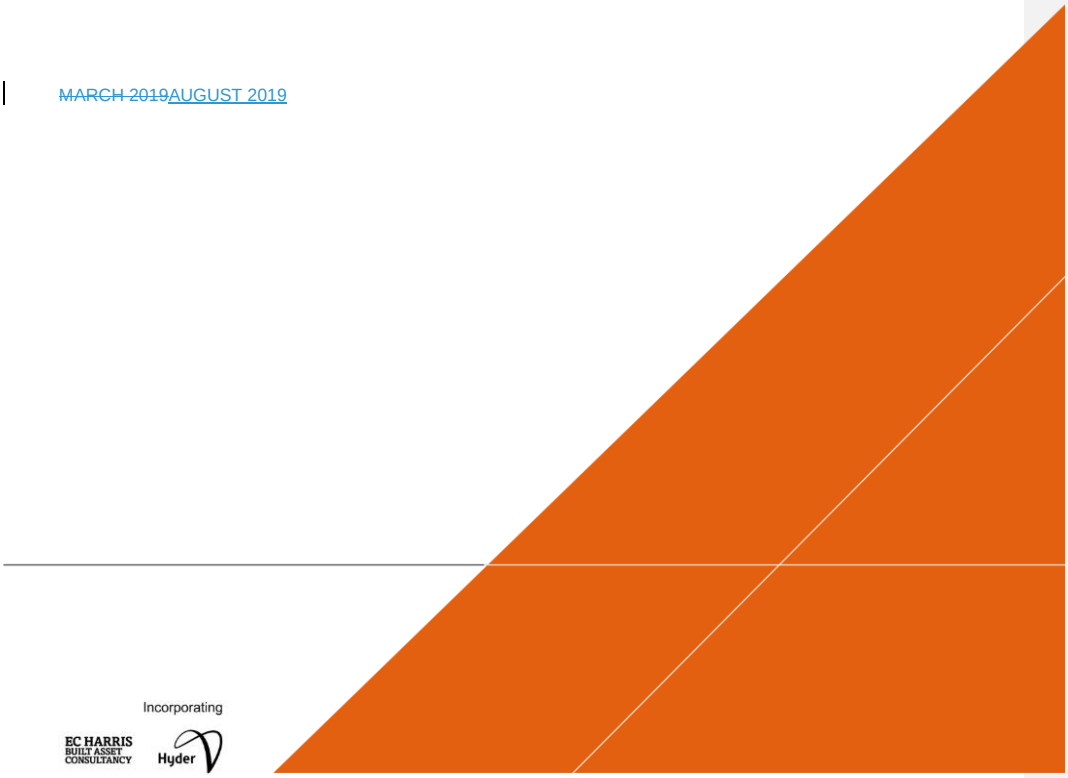
ARCADIS Design & Consultancy for natural and built assets

LANCASTER CITY COUNCIL
Promoting City, Coast & Countryside

LANCASTER LOCAL PLAN PART 1: STRATEGIC POLICIES AND LAND ALLOCATIONS DPD

Habitats Regulations Assessment Report

~~MARCH 2019~~AUGUST 2019



Incorporating
EC HARRIS BUILT ASSET CONSULTANCY
Hyder

CONTACTS

LIZ TURLEY~~/ JO WEAVER~~

Arcadis.
Arcadis Cymru House,
St. Mellons Business
Park, Fortran Road,
Cardiff, CF3 0EY ~~The~~
~~Mill~~
~~Brimscombe Port~~
~~Stroud~~
~~GL5 2QG~~
~~United Kingdom~~

VERSION CONTROL

Version	Date	Author	Changes
026-UA001453-01-EEC-F	20/01/17	LT	First draft for client review
026-UA001453-02-EEC-F	20/03/17	LT	Final draft following client comments and discussion with Natural England
026-UA001453-03-EEC-F	29/11/17	JW/LT	Final draft
026-UA001453-04-EEC-F	08/12/17	JW/LT	Final draft
026-UA001453-05-EEC-F	09/01/18	JW/LT/ LCC	Reference numbers updated
026-UA001453-06-EEC-F	02/02/18	JW/LT	Final
026-UA001453-07-EEC-F	10/10/18	JW/LT	Update following CJEU ruling
026-UA001453-08-EEC-F	22/03/19	JW/LT	Minor amendment to ~~SG14~~SG12 assessment text
026-UA001453-09-EEC-F	06/08/19	LT	Amendments as a result of Main Modifications following the Local Plan Examination

CONTENTS

Executive Summary

This Habitats Regulations Assessment (HRA) Report has been prepared by Arcadis Consulting UK (Ltd) on behalf of Lancaster City Council. Lancaster City Council is currently preparing its Local Plan Part One: Strategic Policies and Land Allocations Development Plan Document (DPD) as part of its Local Plan for Lancaster District. (referred to as the Local Plan Part One). The Local Plan provides guidance for planning within the district of Lancaster and will eventually replace the existing Lancaster District Local Plan policy documents. A separate HRA Report has been produced for Part Two of the Local Plan (Part Two: Review of the Development Management (DM) DPD). The two HRAs have been developed in parallel and should be read in conjunction with each other.

The Local Plan Part One comprises ~~67~~73 ~~policies~~ and over 100 allocation sites (associated with these policies). The Local Plan Part One sets out the spatial vision and plan for the future of the district and how it will be delivered. It is also the document which identifies land to meet future development needs and land which should be protected for its environmental, social and economic importance. The Local Plan Part One is applicable to the whole of the Lancaster district and all types of development. The policies included in the Local Plan Part One reflect guidance set out within the National Planning Policy Framework (NPPF) and build upon guidance provided at the national level to address local issues. This HRA Report has been produced during the preparation of the Local Plan Part One.

The initial screening exercise (Section 5 of the Report) identified 16 European designated sites (including Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites) within 20 km of the district boundary. Of these, 13 could be ruled out completely on the basis that there were no potential impact pathways which could give rise to likely significant effects. The remaining three European sites (Morecambe Bay and Duddon Estuary SPA, Morecambe Bay Ramsar site, and Morecambe Bay SAC) were taken through to the detailed screening stage. During the initial screening exercise, it was also possible to screen out all of the policies contained within Chapters 6, 7, 10, 11, 22, ~~and~~ 23 and 25 of the Local Plan Part One, as well as several individual policies within the remaining chapters. All policies associated with allocation sites were carried through into the detailed screening stage.

The detailed screening (Section 6 of the Report) identified several potential impact pathways associated with the three European sites (Morecambe Bay and Duddon Estuary SPA, and Morecambe Bay Ramsar site/SAC). Those which were taken forward into the detailed screening tables included: loss of habitat functionally linked to a European (i.e. used by overwintering birds associated with the European sites for foraging); disturbance to habitats and species through increased recreational activity (during operational stage); and disturbance to species as a result of construction activities/the operational stage of new developments. All other potential impacts were scoped out of the detailed screening assessment.

The detailed screening of the policies and associated allocation sites is presented in Tables 10 to 13 of this Report. The detailed screening exercise used a variety of resources to provide a robust assessment of each allocation/policy (including: Lancaster Bird Club records; Natural England pink-footed goose distribution squares and functionally linked land Impact Risk Zone (IRZ) buffers; Wetland Bird Survey (WeBS) data; Lancaster Environmental Records Centre records; information within the Morecambe Bay Wader Roost Study, desk study and site survey information from work undertaken by Greater Manchester Ecology Unit (GMEU), and planning information provided by Lancaster City Council). The structure and content of the detailed screening tables was agreed in consultation with Natural England.

The results of the detailed screening determined that eight allocation sites were considered to have the potential for likely significant effects on the European sites considered within this assessment alone and would require Appropriate Assessment. There were no likely significant effects associated with the remaining allocation sites alone; however, the potential for an increase in recreational pressure upon Morecambe Bay as a result of housing developments within 3.5 km and employment sites within 1.5 km of the European sites was also considered within the Appropriate Assessment. The detailed screening also identified the potential for in combination effects within the plan itself and with other plans and projects in the wider area.

The eight individual allocation sites carried through to the Appropriate Assessment (Section 10 of the Report) comprised Lancaster South Broad Location for Growth – including Bailrigg Garden Village ~~Bailrigg Garden Village~~ (Site ref: SG1); East Lancaster Strategic Site (Site ref: SG7); Port of Heysham (Site: ~~SG14~~SG12.1); Port of Heysham Industrial Estate (Site ref: EC1.6); Substation land (Site ref: ~~SG15~~SG13.1); Lancaster West Business Park (Site ref: EC1.10); Middleton Towers, Carr Lane (Site ref: ~~DOS7~~DOS5); and Glasson Dock Industrial Area (Site ref: ~~EC1.18~~EC1.17). The Appropriate Assessment identified the need for mitigation to offset potential impacts associated with these allocation sites. The mitigation, agreed in consultation with Lancaster City Council and Natural England, comprised a combination of eight options (Table 16 within Section 10 of the Report). These included: mitigation land to mitigate for the loss of functionally linked land (Lancaster South Broad Location for Growth – including Bailrigg Garden Village ~~Bailrigg Garden Village~~ only) [Option A], timing of works [Option B], screening [Options C and D], input to scheme designs [Options E and G], home owners' packs [Option F] and provision of a new Country Park (to be implemented through Policy SC5) [Option H]. The Appropriate Assessment concluded that with the mitigation measures in place there would be no residual effects, and no adverse impact on the integrity of the Morecambe Bay Ramsar site/ Morecambe Bay and Duddon Estuary SPA as a result of development at these eight allocation sites.

The Appropriate Assessment also looked at the potential impact of recreational pressure on Morecambe Bay as the new homes and employment sites within Lancaster are developed. No adverse impact on the integrity of the Morecambe Bay Ramsar site/ Morecambe Bay and Duddon Estuary SPA was identified in relation to new employment sites. However, due to the large number of new homes proposed within the Local Plan Part One, measures to mitigate for potential recreational pressure associated with new housing developments, have been proposed. Lancaster City Council have included a suite of mitigation measures for all new housing developments within 3.5 km of Morecambe Bay. These include mitigation Options F (home owners pack), G (input to scheme design) and H (new Country Park) as set out within Table 16 of Section 10 of the Report. In addition, Policy ~~DM43~~DM44 (within Local Plan Part Two) and Policy ~~EN9~~EN7 (within Local Plan Part One) clearly set out the requirements for European sites to be taken into account during the planning process, ensuring projects adequately assess the potential impacts upon the European sites prior to planning permission being granted. Policy DM27 and Appendix D (within the Local Plan Part Two) also outlines the requirements for public open space to be built into residential developments, thereby minimising the need for residents to visit Morecambe Bay on a regular basis.

The in-combination assessment looked at the potential for in-combination effects associated with different elements of the Local Plan itself (Section 7 of the Report), as well as with other plans and projects in the wider area (Section 8 of the Report). The in-combination assessment concluded that with the mitigation measures in place (as set out within Sections 11 of the Report), there would be no adverse in combination effects with the plan itself, or other plans and projects within the wider area.

This HRA Report therefore concludes that, with mitigation in place, there would be no adverse impact on the integrity of the Morecambe Bay Ramsar site/ Morecambe Bay SAC/ Morecambe Bay and Duddon Estuary SPA, as a result of implementation of the Lancaster Local Plan Part One.

1 Introduction and Purpose

1.1.1 This Habitats Regulations Assessment (HRA) Report has been prepared by Arcadis Consulting UK (Ltd) on behalf of Lancaster City Council. Lancaster City Council is currently preparing its Local Plan Part One: Strategic Policies and Land Allocations Development Plan Document (DPD) as part of its Local Plan for Lancaster District. (referred to as the Local Plan Part One).

1.1.2 The Local Plan provides guidance for planning within the district of Lancaster and will eventually replace the existing Lancaster District Local Plan policy documents. A separate HRA Report has been produced for Part Two of the Local Plan (Part Two: Review of the Development Management (DM) DPD). There is an important cross over between the two HRAs and have therefore been developed in parallel and should be read in conjunction with each other. The Local Plan Part One sets out the spatial vision and plan for the future of the district and how it will be delivered. It is also the document which identifies land to meet future development needs and land which should be protected for its environmental, social and economic importance. The Local Plan Part One is applicable to the whole of the Lancaster district and all types of development.

1.1.3 The policies included in the Local Plan Part One reflect guidance set out within the National Planning Policy Framework (NPPF) and build upon guidance provided at the national level to address local issues. The HRA Report has been produced during the preparation of the Local Plan Part One.

1.1.4 This~~This version of the~~ HRA Report has been updated following the Court of Justice of the European Union (CJEU) judgement (People over Wind & Sweetman v Coillte Teoranta Case C-323/17), dated 12th April 2018, in Ireland.

1.1.5 The ruling stated:

1.1.6 *'Article 6(3)…….. must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of measures intended to avoid or reduce the harmful effects of the plan or project on that site.'*

1.1.7 ~~The HRA Report has been updated to ensure that the HRA of the Lancaster Local Plan Part One is legally compliant, and therefore supersedes the previous HRA Report (February 2018).~~ This HRA Report also takes into consideration the Main Modifications as a result of the Local Plan Examination. The updates included within this HRA Report do not affect the overall outcome of the Publication version HRA Report (dated February 2018), but ensures that the document is legally compliant.

1.2 Background to the Habitats Regulations Assessment

1.2.1 Under Article 6 of the Habitats Directive (and Regulation 102 of the Habitats Regulations), an assessment is required where a land use plan may give rise to significant effects upon a Natura 2000 site (also known as 'European site').

1.2.2 Within Lancaster there are eight such designated sites; however, within a 20km radius of the district boundary there are a further eight sites which form part of the Natura 2000 network that could potentially be affected by the Local Plan Part One. Natura 2000 is a network of areas designated to conserve natural habitats and species that are rare, endangered, vulnerable or endemic within the European Community. This includes Special Areas of Conservation (SAC), designated under the Habitats Directive for their habitats and/or species of European importance, and Special Protection Areas (SPA), classified under Directive 2009/147/EC on the Conservation of Wild Birds (the codified version of Directive 79/409/EEC as amended) for rare, vulnerable and regularly occurring migratory bird species and internationally important wetlands.

1.2.3 In addition, it is a matter of law that candidate SACs (cSACs) and Sites of Community Importance (SCI) are considered in this process; furthermore, it is Government policy that sites designated under the 1971 Ramsar Convention for their internationally important wetlands (Ramsar sites) and potential SPAs (pSPAs) are also considered.

1.2.4 The requirements of the Habitats Directive are transposed into English and Welsh law by means of the Conservation of Habitats and Species Regulations 2017 (the "Habitats Regulations 2017")[1].

1.2.5 Regulation 61, Part 6 of the Habitats Regulations states that:

'*A competent authority, before deciding to undertake, or give consent, permission or other authorisation for, a plan or project which (a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and (b) is not directly connected with or necessary to the management of the site, must make an appropriate assessment of the implications for that site in view of that site's conservation objectives*.'.

1.2.6 Regulation 62, Part 6 of the Habitats Regulations states that:

'*If the competent authority are satisfied that, there being no alternative solutions, the plan or project must be carried out for imperative reasons of overriding public interest (which, subject to paragraph (2), may be of a social or economic nature), they may agree to the plan or project notwithstanding a negative assessment of the implications for the European site or the European offshore marine site (as the case may be).*'

1.2.7 Regulation 66, Part 6 of the Habitats Regulations states that:

'*Where, in accordance with regulation 62 (considerations of overriding public interest)— (a) a plan or project is agreed to, notwithstanding a negative assessment of the implications for a European site or a European offshore marine site, or (b) a decision, or a consent, permission or other authorisation, is affirmed on review, notwithstanding such an assessment,— the appropriate authority must secure that any necessary compensatory measures are taken to ensure that the overall coherence of Natura 2000 is protected*.'

1.2.8 The overarching aim of HRA is to determine, in view of a site's conservation objectives and qualifying interests, whether a plan, either in isolation and/or in combination with other plans, would have a significant adverse effect on the European site. If the Screening (the first stage of the process, see Section 3 for details) concludes that significant effects are likely, then Appropriate Assessment (AA) must be undertaken to determine whether there will be adverse effects on site integrity.

1.3 Legislation and Guidance

1.3.1 This HRA Report has drawn upon the following legislation and guidance:

- The Conservation of Habitats and Species Regulations 2017. In 2012, these Regulations were amended to transpose more clearly certain aspects of the Habitats Directive. In 2017, the Conservation of Habitats and Species Regulations 2017 (the "Habitats Regulations 2017") consolidated and updated the Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations 2010"). No fundamental changes to the Regulations were made in 2012 or 2017.
- European Commission, Managing Natura 2000 sites: The provisions of Article 6 of the Habitats Directive 92/43/EEC.
- European Commission, Guidance document on Article 6(4) of the Habitats Directive 92/43/EEC.
- Department for Communities and Local Government (2006) Planning for the Protection of European Sites: Appropriate Assessment. Guidance for Regional Spatial Strategies and Local Development Documents.
- Tyldesley D. and Chapman, C (2013) The Habitats Regulations Assessment Handbook (accessed July 2019) edition UK DTA Publications Limited www.dtapublications.co.uk ~~DTA Publications Limited (June 2016) The Habitats Regulations Assessment Handbook.~~

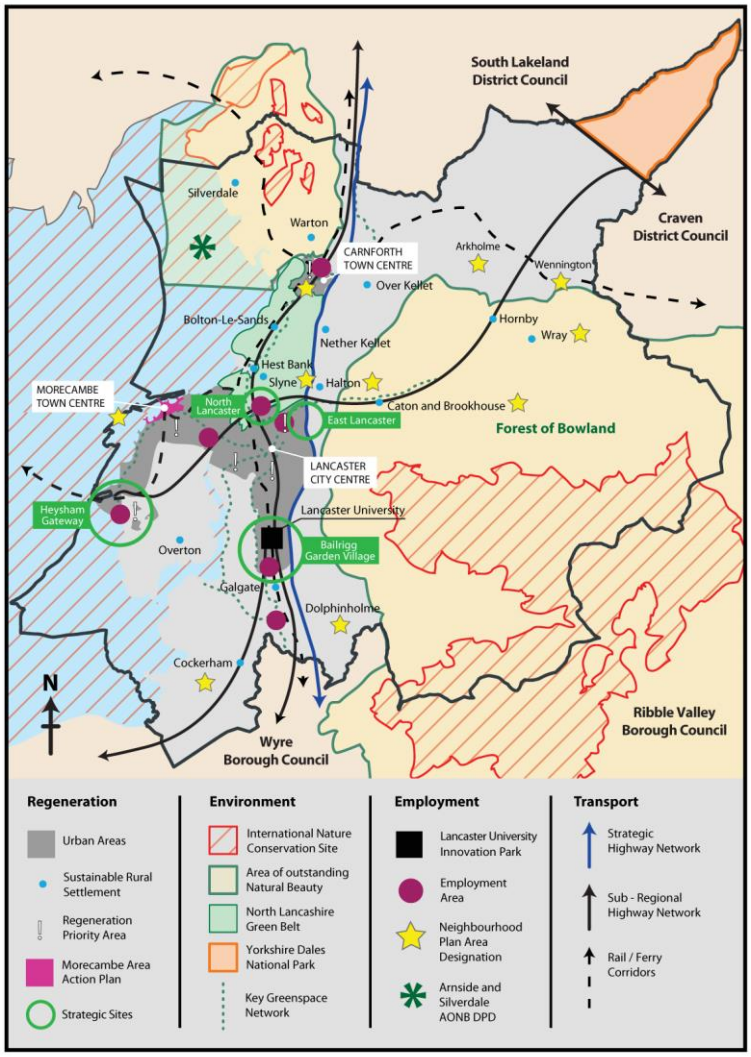
[1] SI 2017/1012: Explanatory memorandum to the Conservation of Habitats and Species Regulations, 2017.

2 The Local Plan

2.1 Background

2.1.1 The Local Plan provides a new planning framework for the area. The Key Diagram (below) shows the main locations for development and the environmental considerations.

Image 1: Lancaster Local Plan Key Diagram



Commented [TL1]: New Key diagram added, does not show as a tracked change

2.1.2 The preparation of the Local Plan Part One, along with other key documents including the Local Plan Part Two, Arnside and Silverdale Area of Outstanding Natural Beauty (AONB) DPD, Morecambe Area Action Plan (AAP) DPD and the South Lancaster AAP will form the new local development plan for Lancaster District for the period 2011 – 2031.

2.1.3 The Local Plan will comprise a number of documents. The Local Plan Part Two will set out the generic policies which will be used by both Development Management Officers and Planning Committee to determine planning applications. The Local Plan Part One will identify land to meet future development needs and land which should be protected for a specific environmental, economic or social value. These two documents represent the key strands of the new Local Plan for the District. This HRA Report focusses on the Local Plan Part One.

2.2 Consultation

2.2.1 A HRA Screening Report was produced by Arcadis in 2015. This was based on an early version of the emerging Lancaster City Council Land Allocations Development Plan Document (the 'DPD'). The Local Plan included over 100 allocation sites, but there were no policies at the time of this earlier screening exercise. Significant changes have been made to the allocation sites assessed previously, with a proportion of the original sites dropped and a large number of new sites added. Due to the number of changes, it has been necessary to re-screen all of the allocation sites for this current version of the HRA Report.

2.2.2 Consultation with Natural England has been carried out throughout the development of the Local Plan Part One and the associated iterations of the HRA. Each iteration of the report has taken Natural England's comments into consideration and incorporated additional information as required. This report represents ~~an update to~~ the final HRA Rreport for the ~~pre-ppublication version of the~~ Local Plan Part One. The report takes into consideration ~~following~~ the HRA CJEU Irish judgement (April 2018) and the Main Modifications as a result of the Local Plan Examination. The updates included within this HRA Report do not affect the overall outcome of the Publication version HRA Report (February 2018), but ensures that the document is legally compliant.

2.3 Objectives of the Local Plan Part One

2.3.1 The Local Plan Part One contains, and is built on, five overriding objectives, supported by a series of more detailed sub-objectives which together provide a link between the vision and the development strategy.

2.3.2 The five objectives comprise the following:

SO1:	Delivery of a thriving local economy that fosters investment and growth and supports the opportunities to deliver the economic potential of the district.
SO2:	Provision of a sufficient supply, quality and mix of housing to meet the changing needs of the population and support growth and investment.
SO3:	Protect and enhance the natural, historic and built environment of the district.
SO4:	The provision of necessary infrastructure required to support both new and existing development and the creation of sustainable communities.
SO5:	Delivery of a safe and sustainable transport network that improves both connection within and out of the district, reducing the need to travel and encouraging more sustainable forms of transport.

2.3.3 SO3 also includes a number of sub-objectives which refers specifically to protecting ecological assets and internationally important sites within the district. The four sub-objectives comprise:

- '*Recognising and respecting the international importance of Morecambe Bay and Duddon Estuary, Morecambe Bay Pavements, Bowland fells, Leighton Moss and Calf Hill/Crag Wood, where possible securing opportunities for habitat restoration and enhancement within them and protecting them from inappropriate development and increased recreational pressure*'
- '*Conserving and enhancing the natural beauty and special qualities of the district's two Areas of Outstanding Natural Beauty (AONB), securing appropriate opportunities for sustainable growth linked to the natural environment landscape capacity*'
- '*Providing new and maintaining existing ecological corridors, preventing habitat fragmentation and allowing species adaptation and migration, preventing habitat fragmentation and allowing species adaptation and migration, protecting natural features which provide local distinctiveness including mature trees and ancient woodland, hedgerows and ponds*'
- 'Establishing clearly defined Green Belt boundaries, including the identification of safeguarded land, which will be robust and endure for the long term.'

2.4 Local Plan Part One Policies and Sites

2.4.1 There are ~~73~~467 policies contained within the Local Plan Part One. These are set out within Table 1. There are also over 100 allocation sites associated with these policies. The allocations are shown in the Site Reference Map Book which accompanies the Local Plan Part One.

Table 1: Policies within the Local Plan Part One

Overarching Policy Areas	Policies	Allocation site associated with policy
Strategic Policies		
Chapter 6: Sustainable Development	Policy SP1: Presumption in Favour of Sustainable Development	N/A
Chapter 7: The Role and Function of our Towns and Villages	Policy SP2: Lancaster District Settlement Hierarchy Policy SP3: Development Strategy for Lancaster District	N/A
Chapter 8: Regeneration and Economic Growth	Policy SP4: Priorities for Sustainable Economic Growth	Lancaster South Broad Location for Growth (including Bailrigg Garden Village) (SG1) Lancaster Castle and Quay (SG6) Port of Heysham (~~SG14~~SG12) Heysham Gateway (~~SG15~~SG13) University of Cumbria (EC6) Lancaster and Morecambe College (EC7)
	Policy SP5: The Delivery of New Jobs	Lancaster University Health Innovation Campus~~Park~~ (SG2) Heysham Gateway (~~SG15~~SG13) Canal Quarter ~~Corridor North~~, Central Lancaster ~~Lancaster Canal Corridor~~ (SG5) North Lancaster Business Park (SG9/EC2) South Lancaster Business Park (SG1/EC2) Junction 33 Agri-Business Centre, Galgate (EC3)

Overarching Policy Areas	Policies	Allocation site associated with policy
Chapter 9: Housing Delivery and Distribution	Policy SP6: The Delivery of New Homes	Lancaster South Broad Location for Growth (including Bailrigg Garden Village (SG1) East Lancaster Strategic Site (SG7) North Lancaster Strategic Site (SG9) Land at Lundsfield Quarry (SG11) ~~Land South of Windermere Road, Carnforth (SG12)~~ This Policy also includes reference all non-strategic residential dwellings within Policies H1 to H6, Development Opportunity Sites identified via policies DOS1 to ~~DOS~~DOS~~86~~10, non-allocated sites with permissions and student accommodation.
Chapter 10: The Natural and Historic Environment	Policy SP7: Maintaining Lancaster District's Unique Heritage Policy SP8: Protecting the Natural Environment	N/A
Chapter 11: Delivering infrastructure	Policy SP9: Maintaining Strong and Vibrant Communities Policy SP10: Improving Transport Connectivity	N/A
Delivery of Strategic Growth		
Chapter 12: Bailrigg Garden Village	Policy SG1: Lancaster South Broad Location for Growth - ~~-~~including Bailrigg Garden Village	Lancaster South Broad Location for Growth (including Bailrigg Garden Village (SG1)
	Policy SG2: Lancaster University Health Innovation Campus	Lancaster University Health Innovation Campus~~Park~~ (SG2)
	Policy SG3: Infrastructure Delivery for Growth in South Lancaster	Lancaster South Broad Location for Growth (including Bailrigg Garden Village and Lancaster University Health Innovation ~~Park~~ Campus (SG1 & SG2)
Chapter 13: Central Lancaster	Policy SG4: Lancaster City Centre	Lancaster City Centre (SG4)
	Policy SG5: Canal~~-~~ Quarter~~Corridor North~~, Central Lancaster~~Canal Corridor North, Central Lancaster~~	Canal~~-~~ Quarter~~Corridor North~~, Central Lancaster ~~Lancaster Canal Corridor~~ (SG5)
	Policy SG6: Lancaster Castle and Lancaster Quay	Lancaster Castle and Quay (SG6)
Chapter 14: East Lancaster	Policy SG7: East Lancaster Strategic Site	~~Cuckoo Farm and Ridge Farm~~East Lancaster Strategic Site (SG7)
	Policy SG8: Infrastructure Requirements & Delivery for Growth in East Lancaster	~~Cuckoo Farm and Ridge Farm~~East Lancaster Strategic Site (SG7) Land at Grab Lane (H4) Land at Ridge Lea Hospital (H3.1)

Overarching Policy Areas	Policies	Allocation site associated with policy
		Land at Lancaster Leisure Park (H5)
Chapter 15: North Lancaster	Policy SG9: North Lancaster Strategic Site	North Lancaster Strategic Site (SG9)
	Policy SG10: Infrastructure Requirement & Delivery for Growth in North Lancaster	North Lancaster Strategic Site (SG9)
Chapter 16: South Carnforth	Policy SG11: Land at Lundsfield Quarry, South Carnforth	Land at Lundsfield Quarry (SG11)
	~~Policy SG12: Land South of Windermere Road, South Carnforth~~	~~South of Windermere Road (SG12)~~
	~~Policy SG13: Infrastructure Requirements & Delivery for Growth in South Carnforth~~	~~South of Windermere Road (SG12)~~ ~~Land at Lundsfield Quarry (SG11)~~
Chapter 17: South Heysham	Policy ~~SG14~~SG12: Port of Heysham and Future Expansion Opportunities	Port of Heysham Expansion (~~SG14~~SG12.1) Land at Imperial Road (~~SG14~~SG12.2)
	Policy ~~SG15~~SG13: Heysham Gateway, South Heysham	Sub-station Land (~~SG15~~SG13.1) Port of Heysham (~~SG14~~SG12.1) Land off Imperial Way (~~SG14~~SG12.2) Port of Heysham Industrial Estate (EC1.6) Heysham Industrial Estate (EC1.7) Royd Mill (EC1.8) Major Industrial Estate (EC1.9) Lancaster West Business Park (EC1.10) ~~Middleton Road Employment Area (EC1.13)~~ Land West of Middleton Road (H1.~~47~~) Middleton Towers (~~DOS7~~DOS5)
	Policy ~~SG16~~SG14: Heysham Nuclear Power Station	Heysham nuclear power station and safeguarding land Substation Land (~~SG16~~SG14)
Land Allocations		
Chapter 18: The Economy, Employment and Regeneration	Policy EC1: Established Employment Areas	Carnforth Business Park (EC1.1) Carnforth Levels, Scotland Road (EC1.2) Land at Scotland Road, Carnforth (EC1.3) Land at Warton Road, Carnforth (EC1.4) Kellet Road Industrial Estate, Carnforth (EC1.5) Port of Heysham Industrial Estate (EC1.6) Heysham Industrial Estate (EC1.7) Royd Mill, Heysham (EC1.8) Major Industrial Estate (EC1.9)

Overarching Policy Areas	Policies	Allocation site associated with policy
		Lancaster West Business Park (EC1.10) Caton Road Industrial Estate (EC1.11) White Lund Industrial Estate (EC1.12/EC4) ~~Middleton Road Employment Area (EC1.13)~~ White Cross Business Park (~~EC1.14~~EC1.13) Lancaster Business Park, Caton Road (~~EC1.15~~EC1.14) Claughton Brick works and Buffer Store (~~EC1.16~~EC1.15) Halton Mills (~~EC1.17~~EC1.16) Glasson Dock Industrial Estate (~~EC1.18~~EC1.17) Hornby Industrial Estate (~~EC1.19~~EC1.18) Cowan Bridge Industrial Estate (~~EC1.20~~EC1.19) Willow Mill, Caton (~~EC1.21~~EC1.20) Galgate Mill (~~EC1.22~~EC1.21)
	Policy EC2: Future Employment Growth	Lancaster University Health Innovation ~~Park~~Campus (SG2) Port of Heysham ~~Expansion~~ (~~SG14~~SG12) Heysham Gateway (~~SG15~~SG13) North Lancaster Business Park (SG9/EC2) Middleton Road Employment Area (EC2.1) Junction 33 Agri-Business Centre (EC3)
	Policy EC3: Junction 33 Agri-Business Centre, South Galgate	Junction 33 Auction Market (EC3)
	Policy EC4: White Lund Employment Area	White Lund Industrial Estate (EC1.12/EC4)
	Policy EC5: Regeneration Priority Areas	Central Morecambe (EC5.1) Central Lancaster (EC5.2) Caton Road Gateway (EC5.3) Luneside, Lancaster (EC5.4) Heysham Gateway (EC5.5) Central Carnforth (EC5.6) Morecambe West End (EC5.7)
	Policy EC6: University of Cumbria Campus, Lancaster	The University of Cumbria (EC6)
	Policy EC7: Lancaster and Morecambe College	Lancaster and Morecambe College (EC7)
Chapter 19: Town Centres and Retailing	Policy TC1: The Retail Hierarchy for Lancaster District	Lancaster City Centre (TC1.1) Morecambe Town Centre (TC1.2) Carnforth Town Centre (TC1.3)

Overarching Policy Areas	Policies	Allocation site associated with policy
		Lancaster South Broad Location for Growth (including Bailrigg Garden Village (SG1) North Lancaster Strategic Site (SG9) East Lancaster Strategic Site (SG7)
	Policy TC2: Town Centre Designations	Canal Quarter, Central Lancaster~~Lancaster Canal Corridor~~ (~~SG6~~SG5) Lancaster City Centre (SG4) Morecambe Town Centre (TC1.2) Carnforth Town Centre (TC1.3)
	Policy TC3: Future Retail Growth	Lancaster City Centre (SG4) Morecambe Town Centre (TC1.2) Carnforth Town Centre (TC1.3) Sunnycliff Retail Park (Bulky Goods Retail) (TC3.1)
	Policy TC4: Central Morecambe	Morecambe Town Centre (TC1.2)
Chapter 20: Housing	Policy H1: Residential Development in Urban Areas	Lancaster South Broad Location for Growth (including Bailrigg Garden Village) ~~Bailrigg Garden Village~~ (SG1) ~~Cuckoo Farm and Ridge Farm,~~ East Lancaster Strategic Site (SG7) North Lancaster Strategic Site (SG9) Land at Lundsfield Quarry (SG11) ~~South of Windermere Road, Carnforth (SG12)~~ ~~Moor Park, Quernmore Road (H1.1)~~ New Quay Road, Lancaster (H1.~~2~~1) Former Police Station, Heysham (H1.3) ~~Broadway Hotel, Morecambe (H1.4)~~ ~~Land West of 113 White Lund Road, Oxcliffe Road (H1.5)~~ ~~Grove Street Depot, Morecambe (H1.6)~~ Land West of Middleton Road (H1.~~7~~4) Land at Former Ridge Lea Hospital, East Lancaster (H3.1) Land at Stone Row Head, East Lancaster (H3.2) Land at University of Cumbria (H3.32) Land at Grab Lane, East Lancaster (H4) Land at Leisure Park / Auction Mart (H5) Land at Royal Albert Fields, Ashton Road (H6) Luneside East (H1.2~~DOS3~~) Lune~~side~~ Industrial Estate, New Quay Road (DOS24)

Overarching Policy Areas	Policies	Allocation site associated with policy
	Policy H2: Housing Development in Rural Areas of the District	Royal Oak Meadow, Hornby (H2.1) Lancaster Road, Overton (H2.2) Yenham Lane, Overton (H2.3) St Michaels Lane, Bolton-le-Sands (H2.4) ~~Briar Lea Road, Nether Kellet (H2.5)~~ Land North of Old Hall Farm, Over Kellet (~~H2.6~~H2.5) ~~Monkswell Avenue, Bolton-le-Sands (H2.7)~~ Halton Mills, Halton (~~H2.8~~H2.6) Land South of Low Road, Halton (~~H2.9~~H2.7) Land between Low Road and Forge Lane, Halton (~~H2.~~H2.8~~10~~) Land to the rear of Pointer Grove and adjacent to High Road (~~H2.~~H2.9~~11~~) Land off Marsh Lane, Cockerham (~~H2.12~~H2.10) Middleton Towers, Carr Lane, Middleton (~~DOS~~DOS5~~3~~7)
	Policy H3: Development Heritage Led Housing	Land at Ridge Lea Hospital (H3.1) Land at Stone Row Head, East Lancaster (H3.2) Land at The University of Cumbria (H3.3~~2~~)
	Policy H4: Land at Grab Lane, East Lancaster	~~Grab Lane~~Land at Grab Lane (H4)
	Policy H5: Land at Lancaster Leisure Park and Auction Mart, East Lancaster	Land at Lancaster Leisure Park and Auction Mart, East Lancaster (H5)
	Policy H6: Land at Royal Albert Fields, Ashton Road, Lancaster	~~Royal Albert~~Land at Royal Albert Fields, Ashton Road (H6)
Chapter 21: Development Opportunity Sites	Policy DOS1: Land at Bulk Road and Lawson's Quay, Central Lancaster	Bulk Road and Lawsons Quay (DOS1)
	~~Policy DOS2: Land at Moor Lane Mills, Central Lancaster~~	~~Land at Moor Lane Mills, Central Lancaster (DOS2)~~
	~~Policy DOS3: Luneside East, Lancaster~~	~~Luneside East (DOS3)~~
	Policy DOS2~~3~~4: Lune Industrial Estate, Lancaster	Lune Industrial Estate (DOS2~~3~~4)
	Policy DOS3~~5~~: Land at Willow Lane, Lancaster	Willow Lane/ Coronation Field (~~DOS5~~DOS3~~3~~)
	Policy ~~DOS~~DOS2~~6~~: Galgate Mill, Galgate	Galgate Mill (~~DOS6~~DOS4)
	Policy ~~DOS~~DOS3~~7~~: Land at Middleton Towers, Middleton	Middleton Towers, Carr Lane, Middleton (~~DOS~~DOS5~~3~~7)

Overarching Policy Areas	Policies	Allocation site associated with policy
	Policy ~~DOS~~DOS~~4~~8: Morecambe Festival Market and Surrounding Area	Morecambe Festival Market and Surroundings (~~DOS8~~DOS6)
	Policy ~~DOS~~DOS~~5~~9: Land at Former TDG Depot, Warton Road, Carnforth	Former TDG Site, Warton Road (~~DOS9~~DOS7)
	Policy ~~DOS~~DOS~~6~~10: Former Thomas Graveson Site, Warton Road, Carnforth	Former Thomas Graveson Site, Warton Road, Carnforth (~~DOS~~DOS~~86~~10)
Historic and Natural Environment		
Chapter 22: The Historic and natural Environment	~~Policy EN1: Conservation Areas~~ ~~Policy EN2: Designated Heritage Assets~~ Policy EN~~3~~1: Mill Race Heritage Priority Area Policy EN2~~4~~: Areas of Outstanding Natural Beauty Policy EN~~5~~3: The Open Countryside Policy EN~~6~~4: The North Lancashire Green Belt Policy EN~~5~~7: Local Landscape Designations Policy EN~~8~~6: Areas of Separation Policy EN~~9~~7: Environmentally Important Areas Policy EN~~810~~: Grab Lane Preserved Setting Area Policy EN~~911~~: Air Quality Management Areas (AQMAs)	N/A
Sustainable Communities		
Chapter 23: Sustainable Communities	Policy SC1: Neighbourhood Planning Areas	N/A
	Policy SC2: Local Green Spaces Policy SC3: Open Space, Recreation and Leisure Policy SC4: Green Space Networks	~~Freeman's Wood (SC2.1)~~ Ridge Hill Green (SC2.1~~2~~) Barley Cop Community Wood (SC2.~~3~~2) Land at Heysham Coast (SC2.3~~4~~) Low Moor (SC2.4~~5~~) Greaves Park (SC2.~~6~~5) Giant Axe Playing Field (SC2.~~6~~7) Furness Street Green Space (SC2.~~8~~7) Dorrington Road Woods (SC2.8~~9~~) Lune Bank Gardens (SC2.9~~10~~) Scotch Quarry Urban Park (SC2.10~~1~~)

Overarching Policy Areas	Policies	Allocation site associated with policy
		Quay Meadow (SC2.112) ~~Carnforth Cemetery Wood (SC2.13)~~ Thwaite Woods (Bolton-le-Sands Community Woods) (SC2.124) Church Bridge Recreation Area (SC2.135) Over Kellet Craggs (SC2.146) Ryelands Park (SC2.157) Ripley Heights (SC2.168) Aldcliffe Road Triangle (SC2.197) Fenham Carr ~~Allotments~~ (SC2.1820) Barton Road Allotment (SC2.1921)
	Policy SC5: Recreational Opportunity Areas	N/A
Transport, Accessibility and Connectivity		
Chapter 24: Transport, Accessibility and Connectivity	Policy T1: Lancaster Park and Ride Policy T2: Cycling and Walking Network Policy T3: Lancaster Canal Policy T4: Public Transport Corridors	N/A
Implementation and Monitoring		
Chapter 25: Implementation and Monitoring	Policy LPRM 1: Local Plan Review Mechanism	N/A

3 The Habitats Regulations Assessment Process

3.1.1 This section provides an outline of the stages involved in HRA and the specific methods that have been used in preparing this HRA Report.

3.1 Stages in HRA

3.1.1 The requirements of the Habitats Directive comprise four distinct stages:

1. **Stage 1: Screening** is the process which initially identifies the likely impacts upon a European site of a project or plan, either alone or in combination with other projects or plans~~,~~ and considers whether these impacts may have a significant effect on the integrity of the site's qualifying habitats and/or species. It is important to note that the burden of evidence is to show, on the basis of objective information, that there will be no significant effect; if the effect may be significant, or is not known, that would trigger the need for an Appropriate Assessment. There is European Court of Justice case law to the effect that unless the likelihood of a significant effect can be ruled out on the basis of objective information, and adopting the precautionary principle, then an Appropriate Assessment must be made. The April 2018 CJEU judgement determined that mitigation to avoid or reduce harmful effects of the plan or project on a European site cannot be taken into account at the screening stage (Stage 1). Where such measures are required, a plan or project will require Appropriate Assessment to be undertaken (Stage 2).

2. **Stage 2: Appropriate Assessment** is the detailed consideration of the impact on the integrity of the European site of the project or plan, either alone or in combination with other projects or plans, with respect to the site's conservation objectives and its structure and function. This is to determine whether or not there will be adverse effects on the integrity of the site. This stage also includes the development of mitigation measures to avoid or reduce any possible impacts.

3. **Stage 3: Assessment of alternative solutions** is the process which examines alternative ways of achieving the objectives of the project or plan that would avoid adverse impacts on the integrity of the European site, should avoidance or mitigation measures be unable to cancel out adverse effects.

4. **Stage 4: Assessment where no alternative solutions exist and where adverse impacts remain.** At Stage 4, an assessment is made with regard to whether or not the development is necessary for imperative reasons of overriding public interest (IROPI). If it is, this stage also involves detailed assessment of the compensatory measures needed to protect and maintain the overall coherence of the Natura 2000 network.

3.2 Approach to Screening

3.2.1 This HRA Report takes into account the requirements of the Habitats Regulations and relevant guidance produced by David Tyldesley Associates[2] .

3.2.2 The following stages have been completed:

- Identification of all European sites potentially affected (including those outside of the Local Plan area);
- A review of each site, including the features for which the site is designated, the Conservation Objectives, and an understanding of the current conservation status and the vulnerability of the individual features to threats;
- A review of the policies which have the potential to affect the European sites, and whether the sites are vulnerable to these effects (this has included a categorisation of the potential effects of the Policy, in line with current guidance);
- A consideration of any impacts in combination with other plans or projects;
- Where potential effects are identified, avoidance or mitigation measures have been considered in order to avoid likely significant effects.

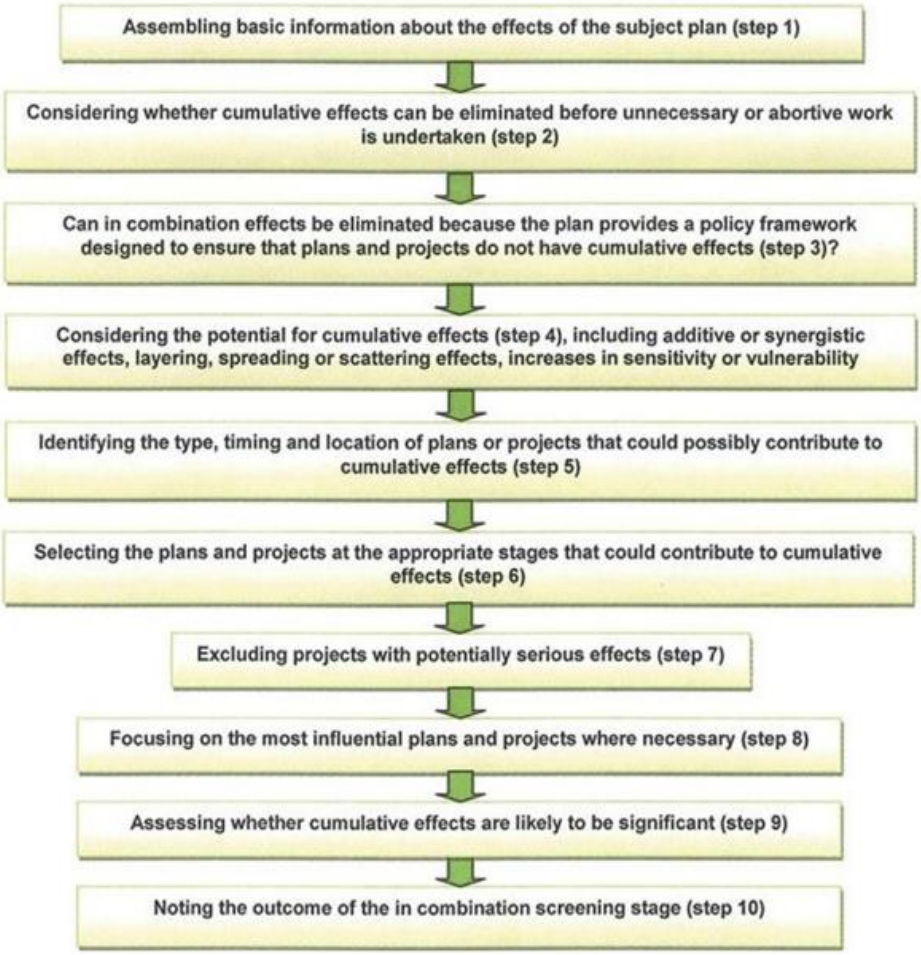
3.3 In-combination Effects

3.3.1 As outlined in Section 3.1, it is necessary for HRA to consider in combination effects with other plans and projects.

3.3.2 Where an aspect of a plan could have some effect on the qualifying feature(s) of a European site, but the effects of that aspect of the plan alone would not be significant, the effects of that aspect of the plan will need to be checked in combination, firstly with other effects of the same plan, and then with the effects of other plans and projects.

The flow chart below (and subsequent text in paragraphs 3.3.4 to 3.3.6) is taken from DTA Publications Limited, *The Habitats Regulations Assessment Handbook*[3], and illustrates the outline methodology for the in-combination assessment.

[2] Tyldesley D. and Chapman, C (2013) The Habitats Regulations Assessment Handbook (accessed July 2019) edition UK DTA Publications Limited www.dtapublications.co.uk.
[3] Tyldesley D. and Chapman, C (2013) The Habitats Regulations Assessment Handbook (accessed July 2019) edition UK DTA Publications Limited www.dtapublications.co.uk.


Assembling basic information about the effects of the subject plan (step 1)
Considering whether cumulative effects can be eliminated before unnecessary or abortive work is undertaken (step 2)
Can in combination effects be eliminated because the plan provides a policy framework designed to ensure that plans and projects do not have cumulative effects (step 3)?
Considering the potential for cumulative effects (step 4), including additive or synergistic effects, layering, spreading or scattering effects, increases in sensitivity or vulnerability
Identifying the type, timing and location of plans or projects that could possibly contribute to cumulative effects (step 5)
Selecting the plans and projects at the appropriate stages that could contribute to cumulative effects (step 6)
Excluding projects with potentially serious effects (step 7)
Focusing on the most influential plans and projects where necessary (step 8)
Assessing whether cumulative effects are likely to be significant (step 9)
Noting the outcome of the in combination screening stage (step 10)

3.3.4 If the prospect of cumulative effects cannot be eliminated in steps 2 and 3 in the figure above, it is necessary to consider how the addition of effects from other plans or projects may produce a combined adverse effect on a European site that would be significant. Taking the effects, which would not be likely to be significant alone, it is necessary to make a judgement as to whether such effects would be made more likely or more significant if the effects of other plans or projects are added to them. Most cumulative effects can be identified by way of the following characteristics. Could additional effects be cumulative because they would:

a. Increase the effects on the qualifying features affected by the subject plan in an additive, or synergistic way
b. Increase the sensitivity or vulnerability of the qualifying features of the site affected by the subject plan?
c. Be felt more intensely by the same qualifying features over the same area (a layering effect), or by the same qualifying feature over a greater (larger) area (a spreading effect), or by affecting new areas of the same qualifying feature (a scattering effect)?

3.3.5 It will be necessary to look for plans or projects at the following stages:

a. Applications lodged but not yet determined.
b. Projects subject to periodic review e.g. annual licences, during the time that their renewal is under consideration.
c. Refusals subject to appeal procedures and not yet determined.
d. Projects authorised but not yet started.
e. Projects started but not yet completed.
f. Known projects that do not require external authorisation.
g. Proposals in adopted plans.
h. Proposals in finalised draft plans formally published or submitted for final consultation, examination or adoption.

3.3.6 Plans under consideration may range from neighbouring authorities' planning documents down to sector-specific strategic plans on such topics as flood risk.

3.3.7 A review has been undertaken of plans and projects with the potential for an in-combination effect with the Local Plan, and these are listed in Table 2.

Table 2: Plans and projects considered for in combination effects

Authority	Relevant Plan/ Project
Lancashire County Council	Lancashire Minerals and Waste Plan
Cumbria County Council	Cumbria Minerals and Waste Plan
North Yorkshire County Council	North Yorkshire Minerals and Waste Plan
Lancaster City Council and South Lakeland District Council	Arnside and Silverdale AONB Statutory Management Plan (2014)
Lancaster City Council and South Lakeland District Council	Arnside and Silverdale AONB DPD (~~in progress~~adopted March 2019).
Lancashire County Council	Local Transport Plan 2011 – 2021: A Strategy for Lancashire (May 2011)
	District of Lancaster Highways and Transport Masterplan (2016)
Forest of Bowland AONB Joint Advisory Committee	Forest of Bowland 2009 - 2014 Management Plan

Authority	Relevant Plan/ Project
Lancaster City Council	The Lancaster Local Plan is split into two sections. Local Plan Part One comprises the Strategic Policies and Land Allocations Development Plan Document (DPD). Local Plan Part Two comprises a review of the Development Management (DM) DPD. The two documents should be read in conjunction.
Neighbourhood Plans within Lancaster district	Nine Neighbourhood Plans listed within the Lancaster Local Plan, comprising: Cockerham Neighbourhood Plan, Caton Neighbourhood Plan, Halton Neighbourhood Plan, Morecambe Neighbourhood Plan, Slyne-With-Hest Neighbourhood Plan, Wennington Neighbourhood Plan, Dolphinholme Neighbourhood Plan, Arkholme Neighbourhood Plan, and Wray Neighbourhood Plan
Lancaster City Council	Morecambe Area Action Plan
Craven District Council	Saved policies from the 1999 Local Plan (currently preparing their Local Development Plan and is at Examination stage).~~New Local Plan submitted March 2018~~
South Lakeland District Council	South Lakeland Core Strategy (adopted October 2010), Land Allocations DPD (2013) and Local Plan 2006 saved policies
Ribble Valley Council	Core Strategy and DM Policies
Wyre District Council	Wyre District Local Plan (~~in progress~~adopted 2018)
Yorkshire Dales National Park	Yorkshire Dales National Park Local Plan (adopted 2016)
United Utilities	Water Resources Management Plan (2015).
Lancashire County Council	Lancashire and Blackpool Flood Risk Management Strategy
Environment Agency	The Lune Catchment Abstraction Management Strategy (2003) and Lune and Wyre Abstraction Licensing Strategy (2013)
Environment Agency	Caton Road Flood defence
Various	North West and North Wales - Shoreline Management Plan 2 (2011)
Nationally Significant Infrastructure Projects	Highways England M6 Junction 33 Heysham Nuclear Power Station Extension

3.4 Consideration of Effects

Definition of Significant Effects

3.4.1 A critical part of the HRA screening process is determining whether or not the proposals are likely to have a significant effect on European sites and, therefore, if they will require an Appropriate Assessment. Judgements regarding significance should be made in relation to the qualifying interests for which the site is of European importance and also its conservation objectives. A useful definition of 'likely' significant effects is as follows:

'*…likely means readily foreseeable not merely a fanciful possibility; significant means not trivial or inconsequential but an effect that is potentially relevant to the site's conservation objectives*[4] '.

3.4.2 In considering whether the plan is likely to have a significant effect on a European site, a precautionary approach must be adopted:

- The plan should be considered 'likely' to have such an effect if the plan making authority is unable (on the basis of objective information) to exclude the possibility that the plan could have significant effects on any European site, either alone or in combination with other plans or projects.
- An effect will be 'significant' in this context if it could undermine the site's conservation objectives. The assessment of that risk must be made in the light of factors such as the characteristics and specific environmental conditions of the European site in question.

Categorising Effects

3.4.3 All elements of the Local Plan Part One have been screened for likely significant effects on European sites and categorised in accordance with DTA Publications Limited *The Habitats Regulations Assessment Handbook*[5].

3.4.4 The effects associated with the Local Plan Part One can be allocated into one of 12 categories according to the ways in which the option, policy or proposal could affect the European site. These are described in Table 3 below.

Table 3: Screening Assessment Categories

Category	Description
Category A:	**General statements of policy/general aspirations.** Policies which are no more than general statements of policy or general political aspirations should be screened out because they cannot have a significant effect on a site.
Category B:	**Policies listing general criteria for testing the acceptability/sustainability of proposals**. These general policies cannot have any effect on a European site and should be screened out.
Category C:	**Proposal referred to but not proposed by the plan.** Screen out any references to specific proposals for projects, such as those which are identified, for example, in higher policy frameworks such as the Wales Spatial Plan or National Policy Statements, relating perhaps to nationally significant infrastructure projects. These will be assessed by the Secretary of State or Welsh Ministers. A useful 'test' as to whether a project should be screened out in this step is to ask the question: 'Is the project provided for/proposed as part of another plan or programme and would it be likely to proceed under the other plan or programme irrespective of whether this subject plan is adopted with or without reference to it?' If the answer is 'yes' it will normally be appropriate to screen the project out in this step.
Category D:	**General plan-wide environmental protection/site safeguarding/ threshold policies**~~Environmental protection/site safeguarding policies~~. These are policies, the obvious purpose of which is to protect the natural environment, including biodiversity, or to conserve or enhance the natural, built or historic environment, where enhancement measures will not be likely to have any adverse effect on a European Site. They can be screened out because the implementation of the policies is likely to protect rather than adversely affect European sites and not undermine their conservation objectives.

[4] Welsh Assembly Government Annex to Technical Advice Note 5: Nature conservation and planning. The Assessment of Development Plans in Wales Under the Provision of The Habitats Regulations' (October 2006).

[5] Tyldesley D. and Chapman, C (2013) The Habitats Regulations Assessment Handbook (accessed July 2019) edition UK DTA Publications Limited www.dtapublications.co.uk~~DTA Publications Limited. The Habitats Regulations Assessment Handbook~~.

Category	Description
Category E:	**Policies or proposals that steer change in such a way as to protect European sites from adverse effects**. These types of policies or proposals will have the effect of steering change away from European sites whose qualifying features may be affected by the change and they can therefore be screened out.
Category F:	**Policies or proposals that cannot lead to development or other change.** Policies that do not themselves lead to development or other change, for example, because they relate to design or other qualitative criteria for development, such as materials for new development. They do not trigger any development or other changes that could affect a European site and can be screened out.
Category G:	**Policies or proposals that could not have any conceivable adverse effect on a site**. Policies which make provision for change, but which could have no conceivable effect on a European site, because there is no causal connection or link between them and the qualifying features of any European site~~,~~ and can therefore be screened out.
Category H:	**Policies or proposals the (actual or theoretical) effects of which cannot undermine the conservation objectives (either alone or in combination with other aspects of this or other plans or projects).** Policies or proposals which make provision for change but which could have no significant effect on a European site, either alone or in combination with other aspects of the same plan, or in combination with other plans or projects, can be screened out. These may include cases where there are some potential effects which (and theoretically even in combination) would plainly be insignificant and could not undermine the conservation objectives.
Category I:	**Policies or proposals which may have a ~~with a likely~~ significant effect on a site alone.** Policies or proposals which are likely to have a significant effect on a European site alone, should be screened in.
Category J:	**Policies or proposals un~~not~~ likely to have a significant effect alone.** These aspects of the plan would have some effect on a site, but the effect would not be likely to be a significant effect; so they must be checked for in combination (cumulative) effects. They will then be re-categorised as either Category K (no significant effect in combination) or Category L (likely to have a significant effect in combination), as explained below.
Categories K and L:	**Policies or proposals ~~not~~ unlikely to have a significant effect either alone or in combination (K) or likely to have a significant effect in combination (L) after the in~~-~~combination test.** Where an aspect of a plan could have some effect on the qualifying feature(s) or a European site, but the effects of that aspect of the plan alone would not be significant, the effects of that aspect of the plan will need to be checked in combination firstly, with other effects of the same plan, and then with the effects of other plans and projects. i.e. policies or proposals which will have no likely significant effect alone or in combination are classified as Category K. Policies or proposals which are likely to have a significant effect in combination are classified as Category L. Category L policies or proposals will require further consideration in terms of potential in combination effects. Firstly, this will be with regard to other aspects of the Plan itself, and subsequently with other separate plans or projects, for example neighbouring Local Plans.
Category M:	**Bespoke area, site or case specific policies or proposals intended to avoid or reduce harmful effects on European sites.** Policies or proposals which have been included in the plan with the intension of avoiding or reducing effects on specific European site(s) whose qualifying features may otherwise be affected by the plan being implemented.

3.5 Potential Impact Pathways

3.5.1 During the HRA screening stage, the likely nature, magnitude, frequency, timing, duration, location and spatial extent of changes resulting from implementation of the Local Plan Part One will be assessed. As a part of this, mechanisms through which the Local Plan Part One could impact upon European sites will be considered. Further details on the potential impact pathways are presented in Section 6.2.

3.5.2 The main impact pathways could be:

- Direct habitat and species loss associated with European sites.
- Habitat degradation as a result of increased air pollution.
- Changes in water quality where sites are hydrologically linked to European sites.
- Loss of habitat functionally linked to a European site (i.e. used by overwintering or passage birds for foraging).
- Disturbance/displacement to species as a result of construction activities/ operational stage.
- Disturbance to habitats and species through increased recreational activity, during operational stage.

4 The European Sites

4.1.1 Sixteen European sites have been identified within Lancaster and within 20km of the district boundary. A list of the sites together with their status and location is presented in Table 4. Figure 1, Appendix B also shows the locations of the European sites identified within and adjacent to the district boundary.

Table 4: Summary of European Sites

Name of Site	Identification Number	Status	Distance from district boundary (approximate km)
Morecambe Bay	UK11045	Ramsar site	Within the district boundary
Morecambe Bay and Duddon Estuary	UK9020326	SPA	Within the district boundary
Morecambe Bay	UK0013027	SAC	Within the district boundary
Bowland Fells	UK9005151	SPA	Within the district boundary
Morecambe Bay Pavements	UK0014777	SAC	Within the district boundary
Calf Hill and Cragg Woods	UK0030106	SAC	Within the district boundary
Leighton Moss	UK11035	Ramsar site	Within the district boundary
Leighton Moss	UK9005091	SPA	Within the district boundary
Ingleborough Complex	UK0012782	SAC	0.6km
Witherslack Mosses	UK0030302	SAC	3.7km
Roudsea Wood and Mosses	UK0019834	SAC	6.3km
North Pennine Dales Meadows	UK0014775	SAC	6.5km
Shell Flat and Lune Deep	UK0030376	cSAC	8.2km

Name of Site	Identification Number	Status	Distance from district boundary (approximate km)
River Kent	UK0030256	SAC	9.7km
Yewbarrow Woods	UK0030306	SAC	12.1km
Liverpool Bay	UK9020294	SPA	12.2km

4.1.2 Appendix A provides further information regarding the European sites including current conditions, threats and the results of Sites of Special Scientific Interest (SSSI) condition surveys.

4.2 Conservation objectives of the European Sites

4.2.1 Under the Conservation of Habitats and Species Regulations 2017 the appropriate statutory nature conservation body (in this case Natural England) has a duty to communicate the conservation objectives for a European site to the relevant/competent authority responsible for that site. The information provided must also include advice on any operations which may cause deterioration of the features for which the site is designated.

4.2.2 The conservation objectives for a European site are intended to represent the aims of the Habitats and Birds Directives in relation to that site. To this end, habitats and species of European Community importance should be maintained or restored to 'favourable conservation status' (FCS), as defined in Article 1 of the Habitats Directive below:

The conservation status of a natural habitat will be taken as 'favourable' when:

- Its natural range and the area it covers within that range are stable or increasing;
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future;
- Conservation status of typical species is favourable as defined in Article 1(i).

4.2.3 The conservation status of a species will be taken as favourable when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future;
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

4.2.4 Guidance from the European Commission[6] indicates that the Habitats Directive intends FCS to be applied at the level of an individual site, as well as to habitats and species across their European range. Therefore, in order to properly express the aims of the Habitats Directive for an individual site, the conservation objectives for a site are essentially to maintain (or restore) the habitats and species of the site at (or to) FCS.

