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## **Proposed Sand and Gravel Extraction Land of Bourbles Lane, Preesall**

# **Landscape and Visual Impact Assessment**

## Landscape and Visual Impact Assessment

# PROPOSED SAND AND GRAVEL EXTRACTION LAND OFF BOURBLES LANE, PREESALL

Prepared on behalf of The Baxter Group

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# 1 INTRODUCTION

- 1.1 This Landscape and Visual Impact Assessment prepared by ReLandscape Ltd, a Registered Practice of the Landscape Institute, forms part of an Environmental Statement (ES) for the proposed extraction of sand and gravel on land at Bourbles Lane, Preesall (see Figure 1: Site Location Plan).
- 1.2 The LVIA identifies and assesses the effects of activities and installations associated with sand and gravel extraction (herein referred to as ‘the proposed development’ within the site boundary on:
- Landscape as a resource in its own right caused by changes to its constituent elements, its specific aesthetic or perceptual qualities, and/or its character; and
  - Views and visual amenity as experienced by people, resulting from changes in the appearance of the landscape.
- 1.3 The effects that are identified are categorised as positive, negative or neutral based on the degree to which the proposed development fits with existing character and the contribution to the landscape that the proposed development may make in its own right. The significance of the effects identified are determined by assessing the sensitivity of landscape and visual receptors and the magnitude of effects on the landscape and views and visual amenity.
- 1.4 The report is organised in the following sections which are based on the processes outlined in the Guidelines for Landscape and Visual Impact Assessment, Third Edition published by the Landscape Institute and Institute of Environmental Management & Assessment (GLVIA3):
- Section 2 presents the approach to the assessment including the scope of the assessment and planning policy, and a summary of the methodology detailed in Appendix 1;

- Section 3 describes the baseline landscape and visual conditions against which the assessment is made including details of landscape character, landscape designations and visual receptors;
- Section 4 sets out the components of the proposed development that are of particular relevance to the assessment of landscape and visual effects;
- Section 5 presents the assessment of landscape and visual effects and potential mitigation relating to landscape character and views experienced by people in the study with reference to thirteen representative viewpoints; and
- Section 6 presents a summary of the LVIA.

1.5 The chapter is supported by the following Appendices:

- Appendix 1 describes the methodology used for the LVIA;
- Appendix 2 sets out the methodology for the production of a digital Zone of Theoretical Visibility and visualisations;
- Appendix 3 contains a detailed assessment of effects on landscape and visual receptors; and
- Appendix 4 contains Figures including viewpoint visualisations.

## 2 SCOPE AND METHODOLOGY

### Scope of the Assessment

#### Extent of the study area

- 2.1 The extent of the study area used for the assessment of landscape and visual effects is guided by the potential visibility of the proposed development from the surrounding landscape, the nature of the proposed development and its potential for landscape and visual impact. A Zone of Theoretical Visibility (ZTV) map was constructed using multiple point analysis combining ZTV maps for different parts of the proposed development and is illustrated in Figure 2: Zone of Theoretical Visibility. The areas of the map shaded in red identify land from which the proposed development may theoretically be visible. This does not take account of potential screening by vegetation or buildings.
- 2.2 A field survey undertaken in May 2023 determined views of the proposed development would be mostly limited by existing buildings, field boundary hedges and woodland blocks from viewpoints in excess of 2km of the site and from this distance the change to views/ visual amenity would not be particularly noticeable.
- 2.3 The 2km distance circle on the OS map in Figure 3: Study Area defines the extent of the study area. It extends approximately from the western edge of Pilling in the east to the western edges of Preesall Hill and Knott End-on-Sea in the west, and from Pilling Lane in the north to the northern edge of Stalmine in the south.

#### Sources of landscape and visual information

- 2.4 The assessment is based on the following information records:

- MAGIC website ([magic.defra.gov.uk](http://magic.defra.gov.uk)) – an interactive mapping website managed by Natural England which provides geographic information about the natural environment from across government. The site is divided into themes which are further subdivided into map layers. Information on map layers under the following themes is used in the assessment:
  - Access;
  - Designations: Land-Based Designations: Statutory;
  - Designations: Land-Based Designations: Historic Statutory;
  - Designations: Land-Based Designations: Historic Non-Statutory;
  - Designations: Land-Based Designations: Non-Statutory;
  - Habitats and Species; and
  - Landscape.
  
- MARIO (Maps & Related Information Online) ([mario.lancashire.gov.uk](http://mario.lancashire.gov.uk)) – an interactive mapping website managed by Lancashire County Council which provides information about Lancashire. The site is divided into themes which are further subdivided into map layers. Information on map layers under the following themes is used in the appraisal:
  - Countryside Environment and Waste;
  - Highways and Transportation; and
  - Historic Information.
  
- A Landscape Strategy for Lancashire: Landscape Character Assessment (Lancashire County Council, December 2000).
- A Landscape Strategy for Lancashire: Landscape Strategy (Lancashire County Council, December 2000).
- National Character Area Profile 32 Lancashire and Amounderness Plain
- Google Earth Pro for aerial photography.
- Ordnance Survey OpenData for mapping.

2.5 An Ecological Appraisal prepared by Envirotech NW Ltd forms part of the ES. This has been relied upon for an appreciation of the ecological value of landscape features within the site.

#### Nature of possible landscape and visual effects

2.6 The nature of the landscape and visual effects of the proposed development would be:

- changes that may occur to the character of the landscape;
- effects on individual landscape features and elements; and
- effects on views, as perceived by people using local roads and public footpaths and residents at home, because of changes in the landscape outlook.

#### Main receptors of potential landscape and visual effects

2.7 The following receptors have been identified and are the focus of the assessment:

- landscape features and elements on the site;
- local landscape character areas and types, including Coastal Plain LCT and Knott End-Pilling LCA and Mosslands LCT and North Fylde Mosses LCA;
- residents at home in properties within the study area including Woodlands, Red Lea Kennels, Bourbles House Farm, Mytax, New England Cottage, Ourome and Crossing Cottage adjacent to the site boundaries and properties on Bourbles Lane, Lancaster Road, Head Dyke Lane, Green Dicks Lane and Tongues Lane;
- users of the public footpaths and bridleways within the study area including bridleway 2-3-BW21 and footpath 2-3-FP 28 which both run through the site;
- road users, including motorists, cyclists and pedestrians, within the study area including users of Gaulters Lane, Lancaster Road, Head Dyke Lane (A588), Tongues Lane and Green Dicks Lane; and



- users of Bourbles Ponds private fishing ponds.

2.8 Based on the existing conditions recorded and distance from the proposed development, effects on the following receptors would not be significant and they are scoped out of the assessment:

- LCAs with limited theoretical visibility and/or beyond 2km from the proposed development, where the potential for significant effects on landscape character is limited;
- User of routes and residents in settlements with limited theoretical visibility and/or beyond 2km from the proposed development, where the potential for significant visual and sequential effects is limited; and
- Cumulative effects, since no other consented or planned developments have been identified that would interact with the proposed development to give rise to potentially significant cumulative effects.

#### Extent and level of detail for baseline studies

2.9 A description of the site and its environs, including landscape features and landscape character, is provided. The landscape character baseline references relevant published assessments including the National Character Area Profile 32 Lancashire and Amounderness Plain and the Lancashire Landscape Character Assessment and Strategy and notes the key characteristics of the relevant Local Landscape Types.

2.10 The visual baseline identifies the extent of visibility of the proposed development with reference to the ZTV. Representative viewpoints are identified and capture the range and extent of the likely visual effects of the proposed development. Groups of people likely to have views of the proposed development are identified and include residents at home, users of Public Rights of Way (PRoW), users of the Bourbles Ponds for fishing and road users including motorists, cyclists and pedestrians.

2.11 Supporting figures have been provided, including the ZTV. The supplied ZTV has indicated that the proposed development would be visible across a geographical extent extending beyond 2km (although it should be noted that the ZTV does not account for intervening vegetation which would filter or screen some views of the proposed development locally).

### Planning Policy and Guidance

2.12 In terms of relevant planning policy, guidance on protecting and enhancing the Wyre landscape is contained within the National Planning Policy Framework and the Wyre Local Plan 2011-31 and, with specific reference to the proposed development, the Lancashire Minerals and Waste Core Strategy and the Minerals and Waste Local Plan.

### National Planning Policy

2.13 Section 15, paragraph 174 of the National Planning Policy Framework states that planning decisions should contribute to and enhance the natural and local environment by:

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan); and
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland.

### Local Planning Policy

2.14 Relevant policies of the Adopted Wyre Local Plan (2011-2031) (incorporating partial update of 2022) include:

- Policy SP4 Countryside Areas which refers to recognising the open and rural character of the countryside for its intrinsic character and beauty; and
- CDMP4 Environmental Assets which refers to protecting and enhancing

the functionality and interconnectivity of Green Infrastructure as a whole through, inter alia, the retention and enhancement of existing ecological and landscape features on the site, and the creation of new areas of trees and woodland.

### Minerals Planning Policy

- 2.15 The most relevant policy of the Lancashire Minerals and Waste Core Strategy and Minerals and Waste Local Plan is Policy CS5 Achieving Sustainable Minerals Production which refers to proposals for mineral workings incorporating measures to conserve, enhance and protect the character of Lancashire's landscapes sensitive environmental restoration and aftercare of sites taking place, appropriate to the landscape character of the locality and the delivery of national and local biodiversity action plans
- 2.16 The most relevant policy of the Joint Lancashire Minerals and Waste Local Plan - Site Allocations and Development Management Policies - Part One is Policy DM2 Development Management which refers to minerals development making a positive contribution to biodiversity, geodiversity and landscape character by completing restoration within agreed time limits, to a beneficial after use, and managing landscaping and tree planting.

### Guidance

- 2.17 The assessment has been carried out in accordance with the guidance contained within the following documents:
- Landscape Institute and the Institute of Environmental Management and Assessment (2013) *Guidelines for Landscape and Visual Impact Assessment*. 3rd Edition ('GLVIA3'); and
  - Landscape Institute (2019) TGN 06/19 *Visual Representation of development proposals*.

## Consultation

2.18 An EIA scoping opinion was submitted to Lancashire County Council on 13 June 2022. The general scope of the LVIA as set out in Appendix 2 of the scoping report was agreed.

2.19 Issues raised in the Lancashire County Council's EIA scoping opinion dated 10 August 2022 and responses are summarised in Table 1.

**Table 1: Response to Scoping Opinion**

Issue raised	Response
<b>Lancashire County Council</b>	
Request that sufficient detail setting out how existing landscape features would be affected by the development be provided.	An assessment of effects on elements that make up the landscape is provided in paragraphs 5.7 – 5.10
Request that any tree and hedgerow removal be identified and a schedule provided identifying any trees or hedgerows to be removed and including sufficient information to allow an assessment of their quality and contribution towards landscape character.	A Tree Survey, including a quality assessment, and an Arboricultural Impact Assessment identifying any trees/ hedges to be removed is provided as part of the planning application.
Request for additional viewpoint to be included in assessment looking east from viewpoint 4 (in particular to show visual impacts to the rear of the properties on Bourbles Lane).	Addressed by Viewpoint 12.

Request for additional viewpoint looking north / north east from Nicksons Lane	Addressed by Viewpoint 13.
Request that Viewpoint 5 be taken from a position where it would be possible to assess the impacts of any access works to create the new highway junction.	Addressed by Viewpoint 5.
Request that sufficient information provided to allow the agricultural land quality of the existing site to be established and, therefore, any potential losses or gains arising from the working and restoration of the site to be quantified.	An assessment of effects on elements that make up the landscape is provided in paragraphs 5.7 – 5.10
<b>Natural England</b>	
The environmental assessment should refer to the relevant National Character Areas.	National Character Areas are referenced in Section 4 and effects on them assessed in Section 5.
A full assessment of the potential impacts of the development on local landscape character should be undertaken using landscape assessment methodologies.	An assessment of effects on landscape character with reference to published landscape character assessment is provided in paragraphs 5.4 – 5.6

<p>Recommendation to use the methodology set out in Guidelines for Landscape and Visual Impact Assessment 2013 (3rd edition) produced by the Landscape Institute and the Institute of Environmental Assessment and Management.</p>	<p>The LVIA methodology is informed by Guidelines for Landscape and Visual Impact Assessment 2013 (3rd edition).</p>
<p>The assessment should include the cumulative effect of the development with other relevant existing or proposed developments in the area.</p>	<p>No other consented or planned developments have been identified that would interact with the proposed development to give rise to potentially significant cumulative effects.</p>

## LVIA Methodology

### Overview

2.20 The methodology for the assessment of landscape and visual effects of the proposed development follows the current best practice approach for the process of Landscape and Visual Impact Assessment (LVIA) referenced at paragraph 2.17. The core components of the LVIA process are:

- Project description/ specification: the main features of the proposed development are identified including sizes of elements within the plant site (Phase A) and perimeter bunds;
- Baseline studies: the existing nature of the landscape and visual environment in the study area is established including the value attached to the different environmental resources;
- Identification and description of effects: the effects that are likely to occur are systematically identified and described, including whether they are positive, negative or neutral; and

- Assessing the significance of effects: the likely significance of the effects identified are systematically and transparently assessed.

### Assessing the Significance of Effects

- 2.21 Conclusions about the significance of the identified effects of the proposed development are arrived at by linking judgements about the sensitivity of a receptor (susceptibility and value) and about the magnitude of effect (scale, geographical extent, duration and reversibility).
- 2.22 The significance of effects is defined in Table 5 for landscape effects and Table 6 for visual effects in Appendix 3 with moderate and substantial effects considered significant in the context of the EIA Regulations.

### Category of Effects

- 2.23 The effects are categorised as positive, negative or neutral based on: the degree to which the proposed development fits with existing character; and the contribution to the landscape that the development may make in its own right even if it is in contrast to existing character. For this assessment, the presence of a sand and gravel extraction operation for a time limited period should be considered a negative change in the context of the rural character of the countryside.

**Table 2: Significance of landscape effects**

		DESCRIPTION
<b>LEVEL OF LANDSCAPE EFFECT</b>	Substantial	Major loss or permanent negative effects, over an extensive area, on elements and/or aesthetic and perceptual aspects that are key to the character of nationally valued landscapes.
	Moderate	Noticeable or long-term negative effects, over a landscape character type or area, on elements and/or aesthetic and perceptual aspects that contribute to local authority designated landscape.
	Slight	Perceptible but small negative effects, over a localised area, on elements and/or aesthetic and perceptual aspects that are key to the character of landscapes of community value.
	Negligible	Reversible negative effects of short duration, over a restricted area, on elements and/or aesthetic and perceptual aspects that contribute to but are not key characteristics of the character of landscapes of community value.



**Table 3: Significance of visual effects**

		DESCRIPTION
<b>LEVEL OF VISUAL EFFECT</b>	Substantial	Major change to features in the view and major changes in its composition due to a large proportion of the view occupied by the proposed development.
	Moderate	Noticeable change to features in the view and noticeable changes in its composition due to a moderate proportion of the view occupied by the proposed development.
	Slight	Minor change to features in the view and minor changes in its composition due to a small proportion of the view occupied by the proposed development.
	Negligible	Very minor change to features in the view and very minor changes in its composition due to a limited proportion of the view occupied by the proposed development

### Assumptions

2.24 Whilst all aspects of the proposed development are considered within the assessment of effects, the primary elements considered likely to cause potential landscape and visual effects comprise:

- A new site access haul road joining the A588 Head Dyke Lane with the plant site;
- Creation of a plant site comprising site office and weighbridge, aggregate processing plant (up to c.9m in height), a temporary inert waste storage area, as raised stockpiles (up to c. 10m in height) and a clean water lagoon;
- Creation of a silt settlement lagoon within the southernmost of Bourbles ponds;

- Phased soil stripping and creation of c.3m high soil bunds in the locations shown in Figure 6: Site Layout and Proposed Levels;
- Phased extraction of sand and gravel within Phase 1 to the north-west of the plant site, Phase 2 to the north, Phases 3A and 3B to the east and Phase 4 to the north-east;
- Phased infilling behind the bunds with inert waste materials; and
- Phased restoration including removal of soil bunds and grading of final profiles at ground level.

### 3 BASELINE CONDITIONS

3.1 This section provides a description of the site and the study area and sets out the landscape and visual baseline against which the proposed development is assessed.

#### Landscape baseline

##### The Site

3.2 The site for the proposed development covers an area of approximately 23 hectares. It currently consists of arable fields and an area fenced and used for rearing wildfowl. Fields to the south and east are used for grazing livestock, including horses.

##### The Study Area

3.3 The study area has been defined as a 2km radius from the centre of the Phase A site as described in Section 2.

#### Landscape Character

3.4 A number of documents have been published which assist in an appreciation of the landscape character of the study area. These include:

- National Character Area Profiles published by Natural England and, specifically, National Character Area 32. Lancashire and Amounderness Plain in which the study area is located; and
- A Landscape Strategy for Lancashire consisting of two separate reports; a Landscape Character Assessment and a Landscape Strategy. An emphasis is placed on Landscape Character Type 15 Coastal Plain and Landscape Character Area 15f Knott End-Pilling in both of which the development site is located.

### *National Character Areas*

3.5 The study area is identified by Natural England as falling within National Character Area 32: Lancashire and Amounderness Plain (NCA 32). NCA 32 is described as *an area of high-grade agricultural land, bounded by Morecambe Bay in the north and Liverpool in the south*. The profile summarises its general regional character and includes the following key characteristics:

- *A rich patchwork of pasture, arable fields and drainage ditches, on a relatively flat to gently undulating coastal landscape.*
- *Extensive views across the plain, within which small to medium-sized blocks of mixed woodland (wind-sculpted near the coast) provide punctuation and vertical accents.*
- *Medium-sized to large fields form an open, large-scale agricultural landscape.*
- *A complex network of wide meandering rivers, raised drainage ditches and dykes divide and drain the landscape.*

3.6 NCA 32 advice in shaping the future include the following statements:

- *Retain and enhance the network of field boundaries for their visual, historic and wildlife qualities, and their distinctive field patterns.*
- *Restore, manage and replant hedgerows and hedgerow trees, particularly where they provide habitat linkages and contribute to landscape character.*
- *Manage ditches, create buffer zones along rivers, ditches and drains and control erosion and runoff.*

- *Conserve remaining field ponds which are of great landscape, historic and wildlife interest. Restrict infilling and loss of ponds and buffer and manage margins to create visual interest. Where possible, create new ponds to increase habitat diversity and link fragmented pondscapes in order to aid species conservation and assist migration resulting from climate change.*

3.7 National Character Areas are broad divisions of landscape and form the basic units of cohesive countryside character, on which strategies for landscape issues can be based. They are not sufficiently detailed to provide an accurate description of the landscape character in the context of the site.

*A Landscape Strategy for Lancashire: Landscape Character Assessment*

3.8 A Landscape Strategy for Lancashire consists of two separate reports, a Landscape Character Assessment and a Landscape Strategy. The landscape character assessment (prepared for Lancashire County Council by Environmental Resources Management, 2000) was undertaken across all the administrative county of Lancashire and Blackburn with Darwen Unitary authority, and part of the Craven District of North Yorkshire up to the boundary of the Yorkshire Dales National Park. It defines several distinct landscape character types (LCT) and specific landscape character areas (LCA).

3.9 The study area falls in LCT 15: Coastal Plain and LCA 15f: Knott End-Pilling and LCT 16: Mosslands and LCA 16a: North Fylde Mosses (see Figure 4: Landscape Character Areas). The key characteristics of LCAs in the study area are as follows:

15f: Knott End-Pilling:

- *an intensely farmed, settled landscape with a post medieval enclosure pattern.*
- *many hedgerows, some ancient in origin.*
- *trees shelter scattered farmsteads.*
- *a network of raised lanes and stone bridges connect farms to roads.*

- *some arable crops.*

16a: North Fylde Mosses:

- *largest surviving area of uncultivated peat mossland in the Lancashire.*
- *reclaimed mosses devoid of development.*
- *low islands surrounding the mosses support a network of minor lanes and modern houses*
- *dead end raised tracks run from farmsteads into the mosses.*
- *dominant land use is improved pasture for dairy herds.*
- *fields are large.*
- *some shelter belts of Scot's pine and beech together with occasional birch copses on dried out peat, give a sense of a well wooded horizon.*
- *raised roads are hedged and bordered by ditches.*
- *vertical elements such as telegraph poles and pylons are prominent in the landscape.*
- *distant views to Blackpool Tower, the Pleasure Beach rides and industrial development on the outskirts of Blackpool.*

3.10 The LVIA examines the effect on LCAs 15f and 16a.

### Landscape Value

3.11 This sub-section establishes the relative value that is attached to different landscapes within the study area by society. Landscape designations are an indicator of landscape value but the fact an area of landscape is not designated does not mean that it does not have value.

3.12 *TGN 02-21: Assessing landscape value outside national designations* (Landscape Institute, 2021) provides information and guidance to make judgments about the value of a landscape (outside national landscape designations) in the context of the UK Town and Country Planning system. Table 1 sets out a range of factors that can be considered when identifying landscape value and broadly presents the same factors as Box 5.1 from GLVIA3. These factors are used to determine the value of the site and study area as follows:

#### *Natural heritage*

- 3.12.1 There are areas of valued semi-natural habitats and features found in parts of the study area, whilst other parts are intensively farmed or developed. Habitats include acid, calcareous and neutral grassland, improved grassland and broadleaved and mixed woodland. The study area extends across the former Stalmine Moss which was brought into agricultural production during the latter part of the 19th century.
- 3.12.2 Pilling Moss–Head Dyke is a Biological Heritage Site (BHS) designated for its importance for overwintering wildfowl, namely pink footed geese (*Anser brachyrhynchus*) and whooper swans (*Cygnus cygnus*). It extends across most of the eastern half of the study area.
- 3.12.3 The ecological appraisal identifies the site to be of limited ecological value and, overall, the natural heritage interest makes a medium contribution to landscape value of the site and study area.

