/05/2020





Issue Version 12/05/2020 1

# Soil Handling - Modified Loose Tipping Procedure for Soil Replacement. (The Peninsula or Lateral Heap Methods)

The following describes two methods of loose tipping originally devised by John Jones (Excavation) Ltd and Stoke Plant Hire to whom due acknowledgement is made.

- In order to avoid compaction and other structural damage to soils during restoration operations
  a so-called "loose tipping" method is normally recommended. The basic principle of the
  method is to minimise or even totally avoid trafficking over replaced soils, particularly by
  wheeled vehicles.
- 2. Two "loose tipping" methodologies are described in the DEFRA *Good Practice Guide for Handling Soils*, hereafter referred to simply as the *Guide*. This is available on the internet at www.defra.gov.uk/farm/environment/land-use/soilguid/index.htm (note, there is no final "e" on soilguid).
- 3. One method, often referred to as the "dump-truck and back-acter" method is described in Sheet 4 *Soil Replacement with Excavators and Dump Trucks* and is illustrated in Figures 4.1 to 4.4 below, taken from the *Guide*.
- 4. In this procedure the subsoil is delivered to the area being restored by dump-trucks which are only allowed to travel on the substrate. It is then levelled out with the blade of an excavator which is itself situated on the substrate. This means that the restoration has to be carried out in strips or "beds", the widths of which are determined by the maximum reach of the excavator arm.
- 5. Topsoil is then tipped alongside the strip being restored, with the dump trucks again restricted to running only on the substrate. The topsoil is then lifted by the excavator and spread out to the required thickness over the strip of previous laid subsoil.
- 6. Criticisms of this method are that it is slow, requires very skilled personnel and can lead to losses of topsoil since not all the delivered topsoil can be cleanly picked up by the excavator. Also the substrate is compacted by the dump truck trafficking and this may be a marked disadvantage if the substrate is required, like the over-lying soils, to be permeable to assist overall site drainage.

- 7. However, loosening operations on the substrate can be carried out before the soil is placed but has again to be done in narrow strips or beds. Methods of achieving this are provided by the *Guide*, Sheets 18 *Soil Decompaction by Excavator Bucket* and 19 *Soil Decompaction by Bulldozer Drawn Tines*.
- 8. A second kind of "loose tipping" methodology uses bulldozers rather than excavators to spread the soils. It is described Sheet 15 *Soil Replacement with Bulldozer & and Dump Trucks* and is illustrated in Figures 15.1 to 15.3 below, taken from the *Guide*.
- 9. This procedure differs from the dump truck and back-acter method in that the subsoil is levelled out not by an excavator standing on the substrate but by a light, tracked bulldozer running over and "pushing out" the delivered subsoil to the required thickness.
- 10. The operation of the bulldozer compacts the surface over which it runs but often the next "push" re-loosens the material. Thus it is only the final surface which has some compaction and then only in the surface few centimetres. This has to be removed by the loosening methods mentioned above i.e. Sheets 18 Soil Decompaction by Excavator Bucket and 19 Soil Decompaction by Bulldozer Drawn Tines
- 11. The topsoil is then delivered by dump trucks which attempt to tip it onto the edge of the subsoil. In practice, however, they usually have to reverse some way onto the subsoil layer, hence causing compaction and collapse of the edge of the subsoil layer. The sharp self-standing edge of the subsoil layer shown in the uppermost diagram of Figure 15.3 is never achieved in practice.
- 12. The delivered topsoil is then spread out to the required thickness by a light, tracked bulldozer. There is again the likelihood of some surface compaction but this can readily be corrected, often as part of the agricultural operations carried out for the first crop.
- 13. The description of this procedure in Sheet 15 implies that, like the dump-track and backacter method, this is also carried out in relatively narrow strips. This is, in fact, not necessarily the case. The limiting factor is the distance to which a bulldozer can "push out" a heap of soil into a thinner covering and, in practice, this can be done over a much wider area than the narrow strips which are a necessity of the dump truck and back acter method (Sheet 4).

- 14. Of the two methods, the one using excavators to lift and spread the soil is relatively complex and may result in loss of topsoil, while the one using bulldozers, although simpler, can cause some compaction and can also involve topsoil losses. The compaction is, however, not so severe as would be caused by wheeled traffic and much of it is removed by the spreading action of the bulldozer. Only slight surface compaction has to be dealt with and this is easily achieved.
- 15. A modified version of the dump truck and excavator/bulldozer methods is outlined below which overcomes the problem of potential soil loss as well as being operationally easier to carry out. It differs from these methods essentially in the way in which the topsoil is delivered to and spread over the area being restored.
- 16. It is described for topsoil and subsoil replacement but could be further modified to deal with substrate replacement particularly where it is required that the substrate, as well as the soil layers, should be free of significant compaction. Figures RPS1, RPS2 and RPS3 illustrate the procedure.
- 17. The procedure for subsoil replacement is the same as described above i.e. subsoil is delivered by dump-trucks running over the substrate and end-tipping the soil in heaps. These are then levelled out either by an excavator or light tracked bulldozer as per Sheets 4 or 15 of the *Guide*. Figures RPS 1, RPS 2 and RPS 3 show a bulldozer being used and the sequence of operations described below also assumes this, and should be re-interpreted for a situation where an excavator is used instead.
- 18. If a bulldozer is used to level out the subsoil, there may be some residual surface compaction. This can either be removed by deep subsoiling after topsoil replacement or preferably before topsoil replacement either by a light tracked bulldozer fitted with tines or by an excavator whose bucket has been replaced by a tined implement. These are described in Sheets 18 Soil Decompaction by Excavator Bucket and 19 Soil Decompaction by Bulldozer Drawn Tines of the Guide respectively.
- 19. If compaction is restricted to only the surface few centimetres, as is likely to be the case, then sufficient loosening can normally be achieved simply by "combing" the surface with a toothed bucket on an excavator arm (Sheet 18).