4.2.5 Conservation Objectives for the Morecambe Bay SAC and Ramsar Site, Morecambe Bay Pavements SAC, Leighton Moss SPA, Calf Hill and Cragg Woods SAC and Bowland Fells SPA were obtained from Natural England's website[7] . They are summarised in Appendix 1. There is currently no Supplementary Advice documentation associated with Morecambe Bay and Duddon Estuary SPA and therefore the overarching Conservation Objectives will be used. Conservation Objectives for all other sites can be found on Natural England's website at:

http://www.naturalengland.org.uk/ourwork/conservation/designations/sac/northwest.aspx

[6] Managing Natura 2000 sites: the provisions of Article 6 of the Habitats Directive 92/43/EEC. (European Commission 2000)
[7] http://www.naturalengland.org.uk/ourwork/conservation/designatedareas/sac/northwest.aspx

5 Screening

5.1 Context

5.1.1 The Local Plan Part One includes policies and allocation sites which will ensure that Lancaster City Council meet their future development needs. The Local Plan Part One is applicable to the whole of the Lancaster district and all types of development.

5.2 Screening Approach taken for the Local Plan Part One

5.2.1 The screening process has been split into two distinct stages, initial screening and detailed screening.

5.2.2 The initial screening stage has provided a high-level screening assessment to determine if the Local Plan Part One could possibly lead to significant adverse effects on European sites identified in Section 4. The purpose of this was to eliminate those policies and sites from the assessment which very clearly would not affect European sites in order to focus on those policies and sites where there was potential for effects or uncertainty about potential effects.

5.2.3 When identifying the elements of the Local Plan Part One that could potentially affect European sites, it was important to focus upon those elements that would have the greatest likelihood of impacting the sites. The definition of significance identified in Section 3.4 was very important for the detailed screening.

5.2.4 The Local Plan is intended to be read as a single document rather than a series of separate policies, and has been assessed as such. Proposals in one area of the Local Plan may mitigate potentially damaging activities promoted in another area and should be understood in the wider context of the Plan's aims and purposes.

5.2.5 The sections below outline the initial and detailed screening of the Local Plan Part One.

5.3 Initial Screening of the Local Plan Part One

5.3.1 An initial Screening exercise has been undertaken to determine if there are any European sites, or policies/allocation sites within the Local Plan Part One which can be scoped out of the detailed assessment. The initial Screening is shown in Table 5. The notations below were used to indicate if further detailed assessment screening is required:

✓ Further detailed screening is required to determine the nature of effects on the European site.

✘ No further screening is required as no effects are predicted on the European site.

European sites

5.3.2 European sites screened out in the initial screening comprised those European sites where there was no clear link, or conceivable impact pathway between the European sites and the policies/sites set out within the Local Plan Part One.

5.3.3 Those European sites with the potential for Likely Significant Effects (LSE) as a result of implementation of the Local Plan Part One, or those European sites for which impacts were uncertain, were carried forward into the more detailed screening assessment.

Policies and allocation sites

5.3.4 Policies screened out in the initial screening were generally those that could not lead to 'direct development' or could have no impact pathway to any of the European sites identified. This included policies which directly seek to protect the local historic and natural environment, or those which support the implement other policies and therefore could not directly affect European sites. All of the policies screened out of the detailed assessment are not directly linked to allocation sites.

5.3.5 As detailed in Section 2.2, a previous Screening Report was produced by Arcadis in 2015. This was based on an early version of the emerging Local Plan. Given that significant changes have been made

to the allocation sites assessed previously (with a proportion of the original sites dropped and a large number of new sites added), it has been necessary to re-screen all of the allocation sites.

Table 5: Initial Screening of the Local Plan Part One

European Sites	Land Allocations Policies (Further assessment required: ✘/✓)																				Comments
	Chapter																				
	Strategic Policies						Delivery of Strategic Growth						Land Allocations							Monitoring	
	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
Morecambe Bay and Duddon Estuary SPA	✘	✘	✓	✓	✘	✘	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✘	✘	✓	✘	Further assessment is required as to whether policies/land allocations within Chapters 8 and 9, Chapters 12 – 21, and 24 would lead to any likely significant effects on the Morecambe Bay SAC/ Ramsar site or the Morecambe Bay and Duddon Estuary SPA due to the site's location within the Lancaster district boundary and the nature of the development the policies/allocation sites are likely to lead to i.e. retail, leisure, employment, energy, transport and housing development. Policies within Chapter 22 directly seek to protect the local historic and natural environment. Policy EN~~9~~7 includes specific reference to Internationally Designated Sites. Therefore, the policies within Chapter 12 are not considered further in this assessment as they would only benefit European sites. There would be no likely significant effect between the European sites and the policies set out within Chapters 6, 7, 10, 11 23 and 2~~3~~5. Policies within these Chapters are therefore not considered further in the assessment (refer to Table 6 below).
Morecambe Bay Ramsar site	✘	✘	✓	✓	✘	✘	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✘	✘	✓	✘	
Morecambe Bay SAC	✘	✘	✓	✓	✘	✘	✓	✘	✓	✓	✓	✓	✓	✓	✓	✓	✘	✘	✓	✘	
Bowland Fells SPA	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	Although this SPA is located within the east of the borough, it is unlikely that any elements of the Local Plan Part One would lead to any likely significant effects on the SPA. There are ten potential pressures/threats which have been identified for this European site within the Site Improvement Plan for Bowland Fells[8] (as detailed within Appendix A). Those which could be relevant to this assessment comprise: hydrological changes (lesser black-backed gull (LBBG), hen harrier and merlin), public access/disturbance (hen harrier only), and air pollution: atmospheric nitrogen deposition (hen harrier only). There are no allocations within the Bowland Fells SPA and therefore potential impacts associated with direct habitat loss can be ruled out. The closest allocations are more than 3 km away, with the majority of allocations located to the west of the M6 corridor. All allocations within the Local Plan are located downstream of the SPA, therefore potential impacts associated with hydrological change can be ruled out. Current air quality guidance suggests that any construction sites within 50 m of a European site; and any of the main access roads within 200 m of a European site that are used by HGVs accessing the construction site could lead to significant effects on European sites during the construction phases of new development. Given that all allocations are more than 3 km away, and that none of the allocations are located on land outside of the SPA which is considered suitable for use by the breeding population of hen harrier associated with the SPA, then potential impacts associated with atmospheric nitrogen deposition during the construction phase can be ruled out. In addition, during the operational phase of the potential developments within Lancaster, there are no large-scale industrial allocations which would contribute to an increase in nitrogen which would be detrimental to hen harrier breeding within Bowland Fells SPA, and Policy DM31 would ensure that any new development does not have a detrimental impact on air quality (Policy DM31 states that: '*All development proposals must seek to minimise the associated emission of harmful air pollutants during operational phases. They must avoid causing or worsening a breach of an air quality objective level or limit value, or exposing those who use and occupy the site to unacceptable adverse exposure. They must also avoid worsening any emissions of air pollutants in areas that could result in a breach of, or worsen site-level critical loads for ecosystems within relevant European designated nature conservation sites during both construction and operational phases*.') The qualifying features of the SPA comprise breeding hen harrier, merlin, and LBBG. Hen harrier and merlin would not be expected to utilise habitats which would be affected by the Local Plan (i.e. land in close proximity to existing development/roads) during the breeding season and therefore no effects on these qualifying features are anticipated. Although some records of LBBG within the district could relate to birds associated within the SPA given that they can travel large distances from their breeding grounds to forage, it is not possible to determine where the LBBG records identified from the bird records provided by Bird Club originate. However, the Bird Club records show that there are no significant aggregations of LBBG (i.e. more than 1% of the breeding population of LBBG associated with the Bowland Fells SPA (1% equates to 260 birds, taking a breeding population of 13,000 pairs[9]) in the vicinity of the allocations in Lancaster. In relation to recreational pressure, the majority of development within Lancaster District is concentrated to the west of the M6 corridor, more than 3 km away from the edge of the SPA. Only three of the residential allocations within the Local Plan are within 3.5 km of the SPA comprising a total of 457 new homes. These developments are all within 500 m of Williamson Park, on the edge of Lancaster which provides a large area of public open space and an alternative to the more distant SPA. The eastern side of the Bailrigg Garden Village is the only allocation within 3.5 km which extends to the east of the M6 and is located 3.3 km from the edge of the SPA at its closest point (the majority of the allocation is over 3.5 km with the majority of the housing likely to be over 4 km to the west of the M6). Therefore, no significant increase in the number of visitors expected to travel to the SPA is anticipated and there would be no likely significant effect on Bowland Fells as a result of increased recreational pressure. In addition, the Site Improvement Plan for Bowland Fells does not include recreational pressure as a potential pressure/threat. Potential effects on this European site can be **screened out.**

[8] Natural England. Site Improvement Plan Bowland Fells SPA
[9] JNCC (2001) Bowland Fells SPA site description

European Sites	Land Allocations Policies (Further assessment required: ✘/✓)																				Comments
	Chapter																				
	Strategic Policies						Delivery of Strategic Growth						Land Allocations							Monitoring	
	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
Calf Hill and Cragg Woods SAC	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	Although this SAC is within the boundary of Lancaster, it is unlikely that any elements of the Local Plan Part One would lead to any likely significant effects on the SAC due to its qualifying habitats (old sessile oak woods and alluvial forests) and distance from the nearest allocation sites. There are no allocations within the SAC. The closest allocations are 4 km away, with the majority of allocations located to the west of the M6 corridor. Potential impacts associated with direct habitat loss can therefore be ruled out. All allocations within the Local Plan Part One are located downstream of the SAC. The Site Improvement Plan for the SAC does not include water quality as a potential pressure/threat. Potential impacts associated with hydrological change can also be ruled out. Given the distance from the nearest allocations (4 km), potential impacts associated with recreational pressure are considered unlikely. The Site Improvement Plan for the SAC does not include public access as a potential pressure/threat. Potential impacts associated with recreational pressure at this SAC have been ruled out. The Site Improvement Plan for the SAC lists air pollution as the only potential pressure/threat to the site. However, the plan also clarifies that: '*the sensitive features are currently considered to be in favourable condition on the site. Past knowledge of the site over the past 20 years has not produced any evidence of adverse nitrogen impact.*' Given that all allocations are more than 4 km away, potential impacts associated with atmospheric nitrogen deposition during the construction phase can be ruled out. In addition, as stated above, Policy DM31 would ensure that any new development does not have a detrimental impact on air quality. Therefore, potential impacts associated with air pollution can be ruled out. Potential effects on this European site can be **screened out.**
Morecambe Bay Pavements SAC	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	This SAC is located at the northern edge of the district boundary and comprises a number of compartments. Four of the compartments are within the district boundary, with the remaining seven to the north of the boundary. It is unlikely that any elements of the Local Plan Part One would lead to any likely significant effects on the SAC due to its qualifying habitats (woodland, heathland and calcareous grassland) and distance from the nearest allocation sites. There are no allocations within the SAC. The closest allocations (around Carnforth) are more than 3 km away from the closest SAC compartment (Cringlebarrow Wood) with all of the other SAC designated compartments over 4.5 km away from the allocations. The majority of allocations are more than 10 km away, south of Carnforth. Potential impacts associated with direct habitat loss can therefore be ruled out. There are 13 potential pressures/threats which have been identified for this European site within the Site Improvement Plan for Morecambe Bay Pavements SAC. The only potential pressures/threats relevant to this assessment would comprise: public access/disturbance, air pollution, and water pollution. Given that all allocations are more than 23 km away, potential impacts associated with atmospheric nitrogen deposition during the construction phase can be ruled out. In addition, as stated above, Policy DM31 would ensure that any new development does not have a detrimental impact on air quality. Therefore, potential impacts associated with air pollution can be ruled out. All allocations within the Local Plan are located downstream of the SAC, potential impacts associated with hydrological change can also be ruled out. In relation to public access/ disturbance, the Site Improvement Plan states that: '*Motorbike and off-road bikes are illegally accessing land and damaging small areas. This is an increasing issue. There are also problems with pedestrian trampling along desire lines and dogs worrying sheep.*' Given that the nearest allocations are more than 3 km away (in Carnforth), it is unlikely that people from these new developments would choose to regularly walk their dog more than 3km away from their house, rather than chose more local destinations (either within the new development itself, or local areas such as Warton Crag or Pine Lake). It is therefore considered unlikely that new development within Lancaster would add significantly to this potential pressure/threat. Potential effects on this European site can be **screened out.**
Leighton Moss SPA	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	Although this SPA/Ramsar site is located at the northern edge of the borough boundary, it is unlikely that any elements of the Local Plan Part One would lead to any likely significant effects on the SPA/ Ramsar site. There are no allocations within the SPA/Ramsar site. The closest allocations are more than 3 km away, however, the majority of allocations are more than 10 km away south of Carnforth in and around Lancaster itself. Potential impacts associated with direct habitat loss can therefore be ruled out. The qualifying features of the SPA/Ramsar site comprise bittern, marsh harrier and bearded tit. None of these species would be expected to utilise habitats which would be affected by the Local Plan (i.e. land in close proximity to existing development/roads) during the breeding season and therefore no effects on these qualifying features (in terms of loss of functionally linked land) are anticipated. The Site Improvement Plan for Leighton Moss does not include loss of functionally linked land as a potential pressure/ threat to the SPA/Ramsar site Given that all allocations are more than 3 km away, potential impacts associated with atmospheric nitrogen deposition during the construction phase can also be ruled out. In addition, as stated above, Policy DM31 would ensure that any new development does not have a detrimental impact on air quality. The Site Improvement Plan for the SPA/Ramsar site does not include air pollution as a potential pressure/threat. Potential impacts associated with air pollution can be ruled out. There are five potential pressures/threats which have been identified for this European site within the Site Improvement Plan for Leighton Moss. The only potential pressure/threat relevant to this assessment would comprise water pollution. However, none of the allocations are hydrologically linked to Leighton Moss within the closest allocations being more than 3 km away. Potential impacts associated with water quality can be ruled out.
Leighton Moss Ramsar site	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	Although there is the potential for an increase in visitor numbers to the SPA/Ramsar site, given that the site is managed by the RSPB (and is a visitor attraction in its own right and visitor numbers are closely monitored to prevent adverse effects on the SPA/Ramsar site), it is unlikely that an increased in visitor pressure would adversely affect Leighton Moss SPA/Ramsar site. The Ramsar site citation states that: '*Visitor usage and visitor numbers are monitored on a daily basis at this extremely popular and well visited RSPB bird reserve*'. The Site Improvement Plan for Leighton Moss does not include recreational pressure as a potential pressure/ threat to the SPA/Ramsar site. Potential impacts associated with recreational pressure at this European site have therefore been ruled out. Potential effects on this European site can be **screened out**.

European Sites	Land Allocations Policies (Further assessment required: ✘/✓)																				Comments
	Chapter																				
	Strategic Policies						Delivery of Strategic Growth						Land Allocations							Monitoring	
	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
Ingleborough Complex SAC	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	Although the SAC is located approximately 600m north east of district boundary it is unlikely that any elements of the Local Plan Part One would lead to likely significant effects on the qualifying habitats. The qualifying habitats comprise: *Juniperus communis* formations on heaths or calcareous grasslands, alkaline fens, calcareous rocky slopes with chasmophytic vegetation, and limestone pavements. There are 15 potential pressures/threats which have been identified for this European site within the Site Improvement Plan for Ingleborough Complex SAC. The only potential pressure/threat relevant to this assessment would comprise hydrological change and air pollution. Given that only one small (an employment site in Cowan Bridge) is within 4.5 km with the remaining allocations all being over 10 km away, potential impacts associated with atmospheric nitrogen deposition during the construction phase can be ruled out. In addition, as stated above, Policy DM31 would ensure that any new development does not have a detrimental impact on air quality. Therefore, potential impacts associated with air pollution can be ruled out. All allocations within the Local Plan are located downstream of the SAC, potential impacts associated with hydrological change can also be ruled out. Potential effects on this European site can be **screened out.**
Witherslack Mosses SAC	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	This SAC is approximately 3.7km from the Local Plan boundary. The qualifying features comprise active raised bogs, degraded raised bog, and Degraded raised bogs still capable of natural regeneration. There are five potential pressures/threats which have been identified for this European site within the Site Improvement Plan for Witherslack Mosses SAC. The only potential pressure/threat relevant to this assessment would comprise hydrological change and air pollution. Given that all allocations are more than 10.5 km away, potential impacts associated with atmospheric nitrogen deposition during the construction phase can be ruled out. In addition, as stated above, Policy DM31 would ensure that any new development does not have a detrimental impact on air quality. Therefore, potential impacts associated with air pollution can be ruled out. All allocations within the Local Plan are located downstream of the SAC, potential impacts associated with hydrological change can also be ruled out. Potential effects on this European site can be **screened out.**
Roudsea Wood and Mosses SAC	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	This SAC is approximately 6.3km from the Local Plan boundary. The qualifying habitats comprise: active raised bogs, degraded raised bogs, *Tilio-Acerion* forests of slopes, screes and ravines and *Taxus baccata* woods. There are eight potential pressures/threats which have been identified for this European site within the Site Improvement Plan for Roudsea Wood and Mosses SAC. The only potential pressure/threat relevant to this assessment would comprise hydrological change and air pollution. Given that all allocations are more than 15 km away, beyond Morecambe Bay, potential impacts associated with atmospheric nitrogen deposition during the construction phase can be ruled out. In addition, as stated above, Policy DM31 would ensure that any new development does not have a detrimental impact on air quality. Therefore, potential impacts associated with air pollution can be ruled out. All allocations within the Local Plan are located downstream of the SAC, potential impacts associated with hydrological change can also be ruled out. Potential effects on this European site can be **screened out.**
North Pennine Dales Meadows SAC	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	This SAC is approximately 6.5km from the Local Plan boundary. The qualifying features comprise mountain hay meadows and *molinia* meadows on calcareous, peaty / clayey-silt-laden soils. There are 14 potential pressures/threats which have been identified for this European site within the Site Improvement Plan for North Pennine Dales Meadows SAC. The only potential pressure/threat relevant to this assessment would comprise hydrological change and air pollution. Given that all allocations are more than 11.5 km away, potential impacts associated with atmospheric nitrogen deposition during the construction phase can be ruled out. In addition, as stated above, Policy DM31 would ensure that any new development does not have a detrimental impact on air quality. Therefore, potential impacts associated with air pollution can be ruled out. All allocations within the Local Plan are located downstream of the SAC, potential impacts associated with hydrological change can also be ruled out. Potential effects on this European site can be **screened out.**
River Kent SAC	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	This SAC is located approximately 9.7km north of the district boundary. The qualifying features comprise water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation, White-clawed (or Atlantic stream) crayfish *Austropotamobius pallipes*, Freshwater pearl mussel *Margaritifera margaritifera* and Bullhead *Cottus gobio.* There are seven potential pressures/threats which have been identified for this European site within the Site Improvement Plan for River Kent SAC. The only potential pressure/threat relevant to this assessment would comprise water pollution. None of the allocations within the Local Plan are hydrologically linked to the European site, therefore potential impacts associated with water pollution can be ruled out. Potential effects on this European site can be **screened out.**
Yewbarrow Woods SAC	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	Yewbarrow Woods SAC is located approximately 12.1km north west of the district boundary. The qualifying interests include *Juniperus communis* formations on heaths / calcareous grasslands and old sessile oak woods with *Ilex* and *Blechnum.* None of the five potential pressures/ threats identified in the Site Improvement Plan for the site would be relevant to this assessment. Potential effects on this European site can be **screened out**.
Shell Flat and Lune Deep cSAC	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	Liverpool Bay SPA is 12.2km and Shell Flat and Lune Deep cSAC is 8.2km from the Local Plan boundary. No likely significant effects are predicted on these two European marine sites. The qualifying features of Shell Flat and Lune Deep cSAC comprise sandbanks and reefs. The qualifying features of Liverpool Bay SPA comprise red-throated diver and common scoter. None of the six potential pressures/ threats identified in the Site Improvement Plan for the combined Liverpool Bay and Shell Flat and Lune Deep sites would be relevant to this assessment. Potential effects on these European sites can be **screened out**.
Liverpool Bay SPA	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	

Initial Screening of European Sites

5.3.6 Table 5, above, provides the initial Screening of the European sites. Sixteen European sites have been identified within, and up to 20km from the Lancaster district boundary. Of these, 13 can be ruled out completely on the basis that there are no potential impact pathways which are likely to give rise to likely significant effects on these sites:

- North Pennine Dales Meadows SAC
- Witherslack Mosses SAC
- Yewbarrow Woods SAC
- Roudsea Wood and Mosses SAC
- Ingledistrict Complex SAC
- River Kent SAC
- Shell Flat and Lune Deep cSAC
- Liverpool Bay SPA
- Bowland Fells SPA
- Morecambe Bay Pavements SAC
- Calf Hill and Cragg Woods SAC
- Leighton Moss SPA
- Leighton Moss Ramsar site

5.3.7 For the remaining three European sites, likely significant effects cannot be ruled out at this stage. The sites that will be taken through into the detailed screening assessment comprise the following:

- Morecambe Bay and Duddon Estuary SPA
- Morecambe Bay Ramsar site
- Morecambe Bay SAC

Initial Screening of Policies within the Local Plan Part One

5.3.8 In addition to Screening out 13 of the European sites, all of the policies contained within Chapters 6, 7, 10, 11, 22, 23 and 2~~3~~5 in the Local Plan Part One can also be screened out completely from further assessment. This is on the basis that no identifiable impact pathway exists linking the policies with the European sites and/or because there will be no foreseeable adverse impact on European sites through policy implementation.

5.3.9 Several policies under each of the remaining Chapters have also been screened out of further assessment. Table 6 (below) provides a justification for the policies that have been screened out of further assessment. Table 6 also includes the HRA assessment category in accordance with DTA Publications Limited, The Habitats Regulations Assessment Handbook[10] ~~(June 2016)~~.

5.3.10 The remaining policies (which all link to allocation sites) have been carried forward into the detailed screening assessment (refer to Section 6.4) with the exception of one allocation site. Heysham Nuclear Power Station and safeguarding land (Policy ~~SG16~~SG14) would comprise a Nationally Significant Infrastructure Project (NSIP). NSIPs fall within Category C in accordance with DTA Publications Limited *The Habitats Regulations Assessment Handbook* (Refer to Table 3). Projects which are identified in higher policy frameworks, such as the National Policy Statements, are assessed separately by the Secretary of State; and can therefore be screened out of the detailed assessment stage. Heysham Nuclear Power Station and safeguarding land (Policy ~~SG16~~SG14) will therefore not be considered further in this HRA Report.

[10] Tyldesley D. and Chapman, C (2013) The Habitats Regulations Assessment Handbook (accessed July 2019) edition UK DTA Publications Limited www.dtapublications.co.uk

Table 6: Policies Screened Out of Further Assessment

Policy	Allocation site associated with policy	Justification/ Recommendation	Assessment Category
Chapter 6: Sustainable development			
Policy SP1: Presumption in Favour of Sustainable Development	N/A	This policy is designed to confirm that the Local Plan Part One conforms to paragraph 14 of the NPPF. The policy states that '*all documents which form part the local development plan have been prepared with a presumption in favour of sustainable development*'. This policy confirms the council's commitment in favour of sustainable development but would not lead directly to any impacts on European sites.	A
Chapter 7: The Role and Function of our Towns and Villages			
Policy SP2: Lancaster District Settlement Hierarchy	N/A	Policy SP2 provides details on the settlement hierarchy. Development that is appropriate to the scale and character of settlements at each level of the settlement hierarchy, will be promoted in accordance with SP2. The policy itself does not provide for change and would not lead directly to any impacts on European sites.	F
SP3: Development Strategy for Lancaster District	N/A	Policy SP3 relates to implementation of the Development Strategy for Lancaster District. The policy itself does not provide for change and would not lead directly to any impacts on European sites.	F
Chapter 10: The Natural and Historic Environment			
Policy SP7: Maintaining Lancaster District's Unique Heritage	N/A	This policy relates to maintaining Lancaster's unique cultural and historical character, and is considered to have no adverse impacts, and potentially some beneficial effects on European sites.	G
Policy SP8: Protecting the Natural Environment	N/A	This policy specifically looks at protecting the natural environment. The policy states that: *'Lancaster district contains important landscapes, species and habitats that are valued features of the natural environment. The Council recognises the importance of biodiversity and geodiversity, and has prepared a local development plan that will seek to protect sites of recognised importance, but will*	D

Policy	Allocation site associated with policy	Justification/ Recommendation	Assessment Category
		also seek to protect areas of land that are functionally linked to areas which are of International and National importance.' The implementation of this policy is considered to have no adverse impacts and potentially some beneficial effects on European sites.	
Chapter 11: Delivering infrastructure			
Policy SP9: Maintaining Strong and Vibrant Communities	N/A	This policy relates to supporting the long-term sustainability of communities throughout the plan period and beyond through making sure that the aspirations of all sections of the community are met. This policy does not provide for change and would not lead directly to any impacts on European sites.	F
Policy SP10: Improving Transport Connectivity	N/A	This policy relates to promoting the improvement of transport links throughout the district. Lancaster District Council fully supports the Lancaster Highways and Transport Masterplan which encourages sustainable transport. The policy itself does not provide for change and would not lead directly to any impacts on European sites.	F
Chapter 22: The Historic and Natural Environment			
~~Policy EN1: Conservation Areas~~ ~~Policy EN2: Designated Heritage Assets~~ Policy EN3~~1~~: Mill Race Heritage Priority Area Policy EN2~~4~~: Areas of Outstanding Natural Beauty Policy EN3~~5~~: The Open Countryside Policy EN4~~6~~: The North Lancashire Green Belt Policy EN5~~7~~: Local Landscape Designations Policy EN6~~8~~: Areas of Separation	N/A	These policies are designed to protect and enhance (where possible) the natural and cultural environment within the district. The implementation of these policies is considered to have no adverse impacts and potentially some beneficial effects on the European sites.	D

Policy	Allocation site associated with policy	Justification/ Recommendation	Assessment Category
Policy EN~~8~~10: Grab Lane Preserved Setting Area Policy EN~~9~~11: Air Quality Management Areas (AQMAs)			
Policy EN~~9~~7: Environmentally Important Sites	N/A	Policy ~~EN9~~EN7, specifically focuses on protecting European sites. This policy details all of the European sites within Lancaster. The implementation of this policy is considered to have no adverse impacts and could have beneficial effects on the European sites by steering development away from protected areas.	E
Chapter 23: Sustainable Communities			
Policy SC1: Neighbourhood Planning Areas	N/A	This policy relates to ensuring that development proposals within Parish / Ward areas, which have existing Neighbourhood Plans, should have due regard to the policies and allocations set out in the Neighbourhood Plan. The policy itself does not provide for change and would not lead directly to any impacts on European sites.	A
Policy SC2: Local Green Spaces Policy SC3: Open Space, Recreation and Leisure Policy SC4: Green Space Networks Policy SC5: Recreation Opportunity Areas	N/A	These policies are designed to protect and enhance (where possible) the natural environment and recreation space within the district. There are nineteen sites associated with policy SC2. These are areas of green space which are being protected for the benefit of the local community. Inappropriate development will not be permitted within these sites. The implementation of these policies is considered to have no adverse impacts and potentially some beneficial effects on the European sites.	D
Chapter 24: Transport, Accessibility and Connectivity			
Policy T1: Lancaster Park and Ride	N/A	This policy relates to safeguarding the existing Park and Ride Scheme at Junction 34, from future change of development. It also safeguards land at M6 Junction 33 for future investigation for the role as a Lancaster South Park and Ride (subject to future pressures and demands to such a facility).	F

Policy	Allocation site associated with policy	Justification/ Recommendation	Assessment Category
		There is no land allocation associated with the potential Park and Ride at Junction 33 within the current Local Plan. It forms part of the broad development location and details of development that will fall within it will be determined within the forthcoming AAP, which would be accompanied by its own assessment. Given the potential location of the Park and Ride adjacent to the busy motorway junction, it is considered unlikely that such a development would have any likely significant effects on European sites. This policy does not provide for change without further detail and assessment of an AAP and would not lead to any impacts on European sites.	
Policy T2: Cycling and Walking Network	N/A	This policy aims to ensure that development proposals maintain and enhance walking and cycling linkages. This policy relates to promoting and enhancing existing walking and cycling routes, and as such implementation of this policy is unlikely to have adverse impacts on European sites.	H
Policy T3: Lancaster Canal	N/A	This policy identifies criteria that any proposals which are adjacent to the Lancaster Canal would be expected to address. The implementation of this policy is considered to have no adverse impacts on European sites.	B
Policy T4: Public Transport Corridors	N/A	This policy identifies existing key transportation routes in the district and any opportunity to improve/ promote these existing public transport corridors, specifically in terms of public transport services. The implementation of this policy is considered to have no adverse impacts on European sites.	A
Policy LPRM 1: Local Plan Review Mechanism	N/A	This policy allows for an early review of the Local Plan. This would only be required should there be a change which sufficiently affects key aspects of the plan. The implementation of this policy is considered to have no adverse impacts on European sites.	F

6 Detailed Screening of the Local Plan Part One

6.1 Overview

6.1.1 The detailed screening of the Local Plan Part One policies and sites in relation to the European sites is presented in Table 10 to Table 13 and is based on the findings of the initial screening exercise.

6.1.2 The detailed screening of the Local Plan Part One policies and sites contains details of the potential impacts, the European sites potentially affected, and whether further Appropriate Assessment would be required. Each policy and site also ~~includes~~include a categorisation of the potential effects in line with current guidance[11].

6.1.3 The detailed screening of the allocation sites presented in Tables 11, 12 and 13 also takes into consideration consultation with NE. Additional ecological information has been obtained to provide a more robust assessment (refer to Section 6.4). The allocations listed in Table 11 as sites with the potential for likely significant effects alone are shown on Figure 4. Allocations within Tables 11, 12 and 13 with the potential to increase recreational pressure on Morecambe Bay through in combination effects are shown on Figure 5, and the remaining allocations in Tables 11 and 12 that could be screened out of further assessment are shown on Figure 6.

6.2 Potential Impact pathways

6.2.1 The following potential impacts have been considered in the detailed screening assessment. They were identified through a review of the current pressures/threats to the European sites considered in this assessment (which comprise Morecambe Bay Ramsar site/SAC and Morecambe Bay and the Duddon Estuary SPA, refer to paragraphs 5.3.7 and 5.3.8):

- Direct habitat and species loss associated with European sites.
- Habitat degradation as a result of increased air pollution.
- Changes in water quality where sites are hydrologically linked to European sites.
- Loss of habitat functionally linked to a European site (i.e. used by overwintering or passage birds for foraging).
- Disturbance/displacement to habitats and species through increased recreational activity, during operational stage.
- Disturbance to species as a result of construction activities/ operational stage.

6.2.2 Each potential impact pathway is described in more detail below. The description includes an explanation as to why each of the potential impact pathways has been screened in or out of the detailed screening assessment. The potential impact pathways carried through into the detailed screening assessment comprise the following:

- Loss of habitat functionally linked to a European (i.e. used by overwintering birds for foraging).
- Disturbance to habitats and species through increased recreational activity, during operational stage.
- Disturbance to species as a result of construction activities/operational stage.

Direct habitat and species loss associated with European sites

6.2.3 Construction work could result in the direct destruction of habitats, leading to a net loss in the extent of habitat area. Morecambe Bay SAC/Ramsar site and Morecambe Bay and Duddon Estuary SPA are located along the western coast of the Local Plan area. None of the land allocations are within these European sites, therefore, there would be no direct habitat loss as a result of implementation of the Local Plan Part One.

6.2.4 This potential impact pathway has been screened out of the detailed screening assessment.

[11] Tyldesley D. and Chapman, C (2013) The Habitats Regulations Assessment Handbook (accessed July 2019) edition UK DTA Publications Limited www.dtapublications.co.uk~~DTA Publications Limited (June 2006) The Habitats Regulations Assessment Handbook~~.

Habitat degradation as a result of increased air pollution

6.2.5 Changes in air quality from increased traffic and development could have impacts on European sites through an increase in nitrogen deposition which could occur as a result of the following:

- Construction activities in the vicinity of European sites.
- Increase in nitrogen deposition as a result of new employment sites.
- Increased population and road traffic may increase nitrogen deposition on sensitive habitats where these lie in close proximity to major commuting routes.

6.2.6 The Site Improvement Plan for Morecambe Bay[12] identified the risk of atmospheric nitrogen deposition as a potential pressure/threat to the European sites. The plan states that:

'*Nitrogen deposition exceeds the site-relevant critical load for ecosystem protection and hence there is a risk of harmful effects, but the sensitive features are currently considered to be in favourable condition on the site*.'

6.2.7 The Site Improvement Plan includes the following qualifying features of Morecambe Bay which are sensitive to nitrogen deposition: qualifying bird species (comprising pink-footed goose, common shelduck, pintail, common eider, Eurasian oystercatcher, ringed plover, golden plover, grey plover, red knot, sanderling, dunlin, bar-tailed godwit, curlew, common redshank, turnstone, lesser black-backed gull, herring gull, Sandwich tern, common tern, and little tern), the waterbird assemblage, subtidal sandbanks, estuaries, intertidal mudflats and sandflats, coastal lagoons, shallow inlets and bays, reefs, coastal shingle vegetation outside the reach of waves, glasswort and other annuals colonising mud and sand, Atlantic salt meadows, and humid dune slacks.

Construction phase

6.2.8 In relation to construction activities near to Morecambe Bay, current air quality guidance suggests that any construction sites or routes used by construction vehicles within 50 m of a designated site[13]; and the presence of any European site within 200 m of the main access roads used by HGVs accessing the site[14] could lead to likely significant effects on the European site during the construction phases of new development.

6.2.9 Using aerial photography and Phase 1 habitat mapping from the Magic website[15], it is possible to determine that, of the qualifying features within the Site Improvement Plan sensitive to nitrogen deposition, there are no subtidal sandbanks, coastal lagoons, reefs, coastal shingle vegetation outside the reach of waves, glasswort and other annuals colonising mud and sand or humid dune slacks within 200 m of any of the allocation sites, or potential haul routes. These features can therefore be ruled out of potential impacts associated with air pollution and the construction phase of development. The remaining features (comprising Estuaries, Intertidal mudflats and sandflats, shallow inlets and bays, Atlantic salt meadows and waterfowl species which utilise such habitats) could be present within 200 m and are discussed further below.

6.2.10 A small number of allocation sites/Regeneration Areas within the Local Plan Part One are within 200 m of the boundary of Morecambe Bay SAC/Ramsar site/ Morecambe Bay and Duddon Estuary SPA (with the remaining allocations and potential haul routes being more than 500 m away), refer to Table 7.

[12] Natural England. Site Improvement Plan Morecambe Bay (including Morecambe Bay and Duddon Estuary SPA/Ramsar site and SAC).
[13] Institute of Air Quality Management (IAQM), Guidance on the assessment of dust from demolition and construction (2014)
[14] Design Manual for Roads and Bridges, Volume 11, Section 3, Part 1, HA 207/07 – Air Quality, Highways Agency, 2007.
[15] MAGIC website. www.magic.gov.uk

Table 7: Allocation sites within 200 m of Morecambe Bay

Allocation	Construction site and haul route within 50m of sensitive habitats/species?	Potential haul route used by HGVs within 200m of sensitive habitat/ species?
Heysham Gateway (~~SG15~~SG13/ EC5.5)	The Heysham Gateway Regeneration Area comprises 11 allocations around Heysham (including: Port of Heysham, Port of Heysham Industrial Estate, Royd Mill, Land West of Middleton Road, Major Industrial Estate, Middleton Road Employment Area, Sub-station Land, Lancaster West Business Park, Land off Imperial Way, Heysham Industrial Estate and Middleton Towers, Carr Lane). Allocations within the Regeneration Area that are within 200 m of Morecambe Bay include Heysham Industrial Estate (EC1.7), Port of Heysham (~~SG14~~SG12), Port of Heysham Industrial Estate (EC1.6) and the Former Pontins site Middleton Towers (~~DOS9~~DOS5~~7~~). These are considered individually below. All other allocations within the Regeneration Area, and their associated potential haul routes, are more than 200 m from the sensitive areas within Morecambe Bay.	
Port of Heysham (EC2/~~SG15~~SG123) and Port of Heysham Industrial Estate (EC1.6)	No. The northern edge of the Port of Heysham and Port of Heysham Industrial Estate allocations are adjacent to intertidal mudflats and sandflats (which could also support qualifying bird species and the water bird assemblage). However, the actual potential construction sites and potential haul routes would be more than 50 m from these habitats/species.	No. The main access road into Port of Heysham and the Industrial Estate is the A683 link road which joins Heysham with Lancaster and the M5. The A683 lies over 300 m from Morecambe Bay at its closest point. Therefore, an increase in construction traffic would not increase the vehicle emissions within 200 m of the sensitive habitats/species.
Heysham Industrial Estate (EC1.7)	No. None of the sensitive habitats are within 50 m of the likely construction site and potential haul route. The intertidal mudflats and sandflats (which could also support qualifying bird species and the water bird assemblage) are more than 200 m away.	No. The main access route into Heysham Industrial Estate would be along Main Avenue which takes traffic away from Morecambe Bay, and is more than 200 m from any sensitive habitats.
Middleton Towers, Carr Lane (~~DOS7~~DOS5)	No. The western edge of the allocation site is adjacent to the intertidal mudflats and sandflats (which could also support qualifying bird species and the water bird assemblage). However, the actual construction site and potential haul routes would be more than 50 m from these habitats.	No. The main access route into the allocation site would be along Carr Lane which takes traffic away from Morecambe Bay, and is more than 200 m from any sensitive habitats/species.
Glasson Industrial Area (~~EC1.18~~EC1.17)	Yes. The western edge of the allocation lies directly adjacent to an area of saltmarsh (Glasson Marsh) with the north and east of the allocation being directly adjacent to intertidal mudflats and sandflats of the	Yes. The main access route for construction traffic into Glasson Docks is likely to follow Bodie Hill and School Lane, both of which are more than 200 m from the sensitive habitats/ species. The B5290

Allocation	Construction site and haul route within 50m of sensitive habitats/species?	Potential haul route used by HGVs within 200m of sensitive habitat/ species?
	Lune Estuary (both of these habitats could also support qualifying bird species and the water bird assemblage).	then follows adjacent to the River Lune (between 35 and 50 m from the sensitive habitats/species.
Central Morecambe Regeneration Area (EC5.1) Included within Morecambe Bay AAP	Central Morecambe Regeneration Area comprises four allocations (including West End Regeneration Area (EC5.7) (including Grove St Depot housing allocation (H1.6) Morecambe Town Centre (TC1, TC2, TC4), Morecambe Festival Market and Surrounding Area (~~DOS8~~DOS6). The allocations within Central Morecambe Regeneration Area fall within the Morecambe Bay Area Action Plan (AAP)[16]. Although a number of the allocations and their potential haul routes within the Regeneration Area fall within 200 m of sensitive habitats/species, given that the developments within the Regeneration Area are all redevelopment, and all potential haul routes would take traffic away from the European sites, potential increases in air quality during the construction phase are considered unlikely to be significant. In addition, the HRA[17] for the AAP did not identify air quality as a potential impact on the adjacent European sites.	
Carnforth (EC5.6)	No. Although the Central Carnforth ~~Regeneration Area~~ falls within 200 m of Morecambe Bay, the closest allocation site and associated haul routes ~~within the Regeneration Area~~ are more than 350 m from the sensitive habitats/species (comprising shallow inlets and bays which could also support qualifying bird species and the water bird assemblage).	No. The main access route for construction traffic into Carnforth would be Warton Road and Scotland Road both of which take traffic away from Morecambe Bay and are more than 300 m away from any sensitive habitats/ species (comprising shallow inlets and bays which could also support qualifying bird species and the water bird assemblage).

6.2.11 Based on the allocation maps, and information provided by Lancaster City Council on the expected construction routes of the allocations/Regeneration Areas, none of the construction sites, or potential haul routes would be within 50 m of a sensitive habitat/species, with the exception of one - Glasson Docks (~~EC1.18~~EC1.17), refer to Table 7 above. Glasson Docks is a small, redevelopment allocation, only 5.4 ha in size. Whilst there is the potential for an increase air pollution as a result of an increase in HGVs during any construction activities at the allocation, given the small-scale of any such redevelopment, and the expected short-term duration of construction activities, it is not anticipated that any future redevelopment at Glasson Docks would be sufficient to cause a likely significant effect on the adjacent sensitive habitats/species.

6.2.12 In terms of construction haul routes used by HGVs within 200 m of sensitive habitats/species, as shown in Table 7, the main access roads likely to be utilised during the construction phase of developments in close proximity to Morecambe Bay would take traffic away from the European site. The only allocation with a haul route within 200 m of a sensitive habitat/species is Glasson Docks. As described above, given the small-scale and short-term nature of the potential redevelopment of the Docks, no significant effect on the adjacent sensitive habitats/species (in terms of changes in air quality during construction) are considered likely.

[16] Morecambe Bay Area Action Plan: https://www.lancaster.gov.uk/business/regeneration/morecambe-area-action-plan
[17] Morecambe Bay Area Action Plan HRA: https://www.lancaster.gov.uk/business/regeneration/morecambe-area-action-plan

6.2.13 In addition to the above, background air quality maps for Lancaster (Defra, 2015[18]) show a maximum background nitrogen dioxide (NO_2) concentration level of 16.43 µg/m^3 for a 1 km grid square with the highest values occurring along the M6 corridor and the town centres of Lancaster, Morecambe and Carnforth. Along the designated sections of coastline and estuaries, NO_2 levels are generally lower with a maximum of 10.89 µg/m^3. According to the European Monitoring and Evaluation Programme, 1 µg/m^3 NO_2 equates to around 0.1 kg/ha of nitrogen deposition per year. Information within the recently published 2017 Air Quality Annual Status Report (ASR) for Lancaster City Council[19], also shows higher nitrogen levels within the town centres. The Air Pollution Information System (APIS) identifies a critical load for nitrogen deposition on saltmarsh as 20-30 kg/ha/year. As such, the current background NO_2 levels across Lancaster are well below the 1% of the critical load for saltmarsh. Data for bird species also relates to the saltmarsh critical load of 20-30 kg/ha/yr, although specific data for other habitat types were not available. Therefore, due to the low background concentrations, it is not likely that changes in air quality associated with the construction phase of new developments (which would be short-term in duration) would lead to changes in emissions which would exceed the 1% critical load value for the sensitive habitats/species within Morecambe Bay. In addition, to protect air quality, all new developments would be required produce a Construction Environmental Management Plan, which ensures any environmental impacts are avoided or minimised during construction. This would be in addition to according with relevant legislation ensuring any emissions meet appropriate guidelines and complying with all relevant policies within the Local Plan Part One and Part Two. This includes Policy DM31 within the Local Plan Part Two which states that:

'Any proposal must not worsen any emissions or air pollutants in areas that could result in a breach of, or worsen site-level critical loads for ecosystems within relevant Internationally designated nature conservation sites during both construction and operational phases. Air Quality Assessments must be submitted for relevant development proposals, as outlined in the Council's Validation Guide.'

~~*'All development proposals must seek to minimise the associated emission of harmful air pollutants during operational phases. They must avoid causing or worsening a breach of an air quality objective level or limit value, or exposing those who use and occupy the site to unacceptable adverse exposure. They must also avoid worsening any emissions of air pollutants in areas that could result in a breach of, or worsen site-level critical loads for ecosystems within relevant European designated nature conservation sites during both construction and operational phases.'*~~

and Policy EN9~~11~~ within the Local Plan Part One that relates to the three Air Quality Management Areas within the district (Central Carnforth, Central Lancaster and Galgate) and which states that:

'Developments located within or adjacent to AQMAs will be expected to ensure that they do not contribute to increasing levels of air pollutants within the locality.'

6.2.14 Given that no developments would be consented if they do not meet the stringent air quality guidance, or comply with Policy DM31, any potential air quality impacts from construction activities associated with allocations within 200 m of the European sites are not anticipated.

Operational phase

Employment sites

6.2.15 In relation to operational phase impacts associated with new development within Lancaster District, Lancaster City Council can confirm that all employment site allocations within the Local Plan Part One are allocated for B Use Classes. This includes Use Class B1, B2 and B8 only. B use classes are defined as follows: B1-business (comprising offices, premises for Research and Development and light Industrial processes which can take place within a residential area without damaging the amenity of that area); B2 - general Industry (for the use of carrying out an industrial process other than one falling within class B1); and B8 - storage and distribution (applies to properties and land which are used for storage or as a distribution centre).

[18] https://uk-air.defra.gov.uk/data/laqm-background-maps?year=2015

[19] 2017 Air Quality Annual Status Report (ASR) for Lancaster City Council. In fulfilment of Part IV of the Environment Act 1995 Local Air Quality Management. September 2017. Lancaster City Council

6.2.16 Although it is not possible, at this strategic level, to confirm exactly which businesses would developed on the employment allocations within the Local Plan Part One, given that the B1, B2 and B8 use classes do not include the types of businesses which are likely to cause significant increases in air pollution (allocations for such industrial uses are covered by the Minerals and Waste Local Plan for Lancashire[20] that has undergone a separate HRA Screening exercise[21] which concluded no likely significant effects on European sites), any increase in industrial air pollution as a result of new B Class employment sites within Lancaster would be negligible.

6.2.17 In terms of potential increases in traffic associated with commuting to employment sites, none of the main access routes (which would be similar to those used by the construction traffic described in Table 7, above) would be within 200 m of a European site, with the exception of Glasson Docks Industrial Area (~~EC1.18~~EC1.17). Whilst it is not possible to rule out any change in air pollution levels as the Industrial Area is redeveloped, as described previously, Glasson Docks Industrial Area is an existing employment site, therefore, the area is already subject to commuter traffic accessing the area. In addition, given its small size (5.4 ha) and low levels of existing background NO_2 (based on background air quality maps for Lancaster (Defra, 2015)), it is not anticipated that any potential increases in traffic levels along the B5290 as a result of redevelopment at Glasson Docks would be of sufficient scale to cause a likely significant effect on the adjacent sensitive habitats/species.

6.2.18 In addition, as described above in paragraph 6.2.14, any new developments would be required to accord with relevant legislation ensuring any emissions meet appropriate guidelines and comply with all relevant policies within the Local Plan Part One and Part Two before they can be consented. Therefore, any potential impacts associated with air pollution from new employment allocations are considered unlikely.

Housing Developments

6.2.19 The construction of approximately 10,440 ~~12,000~~ new homes within Lancaster District has the potential to increase traffic (and as a consequence air pollution) within the new housing estates themselves, as well as along existing roads used by new home~~-~~owners (such as commuter routes) in the vicinity of sensitive habitats/species. IAQM/ EPUK and DMRB guidance consider designated sites that falls within 200 m of a new road/development when undertaking air quality assessments.

6.2.20 In terms of new housing developments themselves, there are no new housing allocations within the Local Plan Part One that are located within 200 m of any sensitive habitats/species. New housing within Lancaster District is located largely within Lancaster itself, or immediately adjacent to existing centres of development, with the majority of new housing sites located over 1 km from Morecambe Bay. Lancaster South Broad Location for Growth (including Bailrigg Garden Village) is the only large allocation which will create a new settlement within the district, but again this is also more than 1 km from the European sites. Therefore, the only potential issue associated with new housing, and increases in air pollution, would be through an increase in traffic use of existing roads.

6.2.21 Based on the allocation maps, and information provided by Lancaster City Council on the expected commuter routes of new housing developments, none of the major access roads within Lancaster District would take regular, commuter traffic within 200 m of the European sites. The M6 is more than 2 km to the east of Morecambe Bay, the A683 (which takes traffic into Heysham) is more than 300 m away at its closest point, and the A6 is more than 1.5km away south of Lancaster and 500 m away, at its closest point, north of Lancaster.

6.2.22 In addition, as described above, given the low background NO_2 levels within the District, increases in emissions are not anticipated to be of a magnitude such that the critical load for the sensitive habitats/species within Morecambe Bay is reached. There is also a general drive to reduce emissions through cleaner cars and sustainability initiatives within new developments to reduce car use and increase other means of travel, such as cycling. A separate Area Action Plan for South Lancaster, which includes Bailrigg Garden Village (the largest new housing site within the Local Plan), is proposed

[20] Minerals and Waste Local Plan for Lancashire: http://www.lancashire.gov.uk/council/planning/local-planning-policy-for-minerals-and-waste.aspx

[21] Minerals and Waste Local Plan for Lancashire: Revised Habitat Regulations Screening Report (May 2011). Minerals and Waste Development Framework

which, by virtue of the type of development, would promote use of alternative methods of transport and improve access to public transport and cycle/walking routes, thereby helping to reduce the impact of development in terms of air pollution.

6.2.23 Overall, significant effects on the sensitive habitats and species within Morecambe Bay, as a result of increases in traffic associated with new housing developments, are considered unlikely.

Changes in water quality where sites are hydrologically linked to European sites

6.2.24 Changes in water quality as a result of new development could have impacts on European sites. For example, increased risk of potential pollution incidents, and potential increases in suspended sediments resulting in ecological effects, such as the direct loss of habitats caused by re-deposition of suspended sediment, and the consequential health or mortality effects on prey species, particularly invertebrates associated with the intertidal mudflats.

6.2.25 The Site Improvement Plan for Morecambe Bay[22] identified that:

'*Diffuse pollution and/or uncontrolled release of pollutants from terrestrial sources could alter or damage the habitats and species found within the estuary*.'

Morecambe Bay SAC/Ramsar site and the Morecambe Bay and Duddon Estuary SPA have been identified as being hydrologically linked to watercourses within Lancaster, and there are a small number of allocations with the potential for impacts on water quality as a result of future development at these sites. This potential impact has therefore been **screened in** for further assessment.

6.2.26 Although United Utilities have suggested that there may be a water supply issue in East Lancaster, this has not been raised as a concern. Lancaster City Council have confirmed that United Utilities will address this issue through work at the East Lancaster Strategic allocation (SA08). In addition, the HRA of the Water Resources Management Plan (WRMP)[23] (which covers the approach United Utilities will use to manage these water resource issues for the years 2015-2040) concluded that '*the final WRMP will have no significant adverse effects of any of the European sites either alone or in combination with other known projects, plans or programmes as a result of its implementation*.' No other capacity issues have been raised to date in relation to any of the other allocation sites within the Local Plan. In addition, should further issues emerge at a later date, the Local Plan Part Two includes two policies which serve to protect water supply and water resources, Policy DM35 relates to water supply and waste water. All new development will be required to demonstrate that there is adequate waste water capacity on and off the site to satisfactorily serve the development. Policy DM36 relates to water resources and infrastructure. All new development must not threaten surface water and groundwater quantity and quality caused by water run-off into nearby waterways. These policies provide a safety net to ensure that any such capacity issues would be dealt with prior to planning permission being granted. Therefore, potential impacts associated with water supply and resources are not anticipated as a result of implementation of the Lancaster Local Plan Part One, and therefore potential impacts associated with water supply issues has been **screened out** of further assessment.

Loss of habitat functionally linked to a European site (i.e. used by overwintering or passage birds for foraging)

6.2.27 Functionally linked land is considered to be any land outside of a European site, which is regularly used by significant numbers of birds that are qualifying interest features of that European site.

6.2.28 In relation to this HRA Report, this includes land (comprising farmland, or other wetland habitat and brown field sites) that is regularly used by qualifying bird species associated with Morecambe Bay and Duddon Estuary SPA during the winter and on passage for foraging or roosting, such as pink-footed

[22] Natural England. Site Improvement Plan Morecambe Bay (including Morecambe Bay and Duddon Estuary SPA/Ramsar site and SAC).

[23] Water Resources Management Plan: http://www.unitedutilities.com/corporate/about-us/our-future-plans/water-resources/water-resources-management-plan/

geese. A small number of the allocation sites are located within, or adjacent to land which could potentially constitute functionally linked land.

6.2.29 The Site Improvement Plan for Morecambe Bay does not include loss of functionally linked land as a potential threat to the European sites.

6.2.30 Loss of functionally linked land would only be related to those qualifying species which are known to regularly use habitats outside of the European sites for foraging or roosting. In relation to the HRA Report this comprises the species associated with the European sites, set out within Table 8 below. All other qualifying species associated with the European sites (which forage exclusively at sea, such as common eider and little tern) can be ruled out of this potential impact pathway as they do not regularly use functionally linked land outside of the European site.

6.2.31 The species listed in Table 8 are, in part, based on the distances set out within Appendix C (information provided by NE).

Table 8: Qualifying bird species included withn the detailed screening assessment in relation to loss of functionally linked land

European Site	Qualifying species included within the detailed assessment
Morecambe Bay Ramsar site	Species which could regularly use farmland outside of the European site in significant numbers: pink-footed geese, lapwing, golden plover, curlew, Bewick's swan (plus black-tailed godwit, and other goose, swan, or gull species associated with the waterbird assemblage). Species which could use other habitat outside of a European site (such as wetland habitat): All waterbird species listed as qualifying species, and/or which form part of the waterbird assemblage associated with this European site. [Note: All species which feed exclusively at sea, have been scoped out of this potential impact pathway.]
Morecambe Bay and Duddon Estuary SPA	Species which could regularly use farmland outside of the European site in significant numbers: pink-footed geese, curlew, black-tailed godwit, lesser black-back gull, herring gull (plus lapwing, golden plover and other goose, swan, or gull species associated with the waterbird assemblage). Species which could use other habitat outside of a European site (such as wetland habitat): All waterbird species listed as qualifying species, and/or which form part of the waterbird assemblage associated with this European site. [Note: All species which feed exclusively at sea, have been scoped out of this potential impact pathway.]

6.2.32 This impact pathway will therefore be considered in the detailed screening assessment within Section 6.5 below (in relation to those qualifying species set out within Table 8 above).

Disturbance/displacement to species as a result of construction activities/ operational stage

6.2.33 There is the potential to disturb qualifying species within European sites, in particular birds, during the construction and operational phases of new developments in proximity to the site's boundary. In relation to development within Lancaster District, no fragmentation effects are considered likely. Given the proximity of the allocations to existing development, and the highly mobile nature of the birds associated with the Morecambe Bay Ramsar site and Morecambe Bay and Duddon Estuary SPA; none of the allocation sites would form a barrier to movement of birds within and across the district. Potential impacts associated with fragmentation have been screened out of the detailed screening assessment.

6.2.34 Disturbance/displacement could occur as a result of the following:

- Noise, visual, vibration and lighting disturbance during both the construction and operational phase of new developments. This could result in potential loss of fitness and the consequential health or mortality effects on birds and their prey species.
- A number of the allocation sites are also located adjacent to land which could potentially constitute functionally linked land. These developments could also lead to significant effects, in terms of noise, visual, vibration and lighting disturbance during both the construction and operational phase of new developments.

6.2.35 The Site Improvement Plan for Morecambe Bay does not include effects associated with disturbance/ displacement (as a result of construction activities/ operational stage) as a potential threat on the European site. It only includes reference to recreational pressure (discussed in the next section, below).

6.2.36 The species listed within Table 9 (below) comprise the qualifying species associated with the European sites which could be affected by disturbance/displacement associated with development within Lancaster District. All other qualifying species associated with the European sites (which forage exclusively at sea) can be ruled out of this potential impact pathway as they do not regularly use coastal habitats in the vicinity of the potential development within Lancaster.

6.2.37 The species listed in Table 9 are, in part, based on the distances set out within Appendix C (information provided by NE).

Table 9: Qualifying bird species included withn the detailed screening assessment in relation to disturbance

European Site	Qualifying species included within the detailed assessment
Morecambe Bay Ramsar site	All waterbird species listed as qualifying species, and/or which form part of the waterbird assemblage associated with this European site. [Note: All species which feed exclusively at sea, have been scoped out of this potential impact pathway.]
Morecambe Bay and Duddon Estuary ~~p~~SPA	All waterbird species listed as qualifying species, and/or which form part of the waterbird assemblage associated with this European site. [Note: All species which feed exclusively at sea have been scoped out of this potential impact pathway.] Given that the Duddon Estuary is 25km from the allocations within Wyre, no disturbance/displacement impacts on birds using this part of the Morecambe Bay and Duddon Estuary ~~p~~SPA would occur.

6.2.38 This impact pathway will therefore be considered in the detailed screening assessment within Section 6.4 below (in relation to those qualifying species associated with Morecambe Bay Ramsar site and Morecambe Bay and Duddon Estuary ~~p~~SPA, set out within Table 8 above). Potential impacts associated with fragmentation have been screened out of the detailed screening assessment.

Disturbance to habitats and species through increased recreational activity, during operational stage

6.2.39 There is the potential to disturb and/or displace qualifying species associated with European sites, in particular birds, during the construction and operational phases of new developments in proximity to the site's boundary. Recreational disturbance/displacement could occur as a result of the following:

- Increase in use of footpaths across land which is considered to be functionally linked land as a result of new housing developments.
- Increase in recreational disturbance to birds as a result of an increase in visitors to the coast.

- Increase in recreational pressure on the Morecambe Bay SAC leading to degradation of habitats within the SAC.

6.2.40 The Site Improvement Plan for Morecambe Bay identified public access/disturbance as a potential pressure/threat to the site. The plan states that:

'There is recreational disturbance to all features from various activities from individuals (e.g. dog walkers) to organised groups occurring throughout Morecambe Bay. In some cases, (e.g. wind and kite surfing) activities are increasing. Previous attempts at developing 'codes of conduct', and good practice have not been successful. New access points are being created or old tracks widened etc., and there are long term/historical issues.

'The scale of recreational disturbance is currently unknown but considered to be both localised and widespread. Activities require regulation to ensure birds are not disturbed and habitats are not damaged.'

6.2.41 An increase in population (as a result of new development and improved road infrastructure) could result in increased recreational pressure as a result of additional people in an area and the consequent increases in people visiting Morecambe Bay. A Recreational Disturbance Study carried out by Footprint Ecology for the Morecambe Bay Partnership identified that visitors to Morecambe Bay who were on a day-trip/short visit from home travelled a median distance of 3.454 km to get to the European site. Morecambe Bay Ramsar site and Morecambe Bay and Duddon Estuary SPA is within close proximity for residents of Lancaster District. Therefore, increased disturbance to birds (as a result of recreational pressure) at these European sites could occur, particularly for those allocations within 3.5 km of the European sites. New housing allocation sites and mixed-use allocations (which include an element of residential dwellings within the proposals) within 3.5 km of a European site will be considered in the detailed assessment. In relation to employment and retail sites, these are considered less likely to lead to increased recreational pressure; however, for sites located in close proximity to the European sites some increase in use may occur. Taking an average walking pace, a person could cover 3 km in 30 minutes continuous walking (the UK average lunch break is approximately 28 minutes)[24]. Employment and retail sites within 1.5 km (as the crow flies) will be considered in the detailed assessment in relation to the potential for disturbance/displacement to birds on the coast associated with Morecambe Bay as a result of increased visitor numbers.

6.2.42 There is also the potential for increased recreational use of land outside of the European site, but which is functionally linked to the European site, as a result of new housing developments within Lancaster District (for example, farmland which could be regularly used by significant numbers of SPA species). There is a network of footpaths across the borough including the Lancashire Coastal Way and the Lune Valley Ramble. A number of allocations are in close proximity to these and/or other smaller existing footpaths, therefore recreational pressure in terms of use of footpaths which cross functionally linked land will be considered in the detailed screening assessment.

6.2.43 Recreational pressure will be considered in the detailed screening assessment within Section 6.4 below in relation to: increased in use of footpaths across areas of land which could constitute functionally linked land; and potential increase in visitor numbers to the Morecambe Bay SAC/ Ramsar site and Morecambe and Duddon Estuary SPA.

6.3 Detailed Screening of the Local Plan Part One Policies

6.3.1 The screened in Local Plan Part One policies/allocation sites were examined in detail to determine the need for further Appropriate Assessment.

6.3.2 Table 10 provides the screening of the over-arching policies. The detailed assessment of each of the allocation sites associated with these policies is provided in Tables 11 and 12. Additional allocation sites were proposed in August and October 2017; detailed assessment of these sites is provided in Table 13.