#### *Cultural heritage*

- 3.12.4 The study area falls in Historic Landscape Character (HLC) type 20. Post Medieval Enclosure defined by the Lancashire Historic Landscape Characterisation Programme. HLC 20 comprises a variety of field form reflecting the piecemeal private enclosure of land in Lancashire in the period between AD1600 and 1850. The main land use is pasture.

- 3.12.5 There are no Scheduled Monuments or Conservation Areas on or in proximity to the site. There is only one listed building within 1km of the site; 6 Mill Street which is a grade II listing building situated 682m west-south-west of the site. There is no intervisibility between this building and the site. Preesall Mill, also a grade II listing, lies just over 1km to the south-west of the site. It is a local landmark and can be viewed from the site.
- 3.12.6 Overall, the study area is a landscape with relatively few historic features important to the character of the area and little time depth (i.e. large intensively farmed fields). Cultural heritage makes a low contribution to landscape value of the site and study area.

#### *Landscape condition*

- 3.12.7 The study area comprises predominantly agricultural arable land, which is bound to a limited degree by established hedgerows, but also with boundaries formed by post and wire fences and drainage ditches. Hedgerows in the wider landscape are varied with some relatively intact and others more fragmented. Bourbles Ponds appear to be very poor, highly eutrophic, with a thick algal bloom. Overall, the condition of the landscape of the site and the study area contributes to landscape value at the lower end of medium.

#### *Associations*

- 3.12.8 As far as it is known there are no known associations with particular artists or writers, or events in history that contribute to the perception of the landscape. The character description for the Coastal Plain landscape character type notes 'long views' and some of these are possible from within the study area. Overall, as the landscape is not connected with notable people, events and the arts, associations are judged to make a low contribution to landscape value.



### *Distinctiveness*

- 3.12.9 The landscape has smooth, gently undulating and largely featureless landform with uniform large-scale landscape pattern and low density of overlying landscape features. The small town of Preesall sits on a hill which rises to 30m and forms a distinct landform feature in the western part of the study area.
- 3.12.10 Bourbles Ponds on the site are a distinctive landscape feature and the result of previous sand and gravel extraction. The ponds are used for private fishing.
- 3.12.11 Preesall windmill, with no cap and no sails, is a distinct and unusual feature. Windmills have been common features across the Fylde Coast landscape for many hundreds of years reflecting the flat topography of the area and exposure to winds blowing onshore from the Irish Sea.
- 3.12.12 The study area does contain several landscape features which are representative of the wider landscape character area such as grassland and some restricted sections of hedgerows. However, these are very common features. Overall, distinctiveness makes a medium contribution to landscape value.

### *Recreational*

- 3.12.13 There are several public footpaths and bridleways in the landscape although many are underused and overgrown with some impassable. Footpath (2-3-FP 28) and bridleway (2-3-BW 21) provide good access to the landscape from the edges of Preesall Hill and Knott End/ Preesall and both run through the site. There are no national or county level promoted routes in the vicinity of the site. Visibility of the site from public rights of way is relatively limited and restricted to those in proximity to the site.
- 3.12.14 While the study area offers some recreational opportunities where experience of the landscape is important, overall, the recreational interest makes a medium contribution to landscape value.

### *Perceptual (Scenic)*

- 3.12.15 The study area is in an intensely farmed and settled landscape. There are many hedgerows and trees that shelter scattered farmsteads. There are some longer views east towards the Bowland Fells. The local landscape is not of particular scenic value. Overall, the scenic perception of the study area is considered to make a medium contribution to landscape value.

### *Perceptual (Wildness and tranquillity)*

- 3.12.16 The study area is a landscape with some sense of rural character, but with some modern elements and human influences. In proximity of the site there is activity associated with the use of Bourbles Ponds as fishing lakes and the presence of Red Lea Kennels. The wider landscape contains a range of small-holdings and isolated residential properties together with small-scale areas of local commercial/ industrial activity. Overall, wildness and tranquillity are considered to make a medium contribution to landscape value.

### *Functional*

- 3.12.17 Landscape elements on the site and in the study area contribute to the healthy functioning of the landscape including field edge ditches and dykes. The largest of these are Wheel Foot Watercourse, Middle Dyke and Cocker's Dyke. These are designated as 'Main' rivers and flow into Morecambe Bay, 3km to the north of the site. Bourbles Ponds are located within the site boundary and were all created following the extraction of sand and gravel during the post war period. Water levels rise and fall with variation in groundwater levels. The landscape performs a clearly identifiable and valuable drainage function and makes a medium-high contribution to landscape value.

- 3.13 Overall, and considering these different factors, it is considered the site and the study area is an everyday landscape on the edge of Preesall and is of medium landscape value. It is likely that the site will be 'valued' locally, as most farmland adjacent to a settlement is by those who live immediately next to it.

### Landscape features on site

- 3.14 Approximately 23 ha in extent the site is associated with Bourbles Farm and comprises: an arable field located within Pilling Moss-Head Dyke Biological Heritage Site designated for its importance for overwintering wildfowl (Phase 2 site); a pond (part of a network of three ponds surrounded by scrub, ruderal vegetation and three small areas of broadleaved woodland) and a fenced field used for the rearing of fowl (Phase 4 site); a medium size pasture field bounded and divided by post and rail fences used for grazing horses (Phase 3A area) a large pasture field bounded and divided by post and rail fences used for grazing horses (Phase 3A and 3B sites); a medium size pasture field bounded and divided by post and wire fences used for grazing horses (Phase 1 site); and a large arable field (Phase A site).
- 3.15 Phase 1 is a medium size field of improved grassland which is subdivided by post and wire fencing into paddocks for the grazing for horses. Fields are grazed short by horses. There is a horse manege in the south-eastern most paddock.
- 3.16 Phase 2 comprises a single arable field bounded to the north and west by a post and wire fence, to the south by Bourbles Lane and to the east by a close boarded fence enclosing Bourbles Farm House.
- 3.17 Phase 3A is a medium sized field bounded by post and wire fencing to the north, east and south and a native hedge to the west. It comprises areas of semi-improved grassland and marshy grassland divided by a post and wire fence.
- 3.18 Phase 3B is a large field bounded by post and wire fencing to the north, east and south and a native hedge and garden boundaries to properties on Bourbles Lane to the west. It comprises areas of semi-improved grassland and marshy grassland divided by a number of post and wire fences.
- 3.19 Phase 4 comprises an area of predominantly bare earth with some areas of ruderal vegetation enclosed by a fencing system with a crank angle at the top comprised of steel posts, chicken mesh, corrugated steel sheets and an electric wire.

3.20 Phase A is a single arable field bisected a drainage ditch and bounded to north by a wide strip of ruderal vegetation. A drainage ditch forms the south and part of the west boundary; the remainder of the west boundary comprises a fence enclosing the garden of Ourome. The fencing system enclosing Phase 4 forms the east boundary.

#### Landscape character of the site and surrounds (up to 2km)

- 3.21 The study area for this appraisal has a radius of 2 km from the boundaries of the site and is the area within which there is potential for landscape and visual effects.
- 3.22 The underlying geology of the area is largely masked by loamy and clayey soils of coastal flats with naturally high groundwater. The topography is flat and low lying and dissected by drainage ditches.
- 3.23 To the north, east and south, the site is bound by an area of agricultural fields located between Pilling Lane (to the north), Pilling (to the east) and Stalmine (to the south) interspersed with farms and some small settlements. The Pilling-Head Dyke covers a large part of the wider landscape to the north and north-east of the site and includes Phase 2 on the site.
- 3.24 Large fields in the landscape surrounding the site allow long views to the west towards the edge of Preesall Hill. Fleetwood's Charity Primary School and Preesall Mill are landmark buildings in the views. There are distant views to the east towards the Forest of Bowland fells. These views are punctuated by small deciduous secondary woodlands, mostly in the form of shelter belts or estate plantations.
- 3.25 The area is influenced by farm buildings, particularly highly distinctive red brick barns with brickwork detailing. Settlement is relatively dense with Preesall Hill and Knott End/ Preesall to the west of the site and Pilling to the east present within 1km together with several clustered red brick farm buildings.

3.26 There is a Public Rights of Way footpath (2-3-FP 28) and bridleway (2-3-BW 21) on the site and several footpaths providing access to the area within 1km of the site. There is a Public Right of Way bridleway (2-3-BW 21) which runs Bourbles Lane bisecting Zones 1 and 2 on the site. The network of public footpaths in the area surrounding the site is illustrated in Figure 5: Visual Receptor and Viewpoint Location Plan.

### Visual baseline

3.27 The visual baseline establishes the approximate area from which the proposed development may be visible, different groups of people who may experience views of the proposed development, the viewpoints where they will be affected and the nature of views at those points.

### Visibility mapping

3.28 A Zone of Theoretical Visibility (ZTV) was produced to map land that may potentially be visually connected with the proposed development based on a bare terrain model and not taking account of the screening effect of vegetation or buildings and is illustrated in Figure 2: Zone of Theoretical Visibility.

3.29 A field survey on 3 May 2023 examined landscape components that may affect visibility, including buildings, trees, hedgerows, woodland and landform, and established actual visibility on the ground is less than indicated by the ZTV plan.

### Receptors of visual effects

3.30 Within the area identified by the ZTV, groups of people (visual receptors) who may be affected by changes in views and visual amenity due to the proposed development were identified. These include:

- Residents at home in properties within 1km of the site;
- Residents at home in properties on the eastern edge of Preesall Hill and Knott End/ Preesall;
- Users of Public Rights of Way footpaths and bridleways;
- Motorists and pedestrians passing the site on the unadopted Bourble

Lanes; and

- Motorists and cyclists using roads within 0.5km of the site including Lancaster Road, Head Dyke Lane (A588).

3.31 The visual receptors most susceptible to a change in their view are residents at home particularly in properties near the site and people undertaking activities or visiting locations associated with the experience and enjoyment of the landscape including users of Public Rights of Way footpaths and bridleways.

### Viewpoints and views

3.32 The selection of viewpoints used to represent and assess the visual effects of the proposed development on visual receptors identified above was informed by the ZTV analysis, fieldwork and desk research on access and recreation, including footpaths, bridleways and public access land, tourism including popular vantage points, and distribution of population. These viewpoints are representative of the range of views, viewing experiences and types of viewer which may potentially be affected by the project. The viewpoints provide views in the short-, medium- and long-distance range and are all publicly accessible.

3.33 A total of thirteen viewpoints were selected and agreed in consultation with Lancashire County Council. Details of the viewpoints are provided in Table 4 and their locations are shown in Figure 5.

**Table 4: Viewpoint selection**

Viewpoint	Name/Location/Proximity	Rationale for Selection
1	Public footpath 2-3-FP28 adjacent to residential property Ourome on Gaulter's Lane E337416 N447563 0m; W boundary of Phase A	Represents footpath users (A) and residents at home in nearby residential properties on Gaulter's Lane (B).
2	Bridleway 2-3-BW 21 adjacent to residential property Bourbles Farm; view into Phase 2 E337795 N447725 0m; S boundary of Phase 2	Represents bridleway users (C) and residents at home in nearby residential property, Bourbles Farm House (D).

3	Bridleway 2-3-BW 21 adjacent to residential property Bourbles Farm E337861 N447694 4m N of Phase 4	Represents bridleway users (C) and residents at home in nearby residential property, Bourbles Farm House (D).
4	Footpath 2-3-FP 27 E337908 N447412 104m SE of Phase 4	Represents footpath users (E) and residents at home in several nearby residential properties (F).
5	Lancaster Road E337466 N447237 230m SW of Phase A	Represents road users (G) and residents at home in several nearby residential properties (H).
6	Bridleway 2-3-BW 21 adjacent to residential property Woodlands E337219 N447900 4m N of Phase 1	Represents bridleway users (C) and residents at home in Woodlands (J).
7	Footpath 2-3-FP 23 west of Tongues Farm Barns E337305 N448229 406m N of Phase 1	Represents footpath users (K) and residents at home in nearby residential properties, Tongues Farm Barns (L).
8	Footpath 2-3-FP 25 west of Greenlands E338197 N447948 415m ENE of Phase 2	Represents footpath users (M), residents at home in nearby residential property, Greenlands (N) and road users (O).
9	Cartgate E337182 N447262 443 WSW of Phase A	Represents road users (G) and residents at home in several nearby residential properties on Cartgate (P).
10	Green Dick's Lane E338406 N447548 538m E of site Phase 3B	Represents road users (O) and residents at home in nearby residential property, Crossing Cottage (Q).
11	Public footpath 2-3-FP 34 E336804 N447350	Represents footpath users (R) and staff and pupils at Fleetwood's Charity School (S).

	612m WSW of Phase A	
12	Bridleway 2-3-BW 21 (Bourbles Lane) E336804 N447350 0m W of Phase 3A	Represents bridleway users (C) and residents at home in nearby residential properties on east side of Bourbles Lane including New England Cottage (F).
13	Public footpath 2-3-FP 28 E336804 N447350 612m S of Phase 1	Represents footpath users (T), and residents at home in residential properties on Gaulter's Lane (U).

### Value attached to views

3.34 The value attached to the views experienced take account of:

- recognition of the value attached to particular views, for example in relation to heritage assets or through planning designations; and
- indicators of the value attached to views by visitors, for example, through appearances in guidebooks or on tourist maps, provision of facilities for their enjoyment and references to them in literature or art.

3.35 Higher value views are those associated with nationally designated landscapes or a view promoted as particularly scenic and which may be regularly used in guide books for that part of the country. Views associated with public rights of way paths or scenic views within undesignated landscapes are of lower value.



## 4 THE PROPOSED DEVELOPMENT

4.1 A full description of the proposed development is set out within the Environmental Statement and illustrated on Figure 6: Site Layout and Proposed Levels and Figure 7: Restoration Scheme.

4.2 Although all aspects of the proposed development are considered in the assessment of landscape and visual effects, the primary components considered likely to give rise to potential effects comprise:

- A new site access haul road joining the B5370 Lancaster Road to the southern boundary of the Phase A site;
- Creation of a plant site comprising site office (up to c.9.50m in height) and weighbridge, aggregate processing plant (up to c.15.15m in height), imported inert restoration stockpile (up to c.12m in height) and as raised stockpile (up to c.12m in height);
- Phased soil stripping and storage by creation of:
  - bunds to maximum height of approximately 3 m on the west and east boundaries of the Phase A site;
  - bunds to maximum height of approximately 3 m on the north, east and west boundaries of the Phase 1 site;
  - bund to maximum height of approximately 3 m on the north and east boundaries of Phase 2 site;
  - bund to maximum height of approximately 3 m on the east boundary of Phase 3A site;
  - bunds to maximum height of approximately 3 m on the east and west boundaries of the Phase 3B site; and
  - bund to maximum height of approximately 3 m on the north boundary of the Phase 4 site.

- Progressive extraction of sand and gravel within Phases 1, 2 and 4 located on the northern side of the Phase A site and Phases 3A and 3B located on the eastern side; and
- Progressive landform grading and restoration.

4.3 It is proposed that the sand and gravel would be extracted in a series of 'campaigns' where the sand and gravel would be extracted over short periods of time (around 4 to 6 weeks) using a tracked excavator, with dump trucks transporting the material to a stockpile adjacent to the wash plant. The main proposed areas of working are shown in Figure 6, comprising the four phased extraction areas, the internal haul routes and the proposed site access.

4.4 It is proposed that the excavation in Phase 1 would be restored to grassland, woodland and lakes using on-site derived overburden and bedrock (silty sands) thus negating the need for any de-watering operations in this part of the site. The workings would be restored progressively as they move across each phase using imported inert materials.

4.5 For Phase 2, Phase 3A and 3B, and Phase 4, the excavations would be de-watered and the areas backfilled with imported inert backfill materials as part of the proposed conceptual restoration shown in Figure 7. It is proposed that all infrastructure would be located within the proposed plant site area (identified as Phase A).

### Mitigation

4.6 Landscape mitigation has been designed into the proposed development and includes:

- Advanced planting along the northern boundary of the Plant Site would be implemented for visual attenuation purposes;
- Supplementary hedgerow and hedgerow tree planting would be implemented along the Application Site boundaries to reinforce existing hedgerows;

- Hedgerows would be maintained at an increased height of up to c.3-4m to aid visual containment;
- Bunds seeded with low maintenance grass will be created in strategic locations on the site boundaries to provide visual and acoustic containment of the proposed operations.

### Restoration scheme

4.7 The restoration scheme comprises the replacement of the soil layer above reclamation material, as well as the process of planting and habitat restoration to return the site to an agricultural use that has an enhanced biodiversity and landscape value. The strategy would seek to contribute to landscape character objectives (in *italics* below) for the Knott End-Pilling landscape character area as follows:

- *encourage retention and enhancement of hedgerows and related landscape features and hedgerow trees;*

New hedgerows proposed on north boundaries of Phase A, Phase 2 and Phase 3B.

- *create new field ponds;*

New field ponds proposed on Phase 1 site (two ponds) and Phase 3B (one pond).

- *improve access to water courses for angling and informal recreation walking.*

New fishing pond proposed on Phase 2 site.

- *ensure development proposals protect and enhance on-site features*

New small-scale holiday lodge development proposed on Phase A utilising haul road for access and introducing woodland blocks and trees.

- *former sand and gravel workings should be restored workings to a mosaic of wetland habitats;*

New wetland habitats, including wetland scrapes, wetland grassland and wetland scrub, proposed on Phase 4 site.

- 4.8 Soil will be replaced on a reclaimed site either from another phase that is being stripped, from the central soil store or from temporary bunds on the site boundaries. To prepare the reclaimed material for soil it will be decompacted prior to subsoil being placed.
- 4.9 Ground levels will be returned to their pre-excavation levels for areas to be restored for agriculture or wetland grassland. However, for ponds the restored levels will be lower than existing to create bodies of water.

## 5 ASSESSMENT OF EFFECTS

- 5.1 The potential effects of the proposed development in relation to the operation period and final restoration are assessed in relation to the landscape and visual receptors identified in Section 3.
- 5.2 Judging the significance of effects requires consideration of the nature of a receptor (sensitivity) and the nature of the effect on those receptors (magnitude) as set out in detail in the methodology (Appendix 1).
- 5.3 A detail assessment of effects on each of these receptors is set out in Table 5: Landscape Effects and Table 6: Visual Effects in Appendix 3 and summarised below.

### Assessment of effects on landscape character

- 5.4 The proposed development is within the boundaries of National Character Area 32: Lancashire and Amounderness Plain (NCA 32) and Landscape Character Area 15f: Knott End-Pilling (LCA15f). It is overlooked by a small portion of Landscape Character Area 16a: North Fylde Mosses (LCA 16a)
- 5.5 The proposed development would necessitate the loss of landscape features including arable and pasture farmland and small sections of field boundary hedges which are common to the NCA and Knott End-Pilling LCA. This would present an overall effect of slight-negligible on the broad scale NCA and moderate for the LCT as the loss of sections of hedge and arable and pasture farmland would be limited and localised and the duration of the operational period would be medium-term. The effect is judged to be negative as elements of the proposed development including infrastructure, stockpiles and bunds in Phase A and bunds in Phase 1-4 would contrast with the existing character.
- 5.6 Effects on the North Fylde Mosses LCA are judged to be slight as direct views of the proposed development would only be available from a small portion of the LCA. The proposed development would change the character of views from the LCA with vertical elements introduced to a relatively flat landscape, and this effect is judged to be negative.

## Assessment of effects on the fabric of the site

5.7 The proposed development would necessitate the loss of landscape features including arable and pasture farmland and boundary hedges as follows:

- Phase A (processing area): 54,001 sq m of arable land (cultivated/ disturbed);
- Haul Road: 2,113 sq m of improved grassland, 2,179 sq m amenity grassland, 1,362 sq m poor semi-improved grassland, 717 sq m bare ground and 55 m hedge;
- Phase 1: 27,504 sq m of improved grassland;
- Phase 2: 18,847 sq m of arable land (cultivated/ disturbed);
- Phase 3A: 7,057 sq m of poor semi-improved grassland and 14,145 sq m of marshy grassland;
- Phase 3B: 7,403 sq m of poor semi-improved grassland and 39,365 sq m of marshy grassland; and
- Phase 4: 17,475 sq m of bare ground.

5.8 The sensitivity of hedges is judged to be high. The loss of 55m length of hedge to provide an access and visibility splay onto Lancaster Road and internal access for the haul road would present an overall medium-low magnitude of change reflecting the small proportion of hedge on the site that would be removed. The level of effect on hedges is judged to be moderate-slight and as new hedge planting takes time to mature, the effect is negative.

5.9 All other landscape features of the site are of low value and widespread elements of the wider landscape and judged to have low sensitivity to the proposed development. The temporary loss of land cover in each phase of the operational period would present an overall, and at most, medium magnitude of change. The level of effect during the operational period for each phase is judged to be slight as it would be short-term, and the effect would be negative.

5.10 The final restoration scheme is shown in Figure 7: Restoration Scheme. It allows for the agricultural restoration of the former operational area to arable and pasture farmland, the reinstatement of hedgerows on their existing alignments, and the establishment of areas of scrub and woodland. A number of new waterbodies would be established including two field ponds on the Phase 1 site, a fishing pond on the Phase 2 site and a field pond on the Phase 3B site.