- 20. The modified method differs from the dump truck and excavator/bulldozer methods described in the *Guide* in the method of topsoil placement. This is done in the modified method by delivering topsoil with dump trucks. However, instead of tipping it alongside or attempting to drop it onto the edge of the replaced subsoil strip, they build a relatively thick "peninsula" of topsoil progressively out over the centre of the area of respread subsoil. This is done by the dump trucks reversing along the topsoil "peninsula" and loose tipping the topsoil at the end, thus progressively extending the "peninsula" (see RPS 1).
- 21. Accordingly the method is often referred to as the Peninsula Method, assuming that the heap is constructed down the centre of the area being restored, as on RPS 1, 2 and 3, and the soils pushed to either side. However, the method is equally applicable to a situation where the heap of topsoil is built along the entire edge of the area being restored and is then pushed out over it. Thus the method might usefully be referred to in future as the "Peninsula or Lateral Heap Method".
- 22. The amount of topsoil to be built into the peninsula must be calculated in advance from the area of the section being re-instated and the final spread thickness of topsoil required. If the topsoil is in a lateral heap then the volume does not necessarily have to be calculated in advance. It can simply be spread out as far as possible to the specified thickness before the operation is repeated.
- 23. When all the topsoil needed has been delivered, a light tracked bulldozer is used to spread out the soil from the "peninsula" or lateral heap to the required thickness over the rest of the section being re-instated in the same way as described in Sheet 15 of the *Guide* and as shown in RPS 2.
- 24. This operation will largely remove any compaction caused to the topsoil during the building of the "peninsula" or lateral heap but any remaining compaction can be removed by loosening with a tined implement (see Sheet 19 of the *Guide*), by using an excavator bucket fitted with tines (see Sheet 18 of the *Guide*) or as part of the subsequent agricultural operations.
- 25. It should be noted that although some compaction will be caused by the operation of the bulldozer during both subsoil and topsoil spreading this will be far less than if trafficked by wheeled machinery. In many cases, the moving around of the soil by the bulldozer blades will be sufficient to loosen the soil sufficiently. If deemed necessary the de-compaction methods mentioned above can be employed.

- 26. In many cases, the slightly consolidated, but not compact, surface left after blading out with a dozer is beneficial as its greater load bearing strength helps in the early years of arable cropping whereas completely loose tipped subsoil may be too loose and result in wheel sinkage and rutting.
- 27. It should also be borne in mind that, in general, topsoil is a more "robust" material than subsoil. It is regularly disturbed and run over during normal agricultural operations and is always sufficiently near the surface that any deliberate loosening can be easily carried out.
- 28. The sequence of operations in the modified procedure is as follows, assuming that no loosening of the substrate is required (see RPS 3):-

Ensure that the soils which are to be respread are in a suitable condition for mechanised handling

Mark out the section of the site to be re-instated. This is normally about 1-2 hectares in area and need not be in a narrow strip.

Bring subsoil by dump-truck to the section being restored and loose tip it at the edge of the working area. Work back from the furtherest point to be restored so that dump trucks only run over substrate and not over any replaced subsoil.

Spread out the tipped subsoil to the required thickness as indicated by marker boards using a light tracked bulldozer which will be the only machinery allowed on the respread subsoil.

If it is considered necessary, remove any surface compaction either by bulldozer drawn tines or by tines fitted to an excavator arm.

Calculate the amount of topsoil required to cover the section being worked on to the required thickness.

Progressively bring this volume of topsoil by dump-truck to the section being restored and begin to build a "peninsula" of topsoil out towards the furthest point of the section being restored (i.e. the reverse direction to which the subsoil replacement was done). Alternatively, build a lateral heap along the entire edge of the area in the same general manner.

Make the dump trucks reverse along the topsoil "peninsula" and loose tip the topsoil at the end, thus progressively extending the "peninsula". If the lateral heap method is used it should be build up by dump trucks reversing across the heap and loose tipping at the edge. In either case do not allow the dump trucks to travel over any of the respread subsoil. Depending on circumstances it may be necessary to use a light tracked bulldozer to create a suitable running surface for the dump-trucks.

When all the soil needed has been delivered, use a light tracked bulldozer to spread out the soil from the "peninsula" or lateral heap to the required thickness over the rest of the section.

Inspect the soils and institute any soil loosening operations considered necessary.

29. If a loose, permeable substrate is required, then running over it with dump trucks must also be avoided. In such a case then the same peninsula or lateral heap method should be used for subsoil delivery and spreading as for the topsoil method described above.

Dr Stuart G McRae 18<sup>th</sup> November 2008



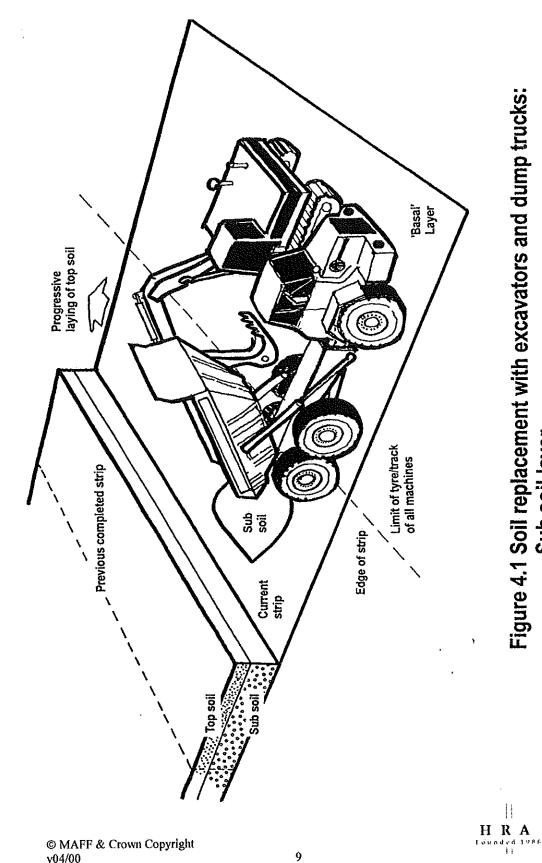
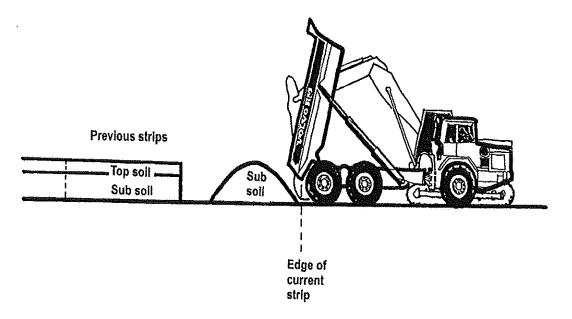