[24] https://www.hrgrapevine.com/content/article/2016-09-23-the-exact-duration-of-the-average-uk-lunchtime-revealed

Table 10: Detailed Screening of the Screened In Policies within the Local Plan Part One

Strategic Policy	European site Potentially Affected	Potential Effect	Detailed Assessment	Screening Assessment Category	Conclusion
Chapter 8: Regeneration and Economic Growth					
SP4: Priorities for Sustainable Economic Growth	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	The aim of this policy is to support sustainable economic growth within the district. This includes providing new development opportunities for employment in greenfield locations. Construction of new employment sites in greenfield locations has the potential to impact European sites through loss of habitat functionally linked to a European site, and disturbance to species as a result of construction activities/ operational stage.	Detailed screening of the sites associated with this policy (comprising SG1, SG6, ~~SG14~~SG12, ~~SG15~~SG13 EC6 and EC7) is provided in Tables 11 and 12. Detailed screening of sites SG6, ~~SG15~~SG13, EC6, and EC7 confirmed no LSE on the European sites considered in this assessment. Detailed screening of Lancaster South Broad Location for Growth (including Bailrigg Garden Village) (SG1), the Port of Heysham (~~SG14~~SG12), and Heysham Gateway (~~SG15~~SG13) allocations identified the potential for LSE associated with any future development at these sites. Further AA of these is therefore required.	I	**Further AA required for SG1, ~~SG14~~SG12 and ~~SG15~~SG13**
SP5: The Delivery of New Jobs	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy will seek to promote opportunities for economic growth in the following locations via new or expanded employment allocations (Lancaster University Innovation Park, Heysham Gateway, Lancaster Canal Corridor, North and South Lancaster Business Parks, Junction 33 Agri-business Centre Galgate, Carnforth Business Park and White Lund Employment Area). Construction of new employment sites in greenfield locations has the potential to impact European sites through loss of habitat functionally linked to a European site, and disturbance to species as a result of construction activities/ operational stage.	Detailed screening of the sites associated with this policy (comprising SG2, ~~SG15~~SG13, SG5, EC3, EC1.1 and EC1.12) is provided in Tables 11 and 12. Detailed screening of sites SG5, EC3, EC1.1 and EC1.12 confirmed no LSE on the European sites considered in this assessment. Detailed screening also identified ~~SG15~~SG13 as having the potential for in combination effects with other allocations within the Local Plan Part One. Further in combination assessment is therefore required	H/J	**No LSE for SG5, EC3, EC1.1 and EC1.12 alone** **Further in combination assessment required for ~~SG15~~SG13**
Chapter 9: Housing Delivery					
Policy SP6: The Delivery of New Homes	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy details how the Council will meet its housing needs throughout the lifetime of the Local Plan. The policy will be delivered through development at the following locations: Lancaster South Broad Location for Growth (including Bailrigg Garden Village), East Lancaster Strategic Site (Cuckoo Farm / Ridge Farm), North Lancaster Strategic Site, Land at Lundsfield Quarry, ~~and Land South of Windermere Road~~, Carnforth and sites within Policies H1 to H6 and DOS1 to ~~DOS10~~DOS8. Construction of new homes in these locations has the potential to impact European sites through increased recreational pressure, loss of habitat functionally linked to a European site, and disturbance to species as a result of construction activities/ operational stage.	Detailed screening of the sites associated with this policy (comprising SG1, SG7, SG9, and SG11~~, SG12~~ and all residential dwellings within Policies H1 to H9, and Development Opportunity Sites identified via policies DOS1 to ~~DOS10~~DOS8) is provided in Tables 11 and 12. Detailed screening confirmed no LSE on the European sites considered in this assessment associated with the majority of these allocations associated with this policy. Detailed screening of the Lancaster South Broad Location for Growth (including (Bailrigg Garden Village (SG1) and East Lancaster Strategic Site (Cuckoo Farm / Ridge Farm) (SG7) allocations identified the potential for LSE associated with any future development at these sites. Detailed screening also identified a number of allocations under this policy as having the potential for in combination effects with other allocations within the Local Plan Part One. Further in combination assessment is therefore required.	I/J	**Further AA required for SG1 and SG7** **Further in combination assessment required for allocations under this policy as having the potential for in combination effects with other allocations within the Local Plan Part One**
Chapter 12: South Lancaster					
Policy SG1: Lancaster South Broad Location for Growth - including Bailrigg Garden Village~~Broad Location for Growth - Bailrigg Garden Village~~	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development associated with Bailrigg Garden Village. Development in this location has the potential to impact European sites through increased recreational pressure, loss of habitat functionally linked to a European site, and disturbance to species as a result of construction activities/ operational stage.	Detailed screening of this site is provided in Table 11. Detailed screening of the allocation associated with this policy has identified the potential for LSE associated with any future development at this site. Further AA is therefore required.	I	**Further AA required for SG1**

Strategic Policy	European site Potentially Affected	Potential Effect	Detailed Assessment	Screening Assessment Category	Conclusion
Policy SG2: Lancaster University Health Innovation ~~Park~~Campus	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development associated with Lancaster University Health Innovation ~~Park~~Campus. Development at this location has the potential to impact European sites through loss of habitat functionally linked to a European site, and disturbance to species as a result of construction activities/ operational stage.	Detailed screening of Lancaster University Health Innovation ~~Park~~ Campus is provided in Table 12. The screening confirmed no LSE on the European sites considered in this assessment. The potential for LSE as a result of this policy can therefore be ruled out.	H	**No likely significant effect**
Policy SG3: Infrastructure Delivery for Growth in South Lancaster	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy sets out the infrastructure requirement for the delivery for growth in South Lancaster. The policy specifically sets out the requirements for the Bailrigg Garden Village project. Delivery of infrastructure has the potential to impact European sites through increased recreational pressure, loss of habitat functionally linked to a European site, and disturbance to species as a result of construction activities/ operational stage. However, these potential impacts are intrinsically linked to the Bailrigg Garden Village listed within SG3, and therefore would only occur through implementation of the Garden Village project. The policy on its own would not lead to potential impacts on European sites.	Detailed screening of the Lancaster South Broad Location for Growth (including Bailrigg Garden Village) project (SG1) is provided in Table 11. Detailed screening of the allocation associated with this policy has identified the potential for LSE associated with any future development at these sites. Further AA of these is therefore required.	H/I	**No LSE for SG3** **Further AA required for SG1**
Chapter 13: Central Lancaster					
Policy SG4: Lancaster City Centre	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development associated with Lancaster City Centre. There are no likely potential effects on European sites associated with development within Central Lancaster.	Detailed screening of Lancaster City Centre (SG4) is provided in Table 12. The screening confirmed no LSE on the European sites considered in this assessment. The potential for LSE as a result of this policy can therefore be ruled out.	H	**No likely significant effect**
Policy SG5: Canal Quarter~~Corridor North~~, Central Lancaster~~Canal Corridor North, Central Lancaster~~	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development associated with Lancaster Canal Corridor. There are no likely potential effects on European sites associated with development within Central Lancaster.	Detailed screening of Canal ~~-~~Quarter~~Corridor North~~, Central Lancaster~~Lancaster Canal Corridor~~ (SG5) is provided in Table 12. The screening confirmed no LSE on the European sites considered in this assessment. The potential for LSE as a result of this policy can therefore be ruled out.	H	**No likely significant effect**
Policy SG6: Lancaster Castle and Lancaster Quay	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development associated with Lancaster Castle and Quay. There are no likely potential effects on European sites associated with development within Central Lancaster.	Detailed screening of Lancaster Castle and Quay (SG6) is provided in Table 12. The screening confirmed no LSE on the European sites considered in this assessment. The potential for LSE as a result of this policy can therefore be ruled out.	H	**No likely significant effect**
Chapter 14: East Lancaster					
Policy SG7: East Lancaster Strategic Site	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development associated with the East Lancaster Strategic Site at Cuckoo Farm and Ridge Farm. Development at this location has the potential to impact European sites through increased recreational pressure, loss of habitat functionally linked to a European site, and disturbance to species as a result of construction activities/ operational stage.	Detailed screening of East Lancaster Strategic Site (SG7) is provided in Table 11. The screening of this allocation has identified the potential for LSE associated with any future development at this site. Further AA of these is therefore required.	I	**Further AA required for SG7**

Strategic Policy	European site Potentially Affected	Potential Effect	Detailed Assessment	Screening Assessment Category	Conclusion
Policy SG8: Infrastructure Requirement & Delivery for Growth in East Lancaster	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy sets out the infrastructure requirement for the delivery for growth in East Lancaster. The policy specifically sets out the requirements for Policy SG7 (East Lancaster Strategic Site~~Cuckoo Farm and Ridge Farm~~). It also lists areas for further housing growth including: Land at Grab Lane (Policy H4), land at Ridge Lea Hospital (Policy H3) and Land at Lancaster Leisure Park and Auction Mart (Policy H5). Delivery of infrastructure and development of the further housing growth has the potential to impact European sites through loss of habitat functionally-linked to a European site, and disturbance to species as a result of construction activities/ operational stage. However, these potential impacts are intrinsically linked to the allocations listed within SG8, and therefore would only occur through implementation of these allocations. The policy on its own would not lead to potential impacts on European sites.	Detailed screening of the sites associated with this policy is provided in Tables 11 and 12). Detailed screening of site H3.1 confirmed no LSE on the European sites considered in this assessment. Detailed screening of East Lancaster Strategic Site~~Cuckoo Farm and Ridge Farm~~ SG7 identified the potential for LSE associated with any future development at this site. Further AA of these is therefore required. Detailed screening of sites H4 and H5 identified the potential for in combination effects with other allocations within the Local Plan Part One. Further in combination assessment of these sites is therefore required.	H/I/J	**No LSE for SG8** **Further AA required for SG7 and further in combination assessment required for H4 and H5 which are listed within policy SG8**
Chapter 15: North Lancaster					
Policy SG9: North Lancaster Strategic Site	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development associated with North Lancaster Strategic Site (SG9). Development at this location has the potential to impact European sites through increased recreational pressure, loss of habitat functionally linked to a European site, and disturbance to species as a result of construction activities/ operational stage.	Detailed screening of North Lancaster Strategic Site (SG9) is provided in Table 12. The screening of SG9 identified the potential for in combination effects with other allocations within the Local Plan Part One. Further in combination assessment is therefore required.	J	**Further in combination assessment required for SG9**
Policy SG10: Infrastructure Requirement & Delivery for Growth in North Lancaster	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy sets out the infrastructure requirement for the delivery for growth in North Lancaster. The policy specifically sets out the requirements for Policy SG9. Delivery of infrastructure and development of the further housing growth has the potential to impact European sites through loss of habitat functionally-linked to a European site, and disturbance to species as a result of construction activities/ operational stage. However, these potential impacts are intrinsically linked to the North Lancaster Strategic site listed within SG10, and therefore would only occur through implementation of the Strategic site. The policy on its own would not lead to potential impacts on European sites.	Detailed screening of North Lancaster Strategic Site (SG9) is provided in Table 12. The screening of SG9 identified the potential for in combination effects with other allocations within the Local Plan Part One. Further in combination assessment is therefore required.	H/J	**No LSE for SG10** **Further in combination assessment required for SG9**
Chapter 16: South Carnforth					
Policy SG11: Land at Lundsfield Quarry, South Carnforth	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development associated with Lundsfield Quarry. Development at this location has the potential to impact European sites through increased recreational pressure, and disturbance to species as a result of construction activities/ operational stage.	Detailed screening of Lundsfield Quarry (SG11) is provided in Table 12. The screening identified the potential for in combination effects with other allocations within the Local Plan Part One. Further AA of the potential in combination effects of this site is therefore required.	J	**Further in combination assessment completed required for SG11**
~~Policy SG12: Land South of Windermere Road, South Carnforth~~	~~Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC~~	~~This policy outlines the potential development associated with South of Windermere Road.~~ ~~Development at this location has the potential to impact European sites through increased recreational pressure, loss of habitat functionally linked to a European site, and disturbance to species as a result of construction activities/ operational stage.~~	~~Detailed screening of South of Windermere Road (SG12) is provided in Table 12.~~ ~~The screening identified the potential for in combination effects with other allocations within the Local Plan Part One. Further in combination assessment is therefore required.~~	~~J~~	~~**Further in combination assessment required for SG12**~~

Strategic Policy	European site Potentially Affected	Potential Effect	Detailed Assessment	Screening Assessment Category	Conclusion
~~Policy SG13: Infrastructure Requirement & Delivery for Growth in South Carnforth~~	~~Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC~~	~~This policy sets out the infrastructure requirement for the delivery for growth in South Carnforth. The policy specifically sets out the requirements for South of Windermere Road (SG12) and Land at Lundsfield Quarry (SG11).~~ ~~Delivery of infrastructure and development of the further housing growth has the potential to impact European sites through loss of habitat functionally-linked to a European site, and disturbance to species as a result of construction activities/ operational stage. However, these potential impacts are intrinsically linked to the two allocations listed within SG13, and therefore would only occur through implementation of Policy SG11 and SG12. The policy on its own would not lead to potential impacts on European sites.~~	~~Detailed screening of the sites associated with this policy (SG11 and SG12) is provided in Tables 12.~~ ~~Detailed screening of these sites identified the potential for in combination effects with other allocations within the Local Plan Part One. Further in combination assessment is therefore required.~~	~~H/J~~	~~**No LSE for SG13**~~ ~~**Further in combination assessment required for SG11 and SG12**~~
Chapter 17: South Heysham					
Policy ~~SG14~~SG12: Port of Heysham ~~Expansion~~	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development associated with Port of Heysham. Development at this location has the potential to impact European sites through disturbance to species as a result of construction activities/ operational stage.	Detailed screening of Port of Heysham Expansion (~~SG14~~SG12) is provided in Table 11. The screening of this allocation has identified the potential for LSE associated with any future development at this site. Further AA is therefore required.	I	**Further AA required for ~~SG14~~SG12**
Policy ~~SG15~~SG13: Heysham Gateway, South Heysham	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development associated with Heysham Gateway. The Gateway Area includes 11 allocations, four of which lie within close proximity to either Morecambe Bay itself, or an area of functionally linked land. Development at these locations has the potential to impact European sites through disturbance to species as a result of construction activities/ operational stage.	Detailed screening of the allocation sites within Heysham Gateway (~~SG15~~SG13) is provided in Table 11 and 12. The screening of this area has identified the potential for LSE associated with any future development at ~~SG14~~SG12 and EC1.6. Further AA of these sites is therefore required. Detailed screening of sites ~~SG15~~SG13 and EC1.6 identified the potential for in combination effects with other allocations within the Local Plan Part One. Further AA of these sites in relation to in combination effects is therefore required. Detailed screening of the remaining sites also identified the potential for in combination effects with other allocations within the Local Plan Part One. Further in combination assessment is therefore required.	I/J	**Further AA required for EC1.6 and ~~SG15~~SG13** **Further in combination assessment required for ~~SG15~~SG13 and EC1.6**
Chapter 18: The Economy, Employment and Regeneration					
Policy EC1: Established Employment Areas	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy details the areas of redevelopment of established employment sites. The policy specifically sets out the requirements for sites associated with Policy EC1. Development associated with established employment areas in these locations has the potential to impact European sites through loss of habitat functionally linked to a European site, and disturbance to species as a result of construction activities/ operational stage. Development of employment sites within 1.5km of Morecambe Bay also have the potential to impact the European sites through an increase in recreational pressure.	Detailed screening of the sites associated with this policy (comprising EC1.1 to ~~EC1.22~~EC1.21) is provided in Tables 11 and 12. Detailed screening of sites EC1.1 to EC1.5, EC1.8, EC1.11, EC1.12 and ~~EC1.14~~EC1.13 to ~~EC1.22~~EC1.21 confirmed no LSE on the European sites considered in this assessment. Detailed screening of the EC1.6 and EC1.10 allocations identified the potential for LSE associated with any future development at these sites. Further AA of these sites is therefore required. Detailed screening of EC1.7, EC1.9, ~~EC1.13~~ and ~~EC1.18~~EC1.17 also identified the potential for in combination effects with other allocations within the Local Plan Part One. Further in combination assessment of these sites is therefore required.	I/J	**Further AA required for EC1.6 and EC1.10** **Further in combination assessment required for EC1.7, EC1.9, ~~EC1.13~~ and ~~EC1.18~~EC1.17**

Strategic Policy	European site Potentially Affected	Potential Effect	Detailed Assessment	Screening Assessment Category	Conclusion
Policy EC2: Future Employment Growth	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy sets out the Council's plans for future employment growth. The policy specifically sets out the requirements for sites associated with Policy EC2. Development associated with future employment growth in these locations has the potential to impact European sites through loss of habitat functionally linked to a European site, and disturbance to species as a result of construction activities/ operational stage.	Detailed screening of the sites associated with this policy (comprising EC2, SG9, SG1. SG2 and ~~SG14~~SG12 and ~~SG15~~SG13) is provided in Tables 11 and 12. Detailed screening of sites EC2, SG9, SG1 and SG2 confirmed no LSE on the European sites considered in this assessment. Detailed screening of the allocations Port of Heysham ~~Expansion~~ (~~SG14~~SG12) identified the potential for LSE associated with any future development at these sites. Further AA of these is therefore required. Detailed screening of ~~SG15~~SG13 also identified the potential for in combination effects with other allocations within the Local Plan Part One. Further in combination assessment of these sites is therefore required.	I/J	**Further AA required for ~~SG14~~SG12** **Further in combination assessment required for ~~SG15~~SG13**
Policy EC3: Junction 33 Agri-Business Centre, South Galgate	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development associated with Junction 33 Auction Market. Development at this location has the potential to impact European sites through loss of habitat functionally linked to a European site, and disturbance to species as a result of construction activities/ operational stage.	Detailed screening of Junction 33 Auction Market (EC3) is provided in Table 12. The screening confirmed no LSE on the European sites considered in this assessment. The potential for LSE as a result of this policy can therefore be ruled out.	H	**No likely significant effect**
Policy EC4: White Lund Employment Area	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development associated with White Lund Industrial Estate. Development at this location has the potential to impact European sites through disturbance to species as a result of construction activities/ operational stage.	Detailed screening of White Lund Industrial Estate (EC1.12/EC4) is provided in Table 12. The screening confirmed no LSE on the European sites considered in this assessment. The potential for LSE as a result of this policy can therefore be ruled out.	H	**No likely significant effect**
Policy EC5: Regeneration Priority Areas	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy sets out the Council's plans for the areas earmarked for regeneration. The policy specifically sets out the requirements for sites associated with Policy EC5. Development associated with future employment growth in these locations has the potential to impact European sites through loss of habitat functionally linked to a European site, and disturbance to species as a result of construction activities/ operational stage.	Detailed screening of the sites associated with this policy (comprising EC5.1 to EC5.7) is provided in Tables 11 and 12. Detailed screening of sites EC5.1, EC5.2, EC5.3, EC5.6 and EC5.7 confirmed no LSE on the European sites considered in this assessment. Detailed screening of the allocations within the regeneration area at EC5.5 (Heysham Gateway) are assessed within Policy ~~SG15~~SG13 (see above), Detailed screening of the allocations within the regeneration area at EC5.4 (Luneside) are assessed within Policy DOS3, ~~DOS4~~DOS2 and ~~DOS5~~DOS3 (see below).	H	**No likely significant effect**
Policy EC6: University of Cumbria Campus, Lancaster	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development associated with The University of Cumbria. There are no likely potential effects on European sites associated with development at this site.	Detailed screening of The University of Cumbria (EC6) is provided in Table 13. The screening confirmed no LSE on the European sites considered in this assessment. The potential for LSE as a result of this policy can therefore be ruled out.	H	**No likely significant effect**
Policy EC7: Lancaster and Morecambe College	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development associated with Lancaster and Morecambe College. There are no likely potential effects on European sites associated with development at this site.	Detailed screening of Lancaster and Morecambe College (EC7) is provided in Table 12. The screening confirmed no LSE on the European sites considered in this assessment. The potential for LSE as a result of this policy can therefore be ruled out.	H	**No likely significant effect**

Strategic Policy	European site Potentially Affected	Potential Effect	Detailed Assessment	Screening Assessment Category	Conclusion
Chapter 19: Town Centres and Retail					
Policy TC1: The Retail Hierarchy for Lancaster District	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy details the urban development associated with Lancaster, Morecambe and Carnforth. The policy specifically sets out the requirements for allocations associated with Lancaster City Centre, Morecambe Town Centre, and Carnforth Town Centre. The Policy also includes the hierarchy for smaller urban local centres with Morecambe, Lancaster and Heysham as well as Rural Local Centres, however, no individual allocations are associated with these areas. In addition, the policy includes the new local centres at Bailrigg Garden Village, North Lancaster Strategic Allocation and East Lancaster Strategic Allocation. The policy itself does not provide for the development of these sites but provides criteria for the services to be provided and how they should relate to the existing centres in Lancaster. There are no likely potential effects on European sites associated with development in Lancaster City Centre and Carnforth Town Centre. Potential effects as a result of the three new local centres are discussed under other relevant policies and are not included here. Development associated with redevelopment of Morecambe Town Centre has the potential to impact European sites through disturbance to species as a result of construction activities/ operational stage (due to the proximity of the town to the Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC).	Detailed screening of the sites associated with this policy is provided in Table 12. (TC1.1, TC1.2, TC1.3, SG1, SG9 and SG7). Detailed screening of these sites confirmed no LSE on the European sites considered in this assessment. The potential for LSE as a result of this policy can therefore be ruled out.	H	**No likely significant effect**
Policy TC2: Town Centre Designations	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy sets out the future of retail growth within Lancaster City Centre, Carnforth Town Centre and Morecambe Town Centre. There are no likely potential effects on European sites associated with development in Lancaster City Centre and Carnforth Town Centre. Development associated with redevelopment of Morecambe Town Centre has the potential to impact European sites through disturbance to species as a result of construction activities/ operational stage (due to the proximity of the town to the Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC).	Detailed screening of the sites within Lancaster City Centre (TC1.1), and the town centres of Carnforth (TC1.3) and Morecambe (TC1.2) is provided in Table 12. The screening confirmed no LSE on the European sites considered in this assessment. The potential for LSE as a result of this policy can therefore be ruled out.	H	**No likely significant effect**
Policy TC3: Future Retail Growth	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy sets out the proposals for redevelopment of Lancaster's primary shopping areas. Bulky Goods Retail Growth is proposed at Sunnycliff Retail Park, Mellishaw Road (TC3.1). Expansion of the site has the potential to impact European sites through disturbance to species as a result of construction activities/ operational stage (due to the proximity of the site to land which could be functionally linked to the Morecambe and Duddon Estuary SPA). No potential impacts on European sites are anticipated as a result of retail development in Lancaster City Centre.	Detailed screening of the sites associated with this policy is provided in Tables 12 and 13. The screening of these sites confirmed no LSE on the European sites considered in this assessment. Detailed screening of TC3.1 identified the potential for in combination effects with other allocations within the Local Plan Part One. Further AA of these sites in relation to in combination effects is therefore required.	J	**No LSE for TC3.1 alone** **Further in combination assessment required for TC3.1**
Policy TC4: Central Morecambe	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy sets out the proposals for redevelopment within Central Morecambe. Development associated with redevelopment of Morecambe Town Centre has the potential to impact European sites through disturbance to species as a result of construction activities/ operational stage (due to the proximity of the town to the Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC).	Detailed screening of Morecambe Town Centre (TC1.2) is provided in Table 12. The screening confirmed no LSE on the European sites considered in this assessment. The potential for LSE as a result of this policy can therefore be ruled out.	H	**No likely significant effect**

Strategic Policy	European site Potentially Affected	Potential Effect	Detailed Assessment	Screening Assessment Category	Conclusion
Chapter 20: Housing					
Policy H1: Residential Development in Urban Areas	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy details the areas of new housing located in and around urban locations. The policy specifically sets out the requirements for sites associated with Policy H1. Development associated with new housing in these locations has the potential to impact European sites through recreational pressure, loss of habitat functionally linked to a European site, and disturbance to species as a result of construction activities/ operational stage.	Detailed screening of the sites associated with this policy (comprising SG1, SG7, SG9, SG11, ~~SG12,~~ H1.1 to H1.4~~7~~, H4, H3.1, H5, H6, ~~DOS3~~, ~~DOS4~~DOS2 and H3.2~~3~~) is provided in Tables 11 and 12. Detailed screening of sites SG9, SG11, ~~SG12~~, H1.1 to H1.4~~7~~, H4, H3.1, H3.2, H5, H6, ~~DOS3~~, ~~DOS4~~DOS2 and H3.2~~3~~ confirmed no LSE on the European sites considered in this assessment. Detailed screening of the allocations SG1 and SG7 identified the potential for LSE associated with any future development at these sites. Further AA of these is therefore required. Detailed screening of several of the housing allocations within this policy also identified the potential for in combination effects with other allocations within the Local Plan Part One. Further in combination assessment of these is therefore required.	H/I/J	**No LSE for SG9, SG11, ~~SG12,~~ H1.1 to H1.~~7~~4, H4, H3.1, H5, H6, ~~DOS3~~, ~~DOS4~~DOS2, H3.2 and H3.2~~3~~** **Further AA required for SG1 and SG7** **Further in combination assessment required**
Policy H2: Housing Development in Rural Areas of the District	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy details the areas of new housing located rural areas. The policy specifically sets out the requirements for sites associated with Policy H2. Development associated with new housing in these locations has the potential to impact European sites through recreational pressure, loss of habitat functionally linked to a European site, and disturbance to species as a result of construction activities/ operational stage.	Detailed screening of the sites associated with this policy (comprising H2.1 to ~~H2.12~~H2.10) is provided in Table12. Detailed screening of ~~DOS7~~DOS5 is provided in Table 11. Detailed screening of allocations H2.1 to ~~H2.12~~H2.10 confirmed no LSE on the European sites considered in this assessment. Detailed screening of Middleton Towers, Carr Lane (~~DOS7~~DOS5) identified the potential for LSE associated with any future development at these sites. Further AA of these is therefore required. Detailed screening of several of the housing allocations within this policy also identified the potential for in combination effects with other allocations within the Local Plan Part One. Further in combination assessment of these is therefore required.	H/I/J	**No LSE for H2.1 to ~~H2.12~~H2.10** **Further AA required for ~~DOS7~~DOS5** **Further in combination assessment required**
Policy H3: Local Heritage Led Housing	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development associated with Ridge Lea Hospital (H3.1), Land at Stone Row Head (H3.2) and Land at University of Cumbria (H3.2~~3~~). Development at this location has the potential to impact European sites through recreational pressure, and disturbance to species as a result of construction activities/ operational stage.	Detailed screening of Ridge Lea Hospital and Land at Stone Row Head (H3.1 and H3.2) is provided in Table 12 and Land at University of Cumbria (H3.2~~3~~) in Table 13. The screening confirmed no LSE on the European sites considered in this assessment. The potential for LSE as a result of this policy can therefore be ruled out.	H	**No likely significant effect**
Policy H4: Land at Grab Lane, East Lancaster	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development associated with Land at Grab Lane. Development at this location has the potential to impact European sites through increased recreational pressure, loss of habitat functionally linked to a European site, and disturbance to species as a result of construction activities/ operational stage.	Detailed screening of Land at Grab Lane (H4) is provided in Table 12. The screening confirmed no LSE on the European sites considered in this assessment alone, however, there is the potential for in combination effects with other allocations within the Local Plan Part One.	J	**Further in combination assessment required for H4**
Policy H5: Land at Lancaster Leisure Park and Auction Mart, East Lancaster	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development in the vicinity of Lancaster Leisure Park. Development at this location has the potential to impact European sites through increased recreational pressure, and disturbance to species as a result of construction activities/ operational stage.	Detailed screening of the sites (H5) associated with this policy is provided in Table 12. The screening confirmed no LSE on the European sites considered in this assessment alone, however, there is the potential for in combination effects with other allocations within the Local Plan Part One.	J	**Further in combination assessment required for H5**

Strategic Policy	European site Potentially Affected	Potential Effect	Detailed Assessment	Screening Assessment Category	Conclusion
Policy H6: ~~Royal Albert~~Land at Royal Albert Fields, Ashton Road, Lancaster	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development adjacent to the ~~Royal Albert~~Land at Royal Albert Hospital Site. Development at this location has the potential to impact European sites through increased recreational pressure, and disturbance to species as a result of construction activities/ operational stage.	Detailed screening of the sites (H6) associated with this site is provided in Table 12. The screening confirmed no LSE on the European sites considered in this assessment alone, however, there is the potential for in combination effects with other allocations within the Local Plan Part One.	J	**Further in combination assessment required for H6**
Chapter 21: Development Opportunity Sites					
Policy DOS1: Land at Bulk Road and Lawson's Quay, Central Lancaster	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development associated with Land at Bulk Road and Lawson's Quay, Lancaster. No potential impacts on European sites are anticipated as a result of retail development in an urban location.	Detailed screening of the Land at Bulk Road and Lawson's Quay (DOS1), Lancaster is provided in Table 12. The screening confirmed no LSE on the European sites considered in this assessment. The potential for LSE as a result of this policy can therefore be ruled out.	H	**No likely significant effect**
~~DOS2: Land at Moor Lane Mills, Central Lancaster~~	~~Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC~~	~~This policy outlines the potential development associated with Moor Lane Mills.~~ ~~Development at this location has the potential to impact European sites through increased recreational pressure a result of new residential development within 3.5 km of Morecambe Bay.~~	~~Detailed screening of the Land at Moor Lane Mills (DOS2) is provided in Table 13.~~ ~~The screening confirmed no LSE on the European sites considered in this assessment.~~ ~~The potential for LSE as a result of this policy can therefore be ruled out.~~	~~H~~	~~**No likely significant effect**~~
~~Policy DOS3: Luneside East, Lancaster~~	~~Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC~~	~~This policy outlines the potential development associated with Luneside east.~~ ~~Development at this location has the potential to impact European sites through increased recreational pressure, and disturbance to species as a result of construction activities/ operational stage.~~	~~Detailed screening of this site (DOS3) is provided in Table 12.~~ ~~The screening confirmed no LSE on the European sites considered in this assessment alone, however, there is the potential for in combination effects with other allocations within the Local Plan Part One.~~	~~J~~	~~**Further in combination assessment required for DOS3**~~
Policy ~~DOS4~~DOS2: Lune Industrial Estate, Luneside, Lancaster	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development associated with Lune Industrial Estate. Development at this location has the potential to impact European sites through increased recreational pressure, and disturbance to species as a result of construction activities/ operational stage.	Detailed screening of this site (~~DOS4~~DOS2) is provided in Table 12. The screening confirmed no LSE on the European sites considered in this assessment alone, however, there is the potential for in combination effects with other allocations within the Local Plan Part One.	J	**Further in combination assessment required for ~~DOS4~~DOS2**
Policy ~~DOS5~~DOS3: Land at Willow Lane, Lancaster	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential for recreation and open space improvements associated with the Willow Lane/ Coronation Field allocation site. Development at this location has the potential to impact European sites through disturbance to species as a result of construction activities/ operational stage.	Detailed screening of Willow Lane/ Coronation Field (~~DOS5~~DOS3) is provided in Table 12. The screening confirmed no LSE on the European sites considered in this assessment. The potential for LSE as a result of this policy can therefore be ruled out	H	**No likely significant effect**
Policy ~~DOS6~~DOS4: Galgate Mill, Galgate	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development associated with Galgate Mill. Development at this location has the potential to impact European sites through disturbance to species as a result of construction activities/ operational stage.	Detailed screening of Galgate Mill (~~DOS6~~DOS4) is provided in Table 12. The screening confirmed no LSE on the European sites considered in this assessment. The potential for LSE as a result of this policy can therefore be ruled out.	H	**No likely significant effect**
Policy ~~DOS7~~DOS5: Land at Middleton Towers, Middleton	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development associated with Middleton Towers (~~DOS7~~DOS5). Development at this location has the potential to impact European sites through increased recreational pressure, loss of habitat functionally linked to a European site, and disturbance to species as a result of construction activities/ operational stage.	Detailed screening of Middleton Towers (~~DOS7~~DOS5) is provided in Table 11. The screening of this allocation has identified the potential for LSE associated with any future development at this site. Further AA of this site is therefore required.	I	**Further AA required for ~~DOS7~~DOS5**

Strategic Policy	European site Potentially Affected	Potential Effect	Detailed Assessment	Screening Assessment Category	Conclusion
Policy ~~DOS8~~DOS6: Morecambe Festival Market and Surrounding Area	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential redevelopment associated with Morecambe Festival Market and Surroundings. Development associated with redevelopment of Morecambe Town Centre has the potential to impact European sites through disturbance to species as a result of construction activities/ operational stage (due to the proximity of the town to the Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC).	Detailed screening of Morecambe Festival Market and Surroundings (~~DOS8~~DOS6) is provided in Table 12. The screening confirmed no LSE on the European sites considered in this assessment. The potential for LSE as a result of this policy can therefore be ruled out.	H	**No likely significant effect**
Policy ~~DOS9~~DOS7: Land at Former TDG Depot, Warton Road, Carnforth	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development associated with the Former TDG Site, Warton Road. No potential impacts on European sites are anticipated as a result of this redevelopment site in an urban location.	Detailed screening of Former TDG Site, Warton Road (~~DOS9~~DOS7) is provided in Table 12. The screening confirmed no LSE on the European sites considered in this assessment alone, however, there is the potential for in combination effects with other allocations within the Local Plan Part ~~The screening confirmed no LSE on the European sites considered in this assessment.~~ ~~The potential for LSE as a result of this policy can therefore be ruled out~~	J~~H~~	~~**No likely significant effect**~~ **Further in combination assessment required for DOS7**
Policy ~~DOS10~~DOS8: Former Thomas Graveson Site, Warton Road, Carnforth	Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC	This policy outlines the potential development associated with the Former Thomas Graveson Site, Warton Road. No potential impacts on European sites are anticipated as a result of this redevelopment site in an urban location.	Detailed screening of Former Thomas Graveson Site, Warton Road (~~DOS10~~DOS8) is provided in Table 12. The screening confirmed no LSE on the European sites considered in this assessment. The potential for LSE as a result of this policy can therefore be ruled out ~~The screening confirmed no LSE on the European sites considered in this assessment alone, however, there is the potential for in combination effects with other allocations within the Local Plan Part One~~.	H~~J~~	~~**Further in combination assessment required for DOS10**~~ **No likely significant effect**

6.4 Detailed Screening of the Local Plan Part One Sites

6.4.1 The Local Plan Part One sites were examined in detail to determine the need for further assessment (Tables 11 and 12, below). Additional sites were proposed in Autumn 2017 and these have also been screened for potential effects (Table 13, below). As outlined within Section 2, the detailed screening of the sites also takes into consideration consultation with NE. Additional ecological information has been obtained to provide a more robust assessment. Further details of how the ecological information has been interpreted is presented below.

6.4.2 Following the review of the potential impacts, and the additional information available to inform the assessment, a conclusion has been drawn as to whether any of the individual sites could have a potentially significant impact upon European sites either alone or in combination.

Ecological Information

6.4.3 The detailed screening takes into consideration consultation with NE (refer to Section 2.2). As advised by NE, additional ecological information has been obtained to provide a more robust assessment.

6.4.4 The following data sources have been considered during the detailed screening exercise:

- Lancaster Bird Club Records.
- NE pink-footed goose distribution squares and NE goose and swan functionally linked land Impact Risk Zone (IRZ) buffer (refer to Figure 2).
- WeBS data.
- Lancaster Records Centre.
- Morecambe Bay Wader Roost Study.
- Desk top and site surveys undertaken by Greater Manchester Ecology Unit (GMEU).

6.4.5 Each of these data sources is described in further detail below.

Lancaster Bird Club Records (Geographic Information System (GIS) Data)

6.4.6 Lancaster Bird Club provided records from the winter and breeding bird atlas between 2008 to 2011 (the most recent information available), as well as pink-footed goose (*Anser brachyrhynchus*), whooper swan (*Cygnus Cygnus*) and Bewick's swan (*Cygnus columbianus*) records from 1998 to 2015. The records included a combination of monad data (i.e. records within a 1x1 grid square) and tetrad data (i.e. records within a 2x2km grid square).

6.4.7 All of the records were plotted onto GIS by the Ordnance Survey (OS) grid reference, or by the tetrad/monad location. Where records related to a tetrad/monad, further interrogation of the data was carried out, as required, to determine if additional location information was available. The grid squares supporting goose and swan monad data are shown on Figure 2.

NE pink-footed goose distribution squares and swan and goose functionally linked land IRZ buffer (GIS Data)[25]

6.4.8 A five-point scale has been devised by NE to reflect the relative abundance of geese recorded in a 1km square, called the 'Goose Index'. The 'Goose Index' covers a large proportion of the north-east around Morecambe Bay, including Lancaster. Each square, where geese have been recorded feeding, has been weighted according to how many times they have been recorded, as well as how many birds were counted. Figure 2 shows the 'Goose Index' squares in the vicinity of the allocation sites.

6.4.9 NE have also produced a goose and swan functional land Impact Risk Zone (IRZ)[26]. The buffer identifies areas across England which are known to support wintering populations of geese and swans. The agricultural land within Lancaster District which lies within the IRZ is considered likely to provide

[25] Pink-footed geese, Morecambe Bay. A draft map showing the distribution of feeding pink-footed geese produced by Natural England (2015).
26 SSSI IRZs Full Dataset – External, available through the Natural England Huddle Workspace.

suitable habitat for foraging SPA birds associated with the adjacent Morecambe Bay and Duddon Estuary SPA and Morecambe Bay Ramsar site. The IRZ is also shown on Figure 2, as red hatching.

Wetland Bird Survey (WeBS) data

6.4.10 The location of WeBS core count areas was reviewed against the land allocation sites (the WeBS count zones are shown on Figure 3). The majority of core count areas did not have recent survey data (i.e. had not been counted in the last five years). These included the following:

- Lancaster Canal - Penny St. Bridge to Brantbeck Bridge (57315). Last counted 1993-1994 to 1997-1998.
- Site location Westgate Pond Morecambe (57085). Last counted 1989-1990 to 1999-2000.
- River Lune - Lancaster (Railway Bridge to Aqueduct) (57359). Last counted 1985-1986 to 1994-1995.
- Site location Lancaster Canal - Penny St. Bridge to Brantbeck Bridge (57315). Last counted 1993-1994 to 1997-1998.
- Heysham Pool (57032). Last counted 1967-1968 to 1976-1977.
- ICI Pool (57076). Last counted 1996-1997 to 1997-1998.
- Middleton Industrial Estate (57070). Last counted 2002-2003 to 2007-2008.
- Lancaster Canal - Capernwray to Carnforth (57311). Last counted 1993-1994 to 1997-1998.
- Lancaster Canal - Galgate to Forton Hall Bridge (57317). Last counted 1993-1994 to 1994-1995.
- Westgate Pond Morecambe (57085). Last counted 1989-1990 to 1999-2000.
- Langthwaite Reservoir (57196). Last counted 1990-1991 to 2008-2009.
- River Lune - Lancaster (Railway Bridge to Aqueduct) (57359). Last counted 1985-1986 to 1994-1995.
- Lancaster Canal - Bolton-le-Sands to Hest Bank (57313). Counted 1993-1994.
- Glasson Dock (57345). Counted 2009-2013

6.4.11 Data from the above count zones have not been requested given the historical nature of the data.

6.4.12 There are four core count zones (listed below) which have been counted recently.

- Lune - Lancaster (Skerton Weir) to Halton (Crook of Lune) (57360), year summary (1960-1961 to 2016-2017)
- Blea Tarn Reservoir (57194). Counted 1990-1991 to 2016-2017.
- River Lune - Hornby and Wenning Foot to Arkholme (57363). Counted 1966-1967 to 2016-2017.
- Glasson Marsh (Morecambe Bay) (57918). Counted 1993-2015

6.4.13 Given that the data obtained from Lancaster Bird Club coincided with these three WeBS core count zones, it was not deemed necessary to obtain any additional WeBS data at this stage of the assessment. Sufficient information could be determined from the Lancaster Bird Club data such that obtaining the WeBS data would not change or add to the conclusions of the detailed screening assessment.

Local Records Centre

6.4.14 The Lancashire Environmental Record Network (LERN) confirmed that the bird data for the County was held by the Local Bird Clubs. Therefore, no additional bird records to those already provided by Lancaster Bird Club could be provided by LERN.

Morecambe Bay Wader Roost Study[27]

6.4.15 The Morecambe Bay Wader Roost Study identifies and describes important wader roost sites around Morecambe Bay. The Study has been reviewed in relation to the locations of the land allocation sites.

[27] Marsh, Roberts, (2012) Morecambe Bay Wader Roost Study Heritage Lottery funding.

There are five roost sites in the vicinity of land allocations (as shown on Figure 3). These comprise the following:

- **Red Nab wader roost**: This roost is located south of Heysham. The roost is important for 15 of the 19 Morecambe Bay and Duddon Estuary SPA qualifying/assemblage species which regularly use the site. It is especially important for oystercatcher and knot which are present in nationally and internationally important numbers (respectively) during the winter.
- **Heliport wader roost**: This roost is located adjacent to Heysham. The Wader Roost Study identified that the roost site has declined in recent years due to lack of management of access to the site (leading to an increase in disturbance, in particular from dog walkers). However, the roost is still important for knot and oystercatcher, which are present in Internationally and Nationally important numbers.
- **Sunnyslopes Breakwater**: This roost is located adjacent to Heysham-head and Morecambe. This site is usually the most important of the Morecambe Breakwaters for roosting birds. The site supports knot and oystercatcher in nationally important numbers during the winter. The roost is also important for the Morecambe Bay and Duddon Estuary SPA species redshank and ringed plover.
- **Town Hall Breakwater**: This site is located adjacent to Morecambe. The site does not support any Morecambe Bay and Duddon Estuary SPA species in nationally or internationally important numbers, however, the roost supports a variety of waders, including 11 of 19 Morecambe Bay and Duddon Estuary SPA qualifying/assemblage species which regularly use the site.
- **Bubbles Breakwater**: This site is located adjacent to Morecambe. As with Town Hall Breakwater, this roost does not support any Morecambe Bay and Duddon Estuary SPA species in nationally or internationally important numbers, however, the species composition is very similar to Town Hall Breakwater, with the addition of non-target SPA species, such as red-breasted merganser and great-crested grebe.

GMEU surveys

6.4.16 Two Reports have been produced by GMEU for Lancaster City Council in relation to the Local Plan Part One allocation sites, as detailed below.

Desk top study and wintering bird surveys

6.4.17 Greater Manchester Ecology Unit (GMEU)[28] were commissioned by Lancaster City Council to carry out a desk-based assessment (and further bird surveys, if required) of the potential allocation sites to determine whether any of the allocations could be of potential importance to overwintering birds associated with Morecambe and Duddon Estuary SPA/Morecambe Bay Ramsar site.

6.4.18 Each allocation site was graded on a 5-point scale, 1 being very low potential and 5 being very high potential for supporting SPA species. Where allocation sites were considered to have the potential to support SPA species, wintering bird surveys were carried out. Twenty-seven sites were surveyed in total. The surveys were undertaken in the period January to April 2017. Each of the twenty-seven sites was subject to at least six hours survey effort (generally more). Following the surveys, the sites were re-graded for their potential to support SPA species. The results of the further surveys did not identify any of the allocation sites surveyed as being located on functionally linked land.

Preliminary ecological appraisals

6.4.19 GMEU were also commissioned by Lancaster City Council to carry out further Extended Phase One surveys[29] of allocations sites. The surveys were carried out on those sites which had identified at the initial desk-based assessment stage as requiring extra surveys.

[28] GMEU Wintering Bird Surveys Of Sites In Lancaster City Under Consideration For Potential Future Development (March 2017)
[29] GMEU Preliminary Ecological Appraisals. Sites being considered for allocation for future development within the Lancaster District Local Plan (August, 2017)

Incorporation into detailed HRA screening

6.4.20 The results of the GMEU surveys have been incorporated into Tables 11 to 13 of the detailed screening, and the Appropriate Assessment (Section 10), where relevant. Due to the timings of the GMEU surveys, an earlier iteration of the allocation reference numbering system was used by GMEU within their two reports. In order to aid interpretation, a 'Site Reference Map Book'[30] has been devised by Lancaster City Council to cross refer the current referencing system (used in the Local Plan Part One and this HRA Report document), and the earlier iteration used by GMEU.

Interpretation of ecological information

6.4.21 The detailed screening is presented in Tables 11 to 13. The format of these tables was agreed in consultation with NE (February 2017), refer to Section 2.2. The tables comprise: details of the European sites potentially affected; the type of development (including a site description); details of the bird data review (including a summary of the relevant Lancaster Bird Club information, whether the site is within a pink-footed goose square, and a detailed description of whether the site constitutes functionally linked land); the Assessment Category (based on Table 3); whether the site is hydrologically linked to Morecambe Bay; potential impacts; and finally whether the site is likely to have a significant effect either alone or in combination.

6.4.22 To aid interpretation, the four bird data review columns are colour-coded amber or green. Where the column is green, detailed interpretation of the bird data has concluded no potential impact has been identified (and a justification for this provided, where appropriate). Where the column is amber, a potential impact has been highlighted, and the potential impact associated with that information is presented in the 'potential impacts' column. The column indicating the distance of the European site from the allocation is also colour coded green or amber. Where the column Is green, this shows that the allocation site is more than 3.5 km from a European site and potential impacts associated with recreational pressure are considered less likely. Where the column is amber, the site is within 3.5 km of a European site and a potential impact in relation to recreational pressure is considered more likely.

6.4.23 In relation to potential hydrological links, a distance of 500 m from Morecambe Bay has been used as a distance over which it would be reasonable to expect water quality effects to occur. Beyond 500 m the dilution effect would be such that significant effects on the European site are considered unlikely. This distance is based on best practice guidance set out within Webtag[31] and the Design Manual for Roads and Bridges (DMRB)[32].

6.4.24 Following the consultation meeting with NE on 4th April 2017, a definition of land (including green fields, wetland habitat and brown field sites) which could be used by qualifying species associated with European sites, but was not considered to be FLL, was agreed as follows:

'*the site could be used by SPA birds but not regularly and not in significant numbers, so it is not considered to be FLL.*'

6.4.25 Due to the large number of records, and the nature of the data, the bird data has not been provided as Figures/Maps within this Report. The data comprises a combination of monad and tetrad data, which has been uploaded into a searchable GIS format, of which the secondary information associated with the records is not easily reproducible in paper format. However, all relevant bird records to inform the assessment has been included within Tables 11 to 13. Pink-footed goose Monad data has been mapped on Figure 2; however, this only provides an indication of where the records are in relation to the functionally linked land buffer, rather than records themselves.

[30] LCC (2018) Site Reference Map Book
[31] https://www.gov.uk/guidance/transport-analysis-guidance-webtag#software-tools
[32] http://www.standardsforhighways.co.uk/ha/standards/dmrb/

Table 11: Detailed screening of policies/allocation sites scoped in for further Appropriate Assessment (Allocations are shown on Figure 4)

				Bird Data										
Local Plan Sites	Distance to Morecambe Bay and Duddon Estuary SPA & Morecambe Bay SAC/Ramsar site	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU wintering bird survey data (where allocations have been surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
Policy SG1: Lancaster South Broad Location for Growth – including Bailrigg Garden Village ~~Bailrigg Garden Village~~													
Lancaster South Broad Location for Growth – including Bailrigg Garden Village ~~Bailrigg Garden Village~~ (Policy SG1)	1km	Large greenfield development to the south of Lancaster, incorporating Lancaster University. The broad allocation includes open farmland, Several watercourses within the area. Greenfield site to the south of Scotforth, with Bailrigg Lane to the south, the M6 to the east and the A6 to the west.	Residential and employment 159.6 ha	The site lies within four tetrads with bird data and two monads with PFG/ Bewick's swan/ whooper swan data. The tetrad covering the northwest of the site includes single records of black-headed gull (17 birds), moorhen (12 birds) and mallard (11 birds). The following species were also recorded in numbers less than 10 within the tetrad: common gull, curlew, grey heron, herring gull, lapwing, Mediterranean gull, oystercatcher, shelduck and snipe. The tetrad covering the southwest has a single record of black-headed gull (110 birds), common gull (170 birds) and lapwing (150 birds), all other waterfowl species (coot, gadwall, golden plover, grey heron, little egret, mallard, moorhen, mute swan, oystercatcher, teal and woodcock) were recorded in abundance lower than 10 individuals. The tetrad to the north east comprises records of black-headed gull (500 birds), common gull (331 birds), lapwing (50 birds), lesser black-backed gull (30 birds), Mallard (65 birds), oystercatcher (500 birds) and redshank (300 birds). The tetrad covering the southeast includes single records of: black-headed gull (30 birds) and the following species were also recorded within the tetrad in numbers less than 10: lapwing, lesser black-backed gull, coot, curlew, mute swan, oystercatcher, mallard, grey heron, woodcock, snipe, herring gull and moorhen. T The monad records included one record of PFG in flight (500 birds) over the University with the record other comprising two Whooper swan which recorded in the area to the east of the M6. Although it is possible that a proportion of these records relate to the site, they are more likely related to the Lune Estuary and adjacent fields to the west of the allocation or Blea Tarn Reservoir and Langthwaite Reservoir, which are both within the tetrad to the northwest. GMEU wintering bird surveys were undertaken within the allocation. The survey identified 2 records of herring gull (peak count 3 birds) within the site and one record of two oystercatcher flying	Only the very northern tip of the allocation (<5%) is within the IRZ buffer	N	This is a large strategic site, parts of which comprise large grassland fields with the A588 forming the boundary to the west, the M6 and A6 running north to south through the centre of the site with the site extending up to 1 km to the east of the M6. Given the number of bird records which have been observed within the associated tetrads (a proportion of which could be related to the site), the large size of the site, and its proximity to Morecambe Bay and Duddon Estuary SPA/Ramsar site (1km away), the site and surrounding fields are considered to have the potential constitute FLL. GMEU gave an overall evaluation score of 2 for the allocation, suggesting the site has low potential for supporting large numbers of SPA species.	N	I	**Loss of FLL associated with the Morecambe Bay and Duddon Estuary SPA/Ramsar site** Development at this site could lead to loss of FLL associated with the nearby Morecambe Bay and Duddon Estuary SPA/Ramsar site. **Disturbance to birds using adjacent land which could be functionally linked to the Morecambe Bay and Duddon Estuary SPA/Ramsar site** Development at this site has the potential to disturb birds using adjacent land which could be functionally linked to the Morecambe Bay and Duddon Estuary SPA/Ramsar site. **Recreational disturbance in relation to use of FLL** There is the potential for increased disturbance to species through increased recreational pressure as a result of increased use of public footpaths (in particular by dog walkers) close to FLL in the vicinity of the site. Although there is the potential for increased recreational pressure on Blea Tarn Reservoir and Langthwaite Reservoir which are approximately 100m and 600m from the north-eastern edge of the site (respectively), neither of these sites are open to the public, and there are no footpaths around the reservoirs, so access would be restricted. **Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new development within 3.5 km of the European site.	Y	Y	Further AA and in combination assessment required

				Bird Data										
Local Plan Sites	Distance to Morecambe Bay and Duddon Estuary SPA & Morecambe Bay SAC/Ramsar site	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU wintering bird survey data (where allocations have been surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
				over. No other SPA species were recorded within the allocation.									
Policy H1: Residential Development in Urban Areas													
East Lancaster Strategic Site ~~(Cuckoo Farm and Ridge Farm)~~ Policy: SG7	3.2km	Large greenfield development to the north east of Lancaster. Several watercourses within the area.	Residential 1142ha	This site lies within a tetrad containing bird data. The records comprise individual records of: black-headed gull (240 birds), lapwing (75 birds), common gull (55 birds), mallard (45 birds), cormorant (42 birds), teal (42 birds), goosander (30 birds), goldeneye (25 birds), grey heron (19 birds), moorhen (19 birds), little grebe (17 birds), herring gull (12 birds), mute swan (10 birds) and redshank (10 birds). The following species were also recorded in numbers less than 10 within the tetrad: oystercatcher, tufted duck, dunlin, great black-backed gull, lesser black-backed gull, snipe, wigeon, common sandpiper, coot, curlew, green sandpiper, little egret, Mediterranean gull, pochard, red-breasted merganser, shelduck, shoveler and woodcock. Although it is possible that a proportion of these records relate to the site, the River Lune forms part of the tetrad and it is likely that the majority of these species were recorded along the River, in particular the duck species. GMEU wintering bird surveys were undertaken within the allocation. The survey identified 9 records of lapwing (peak count 34), 3 records of oystercatcher (peak count 3), 1 record of herring gull and curlew (peak count 2) and 1 record of black-headed gull (peak count 1) within the site. No other SPA species were recorded within the allocation.	N	N	The site comprises large green fields. Given the number of bird records which have been observed within the tetrad (a proportion of which could be related to the site), the large size of the site, and its proximity to Morecambe Bay and Duddon Estuary SPA/Ramsar site (2km away), the site and fields to the east are considered to constitute FLL (although the fields to the east are separated from the site by the M6 and therefore less likely to be affected by development at Cuckoo Farm and Ridge Farm). Fields to the south of the allocation, the western fields are playing fields connected to the school, the eastern fields are sloped and bordered by woodland and trees, reducing sightlines and their suitability. Significant disturbance to birds utilising land to the south of the allocation is considered unlikely.	N	I	**Loss of FLL associated with the Morecambe Bay and Duddon Estuary SPA/Ramsar site** Development at this site could lead to loss of FLL associated with the nearby Morecambe Bay and Duddon Estuary SPA/Ramsar site. **Disturbance to birds using adjacent land which could be functionally linked to the Morecambe Bay and Duddon Estuary SPA/Ramsar site** Development at this site has the potential to disturb birds using adjacent land which could be functionally linked to the Morecambe Bay and Duddon Estuary SPA/Ramsar site. **Recreational disturbance in relation to use of FLL** There is the potential for increased disturbance to species through increased recreational pressure as a result of increased use of public footpaths (in particular by dog walkers) close to FLL and the River Lune in the vicinity of the site. **Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new development within 3.5 km of the European site.	Y	Y	Further AA and in combination assessment required

				Bird Data										
Local Plan Sites	Distance to Morecambe Bay and Duddon Estuary SPA & Morecambe Bay SAC/Ramsar site	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU wintering bird survey data (where allocations have been surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
Middleton Towers, Carr Lane Policy ~~DOS7~~DOS5	Adjacent	South west of Middleton, former Pontins site for redevelopment. Part of the site is already development with a proportion of the site includes rough grassland.	Residential, employment and tourism Area not specified	This site is within a tetrad containing bird data and a monad with PFG/ Bewick's swan/ whooper swan data. The records comprise individual records of: knot (1,355 birds), oystercatcher (916 birds), redshank (167 birds), black-headed gull (147 birds), shelduck (97 birds), wigeon (57 birds), ringed plover (53 birds), curlew (43 birds), bar-tailed godwit (21 birds), dunlin (17 birds), lapwing (12 birds), grey plover (10 birds). The following species were also recorded in the tetrad in numbers less than 10 individuals: coot, herring gull, tufted duck, turnstone, mallard, red-breasted merganser, common sandpiper, eider, gadwall, little ringed plover, ringed plover, shoveler, common gull, great black-backed gull, lesser black-backed gull, little egret, little gull, mute swan, cormorant, jack snipe, snipe, teal, goldeneye, kittiwake, little grebe, Mediterranean gull, moorhen, pochard, water rail, woodcock, whimbrel and grey heron. The monad records included two records of PFG, flying toward Heysham Moss (5,000 and 5,700 birds). Although it is possible that a proportion of these records could relate to the site, it is more likely that they are associated with the nearby Red Nab wader roost and the adjacent coastline. GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.	N	Approx. 700m away	The site is partially a redevelopment of the former Pontins site, therefore the areas within the allocation supporting existing buildings and hardstanding would not constitute FLL. The coast to the west of the allocation could be used by SPA/Ramsar site species.	Y	I	**Loss of FLL associated with the Morecambe Bay and Duddon Estuary SPA/Ramsar site** Development at this site could lead to loss of a small area of FLL associated with Morecambe Bay and Duddon Estuary SPA/Ramsar site. **Disturbance to birds using adjacent land which could be functionally linked to the Morecambe Bay and Duddon Estuary SPA/Ramsar site** Development at this site has the potential to disturb birds using adjacent land which could be functionally linked to the Morecambe Bay and Duddon Estuary SPA/Ramsar site. **Recreational disturbance in relation to use of FLL** There is the potential for increased disturbance through increased recreational pressure as a result of increased use of public footpaths (in particular by dog walkers) close to FLL, and given its close proximity to the coast, potential to cause disturbance to the Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC itself. **Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new development within 3.5 km of the European site. **Hydrological link** Given the proximity of the allocation to Morecambe Bay, there is the potential for water quality effects associated with new development at this site	Y	Y	Further AA and in combination assessment required
Policy EC1 Established Employment Areas														
Port of Heysham Industrial Estate Policy: EC1.6	Adjacent	Redevelopment of old port site on the edge of the Estuary.	Employment 12.48 ha	This site is within a tetrad containing bird data. The records comprise individual records of: knot (6,000), oystercatcher (5,100 birds), redshank (938 birds), black-headed gull (112 birds), dunlin (103 birds), curlew (68 birds), ringed plover (26 birds), turnstone (25 birds), common gull (20 birds), lapwing (15 birds), herring gull (12 birds). The following species were also recorded in the tetrad in numbers less than 10 individuals: cormorant, lesser black-backed gull, red-breasted merganser, shelduck, bar-tailed godwit, eider, great crested grebe, grey heron, mute swan, goldeneye,	N	Adjacent to Heliport wader roost	The footprint of the site consists of existing industrial units that do not constitute FLL. To the south, east and west is a large port development, and other industrial areas which would also not constitute FLL. The site is close to the coast to the north and this habitat would be within the Morecambe Bay and Duddon Estuary SPA/Ramsar site.	Y	I	**Disturbance to birds within adjacent Morecambe Bay and Duddon Estuary SPA/Ramsar site** Development at this site has the potential to disturb birds using adjacent coastal habitat, in particular birds associated with the Heliport wader roost site (which is within the Morecambe Bay and Duddon Estuary SPA/Ramsar site). **Recreational pressure in relation to Morecambe Bay** Whilst disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a	Y	Y	Further AA and in combination assessment required

				Bird Data										
Local Plan Sites	Distance to Morecambe Bay and Duddon Estuary SPA & Morecambe Bay SAC/Ramsar site	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU wintering bird survey data (where allocations have been surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
				Mediterranean gull, great black-backed gull, kittiwake, moorhen, water rail, woodcock, grey plover and mallard. Given that this site is a redevelopment, it is unlikely these records relate to the site itself, it is more likely that they are associated with the adjacent Heliport wader roost and the adjacent coastline. GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.						result of employment sites within 1.5 km of the European site, given that the allocation is the redevelopment of an existing employment site, no additional recreational pressure above those already experienced would be anticipated. **Hydrological link** Given the proximity of the allocation to Morecambe Bay, there is the potential for water quality effects associated with new development at this site.			
Lancaster West Business Park Policy: EC1.10	1km	Partial Brownfield site to the south of Higher Heysham, south of the A683. Watercourses within the site and to the east.	Employment 32.14 ha	This site is located within a tetrad containing the following bird data: black-headed gull (500), herring gull (14) and the following species recorded in numbers <10: teal, coot, lesser black-backed gull, mallard, moorhen, shelduck, grey heron, little egret, golden plover, lapwing, oystercatcher, redshank and snipe. Desk study information gathered by GEMU indicated that further bird surveys were not required at this site GMEU surveys were therefore not undertaken within the allocation.	The northern edge is within a level 3 PFG square with the remainder of the site within the FLL buffer	N	The site is predominately grassland with water courses and few hedgerows, this provided good sightlines for SPA/ Ramsar species, despite the limited number of bird records and the likely low potential of the site to support SPA species as detailed by GMEU, it is not considered possible to rule out the possibility that the site could constitute FLL. Heysham Moss, to the north of the allocation beyond the A683 is considered constitute FLL.	N	I	**Loss of FLL associated with the Morecambe Bay and Duddon Estuary SPA/Ramsar site** Development at this site could lead to loss of potentially FLL associated with Morecambe Bay and Duddon Estuary SPA/Ramsar site. **Disturbance to birds using adjacent land which could be functionally linked to the Morecambe Bay and Duddon Estuary SPA/Ramsar site** Development at this site has the potential to disturb birds using adjacent land which could be functionally linked to the Morecambe Bay and Duddon Estuary SPA/Ramsar site. **Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new/extended employment sites within 1.5 km of the European site	Y	Y	Further AA and in combination assessment required
Rural Employment sites													
Glasson Industrial Area Policy: ~~EC1.18~~EC1.17	Adjacent	Redevelopment of an areas in Glasson, next to the Estuary.	Employment 5.4ha	This site is within a tetrad containing bird data and a monad with PFG/ Bewick's swan/ whooper swan data. and a monad with PFG/ Bewick's swan/ whooper swan data. The records from the tetrad comprise individual records of: knot (12,000 birds), lapwing (7,500 birds), golden plover (4,500 birds), wigeon (3,000 birds), bar-tailed godwit (2,500 birds), black headed gull (2,000 birds), dunlin (1,000 birds), redshank (700 birds), Common gull (400), black -tailed godwit (300 birds), shelduck (300 birds), mallard (280 birds), mute swan (272 birds), curlew (250 birds), goldeneye (235 birds), tufted duck (birds 210 birds), teal (200 birds), coot (125 birds), greylag goose(85), lesser black backed gull (60 birds), grey plover (40 birds), little egret (35 birds), great black-backed gull (33), cormorant (30 birds), oystercatcher (25 birds), Canada goose (23	FLL buffer	N	The footprint of the site consists of existing industrial units that do not constitute FLL. To the west and south there is also existing development which would not constitute FLL. Estuarine habitat is present to the north and west is of the site. This habitat falls within the Morecambe Bay and Duddon Estuary SPA/Ramsar site and is therefore not FLL.	Y	I	**Disturbance to birds within Morecambe Bay and Duddon Estuary SPA/Ramsar site** Development at this site has the potential to disturb birds using adjacent coastal habitat. **Recreational pressure in relation to Morecambe Bay** Whilst disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of employment sites within 1.5 km of the European site, given that the allocation is the redevelopment of an existing employment site, no additional recreational pressure above those already experienced would be anticipated. **Hydrological link**	Y	Y	Further AA and in combination assessment required