## Visual effects

### Viewpoint assessment

5.11 A viewpoint assessment was undertaken focusing on the views of visual receptors at thirteen representative locations agreed with consultees. It assesses the predicted visual effects in relation to the receptors identified in Section 3, the proposed development described in Section 4 and the following stages:

- Phase A (the pre-extraction stage);
- Phases 1, 2, 3A, 3B and 4 (the operational period); and
- Restoration.

This assessment is set out in Table 5 in Appendix 3 and summarised below.

5.12 Figures 8-20 (a – existing view and b – wireline overlay) in Appendix 4 show the existing view from each of these viewpoints together with a wireframe overlay that illustrates the extent of proposed development in each view. Elements which would be visible in the view are in solid lines coloured white and those screened by landscape or built elements, including features of the proposed development, in solid lines coloured cyan. Bunds which would screen the views during the operation period of a phase are shown in dashed lines coloured white. The green line in each view depicts the ground level. Infrastructure and spoil heaps in Phase A (processing area) are defined by single line height markers and annotated.

- 5.13 The viewpoint assessment examined visual effects on receptors at thirteen locations. The receptors are people at leisure, including walkers on public footpaths and bridleways, residents at home in farms and houses in the surrounding area, motorists using local roads, and staff and pupils at Fleetwood's Charity Primary School. Due to their occupation and interest in their landscape surroundings, the susceptibility of people at leisure and residents at home to a change in their view is judged to be high. Motorists using local roads have a passing interest in their surroundings as their attention is primarily on the road and their susceptibility to change is judged to be medium. Staff and pupils at Fleetwood's Charity Primary School whose attention is focused on their work or activity and not on their surroundings are considered to have a low susceptibility. The views are primarily of an everyday landscape which is likely to be valued locally as most farmland adjacent to a settlement edge is by those who live immediately next to it, and it is judged that their value is low. Where the fells in the Forest of Bowland AONB form part of the view, the value is judged to be high.
- 5.14 Infrastructure and spoil heaps in Phase A would be present for the entirety of the proposed development and are judged to have major magnitude of effect on receptors near the site including footpath users within 0.5km of the site boundary and residents at home in properties Ourome and Crossing Cottage. Effects were assessed as moderate and minor in partial views from further afield, including elevated views from Preesall Hill.
- 5.15 Each phase of sand and gravel extraction would be viewed in combination with Phase A. Phases 1, 2, 3A and 4 are judged to have a major magnitude of effect on the views of receptors using public footpaths and a bridleway on Bourbles Lane and residents at home in properties on Bourbles Lane and Green Dick's Lane due their close proximity to the site.



### Effects on people at leisure on public footpaths and bridleways

- 5.16 The closest receptors are users of the bridleway on Bourbles Lane (bridleway 2-3-BW 21) and a public footpath (footpath 2-3-FP28), both of which are adjacent to the site boundary. The bridleway passes Phase 1 (Viewpoint 6), Phase 2 (Viewpoint 2), Phase 3a (Viewpoint 12) and Phase 4 (Viewpoint 3) and the footpath is adjacent to Phase A (Viewpoint 1) and the operational periods in these phases would be visible and the magnitude of effect major.
- 5.17 Walkers on the public footpath (footpath 2-3-FP 25) crossing higher ground on Preesall Hill have a wide panoramic view across the coastal plain and would have an opportunity to view the proposed development (Viewpoint 11). The magnitude of effect on views from this location for each phase in combination with Phase A would be moderate. There is a glimpse view of the Phase 2 site from a footpath on Gaulter's Lane (Viewpoint 13) where the magnitude of effect would be moderate. From all other footpaths on lower ground the magnitude of effect would be minor due to partial interruption of views by vegetation (Viewpoint 7 and Viewpoint 8).

### Effects on residents at home

- 5.18 Residents at home in several properties near to the site boundaries would experience a major magnitude of effect on their views. There would be direct views into Phase A from the private residence Ourome (Viewpoint 1) where a bund approximately 3 m in height would interrupt views out to the east. Similarly, residents in Bourbles Farm House would have a direct view of a bund on the north boundary of Phase 4 during the operation period and views of elements in Phase A during the pre- and post-operation period (Viewpoint 3). From the private residence Woodlands, views into Phase 1 would be mostly obscured by garden vegetation but views of bunds on the boundaries and the extraction process may be visible (Viewpoint 6). The operational periods for Phase 3A and 3B would be prominent in the views of residents from a few properties, including New England Cottage, on the east side of Bourbles Lane (Viewpoint 12) and Crossing Cottage on Green Dick's Lane (Viewpoint 10).

5.19 From terraced properties on Cartgate the magnitude of effects of bunds, a stockpile, and an office/ weighbridge in Phase A on the views of residents at home would be moderate (Viewpoint 9). Parts of the proposed development would be visible from private residences at further distance from the site where the magnitude of effect would be minor. Residents in Tongues Farm Barns would have views of bunds in Phase 1 and Phase 2 with only an as raised stockpile visible in Phase A (Viewpoint 7). From Greenlands there would be views to Phases 2, 3A and 3B in combination with a part view of a wash plant and as raised stockpile in Phase A from a distance of approximately 0.5km (Viewpoint 8).

#### Effects of motorists using local roads

5.20 Motorists using Lancaster Road (Viewpoint 5) and Green Dick's Lane (Viewpoints 8 and 10) would have transient and glimpsed views of the proposed development from limited locations. The magnitude of effect on views from Lancaster Road would be moderate and from Green Dick's Lane minor.

#### Effects on staff and pupils at Fleetwood's Charity Primary School

5.21 Fleetwood's Charity Primary School at the top of Preesall Hill provides staff and pupils with a wide panoramic view across the coastal plain to the east and opportunity to view the proposed development (Viewpoint 11). The magnitude of effect on views from this location for each phase in combination with Phase A would be moderate.

## 6 SUMMARY

6.1 The LVIA has assessed the potential effects on landscape and visual receptors of the operational period of a proposed sand and gravel extraction site on land at Bourbles Lane, Preesall. The timescale for completion of the operational period is judged to be medium-term and the proposed development is fully reversible. The restoration scheme provides opportunity to deliver on recommendations of the Lancashire Landscape Strategy for the Knott End-Pilling landscape character area.

### Effects on landscape character

6.2 Effects on the Lancashire and Amounderness Plain national character area during the operational period is judged to be slight-negligible and negative. This level of effect is largely due to the broad scale of this character area and the medium-term duration of the proposed development. Post restoration this would reduce to negligible and neutral.

6.3 Moderate and negative effects on the Knott End-Pilling landscape character type would result from a noticeable and temporary change in landscape characteristics and character during the operational period. The site would be fully restored to at least the baseline conditions. The restoration scheme of the would introduce wetland habitats to the Phase 4 site and ponds to Phases 1,2 and 3B and the permanent level of effect overall would be moderate and positive.

### Effects of the fabric of the site

6.4 There would be a slight and negative level of effect on the land cover of the site during the operational period which would be negligible and neutral following restoration. Approximately 55m of hedge would be removed to accommodate the site access and haul road. Due to the small proportion of hedge on the site affected, the level of effect would be slight and negative during the operational period reducing to negligible and neutral post-restoration as replacement hedge matures. The creation of wetland habitat on the Phase 4 site and ponds on the Phase 1, 2 and 3B sites would be a positive effect.

## Effects on views

- 6.5 Viewpoint assessments indicate a moderate and negative level of effect is likely to be experienced by residents at home near the site including those in Bourbles House Farm, Ourome, Woodlands, Crossing Cottage, Greenlands, properties on the east side of Bourbles Lane and a limited number of properties on Gaulter's Lane and several properties on Cartgate and Lancaster Road. The effects would be localised and short-term in duration. Post-restoration the level of effect would be at worse moderate-slight and neutral.
- 6.6 People at leisure are present in the study area and would experience different levels of effect depending on their proximity to the site. Walkers on footpath 2-3-FP28 adjacent to the Phase A site would experience a moderate and negative level of effect due to 3 m high bund. This level of effect post restoration following introduction of a small-scale holiday lodge development would remain as moderate and negative. Users of bridleway 2-3-BW 21 are likely to experience moderate and negative levels of effect where it passes Phase 1, Phase 2, Phase 3A and Phase 4 and near to New England Cottage. From most locations the post-restoration effect on views from the bridleway would reduce to slight and neutral except near the Phase 4 site where the creation of wetlands on an area previously bare earth would be a moderate and positive level of effect. From footpath 2-3-FP 28 there is a glimpsed view into the Phase 1 site where the level of effect would be moderate and negative reducing to slight and neutral post-restoration.
- 6.7 Walkers on footpath 2-3-FP 25 and staff and pupils at Fleetwood's Charity Primary School on the higher ground of Preesall Hill would experience moderate and negative, and slight and negative, levels of effect respectively on a wide panoramic view across the coastal plain. The level of effect on people using public footpaths in other areas is judged to be no greater than moderate-slight and negative.

6.8 Effects on receptors travelling through the area on local roads would be moderate-slight and negative at worse. The views would be transient and localised. Post-restoration the level of effect on motorists would be no worse than moderate-slight and neutral.

Appendix 1

## **LVIA Methodology**

# Landscape and Visual Impact Assessment (LVIA) Methodology

## Introduction

Landscape and Visual Impact Assessment (LVIA) is a tool used to identify and assess the significance of the effects of change resulting from a proposed development (the 'Development') in both the landscape as an environmental resource in its own right and on people's views and visual amenity.

LVIA may be carried out formally as part of an Environmental Impact Assessment (EIA) or informally as a contribution to the design process and appraisal of development proposals and planning applications. The broad principles and the core of the approach are the same in each case.

### *LVIA as part of EIA*

EIAs have been required formally for certain types of development since 1985. Stemming from a European directive, the requirements of EIA are translated into domestic law in each member state. With devolution in the UK, the devolved legislation is leading to subtle differences in each area. While the practitioner must be aware of these differences in legislation, the principles of LVIA will remain the same.

Within the context of an EIA, LVIA deals with effects on the landscape itself and on people's visual amenity, as an aspect of effects on human beings, and also with possible inter-relationships of these with other related topics.

### *LVIA in the appraisal of development proposals*

Where no EIA is required for a development, planning authorities may still ask for an LVIA as part of the appraisal process of a proposed development that may bring about a change in the landscape and in the visual amenity. While there will be no rigid requirement to follow the defined terms of an EIA, the required approach is likely to be broadly similar.

Landscape and visual impact assessments focus on proportionality, transparency, professional judgement, clear communication and presentation.

## Methodology

The methodology used to carry out LVIA is informed by:

- Landscape Institute and Institute of Environmental Management & Assessment 2013 *Guidelines for Landscape and Visual Impact Assessment, 3rd edition* (referred to as GLVIA3);
- Countryside Agency and Scottish National Heritage 2002 *Landscape Character Assessment. Guidance for England and Scotland*;
- Landscape Institute Advice Note 01/11 *Photography and photomontage in landscape and visual impact assessment*.

In addition, LVIA for EIA developments will comply with the scoping opinion given by the planning authority where this has been sought.

The core components of the methodology and their relevance to LVIA as part of EIA and LVIA in the appraisal of development proposals are:

Component	LVIA as part of EIA	LVIA in the appraisal of development proposals
<b>Project description</b>	Required	Required
<b>Baseline studies</b>	Required	Required
<b>Identification and description of effects</b>	Required	Required
<b>Assessment of significance (or level) of effects</b>	Required	Not required <sup>1</sup>
<b>Mitigation</b>	Required	If required

<sup>1</sup> For Non-EIA Landscape and Visual Impact Appraisal GLVIA3 Statement of Clarification 1/13, 10th June 2013 states:

*In carrying out appraisals, the same principles and process as LVIA may be applied but, in so doing, it is not required to establish whether the effects arising are or are not significant given that the exercise is not being undertaken for EIA purposes. The emphasis of 'significant effects' in formal LVIA stresses the need for an approach that is proportional to the scale of the project that is being assessed and the nature of its likely effects. The same principle - focussing on a proportional approach – also applies to appraisals of landscape and visual impacts.*

### **Project description**

The planning application will include a description of the project at each phase in its life cycle in sufficient detail to allow the assessment of landscape and visual effects including:

- a description of the siting, layout and characteristics of project as a minimum;  
*Refer to GLVIA3, paragraph 4.15 for information to be presented and illustrated.*
- information concerning relevant stages in the project's life cycle including, as appropriate, construction, operation, and decommissioning and restoration/reinstatement stages.  
*Refer to GLVIA3, paragraphs 4.17-4.20 for relevant information.*

The LVIA will highlight those aspects of the development that are the key sources of landscape and visual change.



## Baseline studies

The baseline studies will set out the existing landscape and visual conditions within the study area.

## Landscape

The landscape baseline will identify and record the character of the landscape and the elements, features and aesthetic and perceptual factors which contribute to it and determine the value attached to the landscape.

The area of landscape to be studied will be agreed with the local planning authority. It will include the site itself and the full extent of the wider landscape around it which the proposed development may influence in a significant manner (based on extent of Landscape Character Areas or a Zone of Theoretical Visibility).

Information will be collected on land use, landscape features, landscape character and landscape designations (value), drawing on published landscape character assessments including National Character Area Profiles published by Natural England, relevant Regional Landscape Character Assessments, relevant District/Unitary/AONB Landscape Character Assessments and management plans for designated landscapes.

A field survey will be undertaken to supplement desk based information and to capture aesthetic, perceptual and experiential qualities of the area of landscape from a number of survey points. A field survey sheet will guide the collection of field data at each survey point. The survey sheet will be tailored to the development and will provide space for: a written description, a checklist of landscape elements and their significance, a checklist of aesthetic and perceptual factors, and space for observations about the sensitivity and management needs of the landscape.

A description of relevant policies and plans will also be included and the relevant Parish Plan consulted, where available, to understand local landscape values.

A landscape baseline report supported by illustrations where necessary should:

- Map, describe and illustrate the existing landscape and its character;
- Identify and describe the potential receptors of landscape effect (individual elements and aesthetic and perceptual aspects of the landscape);
- Indicate the condition of the landscape, including elements and features.
- Consider the value attached to the landscape

## Visual

The visual baseline will establish the area in which the Development may be visible, the range of people who may experience views of the Development, the viewpoints where they will be affected and the nature of the views at those points and agree with the relevant planning authority.

A zone of theoretical visibility (ZTV) will be prepared or provided by the Client to indicate the area over which the development may be seen. A ZTV is a computer generated plan that shows the visibility of the development in the surrounding landscape. ZTVs are based on topography and because they do not take into account screening elements within the landscape such as trees, woodland or buildings they indicate theoretical visibility only.

Viewpoints from which the Development will actually be seen by the different groups of people will be identified (with the aid of the ZTV) and discussed and agreed with the local planning authority and other stakeholders where relevant. The number of viewpoints required will vary with the location and scale of the proposal. Priority should be given to views from distances of less than 3km, views from sensitive locations (e.g. residential areas, areas popular with visitors or for outdoor recreation where views may be focussed on the landscape and recognised /iconic views), and views from elevated locations. These should include the clearest views of the development and if the development is visible from a protected landscape there will be a requirement for at least one viewpoint from that landscape. The purpose for selection should be recorded within the LVIA.

Final selection of viewpoints for inclusion in the assessment and for illustration of the visual effects should take account of a range of factors.

*Refer to GLVIA3, paragraphs 6.18-6.23 for factors.*

At each agreed viewpoint, baseline photographs will be taken to record the existing views in accordance with the Landscape Institute technical advice note *Photography and photomontage in landscape and visual impact assessment (Landscape Institute 2011)*.

A visual baseline report will combine information on:

- Type and relative numbers of people (visual receptors) likely to be affected and the activities they are likely to be involved in;
- Location, nature and characteristics of selected representative, specific and illustrative viewpoints and details of visual receptors likely to be affected at each;
- Nature, composition and characteristics of existing views experienced at these viewpoints, including direction of view;
- Visual characteristics of existing views e.g. nature and extent of skyline, aspects of visual scale and proportion (horizontal or vertical emphasis) and any key foci;
- Element, such as landform, buildings and vegetation which may interrupt, filter or otherwise influence views.

The report will be supported by:

- Plans to combine potential extent to which site of proposed development is visible from surrounding areas (ZTV), chosen viewpoints, types of visual receptor affected and nature and direction of views;
- Illustrations of existing views by photographs or sketches with annotations added to emphasise any important components and to help viewers understand what they are looking at;

- Technical information about the photography used to record the baseline including camera details, date and time of photography and weather conditions.

### Identification and description of effects

This component will systematically identify and describe the likely landscape and visual effects of the proposal, identifying magnitude of change as a deviation from baseline conditions.

#### Landscape effects

The landscape baseline information is combined with an understanding of the details of the proposed change or development that is to be introduced into the landscape to identify and describe landscape effects:

Step 1:

The components of the landscape that are likely to be affected by the proposal, the **landscape receptors**, are identified. These can include overall landscape character and key characteristics, individual elements or features and specific aesthetic or perceptual aspects.

Step 2:

Interactions between these landscape receptors and the different components of the development at all its different stages, including construction, operation and, where relevant, decommissioning and restoration/ reinstatement, are identified.

The assessment will consider direct, indirect, secondary, short-, medium- and long-term, permanent and temporary, positive and negative effects of the development.

**Direct** physical effects of a proposal will be described in the LVIA, including quantities where appropriate.

**Indirect** effects: perceptual and visual effects on landscape character and visual effects on specific receptors.

**Secondary** effects: may include further LVIA effects arising from related development, which may be remote from the development site itself.

**Short-, medium- and long-term** effects: effects during various stages of a project including the construction stage and/or phased implementation.

**Permanent and temporary** effects: the LVIA process should identify whether effects are temporary or permanent (e.g. are they reversible or irreversible).

**Positive and negative** effects: interpreted as either a beneficial (positive) or adverse (negative) effect in LVIA terms.

Judgements on positive and negative effect will be based on clear criteria, such as: degree to which the proposal fits with existing character; and contribution to the landscape that the development may make in its own right (good design).

All effects on landscape features/fabric, landscape character and landscape values and visual amenity will be described.

- Effects on landscape features/fabric will consider loss of elements (e.g. hedges, trees).
- Effects on landscape character will describe the direct changes that will occur to the character of the landscape as described in the County/ District/Unitary/AONB Landscape Character Areas (i.e. with reference to Landscape Character Areas and Landscape Character Types as appropriate) – this should include how the development will affect perceptions of character and how widespread and prominent the changes will be.
- Effects on landscape values will also describe any potential changes in special qualities of landscapes as recorded in County/ District/Unitary/AONB Landscape Character Assessments. Particular weight should be given to protecting the special qualities of protected landscapes (i.e. AONB and National Parks), focussing on the reasons for designation referred to in their Management Plans.

### Visual effects

Likely significant visual effects will be identified by considering the different sources of visual effects alongside the principal visual receptors that might be affected.

A range of issues will be considered to inform a description and comparison of effects including:

- Nature of the view of the development (full, partial, glimpse);
- Proportion of development that would be visible (full, most, small, part, none);
- Distance of viewpoint from development;
- Whether view is stationary or transient or one of a sequence of views (from footpath or moving vehicle);
- Nature of changes (changes in existing skyline profile, creation of new visual focus, introduction of new man-made objects, changes visual simplicity or complexity, alteration of visual scale and change to degree of visual enclosure).

All effects on visual amenity will be described.

- Effects on visual amenity will describe and illustrate the extent of visibility and record changes in views from the representative assessment viewpoints with reference to photographs and visualisations.
- Effects on settlements and at any properties with a clear view of the site will also be considered.

### Assessment of significance (or level) of effects

#### Landscape effects

The landscape effects that have been identified will be assessed to determine their overall level of effect by combining judgements on the **sensitivity** of the landscape receptor and the **magnitude** of landscape effects.

### Sensitivity of landscape receptors

The sensitivity of a landscape receptor is determined by an evaluation of its susceptibility to change (or the development type) and its value.

**Susceptibility to change** means *the ability of the landscape (whether that be the overall character or quality/ condition of a particular landscape type or area, or an individual element and/or feature, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies (GLVIA3, paragraph 5.40).*

The criteria for determining the susceptibility to change are based on the special qualities and landscape character attributes of the landscape most likely to be affected by a residential development in Table 1.

**Table 1: Criteria for determining susceptibility to change**

		LOWER SUSCEPTIBILITY CRITERIA ← → HIGHER SUSCEPTIBILITY CRITERIA	
<b>CRITERIA</b>	Scale	Larger scale and more open landforms. Open fields. Existing human-scale elements e.g. buildings or trees.	Smaller scale, enclosed landforms. Smaller, more intricate field cover
	Landform	Little topographic variation. Smooth, gently undulating or flat landforms.	Dramatic or distinct landforms such as prominent ridges, rolling hills or steep slopes.
	Landscape pattern	Large, regular scale field patterns. Limited tree cover.	Small, irregular field patterns. Areas of woodland, water and semi-natural habitats.
	Settlement	Concentrated settlement pattern. Presence of modern development e.g. utility, infrastructure or industrial elements. An exposed settlement	Dispersed settlement pattern. Absence of modern development, presence of small scale, historic or vernacular settlement. A well-integrated settlement edge with an

	edge.		intact landscape structure.
Historic landscape character	Relatively few historic features e.g. Conservation Areas, Scheduled Monuments, listed buildings important to the character of the area and little time depth		A high density of historic features e.g. Conservation Areas, Scheduled Monuments, listed buildings important to the character of the area and great time depth
Perceptual qualities	Site is significantly influenced by development/ human activity.		A tranquil or highly rural landscape, lacking strong intrusive elements. Higher degree of remoteness.
Visual character	Site is enclosed/ visually contained and/or has a low degree of visibility from surrounding landscapes, and the site does not form a visually distinctive or important undeveloped skyline.		Site is open and/ or has a high degree of visibility from surrounding landscapes, and/ or the area forms a visually distinctive skyline or an important undeveloped skyline.