Figure 4.1 Soil replacement with excavators and dump trucks: Sub soil layer

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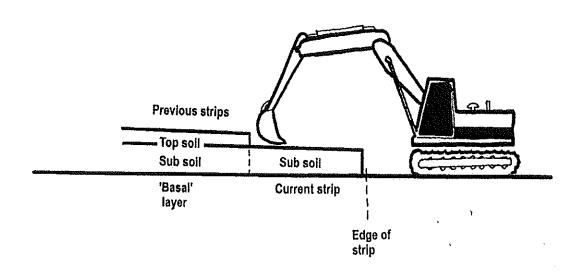
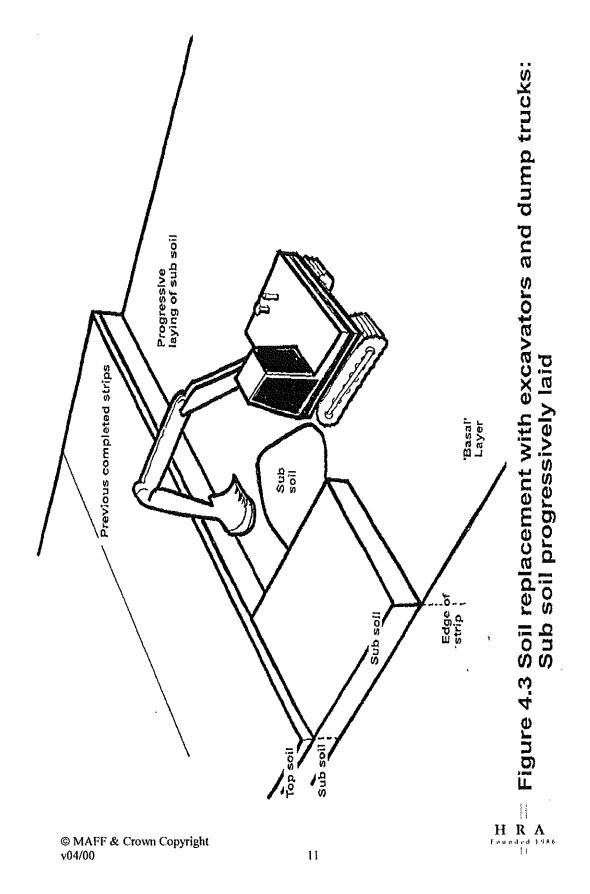


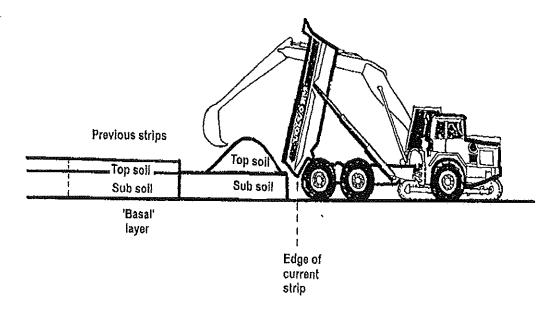
Figure 4.2 Soil replacement with excavators - dump trucks
Sub soil layer

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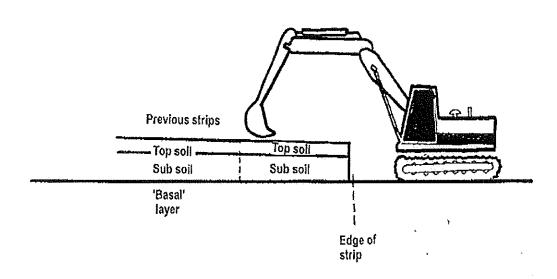


Figure 4.4 Soil replacement with excavators and dump trucks
Top soil layer



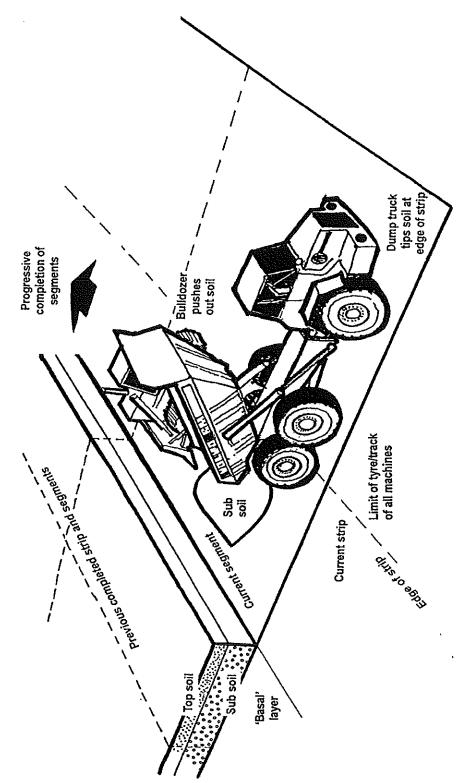
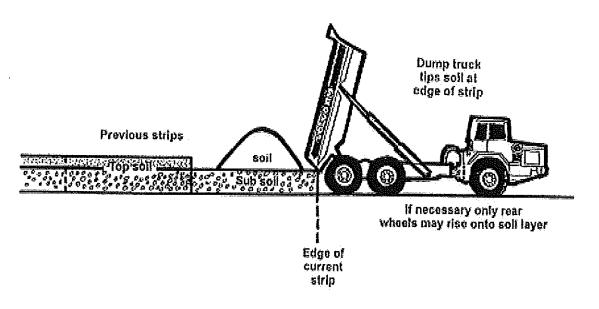


Figure 15.1 Soil replacement by bulldozers and dump trucks:
Sub soil layer





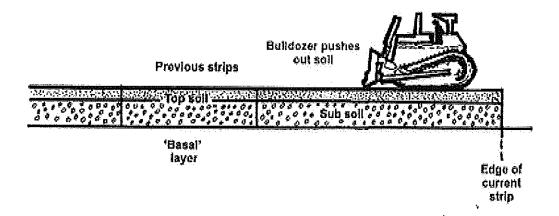
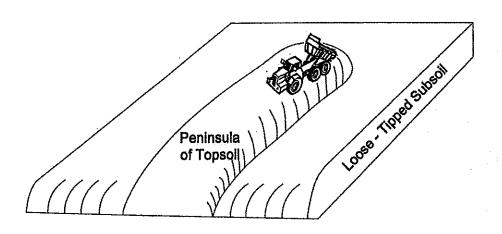
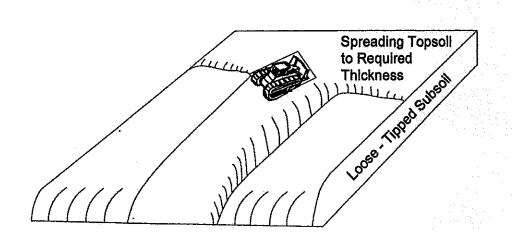


Figure 15.3 Soil replacement by bulldozers and dump trucks:

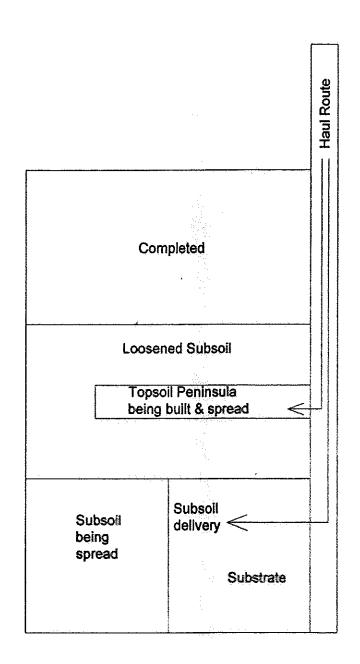
Top soil layer



METURS PRS 1 WODIFIED LOOSE FIRME WEFFING WEFF



MEGUPS PPS 2 WODIFISD LOOSE CIPPING WECTOD.
COPSOIL SPREADING



HEUFS PPS 8 MODIFIED LOSS FIRME MOSLOD. SCOUSICS OF OPSTAGIOUS



#### **APPENDIX G**

A COPY OF THE APPROVAL FROM NORTH YORKSHIRE COUNTY COUNCIL DATED 17 MARCH 2022 IN RESPECT OF THE SUBMISSIONS MADE PURSUANT TO CONDITIONS 29 AND 32 OF PLANNING PERMISSION REFERENCE C8/2019/0917/CPO



Mr G Titman MJCA Baddesley Colliery Offices Main Road Baxterley Warwickshire CV9 2LE

Our ref: NY/2021/0234/A27

17 March 2022

Dear Mr Titman

#### **Planning Services**

Growth, Planning and Trading Standards County Hall Northallerton North Yorkshire DL7 8AH

Tel: 01609 780780

e-mail: planning.control@northyorks.gov.uk

www.northyorks.gov.uk
Contact: Amy Taylor

APPLICATION MADE UNDER ARTICLE 27 OF THE TOWN AND COUNTRY PLANNING (DEVELOPMENT MANAGEMENT PROCEDURE) ORDER 2015

Application for the approval of details reserved by condition no's 19, 21, 29 & 32 of Planning Permission Ref. C8/2019/0917/CPO which relates to a new access road and site compound together with wheel washing facilities, Vehicles Management Statement, Advanced and infill planting scheme & a detailed landscaping and restoration scheme on land adjacent to and to the west and north of the current Escrick Quarry to the south west of Escrick, North Yorkshire, YO19 6ED on behalf of Plasmor Ltd

With reference to your application detailed above, dated 15 September 2021, it is noted that the proposals under the terms of conditions 19, 21, 29 and 32 are detailed within the application form dated 15 September 2021 and following documents and drawings:

- A scheme for the new access road and site compound together with wheel washing facilities, report ref. PL/ES/SE/1683/01AD dated September 2021 (Condition 19);
- Details of the proposed access roads, plan ref. PL/ES/03-21/22295 dated September 2021 (**Condition 19**);
- The existing and proposed access roads, site compound and vehicle wheel washing facilities, plan ref. PL/ES/09-21/22761 dated September 2021 (**Condition 19**);
- General Arrangement of Wheel Wash, plan ref. PCE/062, dated October 2020 (Condition 19);
- Vehicles Management Statement, report ref. PL/ES/SE/1683/01VMS, dated September 2021 (Condition 21);
- Advance Planting, Restoration Planting and Aftercare Plan Rev. B, ref. ESC009/RevB dated February 2022 (Conditions 29 & 32);
- The Restoration Plan, ref. PL/ES/03-20/21229revE dated May 2020 (Conditions 29 & 32);
- Restoration and Outline Aftercare Strategy (written document submitted as part of the planning application, dated May 2020) (Conditions 29 & 32);
- Advanced/Restoration Landscaping Works and Aftercare Report, dated September 2021 (Conditions 29 & 32);
- Proposed new office & compound layout Planting, plan ref. 2201\_008.007\_ESC010\_Compound Planting dated February 2022 (Conditions 29 & 32)

The application has been the subject of consultation with the County Council's Landscape Architect and the local Highways Authority and full details of the

responses received can be accessed on the County Council's Online Planning Register.

This letter confirms that, following consultation, the proposals, as submitted, are deemed to be acceptable. Therefore, under delegated powers, this letter confirms that the aforementioned details have been approved on behalf of the County Planning Authority. Please note that this approval is given on the basis that the development is carried out in strict accordance with the aforementioned approved details. All other conditions remaining in respect of planning permission ref. no. C8/2019/0917/CPO dated 29 March 2021 should be strictly adhered to. Please also ensure that a copy of this approval letter and documents referred to above are kept with the decision notice, approved plans and documentation that you hold relating to the planning permission whilst also making a copy available to any site contractors.

Should you have any queries in relation to this please do not hesitate to contact the case officer.

Yours sincerely

Amy Taylor Senior Planner PLASMOR ESCRICK

#### **APPENDIX H**

A COPY OF A LETTER FROM NORTH YORKSHIRE COUNTY COUNCIL DATED 9 FEBRUARY 2022 (NY/2019/0136/ENV)



Mr J Slater Plasmor Limited PO Box 44 Womersley Road Knottingley West Yorkshire WF11 0DN

Our ref: NY/2019/0136/ENV

9 February 2022

Dear Mr Slater,

#### **Planning Services**

Growth, Planning and Trading Standards County Hall Northallerton North Yorkshire DL7 8AH

Tel: 01609 780780

e-mail: planning.control@northyorks.gov.uk

www.northyorks.gov.uk
Contact: Amy Taylor

#### Escrick Quarry, North Yorkshire, YO19 6ED

I write with reference to planning permission reference C8/2019/0917/CPO granted by North Yorkshire County Council on 29 March 2021 (the planning permission) for a:'...new quarry to extract approximately 6 million tonnes of clay by 2053 and restoration of the site to agriculture and nature conservation with the importation of up to 2.67 million tonnes of inert materials...on land adjacent to and to the west and north of the current Escrick Quarry to the south west of Escrick, North Yorkshire, YO19 6ED...'

I confirm that pursuant to the planning permission, the restoration of Escrick Quarry can be completed with suitable imported waste or non-waste inert materials consistent with the planning application.

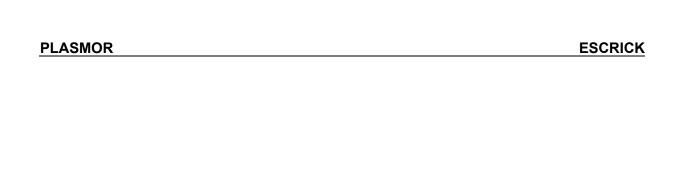
Whilst the description of the development, the subject of planning permission reference C8/2019/0917/CPO, refers to '…inert materials…' it is acknowledged that there are several references to 'waste' in the committee report in respect of the application for the planning permission. I confirm that this terminology does not preclude the use of comparable non-waste imported inert materials to complete the approved restoration scheme.