				Bird Data										
Local Plan Sites	Distance to Morecambe Bay and Duddon Estuary SPA & Morecambe Bay SAC/Ramsar site	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU wintering bird survey data (where allocations have been surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
				birds), whooper swan (18 birds), red-breasted merganser (17 birds), Bewick's swan (14 birds), pochard (14 birds) and goosander (11 birds). The following species were also recorded in the tetrad in numbers less than 10 individuals: avocet, arctic tern, garganey, green sandpiper, ruff, ringed plover, herring gull, grey heron, snipe, little grebe, moorhen, great-crested grebe, scaup, shoveler, turnstone, greenshank, spotted redshank, common sandpiper, eider, gadwall, glossy ibis, green-winged teal, hen harrier, kittiwake, Mediterranean gull, merlin, pintail, ringed plover, woodcock, whimbrel and yellow-legged gull. The monad records included: 68 records of Bewick's swan for Glasson (with a peak count of 21 birds), 24 records of PFG from Glasson (with a peak count of 2,500 birds) and 39 records of whooper swan in Glasson (with a peak count of 150 birds). Given that this site is a redevelopment, it is unlikely these records relate to the site itself, they are likely to be associated with the adjacent coastline. GMEU wintering bird surveys were not undertaken within the allocation given the presence of existing development.						Given the proximity of the allocation to Morecambe Bay, there is the potential for water quality effects associated with new development at this site.			
South Heysham													
Substation land Policy: N/A Site ref: ~~SG15~~SG13.1	2km	Triangular area of land between the A683 to the south, railway line to the west and Heysham Moss, to the east.	Energy 16.56 ha	The site lies within a tetrad containing bird data and a monad with PFG/ Bewick's swan/ whooper swan data. The tetrad included single records of: black-headed gull, PFG (4,000), lapwing (800 birds), curlew (110 birds), snipe (30 birds), and the following species were recorded within the tetrad in numbers less than 10: moorhen, coot, grey heron, mute swan, redshank, golden plover, little egret and shelduck. The monad records included nine PFG records for Heysham Moss, with a peak count of 5,150 birds. Although a proportion of the records within the tetrads could fall within this allocation. The majority of the records are likely to be associated with Heysham Moss to the east which is also within the tetrad.	Level 3 and FLL buffer	N	The south-eastern part of the site comprises hardstanding and existing farm/industrial buildings. Natural habitats within the rest of the allocation comprise rough grassland and scrub with scattered trees. Given the presence of hardstanding and existing development, the site itself is not considered to constitute FLL. Heysham Moss, to the east, provides suitable foraging habitat for SPA birds and is considered likely to constitute FLL.	N	I	**Disturbance to birds using adjacent land which could be functionally linked to the Morecambe Bay and Duddon Estuary SPA/Ramsar site** Development at this site has the potential to disturb birds using adjacent land which could be functionally linked to the Morecambe Bay and Duddon Estuary SPA/Ramsar site.	Y	Y	Further AA and in combination assessment required

				Bird Data										
Local Plan Sites	Distance to Morecambe Bay and Duddon Estuary SPA & Morecambe Bay SAC/Ramsar site	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU wintering bird survey data (where allocations have been surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
Port of Heysham ~~Expansion~~ Policy: ~~SG14~~SG12.1	Adjacent	Redevelopment of the port site on the edge of the Estuary	Employment 33.6 ha	This site is located within a tetrad with bird data. The bird records described for Port of Heysham Industrial Estate (Policy: EC1, EC2, Site ref: EC1.6) are also relevant to this site (and therefore will not be repeated again here). Due to the proximity of the site to the coast, it is likely that a proportion of the records within the tetrads fall with and/or adjacent to this allocation. GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development within the allocation.	N	Heliport wader roost and Red Nab wader roost.	The footprint of the site is an existing operational port which would not constitute FLL. To the south, east and west is a large port development, and other industrial areas which would also not constitute FLL. The adjacent estuarine habitat lies within the Morecambe Bay and Duddon Estuary SPA/Ramsar site.	Y	I	**Disturbance to birds using adjacent estuarine habitat within Morecambe Bay and Duddon Estuary SPA/Ramsar site** Development at this site has the potential to disturb birds using adjacent estuarine habitat, including Heliport wader roost and Red Nab wader roost. **Recreational pressure in relation to Morecambe Bay** Whilst there is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of employment sites within 1.5 km of the European site, given that the allocation is the redevelopment of an existing employment site, no additional recreational pressure above those already experienced would be anticipated. **Hydrological link** Given the proximity of the allocation to Morecambe Bay, there is the potential for water quality effects associated with new development at this site.	Y	Y	Further AA and in combination assessment required

Table 12: Detailed screening of policies/allocation sites scoped out for further Appropriate Assessment alone (28 allocation sites screened in for further in combination assessment)

				Bird Data									
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
Policy H1: Residential Development in Urban Areas													
North Lancaster Strategic Site (SG9)	2km	Greenfield site on the northern edge of Lancaster, south of new Bay Gateway (M6 link road).	Residential and employment 66.8475.6 ha	The south and south-western edge of the allocation is within a tetrad containing bird data. The records comprise individual records of: black-headed gull (240 birds), herring gull (64 birds), mallard (64 birds), common gull (48 birds), lapwing (46 birds), curlew (20 birds), mute swan (20 birds), redshank (19 birds), lesser black-backed gull (17 birds), moorhen (14 birds), cormorant (11 birds), goosander (11 birds) and oystercatcher (11 birds). The following species were also recorded in the tetrad in numbers less than 10 individuals: little grebe, goldeneye, teal, black-tailed godwit, lesser black-backed gull, common sandpiper, great black-backed gull, Mediterranean gull, shelduck, snipe, water rail, woodcock, mute swan, whooper swan and red-breasted merganser. Although it is possible that a proportion of these records relate to the site, the River Lune forms part of the tetrad and it is likely that the majority of these species were recorded along the River, in particular the duck species. The new A683 dual carriage way is located at the northern boundary of the allocation. Bird surveys carried out in 2002/03 to inform the ES for the Scheme did not identify any pink-footed geese utilising the fields within and adjacent to the route. Small numbers of waterfowl and waders were recorded in the fields including lapwing and curlew (up to 100 birds recorded). However, the ES did not identify any significant effect on the winter bird population, and no mitigation was required. In addition to the above records, GMEU wintering bird surveys were also undertaken at the allocation which identified one record of 10 common gull and two records of 253 and 68 black-headed gull (from ten point-count locations along the edge of the allocation). A single record of six PFG were identified to the east of the allocation. None of the Fylde Birds Club records, A683 survey findings or GMEU wintering bird survey records represent more than 1% of any of the qualifying population of the species identified and therefore the SPA birds are not present in significant numbers.	N	N	The site contains green fields with the northern boundary of the allocations comprising the recently completed A683 dual carriageway. Aerial images of the new road scheme indicate that a large portion of the allocation was disturbed as a result of construction and therefore given the reduced size of the fields as result of the new road, the location with development to the south, major roads to the north and east and railway to the west of Hammerton Hall, the fields within this allocation are not considered to be FLL. Fields to the north beyond the dual carriageway and closer to the SPA are considered likely to be FLL.	N	J	**Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new development within 3.5 km of the European site.	No	Y (site within 3.5 km of Morecambe Bay)	Further in combination assessment required

				Bird Data									
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
Lundsfield Quarry Policy: SG11	2km	The site lies between the A6 and Carnforth and comprises previously developed land, scrub and woodland. The site is bordered by Lancaster Canal and housing to the west and north, housing to the east and farmland to the south.	Residential 13.4ha	The site does not lie within a tetrad with bird records. The nearest tetrad to the site is over 6 km away. GMEU wintering bird surveys were not undertaken within the allocation as planning permission has already been granted.	N	N	The allocation comprises previously developed land and scrub/ woodland habitat. The site is therefore not considered to be FLL. The farmland adjacent to the southern edge of the site comprises small fields with hedgerows and is considered unlikely to provide suitable foraging habitat for SPA birds. The closest open farmland to the allocation site that is considered likely to constitute FLL is located over 850 m to the west, beyond the railway line and closer to the estuary.	N	J	**Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new development within 3.5 km of the European sites. Given the size of the site (200 houses), and location it is considered unlikely that there would be likely significant effects alone, however, the site will be considered in the in- combination assessment.	No	Y (site within 3.5 km of Morecambe Bay)	Further in combination assessment required [planning permission granted, although now lapsed]
~~South of Windermere Road, Carnforth Policy: SG12~~	~~2km~~	~~Greenfield site. The site lies between the A6, Back Lane and Carnforth. The site is bordered by Lancaster Canal, housing to the west, Back Lane to the east, housing and site SA11 to the north and green fields to the south.~~	~~Residential 28.7 ha~~	~~The site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately over 6 km away.~~ ~~GMEU wintering bird survey for part of the site did not identify any SPA species utilising the habitats within the allocation.~~	~~N~~	~~N~~	~~The allocation and fields to the south comprise green fields which could support SPA species.~~ ~~However, the available bird data suggests fields to the west beyond the A6 and to the east beyond the M6 are more regularly used by SPA birds. Given this and the proximity of the site to existing housing and roads, the fields would not be considered to constitute FLL.~~ ~~The closest areas that are considered likely to be FLL are over 800 m to the west of the allocation.~~	~~N~~	~~J~~	~~**Recreational pressure in relation to Morecambe Bay**~~ ~~There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new development within 3.5 km of the European sites.~~ ~~Given the size of the site (500 houses) and location, it is considered unlikely that there would be likely significant effects alone, however, the site will be considered in the in combination assessment.~~	~~No~~	~~Y~~ ~~(site within 3.5 km of Morecambe Bay)~~	~~Further in combination assessment required~~
~~Moor Park, Quernmore Road Policy: H1.1~~	~~4km~~	~~Redevelopment of part of a hospital site near Lancaster, east of Lancaster City.~~	~~Residential 2.49 ha~~	~~This site lies within the grounds of the old hospital site within a tetrad containing bird data. The bird data included single records of mallard (80 birds), black-headed gull (35 birds) and common gull (26 birds). The following species were also recorded in numbers less than 10 within the tetrad: moorhen, mute swan, goosander, lapwing, little grebe, oystercatcher, snipe, woodcock, grey heron, lesser black-backed gull, Mediterranean gull and redshank.~~ ~~Given that the allocation comprises redevelopment, it is unlikely that these records would relate to the site itself. The records are more likely to be related to fields to the east of the site (beyond the M6) and Aldcliffe Marsh to the west site.~~ ~~GMEU wintering bird surveys of the north of the allocation did not identify any SPA species utilising the small areas of natural habitat within the site.~~	~~N~~	~~N~~	~~The footprint of these sites comprises existing buildings, woodland, scrub and small, enclosed patches of rough grassland, the site is therefore not considered to constitute FLL.~~ ~~The closest area to the allocation site that is considered to constitute FLL is Aldcliffe Marsh, over 2.5 km to the west.~~	~~N~~	~~H~~	~~None anticipated.~~	~~No~~	~~No~~	~~**No likely significant effect.**~~ ~~[planning permission already granted]~~

				Bird Data										
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
Lune Industrial Estate, New Quay Road Policy: ~~DOS4~~DOS2 Read in conjunction with ~~DOS5~~DOS3 and H1.2~~D~~~~OS3~~ below.	880m	Redevelopment of existing industrial area. The site is bordered by existing industrial area to the north and allocation site Willow Lane/ Coronation Field (Policy: ~~DOS5~~DOS3) to the south. There is existing development to the east and the River Lune to the west.	Employment and residential Size not specified.	These three sites lie within a tetrad with bird data which contains individual records of the following bird records: PFG (2,700 birds), golden plover (350 birds), black headed gull (137 birds), lapwing (85 birds), mallard (80 birds), curlew (77 birds), redshank (26 birds) and common gull (18 birds). The following species were also recorded in numbers less than 10 within the tetrad: little egret, woodcock, oystercatcher, goosander, moorhen, snipe, barnacle goose, teal, grey heron, greylag goose, mute swan, goldeneye, green sandpiper, herring gull, lesser black-backed gull, little grebe, little ringed plover, Mediterranean gull, smew, white-fronted goose, shelduck, Canada goose, coot, tufted duck and wigeon. Given that these sites comprise redevelopment, the records are more likely to relate to the more suitable estuarine habitat and Aldcliffe Marshes (approximately 0.5 km from the sites) which are also within the tetrad. However, the River Lune is to the north of the sites and therefore there is the potential for disturbance to birds using the River Lune during construction. Desk study information gathered by GEMU indicated that further bird surveys were not required at this site GMEU wintering bird surveys were therefore not undertaken within these allocations.	Although parts of the allocations lie within a Level 3 PFG square, or the FLL buffer, given that the allocations comprise redevelopment, PFG are not likely to be present within these sites.	N	These allocations comprise existing development and not considered to be FLL. One is a BHS comprising hardstanding, scrub and woodland. Again, this would not be considered FLL for SPA species. The closest areas considered to constitute FLL are located south of the sites, at Aldcliffe Marshes and fields adjacent to the River Lune to the north west.	N	J	**Disturbance to birds using adjacent River Lune during construction.** There is the potential to disturb birds during the construction phase of any proposed development at these sites. None of the sites would be expected to lead to a significant effect alone, however, there is the potential for in combination effects to occur. **Recreational disturbance associated with Aldcliffe Marshes and adjacent farmland** There is the potential for new residents to access Aldcliffe Marshes (via the coast path and existing public rights of way), in close proximity to the developments. None of the sites would be expected to give rise to significant disturbance effects alone, however, there is the potential for in combination effects to occur. **Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new residential development within 3.5 km of the European sites. Given the combined size of these sites (349houses), it is considered unlikely that there would be likely significant effects alone, however, the site will be considered in the in combination assessment.	No	Y (site within 3.5 km of Morecambe Bay)	Further in combination assessment required
Willow Lane/ Coronation Field Policy: ~~DOS5~~DOS3	1km	Site comprises an area of woodland and small grassland field on the edge of the existing Lune Industrial Estate, New Quay Road (Policy: DOS3) to the north. There is existing development to the east and green fields to the south and west along with the River Lune.	Recreation and open space 16.5 ha			N		N	H		No	**No likely significant effect.**	**No likely significant effect.**
Luneside East Policy: ~~H1.2~~~~DOS3~~	880m	This redevelopment site is surrounded by existing development to the south and west with a railway line and recreation ground to the east. The River Lune lies to the north.	Residential and employment Area not specified					N	J		No	Y (site within 3.5 km of Morecambe Bay)	Further in combination assessment required [planning permission already granted]
Ridge Lea Hospital Policy: H3.1	3.8km	Redevelopment of part of a hospital site near Lancaster, east of Lancaster City.	Residential 3.~~2366~~ha	These site lies within a tetrad containing bird data. The records comprise individual records of: black-headed gull (240 birds), lapwing (75 birds), common gull (55 birds), mallard (45 birds), cormorant (42 birds), teal (42 birds), goosander (30 birds), goldeneye (25 birds), grey heron (19 birds), moorhen (19 birds), little grebe (17 birds), herring gull (12 birds), mute swan (10 birds) and redshank (10 birds). The following species were also recorded in	N	N	The footprint of these sites comprises existing buildings, woodland, and scrub and would not constitute FLL. The closest open farmland to the allocation that could constitute FLL is located to the north of the site, and comprises the Cuckoo Farm and Ridge Farm (Policy: SG7, Site ref: SA08) allocation. The fields to the north are screened from the site by woodland and scrub along the edge of the site. In addition, no public footpaths link to areas	N	H	None anticipated.	No	No	**No likely significant effect.**

				Bird Data										
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
Land at Stone Row Head, East Lancaster Policy: H3.2			Residential 1.61ha	numbers less than 10 within the tetrad: oystercatcher, tufted duck, dunlin, great black-backed gull, lesser black-backed gull, snipe, wigeon, common sandpiper, coot, curlew, green sandpiper, little egret, Mediterranean gull, pochard, red-breasted merganser, shelduck, shoveler and woodcock. Given that the sites is ~~a~~are redevelopment, it is considered unlikely that the bird records relate to the site itself. The River Lune forms part of the tetrad and it is likely that the majority of the species recorded were associated with the River. GMEU wintering bird surveys were not undertaken within the allocations due to presence of existing development.	N	N	of open farmland (associated with SA08) from the site.	N	H	None anticipated.	No	No	**No likely significant effect.**
Land at Grab Lane Policy: H4	3.2kmf	Greenfield site with buildings at the southern extent. The site is bordered by existing development to the south and north. There are green fields to the west and east.	Residential 8.78 ha	The site lies within a tetrad containing bird data. The records comprise single records of mallard (80 birds), black-headed gull (35 birds) and common gull (26 birds). The following species were also recorded in numbers less than 10 within the tetrad: moorhen, mute swan, goosander, lapwing, little grebe, oystercatcher, snipe, woodcock, grey heron, lesser black-backed gull, Mediterranean gull and redshank. Although it is possible that a proportion of these records could relate to the site, the River Lune forms part of the tetrad and it is likely that the majority of these species were recorded along the River, in particular the duck species. GMEU wintering bird surveys were not undertaken within the allocation.	N	N	Although the site comprises a series of grassland fields which could be used by SPA birds, the site is close to the M6 with existing development to the south and north and parkland to the west, and a road within the allocation, reducing the suitability of the site for SPA birds. In addition, the available bird data indicates that the area is not used regularly by significant numbers of birds. The site is therefore considered unlikely to constitute FLL. Open farmland to the east, beyond the M6 is considered more likely to constitute FLL.	N	H	**Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new development within 3.5 km of the European sites. Given the small size of the site (195 houses), it is considered unlikely that there would be likely significant effects alone, however, the site will be considered in the in combination assessment.	No	Y (site within 3.5 km of Morecambe Bay)	Further in combination assessment required
Lancaster Leisure Park / Auction Mart Wyresdale Road Policy: H5	3km	This site comprises a combination of redevelopment and greenfield land. The site are bordered by existing development to the west and south. There are small, green fields to the north and east.	Residential ~~15~~14 ha	The site lies within a tetrad containing bird data. The records comprise single records of mallard (80 birds), black-headed gull (35 birds) and common gull (26 birds). The following species were also recorded in numbers less than 10 within the tetrad: moorhen, mute swan, goosander, lapwing, little grebe, oystercatcher, snipe, woodcock, grey heron, lesser black-backed gull, Mediterranean gull and redshank. Given that the allocations comprise redevelopment, and development on small green field sites, it is unlikely that the records would relate to the sites themselves. The records are more likely to be associated with fields to the east of the site (beyond the M6) and north of the site (beyond the Wyresdale Road and HM Prison). Desk study information gathered by GEMU indicated that further bird surveys were not required at this site GMEU wintering bird surveys were therefore not undertaken.	N	N	The redevelopment of a car park and would not constitute FLL. The site comprises fields with large hedgerows (creating reduced sightlines) and would not be suitable for supporting large numbers of SPA birds. Given the habitats present and that available bird data did not identify regular use by significant numbers of birds. the allocation is not considered to constitute FLL. The closest open farmland to the allocation sites that could constitute FLL is located over 230 m to the east beyond the existing development and the M6.	N	J	**Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new development within 3.5 km of the European sites. Given the small size of these sites (200 houses), it is considered unlikely that there would be likely significant effects alone, however, the site will be considered in the in combination assessment.	No	Y (site within 3.5 km of Morecambe Bay)	Further in combination assessment required

				Bird Data									
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
~~Royal Albert~~Land at Royal Albert Fields, Ashton Road Policy: H6	1.2km	The site comprises green fields located next to the A588. The site is bordered by housing to the east and south, and green fields to the west and north.	Residential 5.8 ha	The site lies within a tetrad containing bird data. The records comprise individual records of: black-headed gull (17 birds), moorhen (12 birds) and mallard (11 birds). The following species were also recorded in numbers less than 10 within the tetrad: oystercatcher, grey heron, herring gull, Mediterranean gull, common gull, curlew, lapwing, shelduck and snipe. Given that the allocation comprises development on small green fields, bounded by hedgerows, it is unlikely that the records would relate to the site themselves. The records are more likely to be associated with the Lancaster Canal, and/or fields to the west adjacent to the River Lune. GMEU wintering bird surveys of the allocations did not identify any SPA species utilising the areas of natural habitat within the sites.	Although all of these sites lie within the FLL buffer, given the small size of the sites, and their proximity to existing development, it is unlikely that the site would be used by PFG.	N	The site comprises four small fields. surrounded by trees or hedgerows (creating reduced sightlines). The fields directly adjacent (to the west) to the site are also small and bordered by existing development to the north and south and the Lancaster Canal to the west. Given the lack of regular bird records in significant numbers, their small size and proximity to existing development, the site and adjacent fields are not considered to constitute FLL. The closest open farmland to the allocation sites that could constitute FLL is located over 500 m from the site to the west of the Lancaster Canal, adjacent to the River Lune. There are public footpaths linking the allocation sites with the Coastal Path along the River Lune (1km away).	N	J	**Recreational disturbance associated with potentially FLL to the west** There is the potential for increased use of the footpaths passing through potentially FLL to the west of the allocation site and along the Coastal Path adjacent to the River Lune as a result of development. Given the small size of the site, no effects either alone or in combination with other developments within the plan would be expected to give rise to any significant impacts. **Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new development within 3.5 km of the European sites. Given the small size of this site (71 houses), it is considered unlikely that there would be likely significant effects alone, however, the site will be considered in the in combination assessment.	No	Y (site within 3.5 km of Morecambe Bay)	Further in combination assessment required

				Bird Data									
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
Former Thomas Graveson site, Warton Road Policy ~~DOS10~~DOS8	500m	Redevelopment site, adjacent to the River Keer, north of Carnforth. The site is bordered by development to the west, woodland to the south and green fields to the north and east.	Environmental uses/ recreation~~Residential~~ 2.4 ha	The site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately over 6 km away. GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.	N	N	This redevelopment site comprises hard standing surrounded by trees and shrubs, and is therefore not considered to be FLL. The adjacent field to the northeast of the site has the potential to provide suitable FLL, however, the larger fields beyond the River Keer to the north of the site (south of Warton), and fields to the west (closer to the Estuary) are more likely to provide suitable FLL (away from existing disturbance associated with Millhead). There is a footpath crossing the fields to the north, linking Millhead with Warton.	Y	~~H~~J	**Recreational disturbance associated with potentially FLL to the north** Although there is the potential for increased use of the footpath passing through potentially FLL to the north of the allocation site ~~as a result of development, the small size of the development (40 houses) would not~~ the potential future use of the site for environmental or recreational activities would not be expected to give rise to any significant impacts upon the surrounding area. In addition, given the limited bird records it is considered unlikely that this area constitutes FLL, with larger areas of suitable habitat located to the east closer to Morecambe Bay. **Hydrological link** Although the site is within 500 m of Morecambe Bay, there are no watercourses linking this site to Morecambe Bay. Potential water quality effects can therefore be ruled out. ~~**Recreational pressure in relation to Morecambe Bay**~~ ~~There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new development within 3.5 km of the European sites.~~ ~~Given the small size of the site (40 houses), there would be no likely significant effects alone, however, the site will be considered in the in combination assessment.~~	No	~~Y~~N ~~(site within 3.5 km of Morecambe Bay)~~	~~Further in combination assessment required~~ **No likely significant effect.**
Land West of Middleton Road Policy: H1.~~47~~	700m	Greenfield site to the south of Higher Heysham, south of the A589. The site is surrounded by existing development on all sides.	Residential 2.18 ha	This site lies within a tetrad containing bird data. The records from the tetrad comprise individual records of: knot (1,355 birds), oystercatcher (916 birds), redshank (167 birds), black-headed gull (147 birds), shelduck (97 birds), wigeon (57 birds), ringed plover (53 birds), curlew (43 birds), bar-tailed godwit (21 birds), dunlin (17 birds), lapwing (12 birds) and grey plover (10 birds). The following species were also recorded in the tetrad in numbers less than 10 individuals: coot, common sandpiper, eider, gadwall, greylag goose, herring gull, tufted duck, turnstone, mallard, red-breasted merganser, common gull, great black-backed gull, lesser black backed gull, little egret, little gull, little ringed plover, mute swan, cormorant, jack snipe, snipe, teal, goldeneye, kittiwake, little grebe, Mediterranean gull, moorhen, pochard, water rail, whimbrel, woodcock and grey heron.	Although the site lies within the FLL buffer, given that this small site is located in an urban area, PFG are not likely to be present within the site	N	This site comprises rough grassland with scattered scrub. Given the lack of regular bird records in significant numbers, and the fact that the site is surrounded by existing development, this site is not considered to constitute FLL. The closest land to the allocation site that could constitute FLL is located to the east of the site at Heysham Moss (0.5 km away, separated from the site by the A683/A589 and existing development).	N	J	**Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new development within 3.5 km of the European sites. Given the small size of the site (69 houses), there would be no likely significant effects alone, however, the site will be considered in the in combination assessment.	No	Y (site within 3.5 km of Morecambe Bay)	Further in combination assessment required [planning permission already granted]

				Bird Data									
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
				Given that the site comprises scrub and rough grassland within an urban setting, it is unlikely that these records would relate to the site itself. The records are more likely to relate to sightings along the coast or from Middleton Nature Reserve to the south of the site. GMEU wintering bird surveys were not undertaken within the allocation, as outline planning permission has already been granted.									
Former TDG Site, Warton Road Policy: ~~DOS9~~DOS7	800m	Redevelopment located in Carnforth. The site is surrounded by existing development and roads.	Employment and Recreation. Area not specified	This site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately 6 km away. GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.	N	N	This site comprises a redevelopment surrounded by roads and a railway, with housing and scrub beyond. The site and surroundings are not considered to be FLL. The closest open farmland to the allocation site that could constitute FLL is located over 130 m beyond the existing development, road and railway.	N	J	**Recreational pressure in relation to Morecambe Bay** Whilst there is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of employment sites within 1.5 km of the European site, given that the allocation is the redevelopment of an existing employment site, no additional recreational pressure above those already experienced would be anticipated	No	Y (site within 3.5 km of Morecambe Bay)~~No~~	Further in combination assessment required~~**No likely significant effect.**~~
Galgate Mill Policy: ~~DOS6~~DOS4	2.5km	Redevelopment of a small area in Galgate. The site is surrounded by green fields to the east and west, and existing development to the north and south.	Employment/ residential 0.93ha	The site lies within a tetrad that contains the following individual bird records: Common gull (114 birds), mallard (34 birds), curlew (30 birds), black-headed gull (17 birds), and the following species were recorded in numbers less than 10: lapwing, little egret, cormorant, moorhen, mute swan, grey heron, herring gull, lesser black-backed gull, oystercatcher, snipe, woodcock, herring gull, mallard, shelduck and wood duck. Additionally, there are two monad records comprising 1,200 and 38 PFG in flight within Galgate. Given that the site comprises a redevelopment, it is unlikely that the data relates to the site. The records are more likely to relate to the open farmland to the west of the site. GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.	N	N	This site comprises a redevelopment and is not considered to be FLL. The fields directly to the west and east of the site could constitute FLL. However, given the lack of regular bird records in significant numbers and the proximity to Galgate, the A6 and M6, these fields would not constitute FLL. The larger fields 1 km west of the site (away from roads and existing development), and closer to the River Lune are likely to provide more suitable areas of FLL.	N	H	None anticipated	No	No	**No likely significant effect.**
St Michaels Lane Policy: H2.4	375m	Infill development. The site is located at the edge of Bolton–le-Sands, with St Michael's Road to the north, a railway to the west, housing to the east and green fields to the south.	Residential 0.76 ha	The site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately 4 km away. GMEU wintering bird surveys were not undertaken within the allocation as planning permission has already been granted.	N	N	This site comprises a single small field located adjacent to existing housing and a railway line. The site is bordered by large hedgerows creating reduced sightlines. Given the small field size, urban location, and the lack of regular bird records in significant numbers, the site would not comprise FLL. The closest open farmland to the allocation site that could constitute FLL is located over 50m to the west, beyond the railway line.	Y	J	**Hydrological link** Although the site is within 500 m of Morecambe Bay, there are no watercourses linking this site to Morecambe Bay. Potential water quality effects can therefore be ruled out. **Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new	No	Y (site within 3.5 km of Morecambe Bay)	Further in combination assessment required

				Bird Data									
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
										development within 3.5 km of the European sites. Given the small size of the site (20 houses), there would be no likely significant effects alone, however, the site will be considered in the in combination assessment.			
Royal Oak Meadow, Hornby Policy: H2.1	10km	Green field site. Small extension to Hornby village. Residential bordering the south of the allocation, A683 to the north and west and green field and woodland to the east.	Residential 1.13 ha	The site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately 10 km away. GMEU wintering bird surveys were not undertaken within the allocation as planning permission has already been granted.	N	N	This site comprises a small triangular field with residential housing to the south with small fields and blocks of woodland to the east. Given the small size of the site, the lack of regular bird records in significant numbers and the distance of the site from the European site, to the site would not constitute FLL. The fields to the west of the site, close to the River Lune have the potential to constitute FLL. However, this area is screened from the allocation site by a line of trees.	N	H	None anticipated.	No	No	**No likely significant effect.**
Lancaster Road, Overton Policy: H2.2	600m	Green field site. Infill site within Overton, bounded by Lancaster Road to the west, existing dwellings to the north and south and green fields to the east.	Residential 1.64 ha	These sites lie within a tetrad with bird data which contains the following individual bird records: black-headed gull (500 birds), Herring gull (14 birds), and the following species were recorded in numbers less than 10 individuals: teal, mallard, moorhen, grey heron, little egret, coot, lesser black-backed gull, shelduck, golden plover, lapwing, oystercatcher, redshank and snipe. Given the small size of these sites, and their location (adjacent to existing development), the records are unlikely to	Although the allocations lie within the FLL buffer, given the small size of the sites, PFG are unlikely to be present within the site	N	This site comprises two small fields, with hedgerows separating them (creating restricted sightlines). Given its small size, lack of regular bird records in significant numbers and proximity to existing development, it would not constitute FLL. The open fields to the east and River Lune beyond could constitute FLL.	N	J	**Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new development within 3.5 km of the European sites. Given the small size of the site (32 houses), there would be no likely significant effects alone, however, the site will be considered in the in combination assessment.	No	Y (site within 3.5 km of Morecambe Bay)	Further in combination assessment required

				Bird Data										
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
Yenham Lane Policy: H2.3	500m	Green field site. Infill site within Overton, bounded by Lancaster Road to the west, existing dwellings to the north and south and green fields to the east.	Residential 0.7ha	be related to the sites themselves. The records are more likely to originate from the larger fields to the north and east. GMEU wintering bird surveys did not cover Overton Primary School as planning permission had already been granted, but were undertaken at Yenham Lane. No records were identified within the allocation, however, a small number of records of SPA specie were present in fields to the east.		N	This site comprises a single field with buildings to the north and south, a road to the west and a larger field to the east. Given its small size, lack of regular bird records in significant numbers, and proximity to existing development, it would not constitute FLL. The open fields to the east, 300 m from the allocation and River Lune beyond could constitute FLL.	Y	J	**Hydrological link** Although the site is within 500 m of Morecambe Bay, there are no watercourses linking this site to Morecambe Bay. Potential water quality effects can therefore be ruled out. **Recreational disturbance associated with potentially FLL to the east** There is the potential for new residents to access fields to east of the site using an existing public footpath. However, given the small scale of the development (21 houses), it would not be expected to give rise to any significant impacts upon the surrounding area alone. However, given its proximity to Morecambe Bay SPA, the allocation is considered in the in combination assessment (refer to Section 8). **Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new development within 3.5 km of the European sites. Given the small size of the site (21 houses), there would not be likely significant effects alone, however, the site will be considered in the in combination assessment.	No	Y (site within 3.5 km of Morecambe Bay)	Further in combination assessment required
~~Briar Lea Road, Nether Kellet Policy: H2.5~~	~~2.3km~~	~~Green field site within the settlement of Nether Kellet with existing development to the west, south and east, and field to the north with the M6 beyond.~~	~~Residential 0.44 ha~~	~~The site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately 6.5 km away.~~ ~~Desk study information gathered by GEMU indicated that further bird surveys were not required at this site. GMEU wintering bird surveys were therefore not undertaken within the allocation.~~	~~N~~	~~N~~	~~The site comprises a grassland field on the northern edge of Nether Kellet. Given its small size, lack of regular bird records in significant numbers and location on the edge of existing development, the allocation is not considered to constitute FLL.~~ ~~Open fields to the west of the M6 are considered to provide more suitable habitats although the bird data (in particular the PFG index squares) indicate FLL is over 4 km to the north or south.~~	~~N~~	~~J~~	~~**Recreational pressure in relation to Morecambe Bay**~~ ~~There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new development within 3.5 km of the European sites.~~ ~~Given the small size of the site (13 houses), there would not be any significant effects alone, however, the site will be considered in the in combination assessment.~~	~~No~~	~~Y~~ ~~(site within 3.5 km of Morecambe Bay)~~	~~Further in combination assessment required~~
Policy EC1: Establishing Employment Areas														
Heysham Gateway Policy ~~SG15~~SG13	Adjacent	Large area adjacent to the Morecambe Bay and Duddon Estuary SPA/Ramsar site.	Employment 1028.9 ha	The Heysham Gateway encompasses several allocation sites (comprising: Port of Heysham, Port of Heysham Industrial Estate, Royd Mill, Land West of Middleton Road, Major Industrial Estate, Middleton Road Employment Area, Sub-station Land, Lancaster West Business Park, Land off Imperial Way, Heysham Industrial Estate and the Middleton Towers). Each of these have been assessed separately within Tables 11 and 12, and therefore will not be repeated here.					J	**Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new development within 3.5 km of the European sites. The site will be considered in the in combination assessment.	No allocations within the Gateway with the potential for LSE alone have been assessed separately	Y (site within 3.5 km of Morecambe Bay)	Further in combination assessment required
Kellet Road Industrial Estate Policy: EC1.5	1.9km	Redevelopment of existing industrial area	Employment 1.5ha	The site does not lie within a tetrad with bird records. The nearest tetrad to the sites is approximately over 6	N	N	The site and its immediate surroundings comprise existing industrial estate and	N	H	None anticipated	No	No	**No likely significant effect.**

				Bird Data										
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
		located next to the M6. The sites are bordered by existing development and school playing fields.		km away. Desk study information gathered by GEMU for Carnforth Business Park indicated that further bird surveys were not required at this site. GMEU wintering bird surveys were therefore not undertaken within the allocation.			school playing fields and therefore do not constitute FLL.						
Carnforth Levels, Scotland Road Policy: EC1.2	850m	Redevelopment on the northern edge of Carnforth. The site is surrounded by existing development, a railway and green fields.	Employment 2.93 ha	The site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately over 6 km away. GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.	N	N	This site comprises an existing development and therefore does not constitute FLL. The adjacent fields to the northeast of the site (south of the River Keer) has the potential to provide suitable FLL, however, the larger fields beyond the River Keer to the north of the site (south of Warton), and fields to the west (closer to the Estuary) are more likely to provide suitable FLL (away from existing disturbance associated with the railway and Carnforth).	N	H	**Recreational pressure in relation to Morecambe Bay** Whilst there is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of employment sites within 1.5 km of the European site, given that the allocation is the redevelopment of an existing employment site, no additional recreational pressure above those already experienced would be anticipated.	No	No	**No likely significant effect.**
Scotland Road Policy: EC1.3	800m	Redevelopment in Carnforth. The site is surrounded by existing development and the A6.	Employment 2.30ha	The site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately over 6 km away. GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.	N	N	This site comprises an existing development and therefore does not constitute FLL. The site is surrounded by development to the north, west and south which would also not constitute FLL. There are green fields to the east, but these are separated from the site by the A6, and screened by scrub/ woodland habitat along the edge of the road. Although the fields to the east have the potential to be FLL, the larger fields beyond the River Keer to the north of the site (south of Warton), and fields to the west (closer to the Estuary) are more likely to provide suitable FLL (away from existing disturbance associated with the railway/ roads and Carnforth).	N	H	**Recreational pressure in relation to Morecambe Bay** Whilst there is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of employment sites within 1.5 km of the European site, given that the allocation is the redevelopment of an existing employment site, no additional recreational pressure above those already experienced would be anticipated.	No	No	**No likely significant effect.**
Warton Road Policy: EC1.4	350m	Redevelopment in Carnforth. The site is enclosed on all sides by roads and a railway line.	Employment 1.47 ha	The site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately over 6 km away. GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.	N	N	This site comprises an existing development. The site is enclosed by development on all sides. The site and adjacent land would not constitute FLL. The closest land which could constitute FLL is located to the west of the site, beyond the railway station and existing development (more than 300 m away).	N	H	**Recreational pressure in relation to Morecambe Bay** Whilst there is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of employment sites within 1.5 km of the European site, given that the allocation is the redevelopment of an existing employment site, no additional recreational pressure above those already experienced would be anticipated.	No	No	**No likely significant effect.**

				Bird Data										
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
Royd Mill Policy: EC1.8	850m	Redevelopment of an existing industrial estate in Heysham. The site is surrounded by existing development and scrub habitat.	Employment 2.13ha	This site lies within a tetrad containing bird data. The records comprise individual records of: knot (1,355 birds), oystercatcher (916 birds), redshank (167 birds), black-headed gull (147 birds), shelduck (97 birds), wigeon (57 birds), ringed plover (53 birds), curlew (43 birds), bar-tailed godwit (21 birds), dunlin (17 birds), lapwing (12 birds) and grey plover (10 birds). The following species were also recorded in the tetrad in numbers less than 10 individuals: coot, common sandpiper, eider, gadwall, greylag goose, herring gull, tufted duck, turnstone, mallard, red-breasted merganser, common gull, great black-backed gull, lesser black backed gull, little egret, little gull, little ringed plover, mute swan, cormorant, jack snipe, snipe, teal, goldeneye, kittiwake, little grebe, Mediterranean gull, moorhen, pochard, water rail, whimbrel, woodcock and grey heron. The monad records included two records of PFG, flying toward Heysham Moss (5,000 and 5,700 birds). Given that the site comprises existing development, it is unlikely that these records would relate to the site itself. The records are more likely to relate to sightings along the coast or from Middleton Nature Reserve to the south of the site. GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.	Although the site lies within the FLL buffer, given that this site is a redevelopment, PFG are not likely to be present within the site.	N	This site and surroundings comprise existing development and scrub habitat, and therefore would not constitute FLL. The closest land to the allocation site that could constitute FLL is located to the east of the site at Heysham Marshes (300 m away, separated from the site by the A683/A589 and existing development).	N	H	**Recreational pressure in relation to Morecambe Bay** Whilst there is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of employment sites within 1.5 km of the European site, given that the allocation is the redevelopment of an existing employment site, no additional recreational pressure above those already experienced would be anticipated.	No	No	**No likely significant effect.**
Major Industrial Estate Policy: EC1.9	570m	Partial redevelopment of an existing industrial estate with small area of scrub habitat forming the southern part of the allocation. The site has existing development to north and east and a golf course to the west with further scrub/woodland habitat (forming part of the Middleton Nature Reserve) and industrial buildings beyond to the south.	Employment 21.5 ha	This site is within a tetrad containing bird data. The records from the tetrad comprise individual records of: knot (1,355 birds), oystercatcher (916 birds), redshank (167 birds), black-headed gull (147 birds), shelduck (97 birds), wigeon (57 birds), ringed plover (53 birds), curlew (43 birds), bar-tailed godwit (21 birds), dunlin (17 birds), lapwing (12 birds) and grey plover (10 birds). The following species were also recorded in the tetrad in numbers less than 10 individuals: coot, common sandpiper, eider, gadwall, greylag goose, herring gull, tufted duck, turnstone, mallard, red-breasted merganser, common gull, great black-backed gull, lesser black backed gull, little egret, little gull, little ringed plover, mute swan, cormorant, jack snipe, snipe, teal, goldeneye, kittiwake, little grebe, Mediterranean gull, moorhen, pochard, water rail, whimbrel, woodcock and grey heron. Given that the site comprises existing development, it is unlikely that these records would relate to the site itself. The records are more likely to relate to sightings along the coast or from Middleton Nature Reserve to the south of the site.	Although the site lies within the FLL buffer, given that this site is a redevelopment, PFG are not likely to be present within the site.	N	This site largely comprises existing development which would not constitute FLL. The southern portion of the allocation located on a brownfield site, with bare ground and scrub. Information on species present within the adjacent Local Nature Reserve (Middleton Woods) did not identify any of the SPA/Ramsar site species, and the associated tetrad and goose data did not identify any large numbers of European species in this area. Therefore, the site is not considered to constitute FLL. The closest land to the allocation site that could constitute FLL is located over 800 m to the east of the site.	N	J	**Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new/expanded employment sites within 1.5 km of the European site.	No	Y (site within 1.5 km of Morecambe Bay)	Further in combination assessment required

				Bird Data										
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
				Desk study information gathered by GEMU indicated that further bird surveys were not required at this site. GMEU wintering bird surveys were therefore not undertaken within the allocation.									
Heysham Industrial Estate Policy number: EC1.7	300m	Redevelopment of an existing Industrial Estate in Heysham	Employment 19.47 ha	This site is within a tetrad containing bird data. The records comprise individual records of: knot (1,355 birds), oystercatcher (916 birds), redshank (167 birds), black-headed gull (147 birds), shelduck (97 birds), wigeon (57 birds), ringed plover (53 birds), curlew (43 birds), bar-tailed godwit (21 birds), dunlin (17 birds), lapwing (12 birds) and grey plover (10 birds). The following species were also recorded in the tetrad in numbers less than 10 individuals: coot, common sandpiper, eider, gadwall, greylag goose, herring gull, tufted duck, turnstone, mallard, red-breasted merganser, common gull, great black-backed gull, lesser black backed gull, little egret, little gull, little ringed plover, mute swan, cormorant, jack snipe, snipe, teal, goldeneye, kittiwake, little grebe, Mediterranean gull, moorhen, pochard, water rail, whimbrel, woodcock and grey heron. Given that this site is a redevelopment, it is unlikely these records relate to the site itself, it is more likely that they are associated with Red Nab wader roost and the adjacent coastline. GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.	N	Approx. 800m from Red Nab	The footprint of the site consists of existing industrial units that do not constitute FLL. To the west of the site is a caravan park with a small area of open space/green space (comprising rough grassland) in between. To the north, south and east there are several other areas of rough grassland fields with scattered scrub. Although these areas could constitute FLL, it is likely that they are subject to existing disturbance from the adjacent housing and local dog walkers, and therefore would not be considered to constitute FLL.	Y	H	**Disturbance to birds within Morecambe Bay and Duddon Estuary SPA/Ramsar site and adjacent FLL** Development at this site has the potential to disturb birds using adjacent coastal habitat and FLL, in particular birds associated with the Red Nab wader roost site (which is within the Morecambe Bay and Duddon Estuary SPA/Ramsar site). Being a redevelopment the site itself is already subject to a degree of disturbance and the allocation is separated from the coastline by a caravan park, as such, significant disturbance effects are not anticipated. **Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new employment development within 1.5 km of the European sites. Given that the site is mostly redevelopment, it is considered unlikely that there would be likely significant effects alone, however, the site will be considered in the in combination assessment. **Hydrological link** Although the site is within 300 m of Morecambe Bay, there are no watercourses linking this site to Morecambe Bay. Potential water quality effects can therefore be ruled out.	No	Y (site within 1.5 km of Morecambe Bay)	Further in combination assessment required

				Bird Data										
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
Caton Road Industrial Estate Policy: EC1.11	3km	An existing industrial estate to the north of Lancaster city, bordered by the River Lune to the North, Caton Road to the south and existing development to the east and west.	Employment 34.49ha	This site lies within a tetrad containing bird data. The records comprise individual records of: black-headed gull (240 birds), lapwing (75 birds), common gull (55 birds), mallard (45 birds), cormorant (42 birds), teal (42 birds), goosander (30 birds), goldeneye (25 birds), grey heron (19 birds), moorhen (19 birds), little grebe (17 birds), herring gull (12 birds), mute swan (10 birds) and redshank (10 birds). The following species were also recorded in numbers less than 10 within the tetrad: oystercatcher, tufted duck, dunlin, great black-backed gull, lesser black-backed gull, snipe, wigeon, common sandpiper, coot, curlew, green sandpiper, little egret, Mediterranean gull, pochard, red-breasted merganser, shelduck, shoveler and woodcock. Given that the site comprises existing development, it is unlikely that these records would relate to the site itself. The records are more likely to relate to the River Lune which is also within the tetrad. Desk study information gathered by GEMU indicated that further bird surveys were not required at this site. GMEU wintering bird surveys were therefore not undertaken within the allocation.	N	N	This site comprises existing industrial units and would not constitute FLL. The River Lune to the north and west of the site is screened from the development by existing scrub and woodland. The closest land which could constitute FLL is located east of the site (within the Cuckoo Farm and Ridge Farm allocation). This land is separated from the site by Caton Road, Lancaster Canal and existing tree and scrub habitat.	N	H	None anticipated	No	No	**No likely significant effect.**
White Lund Industrial Estate Policy: EC1.12/EC4	800m	Redevelopment of an existing industrial estate. The site is surrounded by development to the north, east and west. There are green fields to the south.	Employment 100.23ha	This site lies within a tetrad containing bird data. The records comprise individual records of: PFG (375 birds), lapwing (150 birds), oystercatcher (50 birds), and the following species were recorded within the tetrad in numbers less than 10: black-headed gull, moorhen, common gull, Canada goose, lesser black-backed gull, curlew, grey heron, herring gull, water rail, mallard and mute swan. Given that the site comprises existing development, it is unlikely that these records would relate to the site itself. The records are more likely to relate to the River Lune and adjacent habitat which is also within the tetrad. Desk study information gathered by GEMU indicated that further bird surveys were not required at this site. GMEU wintering bird surveys were therefore not undertaken within the allocation.	Although the site lies within a Level 3 PFG square, and the FLL buffer, given that this site is a redevelopment, PFG are not likely to be present within the site.	N	The footprint of the site, and land to the north, east and west, comprise existing development and would not constitute FLL. The fields directly to the south of the site could constitute FLL. However, these fields are already subject to background levels of disturbance from existing development to the north and east reducing their suitability for SPA species. In addition, Figure 8.5 of the Environmental Statement of Heysham Wind Farm[33] indicated that PFG regularly used fields further south of the allocation (over 600 m away), suggesting that the SPA species are more likely to favour the larger fields that are less disturbed by the surrounding development.	N	H	**Disturbance to birds using adjacent land which could be functionally linked to Morecambe Bay and Duddon Estuary SPA/Ramsar site.** There is the potential to disturb birds during the construction phase of any proposed redevelopment at this site. However, given that the site and surroundings are already subject to disturbance from existing development, and data indicates that birds tend to utilise areas over 600 m from the allocation, disturbance associated with redevelopment of this site is considered unlikely. **Recreational pressure in relation to Morecambe Bay** Whilst there is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of employment sites within 1.5 km of the European site, given that the allocation is the redevelopment of an existing employment site, no additional recreational pressure above those already experienced would be anticipated.	No	No	**No likely significant effect.**

[33] Banks Renewables (2011) Heysham Wind Farm. Environmental Statement

				Bird Data										
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
White Cross Business Park Policy: ~~EC1.14~~EC1.13	2km	Redevelopment in central Lancaster. The site is surrounded by existing development on all sides.	Employment 5.7ha	This site lies within a tetrad containing bird data. The bird data included single records of mallard (80 birds), black-headed gull (35 birds) and common gull (26 birds). The following species were also recorded in numbers less than 10 within the tetrad: moorhen, mute swan, goosander, lapwing, little grebe, oystercatcher, snipe, woodcock, grey heron, lesser black-backed gull, Mediterranean gull and redshank. Given that the site comprises redevelopment surrounded by existing development, the records are not likely to be related to the site and its surroundings. The records are likely to relate to sightings along the River Lune, which is separated from the site by existing development and roads. Desk study information gathered by GEMU indicated that further bird surveys were not required at this site. GMEU wintering bird surveys were therefore not undertaken within the allocation.	Although the site lies partially within the FLL buffer, given that this site is a redevelopment within an urban area, PFG are not likely to be present within the site.	N	This site comprises existing buildings, hardstanding and areas of scrub and trees. The site and surroundings are not considered to be FLL. The closest open farmland to the allocation site that could constitute FLL is located more than 1 km away.	N	H	None anticipated	No	No	**No likely significant effect.**
Lancaster Business Park, Caton Road Policy: ~~EC1.15~~EC1.14	3km	Redevelopment of an existing industrial site bordered by Caton Road to the north, Junction 34 of the M6 to the east, buildings to the west and a golf course to the south.	Employment 10.71ha	This site lies within a tetrad containing bird data. The records comprise individual records of: black-headed gull (240 birds), lapwing (75 birds), common gull (55 birds), mallard (45 birds), cormorant (42 birds), teal (42 birds), goosander (30 birds), goldeneye (25 birds), grey heron (19 birds), moorhen (19 birds), little grebe (17 birds), herring gull (12 birds), mute swan (10 birds) and redshank (10 birds). The following species were also recorded in numbers less than 10 within the tetrad: oystercatcher, tufted duck, dunlin, great black-backed gull, lesser black-backed gull, snipe, wigeon, common sandpiper, coot, curlew, green sandpiper, little egret, Mediterranean gull, pochard, red-breasted merganser, shelduck, shoveler and woodcock. Given that the site comprises existing development and scrub habitat, it is unlikely that these records would relate to the site itself. The records are more likely to relate to the River Lune which is also within the tetrad. Desk study information gathered by GEMU indicated that further bird surveys were not required at this site. GMEU wintering bird surveys were therefore not undertaken within the allocation.	N	N	This site consists of existing industrial units and scrub, that would not constitute FLL. The River Lune to the north of the site is screened from the development by existing development, scrub and woodland. The closest land which could constitute FLL is located south of the site (within the Cuckoo Farm and Ridge Farm allocation). This land is separated from the site by woodland and the golf course.	N	H	None anticipated	No	No	**No likely significant effect.**
Rural Employment sites														
Claughton Brickworks and Buffer Store Policy: ~~EC1.16~~EC1.15	9km	Redevelopment of warehouses within Claughton	Employment 7.39 ha	The site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately 6 km away.	N	N	This site consists of existing warehouse units that do not constitute FLL. Surrounding habitat that could support SPA birds is screened from the site by trees, hedgerows and a road.	N	H	None anticipated.	No	No	**No likely significant effect.**

				Bird Data										
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
				GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.									
Halton Mills Policy: ~~EC1.17~~EC1.16	6km	Redevelopment of a site in Halton, near the River Lune north of Jn 34 of the M6.	Employment 0.9ha	The site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately 1km away. Desk study information gathered by GEMU indicated that further bird surveys were not required at this site. GMEU wintering bird surveys were therefore not undertaken within the allocation.	N	N	This site consists of existing buildings that do not constitute FLL. There is existing development to the north and west of the site. Field to the east of the site are small and contain trees, therefore sightlines are reduced. The River Lune is located to the south and is screened from the site by trees. The closest open farmland considered to constitute FLL is over 300 m to the south beyond the river and the A683.	N	H	None anticipated.	No	No	**No likely significant effect.**
Hornby Industrial Estate Policy: ~~EC1.19~~EC1.18	11km	Redevelopment of an Industrial Estate south of Lancaster Road and north of B6480	Employment 0.66ha	The site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately 10km away. GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.	N	N	This allocation relates to the redevelopment of an existing industrial estate, with existing housing to the north. The site is not considered to be FLL. The closest open farmland to the allocation site that could constitute FLL is located beyond the existing development, The site is screened from the potential FLL by woodland and a large hedgerow/ line of trees.	N	H	None anticipated.	No	No	**No Likely Significant Effects.**
Cowan Bridge Industrial Estate Policy ~~EC1.20~~EC1.19	16km	Redevelopment of an Industrial Estate along the A65 near Leck	Employment 1.33 ha	The site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately 10 km away GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.	N	N	This allocation relates to the redevelopment of an existing industrial estate, with existing buildings to the north west, fields to the north east and a road to the south and west. The site is not considered to be FLL. The allocation site is surrounded by open farmland that could constitute FLL, however, given the distance from the Morecambe Bay and Duddon Estuary SPA/Ramsar site (16km), and lack of bird records within the last five years, this adjacent land is not considered to constitute FLL.	N	H	None anticipated.	No	No	**No Likely Significant Effects.**
Galgate Mill Policy: ~~EC1.21~~EC1.21	2.5km	Redevelopment of a small area in Galgate. The site is surrounded by green fields to the east and west, and existing development to the north and south.	Employment 0.5ha	The site lies within a tetrad that contains the following individual bird records: Common gull (114 birds), mallard (34 birds), curlew (30 birds), black-headed gull (17 birds), and the following species were recorded in numbers less than 10: lapwing, little egret, cormorant, moorhen, mute swan, grey heron, herring gull, lesser black-backed gull, oystercatcher, snipe, woodcock, herring gull, mallard, shelduck and wood duck. Additionally, there are two monad records comprising 1,200 and 38 PFG in flight within Galgate. Given that the site comprises a redevelopment, it is unlikely that the data relates to the site. The records are more likely to relate to the open farmland to the west of the site. GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.	N	N	This site comprises a redevelopment and is not considered to be FLL. The fields directly to the west and east of the site could constitute FLL. However, given the lack of regular bird records in significant numbers and the proximity to Galgate, the A6 and M6, these fields would not constitute FLL. The larger fields 1 km west of the site (away from roads and existing development), and closer to the River Lune are likely to provide more suitable areas of FLL.	N	H	None anticipated	No	No	**No likely significant effect.**

				Bird Data									
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
Willow Mill Policy: ~~EC1.21~~EC1.20	7km	Small redevelopment within Caton, surrounded by existing buildings.	Employment 0.2ha	The site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately 5 km away. GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.	N	N	This allocation relates to the redevelopment within an urban setting. The site is surrounded by development. The site, and adjacent land, is not considered to be FLL. The closest open farmland to the allocation site that could constitute FLL is located over 100 m south west beyond the existing development.	N	H	None anticipated.	No	No	**No Likely Significant Effects.**
Policy EC2: Future Employment Growth													
Lancaster University Health Innovation Campus~~Park~~ Policy: SG2	2km	Green field site to the south of Scotforth, south of Lancaster. The site is adjacent to the Bailrigg Garden Village (Policy: SG1 Site ref: SA17) allocation.	Employment 10.8 ha	This site lies within a tetrad with bird data and a monad with PFG/ Bewick's swan/ whooper swan data. The monad records comprised one record of PFG in flight (500 birds). The secondary information associated with this record detailed the record as flying over the university campus The tetrad data comprises single records of oystercatcher (500 birds), and redshank (300 birds). These records could be related to the fields within the site, however, they are more likely related to Blea Tarn Reservoir and Langthwaite Reservoir, which are both within the tetrad. These records could be related to the fields within the site, however, they are more likely related to Blea Tarn Reservoir and Langthwaite Reservoir, which are both within the tetrad. GMEU wintering bird surveys were not undertaken within the allocation as planning permission has already been granted for this site.	N	N	The footprint of the site consists of a large field with scattered trees, and existing buildings. Although there is the potential that this site could be used by SPA birds, available data does show regular use by significant numbers of birds. Combined with the location adjacent to the A6 and existing development and with features restricting sightlines, the site is not considered to constitute FLL. The closest land which could constitute FLL is located west of the site, beyond the A6 and railway line.	N	H	None anticipated (however, the site falls within the larger Bailrigg Garden Village allocation and will therefore be included within the overall assessment of the entire site)	No	No	**No Likely Significant Effects.** [planning permission already granted]
North Lancaster Business Park Policy: SG9/EC2	2.2km	Within the North Lancaster Strategic Site, a greenfield site on the northern edge of Lancaster.	Employment 5ha	The allocation is within a tetrad containing bird data. The records comprise individual records of: black-headed gull (240 birds), herring gull (64 birds), mallard (64 birds), common gull (48 birds), lapwing (46 birds), curlew (20 birds), mute swan (20 birds), redshank (19 birds), lesser black-backed gull (17 birds), moorhen (14 birds), cormorant (11 birds), goosander (11 birds) and oystercatcher (11 birds). The following species were also recorded in the tetrad in numbers less than 10 individuals: little grebe, goldeneye, teal, black-tailed godwit, lesser black-backed gull, common sandpiper, great black-backed gull, Mediterranean gull, shelduck, snipe, water rail, woodcock, mute swan, whooper swan and red-breasted merganser. Although it is possible that a proportion of these records relate to the site, the River Lune forms part of the tetrad and it is likely that the majority of these species were recorded along the River, in particular the duck species.	N	N	The allocation site contains green fields with the northern boundary of the allocation comprising the recently completed A683 dual carriageway. Aerial images of the new road scheme indicate that a large portion of the allocation were disturbed as a result of construction and therefore given the reduced size of the fields as result of the new road, the location with development to the south, and major roads to the north, the fields within this allocation are not considered to be FLL. Fields to the north beyond the dual carriageway and closer to the SPA are considered likely to be FLL.	N	H	None anticipated	No	No	**No likely significant effect.**

				Bird Data										
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
				The new A683 dual carriage way is located at the northern boundary of the allocation. Bird surveys carried out in 2002/03 to inform the ES for the Scheme did not identify any pink-footed geese utilising the fields within and adjacent to the route. Small numbers of waterfowl and waders were recorded in the fields including lapwing and curlew (up to 100 birds recorded). However, the ES did not identify any significant effect on the winter bird population, and no mitigation was required. In addition to the above records GMEU wintering bird surveys were also undertaken at the allocation which identified one record of 10 common gull and two records of 253 and 68 black-headed gull (from ten point-count locations along the edge of the allocation). A single record of six PFG were identified to the east of the allocation. None of the Fylde Birds Club records, A683 survey findings or GMEU survey records represent more than 1% of any of the qualifying population of the species identified and therefore the SPA birds are not present in significant numbers.									
Junction 33 Auction Market Policy: EC3	2.4km	Green field site, bordered by the Lancaster Canal to the west and the A6 to the east. The site is in the vicinity of the M6 Jn 33.	Employment 15 ha	The site lies within a tetrad that contains the following individual bird records: Common gull (114 birds), mallard (34 birds), curlew (30 birds), black-headed gull (17 birds), and the following species were recorded in numbers less than 10: lapwing, little egret, cormorant, moorhen, mute swan, grey heron, herring gull, lesser black-backed gull, oystercatcher, snipe, woodcock, herring gull, mallard, shelduck and wood duck. Additionally, there are two monad records comprising 1,200 and 38 PFG in flight within Galgate. Although a proportion of these records could relate to the site, the records are more likely to relate to the open farmland to the west of the site. Desk study information gathered by GEMU indicated that further bird surveys were not required at this site. GMEU wintering bird surveys were therefore not undertaken within the allocation.	N	N	Although this site could support SPA birds, given its proximity to the M6 Junction 33, the A6 and railway line and lack of regular bird records in significant numbers, the site is not considered to constitute FLL. In addition, habitat suitability surveys undertaken by GMEU did not identify the site as likely to support SPA species (and deemed it not necessary to undertake further bird surveys at the site). The farmland approximately 1 km to the west, close to the River Conder is considered more likely to be FLL.	N	H	None anticipated	No	No	**No Likely Significant Effects.**
South and Central Lancaster													
Lancaster Castle and Quay Policy: SG6	2km	Redevelopment within Lancaster	Tourism and leisure 14.85 ha	This site lies within a tetrad containing bird data. The bird data included individual records of the following bird species: PFG (2,700 birds), golden plover (350 birds), black headed gull (137 birds), lapwing (85 birds), mallard (80 birds), curlew (77 birds), redshank (26 birds) and common gull (18 birds). The following species were also	Although the allocation lies within the FLL buffer, given that the site comprises existing buildings and amenity	N	This site comprises amenity grassland and buildings within the centre of Lancaster. The grassland is surrounded by trees and would not constitute FLL. The site is surrounded by existing development and woodland which would not constitute FLL. The River Lune to the north is screened from the site by existing development and trees.	N	H	None anticipated	No	No	**No Likely Significant Effects.**