Judgements on susceptibility of receptors (which may include individual features or areas) are recorded on a scale of **high**, **medium** or **low** according to Table 2.

**Table 2: Susceptibility of landscape receptors**

		DESCRIPTION
SUSCEPTIBILITY	High	<p>The landscape receptor has limited capacity to accommodate residential development and undue consequences to the baseline situation are to be expected.</p> <p>Attributes that make up the character of the landscape offer limited opportunities for accommodating residential development without being altered, leading to a different landscape character.</p> <p>Landscapes of particularly distinctive character and without detracting features, vulnerable to relatively small changes</p>
	Medium	<p>The landscape receptor has some capacity to accommodate residential development and undue consequences to the baseline situation may occur.</p> <p>Attributes that make up the character of the landscape offer some opportunities for accommodating residential development without key characteristics being altered.</p> <p>Recognisable landscape structure, characteristics, patterns and combinations of landform and land cover moderately valued characteristics with some detracting features and reasonably tolerant of changes.</p>
	Low	<p>The landscape receptor has more capacity to accommodate residential development and undue consequences to the baseline situation are unlikely.</p> <p>Attributes that make up the character of the landscape are resilient to being changed by residential development.</p> <p>Non-designated landscape, very weak or degraded structure, extensive detracting features and tolerant of substantial change.</p>

**Value** of a landscape receptor is concerned with the importance attached to a landscape, often as a basis for designation or recognition which expresses national or regional consensus, because of its distinctive landscape pattern, cultural associations, scenic or aesthetic qualities. It should be noted that, in virtually all circumstances, landscapes are valued in the local context by various if not all sectors of the community e.g. due to its contribution to a community or its cultural significance e.g. landscapes reflected through literature, poetry, art etc.

Where there is no clear existing evidence on landscape value, an appraisal is made based on the following factors (based on the guidance in GLVIA3 paragraph 5.28, Box 5.1):

- Landscape quality (condition);
- Scenic quality;
- Rarity;
- Representativeness;
- Conservation interest;
- Recreation value;

- Perceptual aspects; and
- Associations

The criterion in Table 3 is used to assess landscape value for non-designated landscapes.

**Table 3: Criterion for assessment of landscape value for non-designated landscapes**

		VALUE		
		Low	Medium	High
CRITERIA	<b><i>Condition/quality</i></b>	A landscape with no or few areas intact and/ or in poor condition	A landscape with some areas that are intact and/or in reasonable condition	A landscape with most areas intact and/or in good condition
	<b><i>Scenic quality</i></b>	A landscape of little or no aesthetic appeal	A landscape of some aesthetic appeal	A landscape of high aesthetic appeal
	<b><i>Rarity and representativeness</i></b>	A landscape which does not contain rare landscape types or features	A landscape which contains distinct but not rare landscape types or features	A landscape which contains one or more rare landscape types or features
	<b><i>Conservation interests</i></b>	A landscape with no or limited cultural and/or nature conservation value	A landscape with some cultural and/or nature conservation value	A landscape with rich cultural and/or nature conservation value
	<b><i>Recreation value</i></b>	A landscape with no or limited contribution to recreation experience	A landscape with some contribution to recreation experience	A distinct landscape with a strong contribution to recreation experience
	<b><i>Perceptual aspects</i></b>	A landscape with prominent detractors, probably part of the key characteristics	A landscape with detractors that retains some perceptual values	A wild, tranquil or unspoilt landscape without noticeable detractors
	<b><i>Cultural associations</i></b>	A landscape without recorded associations	A landscape with some and/or moderately valued associations	A landscape of rich and/or highly valued associations

A landscape value for each receptor is defined on a scale of high, medium or low according to Table 4.

**Table 4: Value attached to landscape**



		DESCRIPTION
VALUE	High	Internationally or nationally valued landscapes (World Heritage Sites, National Parks, areas of Outstanding Natural Beauty).  Receptor highly reflects high and medium value criteria in Table 3.
	Medium	Designated and locally valued landscapes (local authority landscape designations).  Receptor moderately reflects high and medium value criteria in Table 3.
	Low	Landscapes not nationally or locally designated but valued at or community or site level.  Landscape receptor poorly reflects high and medium value criteria in Table 3.

### *Magnitude of landscape effects*

Each effect on a landscape receptor is assessed in terms of its size or scale, the geographical extent of the area influenced and its duration and reversibility.

**Size or scale** of effect is a consideration of the degree of change arising from the development and is described as being major, moderate, minor and none, with reference to the definitions set out in Table 5.

**Table 5: Size or scale of change to landscape receptor**

		DESCRIPTION
SIZE OR SCALE	Major	Major alteration to existing landscape elements, features or characteristics potentially resulting in a new landscape character type.
	Moderate	Noticeable alteration to existing landscape elements, features or characteristics.
	Minor	A perceptible but small alteration to existing landscape elements, features or characteristics.
	None	An imperceptible or barely perceptible alteration to existing landscape elements, features or characteristics.

**Geographic extent** is a consideration of the geographical area over which the landscape effects will be felt and is determined by the following scale:

- on a **larger scale** affecting several landscape types or character areas (**Extensive**)

- at the scale of the **landscape type or character area (Major)**
- at the level of the **immediate setting** of the site (**Localised**)
- at the **site level**, within the Development site itself (**Restricted**)

**Duration and reversibility** of effects are linked considerations and are determined by the following scale:

- The change is expected to be permanent without the intention for it to be reversed (**Permanent**);
- The change is expected to effect the receptor for a period of 10-25 years and thereafter will be fully reversed or fully mitigated such that the baseline conditions are restored (**Long term**);
- The change is expected to have effect on the receptor for a period of 5-10 years and thereafter will be fully reversed or fully mitigated such that the baseline conditions are restored (**Medium-term**);
- The change is expected to have effect the receptor for a period of up to 5 years and thereafter will be fully reversed or fully mitigated such that the baseline conditions are restored (**Short-term**).

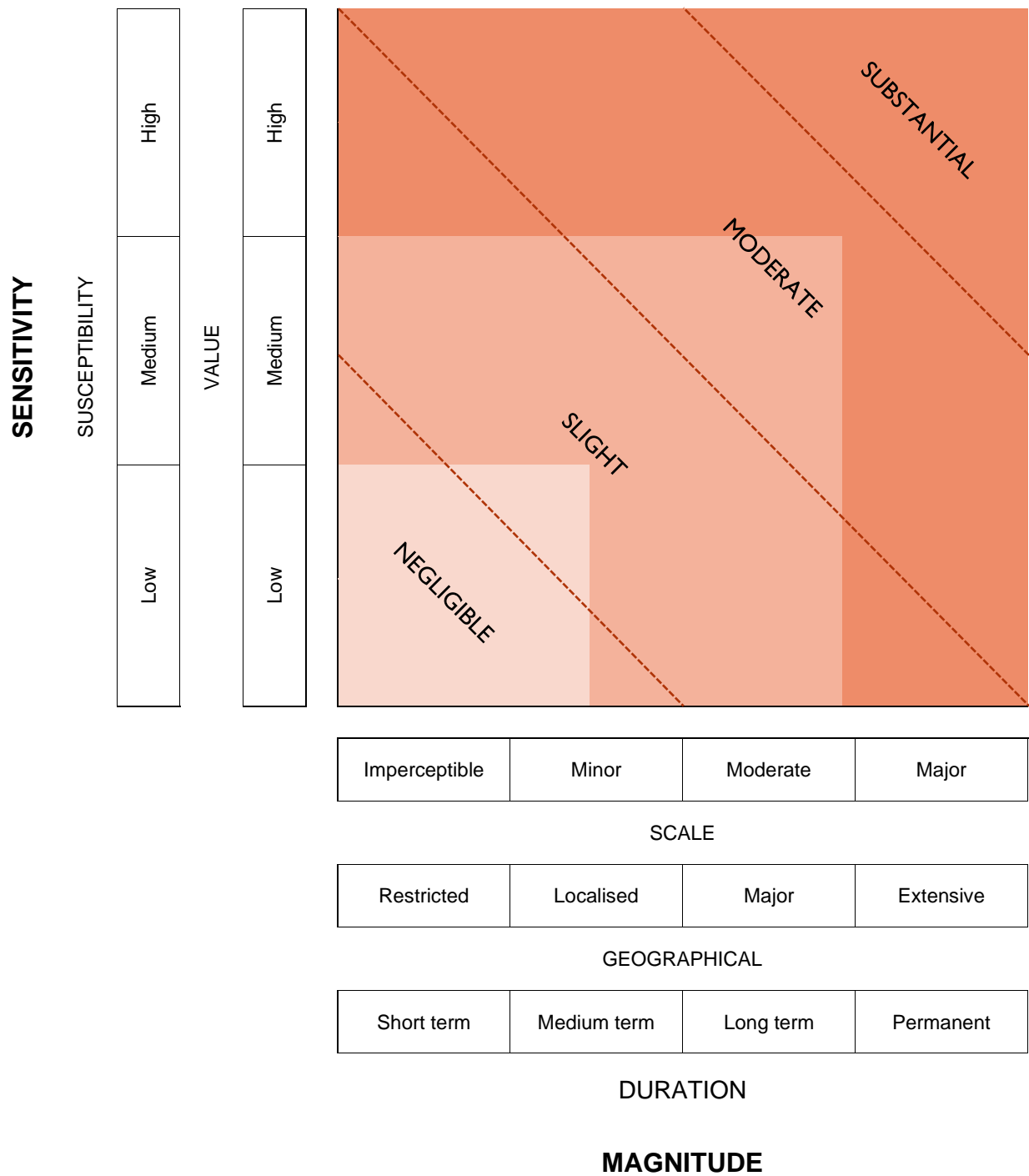
Reversibility is related to whether the change can be reversed (e.g. effects arising from the presence of construction traffic will cease at the end of construction, whereas effects arising from presence of new built development such as housing will be not reversible).

#### *Overall level of landscape effects*

To draw final conclusions about the level (or significance) of landscape effects, the separate judgements about the sensitivity of landscape receptors and the magnitude of landscape effects are combined to allow a final judgement to be made about the level of each effect.

All judgements against the individual criteria are arranged in Diagram 1 to provide an overall profile of each identified effect. An overview is then taken of the distribution of judgements for each criterion to make an informed professional assessment.

**Diagram 1: Level of effects assessment diagram**



Levels of landscape effect are identified as: **Negligible**, **Slight**, **Moderate** or **Substantial**. Where it a judgement falls between or encompasses two of these terms, then the judgement may be described as: **Slight-Negligible**, **Moderate-Slight** or **Substantial-Moderate**. The terms are defined in Table 6.

**Table 6: Levels of landscape effect**

		DESCRIPTION
<b>LEVEL OF LANDSCAPE EFFECT</b>	Substantial	Major loss or permanent negative effects, over an extensive area, on elements and/or aesthetic and perceptual aspects that are key to the character of nationally valued landscapes.
	Moderate	Noticeable or long term negative effects, over a landscape character type or area, on elements and/or aesthetic and perceptual aspects that contribute to local authority designated landscape.
	Slight	Perceptible but small negative effects, over a localised area, on elements and/or aesthetic and perceptual aspects that are key to the character of landscapes of community value.
	Negligible	Reversible negative effects of short duration, over a restricted area, on elements and/or aesthetic and perceptual aspects that contribute to but are not key characteristics of the character of landscapes of community value.

A judgement is made on whether the effects are **positive** (beneficial), **negative** (adverse) or **neutral** in relation to the degree to which the Development fits with existing character; and the contribution to the landscape that the Development may make in its own right.

### Visual effects

The visual effects that have been identified will be assessed to determine their overall level of effect by combining judgements on the **sensitivity** of a visual receptor and the **magnitude** of visual effect.

#### *Sensitivity of visual receptors*

Visual receptors are all people and their sensitivity is assessed in terms of both their susceptibility to change in views and visual amenity and the value attached to particular views.

The susceptibility of visual receptors to changes in views and general visual amenity is typically a function of the activity of people experiencing the view and the extent to which their attention is likely to be focused on the view (GLVIA3, paragraph 6.32)

The susceptibility of visual receptor groups is recorded on as scale of **high**, **medium** and **low** using the definitions in Table 7.

**Table 7: Susceptibility of visual receptors to change**

		<b>VISUAL RECEPTORS</b>
<b>SUSCEPTIBILITY</b>	High	Residents at home particularly using rooms normally occupied in daylight hours; people engaged in outdoor activities whose attention is focused on the landscape or particular views e.g. users of public rights of way; visitors to heritage assets or tourist attractions where views of the surroundings are an important contributor to the experiences.
	Medium	Road and rail users where views of the surroundings form an incidental contribution to the journey; Cyclists or users of scenic roads where views of the surroundings contribute to the experience.
	Low	People engaged in outdoor sport and recreation which does not involve an appreciation of views of the landscape.  People at their place of work whose attention may be focused on their work or activity and where the setting is not important to the quality of their working life.

Value attached to views is concerned with the value placed on the landscape resource in a view and will take account of:

- Recognition of the value attached to particular views e.g. in relation to heritage assets or through planning designations;
- Indicators of the value attached to views by visitors e.g. through appearance in guide books or on tourist maps, provision of facilities for their enjoyment (parking places, sign boards and interpretive material) and references to them in literature or art.

Judgements on value of views are recorded on scale of high, medium and low according to Table 8.

**Table 8: Value attached to views**

		<b>DESCRIPTION</b>
<b>VALUE</b>	High	Views appearing in guidebooks or on tourist maps; Provision of facilities for the enjoyment of a view (e.g. parking places, sign boards and interpretive material); and references to a view in literature.  Views associated with nationally designated landscapes, designed views recorded in records for historic parks and gardens or scheduled monuments.
	Medium	Views associated with local authority designated landscapes or recorded as of importance in Conservation Area Appraisals or local authority landscape/townscape assessments.

Low	Views valued at a community level.
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### *Magnitude of visual effects*

Each effect on visual receptors will be assessed in terms of its **size or scale**, the **geographical extent** of the area influenced and its **duration and reversibility**.

Size or scale of an effect considers:

- the scale of the change in the view with respect to the loss or addition of features in the view and changes in its composition, including the proportion of the view occupied by the Development;
- the degree of contrast or integration of any new features or changes in the landscape with the existing or remaining landscape elements and characteristics in terms of form, scale and mass, line, height, colour and texture; and
- the nature of the view of the proposed development in terms of the relative amount of time over which it will be experienced and whether views will be full, partial or glimpses.

Size or scale is determined by the classification in Table 9.

**Table 9: Size or scale of change in view**

		DESCRIPTION
SIZE OR SCALE	Major	Major change to features in the view and major changes in its composition due to a large proportion of the view occupied by the proposed development.
	Moderate	Noticeable change to features in the view and noticeable changes in its composition due to a moderate proportion of the view occupied by the proposed development.
	Minor	Minor change to features in the view and minor changes in its composition due to a small proportion of the view occupied by the proposed development.
	Negligible	Very minor change to features in the view and very minor changes in its composition due to a limited proportion of the view occupied by the proposed development

Geographic extent of a visual effect considers:

- the angle of view in relation to the main activity of the receptor;
- the distance of the viewpoint from the proposed development;
- the extent of the area over which the change would be visible.

Geographical extent is described as being **extensive, major, localised** or **restricted**.

Duration and reversibility of effects are linked considerations and are determined by the following scale:

- The change is expected to be permanent without the intention for it to be reversed (**Permanent**);
- The change is expected to effect the receptor for a period of 10-25 years and thereafter will be fully reversed or fully mitigated such that the baseline conditions are restored (**Long-term**);
- The change is expected to have effect on the receptor for a period of 5-10 years and thereafter will be fully reversed or fully mitigated such that the baseline conditions are restored (**Medium-term**);
- The change is expected to have effect the receptor for a period of up to 5 years and thereafter will be fully reversed or fully mitigated such that the baseline conditions are restored (**Short-term**).

Reversibility is related to whether the change can be reversed (e.g. effects arising from the presence of construction traffic will cease at the end of construction, whereas effects arising from presence of new built development such as housing will be not reversible).

#### *Overall level of visual effects*

To draw final conclusions about the level (or significance) of visual effects, the separate judgements about the sensitivity of landscape receptors and the magnitude of landscape effects are combined to allow a final judgement to be made about the level of each effect.

All judgements against the individual criteria are arranged in Diagram 1 to provide an overall profile of each identified effect. An overview is then taken of the distribution of judgements for each criterion to make an informed professional assessment.

Levels of landscape effect are identified as: **Imperceptible, Slight, Moderate** or **Substantial**. Where a judgement falls between or encompasses two of these terms, then the judgement may be described as: **Slight-Imperceptible, Moderate-Slight** or **Substantial-Moderate**. The terms are defined in Table 10.

**Table 10: Levels of visual effect**

		DESCRIPTION
<b>LEVEL OF VISUAL EFFECT</b>	Substantial	Major change to features in the view and major changes in its composition due to a large proportion of the view occupied by the proposed development.
	Moderate	Noticeable change to features in the view and noticeable changes in its composition due to a moderate proportion of the view occupied by the proposed development.
	Slight	Minor change to features in the view and minor changes in its composition due to a small proportion of the view occupied by the proposed development.
	Imperceptible	Very minor change to features in the view and very minor changes in its composition due to a limited proportion of the view occupied by the proposed development

### **Mitigation**

As a consequence of the assessment process there are likely to be modifications to the scheme designed to minimise landscape and visual effects. In addition, there may be measures to prevent, reduce or offset very substantial or substantial adverse effects. These will be described in terms of relationship to/conservation of valued landscape features, relationship to landscape character and appearance from sensitive viewpoints and designated landscapes. All mitigation measures will be described and an indication of how they will be implemented provided. A description of the main reasons for site selection and any alternatives in site design or layout will also be provided where relevant.



## **ZTV and Visualisations Methodology**

# **METHODOLOGY FOR PRODUCTION OF ZONE OF THEORETICAL VISIBILITY (ZTV)**

## **Overview / Guidelines**

A ZTV map has been generated in order to better understand the likely extent of visibility of the proposed sand and gravel extraction development across the surrounding landscape. The 2km Zone of Theoretical Visibility (ZTV) was produced in accordance with guidelines outlined in 'Guidelines for Landscape and Visual Impact Assessment 3rd Edition' (Landscape Institute 2013) [GVLA] and 'Visual Representation of Development proposals. Technical Guidance Note 06/19' (Landscape Institute 2019).

## **ZTV Production**

The ZTV was produced using a 5m Digital Terrain Model (DTM). This landform model is 'bare earth' and does not take account of screening features such as buildings and vegetation. The DTM is based upon 5m grid spacing. The horizontal RMSE (root mean square deviation) of the data is better than +/-1.5m, and the vertical RMSE is better than +/-1.5m.

The ZTV was calculated and created using GIS software. The ZTV calculation process takes account of the curvature of the earth's surface and light refraction. The eye height of the receptor in the computer model was set at 1.6m above ground level in accordance with guidance set out in the GVLA. The ZTV maps the theoretical visibility of the highest point of the development using coloured shading over a georeferenced OS 10k basemap. The basemap has been displayed greyscale to aid clarity. Darker shading outlines area of higher theoretical visibility and lighter shading outlines areas of lower theoretical visibility. Areas with no shading outline areas with no theoretical visibility.

## **Limitations**

The ZTV is not an absolute indication of the extent of visibility but rather a computer-generated aid that utilises groundmodel data to indicate areas of inter-visibility and screening by the terrain. ZTVs are tools to assist the LVIA. The technique aims to give a better understanding of the areas where visibility is likely and unlikely but imperfections in data are such that it must only be seen as an aid to understanding when interpreting the ZTV. It makes no distinction between a clear view of all or most of a proposed feature and a view of a very small proportion of a feature (for example one corner of an office building roof, or the top of a restoration stack).

# **METHODOLOGY FOR PRODUCTION OF WIRELINE OVERLAYS**

## **Methodology framework**

The wireline overlays contained in this LVIA have been produced in accordance with 'Landscape Institute Technical Guidance Note 06/19 'Visual Representation of Development Proposals 17<sup>th</sup> September 2019'. The wireline overlays are Type 2 visualisations.

## **Viewpoint selection**

The viewpoints for visualisation purposes were selected by a chartered landscape architect and the range and representation of the viewpoints were agreed with Lancashire County Council before proceeding. The position of the viewpoints was also selected to be practical for the visualisation process, including the safe and legal access to the viewpoints.

## **Photography**

All photographs included in this LVIA have been taken with a digital SLR camera with a full frame sensor (exact model is stated on the visualisations), with a fixed 50mm focal length lens (Canon EF), mounted on a level graduated panoramic head tripod at a height of 1.5m. All photographs were taken in landscape format. 18 No images were taken at 20 degree intervals giving a full 360 degree sweep at the viewpoint location. These images were then stitched together using Adobe Lightroom software to give a full 360 degree panoramic image. A hand held GPS was used to record the OS grid reference of each viewpoint.