The primary concern of North Yorkshire County Council as the Mineral Planning Authority, is compliance with the conditions set out in the planning permission that the site is restored in accordance with the approved details to deliver the associated benefits without having an unacceptable environmental impact.

I trust that this provides the necessary clarification in respect of the use of non-waste materials in the restoration of the site. Please do not hesitate to contact me if you have any queries.

Yours sincerely

Amy Taylor Senior Planner



#### **APPENDIX I**

A DEED OF AGREEMENT UNDER SECTION 106 OF THE TOWN AND COUNTRY PLANNING ACT 1990 (AS AMENDED) TO RESTORE THE SITE



### 20 morch 2021

(1) NORTH YORKSHIRE COUNTY COUNCIL

and

(2) CHARLES DAVID FORBES ADAM AND INVESTACC PENSION TRUSTEES LIMITED

and

(3) CHARLES DAVID FORBES ADAM

and

(4) CRAIGIE HANNAH HOWIE, JOHN HANNAH HOWIE AND FRANK WATT HAMILTON HOWIE

and

DWF Law LLP Bridgewater Place Water Lane Leeds LS11 5DY

67146073-1

(5) THE AGRICULTURAL MORTGAGE CORPORATION and (6) PLASMOR LIMITED **DEED OF AGREEMENT** Section 106 Town and Country Planning Act 1990 (as amended) relating to land adjacent to and to the west and north of the current Escrick Quarry to the south west of Escrick, North Yorkshire, YO19 6ED

67146073-1

DWF Law LLP Bridgewater Place Water Lane Leeds LS11 5DY

2021

#### **BETWEEN**

- NORTH YORKSHIRE COUNTY COUNCIL of County Hall, Northallerton, North Yorkshire, DL7
   8AD ("the Council");
- (2) CHARLES DAVID FORBES ADAM of The Estate Office, Escrick Park Estate, Escrick Park, Escrick, York, YO19 6EA and INVESTACC PENSION TRUSTEES LIMITED (Company Registration Number: 02875892) whose registered office is at Minerva House, Port Road Business Park, Carlisle, CA2 7AF ("the First Owners");
- (3) CHARLES DAVID FORBES ADAM of The Estate Office, Escrick, York, YO19 6LB ("the Second Owner");
- (4) CRAIGIE HANNAH HOWIE, JOHN HANNAH HOWIE and FRANK WATT HAMILTON HOWIE of Kelfield Lodge Farm, Riccall, York, YO19 6RW ("the Third Owners");
- (5) THE AGRICULTURAL MORTGAGE CORPORATION PLC (Company Registration Number: 00234742) whose registered office is at Charlton Place, Charlton Road, Andover, Hants, SP10 1RE ("the Mortgagee"); and
- (6) PLASMOR LIMITED (Company Registration Number: 00642173) whose registered office is at PO BOX 44 Womersley Road, Knottingley, Yorkshire, WF11 0DN ("Plasmor").

#### 1. Recitals

- 1.1 The Council is the minerals planning authority for the purposes of the Act for the area in which the Site is situated and by whom the obligations in this Deed are enforceable.
- 1.2 The First Owners are the freehold owners of part of the Site registered at the Land Registry under Title Number NYK365154.
- 1.3 The Second Owner is the freehold owner of part of the Site registered at the Land Registry under Title Number NYK368461 and part of the site registered at the Land Registry under Title Number NYK368457.
- 1.4 The Third Owners are the freehold owners of part of the Site registered at the Land Registry under Title Number NYK113266.
- 1.5 The Mortgagee has a charge dated 16 February 2009 over that part of the Site owned by the Second Owner within Title Number NYK368461 and a charge dated 5 May 2009 over that part of the Site owned by the Second Owner within Title Number NYK368457.
- 1.6 Plasmor has an option for the grant of a minerals lease over the part of the Site owned by the First Owners and Second Owner dated 11 June 2019.
- 1.7 Plasmor has an option to purchase that part of the Site owned by the Third Owners dated 21 November 2019.

- 1.8 Plasmor is the freehold owner of that part of the Site registered at the Land Registry under Title Number NYK251088.
- 1.9 Plasmor has submitted the Application to the Council and the parties have agreed to enter into this Deed in order to secure the planning obligations contained in this Deed.
- 1.10 The Council has resolved to grant the Planning Permission subject to the prior completion of this Deed.

#### **TERMS AGREED**

#### 2. Definitions and interpretation

2.1 In this Deed when the context so requires:

"Act"

the Town and Country Planning Act 1990 (as amended)

"Application"

the application for full planning permission submitted to the Council and validated on 6 September 2019 for the Development and allocated reference number NY/2019/0136/ENV

"Commencement of Development"

means the date on which any material operation (as defined in section 56(4) of the Act) forming part of the Development begins to be carried out other than (for the purposes of this Deed and for no other purpose) operations consisting of site clearance, demolition work, archaeological investigations, investigations for the purposes of assessing ground conditions, remedial work in respect of any contamination or other adverse ground conditions, diversion and laying of services, erection of any temporary means of enclosure, the temporary display of site notices or advertisements and "Commence Development" shall be construed accordingly

"Detailed Restoration and Aftercare Scheme"

means the scheme to ensure the implementation of the Restoration Plan to be submitted by the Owner or Plasmor and approved by the Council in accordance with Schedule 1 of this Deed

"Development"

the development of the Site for the proposed new quarry to extract approximately 6 million tonnes of clay by 2053 and restoration of the site to agriculture and nature conservation with the importation of up to 2.67 million tonnes of inert materials together with the construction of new internal site access haul road, site compound, car park, site office, wheel washing facility, security fencing and gates and the construction of a temporary bridge

crossing over the National Route 65 of the National Cycle Network as set out in the Application

"the Owner" means together the First Owners, the Second Owner the

Third Owners and Plasmor

"Plan" the plan annexed to this Deed referenced PL/ES/07-

19/21321 identifying the Site

"Planning Permission" a planning permission granted by the Council in

accordance with the Application

"Restoration" means the progressive restoration of the Site and

"Restore" and "Restored" shall be construed accordingly

"Restoration Plan" means the plan attached to this Deed referenced

PL/ES/03-20/21229revE

"Statutory Aftercare

Period"

means the aftercare period provided for in Paragraph 2(7) to Part 1 of Schedule 5 to the Act (or as may be re-

enacted or modified)

"Site" the land against which this Deed may be enforced as

shown edged red on the Plan

2.2 Where in this Deed reference is made to any clause, paragraph or schedule or recital such reference (unless the context otherwise requires) is a reference to a clause, paragraph or schedule or recital in this Deed.