				Bird Data										
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
				recorded in numbers less than 10 within the tetrad: little egret, woodcock, oystercatcher, goosander, moorhen, snipe, barnacle goose, teal, grey heron, greylag goose, mute swan, goldeneye, green sandpiper, herring gull, lesser black-backed gull, little grebe, little ringed plover, Mediterranean gull, smew, white-fronted goose, shelduck, Canada goose, coot, tufted duck and wigeon. Given that the site is redevelopment on amenity grassland, the records are unlikely to relate to the site itself. The records are more likely to be associated with the River Lune, which is also within the tetrad. GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.	grassland, PFG are not likely to be present within the site.		The closest areas considered to constitute FLL are located south of the sites, more than 1 km away.						
Bulk Road and Lawsons Quay Policy: DOS1	2.7km	Redevelopment of existing town centre. The site is surrounded by existing development.	Commercial, leisure and retail 1.65 ha	This site lies within a tetrad containing bird data. The records comprise individual records of: black-headed gull (240 birds), lapwing (75 birds), common gull (55 birds), mallard (45 birds), cormorant (42 birds), teal (42 birds), goosander (30 birds), goldeneye (25 birds), grey heron (19 birds), moorhen (19 birds), little grebe (17 birds), herring gull (12 birds), mute swan (10 birds) and redshank (10 birds). The following species were also recorded in numbers less than 10 within the tetrad: oystercatcher, tufted duck, dunlin, great black-backed gull, lesser black-backed gull, snipe, wigeon, common sandpiper, coot, curlew, green sandpiper, little egret, Mediterranean gull, pochard, red-breasted merganser, shelduck, shoveler and woodcock. Given that the site is a redevelopment, it is considered unlikely that the bird records relate to the site itself. The River Lune forms part of the tetrad and it is likely that the majority of the species recorded were associated with the River. Desk study information gathered by GEMU for Kingsway South indicated that further bird surveys were not required at this site. GMEU wintering bird surveys were not undertaken within the allocation.	N	N	This site comprises existing building. The site is surrounded by existing development. The site and adjacent land do not constitute FLL. The River Lune to the north of the site is screened from the site by an existing road and trees. The closest areas considered to constitute FLL are located to the northeast of the site, more than 1 km away.	N	H	None anticipated	No	No	**No Likely Significant Effects.**

				Bird Data									
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
Morecambe													
Morecambe Festival Market and Surroundings Policy: ~~DOS8~~DOS6 This site is included within the Morecambe Bay Area Action Plan (AAP).	Adjacent	Redevelopment of existing urban site.	Retail, leisure and residential 6.2 ha	The site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately 1 km away. Desk study information gathered by GEMU indicated that further bird surveys were not required at this site. GMEU wintering bird surveys were therefore not undertaken within the allocation.	N	Although the allocation lies within 200m of Bubbles Breakwater roost, given the site is re-development within the existing town, additional disturbance to this area would not be anticipated.	This site comprises existing buildings. The site is surrounded by existing development. The site and adjacent land do not constitute FLL. The closest areas considered to constitute FLL are located to the southeast of the site, more than 1.5 km away.	Y	H	**Hydrological link** Although the site is adjacent to Morecambe Bay, a Plan-Level HRA of the Morecambe Bay AAP has been undertaken (which includes the allocation considered here). The HRA concluded no LSE on Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC as a result of implementation of the AAP Potential water quality effects can therefore be ruled out.	No	No	**No Likely Significant Effects.**
South Heysham													
Lancaster and Morecambe College Policy: EC7	1.7km	Redevelopment of an existing site. The site is bordered by Torrisholme Road to the north, the A589 to the south, playing fields to the west.	Education 5.7ha	This site lies within a tetrad containing bird data. Given that the site is a redevelopment, it is considered unlikely that the bird records relate to the site itself. The records are more likely to be related to the River Lune which is also within these tetrads. GMEU wintering bird surveys were not undertaken within the allocation.	N	N	This site comprises existing buildings and amenity grassland. The site is surrounded by existing development. The site and adjacent land do not constitute FLL. The closest areas considered to constitute FLL are located to the north of the site, more than 0.5 km away.	N	H	None anticipated	No	No	**No Likely Significant Effects.**
Chapter 8: Regeneration													
Central Morecambe Policy: TC4	Adjacent	All of these sites relate to regeneration with Morecambe. They are all within the Morecambe Bay AAP.	Regeneration priority 180.8ha	None of these sites lie within a tetrad containing bird data. The nearest tetrad to the sites is over 800 m away GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.	N	Although the allocation lies within 180m of Bubbles Breakwater and 160m of Sunnyside Breakwater roost sites, given the site are all re-development with the existing town centre, additional disturbance to these areas would not be anticipated.	Although the sites are adjacent to Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC, the areas covered by these allocations comprise urban regeneration. The site and surrounding area (comprising existing development) would not constitute FLL. The closest FLL lies more than 1km away to the north and south of Morecambe.	Y	H	**Hydrological link** Although the site is adjacent to Morecambe Bay, a Plan-Level HRA of the Morecambe Bay AAP has been undertaken (which includes the three allocations considered here). The HRA concluded no LSE on Morecambe Bay and Duddon Estuary SPA/Ramsar site/SAC as a result of implementation of the AAP Potential water quality effects can therefore be ruled out.	No	No	**No Likely Significant Effects.**
Morecambe, West End Policy: EC5.7			Regeneration priority 54.49ha					Y	H		No	No	**No Likely Significant Effects.**
Morecambe Town Centre Policy: TC1.2			District centre 15ha					Y	H		No	No	**No Likely Significant Effects.**
Carnforth Town Centre Policy: TC1.3	800m	Redevelopment of central Carnforth	Retail centre 2.7ha	These sites do not lie within a tetrad with bird records. The nearest tetrad to the site is approximately 6 km away. GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.	N	N	This site comprises regeneration within the town centre of Carnforth. The site and surrounding area (comprising existing development) would not constitute FLL. The closest land which could constitute FLL lies beyond the River Kerr to the north (south of Warton), and fields to the west (closer to the Estuary). These areas are more likely to provide suitable FLL (away from existing disturbance associated with Carnforth).	N	H	**Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new employment sites within 1.5 km of the European site. Given that the site will be used for redevelopment of existing retail units and is more than 800m from Morecambe Bay, it is considered unlikely that there would be likely	No	No	**No Likely Significant Effects.**

				Bird Data										
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
										significant effects alone or in combination.			
Carnforth Policy: EC5.6	Adjacent	Development within and around Carnforth.	Regeneration priority 61.9 ha		Although this site lies within the FLL buffer, given that it is located in and around Carnforth, PFG are not likely to be present within the site.	N	This site incorporates other developments within Carnforth and does not detail any specific development outside of the other allocations. The area included within the site comprises urban landscapes including railways, industrial areas and residential development and therefore does not constitute FLL.	Y	H	**Hydrological link** Although the site is within 500 m of Morecambe Bay, there are no watercourses linking this site to Morecambe Bay. Potential water quality effects can therefore be ruled out.	No	No	**No Likely Significant Effects.**
Canal Quarter~~Corridor North~~ Central Lancaster ~~Lancaster Canal Corridor~~ Policy: SG5	2.6km	Redevelopment in central Lancaster	Retail, leisure and student bedspace 6.34ha	This site lies within a tetrad containing bird data. with bird data which contains individual records of the following bird records: PFG (2,700 birds), golden plover (350 birds), black headed gull (137 birds), lapwing (85 birds), mallard (80 birds), curlew (77 birds), redshank (26 birds) and common gull (18 birds). The following species were also recorded in numbers less than 10 within the tetrad: little egret, woodcock, oystercatcher, goosander, moorhen, snipe, barnacle goose, teal, grey heron, greylag goose, mute swan, goldeneye, green sandpiper, herring gull, lesser black-backed gull, little grebe, little ringed plover, Mediterranean gull, smew, white-fronted goose, shelduck, Canada goose, coot, tufted duck and wigeon. Although this site lies within a tetrad containing bird data, given that the site is in central Lancaster, the records are more likely to relate to areas outside of the main City Centre. GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.	N	N	This site comprises urban regeneration within Lancaster. The site and surroundings comprise existing development and would not constitute FLL. The closest FLL lies more than 1 km away outside of Central Lancaster.	N	H	None anticipated	No	No	**No Likely Significant Effects.**
Lancaster City Centre Policy number: SG4	2km	Redevelopment in and around central Lancaster	Retail 24.8ha	These sites lie within a tetrad with bird data which contains individual records of the following bird records: PFG (2,700 birds), golden plover (350 birds), black headed gull (137 birds), lapwing (85 birds), mallard (80 birds), curlew (77 birds), redshank (26 birds) and common gull (18 birds). The following species were also recorded in numbers less than 10 within the tetrad: little egret, woodcock, oystercatcher, goosander, moorhen, snipe, barnacle goose, teal, grey heron, greylag goose, mute swan, goldeneye, green sandpiper, herring gull, lesser black-backed gull, little grebe, little ringed plover, Mediterranean gull, smew,	Although these sites lie within the FLL buffer, given that they are located in and around central Lancaster, PFG are not likely to be present within the site.	N	The area covered by the Masterplan, and the associated allocations within Lancaster City Centre comprises urban regeneration. The Masterplan area and surroundings comprise existing development and would not constitute FLL. The closest FLL lies more than 1 km away outside of Central Lancaster.	N	H	None anticipated	No	No	**No Likely Significant Effects.**
Lancaster City Centre Policy number: TC1.1	2km	Redevelopment in central Lancaster	Retail 24.7ha					N	H		No	No	**No Likely Significant Effects.**
Central Lancaster Policy: EC5	3km	Redevelopment in central Lancaster	Regeneration Priority 46.94 ha					N	H		No	No	**No Likely Significant Effects.**

				Bird Data										
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
				white-fronted goose, shelduck, Canada goose, coot, tufted duck and wigeon. Although this Masterplan area, and associated allocations, lies within a tetrad containing bird data, given that Masterplan covers Central Lancaster, the records are more likely to relate to areas outside of the main City Centre. GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.									
Caton Road Gateway Policy Number: EC5.3	3km	Redevelopment in northern Lancaster	Regeneration Priority 48.3 ha	This site lies within a tetrad containing bird data. The records comprise individual records of: black-headed gull (240 birds), lapwing (75 birds), common gull (55 birds), mallard (45 birds), cormorant (42 birds), teal (42 birds), goosander (30 birds), goldeneye (25 birds), grey heron (19 birds), moorhen (19 birds), little grebe (17 birds), herring gull (12 birds), mute swan (10 birds) and redshank (10 birds). The following species were also recorded in numbers less than 10 within the tetrad: oystercatcher, tufted duck, dunlin, great black-backed gull, lesser black-backed gull, snipe, wigeon, common sandpiper, coot, curlew, green sandpiper, little egret, Mediterranean gull, pochard, red-breasted merganser, shelduck, shoveler and woodcock. Given that the site comprises existing development, it is unlikely that these records would relate to the site itself. The records are more likely to relate to the River Lune which is also within the tetrad. GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.	N	N	This site comprises existing industrial units and would not constitute FLL. The River Lune to the north and west of the site is screened from the development by existing scrub and woodland. The closest land which could constitute FLL is located east of the site (within the Cuckoo Farm and Ridge Farm allocation). This land is separated from the site by Caton Road, Lancaster Canal and existing tree and scrub habitat.	N	H	None anticipated	No	No	**No likely significant effect.**

Table 13: Detailed screening of proposed additional allocation sites identified in August 2017

				Bird Data										
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
Land adjacent to Imperial Road Policy: ~~SG14~~S~~G12~~.2	1.6km	Greenfield site to the south west of Heysham within the wider proposed Heysham Gateway area.	Employment 11.2ha	This site is located within a tetrad containing the following bird data: black-headed gull (500), herring gull (14) and the following species recorded in numbers <10: teal, coot, lesser black-backed gull, mallard, moorhen, shelduck, grey heron, little egret, golden plover, lapwing, oystercatcher, redshank and snipe. Desk study information gathered by GEMU indicated that further bird surveys were not required at this site. GMEU wintering bird surveys were therefore not undertaken within the allocation.	The northern edge is within a level 3 PFG square with the remainder of the site within the FLL buffer.	N	The site comprises 3 agricultural fields to the south of the A683. Whilst the habitats are considered to be suitable for foraging SPA birds, the presence of large overhead power cables, the BT wind turbine (to the northeast of the allocation site), and the South Heysham wind farm (which comprises three turbines, one of which lies on the western edge of allocation) makes the site less suitable for SPA species. Surveys to inform the ornithological assessment for the Heysham wind farm (undertaken by Banks Renewables in 2009-2010) only identified birds utilising the fields to the south of the A683 on four occasions[34]. Therefore, based on the presence of the new turbines and overhead cables, and the limited number of bird records (from the pre-construction wind farm surveys, and Lancaster Bird Club records) and GMEU habitat suitability surveys (which deemed the site not suitable for SPA species), the site is not considered to constitute FLL. Fields to the north of the adjacent A683 at Heysham Moss are considered to be the closest area that could be FLL.	N	H	**Disturbance to birds using adjacent land which could be functionally linked to Morecambe Bay and Duddon Estuary SPA/Ramsar site.** There is the potential to disturb birds during the construction phase of any proposed development at this site. However, given that the site and surroundings are already subject to disturbance from existing development, and data indicates that birds tend to utilise areas to the north of the A683, it is considered unlikely that there would be a significant increase in noise and visual disturbance from development of this site, such that it would have a significant detrimental effect on species associated with Morecambe Bay and Duddon Estuary SPA/Ramsar site potentially utilising fields to the north of the site.	No	No	**No likely significant effect**
New Quay Road, Lancaster Policy H1.1~~2~~	1 km	Small patch of rough grassland between New Quay Road and the River Lune. The site is opposite some recently constructed house.	Residential 0.37 ha	The site lies within the same tetrad as the Luneside allocations. Bird data contains individual records of the following bird records: PFG (2,700 birds), golden plover (350 birds), black headed gull (137 birds), lapwing (85 birds), mallard (80 birds), curlew (77 birds), redshank (26 birds) and common gull (18 birds). The following species were also recorded in numbers less than 10 within the tetrad: little egret, woodcock, oystercatcher, goosander, moorhen, snipe, barnacle goose, teal, grey heron, greylag goose, mute swan, goldeneye, green sandpiper, herring gull, lesser black-backed gull, little grebe, little ringed plover, Mediterranean gull, smew, white-fronted goose, shelduck, Canada goose, coot, tufted duck and wigeon. Desk study information gathered by GEMU indicated that further bird surveys were not required at this site. GMEU wintering bird surveys were therefore not undertaken within the allocation. Given that the site is a narrow strip of land between the River flood defences and New Quay Road, the allocation is not suitable for supporting large numbers of birds. The records are likely to relate to the more suitable estuarine habitat and Aldcliffe Marshes (approximately 0.8 km from the site) which are also within the tetrad. However, the River Lune is to the north of the sites and therefore there is	N	N	The site is a narrow strip of rough grassland between the River Lune flood defence wall and New Quay Road, the allocation is not suitable for supporting large numbers of birds, therefore is not considered to be FLL. The closest FLL is considered likely to be Aldcliffe Marsh, 0.8 km to the south west.	N	J	**Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new residential sites within 3.5 km of the European site.	No	Y (site within 3.5 km of Morecambe Bay)	Further in combination assessment required [planning permission already granted]

[34] Banks Renewables (2011). Heysham Wind Farm. Ornithology Full Technical Report Appendix 3 of the Environmental Statement

				Bird Data									
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
				the potential for disturbance to birds using the River Lune during construction.									
Former Police Station, Heysham Policy: H1.3	0.3 km	Development of area of hardstanding adjacent to existing buildings in the centre of Heysham	Residential 0.06 ha	Although there are bird records for the tetrad containing the site, the very small size and urban nature of the site, the closest bird records would relate to Morecambe Bay over 300 m from the allocation. Desk study information gathered by GEMU indicated that further bird surveys were not required at this site. GMEU wintering bird surveys were therefore not undertaken within the allocation	N	N	This site comprises urban regeneration within Heysham. The site and surroundings comprise existing development and would not constitute FLL. The allocation is closer to Morecambe Bay itself than any land which could be considered to be FLL.	N	J	**Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new residential sites within 3.5 km of the European site.	No d	Y (site within 3.5 km of Morecambe Bay)	Further in combination assessment required [planning permission already granted]
~~Broadway Hotel, Morecambe Policy: H1.4~~	~~0.025 km~~	~~Redevelopment of a former hotel which has already been demolished. Site lies at the junction of the A5105 and Broadway Road.~~	~~Residential 0.28 ha~~	~~The site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately 800 m away.~~ ~~Given the small size and urban setting, GMEU wintering bird surveys were not undertaken at the allocation.~~	~~N~~	~~Although the allocation lies within 500m of Town Hall Breakwater roost, given the site is re-development within the existing town, additional disturbance to this area would not be anticipated.~~	~~The site comprises redevelopment of an old hotel (which has already been demolished) within Morecambe, the site and surroundings are not considered to be FLL.~~ ~~The allocation is closer to Morecambe Bay itself than any land which could be considered to be FLL~~	~~N~~	~~J~~	~~**Recreational pressure in relation to Morecambe Bay**~~ ~~There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new residential sites within 3.5 km of the European site.~~	~~No~~	~~Y~~ ~~(site within 3.5 km of Morecambe Bay)~~	~~Further in combination assessment required~~ ~~[planning permission already granted]~~
Land West of White Lund Road Policy: H1.5	1.3 km	Small area of rough grassland surrounded by housing on 3 sides with a farm to the south.	Residential 0.23 ha	This site lies within a tetrad containing bird data. The records comprise individual records of: PFG (375 birds), lapwing (150 birds), oystercatcher (50 birds), and the following species were recorded within the tetrad in numbers less than 10: black-headed gull, moorhen, common gull, Canada goose, lesser black-backed gull, curlew, grey heron, herring gull, water rail, mallard and mute swan. Given that the site comprises existing development, it is unlikely that these records would relate to the site itself. The records are more likely to relate to the River Lune and adjacent habitat which is also within the tetrad. Desk study information gathered by GEMU indicated that further bird surveys were not required at this site. GMEU wintering bird surveys were therefore not undertaken within the allocation.	Although the site lies within a Level 3 PFG square, and the FLL buffer, given that this site is a redevelopment, PFG are not likely to be present within the site.	N	The footprint of the site, and land to the north, east and west, comprise existing development and would not constitute FLL. The fields to the south of the site, could constitute FLL, however the allocation is screened from the fields by farm buildings so no disturbance effects from this small development site are anticipated.	N	H	**Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new residential sites within 3.5 km of the European site.	No	Y (site within 3.5 km of Morecambe Bay)	Further in combination assessment required [planning permission already granted]
~~Grove Street Depot Policy: H1.6~~	~~0.13 km~~	~~Redevelopment of a derelict industrial building in Morecambe West End.~~	~~Residential 0.15 ha~~	~~The site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately 1 km away.~~ ~~Given the small size and urban setting, GMEU wintering bird surveys were not undertaken at the allocations.~~	~~N~~	~~Although the allocation lies within 750m of Bubbles Breakwater roost, given the site is re-development within the existing town, additional~~	~~The site comprises redevelopment of an old hotel (which has already been demolished) within Morecambe, the site and surroundings are not considered to be FLL.~~ ~~The allocation is closer to Morecambe Bay itself than any land which could be considered to be FLL~~	~~N~~	~~J~~	~~**Recreational pressure in relation to Morecambe Bay**~~ ~~There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new~~	~~No~~	~~Y~~ ~~(site within 3.5 km of Morecambe Bay)~~	~~Further in combination assessment required [planning permission already granted and site under construction]~~

				Bird Data									
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
						~~disturbance to this area would not be anticipated.~~				~~residential sites within 3.5 km of the European site.~~			
~~University of Cumbria~~Land at University of Cumbria Policy: H3.~~23~~	2.55 km	Redevelopment of existing university buildings to create residential development)	Residential 1.85 ha 15 dwellings	This site lies within a tetrad containing bird data. The records comprise single records of mallard (80 birds), black-headed gull (35 birds) and common gull (26 birds). The following species were also recorded in numbers less than 10 within the tetrad: moorhen, mute swan, goosander, lapwing, little grebe, oystercatcher, snipe, woodcock, grey heron, lesser black-backed gull, Mediterranean gull and redshank. Given that the allocation comprises redevelopment, it is unlikely that these records would relate to the site itself. The records are more likely to be related to fields to the east of the site (beyond the M6) and north of the site. GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.	N	N	This site comprises existing building and small amounts of amenity grassland. The site is surrounded by existing development. The site and adjacent land do not constitute FLL. The closest areas considered to constitute FLL are located east of the site, more than 1 km away.	N	J	**Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new residential sites within 3.5 km of the European site.	No	Y (site within 3.5 km of Morecambe Bay)	Further in combination assessment required
Middleton Road Employment Area Policy: EC~~2.11.13~~	0.88 km	Brownfield site within the wider Heysham Gateway allocation. The site supports regenerated habitats and is part of the Middleton Nature Reserve.	Employment 21.5 ha	This site is within a tetrad containing bird data and a monad with PFG/ Bewick's swan/ whooper swan data. The records from the tetrad comprise individual records of: knot (1,355 birds), oystercatcher (916 birds), redshank (167 birds), black-headed gull (147 birds), shelduck (97 birds), wigeon (57 birds), ringed plover (53 birds), curlew (43 birds), bar-tailed godwit (21 birds), dunlin (17 birds), lapwing (12 birds) and grey plover (10 birds). The following species were also recorded in the tetrad in numbers less than 10 individuals: coot, common sandpiper, eider, gadwall, greylag goose, herring gull, tufted duck, turnstone, mallard, red-breasted merganser, common gull, great black-backed gull, lesser black backed gull, little egret, little gull, little ringed plover, mute swan, cormorant, jack snipe, snipe, teal, goldeneye, kittiwake, little grebe, Mediterranean gull, moorhen, pochard, water rail, whimbrel, woodcock and grey heron. The monad records included two records of PFG, flying toward Heysham Moss (5,000 and 5,700 birds). Desk study information gathered by GEMU indicated that further bird surveys were not required at this site. GMEU wintering bird surveys were therefore not undertaken within the allocation. Given habitats that are present within the allocation, it is unlikely these records relate to the site itself, it is more likely that they are associated with Red Nab wader roost and the adjacent coastline.	N	N	This site comprises small grassland fields bounded by hedgerows with scattered scrub and is not considered to constitute FLL. The closest land to the allocation site that could constitute FLL is located to the north east of the site at Heysham Moss (0.75 km away, separated from the site by the A683/A589 and Lancaster West Business Park allocation).	N	J	**Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new employment development within 1.5 km of the European sites.	No	Y (site within 1.5 km of Morecambe Bay)	Further in combination assessment required

				Bird Data										
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
Land North of Old Hall Farm Policy: ~~H2.6~~H2.5	2.9 km	Grassland site comprising 3 small fields extending the village of Over Kellet to the north east.	Residential 3.5 ha	This site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately 8.5 km away. GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.	N	N	Road, sight lines, no goose data, close to existing/road Land to the north-east and west could be but no data - west closer to estuary more likely	N	J	**Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new development within 3.5 km of the European sites. Given the small size of the site (55 houses), there would be no likely significant effects alone, however, the site will be considered in the in combination assessment.	No	Y (site within 3.5 km if Morecambe Bay)	Further in combination assessment required
~~Monkswell Avenue Policy: H2.7~~	~~0.6km~~	~~Three small fields within the town of Bolton-le-Sands with development on all sides.~~	~~Residential 0.79 ha~~	~~This site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately 6 km away. GMEU wintering bird surveys were not undertaken within the allocation.~~	~~N~~	~~N~~	~~The allocation comprises 3 small fields surrounded by development and would not constitute FLL. The closest FLL is considered likely to be fields over 500 m to the west, closer to the coast/~~	~~N~~	~~J~~	~~**Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new development within 3.5 km of the European sites. Given the small size of the site (15 houses), there would be no likely significant effects alone, however, the site will be considered in the in combination assessment.~~	~~No~~	~~Y (site within 3.5 km if Morecambe Bay)~~	~~Further in combination assessment required~~
Halton Mills Policy: ~~H2.8~~H2.6	4.1 km	Partially completed site with the remaining site	Residential 6.19 ha	This site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately 6 km away. GMEU wintering bird surveys were not undertaken within the allocation.	N	N	Site is already under construction.	N	H	None anticipated	No	No	**No Likely Significant Effects.** [planning permission already granted]
Land South of Low Road, Halton Policy: ~~H2.9~~H2.7	4.5 km	Partial development of three agricultural fields located between Halton and the River Lune.	Residential 4.8 ha	This site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately 6 km away. GMEU wintering bird surveys were not undertaken within the allocation.	N	N	The site comprises the partial development of three fields to the north of the River Lune with the existing town of Halton to the north. The south of the site is screened from the river by a strip of woodland and given the enclosed nature of the site it does not constitute FLL. Whilst open farmland is present to the south (beyond the River Lune and east, none of the data sources reviewed identified the area as being utilised by SPA birds. The closest FLL is therefore considered to be land to the south east, beyond Lancaster close to the Lune Estuary.	N	H	None anticipated	No	No	**No Likely Significant Effects.** [planning permission already granted]

				Bird Data										
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
Land between Low Road and Forge Lane, Halton Policy: ~~H2.10~~H2.8	4.1 km	Series of small grassland fields on the southern edge of Halton with the partially completed Halton Mills development to the south.	Residential 5.24 ha	This site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately 6 km away. GMEU wintering bird surveys were not undertaken within the allocation.	N	N	The site comprises a series of small fields adjacent to existing roads and development and do not comprise FLL. Whilst open farmland is present to the south (beyond the River Lune and east, none of the data sources reviewed identified the area as being utilised by SPA birds. The closest FLL is therefore considered to be land to the south east, beyond Lancaster close to the Lune Estuary.	N	H	None anticipated	No	No	**No Likely Significant Effects.** [planning permission already granted]
Land to the rear of Pointer Grove and adjacent to High Road Policy: ~~H2.11~~H2.9	4 km	Single grassland field on the north-western edge of Halton	Residential 4.3 ha	This site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately 6 km away. GMEU wintering bird surveys were not undertaken within the allocation.	N	N	The site comprises a single grassland field on the northern edge of Halton with road to the south. Given the small size of the site and presence of existing development to the south and west, the site is not considered to be FLL. Whilst open farmland is present to the north and east, none of the data sources reviewed identified the area as being utilised by SPA birds. The closest FLL is therefore considered to be land to the south east, beyond Lancaster close to the Lune Estuary.	N	H	None anticipated	No	No	**No Likely Significant Effects.** [planning permission already granted]
Land ~~off~~ south of Marsh Lane, Cockerham Policy: ~~H2.12~~H2.10	1.1 km	Single grassland field on the edge of the existing village, bounded by hedgerows, Marsh Lane and existing properties.	Residential 1.98 ha	This site does not lie within a tetrad with bird records. The nearest tetrad to the site is approximately 2 km away. GMEU wintering bird surveys were not undertaken within the allocation.	Within Level 1 PFG square	N	Although the habitat within the site could support SPA birds, given the small size and enclosed nature of the allocation it is not considered to be FLL. The open farmland to the west, beyond the edge of the village and closer to the SPA is considered likely to be FLL.	N	J	**Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new development within 3.5 km of the European sites. Given the small size of the site (36 houses there would be no likely significant effects alone, however, the site will be considered in the in combination assessment.	No	Y (site within 3.5 km if Morecambe Bay)	Further in combination assessment required)
Sunnycliff Retail Park, Mellishaw Road Policy TC3.1	0.7 km	Grassland field surrounding the existing retail depot with A683 to the east and White Lund Industrial Area to the North. Open farmland is present to the south west	Employment 4.2 ha	This site lies within a tetrad containing bird data. The records comprise individual records of: PFG (375 birds), lapwing (150 birds), oystercatcher (50 birds), and the following species were recorded within the tetrad in numbers less than 10: black-headed gull, moorhen, common gull, Canada goose, lesser black-backed gull, curlew, grey heron, herring gull, water rail, mallard and mute swan. Given that the site comprises an extension to existing development, it is unlikely that these records would relate to the site itself. The records are more likely to relate to the River Lune and adjacent habitat which is also within the tetrad. GMEU wintering bird surveys were not undertaken within the allocation.	The site lies within a Level 3 PFG square, and the FLL buffer, given that this site is adjacent to existing development, PFG are not likely to be present within the site, however they could be present within fields to the south west	N	Although the footprint of the site comprises grassland fields, none of the allocation is more the 100m from the existing industrial area and is therefore unlikely to support SPA species. Land to the north also comprises a large industrial area with the A683 Heysham Link Road to the east. These areas would not constitute FLL. The fields to the southwest of the site could constitute FLL. Maps showing traditional foraging areas for PFG show that regularly used fields are over 600 m south of the allocation, in larger fields that are less disturbed by the surrounding development.	N	J	**Disturbance to birds using adjacent land which could be functionally linked to Morecambe Bay and Duddon Estuary SPA/Ramsar site.** There is the potential to disturb birds during the construction phase of any proposed development at this site. However, given that the site and surroundings are already subject to disturbance from existing development, and data indicates that birds tend to utilise areas over 600 m from the allocation, it is considered unlikely that there would be a significant increase in noise and visual disturbance from development of this site, such that it would have a significant detrimental effect associated with Morecambe Bay and Duddon Estuary SPA/Ramsar site potentially utilising fields to the south of the site.	No	Y (site within 1.5 km of Morecambe Bay)	**No Likely Significant Effects.**

				Bird Data									
Local Plan Sites	European Sites Potentially Affected	Site location description	Type	Lancaster Bird Club Data (Summary of relevant records) and results of GEMU data (where surveyed)	Pink-footed Goose Square/ Swan-goose functional land IRZ layer?	Morecambe Bay Wader Roost Study (refer to Section 6.5). Roost within 1 km	Functionally Linked Land (FLL) for bird species associated with the European sites considered in this assessment	Hydro link (site within 500 m)?	Assessment Category	Potential Impacts	Potential for significant effect alone?	Potential for significant in combination effects with other sites in the Plan?	Conclusion
										Recreational pressure in relation to Morecambe Bay Whilst there is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of employment sites within 1.5 km of the European site, given that the allocation is an extension of an existing employment site, no additional recreational pressure above those already experienced would be anticipated.			
~~Land at Moor Lane Mills, Policy: DOS2~~	~~2.4 km~~	~~Redevelopment of existing Mill buildings within an urban setting in Central Lancaster~~	~~Mixed-use 1.4 ha~~	~~This site lies within a tetrad containing bird data. The records comprise single records of mallard (80 birds), black-headed gull (35 birds) and common gull (26 birds). The following species were also recorded in numbers less than 10 within the tetrad: moorhen, mute swan, goosander, lapwing, little grebe, oystercatcher, snipe, woodcock, grey heron, lesser black-backed gull, Mediterranean gull and redshank.~~ ~~Given that the allocation comprises redevelopment, the records would not relate to the site itself. The records are likely to be related to Williamson Park or fields to the east of the M6.~~ ~~GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development.~~	~~N~~	~~N~~	~~The site and surroundings are within Central Lancaster and would not constitute FLL.~~	~~N~~	~~H~~	~~**Recreational pressure in relation to Morecambe Bay** There is the potential for increased disturbance to species/habitats associated with Morecambe Bay through an increase in visitor numbers as a result of new employment sites within 1.5 km of the European site. Given that the site will be used for redevelopment of existing Mill buildings and is more than 800m from Morecambe Bay, it is considered unlikely that there would be likely significant effects alone or in combination.~~	~~No~~	~~No~~	~~**No Likely Significant Effects.**~~

7 In combination Effects (sites within the Local Plan Part One)

7.1 Overview

The HRA needs to consider not only the 'screened in' policies and sites within the Lancaster Local Plan where no likely significant effects upon European sites as a result of the policy or site alone have been confirmed, but also those that may have a significant impact in combination either with other policies or sites within the Lancaster Local Plan itself or with other plans and projects within the local area (or both). This Section looks at the potential in combination effects associated with allocations (and their associated policies) within the Local Plan Part One itself. In combination effects associated with other plans or projects is dealt with separately within Section 8, below.

7.2 Sites with the potential for likely significant effect alone (refer to Section 10 below)

7.2.1 There is the potential for in combination effects associated with the Lancaster South Broad Location for Growth (including Bailrigg Garden Village) and seven other allocations described within Section 10 below~~.~~. These eight allocations all have the potential to cause disturbance to birds (through recreation, or construction/operational activities) using adjacent functionally linked land or nearby coastal habitat, and therefore, this will be considered further in the Appropriate Assessment.

7.3 Sites with the potential for likely significant effect in combination

7.3.1 The detailed screening within Tables 11, 12 and 13 identified that there were a number of allocations with the potential for in combination effects associated with other allocations within the Local Plan Part One. These are assessed below.

Loss of functionally linked land

7.3.2 Only one allocation site was located on land which was considered to constitute functionally linked land Lancaster South Broad Location for Growth (including ~~(~~Bailrigg Garden Village), and as such there would be no in-combination effects with ot~~-~~her allocation sites within the Local Plan. Mitigation has been put in place (refer to Section 10) to off~~-~~set this potential impact.

~~Given that there is only one single site, there would be no in-combination effects in terms of loss of functionally linked land across the district.~~

Disturbance to birds using adjacent functionally linked land

7.3.3 Where sites were in close proximity to each other, the potential for increased disturbance as a result of concurrent construction activities has been considered. There are a small number of allocations that lie near to each other and could therefore cause disturbance to the same birds utilising either the coast, or nearby functionally linked land.

7.3.4 The allocation sites within Heysham Gateway (comprising: Port of Heysham, Port of Heysham Industrial Estate, Royd Mill, Land West of Middleton Road, Major Industrial Estate, Middleton Road Employment Area, Sub-station Land, Lancaster West Business Park, Land off Imperial Way, Heysham Industrial Estate and the Middleton Towers) are all located within close proximity to each other. Port of Heysham, Port of Heysham Industrial Estate, Sub-station Land, Lancaster West Business Park, and the Middleton Towers site are all discussed separately within Section 10, and all have mitigation in place to off-set the potential disturbance impacts associated with future development at the sites. For the remaining sites within the Gateway Area (Royd Mill, Land West of Middleton Road, Major Industrial Estate and Land off Imperial Way) only Land of Imperial Way lies adjacent to an area of functionally linked land with the others all over 600 m away. As such, concurrent development of these areas is considered unlikely to lead to a significant cumulative disturbance effect.

7.3.5 One small allocation, ~~Royal Albert~~Land at Royal Albert Fields, is located in close proximity to the Lancaster South Broad Location for Growth (including Bailrigg Garden Village). However, given the mitigation measures to be incorporated into the Lancaster South Broad Location for Growth

(including Bailrigg Garden Village) (detailed within Section 10), development at this site would not lead to a significant cumulative disturbance effect.

7.3.6 Although there are two adjacent allocations at Luneside (Lune Industrial Estate and Willow Lane/Coronation Field), only one is proposed for mixed-use development. Land at Willow Lane/Coronation field is allocated for recreation and public open space. Given that this allocation is closest to the functionally linked land to the south, this would provide a buffer to the developments within the Industrial Estate. The presence of an area of public open space would also provide an alternative space for people to use rather than accessing the functionally linked land beyond. No in combination effects of these two sites is therefore anticipated.

7.3.7 No other allocations were considered to be in close proximity to functionally linked land such that cumulative effects from increased numbers of residents accessing nearby footpaths/land would occur. Therefore, there would be no in combination effects as a result of concurrent construction in relation to disturbance to birds using adjacent functionally linked land.

7.3.8 This potential impact has been screened out of further assessment.

Recreational pressure on functionally linked land

7.3.9 There is also the potential for increased recreational pressure on areas of adjacent functionally linked land where housing developments are located in close proximity to each other, leading to a cumulative effect of greater numbers of people utilising public rights of way and disturbing birds using the functionally linked land. However, none of the allocations were considered to be directly connected to the same area of functionally linked land by public rights of way. Therefore, there would be no likely significant in combination effects associated with this potential impact and is screened out of further assessment.

Atmospheric air pollution

7.3.10 As outlined in Table 7, Section 6.2, there are a number of allocations within the Local Plan in the vicinity of sensitive habitats of the European sites associated with Morecambe Bay. These allocations have the potential for impacts associated with air pollution, however, as set out with Section 6.2, no impacts on air quality have been identified. Consequently, , no in combination effects in terms of air pollution are anticipated (as per the Wealden District Council v. Secretary of State for Communities and Local Government, Lewes District Council and South Downs National Park Authority [2017] EWHC 351). This potential in combination effect has been screened out of further assessment.

Water quality

7.3.11 The detailed screening determined that there are four allocations which are hydrologically linked to Morecambe Bay and Duddon Estuary SPA/ Morecambe Bay Ramsar site/SAC (comprising: Glasson Docks Industrial Area (~~EC1.18~~EC1.17), Middleton Towers (~~DOS7~~DOS5), Port of Heysham Industrial Estate (EC1.6), and Port of Heysham ~~Expansion~~(~~SG14~~SG12)). All of these allocations have been taken through to Appropriate Assessment. Due to the distances between Glasson Docks and Middleton Towers and the two allocations at Heysham (approximately 5km and 2km respectively), and the large tidal flows within the Bay; in combination effects associated with these allocations are considered unlikely. Port of Heysham Industrial Estate and the Port of Heysham ~~Expansion~~ are adjacent to each other, and therefore potential in combination impacts associated with water quality and these two allocations have been screened in for further Appropriate Assessment.

Recreational pressure on Morecambe Bay

7.3.12 The detailed screening identified 2~~0~~6 residential and five employment allocation sites (within Tables 12 and 13 of the detailed screening) which have been identified as requiring further assessment in relation to the potential for increased recreational pressure on Morecambe Bay. This potential impact has been screened in for further Appropriate Assessment.

7.4 Conclusion of in-combination effects assessment within Lancaster Local Plan Part One

7.4.1 The in- combination effects assessment of allocation sites within the Lancaster Local Plan Part One identified the potential for in combination effects associated with recreational pressure on Morecambe Bay, and potential for in combination effects associated with Lancaster South Broad Location for Growth – including Bailrigg Garden Village ~~Bailrigg Garden Village~~ and another seven allocations taken through to Appropriate Assessment alone. This was in relation to potential- disturbance to birds (through recreation, or construction/operational activities) using adjacent functionally linked land, and potential water quality effects associated with the allocations adjacent to each other at Heysham (Port of Heysham ~~Expansion~~ and Port of Heysham Industrial Estate).

7.4.2 All other potential in combination effects have been screened out of further assessment.

8 In combination Effects (with other plans or projects)

8.1 Other Plans and Projects

8.1.1 In addition to in combination effects of sites within the Lancaster Local Plan itself described above, there is also the potential for effects ~~to occur~~ upon Morecambe Bay SAC/Ramsar site and Morecambe Bay and Duddon Estuary SPA in combination with other plans or projects.

8.1.2 Only the effects of other plans or projects which would not be likely to be significant alone, need to be included in the in-combination assessment. If the effects of other plans or projects will already be significant on their own, they are not added to those associated with the Lancaster Local Plan as they already have their own measures in place to mitigate for those effects.

8.1.3 Table 14 below shows the plans and project reviewed for the in-combination assessment.

Table 14: Other Plans and Projects included within the in-combination assessment

Authority	Relevant Plan/ Project
Lancashire County Council	Lancashire Minerals and Waste Plan
Cumbria County Council	Cumbria Minerals and Waste Plan
North Yorkshire County Council	North Yorkshire Minerals and Waste Plan
Lancaster City Council and South Lakeland District Council	Arnside and Silverdale AONB Statutory Management Plan (2014).
Lancaster City Council and South Lakeland District Council	Arnside and Silverdale AONB DPD (adopted March 2019~~in progress~~).
Lancashire County Council	Local Transport Plan 2011 – 2021: A Strategy for Lancashire (May 2011). District of Lancaster Highways and Transport Masterplan' (October 2016)
Forest of Bowland AONB Joint Advisory Committee	Forest of Bowland 2009 - 2014 Management Plan.
Lancaster City Council	The Lancaster Local Plan is split into two sections. Local Plan Part One comprises the Strategic Policies and Land Allocations Development Plan Document (DPD). Local Plan Part Two comprises a review of the Development Management (DM) DPD. The two documents should be read in conjunction.
Neighbourhood Plans within Lancaster district	There are nine Neighbourhood Plans listed within the Lancaster Local Plan, comprising: Cockerham Neighbourhood Plan, Caton Neighbourhood Plan Halton Neighbourhood Plan, Morecambe Neighbourhood Plan Slyne-With-Hest Neighbourhood Plan,

Authority	Relevant Plan/ Project
	Wennington Neighbourhood Plan, Dolphinholme Neighbourhood Plan Arkholme Neighbourhood Plan, and Wray Neighbourhood Plan
Lancaster City Council	Morecambe Area Action Plan.
Craven District Council	Saved policies from the 1999 Local Plan (currently preparing their Local Development Plan and is at Examination stage).
South Lakeland District Council	South Lakeland Core Strategy (adopted October 2010), Land Allocations DPD (2013) and Local Plan 2006 saved policies.
Ribble Valley Council	Core Strategy and DM Policies.
Wyre District Council	Wyre District Local Plan (adopted 2018)
Yorkshire Dales National Park	Yorkshire Dales National Park Local Plan (adopted 2016)
United Utilities	Water Resources Management Plan (2015).
Lancashire County Council	Lancashire and Blackpool Flood Risk Management Strategy
Environment Agency	The Lune Catchment Abstraction Management Strategy (2003) and Lune and Wyre Abstraction Licensing Strategy (2013)
Environment Agency	Caton Road Flood defence.
Various	North West and North Wales - Shoreline Management Plan 2 (2011).
Nationally Significant Infrastructure Projects	Highways England M6 Junction 33 Heysham Nuclear Power Station Extension

8.2 Other plans and projects scoped out of the in-combination assessment

8.2.1 From those listed in Table 2, the plans and projects scoped out of the in-combination assessment would comprise: The Minerals and Waste Local Plan for Lancashire, Cumbria and Yorkshire, Morecambe Bay Area Action Plan, Neighbourhood Plans within Lancaster district, Lancashire and Blackpool Flood Risk Management Strategy, Local Transport Plan 2011 – 2021: A Strategy for Lancashire, and the Nationally Significant Infrastructure Projects.

Minerals and Waste Local Plans for Lancashire, Cumbria and Yorkshire

8.2.2 The Minerals and Waste Local Plans for Lancashire[35], Cumbria[36] and Yorkshire[37] are over-arching plans, and as such, the allocations shown on the Policies Maps coincide with developments already considered within the individual Local Plans. Therefore, to avoid repetition, the sites shown on the Minerals and Waste policies maps will be assessed when considering the individual Local Plans, below.

Morecambe Bay Area Action Plan

[35] Minerals and Waste Local Plan for Lancashire: http://www.lancashire.gov.uk/council/planning/local-planning-policy-for-minerals-and-waste.aspx
[36] Minerals and Waste Local Plan for Cumbria: https://www.cumbria.gov.uk/planning-environment/policy/ minerals_waste/ MWLP/home.asp
[37] Minerals and Waste Local Plan for Yorkshire: https://www.northyorks.gov.uk/local-plan-minerals

8.2.3 The Morecambe Bay Area Action Plan lies within the boundary of the Lancaster Local Plan currently being assessed in this HRA Report. All of the developments set out within the plan are included within the Local Plan (Policy EC5). Therefore, to avoid repetition, Morecambe Bay AAP will be scoped out of the in-combination assessment. Note that the separate HRA of the Morecambe Bay AAP concluded that there would be no likely significant effect on European sites as a result of implementation of the AAP.

Neighbourhood Plans

8.2.4 There are nine Neighbourhood Plans listed within the Lancaster Local Plan, comprising: Cockerham Neighbourhood Plan, Caton Neighbourhood Plan, Halton Neighbourhood Plan, Morecambe Neighbourhood Plan Slyne-With-Hest Neighbourhood Plan, Wennington Neighbourhood Plan, Dolphinholme Neighbourhood Plan Arkholme Neighbourhood Plan, and Wray Neighbourhood Plan. All of these Neighbourhood Plans will have due regard for the policies and land allocations set out within the Lancaster Local Plans Part One and Two. Any new policies written, or sites allocated for these Neighbourhood Plans would need to ensure that they do not conflict with existing policies, or site allocations within the over-arching Lancaster Local Plan. As such, there would be no additional policies, or allocation sites within the Neighbourhood Plans which would act in combination with policies and sites within the Local Plan Part One to have a significant impact on the European sites considered in this assessment, Neighbourhood Plans within the district will be scoped out of the in-combination assessment.

Lancashire and Blackpool Flood Risk Management Strategy

8.2.5 The Lancashire and Blackpool Flood Risk Management Strategy[38] details how Lancashire County Council will manage local flood risk in the area. However, there are no elements of the Flood Risk Management Strategy which would act in combination with the Lancaster Local Plan, and therefore has been scoped out of the in-combination assessment.

Local Transport Plan 2011 – 2021: A Strategy for Lancashire and District of Lancaster Highways and Transport Masterplan (2016)

8.2.6 The Local Transport Plan 2011 – 2021: A Strategy for Lancashire[39] includes Heysham-M6 link, Broughton Bypass, Reopening of the Todmorden Curve and the Pennine Reach bus service. The District of Lancaster Highways and Transport Masterplan (2016)[40] provides a vision for travel and transport to 2031 and beyond. It focuses on plans to transform Lancaster City Centre and the towns of Morecambe, Carnforth and Heysham. All of these schemes and plans would fall within Category C in accordance with DTA Publications Limited The Habitats Regulations Assessment Handbook (refer to Table 3). Separate project-level HRAs will be carried out for these projects/ schemes (where needed), and appropriate mitigation and compensation will be put in place to off-set any potential impacts on European sites. As set out in paragraph 10.1.2, given that these projects would already be significant on their own, they will not be considered further in the in-combination assessment.

Nationally Significant Infrastructure Projects

8.2.7 NSIPs fall within Category C in accordance with DTA Publications Limited The Habitats Regulations Assessment Handbook (refer to Table 3). Separate project-level HRAs will be carried out for these projects, and appropriate mitigation and compensation ~~will be~~ put in place to off-set any potential impacts on European sites. As per the Habitats Regulations Assessment Handbook, ~~Given that~~ these projects would already be significant on their own, and therefore will~~they will~~ not be considered further in the in-combination assessment.

[38] Lancashire and Blackpool Flood Risk Management Strategy: http://www.lancashire.gov.uk/council/strategies-policies-plans/environmental/lancashire-and-blackpool-flood-risk-management-strategy.aspx

[39] Local Transport Plan 2011 – 2021: A Strategy for Lancashire: http://www.lancashire.gov.uk/council/strategies-policies-plans/roads-parking-and-travel/local-transport-plan.aspx

[40] Lancaster Transport Masterplan: http://www.lancashire.gov.uk/council/strategies-policies-plans/roads-parking-and-travel/highways-and-transport-masterplans/lancaster-district-highways-and-transport-masterplan.aspx

8.3 Other plans and projects scoped in to the in-combination assessment

8.3.1 To be relevant to the in-combination assessment, the residual effects of other plans or projects will need to be sufficient either to make the unlikely effects of the Lancaster Local Plan likely, or insignificant effects of the plan significant, or both. An assessment has therefore been made of the other plans listed in Table 2 (excluding those scoped out in the previous section) with a view to determining whether or not they would result in impacts which, in combination with the policies set out in the Lancaster Local Plan, could have likely significant effects on European sites. This includes an assessment of whether any of the sites near the boundary of Lancaster would have any significant in combination effects with individual sites on the boundary of neighbouring boroughs.

8.3.2 Of the plans reviewed, the main potential impacts which could lead to significant effects comprise: disturbance, loss of functionally linked land for the birds associated with European sites and increased recreational pressure.

8.3.3 A number of the local plans (as detailed in the following paragraphs), are currently being produced, under review, or are being updated. As it is not possible to review all of the information about these emerging Local Plans, the in-combination assessment will instead look at the information currently available in the public domain. Where recent Plan-level HRAs have been undertaken and are in the public domain (for example the ~~emerging~~ Wyre Local Plan) the HRA assessments (and associated documentation) have been reviewed as part of the in-combination assessment.

8.3.4 The in-combination assessment with all of the relevant plans (whether based on new or soon-to-be-replaced plans, as appropriate) is presented in the following paragraphs.

Lancaster Local Plan Part Two

8.3.5 The Lancaster Local Plan is split into two documents. Local Plan Part One, which is the plan currently being assessed in this HRA Report, comprises the policies associated with development and sets out the allocations to deliver the housing and employment needs for Lancaster. Local Plan Part Two comprises the Land Allocations DPD. A separate HRA Screening Report has been ~~is currently being~~ produced for the Local Plan Part Two. As both parts of the Local Plan have been designed to work together (and should be read as such), there are no policies within the Local Plan Part Two which would act in combination with policies/allocations with the Local Plan Part One to have a likely significant effect on European sites either alone, or in combination.

Wyre Local Plan

8.3.6 Wyre borders Lancaster district to the south. The~~A~~ new Local Plan for Wyre was adopted in 2018~~is currently being developed with the aim of adopting the new Local Plan in 2018~~. A HRA of the ~~emerging~~ plan was carried out in 2017. From information available online, including the Local Plan[41] and HRA Report[42], all of the new developments within Wyre are located within or near to existing development. There are also no allocation sites which would be at the boundary of the both districts, therefore, no significant in combination effects in respect of concurrent development at the border would occur. The HRA Report identified the potential for likely significant effect associated with development around the Fylde Peninsula and appropriate mitigation measures, to off-set these potential impacts, were incorporated into the Local Plan. With the mitigation measures in place no adverse effects on the integrity of the European sites, either alone or in combination with other plans or projects were identified. The potential for significant effects on European sites either alone, or in combination with the Lancaster Local Plan are not anticipated.

Ribble Valley Local Plan

8.3.7 Ribble Valley is located to the south-east of Lancaster district. The Local Plan for Ribble Valley, which was formally adopted in December 2014, is currently under review. From the information currently

[41] Wyre Local Plan: http://www.wyre.gov.uk/info/200319/wyres_emerging_new_local_plan/1168/
[42] Wyre Local Plan HRA Report: http://www.wyre.gov.uk/downloads/file/4192/publication_draft_wyre_lp_habitat_regulations_assessment

available online (including the Core Strategy 2008-2028[43] and the emerging Housing and Economic Development DPD (HED DPD[44])), new development within Ribble Valley will be small-scale (most developments under 5ha) and located on the edge of existing development within the borough. There are also no allocation sites which would be at the boundary of the both boroughs, therefore, no significant in-combination effects in respect of concurrent development at the border would occur. Given the small-scale of the potential developments within Ribble, and their distance to the Morecambe Bay and Duddon Estuary SPA and Morecambe Bay SAC/Ramsar site (all potential developments in Ribble Valley would be more than 10 km from Morecambe Bay), the potential for likely significant effects on Morecambe Bay and Duddon Estuary SPA/Ramsar site either alone, or in combination with the Lancaster Local Plan are not anticipated.

Craven Local Plan

8.3.8 Craven is located to the north-east of Lancaster district. The Local Plan is currently under review and is at the ~~pre-publication~~Examination stage. From the information currently available online (including the pre-publication Local Plan and Policies map[45]) new development within the district will be concentrated on the south-east side of the district, outside of the National Park boundary. However, there are no allocation sites which would be at the boundary of the both districts, therefore, there would be no significant in combination effects in respect of concurrent development at the border. Given that the majority of the larger developments are concentrated around Skipton and the edge of other smaller towns, the potential for likely significant effects on the Morecambe Bay and Duddon Estuary SPA and Morecambe Bay SAC/Ramsar site either alone, or in combination with the Lancaster Local Plan, as a result of implementation of the Craven Local Plan, are considered unlikely.

South Lakeland Local Plan

8.3.9 South Lakeland is located to the north of Lancaster district. The South Lakeland Core Strategy was adopted October 2010 and the Land Allocations DPD was adopted in 2013[46]. There are no allocation sites which would be at the boundary of both districts, therefore, no significant in combination effects in respect of concurrent development at the border would occur. Mitigation measures to off-set potential impacts on Morecambe Bay have been included within the South Lakeland Local Plan. The HRA Screening for the Local Plan (September 2017) concluded that with mitigation in place there would be no likely significant effects on Morecambe Bay SAC/SPA/Ramsar site. The potential for likely significant effects on the Morecambe Bay and Duddon Estuary SPA and Morecambe Bay SAC/Ramsar site either alone, or in combination with the Lancaster Local Plan, as a result of implementation of the South Lakeland Local Plan, are considered unlikely.

Arnside and Silverdale AONB DPD

8.3.10 The Arnside and Silverdale AONB DPD is located within the north-west of the district, extending north into South Lakeland. The AONB DPD[47] ~~i~~was adopted in March 2019~~s currently being prepared~~ and comprises 11 allocations. All of the allocations are small (less than 20 houses) and located in close proximity to existing development. None of the potential sites are near to allocations listed in the Lancaster Local Plan Part One (with the closest more than 4.5 km away). The ~~draft~~ HRA Screening Report (produced in 2017)[48], concluded that there would be no likely significant effects alone or in combination with any other plan or projects. Therefore, the potential for likely significant effects on the Morecambe Bay and Duddon Estuary SPA and Morecambe Bay SAC/Ramsar site either alone, or in combination with the Lancaster Local Plan, as a result of implementing the Arnside and Silverdale AONB DPD, are not anticipated.

[43] Ribble Valley emerging Local Plan: https://www.ribblevalley.gov.uk/info/200364/planning_policy/432/districtwide_local_plan
[44] Ribble Valley emerging housing and economic DPD: https://www.ribblevalley.gov.uk/info/200364/planning_policy/1674/housing_and_economic_development_dpd_hed_dpd/2
[45] Craven Council Local Plan: http://www.cravendc.gov.uk/newlocalplan
[46] South Lakeland Local Plan: https://www.southlakeland.gov.uk/planning-and-building/south-lakeland-local-plan/
[47] Arnside and Silverdale AONB DPD: https://www.lancaster.gov.uk/planning/planning-policy/arnside-and-silverdale-aonb-dpd
[48] Arnside and Silverdale AONB DPD HRA Report: https://www.lancaster.gov.uk/planning/planning-policy

Arnside and Silverdale AONB Statutory Management Plan

8.3.11 The Arnside and Silverdale AONB Statutory Management Plan (2014-2019)[49] sets out the management objectives for the AONB. The objectives will lead to the positive management of the AONB for the benefit of the natural environment within and surrounding the AONB. This accords with Policy EN4 within the Lancaster Local Plan Part One which is in place to protect the AONB's within the district. The potential for likely significant effects on the Morecambe Bay and Duddon Estuary SPA and Morecambe Bay SAC/Ramsar site either alone, or in combination with the Lancaster Local Plan, as a result of implementing the Arnside and Silverdale AONB Statutory Management Plan, are not anticipated.

Forest of Bowland 2009 - 2014 Management Plan

8.3.12 The Forest of Bowland Management Plan[50] sets out the management objectives for the AONB. The objectives will lead to the positive management of the AONB for the benefit of the natural environment within and surrounding the AONB. This accords with Policy EN4 within the Lancaster Local Plan Part One which is in place to protect the AONB's within the district. The potential for likely significant effects the Morecambe Bay and Duddon Estuary SPA and Morecambe Bay SAC/Ramsar site either alone, or in combination with the Lancaster Local Plan, as a result of implementing the Forest of Bowland AONB Management Plan, are not anticipated.

Yorkshire Dales National Park Local Plan

8.3.13 The Yorkshire Dales National Park lies to the north-east of Lancaster district, with only a very small portion of the National Park (north of the A65) within the district boundary itself. There are no allocations within the Lancaster Local Plan Part One which lie within the National Park boundary (with the closest being more than 9 km away from the National Park boundary). A Local Plan for the National Park was adopted in 2016[51]. All of the new housing and employment development proposed in the Local Plan are small-scale (less than 6ha), with the overall area of new housing allocated less than 8ha in total and the largest new employment allocation is 5.28ha. A HRA Screening Report (January 2016), confirmed that there would be no likely significant effects on European sites as a result of implantation of the National Park Local Plan. Given the small-scale nature of the allocations within the National Park Local Plan, potential for likely significant effects on the Morecambe Bay and Duddon Estuary SPA and Morecambe Bay SAC/Ramsar site either alone, or in combination with the Lancaster Local Plan, as a result of implementing the Yorkshire Dales National Park Local Plan, are not anticipated.

The Lune Catchment Abstraction Management Strategy (2003) and Lune and Wyre Abstraction Licensing Strategy (2013)

8.3.14 The Lune Catchment Abstraction Management Strategy[52] (published in 2003) sets out how the proposed future licensing strategy for the Lune catchment will be managed by the Environment Agency. The strategy includes reference to the conservation status of the Morecambe Bay SAC/ Ramsar site and SPA but concludes that '*there is no evidence that abstraction is adversely affecting biodiversity within them'*. The Lune and Wyre Abstraction Licensing Strategy[53] sets out how the Environment Agency will manage water resources in the Lune and Wyre catchment and provide information on how the Environment Agency will manage existing abstraction licences and water availability for further abstraction. Section 4.8 of the Strategy ensures that there would be no impact on European sites as a result of water abstraction from the Lune or Wyre. There are no allocations within the Lancaster Local Plan Part One which would require abstraction from the Lune catchment,

[49] Arnside and Silverdale AONB Statutory Management Plan: http://www.arnsidesilverdaleaonb.org.uk/uploads/2016/03/mp_aonbplan_webversion.pdf

[50] Forest of Bowland AONB Statutory Management Plan http://forestofbowland.com/Management-Plan

[51] Yorkshire Dales National Park Local Plan: http://www.yorkshiredales.org.uk/living-and-working/planning-policy-section/local-planning-policy

[52] The Lune Catchment Abstraction Management Strategy: http://aquaticcommons.org/7990/1/24_EA.pdf

[53] Lune and Wyre Abstraction Licensing Strategy: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/300485/LIT7917v1_161231.pdf

therefore there would be no likely significant effects on the Morecambe Bay and Duddon Estuary SPA and Morecambe Bay SAC/Ramsar site either alone, or in combination with the Lancaster Local Plan, as a result of implementing these abstraction strategies.

North West England and North Wales Shoreline Management Plan SMP2

8.3.15 This Shoreline Management Plan (SMP2)[54] is a non-statutory, high-level policy document for coastal flood and erosion risk management planning. Such developments would require specific, project-level assessments to be undertaken to ensure appropriate protection of adjacent European sites. As such, no likely significant effects of these developments in combination with those detailed within the Local Plan.

Water Resources Management Plan

8.3.16 The Water Resources Management Plan (WRMP)[55], published in March 2015, covers the approach United Utilities will use to manage these water resource issues for the years 2015-2040. Although United Utilities have suggested that there may be a water supply issue in East Lancaster, this has not been raised as a concern. Lancaster City Council have confirmed that United Utilities will address this issue through work at the East Lancaster Strategic allocation (SA08), and there will be no impacts on European sites as a result of this work. In addition, the HRA of the WRMP[56] concluded that '*the final WRMP will have no significant adverse effects of any of the European sites either alone or in combination with other known projects, plans or programmes as a result of its implementation*.' Therefore, this assessment concludes that there would be no likely significant effects on the Morecambe Bay and Duddon Estuary SPA and Morecambe Bay SAC/Ramsar site either alone, or in combination with the Lancaster Local Plan, as a result of implementing the WRMP.

8.4 Assessment of in combination effects with other plans and projects

8.4.1 The review of Local Plan information (outlined in the previous paragraphs) showed that there was the potential for in combination effects between Lancaster Local Plan and the neighbouring Local Plans in relation: to loss of functionally linked land, disturbance to bird populations associated with European sites, and increases in recreational pressure on the Morecambe Bay and Duddon Estuary SPA and Morecambe Bay SAC/Ramsar site as a result of increased visitor pressure on the coast.

Loss of functionally linked land

8.4.2 There is only allocation site within the Local Plan Part One which was located on land which was considered to constitute functionally linked land (*Lancaster South* Broad Location for Growth – *including* Bailrigg Garden Village~~Bailrigg Garden Village~~, Site Ref: SG1). Mitigation measures have been included within the Local Plan to off-set this potential impact, refer to Section 10.3; therefore, there would be no in combination effects in terms of loss of functionally linked land with neighbouring districts.

Disturbance to birds using adjacent functionally linked land

8.4.3 The majority of allocation sites within the Local Plans surrounding Lancaster are located within urban settings, with only a small proportion of these with the potential to cause disturbance to birds using adjacent functionally linked land.

8.4.4 As the final locations of the new allocations for the emerging local plans (as detailed in Section 8.3, above) are currently being determined, the amount of land where disturbance could occur is difficult to determine. However, given that the majority of new development is largely situated adjacent to existing development, this makes the sites less likely to be adjacent to land which could constitute

[54] North West England and North Wales Shoreline Management Plan SMP2: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/300485/LIT7917v1_161231.pdf

[55] Water Resources Management Plan: https://www.unitedutilities.com/corporate/about-us/our-future-plans/water-resources/water-resources-management-plan/

[56]

functionally linked land; and, therefore, the potential for allocations within all of the Local Plans to cause disturbance to birds associated with the European sites is significantly reduced.