## **Computer modelling and wireline generation**

For each viewpoint a wireline visualisation based on OS Terrain 5 DTM data was generated using 3D Studio Max software. Bunds for each phase were also modelled plus positional and height markers for each site element on Phase A. A computer-generated camera was set up for each viewpoint, matching the height above ground level and direction of the view.

## **Photo-matching and production of wireline overlay**

The photographs were matched to the wireframes using computer generated cameras with cylindrical projection and computer-generated markers that match fixed features in the viewpoint photography (lamp post, building edge for example). The wireframe was then displayed as an overlay on top of the viewpoint image. This matched wireline shows where all elements of the site are in relation to the viewpoint and how the site is screened by natural or built elements in the landscape. Colours were used to display which elements and parts of elements would be visible from each viewpoint and height markers were used to show the heights of various elements in Phase A. All bunds for all phases were displayed and a graphic and text overlay shows where each phase is evident in the viewpoint. Further explanation in the LVIA report explains which elements of each phase would be visible from each viewpoint through time.

## **Assessment tables**

**Table 5: Landscape effects**

Landscape receptor	Sensitivity of the landscape receptors		Magnitude of landscape effects			Level and nature of effects		
	Susceptibility to change	Value of the landscape receptor	Size/ scale	Geographical extent	Duration/ reversibility of landscape effects	Phase A	Phases 1-4	Restoration
<b>National Character Areas</b>								
NATIONAL CHARACTER AREA 32: LANCASHIRE AND AMOUNDERNESS PLAIN (NCA 32)	Low	Low	Phase A: Minor Phases 1-4: Minor Restoration: None	Phase A: Localised Phase 1-4: Localised Restoration: Localised	Construction: Medium-term Completion: Short-term Restoration: Permanent	Slight- Negligible Negative	Slight- Negligible Negative	Negligible Neutral
<p>Detailed assessment:</p> <p><u>Key characteristics</u> The key characteristics of NCA 32 are set out in paragraph 3.5.</p> <p><u>Sensitivity</u> Susceptibility: The Lancashire and Amounderness Plain is an area bounded by Morecambe Bay in the north and Liverpool in the south. The eastern boundary is contained by the Bowland Fringe. It is a relatively flat to gently undulating coastal landscape with extensive views across the plain. The ZTV for the proposed development indicates potential for long views to the site from the east and south. Due to the site being small in scale relative to the wide geographic area of this NCA, the susceptibility to changes in the landscape is judged to be <u>low</u>.</p> <p>Value: The NCA is not within a designated landscape. The landscape of the northern Fylde (or Amounderness) coastal plain is of a character that is widespread comprising: predominantly improved pasture, with isolated arable fields; an ordered landscape of medium-sized fields with field ponds, clipped hedgerows and drainage ditches; and a medium- to large-scale landscape, where blocks of windsculpted mixed woodland punctuate the relatively flat to gently rolling plain. The value of NCA 32 is judged to be <u>low</u>.</p> <p>Overall, the sensitivity of NCA 32 to the proposed development is judged to be <u>low</u>.</p> <p><u>Magnitude of effect</u> Scale: The proposed development would be a perceptible change to the character of a localised area of NCA 32, primarily due to the presence of infrastructure in Phase A and bunds in Phases 1-4. The scale of this change is judged to be <u>minor</u>.</p> <p>Geographical extent: The proposed development of the site is small in scale relative to the wide geographic area of NCA 32. The geographical extent of the effects is judged to be <u>localised</u>.</p> <p>Duration and reversibility: The proposed development will be carried out in several phases as the process of excavation, reclamation and restoration progresses around the site. The duration of the process is estimated to be approximately 7 years, which is judged to be <u>medium-term</u>, and thereafter the site will be fully restored to at least the baseline conditions. The restoration plan includes ecological and landscape enhancement measures.</p> <p>Overall, the magnitude of effect on NCA 32 is judged to be <u>medium-low</u>.</p> <p><u>Level and nature of effect</u> Overall, considering the scale, extent and duration of the change to the baseline, and the value placed on the resource, the level of effect on NCA 32 during the operational period is judged to be <u>slight-negligible</u> and <u>negative</u>. The proposed development would result in a small and temporary change in landscape characteristics and character of NCA 32</p>								
<b>Lancashire Landscape Character</b>								
LANDSCAPE CHARACTER TYPE 15f: KNOTT END-PILLING	Medium	Medium	Phase A: Moderate Phases 1-4: Moderate Restoration: Moderate	Phase A: Major Phases 1-4: Major Restoration: Major	Phase A: Medium-term Phases 1-4: Short-term Restoration: Permanent	Moderate Negative	Moderate Negative	Moderate Positive
<p>Detailed assessment:</p> <p><u>Key characteristics</u> The key characteristics of LCT 15f are set out in paragraph 3.9.</p> <p><u>Sensitivity</u> Susceptibility: The Knott End-Pilling Landscape Character Type lies to the north of Head Dyke Lane and extends to Preesall Sands. It is bound to the west by Knott End-on-Sea and to the east by Pilling. The site is in the south-west portion of LCT 15f with most of the remaining area within the ZTV for the proposed development. This is a large-scale exposed landscape of low-lying gently undulating lowland occupied by an intensively farmed arable agriculture</p>								

There are many hedgerows, some ancient in origin, and trees sheltering scattered farmsteads which interrupt views to the site. The presence of a large amount of infill development at Stake Pool, Pilling and Knott End reduces the susceptibility to the proposed development, indicating only a limited sensitivity. It is considered that LCT 15f is partly able to accommodate the proposed development without undue consequences for the baseline situation and susceptibility to change is judged to be medium.

Value: LCT 15f is not within a designated landscape. It is an everyday landscape separating Preesall and Pilling and, as most farmland adjacent to settlement, is likely to be 'valued' by those who live in these villages. As LCT 15f extends across most of the study area, it is judged that the landscape is of medium value.

Overall, the sensitivity of LCT 15f to the proposed development is judged to be medium.

Magnitude of effect

Scale: The proposed development would add new elements to the landscape of LCT 15f, primarily due to the presence of infrastructure in Phase A and bunds in Phases 1-4, and result in discernible and distinct change to landscape character. The scale of this change is judged to be moderate.

Geographical extent: The effect of proposed development would be felt at the scale of LCT 15f due to long views towards it from the east. The geographical extent of the effects is judged to be major.

Duration and reversibility: The proposed development will be carried out in several phases as the process of excavation, reclamation and restoration progresses around the site. The duration of the process is estimated to be approximately 7 years, which is judged to be medium-term, and thereafter the site will be fully restored to at least the baseline conditions. The restoration plan includes ecological and landscape enhancement measures.

Overall, the magnitude of effect on NCA 32 is judged to be medium-low.

Level and nature of effect

Overall, considering the scale, extent and duration of the change to the baseline, and the value placed on the resource, the level of effect on LCT 15f is judged to be moderate and negative. The proposed development would result in a noticeable and temporary change in landscape characteristics and character of LCT 15f.

LANDSCAPE CHARACTER TYPE 16a: NORTH FYLDE MOSSES (LCT 16a)	Low	Low	Phase A: Minor	Phase A: Localised	Phase A: Medium-term	Slight Negative	Slight Negative	Negligible Neutral
			Phases 1-4: Minor	Phases 1-4: Localised	Phases 1-4: Short-term			
			Restoration: None	Restoration: Localised	Restoration: Permanent			

Detailed assessment:

Key characteristics

The key characteristics of LCT 16a are set out in paragraph 3.9.

Sensitivity

Susceptibility: The North Fylde Mosses Landscape Character Type lies to the south of Head Dyke Lane and extends south-east towards St Michaels-on-Wyre and Churchtown and north-east towards Cockerham. This is an open landscape of almost relentlessly flat topography occupied by large fields of improved pasture divided into a geometric pattern by ditches and shelterbelts. There are several detractors within the landscape including overhead power lines, roads, scattered development of modern housing and views to the urban area of Blackpool with its urban fringe activities. It is considered that attributes that make up the character of LCT 16a landscape are resilient to the likely indirect effects of the proposed development and susceptibility to change is judged to be low.

Value: LCT 16a is not within a designated landscape. The North Fylde Mosses is the largest surviving area of uncultivated peat mossland in Lancashire and, is likely to be valued at a local level, it is judged that the landscape is of medium value.

Overall, the sensitivity of LCT 16a to the proposed development is judged to be medium-low.

Magnitude of effect

Scale: The low relief and presence of shelterbelts limits views to the proposed development from the area. There would likely be intermittent views of infrastructure in Phase A from some parts of LCT 16a. The proposed development would be a perceptible but small change to landscape characteristics and character of the setting to LCT 16a due to the addition of new elements in the landscape. The scale of the effect is judged to be minor.

Geographical extent: The effect would predominantly occur across the northern section of this LCT in proximity of Head Dyke Lane between Lancaster Road and Lamb's Lane, which represents a localised geographical extent.

Duration and reversibility: The proposed development will be carried out in several phases as the process of excavation, reclamation and restoration progresses around the site. The duration of the process is estimated to be approximately 7 years, which is judged to be medium-term, and thereafter the site will be fully restored to at least the baseline conditions. The restoration plan includes ecological and landscape enhancement measures.

Level and nature of effect

Overall, considering the scale, extent and duration of the change to the baseline, and the value placed on the resource, the level of effect on LCT 16a is judged to be slight and negative. The proposed development would result in a small and temporary change to views out from a small portion of LCT 16a.

Landscape Fabric									
IMPROVED GRASSLAND	Low	Low	Phase A: Major	Phase A: Localised	Phase A: Medium-term	Slight Negative	Slight Negative	Negligible Neutral	
			Phases 1-4: Major	Phases 1-4: Localised	Phases 1-4: Short-term				
			Restoration: None	Restoration: Localised	Restoration: Permanent				

Detailed assessment:

Key characteristics

Refer to Ecology chapter.

Predicted effects

Excavation, reclamation and restoration activities associated with Phase 1 would result in the loss of approximately 27,504 m<sup>2</sup> of improved grassland which is grazed short by horses.

Construction of a haul road between Phase A and Lancaster Road would result in the loss of approximately 29,617 m<sup>2</sup> of improved grassland which is grazed short by horses.

Sensitivity

Susceptibility: Improved grassland is a common and widespread resource in the landscape surrounding the site. It is judged to have a low susceptibility to change.

Value: Improved grassland is judged to be of low value. It is not a component of a designated landscape and is a common and widespread landscape element.

Overall, the sensitivity of improved grassland to the proposed development is judged to be low.

Magnitude of effect

Scale: There will be extensive loss of improved grassland in Phase 1 and to accommodate the haul road. Based on the field size in Phase 1, the scale of change would be major.

Geographical extent: The loss of improved grassland would be localised to Phase 1 and the extent of the haul road.

Duration and reversibility: The duration of the process is estimated to be approximately 7 years, which is judged to be medium-term, and thereafter the site will be fully restored to at least the baseline conditions. The process for Phase 1 would be short-term last approximately 1.5 years. The restoration plan includes for the agricultural restoration of the former operational area to pasture farmland.

Overall, the magnitude of effect on improved grassland would be, at most, medium.

Level and nature of effect

Overall, considering the scale, extent and duration of the change to the baseline, and the value placed on the resource, the level of effect on improved grassland is judged to be slight and negative. The proposed development would result in a small and temporary change to character of the field.

AMENITY GRASSLAND	Low	Low	Phase A: Moderate	Phase A: Localised	Phase A: Medium-term	Slight Negative	Slight Negative	Negligible Neutral	
			Phases 1-4: None	Phases 1-4: Localised	Phases 1-4: Short-term				
			Restoration: None	Restoration: Localised	Restoration: Permanent				

Detailed assessment:

Key characteristics

Refer to Ecology chapter.

Predicted effects

Construction of a haul road between Phase A and Phase 1 would result in the loss of approximately 2,179 m<sup>2</sup> of amenity grassland to the banks of lakes in the area.

Sensitivity

Susceptibility: Amenity grassland is a common and widespread resource in the landscape surrounding the site. It is judged to have a low susceptibility to change.

Value: Amenity grassland is judged to be of low value. It is not a component of a designated landscape and is a common and widespread landscape element that is easily replaced.

Overall, the sensitivity of amenity grassland to the proposed development is judged to be low.



Magnitude of effect

Scale: There would be a noticeable loss of amenity grassland in proximity of the lakes. The scale of change would be moderate.

Geographical extent: The loss of improved grassland would be restricted to the extent of the haul road.

Duration and reversibility: The duration of the process is estimated to be approximately 7 years, which is judged to be medium-term, and thereafter the site will be fully restored to at least the baseline conditions.

Overall, magnitude of effect on amenity grassland would be medium-low.

Level and nature of effect

Overall, considering the scale, extent and duration of the change to the baseline, and the value placed on the resource, the level of effect on amenity grassland is judged to be slight and negative. The proposed development would result in a small and temporary change to character of the amenity grassland area.

POOR SEMI-IMPROVED GRASSLAND	Low	Low	Phase A: Moderate Phases 1-4: Moderate Restoration: None	Phase A: Localised Phases 1-4: Localised Restoration: Localised	Phase A: Medium-term Phases 1-4: Short-term Restoration: Permanent	Slight Negative	Slight Negative	Negligible Neutral
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Detailed assessment:

Key characteristics

Refer to Ecology chapter.

Predicted effects

Excavation, reclamation and restoration activities associated with Phases 3A and 3B would result in the loss of approximately 14,460 m<sup>2</sup> of poor semi-improved grassland grazed short by horses.

Construction of a haul road between Phase A and Phase 1 would result in the loss of approximately 1,362 m<sup>2</sup> of poor semi-improved grassland.

Sensitivity

Susceptibility: Poor semi-improved grassland is a common and widespread resource in the landscape surrounding the site. It is judged to have a low susceptibility to change.

Value: Poor semi-improved grassland is judged to be of low value. It is not a component of a designated landscape and is a common and widespread landscape element that is easily replaced.

Overall, the sensitivity of poor semi-improved grassland to the proposed development is judged to be low.

Magnitude of effect

Scale: There would be a noticeable loss of poor semi-improved grassland in Phases 3A and 3B and to accommodate the haul road. The scale of change would be moderate.

Geographical extent: The loss of poor semi-improved grassland would be localised to Phases 3A and 3B and the extent of the haul road.

Duration and reversibility: The duration of the process is estimated to be approximately 7 years, which is judged to be medium-term, and thereafter the site will be fully restored to at least the baseline conditions. The process for Phases 3A and 3B would be short-term lasting approximately 1.5 years.

Overall, magnitude of effect on poor semi-improved grassland would be medium-low.

Level and nature of effect

Overall, considering the scale, extent and duration of the change to the baseline, and the value placed on the resource, the level of effect on poor semi-improved grassland is judged to be slight and negative. The proposed development would result in a small and temporary change to the character of poor semi-improved grassland areas.

MARSHY GRASSLAND	Low	Low	Phase A: Major Phases 1-4: Major Restoration: None	Phase A: Localised Phases 1-4: Localised Restoration: Localised	Phase A: Medium-term Phases 1-4: Short-term Restoration: Permanent	Slight Negative	Slight Negative	Negligible Neutral
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Detailed assessment:

Key characteristics

Refer to Ecology chapter.

Predicted effects

Excavation, reclamation and restoration activities associated with Phases 3A and 3B would result in the loss of approximately 39,365 m<sup>2</sup> of marshy grassland grazed by horses.

Sensitivity

Susceptibility: Marshy grassland is a common and widespread resource in the landscape surrounding the site. It is judged to have a low susceptibility to change.

Value: Marshy grassland is judged to be of low value. It is not a component of a designated landscape and is a common and widespread landscape element.

Overall, the sensitivity of marshy grassland to the proposed development is judged to be low.

Magnitude of effect

Scale: There will be extensive loss of marshy grassland in Phases 3A and 3B. Based on the field size in Phases 3A and 3B, the scale of change would be major.

Geographical extent: The loss of improved grassland would be localised to Phases 3A and 3B.

Duration and reversibility: The duration of the process is estimated to be approximately 7 years, which is judged to be medium-term, and thereafter the site will be fully restored to at least the baseline conditions. The process for Phases 3A and 3B would be short-term last approximately 1.5 years.

Overall, magnitude of effect on marshy grassland would be, at most, medium.

Level and nature of effect

Overall, considering the scale, extent and duration of the change to the baseline, and the value placed on the resource, the level of effect on marshy grassland is judged to be slight and negative. The proposed development would result in a small and temporary change to character of the field.

HEDGES	High	High	Phase A: Major	Phase A: Localised	Phase A: Medium-term	Slight Negative	Slight Negative	Negligible Neutral
			Phases 1-4: Major	Phases 1-4: Localised	Phases 1-4: Short-term			
			Restoration: None	Restoration: Localised	Restoration: Permanent			

Detailed assessment:

Key characteristics

Refer to Ecology chapter.

Predicted effects

Construction of a single-track width haul road would result in the loss 5 metre sections of hedge at the following locations: adjacent to Lancaster Road to provide site access; and to the west of Bourbles Ponds to provide access to Phase 1.

Sensitivity

Susceptibility: Mature hedges are judged to have a high susceptibility to change.

Value: Mature hedges are judged to be of high value.

Overall, the sensitivity of hedges to the proposed development is judged to be high.

Magnitude of effect

Scale: The loss of sections of hedge at two locations would be a small change and the scale of effect is judged to be minor.

Geographical extent: The loss of hedges would be restricted to two locations on the site.

Duration and reversibility: The duration of the process is estimated to be approximately 7 years, which is judged to be medium-term, and thereafter the hedge adjacent to Lancaster Road would be replanted. The restoration plan includes for the reinstatement of hedges on their existing alignments.

Overall, magnitude of effect on hedges would be medium-low.

Level and nature of effect

Overall, considering the scale, extent and duration of the change to the hedges, and the value placed on them, the level of effect is judged to be moderate-slight and negative. The proposed development would result in a small and temporary change to hedges on the site.

**Table 6: Visual effects**

Reference (see Figure x)	Visual receptor	Representative viewpoint location	Sensitivity of visual receptors			Magnitude of visual effects			Level and nature of effects		
			Susceptibility to change	Value attached to views	Size/ scale	Geographical extent	Duration/ reversibility of visual effects	Phase A	Phases 1-4	Restoration	
A	Users of footpath 2-3-FP28	1	High	High	Phase A: Major	Phase A: Restricted	Phase A: Medium-term	Moderate Negative	Moderate Negative	Moderate Negative	
					Phases 1-4: Major	Phases 1-4: Restricted	Phases 1-4: Medium-term				
					Restoration: Moderate	Restoration: Restricted	Restoration: Permanent				
B	Residents at home in Ourome	1	High	High	Phase A: Major	Phase A: Restricted	Phase A: Medium-term	Moderate Negative	Moderate Negative	Moderate Negative	
					Phases 1-4: Major	Phases 1-4: Restricted	Phases 1-4: Medium-term				
					Restoration: Moderate	Restoration: Restricted	Restoration: Permanent				

Detailed assessment:

Description of baseline views

This view is characterised by an open arable field (Phase A) with generally open boundaries. The view looks in an easterly direction to fells in the Forest of Bowland in the long-distance juxtaposed to trees at Bourbles Ponds and buildings on Bourbles Lane in the medium-distance and woodland blocks beyond. Fields adjacent to the site to the north and south of the site are visible through the open boundaries.

Predicted effects

A bund approximately 3 m in height is proposed on the west boundary of Phase A and would remain in place for the duration of the operational period. This would screen views of the remainder of Phase A and Phases 1-4. The restoration scheme allows for a small-scale holiday lodge development on the Phase A site.

Sensitivity

Susceptibility to change: People whose attention is focused on their surroundings are considered to have a high susceptibility to a change in their view.

Value: The view is of an everyday landscape which is likely to be valued locally as most farmland adjacent to a residential property. Fells in the Forest of Bowland AONB form a backdrop to the view and, as such, the value of the view is high.

Overall, the sensitivity of users of the public footpath and residents at home at this location is judged to be high.

Magnitude of change

Phase A: The construction of a bund on the west boundary of Phase A would result in a major change in the foreground of the view, from a restricted section of footpath adjacent to Ourome, and the duration would be medium-term.

Overall, the magnitude of change would be medium-high.

Phases 1-4: Operations in Phases 1-4 would be screened by the bund in Phase A and the magnitude of change would remain as for Phase A.

Overall, the magnitude of change would be medium-high.

Restoration: The holiday lodge development would be in the mid-distance of the view. It would be viewed against trees and buildings in proximity to Bourbles Lane. New native tree planting would, as it matures, filter views of the holiday lodges. The would be a moderate change in the view which would be from a restricted location and permanent.

Overall, the magnitude of change would remain as medium.

Level and nature of effect

Overall, considering the scale, extent and duration of the change to the view, and the value placed on the view, the level of effect on both users of the footpath and residents at home in Ourome is judged to be moderate and negative during the operational period for Phase A. The level of effect would remain as moderate and negative post restoration with the introduction of a small-scale holiday lodge development.