2.3 Words importing the singular meaning where the context so admits include the plural meaning and vice versa.

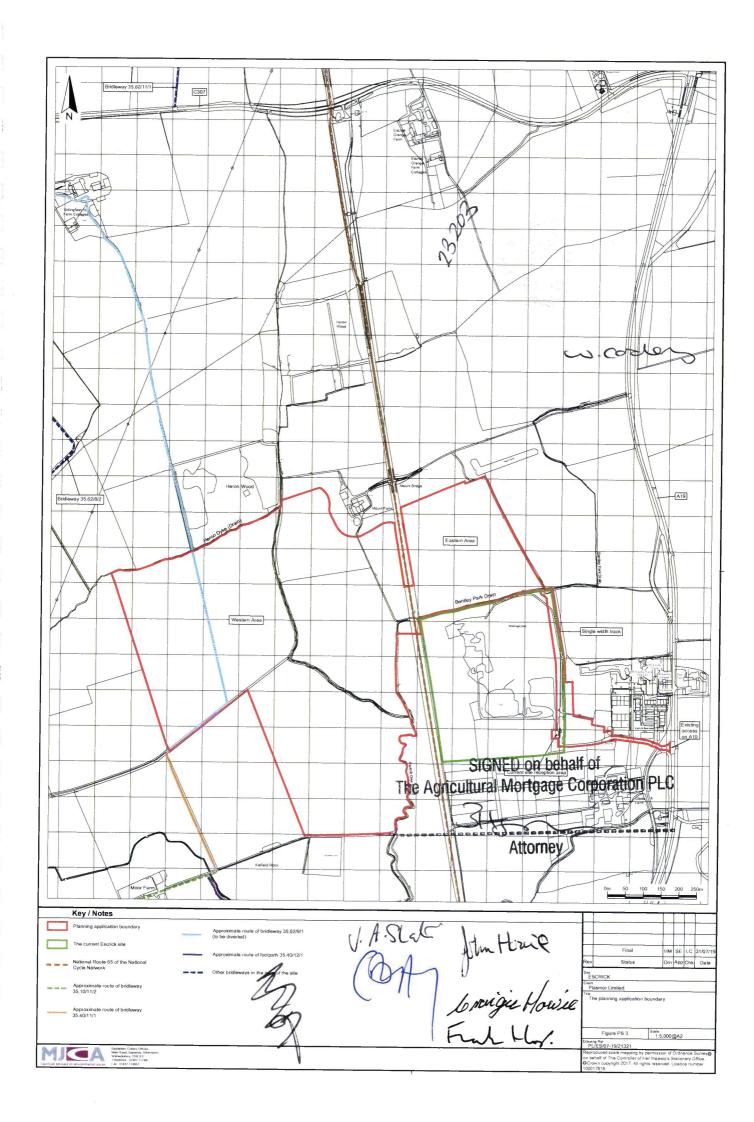
2.4 References to Plasmor include references to the successors in title to its interest in the Site and persons deriving title from it.

2.5 Words denoting an obligation on a party to do any act, matter or thing include an obligation to procure that it be done and words placing a party under a restriction include an obligation not to cause, permit or suffer any infringement of the restriction.

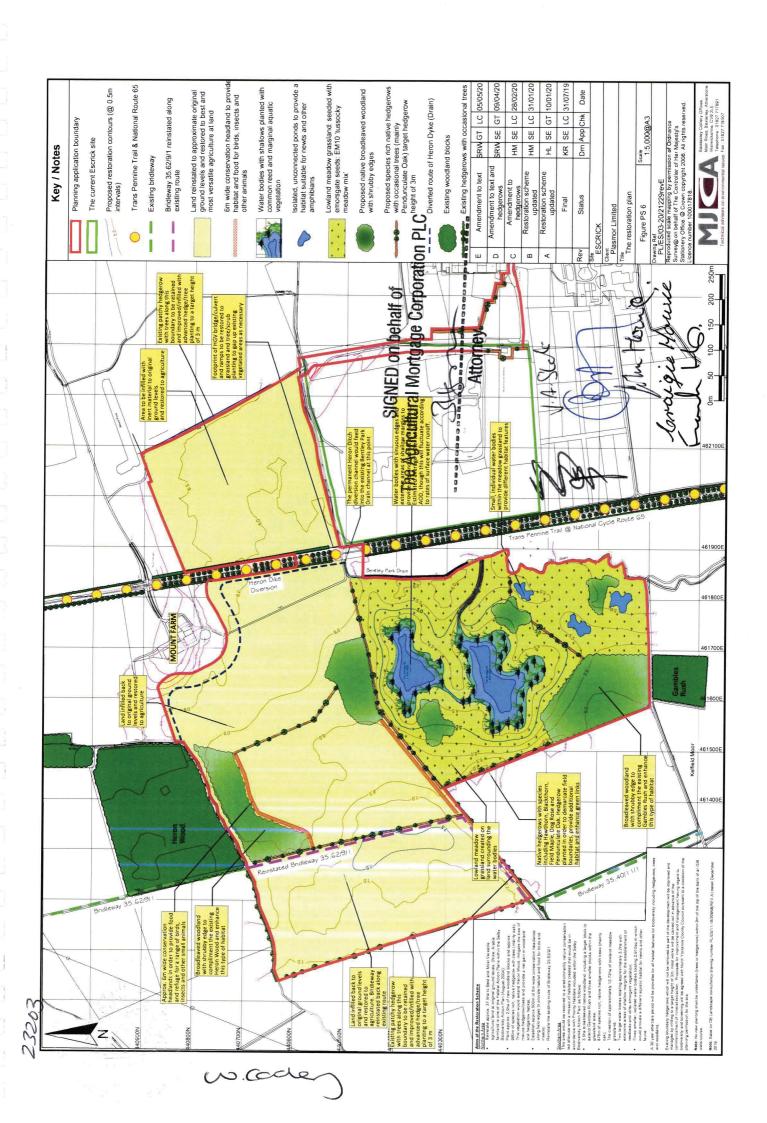
Words of the masculine gender include the feminine and neuter genders and words denoting persons include companies, corporations and firms and all such words shall be construed interchangeable in that manner.

2.7 Wherever there is more than one person named as a party and where more than one party undertakes an obligation all their obligations can be enforced against all of them jointly and severally unless there is an express provision otherwise.