8.4.5 Where large-scale projects on greenfield sites, or adjacent to functionally linked land are included within a Local Plan, such as those associated with the Fylde Peninsula within the Wyre Local Plan, project-level HRA would be carried out and potential for significant effects adequately mitigated for. Therefore, the only sites where potential for in combination effects could occur between the neighbouring Local Plans and Lancaster would be for those smaller sites on or adjacent to functionally linked land which are not significant alone. As only a small proportion of the developments within the adjacent Local Plans will ever likely to be located on or adjacent to functionally linked land, the minor losses of all of these small parcels of agricultural land across Lancashire are considered to be *de minimis* i.e. these small effects would never combine to create a significant effect on the integrity of the bird populations associated with the Morecambe Bay SPA/Ramsar site. Therefore, in-combination effects in relation to disturbance to birds using adjacent functionally linked land are unlikely.

Recreational pressure on Morecambe Bay

8.4.6 An increase in visitor numbers has the potential to have a significant effect on Morecambe Bay SAC/Ramsar site and the Morecambe Bay and Duddon Estuary SPA as the housing and employment developments are progressively completed within and surrounding the Lancaster district. This potential impact is therefore considered further in the Appropriate Assessment.

8.5 Conclusion of in combination effects with other plans and projects

8.5.1 The review of Local Plan information within the wider region, identified one potential in combination effect associated with recreational pressure on Morecambe Bay as development progresses within the district and other local authority areas in the region. This will be considered further in the Appropriate Assessment. All other potential in combination effects have been screened out of further assessment.

9 Screening Summary

9.1 Initial Screening

9.1.1 Sixteen European sites have been identified within, and up to 20km from the Lancaster district boundary. Following the initial screening of the Local Plan Part One, 13 were ruled out completely on the basis that there are no potential impact pathways which are likely to give rise to likely significant effects on these sites (refer to Table 5). The three remaining European sites considered in the detailed screening assessment comprised:

- Morecambe Bay and Duddon Estuary SPA.
- Morecambe Bay SAC.
- Morecambe Bay Ramsar site.

9.1.2 In addition to Screening out 13 of the European sites, all of the policies contained within Chapters 6, 7, 10, 11, 22, ~~and~~ 23 and 25 in the Local Plan Part One were screened out completely from further assessment. This is on the basis that no identifiable impact pathway exists linking the policies with the European sites and/or because there will be no foreseeable adverse impact on European sites through policy implementation. Several policies under each of the remaining Chapters have also been screened out of further assessment (refer to Table 6).

9.1.3 Policy ~~SG16~~SG14 (Heysham Nuclear Power Station and safeguarding land has also been screened out of the detailed assessment as this project would constitute an NSIP. NSIPs fall within Category C of the plan-level HRA methodology set out in *The Habitats Regulations Assessment Handbook* (DTA Publications Limited; Refer to Table 3); projects such as this, which are identified in higher policy frameworks, are assessed separately by the Secretary of State, and can therefore be screened out of the detailed assessment stage.

9.1.4 All of the policies with associated allocation sites listed within the Local Plan Part One were carried forward into the detailed screening assessment.

9.1.5 The potential impacts identified comprised the following (only the four highlighted in bold text were considered in the detailed screening assessment; refer to Section 6.2 for further details):

- Direct habitat and species loss within European sites.
- Habitat degradation as a result of increased air pollution.
- **Changes in water quality where sites are hydrologically linked to European sites.**
- **Loss of habitat functionally linked to a European site (i.e. used by overwintering birds for foraging, in particular pink-footed geese).**
- **Disturbance to habitats and species through increased recreational activity, during the operational stage.**
- **Disturbance to species as a result of construction activities/ operational stage.**

9.2 Detailed Screening

9.2.1 The detailed screening has determined that eight allocation sites, detailed within Table 11, are considered to have the potential for likely significant effects on the European sites considered within this assessment alone, and would require further assessment at the Appropriate Assessment stage. Table 14 below, shows the eight allocation sites and the potential impacts which were identified during the detailed screening exercise. The Appropriate Assessment of these allocation sites (and associated policies) is set out within Section 10 below.

9.2.2 The remainder of the allocation sites within Tables 12 to 13 are not likely to give rise to significant effects on the European sites included with this assessment alone and have therefore been screened out of further Appropriate Assessment as individual sites.

Table 15: Summary of potential impacts associated with allocation sites considered to have LSE alone (eight allocations)

Allocation site	European site		Potential impact			
	Morecambe Bay and Duddon SPA and Morecambe Bay Ramsar site	Morecambe Bay SAC	Loss of FLL under the footprint of the allocation (construction and operation)	Recreation pressure on adjacent FLL (operation only)	Disturbance (construction and operation)	Changes in water quality (construction and operation)
Lancaster South Broad Location for Growth – *including* Bailrigg Garden Village ~~Bailrigg Garden Village~~ (Site ref: SG1)	✓	N/A	✓	✓	✓	N/A
East Lancaster Strategic Site (Site ref: SG7)	✓	N/A	✓	✓	✓	N/A
Port of Heysham ~~Expansion~~ (Site: ~~SG14~~SG12.1)	✓	✓	N/A	N/A	✓	✓
Port of Heysham Industrial Estate (Site ref: EC1.6)	✓	✓	N/A	N/A	✓	✓
Substation land (Site ref: ~~SG15~~SG13.1)	✓	N/A	N/A	N/A	✓	N/A
Lancaster West Business Park (Site ref: EC1.10)	✓	N/A	✓	N/A	✓	N/A
Middleton Towers (Site ref: ~~DOS7~~DOS5)	✓	✓	✓	✓	✓	✓
Glasson Dock Industrial Area (Site ref: ~~EC1.18~~EC1.17)	✓	✓	N/A	N/A	✓	✓

Allocation site	European site		Potential impact			
	Morecambe Bay and Duddon SPA and Morecambe Bay Ramsar site	Morecambe Bay SAC	Loss of FLL under the footprint of the allocation (construction and operation)	Recreation pressure on adjacent FLL (operation only)	Disturbance (construction and operation)	Changes in water quality (construction and operation)
Number of allocations			4	3	8	4

9.3 In combination effects screening

9.3.1 The detailed and in combination effects screening identified the potential for in combination effects associated with a number of elements within the Local Plan Part One, and other plans and projects.

9.3.2 The detailed screening identified 26 residential and five employment allocation sites (within Tables 12 and 13 of the detailed screening) which have been identified as requiring further assessment in relation to the potential for increased recreational pressure on Morecambe Bay. This potential impact was also identified in the in-combination effects screening in relation to the adjacent local plans.

9.3.3 The in-combination effects screening also identified the potential for in combination effects associated with *Lancaster South* Broad Location for Growth – *including* Bailrigg Garden Village ~~Bailrigg Garden Village~~ and another seven allocations taken through to Appropriate Assessment alone. This was in relation to potential disturbance to birds (through recreation, or construction/operational activities) using adjacent functionally linked land.

9.3.4 These potential in combination effects will be considered further in the Appropriate Assessment. All other potential in combination effects have been screened out.

10 Appropriate Assessment of the potential effects upon European sites (alone)

10.1 Overview

10.1.1 This Appropriate Assessment section (Stage 2 of the HRA process) considers the eight allocation sites (and policies to which they are associated) within the Local Plan Part One with the potential for likely significant effects on European sites alone. The Appropriate Assessment assesses the potential impacts of the eight allocation sites on the qualifying features of Morecambe Bay Ramsar site, and the Morecambe Bay and Duddon Estuary SPA to determine whether any of the potential impacts identified could affect the integrity of these sites. Where potential effects cannot be ruled out, mitigation measures to avoid, or minimise, an effect have been incorporated into the Local Plan Part One.

10.1.2 In-combination effects are discussed separately in Section.

10.1.3 Table 15 provides a summary of the eight allocation sites identified as having the potential for likely significant effects alone and the potential impacts identified at the detailed screening, refer to Section 7, above.

Table 16: Allocation sites scoped in for further Appropriate Assessment (as shown on Figure 4)

Allocation site	European site		Potential impact			
	Morecambe Bay and Duddon SPA/ Morecambe Bay Ramsar site	Morecambe Bay SAC	Loss of FLL under the footprint of the allocation (construction and operation)	Recreation pressure on adjacent FLL (operation only)	Disturbance (construction and operation)	Changes in water quality (construction and operation)
Lancaster South Broad Location for Growth – *including* Bailrigg Garden Village ~~Bailrigg Garden Village~~ (Site ref: SG1)	✓	✓	✓	✓	✓	N/A
East Lancaster Strategic Site (Site ref: SG7)	✓	N/A	✓	✓	✓	N/A
Port of Heysham ~~Expansion~~ (Site: ~~SG14~~SG12.1)	✓	✓	N/A	N/A	✓	✓
Port of Heysham Industrial Estate (Site ref: EC1.6)	✓	✓	N/A	N/A	✓	✓

Allocation site	European site		Potential impact			
	Morecambe Bay and Duddon SPA/ Morecambe Bay Ramsar site	Morecambe Bay SAC	Loss of FLL under the footprint of the allocation (construction and operation)	Recreation pressure on adjacent FLL (operation only)	Disturbance (construction and operation)	Changes in water quality (construction and operation)
Substation land (Site ref: ~~SG15~~SG13.1)	✓	N/A	N/A	N/A	✓	N/A
Lancaster West Business Park (Site ref: EC1.10)	✓	N/A	✓	N/A	✓	N/A
Middleton Towers (Site ref: ~~DOS7~~DOS5)	✓	✓	✓	✓	✓	✓
Glasson Dock Industrial Area (Site ref: ~~EC1.18~~EC1.17)	✓	✓	N/A	N/A	✓	✓
	Number of allocations		**4**	**3**	**8**	**4**

10.1.4 Sections 10.3 to 10.10 assess in detail each of these eight allocation sites in relation to the potential impacts identified at the detailed screening stage. The assessment has drawn upon the following sources of information to provide further detail and contextual information in relation to the sites and potential impacts:

- Information from Lancaster City Council, and the Local Plan Part One on the potential future use of each allocation site.
- Site descriptions based on information gathered by GMEU (including desk study information, and Phase 1 habitat mapping (refer to Section 6.5), where appropriate).
- Details of any existing planning information for the allocation site itself, or adjacent land (including Ecological Appraisals and planning documentation).

10.1.5 The assessment also provides the following: a description of the potential impacts on Morecambe Bay and Duddon Estuary SPA/Morecambe Bay Ramsar site, and a conclusion as to whether there is a need to provide mitigation; an outline of the mitigation options applicable to each allocation (based on the list of mitigation options agreed with Lancaster City Council, refer to Section 10.2 below); a conclusion as to whether there are likely to be any residual effects associated with each allocation; and finally, an overall conclusion as to whether there would be any adverse impact on the integrity of the Morecambe Bay Ramsar site/ Morecambe Bay and Duddon Estuary SPA as a result of development at any of the allocation sites.

10.2 Mitigation Options

10.2.1 In order to off-set any potential impacts associated with the eight allocation sites and potential recreational pressure on Morecambe Bay, a suite of mitigation options have been devised in consultation with Lancaster City Council (following advice from NE on the types of mitigation measures which could be used).

10.2.2 The different mitigation options have been grouped by potential impact for ease of interpretation. The mitigation options that would be applicable to each of the allocation sites is detailed in Sections 10.3 to 10.10, as necessary. Mitigation options applicable to potential impacts associated with recreational pressure on Morecambe Bay is outline in Section 11.

10.2.3 It should be noted that at this strategic level, it is not possible to determine the exact details of the mitigation options, however, Lancaster City Council can confirm that the mitigation options described below would be deliverable (subject to viability considerations), should they be required. Further project-level ecological assessments and HRA of the eight allocations may be required, in order to comply with Policy ~~DM43~~DM44. This could include site-specific bird surveys to confirm the need, or level of mitigation required. Nevertheless, the exact requirements of each allocation site would be confirmed at the project level.

10.2.4 Table 16 below sets out the mitigation options agreed with Lancaster City Council. To ensure deliverability through the Local Plan (should further assessment at the project-level confirm that they are required); these measures have been set out clearly within Appendix D of the Local Plan Part One. Specific reference has then been made to this Appendix within the policies associated with the allocations, where necessary.

Table 17: Mitigation Options

Mitigation Options	
Loss of FLL under the footprint of the allocation - during construction/operation	
A	*Mitigation land within a development* – Provide land within the development suitable for use by birds associated with the European site [i.e. provision of alternative greenspace (habitat) for wildlife]. This land would be managed to encourage the use by birds and public access to these areas would be restricted.
Disturbance to birds using adjacent FLL - during construction	
B	*Timing of works* - Where possible, time works which could cause the most disturbance (for example in terms of noise and visual effects) to take place outside of wintering period.
C	*Natural Screening* – Where possible, utilise natural screening to help alleviate noise and visual disturbance (this could be achieved by retaining existing hedgerows and trees at the edge of construction sites). *Other screening* - If there is no natural screening, additional screening such as bunds, and/or closed-board fencing could be installed.
Disturbance to birds using adjacent FLL - during operation	
D	*Permanent Screening* – Utilise natural screening to help alleviate noise and visual disturbance from the completed development (this could be achieved by retaining existing hedgerows and trees installing permanent screening along edges adjacent to functionally linked land).
E	*Input to Scheme design* – It may be possible to incorporate measures into scheme designs to reduce potential disturbance to adjacent functionally linked land. This could include measures such as buffer zones at the edge of developments, alterations to lighting design to reduce light spill and reducing access to adjacent functionally linked land to new home owners (see 'recreational pressure on adjacent functionally linked land' below).
Recreational pressure on birds using adjacent FLL and recreational pressure on Morecambe Bay - during operation	

Formatted Table

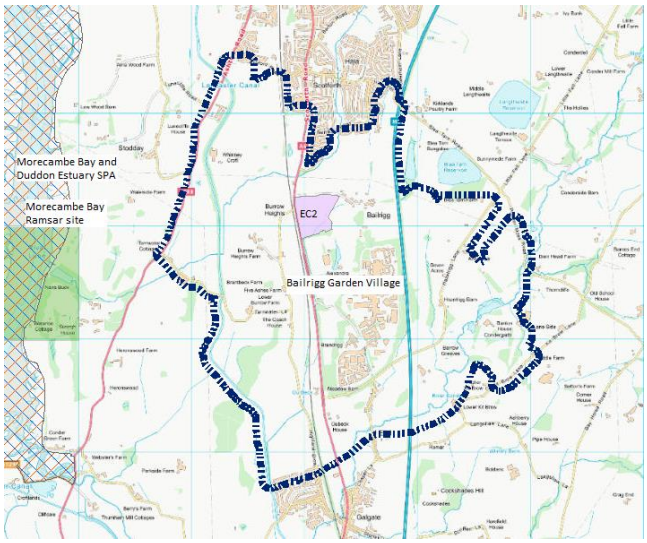
Mitigation Options	
F	*Home owner packs* – Provide new home owners with a home owners pack. This will include details of the sensitivities of the land adjacent to the development (and the wider Morecambe Bay coastline) to recreational pressure, and promote use of alternative areas for recreation, such as public open space within the development.
G	*Input to Scheme design* - It may be possible to incorporate measures into scheme designs to reduce potential use of adjacent functionally linked land by new home owners. This could include measures such as providing sufficient public open space within the development such that there would not be a need to go elsewhere. For example, ensuring that there is sufficient open space available within the development for dog walkers. It may also be possible to refrain from linking new footpaths into existing footpaths which lead to sensitive areas.
H	*New Country Park/recreation area* – A new Country Park (to be delivered through Policy SC5). This will provide alternative green space for recreation and provide an alternative location for dog walkers in preference to visiting more coastal locations.
Changes in water quality - during construction and operation	
I	*Water quality protection measures* – Ensure a hydrological assessment is carried out to determine the potential impacts on water quality. This will ensure compliance with Policy DM34 within the Local Plan Part Two which requires that all new developments consider the implications of the proposals on surface water and implement appropriate mitigation as necessary to deal with such issues, including measures such as Sustainable Drainage Systems (SuDS) and other surface water drainage solutions. Any water quality protection measures would be secured through a Construction Environmental Management Plan (CEMP) at the planning stage of any future development at the allocation.

Formatted Table

10.3 *Lancaster South* Broad Location for Growth – *including* Bailrigg Garden Village ~~Bailrigg Garden Village~~ (Site Ref: SG1)

10.3.1 Bailrigg Garden Village is located south of Lancaster as shown below.

Image 2: Bailrigg Garden Village Strategic Site



Local Plan Description

10.3.2 The Bailrigg Garden Village will comprise a distinct new settlement, rather than extensions to existing urban areas in Lancaster. It is anticipated that the delivery of the Garden Village will facilitate the construction of at least 3,500 new homes in this location, 1,655 new homes during this plan period and the remainder to follow through future plan periods. Furthermore, the Garden Village proposes a range of commercial and business opportunities to attract business, investment and jobs into the district, including the Lancaster University Innovation Park (EC2) which is a separate allocation but lies within the Bailrigg Garden Village Sites [Note that this allocation was screened out of further assessment at the detailed screening stage (refer to Table 12); however, given that the allocation is within the footprint of Bailrigg Garden Village, it will by default be included as part of the Appropriate Assessment for the overall Bailrigg Garden Village strategic site],

Given the size of the site, a separate 'Lancaster South~~South Lancaster~~ Area Action Plan' (AAP) will be developed following publication of the Local Plan. The AAP will be subject to a separate HRA Screening exercise. However, the mitigation measures outlined in this HRA Report will feed into the AAP.

Site Description

10.3.3 The Bailrigg Garden Village site covers a large area of greenfields to the south of Lancaster. The whole area covers 671ha (including the existing site of Lancaster University), however, only a proportion of this will comprise new development. A key element of the Garden Village is to provide a green network throughout the development which will also include 'Areas of Separation' between the new development and the existing boundaries of South Lancaster and ensure that urban areas such as Galgate to the south do not merge with wider urban districts.

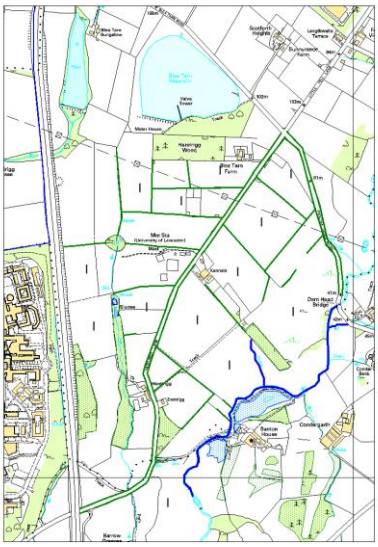
10.3.4 The site supports predominantly pastoral farmland with scattered farmsteads which stretches south from Lancaster to the west of Lancaster University.

10.3.5 The western part of the allocation (to the west of the M6 corridor) is primarily agriculturally improved pastures and arable, with areas of important broadleaved woodland, including Park Coppice Woodland Biological Heritage Site (BHS), and scrub. While the area as a whole is dominated by relatively species-poor agricultural grassland there are a range of important habitats present, including a network of hedgerow and walls forming field boundaries. A number of ponds occur across the site along with scattered mature broadleaved trees. Two streams, Ou Beck and Burrow Beck, cross the site and the Lancaster Canal BHS forms the western boundary of the site. The Lancaster Canal BHS is in a cutting for much of its length along the boundary of the site. The University of Lancaster is included within the Garden Village. A Phase 1 habitat survey of the western part (i.e. the west of the A6) was undertaken by GMEU, the results of which are shown below. No Phase 1 surveys of the remaining part of this allocation were undertaken, however aerial photographs show very similar habitats.

Image 3: Bailrigg Garden Village GMEU Phase 1 Survey maps

10.3.6 To the east of the M6, there is an existing hotel and conference centre with golf course, fishing lakes and amenity grassland. The remaining part of the Garden Village site to the east of the M6 comprises improved grassland fields with small blocks of woodland, hedgerows and streams. The GMEU Phase 1 survey map for this part of the allocation is provided below.

Image 4: Bailrigg Garden Village GMEU Phase 1 Survey maps



Planning Information

10.3.7 There are currently no relevant planning applications associated with the site. However, an AAP for the site will be developed which will set out how the allocation site will deliver the housing, employment and commercial developments required within the Local Plan.

Potential Impacts and Mitigation Measures

10.3.8 Table 17 below provides details of the potential impacts and associated mitigation measures which would be relevant to future development at the Garden Village allocation site. However, at the time of developing the ~~Garden Village~~Lancaster South AAP there would be a need to determine whether these mitigation measures are still relevant to the proposed future development at the site. It is likely that a HRA of the AAP would be required. Following the development of the AAP and HRA of the AAP, further screening may be required at the planning stage, to confirm the measures set out below (and within the HRA of the AAP), are appropriate and comply with Policy ~~DM43~~DM44 of the Local Plan Part Two.

Table 18: Bailrigg Garden Village Potential Impacts and Mitigation Options

Potential impact	Description	Mitigation options (from Table 16)
Loss of FLL associated with the Morecambe Bay and Duddon Estuary SPA/Ramsar site	Bailrigg Garden Village covers an area of 671 ha. The detailed screening identified that there are records of SPA/Ramsar site qualifying features within tetrads within which the Garden Village is located (comprising more than 1% of the SPA/Ramsar population of oystercatcher, pink-footed geese and redshank). Although it is likely that these records are related to sites outside of allocation (for example Blea Tarn Reservoir and fields closer to the River Lune to the west of the Broad Area of Growth), given the size of the site, it is possible that a proportion of these records could relate to the allocation, with the fields on the western side of the allocation with the greatest potential to support SPA/Ramsar site species (approximately 170ha). The survey undertaken by GMEU in March 2017 did not record SPA/Ramsar site species, and a site evaluation by GMEU indicated that the allocation has 'low potential' to support SPA species (GMEU, 2017). However, whilst it is unlikely that the allocation constitutes functionally linked land, given its size, further project-level surveys should be carried out to determine the extent of use of the allocation by SPA/Ramsar site species. Therefore, depending upon the results of project-level bird surveys, and the exact location of the new development within the Garden Village allocation, measures to off-set the loss of functionally linked land under the foot print of the development may need to be incorporated into the AAP.	Option A – Should it be determined through project-level bird surveys that the allocation site does constitute functionally linked land, Lancaster City Council have confirmed that there will be sufficient scope within the Garden Village to accommodate such mitigation measures within the allocation. The exact location of the mitigation land would be determined at the AAP stage following site-specific bird surveys to confirm the exact extent of the functionally linked land, if present.
Disturbance (construction and operation)	As discussed above, the allocation lies within tetrads containing records of high numbers of SPA/Ramsar site species. Given the vicinity of the River Lune (800 m to the west), there is the potential to disturb SPA/Ramsar site species birds which could be fields to the west of the allocation. Depending on the exact location of the new development within the Garden Village allocation, measures to avoid disturbance to birds which	Option B – Time the works most likely to cause disturbance to take place outside of the wintering bird season (wherever possible) to avoid times when SPA/Ramsar site species could be utilising adjacent habitats. Options C and D – When works are likely to take place during the winter period, natural or other screening should be used

Potential impact	Description	Mitigation options (from Table 16)
	could be using adjacent habitats may need to be incorporated into the AAP.	to reduce noise and visual disturbance to birds utilising the adjacent habitats. Depending on the exact location of the new development within the allocation site, existing vegetation, buildings and infrastructure may provide sufficient buffers to the adjacent habitats. The location and type of screening will be determined at the AAP stage (if required). Option E – Given the size of the allocation, it should be possible to incorporate measures into the AAP to reduce potential disturbance to adjacent functionally linked land.
Recreational disturbance in relation to use of FLL	There are numerous footpaths within the Bailrigg Garden Village site that link into footpaths which cross nearby farmland. To the west, footpaths cross pastoral fields and link into the Lancashire Coastal Way (which follows the River Lune north and south along the edge of the European sites). To the east, it is possible to access fields in the vicinity of Blea Tarn and Langthwaite Reservoir via a bridge across the M6. Given that there will be an additional 1, 655 new homes constructed at the Garden Village site during this Plan period, there is the potential for new home owners to cause disturbance to birds utilising adjacent land.	Option F – New home owner packs will be produced to inform residents of the sensitivity of the surrounding landscape, and provide information on alternative locations for recreational activities, in particular dog walking area. Option G – Being a Garden Village, the allocation will include large areas of Public Open space (POS). Policy DM26 and Appendix D within the Local Plan Part Two set out the requirements for POS within new developments (. The provision of large area of POS will encourage new home owners to use green space within the allocation, rather than adjacent land. A proportion of the green space will be specifically marketed as dog walking areas. Option H – The development of the new Country Park (delivered through Policy SC5), will also provide alternative locations for recreation within easy reach of the new residents within the Garden Village.

Residual Impact

10.3.9 With the mitigation options in place. There would be no residual effects associated with development within this allocation site.

Conclusion

10.3.10 Following implementation of the mitigation measures identified in Table 16 (in relation to loss of functionally linked land, disturbance of birds using adjacent functionally linked land and recreational disturbance in relation to nearby functionally linked land), no adverse impact on the integrity of the Morecambe Bay Ramsar site/ Morecambe Bay and Duddon Estuary SPA would be expected as a result of development at the Lancaster South Broad Location for Growth (including Bailrigg Garden Village) allocation site.

~~10.3.10~~

Formatted: Font:

Formatted: Indent: Left: 1.25 cm, No bullets or numbering

10.4 East Lancaster Strategic Site (Site ref: SG7)

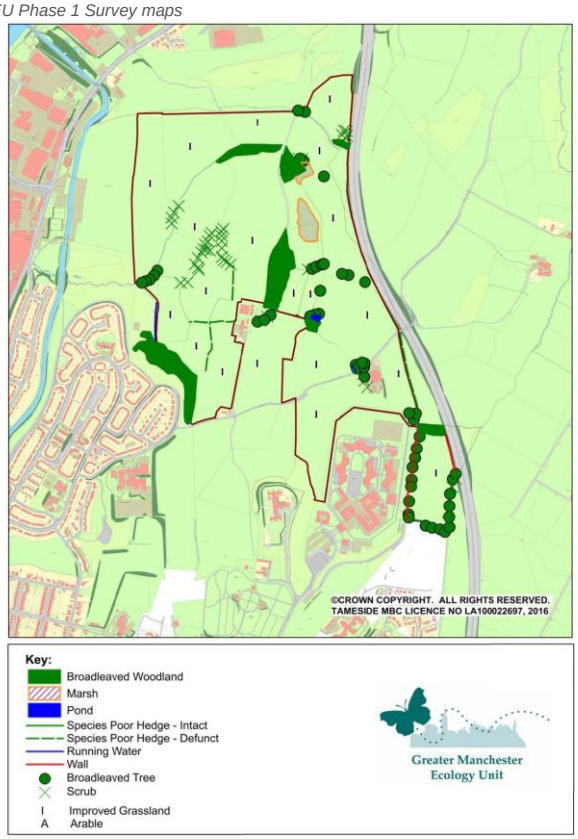
Local Plan Description

10.4.1 This allocation site is located to the northeast of Lancaster. The site has been identified for residential development as part of a sustainable urban extension to Lancaster. The site has been identified as having an indicative capacity for approximately ~~900~~ 930 dwellings. ~~A Development Brief will be developed for the allocation encompassing the mitigation measures within the scheme plans set out within this HRA Report~~.

Site Description

10.4.2 The site comprises a large area of greenfields on the north-western edge of Lancaster. This site is part pastoral farmland and in part open space associated with Lansil Golf Course. Large areas of this site occupy an elevated section of land adjacent to the M6 motorway. It includes farmland surrounding Ridge Farm stretching south towards 'Lancaster' HM Prison. Although dominated by species-poor agricultural grassland there are important habitat patches of woodlands, ponds, streams and hedgerows, although hedgerows are relatively scarce; most field boundaries are fences. GMEU undertook Phase 1 surveys the results of which are shown on the map below.

Image 4: GMEU Phase 1 Survey maps



Planning Information

There are currently no relevant planning applications associated with the site. However, a Development Brief for the site will be developed which will set out how the allocation site will deliver the housing required within the Local Plan.

Potential Impacts and mitigation measures

10.4.3 Table 18 below provides details of the potential impacts and associated mitigation measures which would be relevant to future development at the East Lancaster allocation site. However, further HRA screening (including the potential need for site specific bird surveys) may be required at the planning stage, to confirm the measures set out below are appropriate, and comply with Policy ~~DM43~~DM44 of the Local Plan Part Two.

Table 19: East Lancaster Strategic Allocation Potential Impacts and Mitigation Options

Potential impact	Description	Mitigation options (from Table 16)
Loss of FLL associated with the Morecambe Bay and	The East Lancaster allocation covers an area of 112ha. The detailed screening identified that there are records of	No mitigation required.

Potential impact	Description	Mitigation options (from Table 16)
Duddon Estuary SPA/Ramsar site	SPA/Ramsar site qualifying features within tetrads within which the allocation is located, however, none of the species records were of more than 1% of the SPA/Ramsar site populations of the qualifying species. In addition, surveys undertaken by GMEU only recorded small numbers of SPA/Ramsar site species within the allocation site (again less than 1% of the SPA/Ramsar site populations). The site evaluation carried out by GMEU showed that the allocation is situated on undulating land with poor sightlines, the fields are small, and surrounded by roads and existing development. GMEU classified the allocation as having 'low potential' to support SPA species (GMEU, 2017). Although the detailed screening identified that the land has the potential to support SPA/Ramsar site species, further analysis of the ecological information for the allocation and work carried out by GMEU, has determined that the land within this allocation site is not considered to constitute FLL.	
Disturbance (construction and operation)	As discussed above, the allocation lies within a tetrad containing records of SPA/Ramsar site species. However, none have been recorded regularly in large numbers. The fields to the east could constitute functionally linked land, however, these are separated from the allocation by the M6 and therefore any birds utilising these fields are unlikely to be disturbed by proposed future development at the East Lancaster allocation. In addition, the land directly adjacent to the M6 will not be developed (this will remain undeveloped) and therefore the nearest development would be over 200 m away and down slope of the M6 (the land drops away from the motorway) further reducing the likelihood of any disturbance effects. In addition, surveys undertaken for the A683 Heysham link road covered the area immediately to the north and north east of the allocation and these did not identify SPA species utilising the adjacent fields. Therefore, significant disturbance effects associated with future development at	No mitigation required.

Potential impact	Description	Mitigation options (from Table 16)
	the East Lancaster allocation are considered unlikely	
Recreational disturbance in relation to use of FLL	There is one official footpath at the southern end of the allocation. This leads to a Lane which crosses the M6 and would enable access to the fields to the east. Given the location of the fields close to M6 it is considered unlikely that the fields to the east would be regularly used by significant numbers of SPA species, however, based on current data available the presence of functionally linked land in this area cannot be definitively ruled out. Given that there will be an additional 900 new homes constructed at the site, there is the potential for new home owners to access land to the east of the allocation and potentially cause disturbance to birds (should they choose to be utilising land east of the M6).	Project -level assessments would determine whether land to the east of the M6 is functionally linked to the SPA. If confirmed, appropriate mitigation would then be put in place. LCC have confirmed that the following mitigation options are deliverable within the allocation Option F – Being a large strategic site, the allocation will include large areas of Public Open space (POS), as per Policy DM26 of the Local Plan Part Two. This will encourage new home owners to use green space within the allocation, rather than adjacent land. A proportion of the green space will be specifically designed as dog walking areas. Option G – New home owner packs will be produced to inform residents of the sensitivity of the surrounding landscape, and provide information on alternative locations for recreational activities, in particular dog walking areas. Option H – The development of the new Country Park (delivered through Policy SC5), will also provide alternative locations for recreation.

Residual Impact

10.4.4 With the mitigation options in place. There would be no residual effects associated with development within this allocation site.

Conclusion

10.4.5 The land within the allocation is not considered to constitute functionally linked land. It cannot be confirmed based on available information that land to the east of the allocation is not functionally linked land, however, implementation of the mitigation measures identified in Table 16 (in relation to recreational disturbance to nearby functionally linked land if confirmed present), would ensure that no adverse impact on the integrity of the Morecambe Bay Ramsar site/ Morecambe Bay and Duddon Estuary SPA would occur as a result of development at this allocation site.

10.5 Middleton Towers, Carr Lane (Site ref: ~~DOS7~~DOS5)

Local Plan Description

10.5.1 This allocation site is located to the south of Heysham, in the west of the district. The site has been identified as a development opportunity site.

Site Description

The site comprises a habitat mosaic of scrub, amenity, species-poor grassland, ponds, scattered broadleaved trees and hardstanding. The majority of the site would appear to be 'made ground' with previous (unknown) uses. A section of the allocation has recently been developed with new housing along Natterjack Lane and Badger Wood. [no Phase 1 map for the allocation site was prepared by GMEU due to the lack of semi-natural habitats within the site].

Planning Information

10.5.2 The site has a complex history with planning approval for a 626-dwelling retirement village granted in 2002 having been called in by the Secretary of State for determination. In recommending approval, the Inspector recognised the need for, uniqueness of and benefits of the proposal as well as the many regeneration benefits that the scheme would deliver. Following commencement on site, like a number of sites across the district, its delivery has been impacted on by the economic downturn with only a small proportion of the dwellings and ancillary facilities actually completed.

10.5.3 An application to remove the age restriction on the built part of the site was subsequently approved at appeal. More recently the Council agreed to remove the age restriction on the remaining parts of the site.

10.5.4 An application for an 18 unit care home had been submitted to Lancaster City Council (18/00298/OUT), but has since been withdrawn.

10.5.5 It is important to note that on granting the appeal, the Planning Inspector considered that the regeneration benefits of bringing a large brownfield site back into use and the specialist nature of the housing provided sufficient justification to support the proposal. The unique nature of this site is recognised by the Council.

10.5.6 The need for coastal defences were also approved in the latest planning permission. A Biodiversity Report for the coastal protection works has been prepared, and determined that there would be no significant impact on the adjacent designated sites.

Potential Impacts and mitigation measures

10.5.7 Table 20 below provides details of the potential impacts and associated mitigation measures which would be relevant to future development at the former Pontins site. However, further screening (which could include project level HRA) may be required at the planning stage, to confirm the measures set out below are appropriate, and comply with Policy ~~DM43~~DM44 of the Part Two Local Plan.

Table 20: Middleton Towers, Carr Lane Potential Impacts and Mitigation Options

Potential impact	Description	Mitigation options (from Table 16)
Loss of FLL associated with the Morecambe Bay and Duddon Estuary SPA/Ramsar site	The Middleton Towers site covers an area of 23.1 ha. The detailed screening identified that there are records of SPA/Ramsar site qualifying features within tetrads within which the allocation is located (comprising more than 1% of the SPA/Ramsar population of knot, oystercatcher, pink-footed geese and redshank). However, further investigation of the data shows that these were likely to be related to Red Nab wader roost and nearby coastline rather than the site itself. GMEU wintering bird surveys were not undertaken within the allocation due to the presence of existing development and planning consent and a site evaluation by GMEU indicated that the allocation has 'low potential' to support SPA species (GMEU, 2017). Furthermore, planning applications associated with the recent development at Badger Wood, and ecological assessments associated with coastal defences to protect the coast from erosion in front of the new retirement village, did not identify the land within the allocation to be functionally linked to the European site.	No mitigation required.

Potential impact	Description	Mitigation options (from Table 16)
	Although the detailed screening identified that the land has the potential to support SPA/Ramsar site species, further analysis of the ecological information for the allocation, planning applications within the site, and work carried out by GMEU, has determined that the land within this allocation site is not considered to constitute FLL.	
Disturbance (construction and operation)	As described above, the allocation lies within a tetrad containing records of high numbers of SPA/Ramsar site species. Although the records are not likely to be related to the site itself, given its close proximity to the coast, there is the potential to disturb birds utilising the adjacent intertidal habitats. Depending on the exact location of the new development within the allocation site, measures to avoid disturbance to birds which could be using adjacent habitats may need to be incorporated into any future development plans at the allocation.	Option B – Time works to take place outside of the wintering bird season (wherever possible) to avoid times when SPA/Ramsar site species could be using the nearby coast. Option C and D – If works are likely to take place during the winter period, natural or other screening should be used to reduce noise and visual disturbance to birds utilising the adjacent habitats. Depending on the exact location of the new development within the allocation site, existing vegetation, buildings and infrastructure may provide sufficient buffers to the adjacent habitats. The location and type of screening will be determined at the project level (if required). Option E – Given the size of the allocation, it should be possible to incorporate measures to reduce potential disturbance to adjacent functionally linked land.
Recreational disturbance in relation to use of FLL	Given the proximity of the coast to the allocation, there is the potential for increased recreational pressure along the adjacent coastline, as well as to fields inland which could be functionally linked land, as a result of new residential development at this site.	Option F – New home owner packs will be produced to inform residents of the sensitivity of the surrounding landscape, and provide information on alternative locations for recreational activities, in particular dog walking area. Option G - The provision of areas of POS (as required by Policy DM26 of the Local Plan Part Two) will encourage new home owners to use green space within the allocation, rather than adjacent land. A proportion of the green space will be specifically marketed as dog walking areas.
Changes in water quality (construction and operation)	Due to the close proximity of the allocation to the adjacent European sites, there is the potential for adverse effects on water quality associated with the construction and operational phases of any future development within this allocation site.	Option I – Ensure a hydrological assessment is carried out to determine the potential impacts on water quality, to ensure compliance with Policy DM34 within the Local Plan Part Two.

Residual Impact

10.5.8 With the mitigation options in place. There would be no residual effects associated with development within this allocation site.

Conclusion

10.5.9 Following implementation of the mitigation measures identified in Table 16 (in relation to recreational disturbance to nearby coastline and potentially functionally linked land), no adverse impact on the integrity of the Morecambe Bay Ramsar site/ Morecambe Bay and Duddon Estuary SPA would be expected as a result of development at this allocation site.

10.6 Lancaster West Business Park (Site ref: EC1.10)

Local Plan Description

10.6.1 The Lancaster West Business Park is located just off the Bay Gateway Link Road, south of Heysham and provides significant opportunity for future growth within the local plan period, with substantial proportions of the site currently available for future growth, the total area of the site is 28 hectares. There are a range of uses already located on the site including B2 (general industrial) and B8 (storage and distribution) and its attractiveness of a location is expected to increase given the improvements to strategic accessibility within the locality.

Site Description

10.6.2 The site comprises a habitat mosaic of scrub woodland, amenity species-poor grassland, wet grassland, what could best be described as semi-improved grassland, large ponds, broadleaved woodland, scattered broadleaved trees and marsh. The majority of the site would appear to be 'made ground' with previous (unknown) uses. The majority of the area does not appear to currently be managed. [no Phase 1 map for the allocation site was prepared by GMEU due to the lack of semi-natural habitats within the site].

Planning Information

10.6.3 There is one Scheme within the Business Park which has reached planning stage. It comprises the creation of a large new manufacturing unit (B2). This business is currently located on a variety of sites on the White Lund Employment area to the north. This development will give the company the opportunity to consolidate into one site (and free up space for other businesses on White Lund). The proposal seeks to create up to 14,400sqm gross floorspace across the site (Application Ref: 18/00154/FUL).There are currently no ecological reports associated with the planning application. .

10.6.4 In addition, extensive bird surveys were carried out as part of the EIA for Heysham South Wind Farm, which lies adjacent to the eastern boundary of the allocation site. Although NE initially objected to the Scheme due to the application containing insufficient information for NE to be satisfied that no adverse effect upon the Morecambe Bay SPA/Ramsar site would occur. Following a dispute from the developer and further review of legal and evidence issues, NE removed the objection and planning permission was granted. The wind farm became operational in 2015.

Potential Impacts and mitigation measures

10.6.5 Table 20 below provides details of the potential impacts and associated mitigation measures which would be relevant to future development at the Lancaster West Business Park. However, further screening (which could include project level HRA) may be required at the planning stage, to confirm the status of the site and which of the measures set out below are appropriate and comply with Policy ~~DM43~~DM44 of the Part Two Local Plan.

Table 21: Lancaster West Business Park Potential Impacts and Mitigation Options

Potential impact	Description	Mitigation options (from Table 16)
Loss of FLL associated with the	Although the allocation supports habitats that could be used by SPA birds, upon	No mitigation required.

Potential impact	Description	Mitigation options (from Table 16)
Morecambe Bay and Duddon Estuary SPA/Ramsar site	further analysis, none of the bird club records for the tetrad containing the site identified species at more than 1 % of the SPA populations. GMEU carried out a desk-based assessment of the site and identified it as having low potential to support SPA birds, therefore, further bird surveys were not undertaken at the site. In addition, surveys undertaken to inform the South Heysham Wind Farm site in 2009/10[57] identified that the most regularly used fields within the vicinity of this allocation are to the north of the A683 within Heysham Moss. Given that wind turbines are now operational adjacent to the allocation, it is unlikely that this distribution of birds using inland foraging areas will have changed. Although the detailed screening identified that the land has the potential to support SPA species, further analysis of the bird numbers, additional planning information and phase 1 survey results has determined that the land within this allocation site is not considered to constitute FLL.	
Disturbance (construction and operation)	The bird surveys associated with the adjacent wind farm site confirmed that the fields to the east of the allocation were used by relatively small numbers of SPA/Ramsar site species, with 1% of the SPA population only recorded for golden plover (on one occasion) and pink-footed geese (on two occasions). The EIA indicated that fields to the north at Heysham Moss and adjacent to the Lune Estuary (over 2 km to the east of the allocation site) were more suitable for SPA/Ramsar site species. Figure 8.5 of the Environmental Statement[58] showed the fields directly to the east of the allocation (around Meadup House) were used occasionally as a foraging area for pink-footed geese in winter 2009/10 and December 2010. A wind turbine is now located within this area and it is considered unlikely that pink-footed geese would continue to regularly use this area in large numbers. However, measures to avoid disturbance to these birds (if they do continue to	Option B – Time works to take place outside of the wintering bird season (wherever possible) to avoid times when SPA/Ramsar site species could be present on adjacent land. Option C and D – If works are likely to take place during the winter period, use natural or other screening along the eastern side of the allocation site to reduce noise and visual disturbance to birds using these fields. The location and type of screening will be determined at the Masterplan/ project level (if required). Option E – It should be possible to incorporate measures into the scheme design to reduce potential disturbance to adjacent functionally linked land.

[57] Banks Renewables (2011). Heysham Wind Farm. Ornithology Full Technical Report Appendix 3 of the Environmental Statement
[58] Banks Renewables (2011). Heysham Wind Farm. Environmental Statement

Potential impact	Description	Mitigation options (from Table 16)
	utilise this area) should be incorporated into any future development at the West Lancaster Business Park allocation.	

Residual Impact

10.6.6 With the mitigation options in place. There would be no residual effects associated with development within this allocation site.

Conclusion

10.6.7 The land within the allocation is not considered to constitute functionally linked land. Following implementation of the mitigation measures identified in Table 16 (in relation to disturbance to birds using nearby functionally linked land), no adverse impact on the integrity of the Morecambe Bay Ramsar site/ Morecambe Bay and Duddon Estuary SPA would be expected as a result of development at this allocation site.

10.7 Glasson Dock Industrial Area (Site ref: ~~EC1.18~~EC1.17)

Local Plan Description

10.7.1 This allocation site is located adjacent to Glasson Dock. The site has been identified for future employment development within an existing employment site.

Site Description

10.7.2 The site comprises existing employment development surrounding the Dock.

Planning information

10.7.3 There are currently no relevant planning applications associated with the site.

Potential Impacts and mitigation measures

10.7.4 Table 21 below provides details of the potential impacts and associated mitigation measures which would be relevant to future development at this site. However, further screening may be required at the planning stage, to confirm the measures set out below are appropriate, and comply with Policy ~~DM43~~DM44 of the Part Two Local Plan.

Table 22: Glasson Dock Industrial Area Potential Impacts and Mitigation Options

Potential impact	Description	Mitigation options (from Table 16)
Disturbance (construction and operation)	The site lies within a tetrad containing records of high numbers of SPA/Ramsar site species and is adjacent to two WeBS core count zones (Glasson Dock and Glasson Marsh). More than 1% of the SPA/Ramsar site population of golden plover, bar-tailed godwit, curlew, dunlin, redshank, grey plover, knot, and shelduck has been recorded in the tetrad in which the allocation site is located (refer to Table 10). Although the records will not to be related to the site itself, given its close proximity to the River Lune and Glasson Marsh, there is the potential to disturb birds utilising the adjacent mud and saltmarsh habitats	Option B – Time works to take place outside of the wintering bird season (wherever possible) to avoid times when SPA/Ramsar site species could be using the River Lune. Option C and D – If works are likely to take place during the winter period, natural or other screening should be used to reduce noise and visual disturbance to birds utilising the adjacent habitats. Depending on the exact location of the new development within the allocation site, existing buildings and infrastructure may provide sufficient buffers to the adjacent habitats. The location and type of screening will be determined at the project level (if required).

Formatted Table

Potential impact	Description	Mitigation options (from Table 16)
	(particularly the saltmarsh to the west of the allocation site at Glasson Marsh). Depending on the exact location of the new development within the Glasson Industrial Area, measures to avoid disturbance to birds which could be using adjacent habitats may need to be incorporated into any future development plans at the Industrial Area.	Option E – It should be possible to incorporate measures into the scheme design to reduce potential disturbance to adjacent habitats.
Changes in water quality (construction and operation)	Due to the close proximity of the allocation to the adjacent European sites, there is the potential for adverse effects on water quality associated with the construction and operational phases of any future development within this allocation site.	Option I – Ensure a hydrological assessment is carried out to determine the potential impacts on water quality, to ensure compliance with Policy DM34 within the Local Plan Part Two.

Formatted Table

Residual Impact

10.7.5 With the mitigation options in place. There would be no residual effects associated with development within this allocation site.

Conclusion

10.7.6 Following implementation of the mitigation measures identified in Table 16 (in relation to disturbance to birds using nearby functionally linked land), no adverse impact on the integrity of the Morecambe Bay Ramsar site/ Morecambe Bay and Duddon Estuary SPA would be expected as a result of development at this allocation site.

10.8 Port of Heysham ~~Expansion~~ (Site ref: ~~SG14~~SG12.1)

Local Plan Description

10.8.1 The Port of Heysham contributes heavily to the district's local economy, generating jobs and investment into the area. It is responsible for freight and passenger services to the Republic of Ireland, Northern Ireland and the Isle of Man. Both the Lancashire Economic Partnership and the City Council recognises the economic benefits that the port brings to the district in terms of jobs and investment (both with regard to the port directly and other associated businesses) and will seek to encourage and secure future growth at the port to continue to provide such economic benefits.

10.8.2 To assist with growth of freight and passenger business, further opportunities for expansion are required. To assist with an expansion of future operations at the Port, the Local Plan has identified a site adjacent to the Bay Gateway and Imperial Road under Policy ~~SG14~~SG12.

10.8.3 The allocation of land at Imperial Road is anticipated to provide improved opportunities to increase the level of services operating out of the Port of Heysham, by providing land to enable a more efficient use of land with the port area for a greater range of uses and to provide land improved services and logistical provision connected to the port.

10.8.4 Any future expansion of the capacity of the port (such as increasing the number of ships utilising the port through expanding freight and passenger use) is outside of the scope of the Local Plan Part One. Given that details of any such expansion Schemes are not know at this strategic stage of the Plan, any such expansion development would be considered separately with its own feasibility studies and HRA. This HRA Report only considers the potential impacts associated with land-based development at the Port.

Site Description

10.8.5 The site comprises 33.6 ha of existing buildings, hardstanding and infrastructure associated with the existing port facilities. No natural or semi-natural habitats would be affected by the proposals.

Planning information

10.8.6 There are currently no relevant planning applications associated with the site. However, a Masterplan for the site will be developed which will set out how the allocation site will deliver the housing, employment and commercial developments required within the Local Plan.

Potential Impacts and mitigation measures

10.8.7 Table 22 below provides details of the potential impacts and associated mitigation measures which would be relevant to future development at the Port site. However, further screening may be required at the planning stage, to confirm the measures set out below are appropriate, and comply with Policy ~~DM43~~DM44 of the Part Two Local Plan. Policy ~~SG14~~SG12 also includes specific reference to the protection of European sites:

10.8.8 '*Future proposals will need to demonstrate that no International~~European~~ designated sites would be adversely affected by development either alone or in combination with other proposals, as per the requirements of Policy EN~~9~~7 of this DPD. In view of the potential for likely significant effects as a result of this allocation the requirements of Appendix D must be delivered as part of any future proposal'.*

10.8.9 As such no development which would be detrimental to the integrity of the adjacent European site would be permitted and the mitigation measures detailed in Table 23 (included within the Local Plan at Appendix D) must be incorporated into any development proposals.

Table 23: Port of Heysham ~~Expansion~~ Potential Impacts and Mitigation Options

Potential impact	Description	Mitigation options (from Table 16)
Disturbance (construction and operation)	The site lies within a tetrad containing records of high numbers of SPA/Ramsar site species and is adjacent to Morecambe Bay and Duddon Estuary SPA/ Morecambe Bay Ramsar site. More than 1% of the SPA/Ramsar site population of oystercatcher, redshank, turnstone and knot has been recorded in the tetrad in which the allocation site is located, refer to Table 10. Although the records will not to be related to the site itself, given its close proximity to the Bay, there is the potential to disturb birds utilising the adjacent intertidal habitat. Depending on the exact location of the redevelopment opportunities associated with the Port, measures to avoid disturbance to birds which could be using adjacent habitats may need to be incorporated into any future development plans at the allocation.	Option B – Time works to take place outside of the wintering bird season (wherever possible) to avoid times when SPA/Ramsar site species could be using the adjacent intertidal habitat. Option C and D – If works are likely to take place during the winter period, natural or other screening should be used to reduce noise and visual disturbance to birds utilising the adjacent habitats. Depending on the exact location of the new development within the allocation site, existing vegetation, buildings and infrastructure may provide sufficient buffers to the adjacent habitats. The location and type of screening will be determined at the project level (if required). Option E – It should be possible to incorporate measures into the scheme design to reduce potential disturbance to adjacent habitats.
Changes in water quality (construction and operation)	Due to the close proximity of the allocation to the adjacent European sites, there is the potential for adverse effects on water quality associated with the construction and operational phases of any future development within this allocation site.	Option I – Ensure a hydrological assessment is carried out to determine the potential impacts on water quality, to ensure compliance with Policy DM34 within the Local Plan Part Two.

Residual Impact

10.8.10 With the mitigation options in place. There would be no residual effects associated with development within this allocation site.

Conclusion

10.8.11 The land within the allocation is not considered to constitute functionally linked land. Following implementation of the mitigation measures identified in Table 16 (in relation to disturbance to birds using nearby functionally linked land), no adverse impact on the integrity of the Morecambe Bay Ramsar site/ Morecambe Bay and Duddon Estuary SPA would be expected as a result of development at this allocation site.

10.9 Port of Heysham Industrial Estate (Site ref: EC1.6)

Local Plan Description

10.9.1 The Port of Heysham Industrial Estate is 12.4 hectares in size and located directly adjacent to the Port of Heysham with strong accessibility to the Port itself and the wider strategic road network via the Bay Gateway Link Road. The site is occupied by a range of employment uses including B1 (office), B2 (light industrial) and B8 (storage and distribution). Proposals for this area will be expected to have due regard to Policy ~~SG15~~SG13 which relates to the wider Heysham Gateway area.

10.9.2 The Port of Heysham Industrial Estate, whilst currently allocated for wider employment purposes through the early period of the local plan has also been identified as a potential expansion for the adjacent port facility via Policy ~~SG14~~SG12 of this Strategic Policies and Land Allocations DPD. Should expansion take place into this site the Council will expect that existing uses are satisfactorily decanted from this site into suitable premises in the locality that are suitable and appropriate for the businesses' ongoing economic needs.

Site Description

10.9.3 The site comprises existing development adjacent to the Port of Heysham. GMEU have not carried out a Phase 1 habitat survey of the site.

Planning information

There are currently no relevant planning applications associated with the site.

Potential Impacts and mitigation measures

10.9.4 Table 23 below provides details of the potential impacts and associated mitigation measures which would be relevant to future development at Port of Heysham Industrial Estate. However, further screening may be required at the planning stage, to confirm the measures set out below are appropriate, and comply with Policy ~~DM43~~DM44 of the Part Two Local Plan.

Table 24: Port of Heysham Industrial Estate Potential Impacts and Mitigation Options

Potential impact	Description	Mitigation options (from Table 16)
Disturbance (construction and operation)	The site lies within a tetrad containing records of high numbers of SPA/Ramsar site species and is adjacent to Morecambe Bay and Duddon Estuary SPA/ Morecambe Bay Ramsar site. More than 1% of the SPA/Ramsar site population of oystercatcher, redshank, turnstone and knot has been recorded in the tetrad in with the allocation site is located, refer to Table 10. Although the records will not to be related to the site itself, given its close proximity to the Bay,	Option B – Time works to take place outside of the wintering bird season (wherever possible) to avoid times when SPA/Ramsar site species could be using the adjacent intertidal habitat. Option C and D – If works are likely to take place during the winter period, natural or other screening should be used to reduce noise and visual disturbance to birds utilising the adjacent habitats. Depending on the exact location of the new development within the allocation site, existing vegetation, buildings and infrastructure may provide sufficient buffers to the adjacent

Formatted Table

Potential impact	Description	Mitigation options (from Table 16)
	there is the potential to disturb birds utilising the adjacent intertidal habitat. Depending on the exact location of the new development within the Industrial Estate, measures to avoid disturbance to birds which could be using adjacent habitats may need to be incorporated into any future development plans at the allocation.	habitats. The location and type of screening will be determined at the project level (if required). Option E – It should be possible to incorporate measures into the scheme design to reduce potential disturbance to adjacent habitats.
Changes in water quality (construction and operation)	Due to the close proximity of the allocation to the adjacent European sites, there is the potential for adverse effects on water quality associated with the construction and operational phases of any future development within this allocation site.	Option I – Ensure a hydrological assessment is carried out to determine the potential impacts on water quality, to ensure compliance with Policy DM34 within the Local Plan Part Two.

Residual Impact

10.9.5 With the mitigation options in place. There would be no residual effects associated with development within this allocation site.

Conclusion

10.9.6 The land within the allocation is not considered to constitute functionally linked land. Following implementation of the mitigation measures identified in Table 23 (in relation to disturbance to birds using nearby functionally linked land), no adverse impact on the integrity of the Morecambe Bay Ramsar site/ Morecambe Bay and Duddon Estuary SPA would be expected as a result of development at this allocation site.

10.10 Sub-station Land (Site ref: ~~SG15~~SG13.1)

Local Plan Description

10.10.1 This allocation site is located within the Heysham Gateway Regeneration Priority Area. The site has been identified as an area for strategic growth which is proposed to support energy developments, however no detailed proposals are currently available.

Site Description

10.10.2 The site comprises a triangular area of land between the A683 to the south, railway line to the west and Heysham Moss, to the east. GMEU have not carried out a Phase 1 habitat survey of the site.

Planning information

10.10.3 There are currently no relevant planning applications associated with the site.

Potential Impacts and mitigation measures

10.10.4 Table 24 below provides details of the potential impacts and associated mitigation measures which would be relevant to future development at the Sub-station Lane site. However, further screening may be required at the planning stage, to confirm the measures set out below are appropriate, and comply with Policy ~~DM43~~DM44 of the Part Two Local Plan.

~~10.10.4~~

Formatted Table

Formatted: Normal, Tab stops: Not at 0.63 cm

Table 25: Sub-Station Land Potential Impacts and Mitigation Options

Potential impact	Description	Mitigation options (from Table 16)
Disturbance (construction and operation)	Potential for disturbance of birds on adjacent fields to the east of the allocation at Heysham Moss. The large, open fields that form Heysham Moss are located beyond an area of woodland and scrub. which offers some natural screening which would reduce the likelihood of significant effects upon the FLL as a result of development within the allocation. In the absence of detailed plans for the site, the potential for an effect cannot be screened out. Depending on the exact nature and location of the new development within the Sub-Station Land site, measures to avoid disturbance to birds which could be using adjacent habitats may need to be incorporated into any future development plans at the allocation.	Option B – Time works to take place outside of the wintering bird season (wherever possible) to avoid times when SPA/Ramsar site species could be using the adjacent intertidal habitat. Option C and D – If works are likely to take place during the winter period, natural or other screening should be used to reduce noise and visual disturbance to birds utilising the adjacent habitats. Depending on the exact location of the new development within the allocation site, existing vegetation may provide sufficient buffers to the adjacent habitats. The location and type of screening will be determined at the project level (if required). Option E – It should be possible to incorporate measures into the scheme design to reduce potential disturbance to adjacent habitats.

Residual Impact

10.10.5 With the mitigation options in place. There would be no residual effects associated with development within this allocation site.

Conclusion

10.10.6 The land within the allocation is not considered to constitute functionally linked land. Following implementation of the mitigation measures identified in Table 16 (in relation to disturbance to birds using nearby functionally linked land), no adverse impact on the integrity of the Morecambe Bay Ramsar site/ Morecambe Bay and Duddon Estuary SPA would be expected as a result of development at this allocation site.

11 Appropriate Assessment of the potential effects upon European sites (in combination)

11.1 Overview

11.1.1 This Appropriate Assessment section (Stage 2 of the HRA process) considers the potential in combination effects associated with the eight allocation sites (and policies to which they are associated) within the Local Plan Part One which were also considered alone within Section 10. The Appropriate Assessment also assesses the potential impacts of increased recreational pressure associated with new housing development within 3.5km, and new employment sites within 1.5km, of Morecambe Bay Ramsar site/SAC and the Morecambe Bay and Duddon Estuary SPA. Potential water quality effects associated with the allocations adjacent to each other at Heysham (Port of Heysham ~~Expansion~~ and Port of Heysham Industrial Estate) have also been considered.

11.1.2 The Appropriate Assessment assesses the potential in combination impacts on the qualifying features of Morecambe Bay Ramsar site, and the Morecambe Bay and Duddon Estuary SPA to determine whether any of the potential impacts identified could affect the integrity of these sites.

11.1.3 The assessment looks at a variety of sources of information including housing numbers, development type and locations, as well as details of existing planning information (where available). A conclusion is then drawn as to whether there is a need to provide mitigation (based on the list of mitigation options agreed with Lancaster City Council, refer to Section 10.2), and if there are likely to be any residual effects.

11.2 In combination effects associated with sites with the potential for significant effects alone

11.2.1 There is the potential for in combination effects associated with the eight allocations (comprising: *Lancaster South* Broad Location for Growth – *including* Bailrigg Garden Village~~Bailrigg Garden Village~~, East Lancaster Strategic Site, Port of Heysham ~~Expansion~~, Port of Heysham Industrial Estate, Substation land, Lancaster West Business Park, Middleton Towers and Glasson Docks) which were taken through to Appropriate Assessment alone (refer to Section 10).

Potential impacts and mitigation measures

11.2.2 The eight allocations all have the potential to cause disturbance to birds (through construction/operational activities and/ or recreation) using adjacent functionally linked land or nearby coastal habitat. There is also the potential for water quality effects associated with the allocations adjacent to each other at Heysham (including Port of Heysham ~~Expansion~~ and Port of Heysham Industrial Estate).

11.2.3 Based on the existing ecological information for the allocations and their size and scale, mitigation measures have been proposed for all eight allocations, as set out within Section 10. These measures will be put in place to reduce/eliminate the potential impacts associated with any future developments at these allocation sites. With these mitigation measures in place, there would be no residual effects, and therefore there would be no significant adverse in combination effects with each other, or other allocations within the Local Plan Part One. No additional mitigation measures, over and above those already incorporated into the Local Plan for these allocations alone, are therefore deemed necessary.

Residual Impact

11.2.4 There would be no residual effects associated with development of the eight allocations at *Lancaster South* Broad Location for Growth – *including* Bailrigg Garden Village~~Bailrigg Garden Village~~, East Lancaster Strategic Site, Port of Heysham ~~Expansion~~, Port of Heysham Industrial Estate, Substation land, Lancaster West Business Park, Middleton Towers and Glasson Docks.

Conclusion

11.2.5 No adverse impact on the integrity of the Morecambe Bay SAC/Ramsar site/ Morecambe Bay and Duddon Estuary SPA would be expected as a result of development at the eight allocation sites.

11.3 In combination effects associated with recreational pressure on Morecambe Bay (allocation sites within Lancaster Local Plan Part One)

11.3.1 The potential exists for a rise in visitor numbers to have a significant effect on the Morecambe Bay and Duddon Estuary SPA/Morecambe Bay SAC/Ramsar site as the housing and employment developments are progressively completed across the district.