<b>C</b>	Users of bridleway 2-3- BW 21	2	High	Low	Phase A: None	Phase A: None	Phase A: None	None	Moderate- Slight Negative	Slight Positive
					Phases 1-4: Major	Phases 1-4: Restricted	Phases 1-4: Short-term			
					Restoration: Minor	Restoration: Restricted	Restoration: Permanent			
<b>D</b>	Residents at home in Bourbles Farm House	2	High	Low	Phase A: None	Phase A: None	Phase A: None	None	Moderate- Slight Negative	Slight Positive
					Phases 1-4: Major	Phases 1-4: Restricted	Phases 1-4: Short-term			
					Restoration: Minor	Restoration: Restricted	Restoration: Permanent			

Detailed assessment:

Description of baseline views

This viewpoint is located on a bridleway to the west of Bourbles Farm House and looks to the west-north-west over a rural scene characterised by the immediate arable landscape. The open boundary on the north and west edges of the field allows a view across pasture fields towards Tongues Farm Barns, Muffy's Farm and properties on Pilling Lane. Intermittent blocks of trees, hedgerows and mature trees on field boundaries are landscape features on the horizon line. Bourbles Lane separates the field from Phase 4 which is enclosed by a fencing system.

Predicted effects

A bund approximately 3 m in height is proposed on the east boundary of the Phase 2 site and would remain in place for the duration of the Phase 2 operational period. This would interrupt views out to the open pasture fields beyond the Phase 2 site. The restoration scheme allows for the agricultural restoration of the former operational area to arable farmland and provision of a new to the north boundary.

Sensitivity

Susceptibility to change: People whose attention is focused on their surroundings are considered to have a high susceptibility to a change in their view.

Value: The view is of an everyday landscape which is likely to be valued locally as most farmland adjacent to a residential property and the value of the view is low.

Overall, the sensitivity of users of the public footpath and residents at home at this location is judged to be medium.

Magnitude of change

Phase A: There would be no change in the view arising from Phase A.

Phases 1-4: The construction of a bund on the east boundary of Phase 2 would result in a major change in the foreground of the view, from a restricted section of footpath adjacent to south boundary of the Phase 2 site, and the duration would be short-term (estimated at 1.5 years).

Overall, the magnitude of change would be medium-low.

Restoration: The baseline characteristics of the Phase 2 site would be reintroduced, and a pond and boundary hedge introduced resulting in a minor and congruous change to the landscape. The view would be from a restricted section of footpath adjacent to south boundary of the Phase 2 site, and the duration would be permanent.

Overall, the magnitude of change would be medium-low.

Level and nature of effect

Overall, considering the scale, extent and duration of the change to the view, and the value placed on the view, the level of effect on both users of the footpath and residents at home in Bourbles Farm House is judged to be moderate-slight and negative during the operational period for Phase 2. The level of effect would become slight and positive post-restoration with the introduction of a hedge boundary, a typical feature of the Knott End-Pilling landscape character area.

<b>C</b>	Users of bridleway 2-3- BW 21	3	High	Low	Phase A: Moderate	Phase A: Restricted	Phase A: Medium-term	Moderate Negative	Moderate Negative	Moderate Positive
					Phases 1-4: Major	Phases 1-4: Restricted	Phases 1-4: Short-term			
					Restoration: Moderate	Restoration: Restricted	Restoration: Permanent			

<b>D</b>	Residents at home in Bourbles House	3	High	Low	Phase A: Moderate	Phase A: Restricted	Phase A: Medium-term	Moderate Negative	Moderate Negative	Moderate Positive
					Phases 1-4: Major	Phases 1-4: Restricted	Phases 1-4: Short-term			
					Restoration: Moderate	Restoration: Restricted	Restoration: Permanent			
Detailed assessment:										
<u>Description of baseline views</u>										
This view is from a bridleway to the immediate south of Bourbles House Farm and looks through a fencing system into the Phase 4 site which is a field used for the rearing of fowl. Trees and scrub vegetation screen a view of Bourbles Ponds and the landscape beyond. Part of the west boundary to the field is open allowing a view towards Preesall Hill with Fleetwood's Charity Primary School and Preesall Mill. Intermittent blocks of trees, hedgerows and mature trees on field boundaries are landscape features on the horizon line. Gaps in the vegetation allow a view of residential properties on Cartgate and buildings associated with Pointer Farm.										
<u>Predicted effects</u>										
A bund approximately 3 m in height is proposed on the north boundary of the Phase 4 site that would remain in place for the duration of the Phase 4 operational period (see dashed white line on Viewpoint 3 Wireline Overlay). This would screen views of the remainder of Phase 4, and all of Phase A. Phases 1, Phases 2 and 3 are not visible from this viewpoint. The restoration scheme allows for the creation of new wetland scrapes, wetland scrub and wet grassland, and new semi-natural woodland.										
<u>Sensitivity</u>										
Susceptibility to change: Residents at home and users of the bridleway whose attention is focused on their surroundings are considered to have a <u>high</u> susceptibility to a change in their view.										
Value: The view is of an everyday landscape which is likely to be valued locally as most farmland adjacent to a residential property and the value of the view is <u>low</u> .										
Overall, the sensitivity of users of the public footpath and residents at home at this location is judged to be <u>medium</u> .										
<u>Magnitude of change</u>										
Phase A: Infrastructure, stockpiles and a bund associated with Phase A would be visible outside the operational period for Phase 4. Part of a bund on the west boundary of Phase A together with vertical elements including the wash plant and site office would present a <u>moderate</u> change in the view from a <u>restricted</u> section of footpath adjacent to Bourbles Farm House, and the duration would be <u>medium-term</u>										
Phases 1-4: The construction of a bund on the north boundary of Phase 4 would result in a <u>major</u> change in the foreground of the view from a <u>restricted</u> section of footpath adjacent to Bourbles Farm House, and the duration would be <u>short-term</u> (estimated at 1.5 years).										
Overall, the magnitude of change would be <u>medium-low</u> .										
Restoration: There would be a partial view of the holiday lodge development filtered by trees in the mid-distance of the view. It would be viewed against the southern slope of Preesall Hill. New woodland planting would, as it matures, further filter views of the holiday lodges. The scale of change is judged to be <u>minor</u> as the holiday lodges would occupy a small portion of the view and be viewed in the context of buildings on Cartgate. The geographical extent of the view is <u>restricted</u> , and the duration of the change would be <u>permanent</u> . The creation of new wetland features in Phase 4 would present a <u>major</u> change to the bare earth of the existing Phase 4 site. The geographical extent of the change would be <u>restricted</u> , and the change would be <u>permanent</u> .										
<u>Level and nature of effect</u>										
Overall, considering the scale, extent and duration of the change to the view, and the value placed on the view, the level of effect on both users of the bridleway and residents at home in Bourbles Farm House is judged to be <u>moderate</u> and <u>negative</u> during both the operational period for Phase 4 and pre- and post- the operational period. The level of effect would be <u>moderate</u> and <u>positive</u> post restoration with the introduction of new grassland, wetland scrapes, wetland scrub and semi-natural woodland.										
<b>C</b>	Users of bridleway 2-3-BW 21	4	High	High	Phase A: Moderate	Phase A: Localised	Phase A: Medium-term	Moderate-Slight Negative	Moderate-Slight Negative	Moderate-Slight Neutral
					Phases 1-4: Moderate	Phases 1-4: Localised	Phases 1-4: Medium-term			
					Restoration: Minor	Restoration: Localised	Restoration: Permanent			
<b>E</b>	Users of footpath 2-3-FP 27	4	High	Low	Phase A: Moderate	Phase A: Localised	Phase A: Medium-term	Moderate-Slight Negative	Moderate-Slight Negative	Moderate-Slight Neutral
					Phases 1-4: Moderate	Phases 1-4: Localised	Phases 1-4: Medium-term			
					Restoration: Minor	Restoration: Localised	Restoration: Permanent			

<b>F</b>	Residents at home in several properties on Bourbles Lane including New England Cottage	4	High	Low	Phase A: Moderate	Phase A: Localised	Phase A: Medium-term	Moderate-Slight Negative	Moderate-Slight Negative	Moderate-Slight Neutral
					Phases 1-4: Moderate	Phases 1-4: Localised	Phases 1-4: Medium-term			
					Restoration: Minor	Restoration: Localised	Restoration: Permanent			
Detailed assessment:										
<u>Description of baseline views</u>										
This view is from a public footpath located in a field to the immediate south of the Phase A site looking north-west towards the site. It is characterised by the immediate pastoral landscape and a hedgerow which partially screens the Phase A site. There is a view of the fence enclosing the Phase 4 site through a gap in the hedgerow. Blocks of trees, including those surrounding Bourbles Ponds, hedgerows, and mature trees on field boundaries are landscape features on the horizon line.										
<u>Predicted effects</u>										
There would be a partial view of elements in the Phase A site. The top of a bund on the east boundary of Phase A and a stockpile would be visible above a boundary hedgerow. The wash plant in juxtaposition with a bund on the west boundary of Phase A would be visible through a gap in the boundary vegetation. Phases 1, 2, and 3 would be screened by the east bund and a hedge and buildings on the east side of Bourbles Lane would interrupt a view towards Phases 3A and 3B.										
<u>Sensitivity</u>										
Susceptibility to change: Residents at home and users of the bridleway and footpath whose attention is focused on their surroundings are considered to have a <u>high</u> susceptibility to a change in their view.										
Value: The view is of an everyday landscape which is likely to be valued locally as most farmland adjacent to a residential property and the value of the view is <u>low</u> .										
Overall, the sensitivity of users of the public footpath and residents at home at this location is judged to be <u>medium</u> .										
<u>Magnitude of change</u>										
Phase A: Infrastructure, stockpiles and a bund associated with Phase A would be visible. Part of a bund on the east boundary of Phase A together with vertical elements including the wash plant and the as raised stockpile would present a <u>moderate</u> change in the view from a <u>localised</u> area including short sections of a public footpath and Bourbles Lane, and the duration would be <u>medium-term</u> .										
Overall, the magnitude of change would be <u>medium-low</u> .										
Phases 1-4: Operations in Phases 1-4 would not be visible, and the magnitude of change would remain as for Phase A.										
Overall, the magnitude of change would be <u>medium-low</u> .										
Restoration: There would be a partial view of the holiday lodge development in the mid-distance of the view. It would be viewed against trees and buildings in proximity to Gaulter's Lane. New native tree planting would, as it matures, further filter views of the holiday lodges. The scale of change is judged to be <u>minor</u> as the holiday lodges would occupy a small portion of the view and be viewed in the context of buildings on Bourbles Lane. The geographical extent of the view is <u>localised</u> , and the duration of the change would be <u>permanent</u> .										
Overall, the magnitude of change would be <u>medium</u> .										
<u>Level and nature of effect</u>										
Overall, considering the scale, extent and duration of the change to the view, and the value placed on the view, the level of effect on both users of the footpath and residents at home in Bourbles Farm House is judged to be <u>moderate-slight</u> and <u>negative</u> during the operational period for all Phases. The level of effect would be <u>moderate-slight</u> and <u>neutral</u> post restoration with the introduction holiday lodges and semi-natural woodland.										
<b>G</b>	Motorists on Lancaster Road	5	Medium	Low	Phase A: Minor	Phase A: Localised	Phase A: Medium-term	Slight Negative	Slight Negative	Slight Neutral
					Phases 1-4: Minor	Phases 1-4: Localised	Phases 1-4: Medium-term			
					Restoration: Minor	Restoration: Localised	Restoration: Permanent			



<b>H</b>	Residents at home in properties on Lancaster Road	5	High	Low	Phase A: Minor  Phases 1-4: Minor  Restoration: Minor	Phase A: Localised  Phases 1-4: Localised  Restoration: Localised	Phase A: Medium-term  Phases 1-4: Medium-term  Restoration: Permanent	Moderate-Slight Negative	Moderate-Slight Negative	Moderate-Slight Neutral
<p>Detailed assessment:</p> <p><u>Description of baseline views</u></p> <p>A mature hedge along the north side of Lancaster Road lies in the foreground of a view towards Phases 2, 3A, 3B and 4 beyond which lies a flat pasture. The pasture is contained by a hedgerow and mature trees along the east boundary of the field which limits long-distance views.</p> <p><u>Predicted effects</u></p> <p>There would be a view of the restoration stockpile in the Phase A site. The hedgerow and mature trees along the east boundary of the field screen views of Phases 2, 3A, 3B and 4 (cyan elements in Viewpoint 5 Wireline Overlay).</p> <p><u>Sensitivity</u></p> <p>Susceptibility to change: Residents at home whose attention is focused on their surroundings are considered to have a <u>high</u> susceptibility to a change in their view. Motorists using Lancaster Road have a passing interest in their surroundings as their attention is primarily on the road and their susceptibility to change is judged to be <u>medium</u>.</p> <p>Value: The view is of an everyday landscape which is likely to be valued locally as most farmland adjacent to a residential property and the value of the view is <u>low</u>.</p> <p>Overall, the sensitivity of residents at home and motorists at this location is judged to be <u>medium</u> and <u>medium-low</u> respectively.</p> <p><u>Magnitude of change</u></p> <p>Phase A: A restoration stockpile associated with Phase A would be visible. A section of the hedge to the north side of Lancaster Road would be removed to create a site entrance (defined by the solid white arrow on Viewpoint 5 Wireline Overlay). None of the Phases in their operational periods would be visible. The stockpile and site access would be a <u>minor</u> change in the view, which would be <u>localised</u> to the section of Lancaster Road between residential properties The Beeches and Hillfield House and the duration of the change would be <u>medium-term</u>.</p> <p>Overall, the magnitude of change would be <u>medium-low</u>.</p> <p>Phases 1-4: Operations in Phases 1-4 would not be visible, and the magnitude of change would remain as for Phase A.</p> <p>Overall, the magnitude of change would be <u>medium-low</u>.</p> <p>Restoration: The site access would remain to provide access to the small-scale holiday lodge development resulting in a <u>minor</u> scale of change in views from a <u>localised</u> section of Lancaster Road which would be <u>permanent</u>. A view to the lodges would be screened by the existing hedgerow.</p> <p>Overall, the magnitude of change would be <u>medium-low</u>.</p> <p><u>Level and nature of effect</u></p> <p>Overall, considering the scale, extent and duration of the change to the view, and the value placed on the view, the level of effect during the operational period for all Phases on residents at home is judged to be <u>moderate-slight</u> and <u>negative</u> and on motorists, <u>slight</u> and <u>negative</u>. The level of effect would be <u>moderate-slight</u> and <u>neutral</u>, and <u>slight</u> and <u>neutral</u> respectively post restoration with the introduction holiday lodges and semi-natural woodland.</p>										
<b>C</b>	Users of bridleway 2-3-BW 21	6	High	Low	Phase A: Moderate  Phases 1-4: Major  Restoration: Minor	Phase A: Restricted  Phases 1-4: Restricted  Restoration: Restricted	Phase A: Medium-term  Phases 1-4: Short-term  Restoration: Permanent	Moderate-Slight Negative	Moderate Negative	Slight Neutral
<b>J</b>	Residents at home in Woodlands	6	High	Low	Phase A: Moderate  Phases 1-4: Major  Restoration: Minor	Phase A: Restricted  Phases 1-4: Restricted  Restoration: Restricted	Phase A: Medium-term  Phases 1-4: Short-term  Restoration: Permanent	Moderate-Slight Negative	Moderate Negative	Slight Neutral

Detailed assessment:

Description of baseline views

This view is looking south-east into the Phase 1 site from a bridleway adjacent to Woodlands and over pasture enclosed by an electric fence. Trees and buildings associated with Red Lea Kennels interrupt a view to the Phase 2 and Phase 4 sites. Part of the fencing system enclosing the Phase 4 area is visible above the kennel buildings. The Phase A site is visible across open pasture in the foreground. Trees associated with Bourbles Ponds and Nickson's Farm on Gaulter's Lane are landscape features on the skyline. Residential properties on Gaulter's Lane are visible through gaps in the vegetation.

Predicted effects

A bund approximately 3 m in height is proposed on the east boundary of the Phase 1 site and would be visible for the duration of the Phase 1 operational period. A bund on the west boundary of Phase A would be partially visible through the operation period of all Phases (see elements in white on Viewpoint 6 Wireline Overlay). This would screen views of the remainder of Phase 4, and all of Phase A and Phases 1. Phases 2, 3A, 3B and 4 are not visible from this viewpoint due to vegetation and buildings at Red Lea Kennels. The restoration scheme allows for the restoration of the fields and creation of two field ponds.

Sensitivity

Susceptibility to change: Residents at home and users of the bridleway whose attention is focused on their surroundings are considered to have a high susceptibility to a change in their view.

Value: The view is of an everyday landscape which is likely to be valued locally as most farmland adjacent to a residential property and the value of the view is low.

Overall, the sensitivity of users of the public footpath and residents at home at this location is judged to be medium.

Magnitude of change

Phase A: Infrastructure, stockpiles and a bund associated with Phase A would be visible outside the operational period for Phase 4. Part of a bund on the west boundary of Phase A together with vertical elements including the wash plant and site office would present a moderate change in the view from a restricted section of footpath adjacent to Bourbles Farm House, and the duration would be medium-term

Phases 1-4: The operation period for Phase 1 would be a major change in the foreground of the view restricted to a section of Bourbles Lane between Whinmore Fold and Red Lea Kennels and one property, Woodlands, for a short-term duration (estimated at 1.5 years).

Overall, the magnitude of change would be medium-low.

Restoration: The baseline characteristics of the Phase 1 site would be reintroduced, and the proposed ponds would introduce a minor and congruous change to the landscape. The change would be viewed from a restricted section of footpath adjacent to north boundary of the Phase 1 site, and it would be permanent.

Overall, the magnitude of change would be medium-low.

Level and nature of effect

Overall, considering the scale, extent and duration of the change to the view, and the value placed on the view, the level of effect on both users of the footpath and residents at home in Woodlands is judged to be moderate and negative during the operational period for Phase 1 and moderate-slight and negative pre- and post- the operational period. The level of effect would become slight and neutral post-restoration of the fields and introduction of two ponds, a typical feature of the Knott End-Pilling landscape character area.

<b>K</b>	Users of footpath 2-3-FP 23	7	High	Low	Phase A: Imperceptible	Phase A: Localised	Phase A: Medium-term	Slight Negative	Moderate-Slight Negative	Moderate-Slight Neutral
					Phases 1-4: Minor	Phases 1-4: Localised	Phases 1-4: Short-term			
					Restoration: Minor	Restoration: Localised	Restoration: Permanent			
<b>L</b>	Residents at home in Tongues Farm Barns	7	High	Low	Phase A: Imperceptible	Phase A: Localised	Phase A: Medium-term	Slight Negative	Moderate-Slight Negative	Moderate-Slight Neutral
					Phases 1-4: Minor	Phases 1-4: Localised	Phases 1-4: Short-term			
					Restoration: Minor	Restoration: Localised	Restoration: Permanent			

Detailed assessment:

Description of baseline views

This view is looking south-south-east towards the Phase 2 site from a public footpath in a field adjacent to Tongues Farm Barns. A long-distance view of the Phase 2 site is available and part of the Phase 1 site across open pasture. Trees and scrub vegetation around Bourbles Ponds interrupt a view to the Phase A site. Intermittent blocks of trees, hedgerows and scrub vegetation are features on the skyline.

Predicted effects



Most elements in Phase A would be screened by vegetation associated with Red Lea Kennels and Bourbles Ponds except for a partial view of the as raised stockpile. This would be viewed in combination with a bund on the east boundary of the Phase 1 site during the Phase 1 operational period, and with a bund on the east boundary the Phase 2 site during the Phase 2 operational period (see elements in white on Viewpoint 7 Wireline Overlay). Phases 3A, 3B and 4 are not visible from this viewpoint due to woodland (elements in cyan). The restoration scheme allows for the restoration of the fields and creation of field ponds in Phases 1 and 2.

Sensitivity

Susceptibility to change: Residents at home and users of the footpath whose attention is focused on their surroundings are considered to have a high susceptibility to a change in their view.

Value: The view is of an everyday landscape which is likely to be valued locally as most farmland adjacent to a residential property and the value of the view is low.

Overall, the sensitivity of users of the public footpath and residents at home at this location is judged to be medium.

Magnitude of change

Phase A: The as-raised stockpile associated with Phase A would be visible outside the operational period for Phases 1 and 2. With all other elements in Phase A screened by vegetation the scale of change would be imperceptible change in the view, localised to a section of footpath 2-3-FP 23 between Tongues Farm Barns and footpath 2-3-FP 17, and medium-term in duration.

Overall, the magnitude of change would be medium-low.

Phases 1-4: The operational periods for Phases 1 and 2 would, in combination with Phase A, present a minor change due to elements in both phases occupying a small proportion of the view. The geographical extent of the view is localised and the duration of Phase 1 and 2 is short-term (estimated at 1.5 years for each phase).

Overall, the magnitude of change would be medium-low.

Restoration: The baseline characteristics of the Phase 1 and Phase 2 site would be reintroduced, and proposed ponds would introduce a minor and congruous change to the landscape. The change would be viewed from a localised area, and it would be permanent.

Overall, the magnitude of change would be medium.

Level and nature of effect

Overall, considering the scale, extent and duration of the change to the view, and the value placed on the view, the level of effect on both users of the footpath and residents at home in Tongues Farm Barns is judged to be moderate-slight and negative during the operational periods for Phases 1 and 2 and slight and negative during the pre- and post- the operational period of both phases. The level of effect would be moderate-slight and neutral post-restoration of the fields and introduction of ponds, a typical feature of the Knott End-Pilling landscape character area.