2.8 Any reference to an Act of Parliament shall include any modification, extension or reenactment of that Act for the time being in force and shall include all instruments, orders, plans regulations, permissions and directions for the time being made, issued or given under that Act or deriving validity from it.



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- 2.9 References to any party to this Deed shall include the successors in title to that party and to any person deriving title through or under that party and in the case of the Council the successors to its statutory functions.
- 2.10 If any provision of this Deed shall be held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be deemed thereby to be affected, impaired or called into question.
- 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.
- 2.12 Reference to "notice" shall mean notice in writing.
- 2.13 The headings and contents list are for reference only and shall not affect construction.

### 3. Legal Basis

- 3.1 This Deed is made pursuant to Section 106 of the Act, Section 111 of the Local Government Act 1972 and Section 1 of the Localism Act 2011 and all other enabling powers that may be relevant to the enforcement of the obligations contained in this Deed.
- 3.2 The covenants, restrictions and requirements imposed on the Owner under this Deed create planning obligations pursuant to Section 106 of the Act and are enforceable by the Council against the Owner.
- 3.3 Insofar as any obligations, covenants and undertakings in Clause 3.2 are not capable of falling within section 106 of the 1990 Act they are entered into in pursuance of the relevant powers referred to in Clause 3.1.

### 4. Conditionality

- 4.1 This Deed is conditional upon:
  - (i) the grant of the Planning Permission; and
  - (ii) the Commencement of Development

save for the provisions of Clauses 6.1 (legal fees), 10 (Mortgagees Consent), 14 (Dispute Provisions), 12 (Change in Ownership), 15 (Jurisdiction) and 16 (Delivery) which shall come into effect immediately upon completion of this Deed.

#### 5. The Owner's Covenants

5.1 The Owner covenants with the Council to perform and comply with the obligations specified in Schedule 1.

### 6. Miscellaneous

Plasmor shall pay to the Council on completion of this Deed the reasonable legal costs of the Council incurred in the negotiation and completion of this Deed to a maximum of One thousand five hundred pounds (£1,500).

- 6.2 This Deed shall be registrable as a local land charge by the Council.
- 6.3 Where the agreement, approval, consent or expression of satisfaction is required under the terms of this Deed such agreement, approval or consent or expression of satisfaction shall not be unreasonably withheld or delayed.
- 6.4 Following the performance and satisfaction of all the obligations contained in this Deed the Council shall forthwith effect the cancellation of all entries made in the Register of Local Land Charges in respect of this Deed.
- 6.5 This Deed shall cease to have effect (insofar only as it has not already been complied with) if the Planning Permission shall be quashed, revoked or otherwise withdrawn or (without the consent of the Owner) it is modified by any statutory procedure (save for any S73 Application) or expires prior to the Commencement of Development.
- No person shall be liable for any breach of any of the planning obligations or other provisions of this Deed after it shall have parted with its entire interest in the Site but without prejudice to liability for any subsisting breach arising prior to parting with such interest.
- 6.7 Nothing in this Deed shall prohibit or limit the right to develop any part of the Site in accordance with a planning permission (other than the Planning Permission) granted (whether or not on appeal) after the date of this Deed.
- 6.8 Nothing contained or implied in this Deed shall prejudice or affect the rights discretions powers duties and obligations of the Council under all statutes by-laws statutory instruments orders and regulations in the exercise of its functions as a local authority.

### NOTICES

- 7.1 Any notice, consent or approval required to be given under this Deed shall be in writing and shall be sent to the address and marked for the attention of the persons identified below or instead to such other persons as may be substituted for them from time to time.
- 7.2 Any such notice must be delivered by hand or by pre-paid Special Delivery post and shall conclusively be deemed to have been received:
  - 7.2.1 if delivered by hand, on the next Working Day after the day of delivery; and
  - 7.2.2 if sent by Special Delivery post and posted within the United Kingdom, on the day 2 Working Days after the date of posting.
- 7.3 The address for service of any such notice, consent or approval as aforesaid shall:
  - 7.3.1 in the case of service upon the Council to its address given above or such other address for service as shall have been previously notified in writing to the other parties and any such notice shall be marked for the attention of Corporate Director Business and Environment Services; and

7.3.2 in the case of service upon the Owner to its address given above or such other address for service as shall have been previously notified in writing to the other parties and any such notice shall be marked for the attention of Neil Marwood, Plasmor Limited, PO BOX 44 Womersley Road, Knottingley, Yorkshire, WF11 ODN

# 8. Contracts (Rights of Third Parties) Act 1999

8.1 The parties to this Deed do not intend that any of its terms will be enforceable by virtue of the Contracts (Rights of Third Parties) Act 1999 by any person not a party to it.

#### 9. Section 73

- 9.1 If an application is made under section 73 of the Act in respect of the Planning Permission without complying with a condition or conditions to which the Planning Permission is subject (a S73 Application) then in the event that the Council is minded to approve such S73 Application:
  - 9.1.1 if the Council considers that the planning obligations contained in this Deed are both sufficient and necessary to make the development proposed by such S73 Application acceptable in planning terms then references to the Planning Permission in this Deed shall be deemed to also be references to that new planning permission and the parties agree that this Deed shall apply to and remain in full force in respect of both that new planning permission and the Planning Permission without the need for a further deed to be made pursuant to section 106 of the Act; or
  - 9.1.2 if the Council considers that additional or modified planning obligations are necessary to make the development proposed by such S73 Application acceptable in planning terms then for the avoidance of doubt nothing in this clause 9.1.2 shall fetter the Council's ability in the exercise of its proper planning judgment to require the completion of such further deed made pursuant to section 106 of the Act as it considers necessary and in such case clause 9.1.1 shall be disregarded.

### 10. Mortgagee's Consent

10.1 The Mortgagee acknowledges and declares that this Deed has been entered into by the Second Owner with its consent and that the Site shall be bound by the obligations contained in this Deed and that the security of the mortgage over the Site shall take effect subject to this Deed PROVIDED THAT the Mortgagee shall otherwise have no liability under this Deed unless it takes possession of the Site in which case it too will be bound by the obligations as if it were a person deriving title from the Second Owner.

### 11. Waiver

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

#### 12. Change in Ownership

12.1 The Owner agrees with the Council to give the Council immediate written notice of any change in ownership of any of its interests in the Site occurring before all the obligations under this Deed have been discharged such notice to give details of the transferee's full name and registered office (if a company or usual address if not) together with the area of the Site or unit of occupation purchased by reference to a plan.