11.3.2 The detailed screening (refer to Section 7) identified 19~~26~~ residential and five employment allocation sites (within Tables 12 and 13 of the detailed screening) which have been identified as requiring further assessment in relation to the potential for increased recreational pressure on Morecambe Bay. These are listed in Tables 26 and 27 (below) and are shown on Figure 5.

11.3.3 All allocations within 3.5 km of the European sites, which include an element of residential development, will be considered in the assessment. All employment sites (excluding redevelopment of existing employment sites) within 1.5 km of the European sites will also be included in the assessment in relation to recreational pressure on Morecambe Bay. As detailed in the following paragraphs.

Housing Allocation sites

11.3.4 Table 26 below shows all of the allocation sites within 3.5 km of Morecambe Bay. The table also shows the number of dwellings and the current planning status of each allocation site. Allocation sites in bold text in the first column comprise sites which area also included within the Appropriate Assessment (Section 10).

Table 26: New housing developments within 3.5 km of Morecambe Bay (shown on Figure 5)

Allocation site (sites in bold text are included within the Appropriate Assessment for potential LSE alone)	**Number of Dwellings**	**Planning Status (Allocation (A) or Planning Permission Granted (PP))**	**European site**			**Potential impact**
			Morecambe Bay SAC	**Morecambe Bay Ramsar site**	**Morecambe Bay and Duddon SPA**	**Recreational pressure on Morecambe Bay (operation only)**
Lancaster South Broad Location for Growth – *including* Bailrigg Garden Village ~~**Bailrigg Garden Village**~~ **Policy (SG1)**	3,500	A	✓	✓	✓	All of these housing/ mixed use allocation sites are located within 3.5km of Morecambe Bay. Given the proximity to the coast, there is the potential to have a likely significant effect on Morecambe Bay should all of these allocations go ahead.
Land at Middleton Towers, Carr Lane (~~DOS7~~DOS5)	576	PP	✓	✓	✓	
East Lancaster Strategic Site ~~(Cuckoo Farm and Ridge Farm)~~ (SG7)	93~~0~~0	A	✓	✓	✓	
North Lancaster Strategic Site (SG9)	700	A	✓	✓	✓	
Land at Lundsfield Quarry (SG11)	25~~0~~0	A~~PP~~	✓	✓	✓	
~~South of Windermere Road, Carnforth (SG12)~~	~~500~~	~~A~~	~~✓~~	~~✓~~	~~✓~~	

Allocation site (sites in bold text are included within the Appropriate Assessment for potential LSE alone)	Number of Dwellings	Planning Status (Allocation (A) or Planning Permission Granted (PP))	European site			Potential impact
			Morecambe Bay SAC	Morecambe Bay Ramsar site	Morecambe Bay and Duddon SPA	Recreational pressure on Morecambe Bay (operation only)
Lune Industrial Estate, New Quay Road (~~DOS4~~DOS2)	200	A	✓	✓	✓	
Luneside East (H1.2~~DOS3~~)	1489	PP	✓	✓	✓	
~~Former Thomas Graveson Site, Warton Road, Carnforth (DOS10)~~	~~40~~	~~A~~	~~✓~~	~~✓~~	~~✓~~	
Land at Grab Lane (H4)	207~~195~~	A	✓	✓	✓	
Land at Lancaster Leisure Park and Auction Mart (H5)	24200	A	✓	✓	✓	
~~Royal Albert~~Land at Royal Albert Fields, Ashton Road (H6)	137~~1~~	A	✓	✓	✓	
Land West of Middleton Road (H1.47)	75~~69~~	PP	✓	✓	✓	
St Michaels Lane (H2.4)	20	PP	✓	✓	✓	
Lancaster Road, Overton (H2.2)	32	PP	✓	✓	✓	
Yenham Lane (H2.3)	21	A	✓	✓	✓	
~~Briar Lea Road, Nether Kellet (H2.5)~~	~~10~~	~~PP~~	~~✓~~	~~✓~~	~~✓~~	
New Quay Road, Lancaster (H1.12)	12	PP	✓	✓	✓	
Former Police Station, Heysham (H1.3)	14	PP	✓	✓	✓	
Land off Marsh Lane, Cockerham (~~H2.12~~H2.10)	36	PP	✓	✓	✓	
~~Broadway Hotel, Morecambe (H1.4)~~	~~50~~	~~PP~~	~~✓~~	~~✓~~	~~✓~~	
~~Land West of 113 White Lund Road (H1.5)~~	~~10~~	~~PP~~	~~✓~~	~~✓~~	~~✓~~	
~~Grove Street Depot (H1.6)~~	~~21~~	~~PP~~	~~✓~~	~~✓~~	~~✓~~	

Allocation site (sites in bold text are included within the Appropriate Assessment for potential LSE alone)	Number of Dwellings	Planning Status (Allocation (A) or Planning Permission Granted (PP))	European site			Potential impact
			Morecambe Bay SAC	Morecambe Bay Ramsar site	Morecambe Bay and Duddon SPA	Recreational pressure on Morecambe Bay (operation only)
~~University of Cumbria~~Land at University of Cumbria (H3.~~2~~3)	15	A	✓	✓	✓	
Land North of Old Hall Farm, Over Kellet (~~H2.6~~H2.5)	55	A	✓	✓	✓	
~~Monkswell Avenue, Bolton-le-Sands (H2.7)~~	~~15~~	~~A~~	~~✓~~	~~✓~~	~~✓~~	
			Number of allocations affected by potential impact			~~2~~1906
			Total number of dwellings			7,170~~611~~

11.3.5 As described previously within Section 7 of the detailed screening, an increase in population (as a result of new development and improved road infrastructure) could result in increased recreational pressure due to an increase in the population in the area and the consequent increases in people visiting Morecambe Bay. Given the number of new houses allocated within the Local Plan Part One which would be in close proximity to Morecambe Bay, at this strategic level, there is not sufficient evidence to conclude that there would not be a significant effect on the integrity of the European sites as a result of increased recreational pressure, therefore, in order to minimise the potential for such impacts, a number of mitigation measures have been built into the Local Plan, as described below.

Potential impacts and mitigation measures

11.3.6 The Local Plan Part One includes the delivery of ~~approximately~~ ~~12,000~~10,440 new dwellings across the Lancaster district over the period 2011/12-2033/34. Taking the 3.5 km distance[59] identified as the distance that visitors to Morecambe Bay who were on a day-trip/short visit from home travelled, of the 10,440~~12,000~~ dwellings allocated, 7,170~~6,671~~ would be located within 3.5 km of Morecambe Bay and Duddon Estuary SPA/Morecambe Bay SAC/Ramsar site (within the ~~2~~1960 allocation sites shown in Table 26).

11.3.7 Of the 7,170~~611~~ houses allocated, 5,006~~4,976~~ (695%) are located within three of the large strategic sites at Lancaster South Broad Location for Growth (including Bailrigg Garden Village) (3,500 new homes), East Lancaster Strategic Site (930~~0~~ new homes) and Middleton Towers, Carr Lane (576 new homes). Due to the scale and size of these developments, they were considered to have the potential for likely significant effects alone and were assessed in detail in Section 10.3 and 10.5 (above). The Appropriate Assessment of these three sites includes a suite of mitigation measures (from Table 16) which have been built into the policies within the Local Plan Part One for these allocations. These mitigation options include those which would also serve to reduce recreational pressure on Morecambe Bay. For example, Option G would ensure there is sufficient public open space (to comply

[59] Liley, D., Underhill-Day, J., Panter, C., Marsh, P. & Roberts, J. (2015). Morecambe Bay Bird Disturbance and Access Management Report. Unpublished report by Footprint Ecology for the Morecambe Bay Partnership.

with Policy DM27) incorporated into the new developments to encourage new householders to stay local rather than travelling to the coast. Option F would ensure new home~~-~~owners receive a home-owners pack detailing the sensitivities of Morecambe Bay and providing information on alternative areas for recreation. Finally, Option H (especially applicable to the Bailrigg Garden Village) highlights the new Country Park which will be created as part of Policy SC5. This will provide an alternative area for recreation, which will include areas specifically designed for dog walkers to encourage them away from visiting the coast (one of the issues raised as a concern in the Site Improvement Plan for Morecambe Bay). All of these measures will help towards mitigating the potential for increased recreational pressure on Morecambe Bay for the allocations at Bailrigg Garden Village, East Lancaster Strategic site and the Middleton Towers allocation.

11.3.8 In addition to the three larger allocations identified above, 7~~12~~ of the allocations (comprising ~~623~~337 dwellings) have already been granted planning permission and have therefore already had potential environmental impacts assessed through the planning application process.

11.3.9 For the remaining 1,827~~2,635~~ new dwellings (within ~~ten~~eight allocations) planned for the remainder of the allocations within 3.5 km of Morecambe Bay, wording has been built into the plan to ensure that each of these new households also receives a home owners pack [Option F from Table 16] detailing the sensitives of Morecambe Bay, and outlining the alternative areas of recreation within their own developments and the new Country Park to be created as part of Policy SC5 [Option H from Table 16]. In addition, Policy ~~DM43~~DM44 and ~~EN9~~EN7 requires European sites to be taken into account during the planning process, and Policy DM26 outlines the requirements for the amount of public open space within new developments. The more houses within an allocation, the more public open space will be required (refer to Appendix D of Local Plan Part 2 for further details). For allocations within 3.5 km of Morecambe Bay, sufficient public open space [Option G from Table 16] would also be expected to be included within the development (or provide access to sufficient public open space elsewhere). This would include areas which could accommodate a range of activities including areas suitable for use by dog walkers. All of these measures would work towards alleviating the potential effects associated with recreational pressure on Morecambe Bay.

Residual Impact

11.3.10 With the mitigation options in place. There would be no residual effects associated with new housing developments within 3.5km of Morecambe Bay.

Conclusion

11.3.11 Following implementation of the mitigation measures identified above, no adverse impact on the integrity of the Morecambe Bay SAC/Ramsar site/ Morecambe Bay and Duddon Estuary SPA would be expected as a result of recreational pressure from new housing developments within 3.5km of Morecambe Bay.

Employment Allocation sites

11.3.12 Table 27 below shows all of the allocation sites within 1.5 km of Morecambe Bay which have an element of employment development. The table also shows whether the development would comprise an expansion of an existing employment site, or redevelopment of an existing employment site. Allocation sites in bold text in the first column contain sites which are also included within the Appropriate Assessment with the potential for likely significant effect alone.

Table 27: New employment allocation within 1.5 km of Morecambe Bay (shown on Figure 5)

Allocation site (sites in bold text are included within the Appropriate Assessment alone)	Expansion of existing employment site or Redevelopment of existing employment site	European site			Potential impact
		Morecambe Bay SAC	Morecambe Bay Ramsar site	Morecambe Bay and Duddon SPA	Recreational pressure on Morecambe Bay (operation only)
Major Industrial Estate (EC1.9)	Existing/New	✓	✓	✓	All of these employment allocation sites are located within 1.5km of Morecambe Bay. Given their proximity to the coast, there is the potential to have a likely significant effect on Morecambe Bay should both of these allocations go ahead.
Lancaster West Business Park (EC1.10)	Existing/New	✓	✓	✓	
Middleton Road Employment Area (EC2.~~1.13~~)	Existing/New	✓	✓	✓	
Heysham Industrial Estate (EC1.7)	Existing/New	✓	✓	✓	
Sunnycliff Retail Park, Mellishaw Road (TC3.1)	Existing/New	✓	✓	✓	
Royd Mill (EC1.8)	Existing	✓	✓	✓	All of these employment allocation sites are located within 1.5km of Morecambe Bay. However, they are all currently utilised for employment and are therefore screened out of the assessment
Port of Heysham ~~Expansion~~ (~~SG14~~SG12.1)	Existing	✓	✓	✓	
Port of Heysham Industrial Estate (EC1.6)	Existing	✓	✓	✓	
Glasson Dock Industrial Area (~~EC1.18~~EC1.17)	Existing	✓	✓	✓	
Land at Scotland Road (EC1.3)	Existing	✓	✓	✓	
Land at Warton Road (EC1.4)	Existing	✓	✓	✓	
Land at Former TDG depot, Walton Road (~~DOS9~~DOS7)	Existing	✓	✓	✓	
Carnforth Levels, Scotland Road (EC1.2)	Existing	✓	✓	✓	

Allocation site (sites in bold text are included within the Appropriate Assessment alone)	Expansion of existing employment site or Redevelopment of existing employment site	European site			Potential impact
		Morecambe Bay SAC	Morecambe Bay Ramsar site	Morecambe Bay and Duddon SPA	Recreational pressure on Morecambe Bay (operation only)
White Lund Industrial Estate (EC1.12/EC4)	Existing	✓	✓	✓	
		Number of allocations affected by potential impact			4

11.3.13 There are only five employment allocation sites within 1.5 km of Morecambe Bay, (Major Industrial Estate, Middleton Road Employment Area, Lancaster West Business Park, Heysham Industrial Estate, and Sunnycliff Retail Park, Mellishaw Road) which comprise expansion of an existing employment site (i.e. includes new development outside of the existing industrial footprint). The remaining employment allocations that fall within 1.5 km of the European sites are redevelopment within the footprint of existing employment areas, and as such would not contribute to a significant increase in the number of people working in those areas.

Potential impacts and mitigation measures

11.3.14 Major Industrial Estate, Middleton Road Employment Area, Lancaster West Business Park and Heysham Industrial Estate are all located within the Heysham Gateway Strategic Growth Area. From a review of aerial photography and OS mapping, there are no direct footpaths, or easy access to the coast (access would be through existing industrial development and two large caravan sites) from Major Industrial Estate, Middleton Road Employment Area, and Lancaster West Business Park.

11.3.15 Although, there is one footpath which leads to the coast adjacent to the Heysham Industrial Estate, any small increases in the number of people visiting the coastline from Heysham industrial Estate for short periods of time during lunch breaks would not significantly add to the existing baseline of disturbance already experienced in the Heysham area. In addition, the Wildlife Trust's Middleton Nature Reserve is located nearby, and would provide a more easily accessible, alternative green space for employees to visit during a lunch break rather than visiting the coast.

11.3.16 Sunnycliff Retail Park, Mellishaw Road is located to the southeast of Morecambe. From a review of aerial photography and OS mapping, the allocation is separated from the River Lune (to the eastof the allocation) by the busy A4683. There are no direct footpaths, or easy access to the River Lune from the allocation.

11.3.17 Therefore, no effect on the integrity of Morecambe Bay SAC/Ramsar site/ Morecambe Bay and Duddon Estuary SPA, as a result of increased recreational pressure from new employment sites within the Lancaster Local Plan Part One, is anticipated, and no mitigation measures are required.

Residual Impact

11.3.18 There would be no residual effects associated with new employment developments within 1.5km of Morecambe Bay.

Conclusion

11.3.19 No adverse impact on the integrity of the Morecambe Bay SAC/Ramsar site/ Morecambe Bay and Duddon Estuary SPA would be expected as a result of recreational pressure from new employment developments within 1.5km of Morecambe Bay.

11.4 In combination effects associated with recreational pressure on Morecambe Bay (with other Local Plans)

11.4.1 The potential exists for a rise in visitor numbers to have a significant effect on the Morecambe Bay and Duddon Estuary SPA/Morecambe Bay SAC/Ramsar site as the housing and employment developments are progressively completed across the wider region.

Potential impacts and mitigation measures

11.4.2 Lancaster City Council recognises that there is the potential for large numbers of new residents to an area to have a significant effect on the qualifying habitats and species associated with the Morecambe Bay and Duddon Estuary SPA and Morecambe Bay SAC/Ramsar site; therefore, mitigation to off-set this impact has been included within the Local Plan Part One.

11.4.3 Policy ~~DM43~~DM44 (within Local Plan Part Two) and Policy ~~EN9~~EN7 (within Local Plan Part One) clearly set out the requirements for European sites to be taken into account during the planning process, ensuring projects adequately assess the potential impacts upon the European sites prior to planning permission being granted. Policy DM27 and Appendix D (within the Local Plan Part Two) also outlines the requirements for public open space to be built into residential developments, thereby minimising the need for residents to visit Morecambe Bay.

11.4.4 Mitigation measures to alleviate recreational pressure on Morecambe Bay have also been included in the Local Plan. For example, all new residential developments within 3.5 km of Morecambe Bay will be required to provide home owner packs informing residents of the sensitivities of the European sites to recreational pressures, and providing recommendations of alternative areas of recreation, such as the new Country Park (to be delivered through Policy SC5). This is in addition to the site-specific mitigation measures which have been put forward in Section 10.

Residual Impact

11.4.5 With mitigation measures in place, there would be no residual effects associated with recreational pressure and new developments in the vicinity of Morecambe Bay.

Conclusion

11.4.6 With the mitigation measures outlined above in place, it is considered that new developments in Lancaster district would not significantly add to the potential in combination effects of recreational pressure on Morecambe Bay with other local plans in the wider region.

12 Summary Conclusion

12.1.1 The Appropriate Assessment set out within the previous sections has determined that all of the eight allocation sites with the potential for likely significant effects alone require some form of mitigation to offset the potential impacts of future development at those sites. Table 28 below provides a summary of the mitigation measures required for each of the allocations (using the codes provided in Table 16 within Section 10.2).

12.1.2 Assuming that the mitigation measures outlined in Table 16 are implemented, there would be no residual effects associated with development at any of the allocation sites, and it can be concluded that there would be no adverse impact on the integrity of the Morecambe Bay Ramsar site/ Morecambe Bay and Duddon Estuary SPA as a result of development at the eight allocation sites considered in the Appropriate Assessment either alone or in combination with each other.

Table 28: Summary of Mitigation Options and Conclusion for allocations assessed alone

Allocation site	European site			Potential impact				Conclusion
	Morecambe Bay Ramsar site	Morecambe Bay and Duddon SPA	Morecambe Bay SAC	Loss of FLL under the footprint of the allocation (construction and operation)	Recreation pressure on adjacent FLL (operation only)	Disturbance (construction and operation)	Water Quality (construction and operation)	
Lancaster South Broad Location for Growth – *including* Bailrigg Garden Village ~~Bailrigg Garden Village~~ (Site ref: SG1)	✓	✓	N/A	Mitigation Option A	Mitigation Options F, G and H	Mitigation Options B, C, D and E	N/A	No adverse effect on the integrity of Morecambe Bay and Duddon Estuary SPA/ Morecambe Bay Ramsar site, or on their ability to achieve the aims of the Conservation Objectives (with mitigation in place)
East Lancaster Strategic Site (Site ref: SG7)	✓	✓	N/A	AA determined no FLL within the allocation site, no mitigation required.	Mitigation Options F, G and H	AA determined no disturbance to adjacent FLL, no mitigation required.	N/A	
Substation land (Site ref: ~~SG15~~SG13.1)	✓	✓	N/A	N/A	N/A	Mitigation Options B, C, D and E	N/A	
Lancaster West Business Park (Site ref: EC1.10)	✓	✓	N/A	AA determined no FLL within the allocation site, no mitigation required.	N/A	Mitigation Options B, C, D and E	N/A	
Port of Heysham ~~Expansion~~ (Site: ~~SG14~~SG12.1)	✓	✓	✓	N/A	N/A	Mitigation Options B, C, D and E	Mitigation Option I	No adverse effect on the integrity of Morecambe Bay and Duddon Estuary SPA/ Morecambe Bay Ramsar site/SAC, or on their ability to achieve the aims of the Conservation Objectives (with mitigation in place)
Port of Heysham Industrial Estate (Site ref: EC1.6)	✓	✓	✓	N/A	N/A	Mitigation Options B, C, D and E	Mitigation Option I	

Middleton Towers (Site ref: ~~DOS7~~DOS5)	✓	✓	✓	AA determined no FLL within the allocation site, no mitigation required.	Mitigation Options F and G	Mitigation Options B, C, D and E	Mitigation Option I	
Glasson Dock Industrial Area (Site ref: ~~EC1.18~~EC1.17)	✓	✓	✓	N/A	N/A	Mitigation Options B, C, D and E	Mitigation Option I	
Number of allocations where mitigation is required				**1**	**3**	**7**	**4**	

12.1.3 In relation to recreational pressure on Morecambe Bay. Table 29 sets out the mitigation measures which will be incorporated into all new housing developments within 3.5km of Morecambe Bay SAC/Ramsar site/ Morecambe Bay and Duddon Estuary SPA. The Appropriate Assessment concluded that there would be no effect on the integrity of Morecambe Bay SAC/Ramsar site/ Morecambe Bay and Duddon Estuary SPA, as a result of increased recreational pressure from new employment sites within the Lancaster Local Plan, and therefore no mitigation measures are required for new employment allocations within 1.5km of Morecambe Bay (Table 30).

12.1.4 Assuming that the mitigation measures outlined in Table 16 are implemented, there would be no residual effects associated with new housing developments within the Local Plan Part One, and it can be concluded that there would be no adverse impact on the integrity of the Morecambe Bay SAC Ramsar site/ Morecambe Bay and Duddon Estuary SPA as a result of developments within 3.5km of Morecambe Bay considered in the Appropriate Assessment.

Table 29: Summary of Mitigation Options and Conclusion for new housing developments within 3.5 km of Morecambe Bay

Allocation site (sites in bold text are included within the Appropriate Assessment alone)	**Number of Dwellings**	Planning Status (Allocation (A) or Planning Permission Granted (PP)	European site			Potential impact	**Conclusion**
			Morecambe Bay SAC	**Morecambe Bay Ramsar site**	**Morecambe Bay and Duddon SPA**	**Recreational pressure on Morecambe Bay (operation only)**	
***Lancaster South* Broad Location for Growth – *including* Bailrigg Garden Village ~~Bailrigg Garden Village~~ (SG1)**	3,500	A	✓	✓	✓	Mitigation Options F, G and H	No adverse in combination effect on the integrity of Morecambe Bay and Duddon Estuary SPA/ Morecambe Bay Ramsar site/SAC, or on their ability to achieve the aims of the Conservation Objectives (with mitigation in place)
Land at Middleton Towers, Carr Lane (~~DOS7~~DOS5)	576	PP	✓	✓	✓	Mitigation Options F and G	
East Lancaster Strategic Site ~~(Cuckoo Farm and Ridge Farm)~~ (SG7)	9030	A	✓	✓	✓	Mitigation Options F, G and H	
North Lancaster Strategic Site (SG9)	700	A	✓	✓	✓	Mitigation Options F and G	
Land at Lundsfield Quarry (SG11)	2050	~~PP~~A	✓	✓	✓		
~~South of Windermere Road, Carnforth (SG12)~~	~~500~~	~~A~~	~~✓~~	~~✓~~	~~✓~~		
Lune Industrial Estate, New Quay Road (~~DOS4~~DOS2)	200	A	✓	✓	✓		
Luneside East (H1.2~~DOS3~~)	1498	PP	✓	✓	✓		
~~Former Thomas Graveson Site, Warton Road, Carnforth (DOS10)~~	~~40~~	~~A~~	~~✓~~	~~✓~~	~~✓~~		
Land at Grab Lane (H4)	~~195~~207	A	✓	✓	✓		
Land at Lancaster Leisure Park and Auction Mart (H5)	242~~00~~	A	✓	✓	✓		

Formatted: Font: Bold

Allocation site (sites in bold text are included within the Appropriate Assessment alone)	**Number of Dwellings**	Planning Status (Allocation (A) or Planning Permission Granted (PP))	European site			Potential impact	**Conclusion**
			Morecambe Bay SAC	**Morecambe Bay Ramsar site**	**Morecambe Bay and Duddon SPA**	**Recreational pressure on Morecambe Bay (operation only)**	
~~Royal Albert~~Land at Royal Albert Fields, Ashton Road (H6)	137~~1~~	A	✓	✓	✓		
Land West of Middleton Road (H1.~~7~~4)	~~69~~75	PP	✓	✓	✓		
St Michaels Lane (H2.4)	20	PP	✓	✓	✓		
Lancaster Road, Overton (H2.2)	32	PP	✓	✓	✓		
Yenham Lane (H2.3)	21	A	✓	✓	✓		
~~Briar Lea Road, Nether Kellet (H2.5)~~	~~10~~	~~PP~~	~~✓~~	~~✓~~	~~✓~~		
New Quay Road, Lancaster (H1.~~2~~1)	12	PP	✓	✓	✓		
Former Police Station, Heysham (H1.3)	14	PP	✓	✓	✓		
Land off Marsh Lane, Cockerham (~~H2.12~~H2.10)	36	PP	✓	✓	✓		
~~Broadway Hotel, Morecambe (H1.4)~~	~~50~~	~~PP~~	~~✓~~	~~✓~~	~~✓~~		
~~Land West of 113 White Lund Road (H1.5)~~	~~10~~	~~PP~~	~~✓~~	~~✓~~	~~✓~~		
~~Grove Street Depot (H1.6)~~	~~21~~	~~PP~~	~~✓~~	~~✓~~	~~✓~~		
~~University of Cumbria~~Land at University of Cumbria (H3.~~2~~3)	15	A	✓	✓	✓		

Allocation site (sites in bold text are included within the Appropriate Assessment alone)	**Number of Dwellings**	Planning Status (Allocation (A) or Planning Permission Granted (PP))	European site			Potential impact	**Conclusion**
			Morecambe Bay SAC	**Morecambe Bay Ramsar site**	**Morecambe Bay and Duddon SPA**	**Recreational pressure on Morecambe Bay (operation only)**	
Land North of Old Hall Farm, Over Kellet (~~H2.6~~H2.5)	55	A	✓	✓	✓		
~~Monkswell Avenue, Bolton-le-Sands (H2.7)~~	~~15~~	~~A~~	~~✓~~	~~✓~~	~~✓~~		
Number of allocations affected by potential impact	**19~~26~~**						
Total number of dwellings	**7,170~~611~~**						

Table 30: Summary of Mitigation Options and Conclusion for new employment developments within 3.5 km of Morecambe Bay

Allocation site (sites in bold text are included within the Appropriate Assessment alone)	Expansion of existing employment site or Redevelopment of existing employment site	European site			Potential impact	Conclusion
		Morecambe Bay SAC	Morecambe Bay Ramsar site	Morecambe Bay and Duddon SPA	Recreational pressure on Morecambe Bay (operation only)	
Major Industrial Estate (EC1.9)	Existing/New	✓	✓	✓	AA determined that there would be no significant increase in visitors to the coast as a result of future development at these allocation sites, therefore no mitigation is required	No adverse in combination effect on the integrity of Morecambe Bay and Duddon Estuary SPA/ Morecambe Bay Ramsar site/SAC, or on their ability to achieve the aims of the Conservation Objectives
Lancaster West Business Park (EC1.10)	Existing/New	✓	✓	✓		
Middleton Road Employment Area (EC2.11~~1.13~~)	Existing/New	✓	✓	✓		
Heysham Industrial Estate (EC1.7)	Existing/New	✓	✓	✓		

12.2 Embedded Avoidance and Mitigation

12.2.1 Throughout the consultation period revisions have been made to the Local Plan to ensure the final Local Plan avoids or minimises the potential for impacts upon the European sites. The Local Plan Part One and Two therefore includes a number of avoidance measures to protect European sites, as well as specific mitigation measures for a number of allocation sites.

12.2.2 The avoidance measures included in the Part Two: DM DPD comprise policies contained within Chapter 12: The Natural Environment. Policy ~~DM43~~DM44: The Protection and Enhancement of Biodiversity outlines the hierarchy of nature conservation sites and details the requirement to ensure there is no net loss of biodiversity within the district. Under the heading of 'Development Affecting Internationally Designated Sites', the policy states that:

'*Development proposals affecting directly or indirectly an international designated site's qualifying habitat and/or species are subject to the requirements of The Conservation and Habitats and Species Regulations 2017. In accordance with the above regulations where a proposal has implications for international designated sites, the proposal will be expected to be accompanied by a Habitats Regulation Assessment*.

Adverse effects should be avoided, or where this is not possible they should be mitigated, to make sure that the integrity of the internationally important sites is protected. Development which may adversely affect the integrity of internationally important sites will only be permitted where there are absolutely no alternative solutions and there are imperative reasons of overriding public interest and where compensatory provision has been made. Such mitigation or compensation must be functional before any likely adverse effect arises and should be accompanied by a dedicated project related Habitats Regulation Assessment. This also applies to sites and habitats outside the designated boundaries that support species listed as being important in the designations of the internationally important sites (i.e. supporting habitat).

Development proposals which involve the removal of naturally occurring areas of water worn limestone, or which could damage limestone pavement will not be permitted'

12.2.3 The requirement for consideration of European sites is also included within the Local Plan Part One, with specific cross reference to Policy ~~DM43~~DM44 within Policy ~~EN9~~EN7: Environmentally Important Areas.

'*Development proposals which may have impacts on species and habitats will be expected to have due regard to Policy ~~DM43~~DM44 of the Development Management DPD'*

12.2.4 Policy ~~EN9~~EN7 also states that:

'*There are a number of sites within the district which have been designated at ~~a European~~International , National and regional level for their environmental importance. These have been identified on the Local Plan Policies Map and will be protected from development proposals which have a detrimental impact on their designation'*

12.2.5 Policies ~~DM43~~DM44~~DM44~~ and EN~~9~~7 (and appropriate cross reference to these throughout the Local Plan) will provide assurance that projects proposed within the Local Plan, with the potential to adversely affect European sites, are adequately assessed to ensure no adverse effect on the integrity of the European Sites within and adjacent to the Borough.

12.2.6 Specific mitigation has also been put in place, and secured within the Local Plan, for those allocations with the potential for adverse impacts (as detailed in Section 10).

13 Overall Conclusion

13.1.1 This HRA Screening of the Local Plan Part One has considered the potential implications of the Lancaster Local Plan Part One for European sites within and near to the district boundary.

13.1.2 The detailed screening looked at each of the screened in policies/allocation sites to determine the potential for likely significant effects as a result of policy implementation/ development of allocation sites. Eight allocation sites were taken through to Appropriate Assessment and Lancaster City Council have included mitigation measures in the Local Plan to offset potential impacts associated with these allocations. The in combination effects screening identified the potential for in combination effects associated with allocations within the Local Plan itself as well as with other plans and projects, and these were also taken through to Appropriate Assessment.

13.1.3 The Appropriate Assessment determined that a number of mitigation measures were necessary to avoid significant adverse effects on the nearby European sites. Lancaster City Council have therefore included a suite of mitigation measures, as well as Policies ~~DM43~~DM44 and DM27 (within Local Plan Part Two) and Policy EN~~9~~7 (within Local Plan Part One) to ensure that the Lancaster Local Plan is deliverable.

13.1.4 The Appropriate Assessment concluded that with mitigation measures in place, no adverse impact on the integrity of the Morecambe Bay Ramsar site/ Morecambe Bay and Duddon Estuary SPA are anticipated as result of implementation of the Local Plan Part One alone, or in combination.

Appendix A

Conservation Objectives

Table A 1 European Sites

Site Name	Qualifying Features Habitats	Species	Current Conditions and Threats[60]	Results of SSSI Condition Surveys
Morecambe Bay Ramsar Site	N/A	▪ Ramsar criterion 4: The site is a staging area for migratory waterfowl including internationally important numbers of passage ringed plover *Charadrius hiaticula*. ▪ Ramsar criterion 5 Assemblages of international importance with peak counts in the winter: 223709 waterfowl ▪ Ramsar criterion 6 Species/populations occurring at levels of international importance during the breeding season: Lesser black-backed gull , *Larus fuscus graellsii* Herring gull, *Larus argentatus argentatus* Sandwich tern, *Sterna (Thalasseus) sandvicensis* Species with peak counts in spring/autumn: Great cormorant, *Phalacrocorax carbo* Common shelduck , *Tadorna tadorna* Northern pintail, *Anas acuta*	No factors reported adversely affecting the sites ecological character (past, present or potential).	Area favourable 94.31% Area unfavourable but recovering 5.69% Area unfavourable no change 0% Area unfavourable declining 0% Area destroyed / part destroyed 0%

[60] Taken from Natura 2000 Standard Data Forms (SAC and SPA) and Ramsar Information Sheets.

Site Name	Qualifying Features Habitats	Species	Current Conditions and Threats[60]	Results of SSSI Condition Surveys
		Common eider, *Somateria mollissima* Eurasian oystercatcher, *Haematopus ostralegus* Ringed plover, *Charadrius hiaticula* Grey plover, *Pluvialis squatarola* Sanderling, *Calidris alba* Eurasian curlew, *Numenius arquata* Common redshank, *Tringa totanus tetanus* Ruddy turnstone, *Arenaria interpres* Lesser black-backed gull, *Larus fuscus graellsii* Species with peak counts in winter: Great crested grebe, *Podiceps cristatus* Pink-footed goose, *Anser brachyrhynchus* Eurasian wigeon, *Anas penelope* Common goldeneye, *Bucephala clangula* Red-breasted merganser, *Mergus serrator* European golden plover, *Pluvialis apricaria* Northern lapwing, *Vanellus vanellus* Red knot, *Calidris canutus islandica* Dunlin, *Calidris alpina alpine* Bar-tailed godwit, *Limosa lapponica*		

Site Name	Qualifying Features Habitats	Species	Current Conditions and Threats[60]	Results of SSSI Condition Surveys
Morecambe Bay and Duddon Estuary SPA	N/A	The site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive: **During the breeding season;** ▪ Little Tern *Sterna albifrons* ▪ Sandwich Tern *Sterna sandvicensis* **Over winter;** ▪ Bar-tailed Godwit *Limosa lapponica* ▪ Golden Plover *Pluvialis apricaria* The site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species: **During the breeding season;** ▪ Herring Gull *Larus argentatus* ▪ Lesser Black-backed Gull *Larus fuscus* **On passage;** ▪ Ringed Plover *Charadrius hiaticula* ▪ Sanderling *Calidris alba* **Over winter;** ▪ Curlew *Numenius arquata* ▪ Dunlin *Calidris alpina alpina* ▪ Grey Plover *Pluvialis squatarola* ▪ Knot *Calidris canutus*	The site is subject to a wide range of pressures such as land-claim for agriculture, overgrazing, dredging, overfishing, industrial uses and unspecified pollution. However, overall the site is relatively robust and many of those pressures have only slight to local effects and are being addressed thorough Management Plans. The breeding tern interest is very vulnerable and the colony has recently moved to the adjacent Duddon Estuary. Positive management is being secured through management plans for non-governmental organisation reserves, Natural England, Site Management Statements, European Marine Site Management Scheme, and the Morecambe Bay Partnership. ~~There are plans to combine Morecambe Bay and Duddon Estuary SPA with the Duddon SPA (Morecambe and Duddon pSPA) to further protect breeding terns.~~	Area favourable 94.31% Area unfavourable but recovering 5.69% Area unfavourable no change 0% Area unfavourable declining 0% Area destroyed / part destroyed 0%

Site Name	Qualifying Features Habitats	Species	Current Conditions and Threats[60]	Results of SSSI Condition Surveys
		▪ Oystercatcher *Haematopus ostralegus* ▪ Pink-footed Goose *Anser brachyrhynchus* ▪ Pintail *Anas acuta* ▪ Redshank *Tringa totanus* ▪ Shelduck *Tadorna tadorna* ▪ Turnstone *Arenaria interpres* The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 seabirds. The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl.		
Morecambe Bay SAC	Annex I habitats that are a primary reason for selection of this site: ▪ Estuaries ▪ Mudflats and sandflats not covered by seawater at low tide ▪ Large shallow inlets and bays ▪ Perennial vegetation of stony banks ▪ *Salicornia* and other annuals colonising mud and sand ▪ Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)	Annex II species that are a primary reason for selection of this site: ▪ Great crested newt *Triturus cristatus*	There are a wide range of pressures on Morecambe Bay but the site is relatively robust and many of these pressures have only slight or local effects on its interests. The interests depend largely upon the coastal processes operating within the Bay, which have been affected historically by human activities including coastal protection and flood defence works. Current pressures include fisheries, aggregate extraction, gas exploration, recreation and other activities.	Area favourable 94.31% Area unfavourable but recovering 5.69% Area unfavourable no change 0% Area unfavourable declining 0% Area destroyed / part destroyed 0%

Site Name	Qualifying Features Habitats	Species	Current Conditions and Threats[60]	Results of SSSI Condition Surveys
	▪ Shifting dunes along the shoreline with *Ammophila arenaria* (`white dunes`) ▪ Fixed dunes with herbaceous vegetation (`grey dunes`) ***Priority feature** ▪ Humid dune slacks Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: ▪ Sandbanks which are slightly covered by sea water all the time ▪ Coastal lagoons ***Priority feature** ▪ Reefs ▪ Embryonic shifting dunes ▪ Atlantic decalcified fixed dunes (*Calluno-Ulicetea*) ***Priority feature** ▪ Dunes with *Salix repens* ssp. *argentea* (*Salicion arenariae*)			
Bowland Fells SPA	N/A	This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive:	The expansive blanket bog and heather dominated moorland provides suitable habitat for a diverse range of upland breeding birds. Favourable nature conservation status of the site depends on appropriate levels of sheep grazing, sympathetic moorland burning practice, sensitive water	Area favourable 5.29% Area unfavourable but recovering 85.39% Area unfavourable no change 0%

Site Name	Qualifying Features Habitats	Species	Current Conditions and Threats[60]	Results of SSSI Condition Surveys
		During the breeding season; ▪ Hen Harrier *Circus cyaneus* ▪ Merlin *Falco columbarius* This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species: **During the breeding season;** ▪ Lesser Black-backed Gull *Larus fuscus*	catchment land management practices and ongoing species protection. Since designation as an SPA, many localised problems of over-grazing have been controlled through management agreements or the Countryside Stewardship Scheme. To date approximately 20% of SPA is under Section 15 management agreements and Countryside Stewardship to stimulate heather regeneration in order to produce better moorland for grouse and raptors alike. Burning plans and stocking levels have also been agreed for all other areas of the SPA through Site Management Statements, whilst problems of raptor persecution continues to be addressed by the RSPB in conjunction with North West Water, Natural England and Lancashire Constabulary.	Area unfavourable declining 14.61% Area destroyed / part destroyed 0%
Calf Hill and Cragg Woods SAC	Annex I habitats that are a primary reason for selection of this site: ▪ Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: ▪ Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) ***Priority feature**	N/A	Currently there is limited intervention in land-use/management terms. There is also no immediate need for woodland management in order to safeguard the interest of the site. However, in the long-term it would be desirable to repair some of the walls/fences at the far eastern most end of Calf Hill Wood in order to control sheep grazing from the adjacent fell. In addition, since the canopy of the oak woodland is fairly dense and natural regeneration is quite limited, it would be desirable over the long-term to instigate small-scale selective fellings/silvicultural thinning, whilst felling a small stand of planted larch/pine (<0.5 ha) and replacing it with oak/birch.	Area favourable 100% Area unfavourable but recovering 0% Area unfavourable no change 0% Area unfavourable declining 0% Area destroyed / part destroyed 0%

Site Name	Qualifying Features Habitats	Species	Current Conditions and Threats[60]	Results of SSSI Condition Surveys
North Pennine Dales and Meadows SAC	Annex I habitats that are a primary reason for selection of this site: ▪ Mountain hay meadows Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: ▪ Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)	N/A	These grasslands are dependent upon traditional agricultural management, with hay-cutting and no or minimal use of agrochemicals. Such management is no longer economic. Management agreements and ESA payments are being used to promote the continuation of traditional management. The refining of the prescriptions underpinning these schemes in the light of the findings of monitoring programmes is an important, continuing, part of delivering favourable condition.	**Oughtershaw and Beckermonds SSSI** Area favourable 36.23% Area unfavourable but recovering 63.77% Area unfavourable no change 0% Area unfavourable declining 0% Area destroyed / part destroyed 0% **Deepdale Meadows, Langstrothdale SSSI** Area favourable 100% Area unfavourable but recovering 0% Area unfavourable no change 0% Area unfavourable declining 0% Area destroyed / part destroyed 0%
Leighton Moss Ramsar site		▪ Ramsar criterion 1 An example of large reedbed habitat characteristic of the biogeographical region. The reedbeds are of particular importance as a northern outpost for breeding populations of great bittern	The site is currently vulnerable to sedimentation / siltation and pollution – pesticides / agricultural runoff.	Area favourable 0% Area unfavourable but recovering 100% Area unfavourable no change 0%

Site Name	Qualifying Features Habitats	Species	Current Conditions and Threats[60]	Results of SSSI Condition Surveys
		Botaurus stellaris, Eurasian marsh harrier *Circus aeruginosus* and bearded tit *Panurus biarmicus.* ▪ Ramsar criterion 3 The site supports a range of breeding birds including great bittern, Eurasian marsh harrier and bearded tit. Species occurring in nationally important numbers outside the breeding season include northern shoveler *Anas clypeata* and water rail *Rallus aquaticus*		Area unfavourable declining 0% Area destroyed / part destroyed 0%
Leighton Moss SPA	N/A	This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive: **During the breeding season;** ▪ Bittern ▪ Marsh Harrier **Over winter;** ▪ Bittern	Leighton Moss is vulnerable to changes in water quality and water levels. The maintenance of a high quality spring fed water supply is important and although there are few opportunities for this to become polluted within the catchment, agricultural run-off from land immediately adjacent to the reserve has been identified as a potential hazard in recent years. Initiatives are currently being initiated to reduce/remove this threat by the EA. The Moss is also susceptible to saline intrusion upstream of its tidal sluice from Morecambe Bay. This is potentially one of the most damaging threats to the reserve, there having been three inundations since 1964 caused by gales pushing in unusually high 10 metre tides.	Area favourable 0% Area unfavourable but recovering 100% Area unfavourable no change 0% Area unfavourable declining 0% Area destroyed / part destroyed 0%
Witherslack Mosses SAC	Annex I habitats that are a primary reason for selection of the site: ▪ Active raised bogs * Priority feature	N/A	Past drainage for peat extraction and forestry has lowered the water table and allowed scrub to spread across the mosses. A programme of restoration works is in place on two of the mosses, and a	**Foulshaw Moss SSSI** Area favourable 0% Area unfavourable but recovering 91.31%

Site Name	Qualifying Features Habitats	Species	Current Conditions and Threats[60]	Results of SSSI Condition Surveys
	▪ Degraded raised bog ▪ Degraded raised bogs still capable of natural regeneration		management plan has been completed for major works on the third.	Area unfavourable no change 6.11% Area unfavourable declining 2.59% Area destroyed / part destroyed 0% **Meathop Moss SSSI** Area favourable 0% Area unfavourable but recovering 100% Area unfavourable no change 0% Area unfavourable declining 0% Area destroyed / part destroyed 0% **Nichols Moss SSSI** Area favourable 20.63% Area unfavourable but recovering 0% Area unfavourable no change 8.17% Area unfavourable declining 70.65% Area destroyed / part destroyed 0%
Morecambe Bay	Annex I habitats that are a primary reason for selection of the site:	Annex II species that are a primary reason for selection of this site	The under-grazing of grasslands and decline of traditional cattle grazing is leading to the loss of sward diversity and scrub encroachment problems.	See Appendix C

Site Name	Qualifying Features Habitats	Species	Current Conditions and Threats[60]	Results of SSSI Condition Surveys
Pavements SAC	▪ Hard oligo-mesotrophic waters with benthic vegetation of *Chara spp.* ▪ *Juniperus communis* formations on heaths or calcareous grasslands ▪ Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia)* ▪ Limestone pavements * Priority feature ▪ *Tilio-Acerion* forests of slopes, screes and ravines * Priority feature ▪ *Taxus baccata* woods of the British Isles * Priority feature Annex I habitats present as a qualifying feature, but not a primary reason for selection of the site: ▪ European dry heaths ▪ Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* * Priority feature ▪ Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles	▪ Narrow-mouthed whorl snail *Vertigo angustior*	Localised overgrazing (sheep-dominated) has impoverished the pavement flora on one of the component sites. A decline of traditional coppice management has reduced the interest of some of the woodland sites. The planting of non-native conifer crops on some of the sites has led to localised declines in condition.	

Site Name	Qualifying Features Habitats	Species	Current Conditions and Threats[60]	Results of SSSI Condition Surveys
Yewbarrow Woods SAC	Annex I habitats that are a primary reason for selection of the site: ▪ Taxus baccata woods of the British Isles* Priority feature Annex I habitats present as a qualifying feature, but not a primary reason for selection of the site: ▪ *Juniperus communis* formations on heaths or calcareous grasslands ▪ Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles	N/A	Although lack of regeneration at Yewbarrow is a problem resulting from browsing by deer, woodland grants have been given in recent years to encourage regeneration of native trees, together with funding for stockproof fencing.	Area favourable 25.47% Area unfavourable but recovering 74.53% Area unfavourable no change 0% Area unfavourable declining 0% Area destroyed / part destroyed 0%
Roudsea Wood and Mosses SAC	Annex I habitats that are a primary reason for selection of the site: ▪ Active raised bogs* Priority feature ▪ Degraded raised bogs still capable of natural regeneration ▪ *Tilio-Acerion* forests of slopes, screes and ravines* Priority feature ▪ *Taxus baccata* woods of the British Isles* Priority feature	N/A	In the latter part of the 20th century, coppicing of the woodland ceased and lower water tables on the bogs, caused by drainage for peat-cutting, had allowed scrub to spread across them. Most of the site is now managed as a National Nature Reserve. Woodland management is carried out and much scrub has been cleared from Deer Dike Moss and ditches blocked to allow regeneration of the bog vegetation. Management of the southern bog, added to the National Nature Reserve, has been addressed in the management plan.	Area favourable 2.35% Area unfavourable but recovering 56.55% Area unfavourable no change 0% Area unfavourable declining 41.10% Area destroyed / part destroyed 0%

Site Name	Qualifying Features Habitats	Species	Current Conditions and Threats[60]	Results of SSSI Condition Surveys
River Kent SAC	Annex I habitats present as a qualifying feature, but not a primary reason for selection of the site: ▪ Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation	Annex II species that are a primary reason for selection of the site: ▪ White-clawed (or Atlantic stream) crayfish *Austropotamobius pallipes* Annex II species present as a qualifying feature, but not a primary reason for site selection: ▪ Freshwater pearl mussel *Margaritifera margaritifera* ▪ Bullhead *Cottus gobio*	The maintenance of breeding and nursery areas for the species on this site depends on the habitat quality of streams and their margins. Some areas of the site suffer from poor habitat quality. The intention is to address this through implementation of habitat improvement schemes. The impact of point-discharges on water quality will be reviewed and action proposed where necessary. A particular problem on this site and affecting white-clawed crayfish is incidents of pyrethroid sheep-dip pollution of watercourses. These are currently under investigation. The dwindling population of freshwater pearl mussels needs to be investigated in relation to the factors affecting its recruitment and structure. A management plan will be developed for the part of the catchment supporting this species.	Area favourable 0.37% Area unfavourable but recovering 83.32% Area unfavourable no change 16.31% Area unfavourable declining 0% Area destroyed / part destroyed 0%
Ingledistrict Complex SAC	Annex I habitats that are a primary reason for selection of the site: ▪ *Juniperus communis* formations on heaths or calcareous grasslands ▪ Alkaline fens ▪ Calcareous rocky slopes with *chasmophytic* vegetation ▪ Limestone pavements * Priority feature Annex I habitats present as a qualifying feature, but not a primary reason for selection of the site:	N/A	The diversity of interest of the limestone pavements, juniper and limestone rock habitats is dependent on there being a range of grazing intensities, from moderate to light to areas with no livestock grazing. Heavy livestock or rabbit grazing has been damaging and the Wildlife Enhancement Scheme and other forms of agri-environmental agreement are being used, successfully, to promote appropriate management. Removal of limestone pavement for sale as rockery stone and limestone quarrying have both caused problems in the past and are now addressed through Limestone Pavement Orders, the development planning process and the provisions for review of existing permissions under the Habitats Regulations.	Area favourable 21.21% Area unfavourable but recovering 75.65% Area unfavourable no change 3.14% Area unfavourable declining 0% Area destroyed / part destroyed 0%

Site Name	Qualifying Features Habitats	Species	Current Conditions and Threats[60]	Results of SSSI Condition Surveys
	▪ Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*) ▪ Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) ▪ Blanket bogs* Priority feature ▪ Petrifying springs with tufa formation (*Cratoneurion*)* Priority feature ▪ *Tilio-Acerion* forests of slopes, screes and ravines Priority feature			
Liverpool Bay SPA	N/A	This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive: **Over winter the area regularly supports;** ▪ Red-throated Diver *Gavia stellata* This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following species over winter: ▪ Common Scoter, *Melanitta nigra* The site also qualifies under Article 4.2 (79/409/EEC) as an Internationally	Liverpool Bay SPA is subject to commercial fishing. The sandbanks support the nursery and feeding grounds for many fish species. The distribution and concentrations of red-throated divers will at least partly be determined by the presence, abundance, and availability of their prey species. The site holds various fish of commercial importance, and extraction of the red-throated diver's main fish prey, as either target and/or bycatch species, or through recreational fishing could impact the population. Entanglement in static fishing nets is an important cause of death for red-throated divers in the UK waters however the extent of this impact in Liverpool Bay is not known. Commercial and recreational fishing could directly affect both the food source and feeding grounds	N/A

Site Name	Qualifying Features Habitats	Species	Current Conditions and Threats[60]	Results of SSSI Condition Surveys
		Important Assemblage of birds during the non-breeding season regularly supporting 55,597 waterfowl.	used by common scoters and in addition a number of ports undertake navigational dredging and disposal both in, and adjacent to, the site. Dredging for bivalves has been shown to have significant negative effects on their benthic habitat. Red throated divers and common scoters are sensitive to non-physical, (noise and visual) disturbance by both commercial and recreational activities, for example disturbance by moving vessels . Aggregate extraction presents some risks of disturbance and also changes to sediment structures which may, in particular, impact on common scoter through changes to their benthic feeding grounds. However, aggregate extraction tends to be temporary and localised and so is not anticipated that moderate and targeted extraction will present a significant risk to either of the qualifying species. Liverpool Bay is an attractive location for the off-shore renewable energy industry and there is evidence that red-throated divers and common scoters are displaced by the presence of the turbines and the associated activities of construction and maintenance vessels. A number of wind farms in the site are currently in operation, under construction or consented. There are a number of areas along the coast where marine tourism and leisure activities are common, with existing marinas and partially completed and proposed marina developments. As a result of these leisure users of the area, in combination with the	

Site Name	Qualifying Features Habitats	Species	Current Conditions and Threats[60]	Results of SSSI Condition Surveys
			whole suite of commercial activities, including those outlined above, the site is a very active boating and shipping site. However, most vessel activity is restricted to well-established areas which the birds already tend to avoid.	
Shell Flat and Lune Deep SAC	Annex I habitats that are a primary reason for selection of this site: ▪ Sandbanks which are slightly covered by sea water all the time ▪ Reefs	N/A	Operations likely to affect the habitats are: i) Physical loss by smothering; ii) Physical damage by siltation or abrasion; iii) Toxic contamination by introduction of synthetic or non-synthetic compounds; iv) Non-toxic contamination from changes in nutrient loading, organic loading, or changes in turbidity; v) Changes in salinity; vi) Biological disturbance by Introduction of microbial pathogens, introduction of non-native species and translocation, or selective extraction of species.	N/A

Morecambe Bay Pavements SAC	
SSSI	**Results of SSSI Condition Surveys**
Whitbarrow SSSI	Area favourable 34.44% Area unfavourable but recovering 58.17% Area unfavourable no change 7.39% Area unfavourable declining 0% Area destroyed / part destroyed 0%
Underlaid Wood SSSI	Area favourable 0% Area unfavourable but recovering 100% Area unfavourable no change 0% Area unfavourable declining 0% Area destroyed / part destroyed 0%
Marble Quarry And Hale Fell SSSI	Area favourable 4.99% Area unfavourable but recovering 95.01% Area unfavourable no change 0% Area unfavourable declining 0% Area destroyed / part destroyed 0%
Gait Barrows SSSI	Area favourable 92.50% Area unfavourable but recovering 7.5% Area unfavourable no change 0% Area unfavourable declining 0% Area destroyed / part destroyed 0%
Thrang End And Yealand Hall Allotment SSSI	Area favourable 0% Area unfavourable but recovering 100% Area unfavourable no change 0% Area unfavourable declining 0% Area destroyed / part destroyed 0%

Morecambe Bay Pavements SAC	
Hawes Water SSSI	Area favourable 28.16% Area unfavourable but recovering 71.03% Area unfavourable no change 0.81% Area unfavourable declining 0% Area destroyed / part destroyed 0%
Middlebarrow SSSI	Area favourable 4.56% Area unfavourable but recovering 54.86% Area unfavourable no change 0% Area unfavourable declining 40.59% Area destroyed / part destroyed 0%
Scout and Cunswick Scars SSSI	Area favourable 63.54% Area unfavourable but recovering 17.45% Area unfavourable no change 0.37% Area unfavourable declining 18.65% Area destroyed / part destroyed 0%
Farleton Knott SSSI	Area favourable 46.71% Area unfavourable but recovering 36.34% Area unfavourable no change 0% Area unfavourable declining 16.94% Area destroyed / part destroyed 0%
Hutton Roof Crags SSSI	Area favourable 42.52% Area unfavourable but recovering 29.09% Area unfavourable no change 3.88% Area unfavourable declining 24.52% Area destroyed / part destroyed 0%

ARCADIS Design & Consultancy for natural and built assets

European Site Conservation Objectives for Morecambe Bay Special Protection Area and potential Special Protection Area Site Code: UK9005081

With regard to the SPA and pSPA and the individual species and/or assemblage of species for which the site has been or may be classified (the 'Qualifying Features' including the 'Additional Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- **The extent and distribution of the habitats of the qualifying features**
- **The structure and function of the habitats of the qualifying features**
- **The supporting processes on which the habitats of the qualifying features rely**
- **The population of each of the qualifying features, and,**
- **The distribution of the qualifying features within the site.**

This document should be read in conjunction with the accompanying Conservation Advice document which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

Qualifying Features

A040 *Anser brachyrhynchus*; Pink-footed goose (Non-breeding)
A048 *Tadorna tadorna*; Common shelduck (Non-breeding)
A054 *Anas acuta*; Northern pintail (Non-breeding)
A130 *Haematopus ostralegus*; Eurasian oystercatcher (Non-breeding)
A137 *Charadrius hiaticula*; Ringed plover (Non-breeding)
A141 *Pluvialis squatarola*; Grey plover (Non-breeding)
A143 *Calidris canutus*; Red knot (Non-breeding)
A149 *Calidris alpina alpina*; Dunlin (Non-breeding)
A157 *Limosa lapponica*; Bar-tailed godwit (Non-breeding)
A160 *Numenius arquata*; Eurasian curlew (Non-breeding)
A162 *Tringa totanus*; Common redshank (Non-breeding)

Contd/

A169 *Arenaria interpres*; Ruddy turnstone (Non-breeding)
A191 *Sterna sandvicensis*; Sandwich tern (Breeding)
Waterbird assemblage
Seabird assemblage

Additional Qualifying Features*
A026 *Egretta garzetta*; Little egret (Non-breeding)
A038 *Cygnus cygnus*; Whooper swan (Non-breeding)
A140 *Pluvialis apricaria*; European golden plover (Non-breeding)
A144 *Calidris alba*; Sanderling (Non-breeding)
A151 *Philomachus pugnax*; Ruff (Non-breeding)
A156 *Limosa limosa islandica*; Black-tailed godwit (Non-breeding)
A176 *Larus melanocephalus*; Mediterranean gull (Non-breeding)
A183 *Larus fuscus*; Lesser black-backed gull (Non-breeding)
A183 *Larus fuscus*; Lesser black-backed gull (Breeding)
A184 *Larus argentatus*; Herring gull (Breeding)
A193 *Sterna hirundo*; Common tern (Breeding)
A195 *Sterna albifrons*; Little tern (Breeding)

*Government has initiated public consultation on the scientific case for the classification of these additional features as part of this Special Protection Area (SPA).

This is a European Marine Site

This SPA is a part of the Morecambe Bay European Marine Site (EMS). These Conservation Objectives should be used in conjunction with the current Conservation Advice document for the EMS. For further details about this please visit the Natural England website at https://www.gov.uk/government/collections/conservation-advice-packages-for-marine-protected-areas or contact Natural England's enquiry service at enquiries@naturalengland.org.uk or by phone on 0845 600 3078.

This is a potential Special Protection Area (pSPA)

This is also a site on which Government has initiated public consultation on the scientific case for the classification of additional qualifying features as part of this Special Protection Area (SPA). As a matter of Government policy, potential SPAs and their features are treated as if they are formally classified. The provisions of the Habitats Regulations therefore apply to them (see below).

If classified as a SPA, this site will merge with Duddon Estuary SPA (UK9005031).

Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") and Article 6(3) of the Habitats Directive. They must be considered when a competent authority is required to make a 'Habitats Regulations Assessment' including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives and the accompanying Supplementary Advice (where this is available) will also provide a framework to inform the management of the European Site under the provisions of Articles 4(1) and 4(2) of the Wild Birds Directive, and the prevention of deterioration of habitats and significant disturbance of its qualifying features required under Article 6(2) of the Habitats Directive.

These Conservation Objectives are set for each bird feature for a Special Protection Area (SPA). Where the objectives are met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving the aims of the Wild Birds Directive.

Publication date: 29 January 2016 (Version 4). This document updates and replaces an earlier version dated 7 August 2015 in order to include the additional qualifying features ('pSPA features') listed above.

European Site Conservation Objectives for Morecambe Bay Special Area of Conservation Site Code: UK0013027

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- **The extent and distribution of qualifying natural habitats and habitats of qualifying species**
- **The structure and function (including typical species) of qualifying natural habitats**
- **The structure and function of the habitats of qualifying species**
- **The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely**
- **The populations of qualifying species, and,**
- **The distribution of qualifying species within the site.**

This document should be read in conjunction with the accompanying *Supplementary Advice* document, which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

Qualifying Features:

H1110. Sandbanks which are slightly covered by sea water all the time; Subtidal sandbanks
H1130. Estuaries
H1140. Mudflats and sandflats not covered by seawater at low tide; Intertidal mudflats and sandflats
H1150. Coastal lagoons*
H1160. Large shallow inlets and bays
H1170. Reefs
H1220. Perennial vegetation of stony banks; Coastal shingle vegetation outside the reach of waves
H1310. *Salicornia* and other annuals colonising mud and sand; Glasswort and other annuals colonising mud and sand
H1330. Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)
H2110. Embryonic shifting dunes

H2120. Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes"); Shifting dunes with marram

H2130. Fixed dunes with herbaceous vegetation ("grey dunes"); Dune grassland*

H2150. Atlantic decalcified fixed dunes (*Calluno-Ulicetea*); Coastal dune heathland*

H2170. Dunes with *Salix repens* ssp. *argentea* (*Salicion arenariae*); Dunes with creeping willow

H2190. Humid dune slacks

S1166. *Triturus cristatus*; Great crested newt

* denotes a priority natural habitat or species (supporting explanatory text on following page)

This is a European Marine Site

This site is a part of the Morecambe Bay European Marine Site. These conservation objectives should be used in conjunction with the Regulation 35 Conservation Advice Package, for further details please contact Natural England's enquiry service at enquiries@naturalengland.org.uk, or by phone on 0845 600 3078, or visit the Natural England website at: http://www.naturalengland.org.uk/ourwork/marine/protectandmanage/mpa/europeansites.aspx

* **Priority natural habitats or species**

Some of the natural habitats and species listed in the Habitats Directive and for which SACs have been selected are considered to be particular priorities for conservation at a European scale and are subject to special provisions in the Directive and the Habitats Regulations. These priority natural habitats and species are denoted by an asterisk (*) in Annex I and II of the Directive. The term 'priority' is also used in other contexts, for example with reference to particular habitats or species that are prioritised in UK Biodiversity Action Plans. It is important to note however that these are not necessarily the priority natural habitats or species within the meaning of the Habitats Directive or the Habitats Regulations.

Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") and Article 6(3) of the Habitats Directive. They must be considered when a competent authority is required to make a 'Habitats Regulations Assessment', including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives and the accompanying Supplementary Advice (where available) will also provide a framework to inform the measures needed to conserve or restore the European Site and the prevention of deterioration or significant disturbance of its qualifying features as required by the provisions of Article 6(1) and 6(2) of the Directive.

These Conservation Objectives are set for each habitat or species of a Special Area of Conservation (SAC). Where the objectives are met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving Favourable Conservation Status for that species or habitat type at a UK level. The term 'favourable conservation status' is defined in Article 1 of the Habitats Directive.

Publication date: 30 June 2014 – version 2. This document updates and replaces an earlier version dated 29 May 2012 to reflect Natural England's Strategic Standard on European Site Conservation Objectives 2014.