<b>M</b>	Users of footpath 2-3-FP 25	8	High	Low	Phase A: Minor	Phase A: Localised	Phase A: Medium-term	Moderate-Slight Negative	Moderate Negative	Slight Neutral
					Phases 1-4: Moderate	Phases 1-4: Localised	Phases 1-4: Short-term			
					Restoration: Minor	Restoration: Localised	Restoration: Permanent			
<b>N</b>	Residents at home in Greenlands	8	High	Low	Phase A: Minor	Phase A: Localised	Phase A: Medium-term	Moderate-Slight Negative	Moderate Negative	Slight Neutral
					Phases 1-4: Moderate	Phases 1-4: Localised	Phases 1-4: Short-term			
					Restoration: Minor	Restoration: Localised	Restoration: Permanent			
<b>O</b>	Motorists on Green Dick's Lane	8	High	Low	Phase A: Minor	Phase A: Localised	Phase A: Medium-term	Slight Negative	Slight Negative	Slight-Negligible Neutral
					Phases 1-4: Moderate	Phases 1-4: Localised	Phases 1-4: Short-term			
					Restoration: Minor	Restoration: Localised	Restoration: Permanent			

Detailed assessment:

Description of baseline views

This view is from a footpath in a field to the west of Green Dick's Lane looking south-west towards the site over a rural scene characterised by the immediate pasture field. Trees and buildings associated with Bourbles Farm together with field boundary hedgerows partially obstruct views of the site.

Predicted effects

There would be a partial view of the as raised stockpile and wash plant in the Phase A site. These would be viewed in combination with part of a bund on the east boundary of the Phase 2 site during the Phase 2 operational period, and bunds in Phase 3A and 3B during the Phase 3A and 3B operational periods.

Sensitivity

Susceptibility to change: Residents at home and users of the footpath whose attention is focused on their surroundings are considered to have a high susceptibility to a change in their view. Motorists using Green Dick's Lane have a passing interest in their surroundings as their attention is primarily on the road and their susceptibility to change is judged to be medium.

Value: The view is of an everyday landscape which is likely to be valued locally as most farmland adjacent to a residential property and the value of the view is low.

Overall, the sensitivity of residents at home and motorists at this location is judged to be medium and medium-low respectively.

Magnitude of change

Phase A: The partial view of the stockpile and wash plant would present a minor change in the view, which would be localised to a short footpath (2-3-FP 25), a short section of Green Dick's Lane and a single property, Greenlands, and of medium-term duration.

Overall, the magnitude of change would be medium-low.

Phases 1-4: The operational periods for Phases 2, 3A and 3B would, in combination with Phase A, present a moderate change as the bunds in all three phases would be grass seeded and viewed against a backdrop of woodland making them recessive in the view. The geographical extent of the view is localised and the duration of Phase 2, 3A and 3B is short-term (estimated at 1.5 years for each phase).

Overall, the magnitude of change would be medium-low.

Restoration: The baseline characteristics of the Phase 2, 3A and 3B sites would be reintroduced, and proposed ponds would introduce a minor and congruous change to the landscape. The change would be viewed from a localised area, and it would be permanent.

Overall, the magnitude of change would be medium-low.

Level and nature of effect

Overall, considering the scale, extent and duration of the change in the view, and the value placed on the view, the level of effect on both users of the footpath and residents at home in Greenlands is judged to be moderate and negative during the operational periods for Phases 2, 3A and 3B, moderate-slight and negative during the pre- and post- the operational period of each phase and slight and neutral post-restoration of the fields and introduction of ponds, a typical feature of the Knott End-Pilling landscape character area, due to the distance of the receptors from the site. The level of effect on motorists is judged to be slight and negative during the operational periods for Phases 2, 3A and 3B, slight and negative during the pre- and post- the operational period of each phase and slight-negligible and neutral post-restoration.

<b>G</b>	Motorists on Lancaster Road	9	High	High	Phase A: Moderate	Phase A: Localised	Phase A: Medium-term	Moderate-Slight Negative	Moderate-Slight Negative	Moderate-Slight Neutral
					Phases 1-4: Moderate	Phases 1-4: Localised	Phases 1-4: Short-term			
					Restoration: Minor	Restoration: Localised	Restoration: Permanent			
<b>P</b>	Residents at home in several properties on Cartgate	9	High	High	Phase A: Moderate	Phase A: Localised	Phase A: Medium-term	Moderate Negative	Moderate Negative	Moderate Neutral
					Phases 1-4: Moderate	Phases 1-4: Localised	Phases 1-4: Short-term			
					Restoration: Minor	Restoration: Localised	Restoration: Permanent			

Detailed assessment:

Description of baseline views

This view is looking north-east across a pasture field towards the Phase A site from a footway and is representative of the view for residents at home in terraced houses on Cartgate. A mature hedge on the north side of Lancaster Road and trees associated with the property Ourome on Gaulter's Lane interrupt a view of most of the site. There is a glimpse view of a small part of the Phase A site through a field gate in the hedge. The view is dominated by telegraph poles, signage and a wind turbine at Lane Ends Farm House.

Predicted effects

There would be a partial view of bunds, a restoration stockpile and office/ weighbridge in the Phase A site. These elements in Phase A would be viewed in combination with a bund on the north boundary of the Phase 4 site during the Phase 4 operational period. All other Phases would be screened by the bund on the west boundary of the Phase A site. The restoration scheme for the Phase A site allows for a small-scale holiday lodge development and the restoration of the fields on the Phase A site. The restoration scheme for the Phase 4 site allows for the creation of new wetland scrapes, wetland scrub and wet grassland and new semi-natural woodland.

Sensitivity

Susceptibility to change: Residents at home whose attention is focused on their surroundings are considered to have a high susceptibility to a change in their view. Motorists using Lancaster Road have a passing interest in their surroundings as their attention is primarily on the road and their susceptibility to change is judged to be medium.

Value: The view is of an everyday landscape which is likely to be valued locally as most farmland in proximity to a residential property. Fells in the Forest of Bowland AONB form a backdrop to the view and, as such, the value of the view is high.

Overall, the sensitivity of residents at home and motorists at this location is judged to be high and medium-high respectively.

Magnitude of change

Phase A: The partial view of the elements in Phase A would present a moderate change in the view, which would be localised to a short section of Lancaster Road and a few properties on Cartgate and Lancaster Road, and of medium-term duration.

Overall, the magnitude of change would be medium-low.

Phases 1-4: The operational period for Phases 4 would, in combination with Phase A, present a moderate change as the bund in Phase 4 would be grass seeded and viewed against a backdrop of woodland making it recessive in the view. The geographical extent of the view is localised and the duration of Phase 4 is short-term (estimated at 1.5 years for each phase).

Overall, the magnitude of change would be medium-low.

Restoration: There would be a partial view of the holiday lodge development in the mid-distance of the view. It would be viewed against trees and Bourbles Farm House. New native tree planting would, as it matures, further filter views of the holiday lodges. The scale of change is judged to be minor as the holiday lodges would occupy a small portion of the view and be viewed in the context of buildings on Gaulter's Lane and Bourbles Lane. The geographical extent of the view is localised, and the duration of the change would be permanent. The creation of new wetland features in Phase 4 would present an imperceptible change. The geographical extent of the change would be restricted, and the change would be permanent.

Overall, the magnitude of change would be medium-low.

Level and nature of effect

Overall, considering the scale, extent and duration of the change in the view, and the value placed on the view, the level of effect on both residents at home in properties on Cartgate and Lancaster Road is judged to be moderate and negative during the operational period for Phase 4 and during the pre- and post- the operational period of Phase 4, and moderate and neutral post-restoration of the fields and introduction of a small scale holiday lodge development on the Phase A site. The level of effect on motorists is judged to be moderate-slight and negative during the operational period for Phase 4 and during the pre- and post- the operational period of Phase 4, and moderate-slight and neutral post-restoration.

<b>O</b>	Motorists on Green Dick's Lane	10	High	Low	Phase A: None	Phase A: None	Phase A: None	None	Moderate Negative	Slight Neutral
					Phases 1-4: Major	Phases 1-4: Localised	Phases 1-4: Permanent			
					Restoration: Minor	Restoration: Localised	Restoration: Permanent			
<b>Q</b>	Residents at home in Crossing Cottage	10	High	Low	Phase A: None	Phase A: None	Phase A: None	None	Moderate Negative	Moderate- Slight Neutral
					Phases 1-4: Major	Phases 1-4: Localised	Phases 1-4: Permanent			
					Restoration: Major	Restoration: Localised	Restoration: Permanent			

Detailed assessment:

Description of baseline views

This view is west towards the Phase 4 and Phase 3A and 3B sites across an open pasture field from a field gate to the immediate south of Crossing Cottage on Green Dick's Lane. A mature hedgerow along the length of the south boundary of the plot to Crossing Cottage restricts a view of all phases bar the Phase 3B site. Houses on Bourbles Lane are viewed at distance.

Predicted effects

A bund approximately 3 m in height on the east boundary of the Phase 3B site would interrupt the view to houses on Bourbles Lane and form part of the skyline in the view.

Sensitivity

Susceptibility to change: Residents at home whose attention is focused on their surroundings are considered to have a high susceptibility to a change in their view. Motorists using Green Dick's Lane have a passing interest in their surroundings as their attention is primarily on the road and their susceptibility to change is judged to be medium.

Value: Value: The view is of an everyday landscape which is likely to be valued locally as most farmland adjacent to a residential property and the value of the view is low.

Overall, the sensitivity of residents at home and motorists at this location is judged to be medium and medium-low respectively.

Magnitude of change

Phase A: None.

Phases 1-4: The operational period for Phase 3B would present a major change as the bund would interrupt the long-distance view. The geographical extent of the view is localised and includes a short section of Green Dick's Lane and a single property, Crossing Cottage, and the duration of Phase 3B is short-term (estimated at 1.5 years for each phase).

Overall, the magnitude of change would be medium.

Restoration: The baseline characteristics of the Phase 3B site would be reintroduced, and a new pond and hedgerow would introduce a minor and congruous change to the landscape. The change would be viewed from a localised area, and it would be permanent.

Overall, the magnitude of change would be medium-low.

Level and nature of effect

Overall, considering the scale, extent and duration of the change in the view, and the value placed on the view, the level of effect on residents at home in Crossing Cottage is judged to be moderate and negative during the operational period for Phase 3B and none during the pre- and post- the operational period of Phase 3B, and moderate-slight and neutral post-restoration of the fields and introduction of a pond and a hedgerow on the Phase 3B site. The level of effect on motorists is judged to be moderate and negative during the operational period for Phase 3B, and none during the pre- and post- the operational period of Phase 4 and slight and neutral post-restoration.

<b>R</b>	Users of footpath 2-3-FP 25	11	High	High	Phase A: Moderate	Phase A: Localised	Phase A: Medium-term	Moderate Negative	Moderate Negative	Moderate Neutral
					Phases 1-4: Moderate	Phases 1-4: Localised	Phases 1-4: Short-term			
					Restoration: Minor	Restoration: Localised	Restoration: Permanent			
<b>S</b>	Staff and pupils at Fleetwood's Charity School	11	High	High	Phase A: Moderate	Phase A: Localised	Phase A: Medium-term	Slight Negative	Slight Negative	Slight Neutral
					Phases 1-4: Moderate	Phases 1-4: Localised	Phases 1-4: Short-term			
					Restoration: Minor	Restoration: Localised	Restoration: Permanent			

Detailed assessment:

Description of baseline views

This view is looking east towards the site from a public footpath on Preesall Hill immediately east of Fleetwood's Charity Primary School. Parts of the site are visible as part of a wider panoramic view extending to the Forest of Bowland AONB fells. Intermittent blocks of trees interrupt views of the site. Residential and farm buildings weave through the rural landscape. A long-distance view of the fells, Lancaster University and parts of the city of Lancaster is juxtaposed with a medium distance view over a flat coastal plain.

Predicted effects

There would be views of the following elements of the proposed development: a bund on the east boundary of the Phase 1 site; a bund on the Phase 2 site; bunds on the Phase 3B site; and all elements on the Phase A site (see elements coloured white on Viewpoint 11 Wireline Overlay). The Phase A elements would be present throughout the duration of the proposed development and would be viewed in combination with the operational period for each Phase.

Sensitivity

Susceptibility to change: Users of the public footpath whose attention is focused on their surroundings are considered to have a high susceptibility to a change in their view. Staff and pupils at Fleetwood's Charity Primary School whose attention is focused on their work or activity and not on their surroundings are considered to have a low susceptibility to a change in their view.

Value: The view is of an everyday landscape which is likely to be valued locally as most farmland at a settlement edge. Fells in the Forest of Bowland AONB form a backdrop to the view and, as such, the value of the view is high.

Overall, the sensitivity of residents at home and motorists at this location is judged to be high and medium respectively.

Magnitude of change

Phase A: Incongruous elements would be introduced to the view including bunds, stockpiles, wash plant and an office/ weighbridge. The bunds would be grass seeded and viewed against a backcloth of trees and pasture fields would be recessive in the view. There would be a moderate change in the view with Phase A elements noticeable and occupying a moderate proportion of the view. The geographical extent of the view is localised at Fleetwood's Charity School and a short section of footpath 2-3-FP 25 on the high ground of Preesall Hill. The duration of the change would be medium-term.

Overall, the magnitude of change would be medium-low.

Phases 1-4: For the operation period for each Phase, the geographical extent of the view is localised and the duration is short-term (estimated at 1.5 years for each phase). The scale of change for each Phase in combination with Phase A is as follows:

- Phase 1: would add an additional bund to the north-west of the Phase A site. The bund would be grass seeded and viewed against a backcloth of trees and would not elevate the change in the view beyond moderate.
- Phase 2: would add an additional bund to the north of the Phase A site. The bund would be mostly screen by trees and hedgerow with only parts of the top visible and would not add to the scale of change in view which would remain as moderate.
- Phase 3B: would add an additional bunds to the east of the Phase A site. The bunds would be partially screened by trees and would be grass seeded and viewed against a backcloth of trees. The scale of change would not increase from moderate.

Overall, the magnitude of change would be medium-low.

Restoration: The baseline characteristics of Phases 1, 2 and 3B would be reintroduced, and proposed ponds and hedgerows would introduce a congruous change to the landscape. A small-scale holiday lodge development would be introduced in Phase A in the context of houses on the edge of Preesall, Lancaster Road, Gaulter's Lane and Bourbles Lane. The scale of change would be minor, viewed from a localised area, and permanent.

Level and nature of effect

Overall, considering the scale, extent and duration of the change in the view, and the value placed on the view, the level of effect on users of the footpath is judged to be moderate and negative during the operational period for Phases 1, 2 and 3B and during their pre- and post- the operational period (where Phase A present only), and moderate and neutral post-restoration of the fields and introduction of ponds and hedgerows on the Phase 1, 2 and 3B sites and introduction of small-scale holiday lodge development on the Phase A site. The level of effect on motorists is judged to be slight and negative during the operational period for Phases 1, 2 and 3B and during their pre- and post- the operational period (where Phase A present only), and slight and neutral post-restoration.

<b>C</b>	Users of bridleway 2-3- BW 21	12	High	High	Phase A: None	Phase A: None	Phase A: None	None	Moderate Negative	Slight Neutral
					Phases 1-4: Major	Phases 1-4: Localised	Phases 1-4: Short-term			
					Restoration: Minor	Restoration: Localised	Restoration: Permanent			
<b>F</b>	Residents at home in several properties on Bourbles Lane including New England Cottage	12	High	High	Phase A: None	Phase A: None	Phase A: None	None	Moderate Negative	Slight Neutral
					Phases 1-4: Major	Phases 1-4: Localised	Phases 1-4: Short-term			
					Restoration: Minor	Restoration: Localised	Restoration: Permanent			

Detailed assessment:

Description of baseline views

This view is across the Phase 3A site comprising two pasture fields bounded and subdivided by post and rail fences. The upper reaches of fells in the Forest of Bowland AONB are visible on the distant skyline. A block of woodland, Adkinson's Wood, sits in mid-ground beyond Green Dick's Lane. The northernmost fields in the Phase 3B site are partially visible.

Predicted effects

A bund approximately 3 m in height on the east boundary of the Phase 3B site would interrupt the view to houses on Bourbles Lane and form part of the skyline in the view.

Sensitivity

Susceptibility to change: Residents at home in several properties on Bourbles Lane and people using the bridleway whose attention is focused on their surroundings are considered to have a high susceptibility to a change in their view.

Value: The view is of an everyday landscape which is likely to be valued locally as most farmland at a settlement edge. Fells in the Forest of Bowland AONB form a backdrop to the view and, as such, the value of the view is high.

Overall, the sensitivity of residents at home and users of the bridleway at this location is judged to be high.

Magnitude of change

Phase A: None.

Phases 1-4: The operational period for Phase 3A would present a major change with a full view of the works and a bund approximately 3 m high on the eastern boundary of the site. The geographical extent of the view is localised and includes a short section of Bourbles Lane and a few properties including New England Cottage on the east side of the lane and the duration of Phase 3B is short-term (estimated at 1.5 years). The operational period for Phase 3B would present a moderate change with a partial view of the works and the northern portion of a bund approximately 3 m high on the eastern boundary of the site. The geographical extent and duration would be localised and short-term respectively.

Overall, the magnitude of change would be medium-high.

Restoration: The baseline characteristics of the Phase 3A and Phase 3B sites would be reintroduced with a pond and a hedgerow introduced to the Phase 3B site.

Overall, the magnitude of change would be none.

Level and nature of effect

Overall, considering the scale, extent and duration of the change in the view, and the value placed on the view, the level of effect on both residents at home and users of the bridleway is judged to be moderate and negative during the operational period for both Phases 3A and 3B and none during the pre- and post- the operational period of both, and slight and neutral post-restoration of the fields and introduction of a pond and a hedgerow on the Phase 3B site.

<b>T</b>	Users of footpath 2-3-FP 28	13	High	High	Phase A: None Phases 1-4: Moderate Restoration: Minor	Phase A: None Phases 1-4: Localised Restoration: Localised	Phase A: None Phases 1-4: Short-term Restoration: Permanent	None	Moderate Negative	Slight Neutral
<b>U</b>	Residents at home in several properties on Gaulter's Lane	13	High	High	Phase A: None Phases 1-4: Moderate Restoration: Minor	Phase A: None Phases 1-4: Localised Restoration: Localised	Phase A: None Phases 1-4: Short-term Restoration: Permanent	None	Moderate Negative	Slight Neutral

Detailed assessment:

Description of baseline views

This view is across a paddock towards the Phase 1 site. The upper reaches of fells in northern part of the Forest of Bowland AONB are visible on the distant skyline. Trees on the north boundary of the paddock frame the view. Trees on the east and south boundaries of the paddock interrupt views to the Phase 2 site.

Predicted effects

A bund approximately 3 m in height and L-shaped on the north and east boundaries of the Phase 1 site would interrupt the view to Forest of Bowland AONB fells. The operational period of Phase 1 would be visible through the gap in the trees on the north boundary of the paddock.

Sensitivity

Susceptibility to change: Residents at home in several properties on Gaulter's Lane and people using the footpath whose attention is focused on their surroundings are considered to have a high susceptibility to a change in their view.

Value: The view is of an everyday landscape which is likely to be valued locally as most farmland at a settlement edge. Fells in the Forest of Bowland AONB form a backdrop to the view and, as such, the value of the view is high.

Overall, the sensitivity of residents at home and users of the bridleway at this location is judged to be high.

Magnitude of change

Phase A: None.

Phases 1-4: The operational period for Phase 1 would present a moderate change with a partial view of the works and a bund approximately 3 m high on the north and west boundaries of the site. The geographical extent of the view is localised and includes a short section of Gaulter's Lane and a few properties on the south side of the lane and the duration of Phase 1 is short-term (estimated at 1.5 years). T

Overall, the magnitude of change would be medium-low.

Restoration: The baseline characteristics of the Phase 1 sites would be reintroduced with a pond and semi-natural woodland introduced. The change in the view would be minor from a localised geographic extent and permanent.

Overall, the magnitude of change would be imperceptible.

Level and nature of effect

Overall, considering the scale, extent and duration of the change in the view, and the value placed on the view, the level of effect on both residents at home and users of the footpath is judged to be moderate and negative during the operational period for Phase 1 and imperceptible during the pre- and post- the operational period, and slight and neutral post-restoration of the fields and introduction of two ponds on the Phase 1 site.