#### 13. **VAT**

13.1 All consideration given in accordance with the terms of this Deed shall be exclusive of any value added tax properly payable.

#### 14. Dispute Provisions

- 14.1 In the event of any dispute or difference arising between the parties to this Deed in respect of any matter contained in this Deed such dispute or difference shall be referred to an independent and suitable person holding appropriate professional qualifications to be appointed (in the absence of an agreement) by or on behalf of the president for the time being of the professional body chiefly relevant in England with such matters as may be in dispute and such person shall act as an expert whose decision shall be final and binding on the parties in the absence of manifest error and any costs shall be payable by the parties to the dispute in such proportion as the expert shall determine and failing such determination shall be borne by the parties in equal shares.
- 14.2 In the absence of agreement as to the appointment or suitability of the person to be appointed pursuant to Clause 14.1 or as to the appropriateness of the professional body then such question may be referred by either party to the president for the time being of the Law Society for him to appoint a solicitor to determine the dispute such solicitor acting as an expert and his decision shall be final and binding on all parties in the absence of manifest error and his costs shall be payable by the parties to the dispute in such proportion as he shall determine and failing such determination shall be borne by the parties in equal shares.
- 14.3 Any expert howsoever appointed shall be subject to the express requirement that a decision was reached and communicated to the relevant parties within the minimum practicable timescale allowing for the nature and complexity of the dispute and in any event not more than twenty-eight working days after the conclusion of any hearing that takes place or twenty-eight working days after he has received any file or written representation.
- 14.4 The expert shall be required to give notice to each of the said parties requiring them to submit to him within ten working days of notification of his appointment written submissions and supporting material and the other party will be entitled to make a counter written submission within a further ten working days.

14.5 The provisions of this clause shall not affect the ability of the Council to apply for and be granted any of the following: declaratory relief, injunction, specific performance, payment of any sum, damages, any other means of enforcing this Deed and consequential and interim orders and relief.

### 15. Jurisdiction

15.1 This Deed is governed by and interpreted in accordance with the law of England and Wales.

## 16. **Delivery**

16.1 This Deed is delivered on the date of this Deed.

IN WITNESS whereof the parties hereto have executed this Deed on the date which appears at the start of this document.

#### SCHEDULE 1

#### The Owner's Covenants

The Owner covenants with the Council as follows:

#### RESTORATION

- To implement the Restoration Plan, subject to it being superseded by the approval of the Detailed Restoration and Aftercare Scheme for the progressive restoration of the Site for a period of 30 years (which includes the Statutory Aftercare Period) from the date the Site (or such phase) has been worked and restored.
- 2. To submit the Detailed Restoration and Aftercare Scheme within 6 months from the date of the Planning Permission for approval by the Council, such approval not to be unreasonably withheld or delayed. As part of the approval of the Detailed Restoration and Aftercare Scheme, the detail, quantum and mechanism for funding in respect of the aftercare of the Site shall be agreed between the parties.
- 3. To implement the Detailed Restoration and Aftercare Scheme as approved by the Council in paragraph 2 of this Schedule 1 (which approval may comprise or contain a direction to substitute or amend any provision of the Detailed Restoration and Aftercare Scheme) in accordance with the timetable and requirements specified therein for a period of 30 years which includes the Statutory Aftercare Period from the date the Site (or such phase) has been worked and restored.

#### LONG TERM RESTORATION AND MANAGEMENT OF THE SITE

- 4. No later than 12 months from completion of phase 3 of the Site (and then at intervals of no more than 12 months) the Owner shall invite representatives of the Council (those appropriate representatives to be determined by the Council) to attend a site meeting to review the previous year's restoration and aftercare work and to establish a timetable for the following year's restoration and aftercare activities. For the avoidance of doubt, if the Owner and the Council agree that the meetings are not needed, they will cease either temporarily or permanently.
- 5. Within 10 weeks of the site meeting referred to in paragraph 4 of this Schedule 1, the Council will provide the Owner with written notification of any remedial works considered necessary in respect of the previous year's restoration and aftercare activities.
- 6. Thereafter, the Owner shall within 3 months, or such other period as agreed in writing with the Council, carry out the reasonable remedial works stipulated by the Council under paragraph 5 of this Schedule 1 above.

The COMMON SEAL of NORTH YORKSHIRE COUNTY COUNCIL was affixed in the presence of:



w. codo **Authorised Signatory** 

SIGNED as a DEED by

**CHARLES DAVID FORBES ADAM** 

in the presence of:

Witness Signature

Witness Name

Address

Occupation

SORAM VAN KOLSBEEK (10 THE EINSTE OFFICE

ESCRICK

YOUR

4019 GEA

Assistant

**Executed** as a Deed by INVESTACC **PENSION TRUSTEES LIMITED** acting by a director in the presence of: Witness Signature Grantle

Gordon ZEATTIE

Witness Name

MINERVA HOUSE

Address PORK ROAD QUINESS PARK

CARLISLE

CARLISLE

CAMBRIA, CAR 7AF

Decupation On Director PROPERTY ABMINISTRATION SIGNED as a DEED by **CHARLES DAVID FORBES ADAM** in the presence of: Witness Signature SORDM VAN KOLSKEEK Witness Name CIO THE ECNOTE GARGE Address ESOLICIL TORK 4019 GEA Occupation TENGIZIZA

SIGNED as a DEED by

**CRAIGIE HANNAH HOWIE** 

in the presence of:

braigie Hawie.

Witness Signature

S Donly S APPLEBY

Witness Name

4 RUTIAND Close Copmanthorpe YORK

Address

Occupation

FARM WORKER

SIGNED as a DEED by

JOHN HANNAH HOWIE

in the presence of:

John Hornie.

Witness Signature

S DODLEBY

Witness Name

Address

Das Above

Occupation

SIGNED as a DEED by

FRANK WATT HAMILTON HOWIE

in the presence of:

S APPLEBY

Witness Signature

Witness Name

4 RUTLAND CLOSE Copmanthore YORK

Address

Occupation

EARN WORKER

Executed (but not delivered until the date hereof) as a Deed by

James Norman Higgins

] acting as attorney for

THE AGRICULTURAL MORTGAGE CORPORATION PLC

In the presence of:

Matthew Charles Young

Charlton Place

Charlton Road

Witness Signature

Andover Hampshire

**SP10 1RE** 

Witness Name

Address

Occupation

### Executed as a Deed by PLASMOR LIMITED

acting by a director

in the presence of:

V.A. Slak -

Director

Witness Signature

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Witness Name NGC VANOCOS

Address KNODCINCION LODGIO, KNODCINGTON HONDON, ENT YORKSING

Occupation

Accounter