Appendix 4

## **Figures**



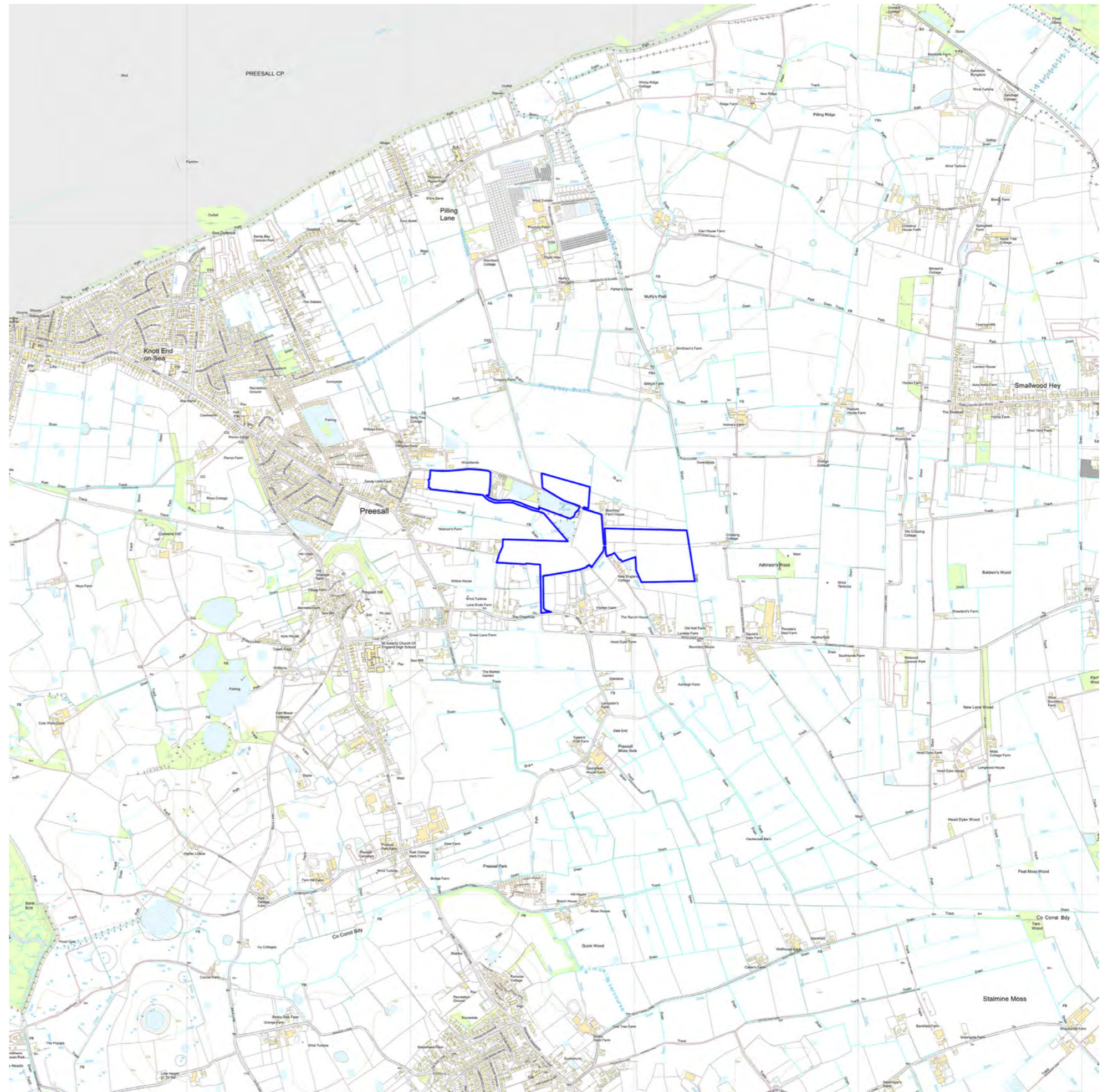


Figure 1: Site Location Plan



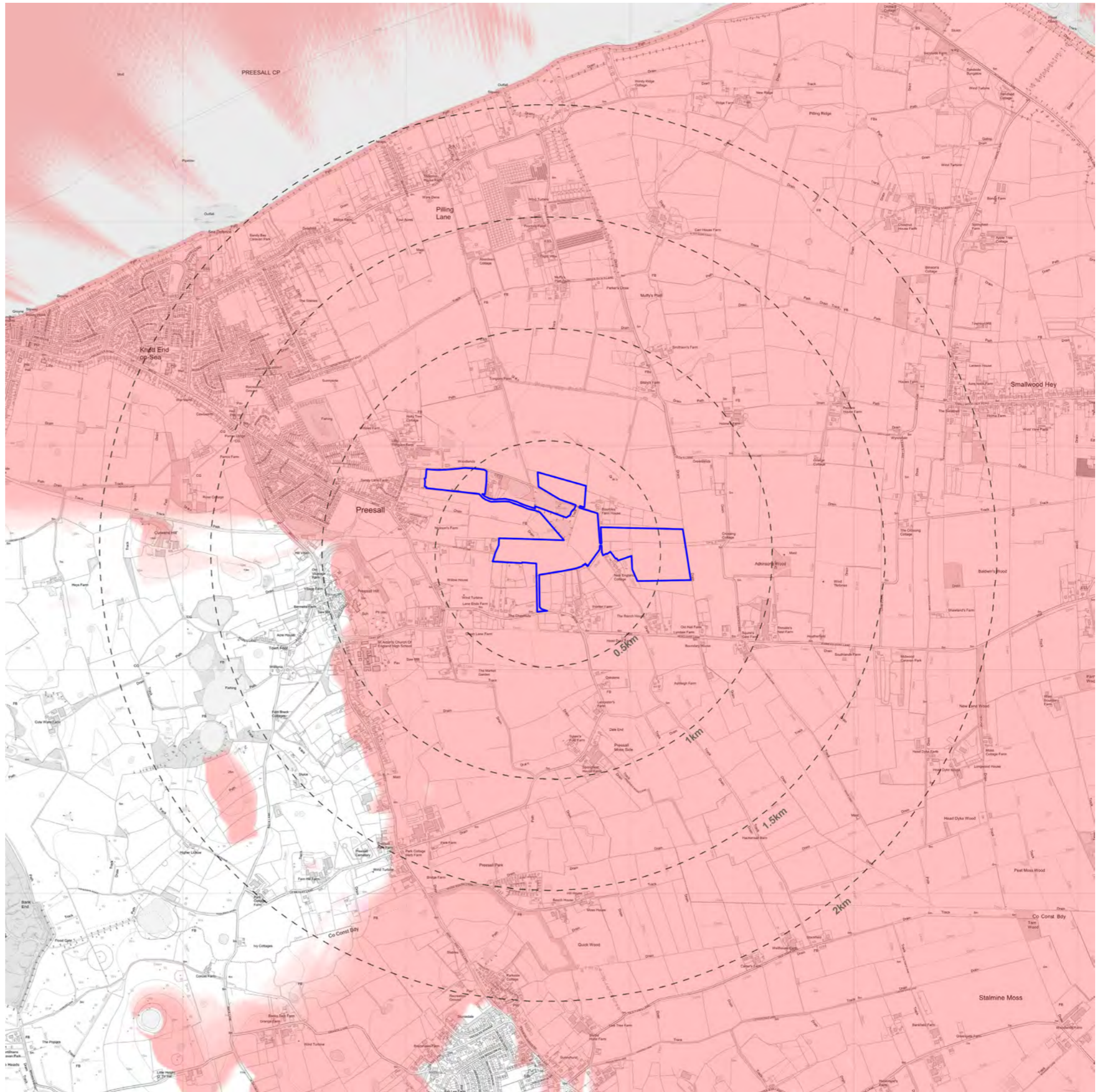


Figure 2: Zone of Theoretical Visibility



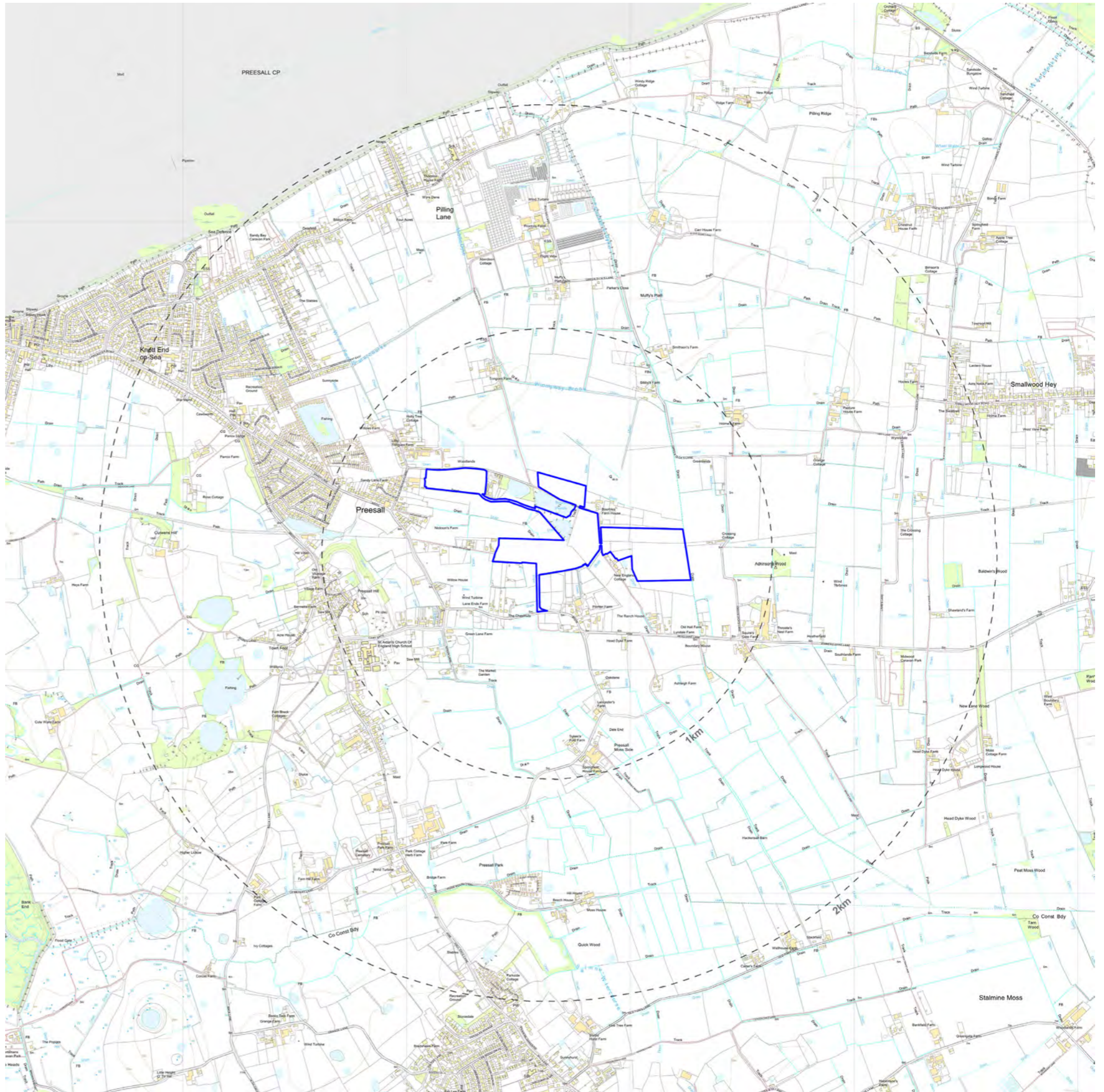


Figure 3: Study Area



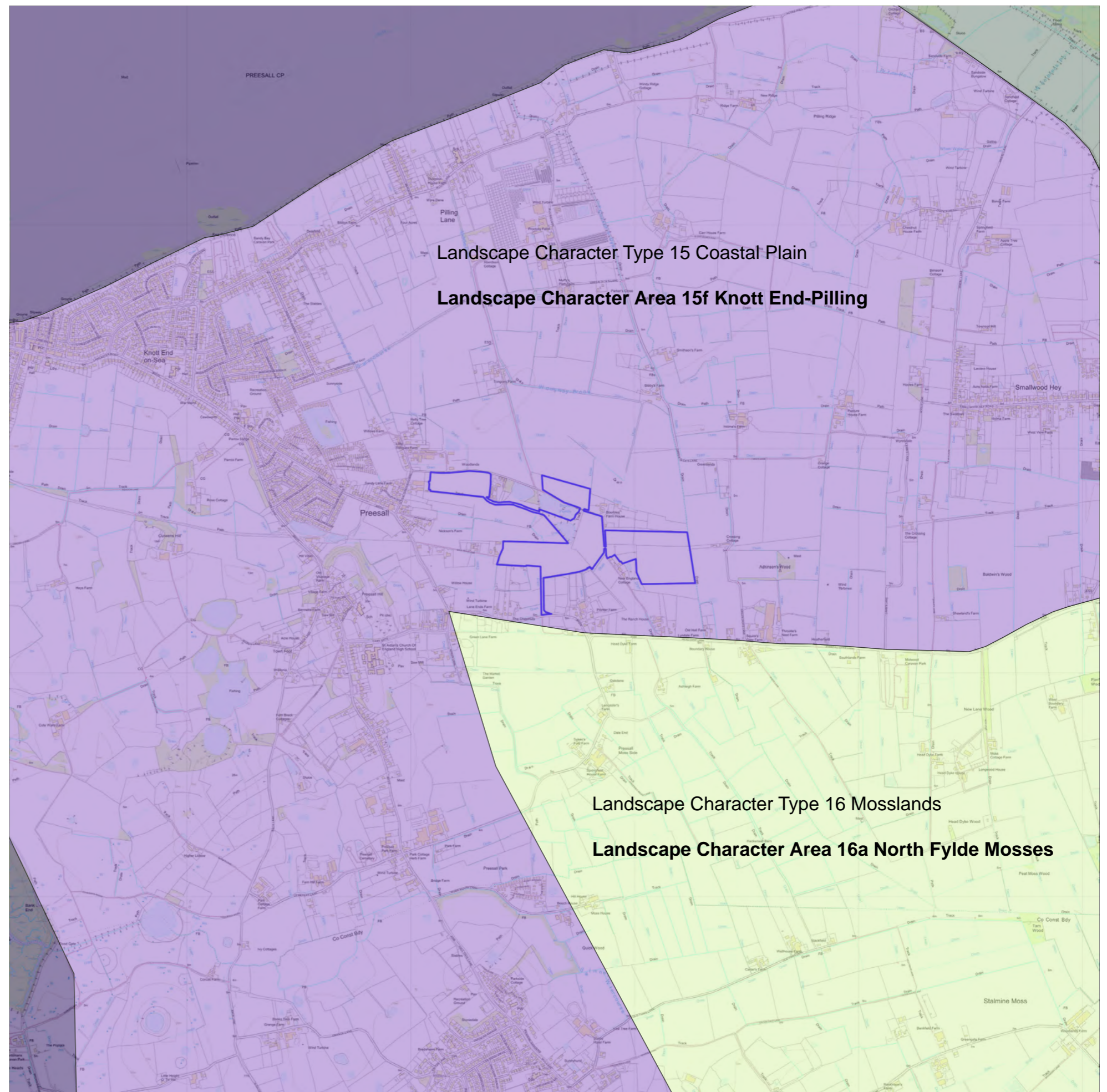


Figure 4: Landscape Character Areas



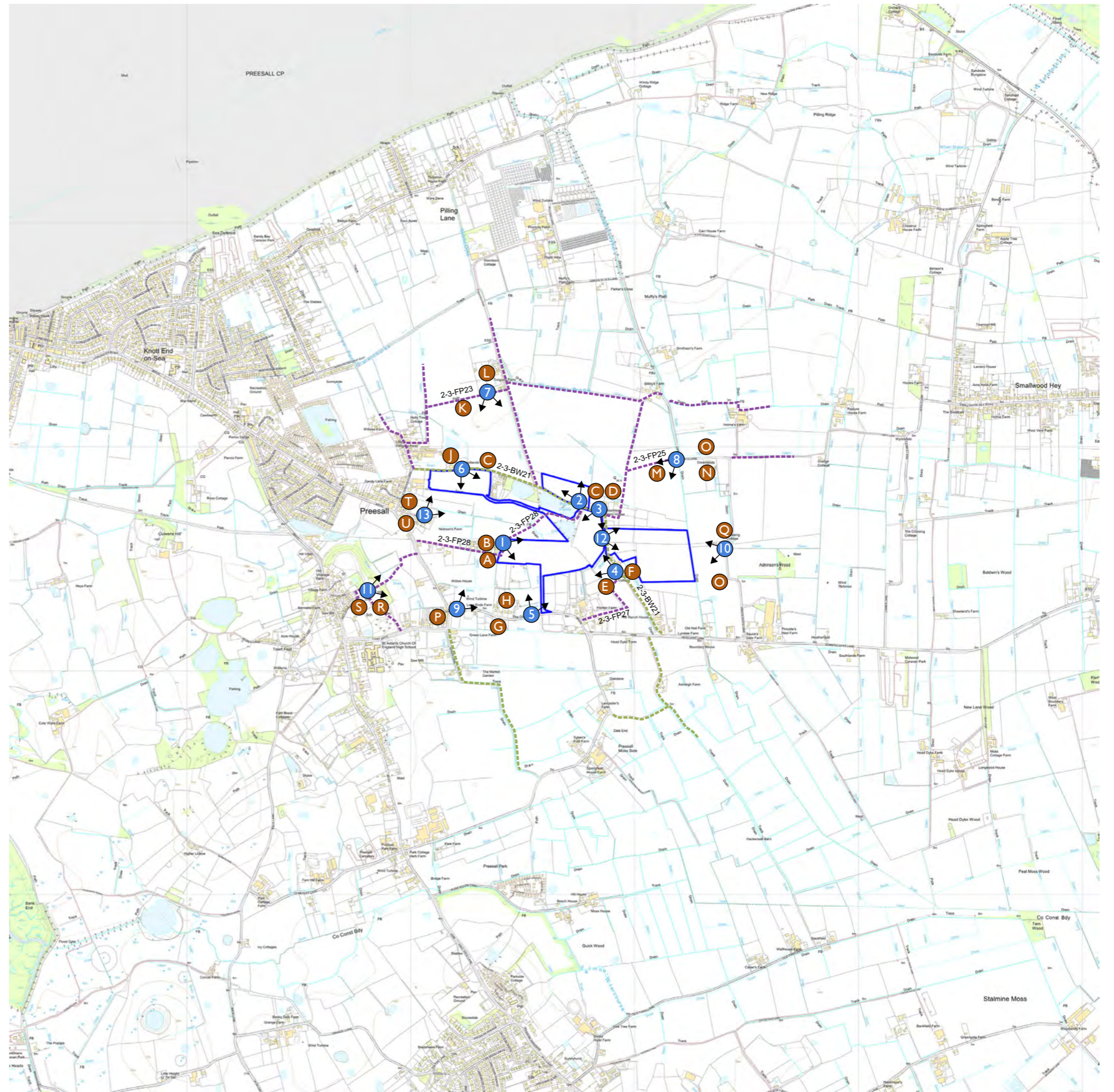


Figure 5: Visual receptor and Viewpoint Location Plan



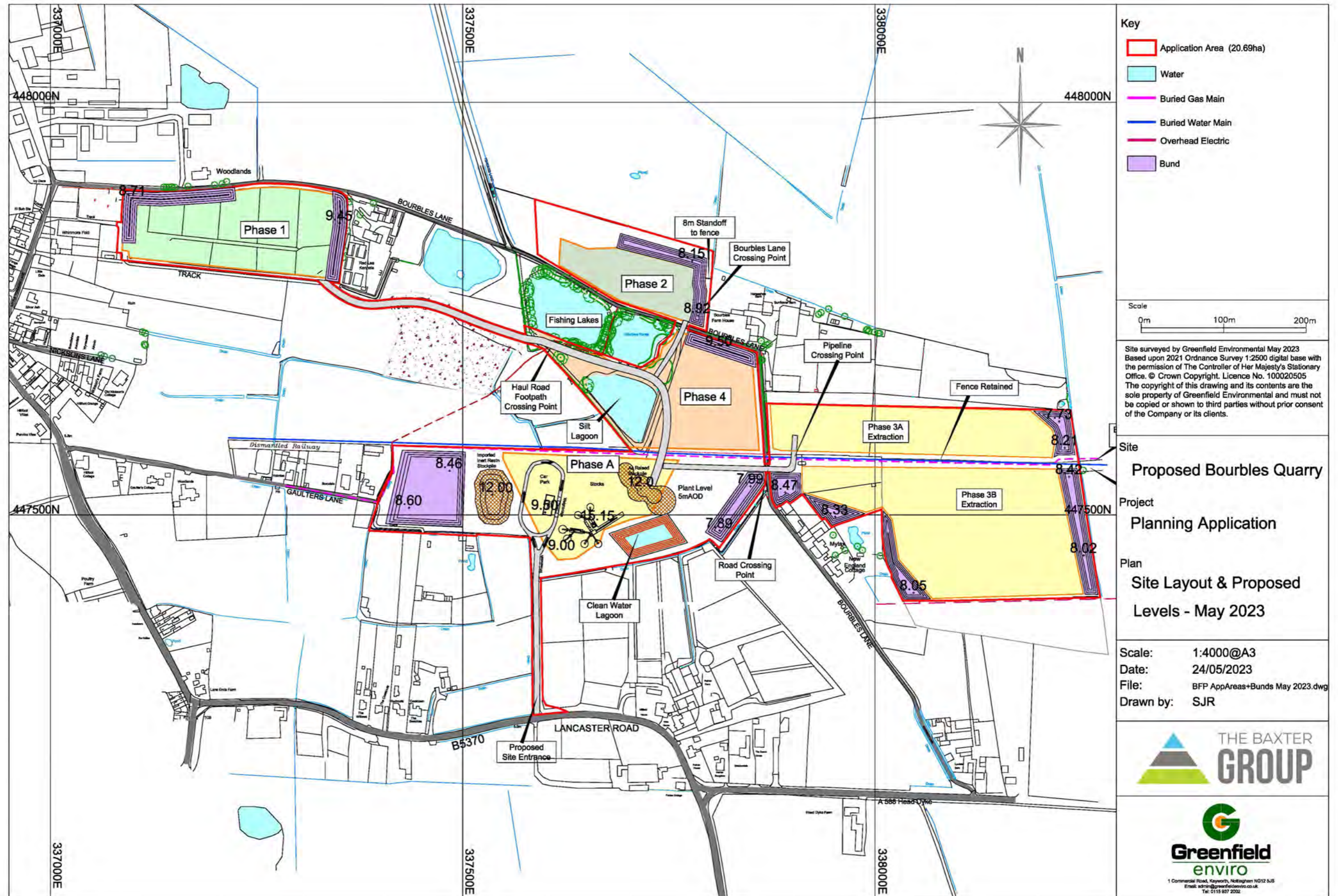


Figure 6: Site Layout and Proposed Levels





Figure 7: Restoration Scheme