European Site Conservation Objectives for Bowland Fells Special Protection Area Site Code: UK9005151

With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- **The extent and distribution of the habitats of the qualifying features**
- **The structure and function of the habitats of the qualifying features**
- **The supporting processes on which the habitats of the qualifying features rely**
- **The population of each of the qualifying features, and,**
- **The distribution of the qualifying features within the site.**

This document should be read in conjunction with the accompanying *Supplementary Advice* document, which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

Qualifying Features:

A082 *Circus cyaneus*; Hen harrier (Breeding)
A098 *Falco columbarius*; Merlin (Breeding)

Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") and Article 6(3) of the Habitats Directive. They must be considered when a competent authority is required to make a 'Habitats Regulations Assessment' including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives and the accompanying Supplementary Advice (where this is available) will also provide a framework to inform the management of the European Site under the provisions of Articles 4(1) and 4(2) of the Wild Birds Directive, and the prevention of deterioration of habitats and significant disturbance of its qualifying features required under Article 6(2) of the Habitats Directive.

These Conservation Objectives are set for each bird feature for a Special Protection Area (SPA). Where the objectives are met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving the aims of the Wild Birds Directive.

Publication date: 30 June 2014 (Version 2). This document updates and replaces an earlier version dated 29 May 2012 to reflect Natural England's Strategic Standard on European Site Conservation Objectives 2014. Previous references to additional features identified in the 2001 UK SPA Review have also been removed.

European Site Conservation Objectives for Calf Hill and Cragg Woods Special Area of Conservation Site code: UK0030106

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- **The extent and distribution of qualifying natural habitats**
- **The structure and function (including typical species) of qualifying natural habitats, and**
- **The supporting processes on which qualifying natural habitats rely**

This document should be read in conjunction with the accompanying *Supplementary Advice* document, which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

Qualifying Features:

H91A0. Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles; Western acidic oak woodland
H91E0. Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*); Alder woodland on floodplains*

*** Priority natural habitats or species**

Some of the natural habitats and species listed in the Habitats Directive and for which SACs have been selected are considered to be particular priorities for conservation at a European scale and are subject to special provisions in the Directive and the Habitats Regulations. These priority natural habitats and species are denoted by an asterisk (*) in Annex I and II of the Directive. The term 'priority' is also used in other contexts, for example with reference to particular habitats or species that are prioritised in UK Biodiversity Action Plans. It is important to note however that these are not necessarily the priority natural habitats or species within the meaning of the Habitats Directive or the Habitats Regulations.

Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") and Article 6(3) of the Habitats Directive. They must be considered when a competent authority is required to make a 'Habitats Regulations Assessment', including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives and the accompanying Supplementary Advice (where available) will also provide a framework to inform the measures needed to conserve or restore the European Site and the prevention of deterioration or significant disturbance of its qualifying features as required by the provisions of Article 6(1) and 6(2) of the Directive.

These Conservation Objectives are set for each habitat or species of a Special Area of Conservation (SAC). Where the objectives are met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving Favourable Conservation Status for that species or habitat type at a UK level. The term 'favourable conservation status' is defined in Article 1 of the Habitats Directive.

Publication date: 30 June 2014 (version 2). This document updates and replaces an earlier version dated 29 May 2012 to reflect Natural England's Strategic Standard on European Site Conservation Objectives 2014.

European Site Conservation Objectives for Morecambe Bay Pavements Special Area of Conservation Site Code: UK0014777

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- **The extent and distribution of qualifying natural habitats and habitats of qualifying species**
- **The structure and function (including typical species) of qualifying natural habitats**
- **The structure and function of the habitats of qualifying species**
- **The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely**
- **The populations of qualifying species, and,**
- **The distribution of qualifying species within the site.**

This document should be read in conjunction with the accompanying *Supplementary Advice* document, which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

Qualifying Features:

H3140. Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp.; Calcium-rich nutrient-poor lakes, lochs and pools

H4030. European dry heaths

H5130. *Juniperus communis* formations on heaths or calcareous grasslands

H6210. Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*); Dry grasslands and scrublands on chalk or limestone

H7210. Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*; Calcium-rich fen dominated by great fen sedge (saw sedge)*

H8240. Limestone pavements*

H9180. *Tilio-Acerion* forests of slopes, screes and ravines; Mixed woodland on base-rich soils associated with rocky slopes*

H91A0. Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles; Western acidic oak woodland
H91J0. *Taxus baccata* woods of the British Isles; Yew-dominated woodland*
S1014. *Vertigo angustior*; Narrow-mouthed whorl snail

* denotes a priority natural habitat or species (supporting explanatory text on following page)

*** Priority natural habitats or species**

Some of the natural habitats and species listed in the Habitats Directive and for which SACs have been selected are considered to be particular priorities for conservation at a European scale and are subject to special provisions in the Directive and the Habitats Regulations. These priority natural habitats and species are denoted by an asterisk (*) in Annex I and II of the Directive. The term 'priority' is also used in other contexts, for example with reference to particular habitats or species that are prioritised in UK Biodiversity Action Plans. It is important to note however that these are not necessarily the priority natural habitats or species within the meaning of the Habitats Directive or the Habitats Regulations.

Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") and Article 6(3) of the Habitats Directive. They must be considered when a competent authority is required to make a 'Habitats Regulations Assessment', including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives and the accompanying Supplementary Advice (where available) will also provide a framework to inform the measures needed to conserve or restore the European Site and the prevention of deterioration or significant disturbance of its qualifying features as required by the provisions of Article 6(1) and 6(2) of the Directive.

These Conservation Objectives are set for each habitat or species of a Special Area of Conservation (SAC). Where the objectives are met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving Favourable Conservation Status for that species or habitat type at a UK level. The term 'favourable conservation status' is defined in Article 1 of the Habitats Directive.

Publication date: 30 June 2014 – version 2. This document updates and replaces an earlier version dated 29 May 2012 to reflect Natural England's Strategic Standard on European Site Conservation Objectives 2014.

European Site Conservation Objectives for Leighton Moss Special Protection Area Site Code: UK9005091

With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- **The extent and distribution of the habitats of the qualifying features**
- **The structure and function of the habitats of the qualifying features**
- **The supporting processes on which the habitats of the qualifying features rely**
- **The population of each of the qualifying features, and,**
- **The distribution of the qualifying features within the site.**

This document should be read in conjunction with the accompanying *Supplementary Advice* document, which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

Qualifying Features:

A021 *Botaurus stellaris*; Great bittern (Breeding)

Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") and Article 6(3) of the Habitats Directive. They must be considered when a competent authority is required to make a 'Habitats Regulations Assessment' including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives and the accompanying Supplementary Advice (where this is available) will also provide a framework to inform the management of the European Site under the provisions of Articles 4(1) and 4(2) of the Wild Birds Directive, and the prevention of deterioration of habitats and significant disturbance of its qualifying features required under Article 6(2) of the Habitats Directive.

These Conservation Objectives are set for each bird feature for a Special Protection Area (SPA). Where the objectives are met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving the aims of the Wild Birds Directive.

Publication date: 30 June 2014 (Version 2). This document updates and replaces an earlier version dated 29 May 2012 to reflect Natural England's Strategic Standard on European Site Conservation Objectives 2014. Previous references to features listed in the 2001 UK SPA Review have also been removed.

Appendix B

Figures 1-6

Roudsea Wood & Mosses

Witherslack Mosses

Morecambe Bay Pavements

Leighton Moss

Morecambe Bay SAC and Ramsar Site

Morecambe Bay and Duddon Estuary SPA

Calf Hill & Cragg Woods

Bowland Fells

0 7,500m

1:150,000

NOTES:

Legend:

- Special Protection Area
- Ramsar site
- Special Area of Conservation
- Lancaster

Rev	Date	Description	Drawn	Check	Approv
01	25/07/19	First draft	RM	JW	LT

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN
PART ONE: HRA

Site: Lancaster

Client: Lancaster City Council, Town Hall, Dalton Square, Lancaster, LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office: Manning House, 22 Carlisle Place, London, SW1P 1JA

Coordinating office: 5TH Floor, 401 Faraday Street, Warrington, WA3 6GA

www.arcadis.com

TITLE:

Figure 1
EUROPEAN DESIGNATED SITES

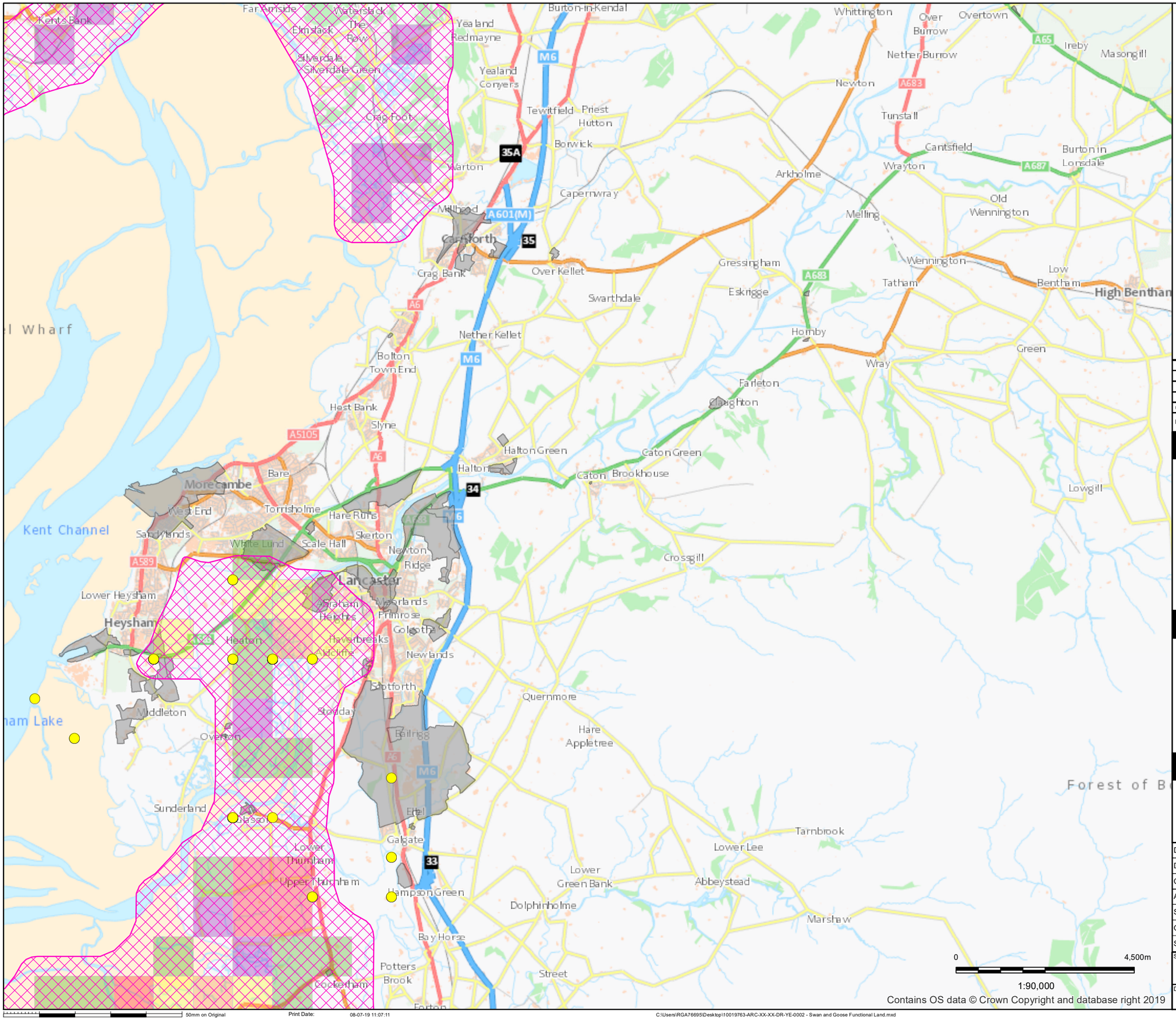
Designed	X.XXXXX	Date	Signed
Drawn	R.MILLMAN	Date 25JUL19	Signed
Checked	L.TURLEY	Date 25JUL19	Signed
Approved	D.HOURD	Date 25JUL19	Signed
Scale:	1:150,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

Suitability Description: Issued for Information

Drawing Number: 10019763-ARC-XX-XX-DR-YE-0001 | Revision: P01

50mm on Original

Print Date: 07-25-19 11:34 C:\Users\rob.millman\ARCADIS\10019763 Bailrigg - Lancaster SA Services - E-Our-Drawings\01 Lancaster Allocation Update July 2017\03 - MXDs\10019763-ARC-XX-XX-DR-YE-0001 - Lancaster HRA Part 1 Designated Sites.mxd



NOTES:

Legend:

Indicates bottom left of monad containing pink-footed goose records.

Swan and Goose Functional Land (NE IRZ GIS data, Jan 2018)

Natural England Pink-Footed Goose Grid Index

1
2
3
4
5

Rev	Date	Description	Drawn	Check	Approv
01	07/08/19	First draft	RM	LT	DH

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN
PART ONE: HRA

Site: Lancaster

Client: Lancaster City Council, Town Hall, Dalton Square, Lancaster, LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB

Coordinating office: 5TH Floor, 401 Faraday Street, Warrington, WA3 6GA

www.arcadis.com

TITLE:

Figure 2
Pink-Footed Goose Distribution

Designed	X.XXXXX	Date: XXJANXX	Signed:
Drawn	R.MILLMAN	Date: 07AUG19	Signed:
Checked	L.TURLEY	Date: 07AUG19	Signed:
Approved	D.HOURD	Date: 07AUG19	Signed:
Scale:	1:90,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

Suitability Description: Issued for Information

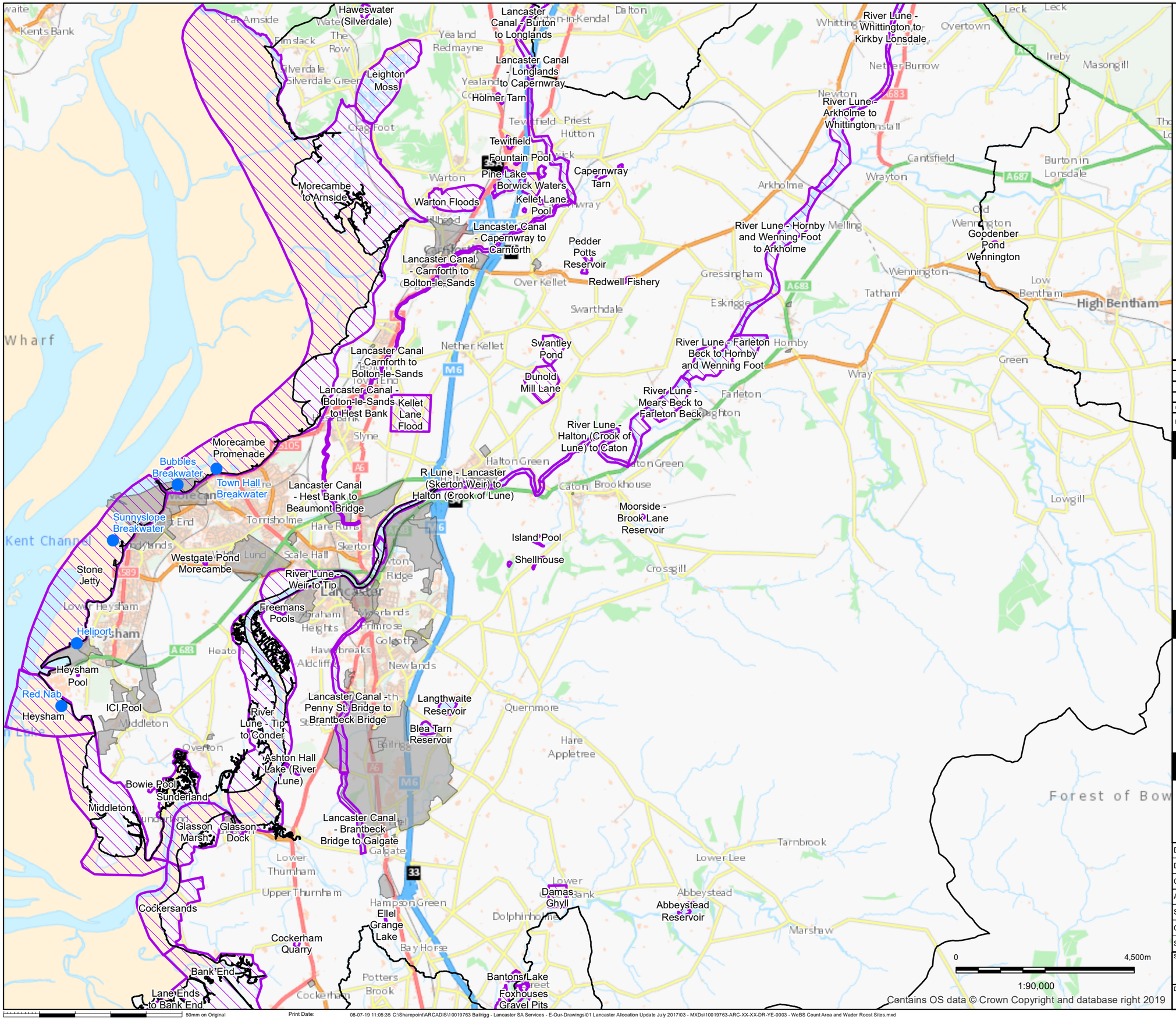
Drawing Number: 10019763-ARC-XX-XX-DR-YE-0002

Revision: P01

50mm on Original

Print Date: 08-07-19 11:07:11

C:\Users\RGA76695\Desktop\10019763-ARC-XX-XX-DR-YE-0002 - Swan and Goose Functional Land.mxd



NOTES:

Legend:

- Wader Roost
- Lancaster
- WeBS Count Sites

Rev	Date	Description	Drawn	Check	Approv
01	07/08/19	First draft	RM	LT	DH

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN
PART ONE: HRA

Site: Lancaster

Client: Lancaster City Council, Town Hall, Dalton Square, Lancaster, LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB

Coordinating office: 5TH Floor, 401 Faraday Street, Warrington, WA3 6GA

www.arcadis.com

TITLE:

Figure 3
WeBS Count Areas
and Wader Roost Sites

Designed	X.XXXXX	Date	Signed
Drawn	R.MILLMAN	Date 07AUG19	Signed
Checked	L.TURLEY	Date 07AUG19	Signed
Approved	D.HOURD	Date 07AUG19	Signed
Scale:	1:90,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

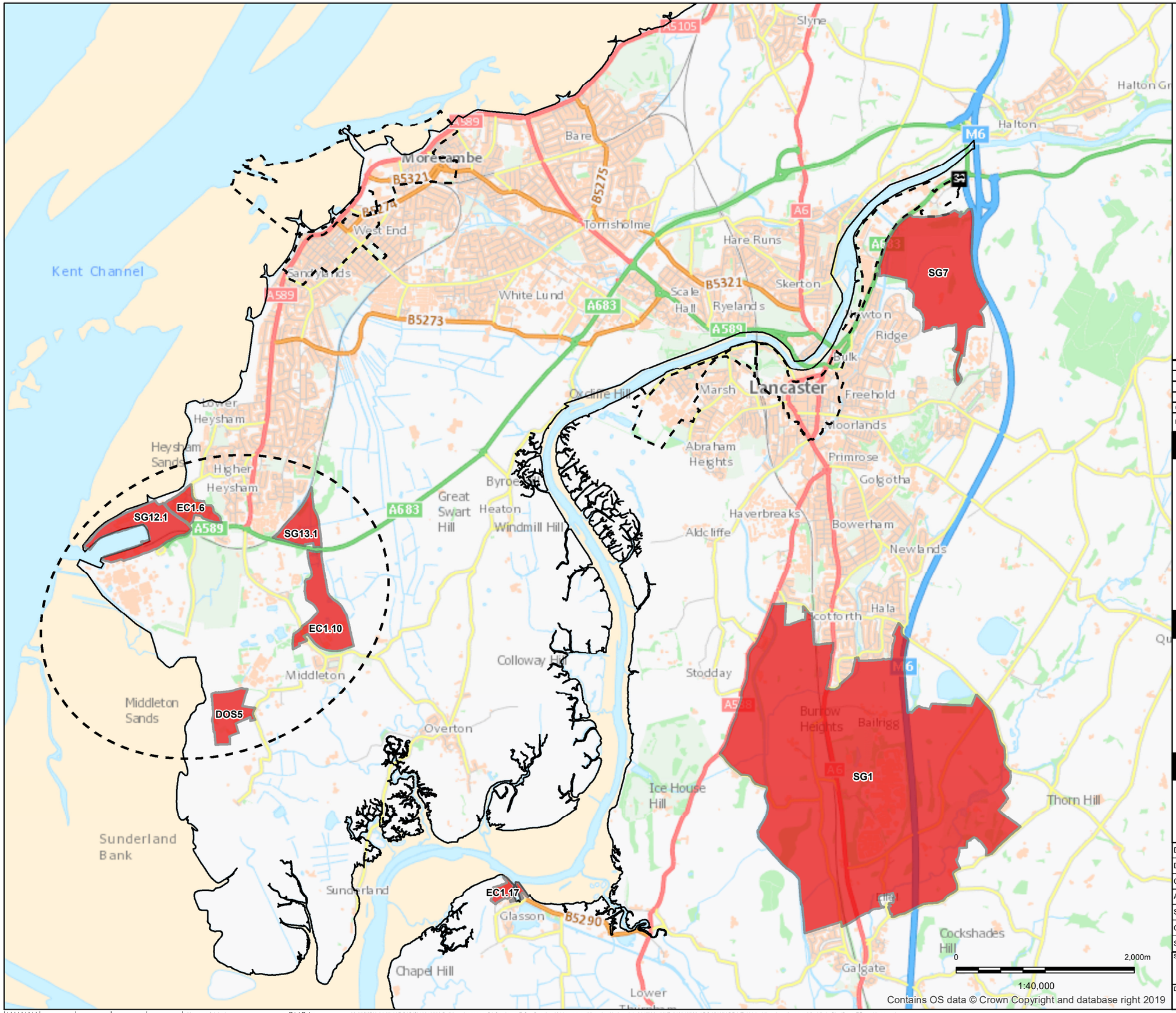
Suitability Description: Issued for Information

Drawing Number: 10019763-ARC-XX-XX-DR-YE-0003

Revision: P01

50mm on Original

Print Date: 08-07-19 11:05:35 C:\Sharepoint\ARCADIS\10019763 Bailrigg - Lancaster SA Services - E-Our-Drawings\01 Lancaster Allocation Update July 2017\03 - MXDs\10019763-ARC-XX-XX-DR-YE-0003 - WeBS Count Area and Wader Roost Sites.mxd



NOTES:

Legend:

- Allocation Sites
- Regeneration Area
- Lancaster

Rev	Date	Description	Drawn	Check	Approv
01	07/08/19	First draft	RM	LT	DH

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN
PART ONE: HRA

Site: Lancaster

Client: Lancaster City Council, Town Hall, Dalton Square, Lancaster, LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB

Coordinating office: 5TH Floor, 401 Faraday Street, Warrington, WA3 6GA

www.arcadis.com

TITLE:

Figure 4
Allocations Assessed for
Likely Significant Effects Alone
Page 1 of 4

Designed	X.XXXXX	Date XXJANXX	Signed
Drawn	R.MILLMAN	Date 07AUG19	Signed
Checked	L.TURLEY	Date 07AUG19	Signed
Approved	D.HOURD	Date 07AUG19	Signed
Scale:	1:40,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

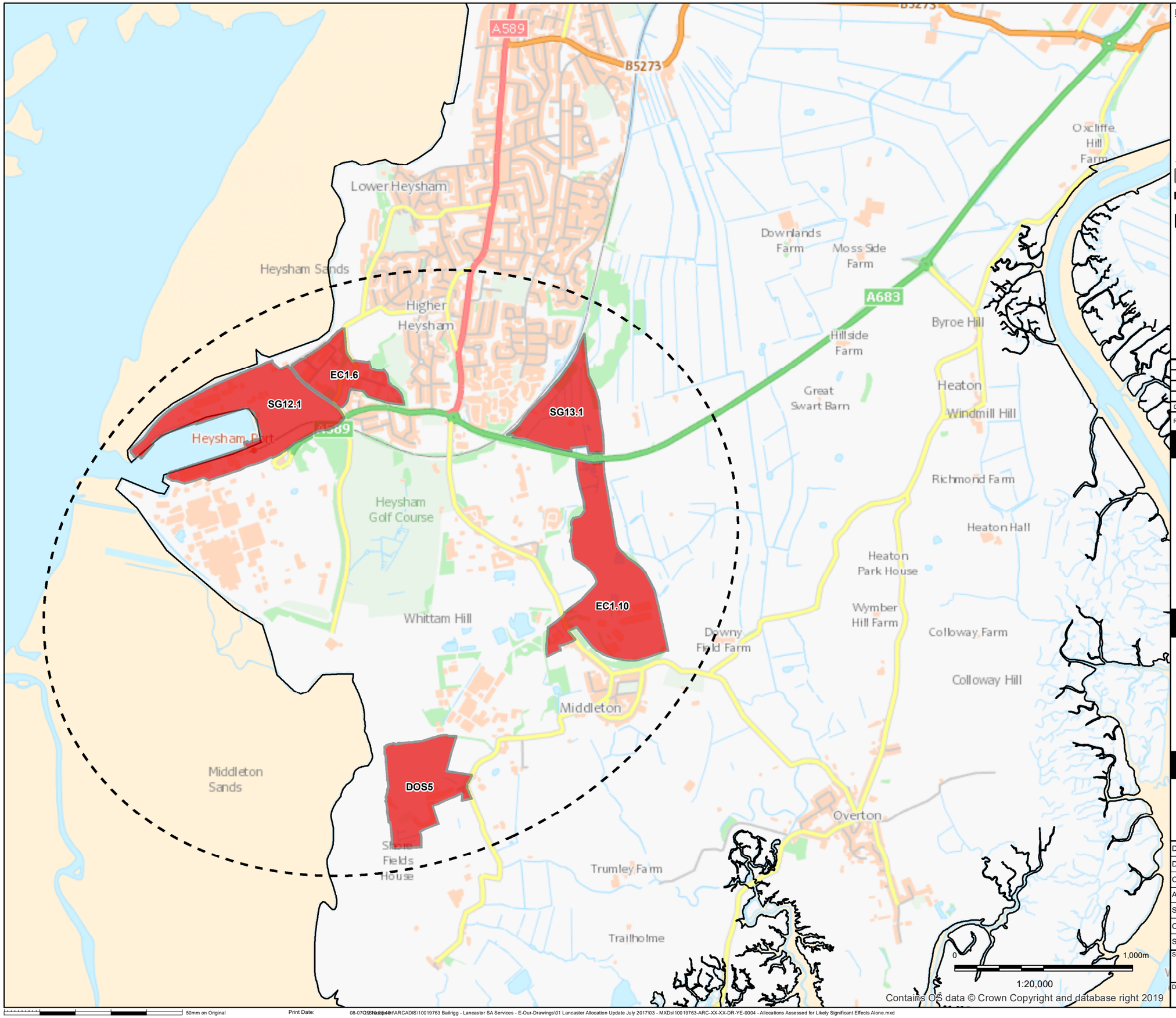
Suitability Description: Issued for Information

Drawing Number: 10019763-ARC-XX-XX-DR-YE-0004 | Revision: P01

50mm on Original

Print Date: 08-07-2019 12:33

C:\Users\...\ARCADIS\10019763 Bailrigg - Lancaster SA Services - E-Our-Drawings\01 Lancaster Allocation Update July 2017\03 - MXDs\10019763-ARC-XX-XX-DR-YE-0004 - Allocations Assessed for Likely Significant Effects Alone.mxd



NOTES:

Legend:

- Allocation Sites
- Regeneration Area
- Lancaster

Rev	Date	Description	Drawn	Check	Approv
01	07/08/19	First draft	RM	LT	DH

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN
PART ONE: HRA

Site: Lancaster

Client: Lancaster City Council, Town Hall, Dalton Square, Lancaster, LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB
Coordinating office: 5TH Floor, 401 Faraday Street, Warrington, WA3 6GA
www.arcadis.com

TITLE:

Figure 4
Allocations Assessed for
Likely Significant Effects Alone
Page 2 of 4

Designed	X.XXXXX	Date: XXJANXX	Signed:
Drawn	R.MILLMAN	Date: 07AUG19	Signed:
Checked	L.TURLEY	Date: 07AUG19	Signed:
Approved	D.HOURD	Date: 07AUG19	Signed:
Scale:	1:20,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

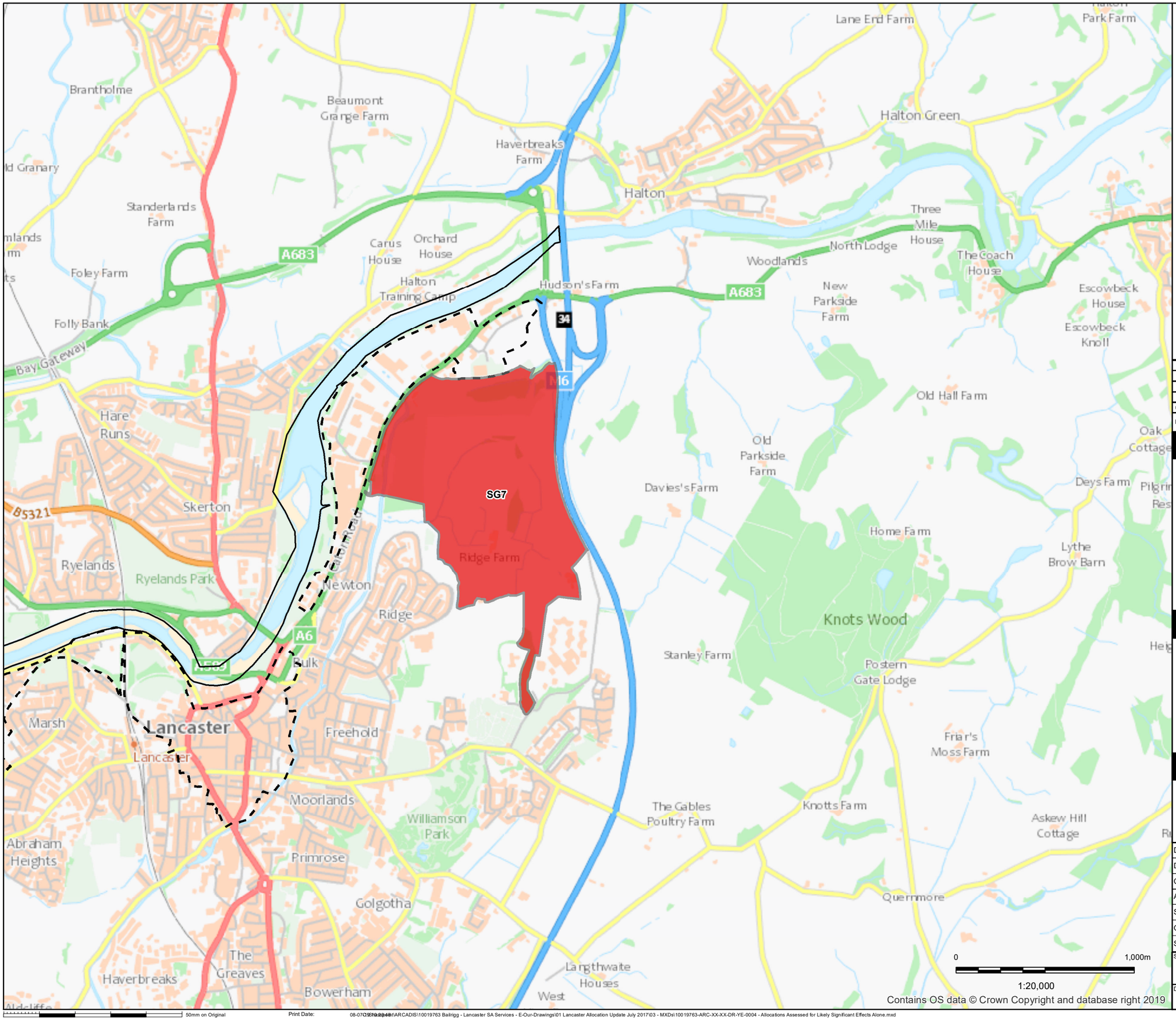
Suitability Description: Issued for Information

Drawing Number: 10019763-ARC-XX-XX-DR-YE-0004 | Revision: P01

50mm on Original

Print Date: 08-07-2019 12:24

I:\GB\Lancaster\ARCADIS\10019763 Bailrigg - Lancaster SA Services - E-Our-Drawings\01 Lancaster Allocation Update July 2017\03 - MXDs\10019763-ARC-XX-XX-DR-YE-0004 - Allocations Assessed for Likely Significant Effects Alone.mxd



NOTES:

Legend:

- Allocation Sites
- Regeneration Area
- Lancaster

Rev	Date	Description	Drawn	Check	Approv
01	07/08/19	First draft	RM	LT	DH

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN
PART ONE: HRA

Site: Lancaster

Client: Lancaster City Council, Town Hall, Dalton Square, Lancaster, LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB
Coordinating office: 5TH Floor, 401 Faraday Street, Warrington, WA3 6GA
www.arcadis.com

TITLE:

Figure 4
Allocations Assessed for
Likely Significant Effects Alone
Page 3 of 4

Designed	X.XXXXX	Date: XXJANXX	Signed
Drawn	R.MILLMAN	Date: 07AUG19	Signed
Checked	L.TURLEY	Date: 07AUG19	Signed
Approved	D.HOURD	Date: 07AUG19	Signed
Scale:	1:20,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

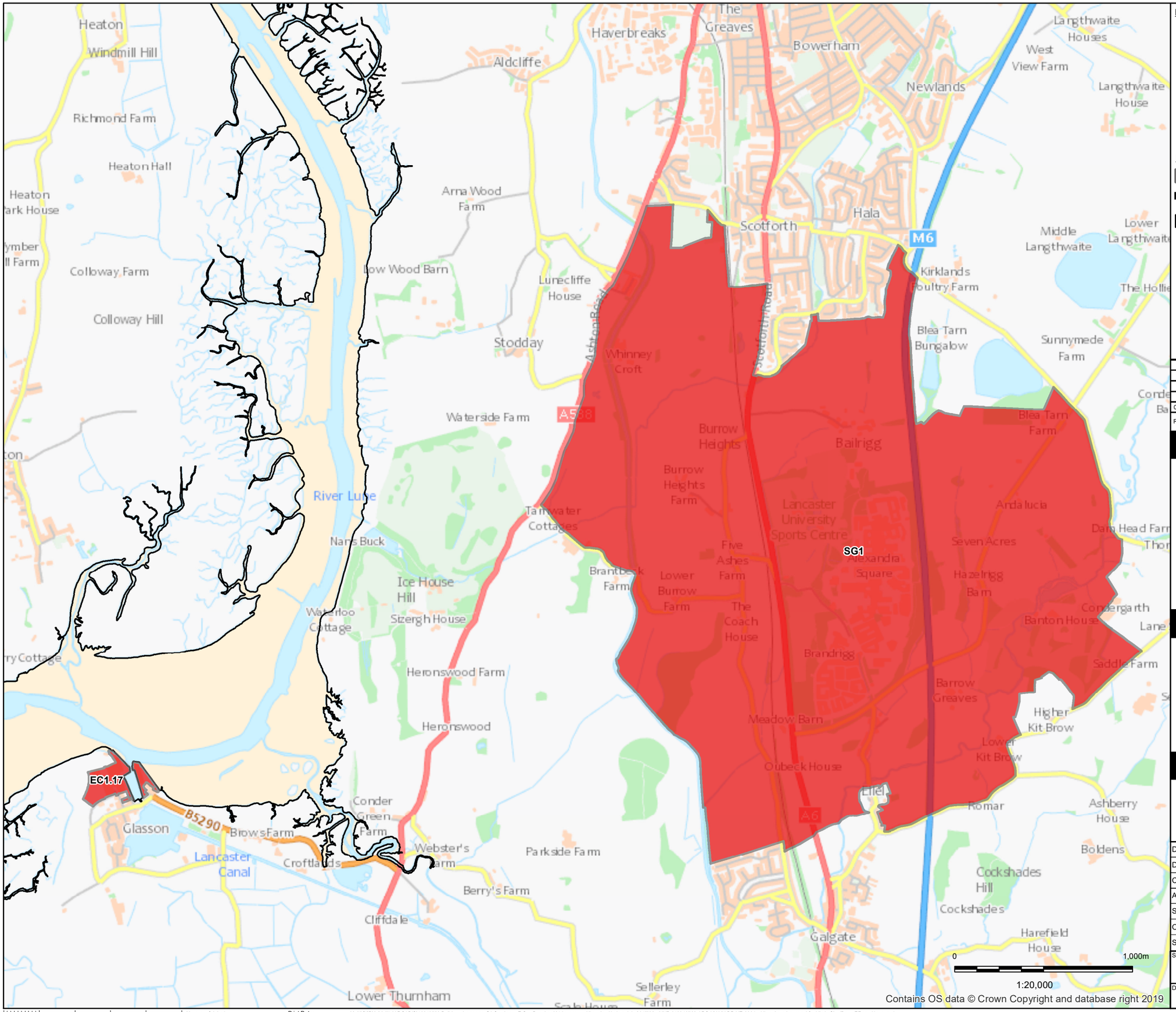
Suitability Description: Issued for Information

Drawing Number: 10019763-ARC-XX-XX-DR-YE-0004 | Revision: P01

50mm on Original

Print Date: 08-07-2019 13:24

G:\Projects\ARCADIS\10019763 Bailrigg - Lancaster SA Services - E-Our-Drawings\01 Lancaster Allocation Update July 2017\03 - MXDs\10019763-ARC-XX-XX-DR-YE-0004 - Allocations Assessed for Likely Significant Effects Alone.mxd



NOTES:

Legend:

- Allocation Sites
- Regeneration Area
- Lancaster

Rev	Date	Description	Drawn	Check	Approv
01	07/08/19	First draft	RM	LT	DH

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN
PART ONE: HRA

Site: Lancaster

Client: Lancaster City Council, Town Hall, Dalton Square, Lancaster, LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB
Coordinating office: 5TH Floor, 401 Faraday Street, Warrington, WA3 6GA
www.arcadis.com

TITLE:

Figure 4
Allocations Assessed for
Likely Significant Effects Alone
Page 4 of 4

Designed	X.XXXXX	Date: XXJANXX	Signed:
Drawn	R.MILLMAN	Date: 07AUG19	Signed:
Checked	L.TURLEY	Date: 07AUG19	Signed:
Approved	D.HOURD	Date: 07AUG19	Signed:
Scale:	1:20,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

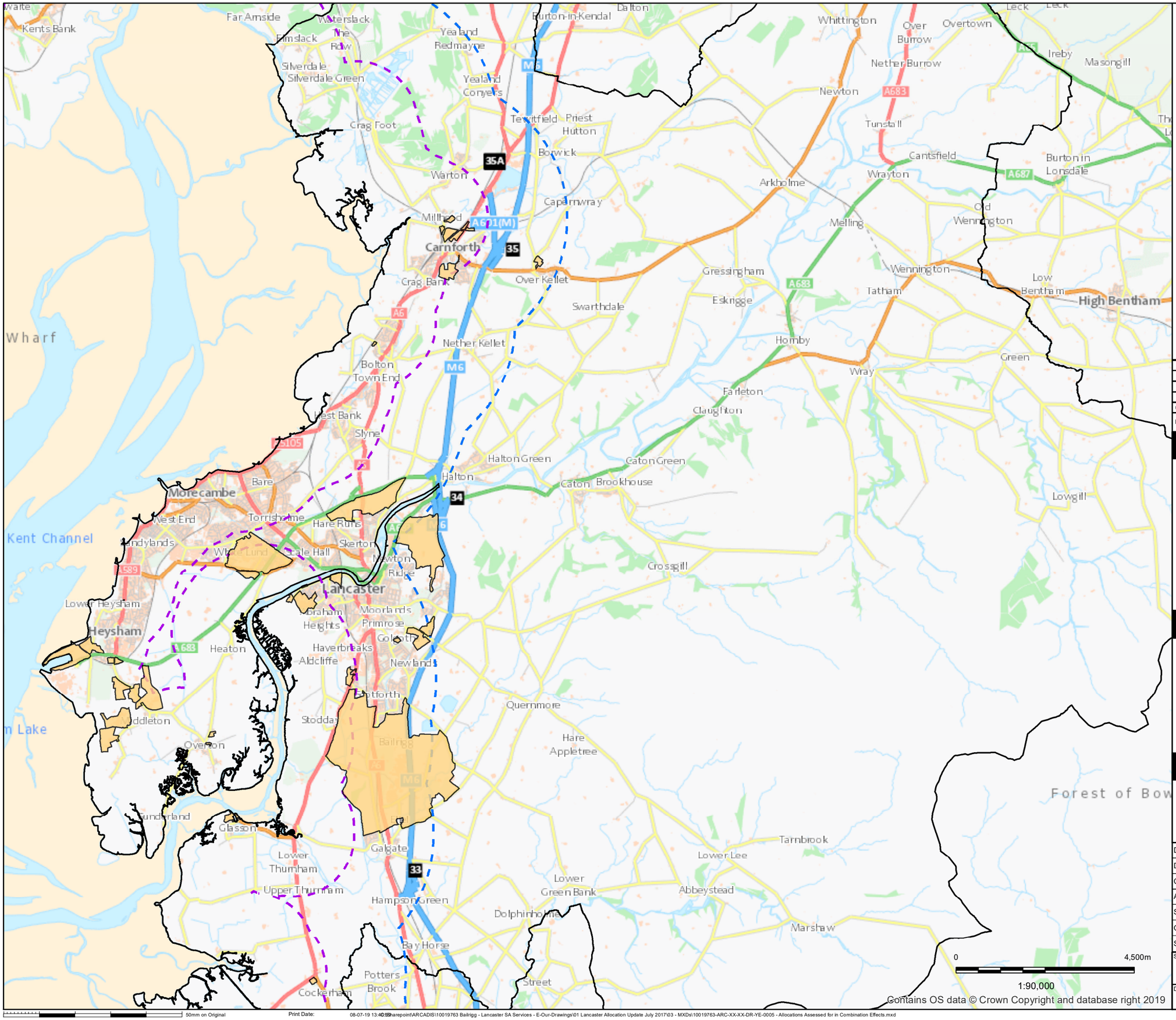
Suitability Description: Issued for Information

Drawing Number: 10019763-ARC-XX-XX-DR-YE-0004

Revision: P01

50mm on Original

Print Date: 08-07-2019 12:51



NOTES:

Legend:

- Allocation Sites
- Morecambe Bay 1.5 km Buffer
- Morecambe Bay 3.5 km Buffer
- Lancaster

Rev	Date	Description	Drawn	Check	Approv
01	07/08/19	First draft	RM	LT	DH

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN
PART ONE: HRA

Site: Lancaster

Client: Lancaster City Council, Town Hall, Dalton Square, Lancaster, LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB

Coordinating office: 5TH Floor, 401 Faraday Street, Warrington, WA3 6GA

www.arcadis.com

TITLE:

Figure 5
Allocations Assessed for in Combination Effects
Page 1 of 7

Designed	X.XXXXX	Date	Signed
Drawn	R.MILLMAN	Date 07AUG19	Signed
Checked	L.TURLEY	Date 07AUG19	Signed
Approved	D.HOURD	Date 07AUG19	Signed
Scale:	1:90,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

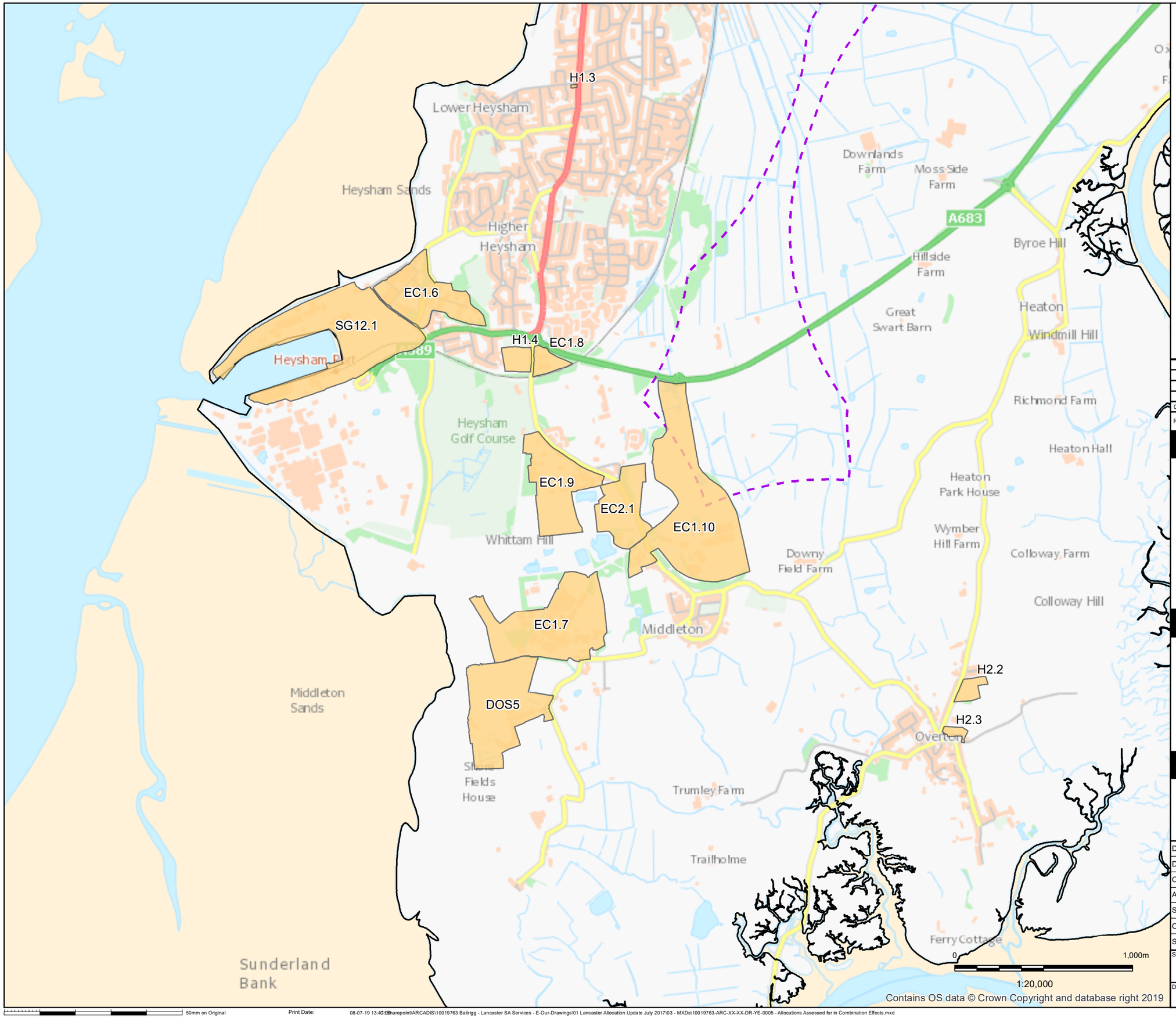
Suitability Description: Issued for Information

Drawing Number: 10019763-ARC-XX-XX-DR-YE-0005 | Revision: P01

50mm on Original

Print Date: 08-07-19 13:40:55

I:\Sharepoint\ARCADIS\10019763 Bailrigg - Lancaster SA Services - E-Our-Drawings\01 Lancaster Allocation Update July 2017\03 - MXDs\10019763-ARC-XX-XX-DR-YE-0005 - Allocations Assessed for in Combination Effects.mxd



NOTES:

Legend:

- Allocation Sites
- Morecambe Bay 1.5 km Buffer
- Morecambe Bay 3.5 km Buffer
- Lancaster

Rev	Date	Description	Drawn	Check	Approv
01	07/08/19	First draft	RM	LT	DH

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN PART ONE: HRA

Site: Lancaster

Client: Lancaster City Council, Town Hall, Dalton Square, Lancaster, LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London N1 9AB

Coordinating office: 5TH Floor, 401 Faraday Street, Warrington WA3 6GA

www.arcadis.com

TITLE:

Figure 5
Allocations Assessed for in Combination Effects
Page 2 of 7

Designed	X.XXXXX	Date	Signed
Drawn	R.MILLMAN	Date 07AUG19	Signed
Checked	L.TURLEY	Date 07AUG19	Signed
Approved	D.HOURD	Date 07AUG19	Signed
Scale:	1:20,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

Suitability Description: Issued for Information

Drawing Number: 10019763-ARC-XX-XX-DR-YE-0005

Revision: P01

50mm on Original

Print Date: 08-07-19 13:43:03

I:\Sharepoint\ARCADIS\10019763 Bailrigg - Lancaster SA Services - E-Our-Drawings\01 Lancaster Allocation Update July 2017\03 - MXDs\10019763-ARC-XX-XX-DR-YE-0005 - Allocations Assessed for in Combination Effects.mxd

NOTES:

Legend:

- Allocation Sites
- Morecambe Bay 1.5 km Buffer
- Morecambe Bay 3.5 km Buffer
- Lancaster

Rev	Date	Description	Drawn	Check	Approv
01	07/08/19	First draft	RM	LT	DH

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN
PART ONE: HRA

Site: Lancaster

Client: Lancaster City Council, Town Hall, Dalton Square, Lancaster, LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB

Coordinating office: 5TH Floor, 401 Faraday Street, Warrington, WA3 6GA

www.arcadis.com

TITLE:

Figure 5
Allocations Assessed for
in Combination Effects
Page 3 of 7

Designed	X.XXXXX	Date	Signed
Drawn	R.MILLMAN	Date 07AUG19	Signed
Checked	L.TURLEY	Date 07AUG19	Signed
Approved	D.HOURD	Date 07AUG19	Signed
Scale:	1:20,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

Suitability Description:
Issued for Information

Drawing Number: 10019763-ARC-XX-XX-DR-YE-0005

Revision: P01

0 1,000m
1:20,000

50mm on Original

Print Date: 08-07-19 13:43:19

I:\Sharepoint\ARCADIS\10019763 Bailrigg - Lancaster SA Services - E-Our-Drawings\01 Lancaster Allocation Update July 2017\03 - MXDs\10019763-ARC-XX-XX-DR-YE-0005 - Allocations Assessed for in Combination Effects.mxd

NOTES:

Legend:

- Allocation Sites
- Morecambe Bay 1.5 km Buffer
- Morecambe Bay 3.5 km Buffer
- Lancaster

Rev	Date	Description	Drawn	Check	Approv
01	07/08/19	First draft	RM	LT	DH

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN PART ONE: HRA

Site: Lancaster

Client: Lancaster City Council, Town Hall, Dalton Square, Lancaster, LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB

Coordinating office: 5TH Floor, 401 Faraday Street, Warrington, WA3 6GA

www.arcadis.com

TITLE:

Figure 5
Allocations Assessed for in Combination Effects
Page 4 of 7

Designed	X.XXXXX	Date	Signed
Drawn	R.MILLMAN	Date 07AUG19	Signed
Checked	L.TURLEY	Date 07AUG19	Signed
Approved	D.HOURD	Date 07AUG19	Signed
Scale:	1:20,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

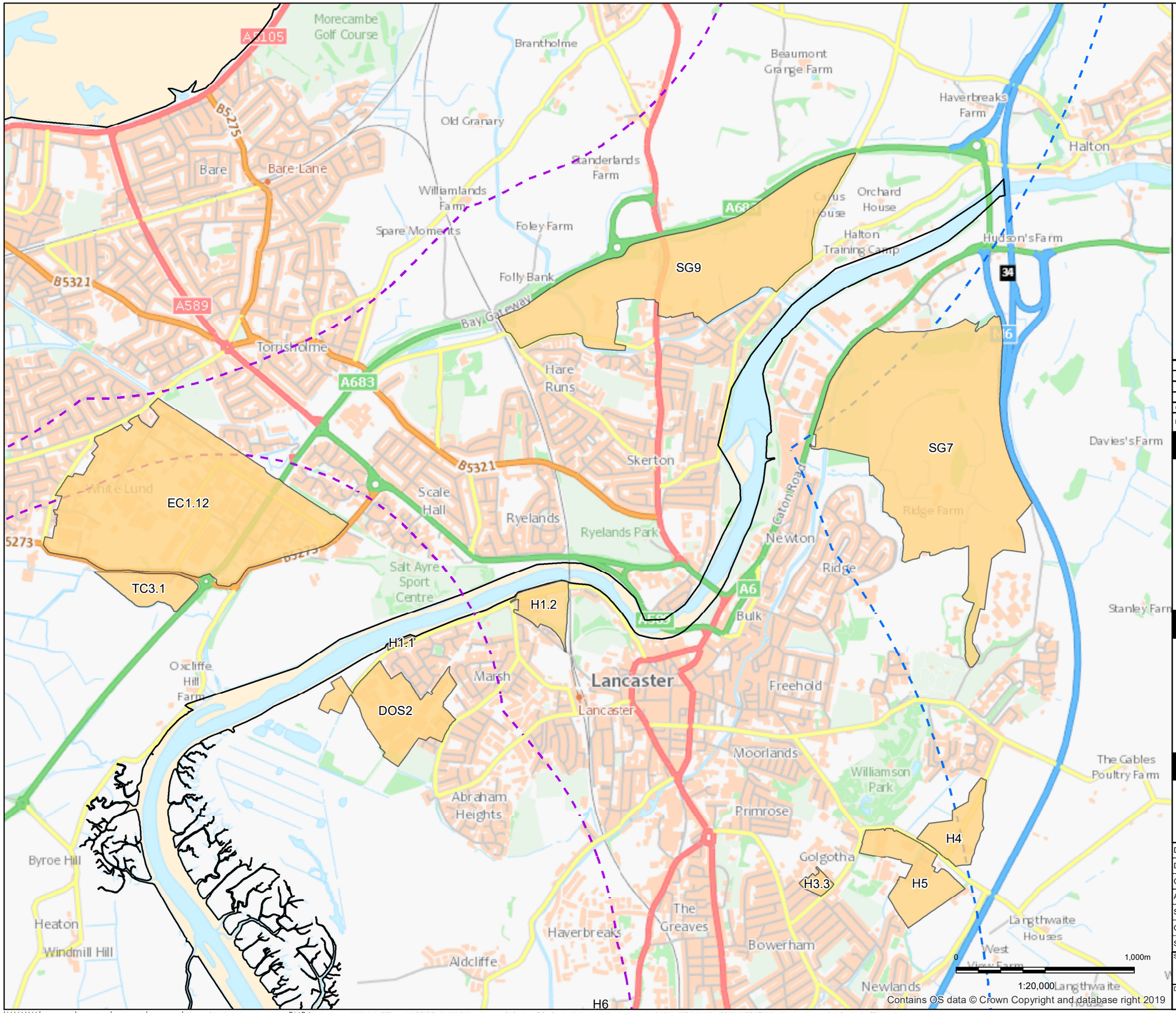
Suitability Description: Issued for Information

Drawing Number: 10019763-ARC-XX-XX-DR-YE-0005 | Revision: P01

50mm on Original

Print Date: 08-07-19 13:42:23

I:\Sharepoint\ARCADIS\10019763 Bailrigg - Lancaster SA Services - E-Our-Drawings\01 Lancaster Allocation Update July 2017\03 - MXDs\10019763-ARC-XX-XX-DR-YE-0005 - Allocations Assessed for in Combination Effects.mxd



NOTES:

Legend:

- Allocation Sites
- Morecambe Bay 1.5 km Buffer
- Morecambe Bay 3.5 km Buffer
- Lancaster

Rev	Date	Description	Drawn	Check	Approv
01	07/08/19	First draft	RM	LT	DH

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN
PART ONE: HRA

Site: Lancaster

Client: Lancaster City Council, Town Hall, Dalton Square, Lancaster, LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB

Coordinating office: 5TH Floor, 401 Faraday Street, Warrington, WA3 6GA

www.arcadis.com

TITLE:

Figure 5
Allocations Assessed for in Combination Effects
Page 5 of 7

Designed	X.XXXXX	Date	Signed
Drawn	R.MILLMAN	Date 07AUG19	Signed
Checked	L.TURLEY	Date 07AUG19	Signed
Approved	D.HOURD	Date 07AUG19	Signed
Scale:	1:20,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

Suitability Description: Issued for Information

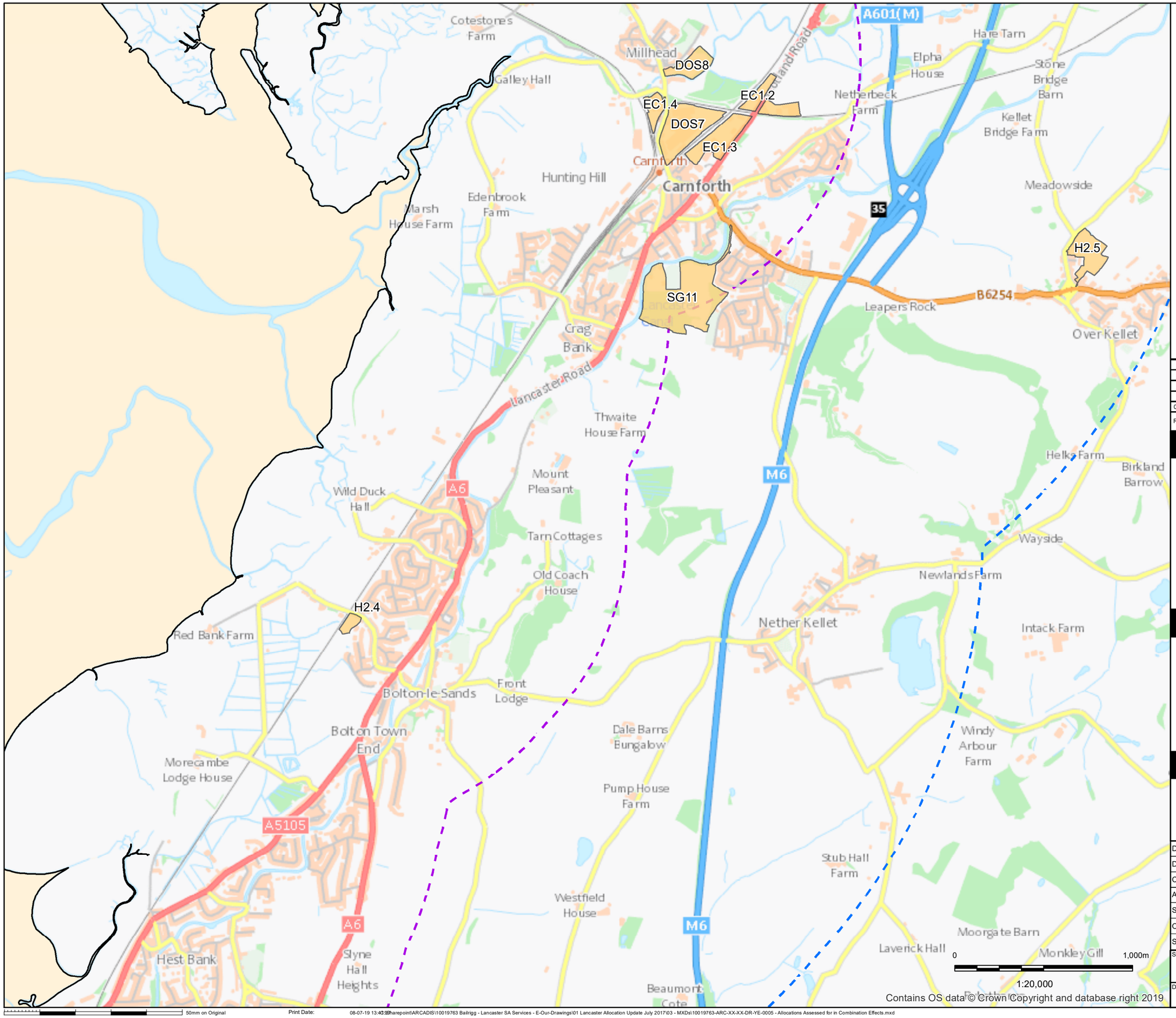
Drawing Number: 10019763-ARC-XX-XX-DR-YE-0005

Revision: P01

50mm on Original

Print Date: 08-07-19 13:40:29

I:\Sharepoint\ARCADIS\10019763 Bailrigg - Lancaster SA Services - E-Our-Drawings\01 Lancaster Allocation Update July 2017\03 - MXDs\10019763-ARC-XX-XX-DR-YE-0005 - Allocations Assessed for in Combination Effects.mxd



NOTES:

Legend:

- Allocation Sites
- Morecambe Bay 1.5 km Buffer
- Morecambe Bay 3.5 km Buffer
- Lancaster

Rev	Date	Description	Drawn	Check	Approv
01	07/08/19	First draft	RM	LT	DH

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN PART ONE: HRA

Site: Lancaster

Client: Lancaster City Council, Town Hall, Dalton Square, Lancaster, LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB

Coordinating office: 5TH Floor, 401 Faraday Street, Warrington, WA3 6GA

www.arcadis.com

TITLE:

Figure 5
Allocations Assessed for in Combination Effects
Page 6 of 7

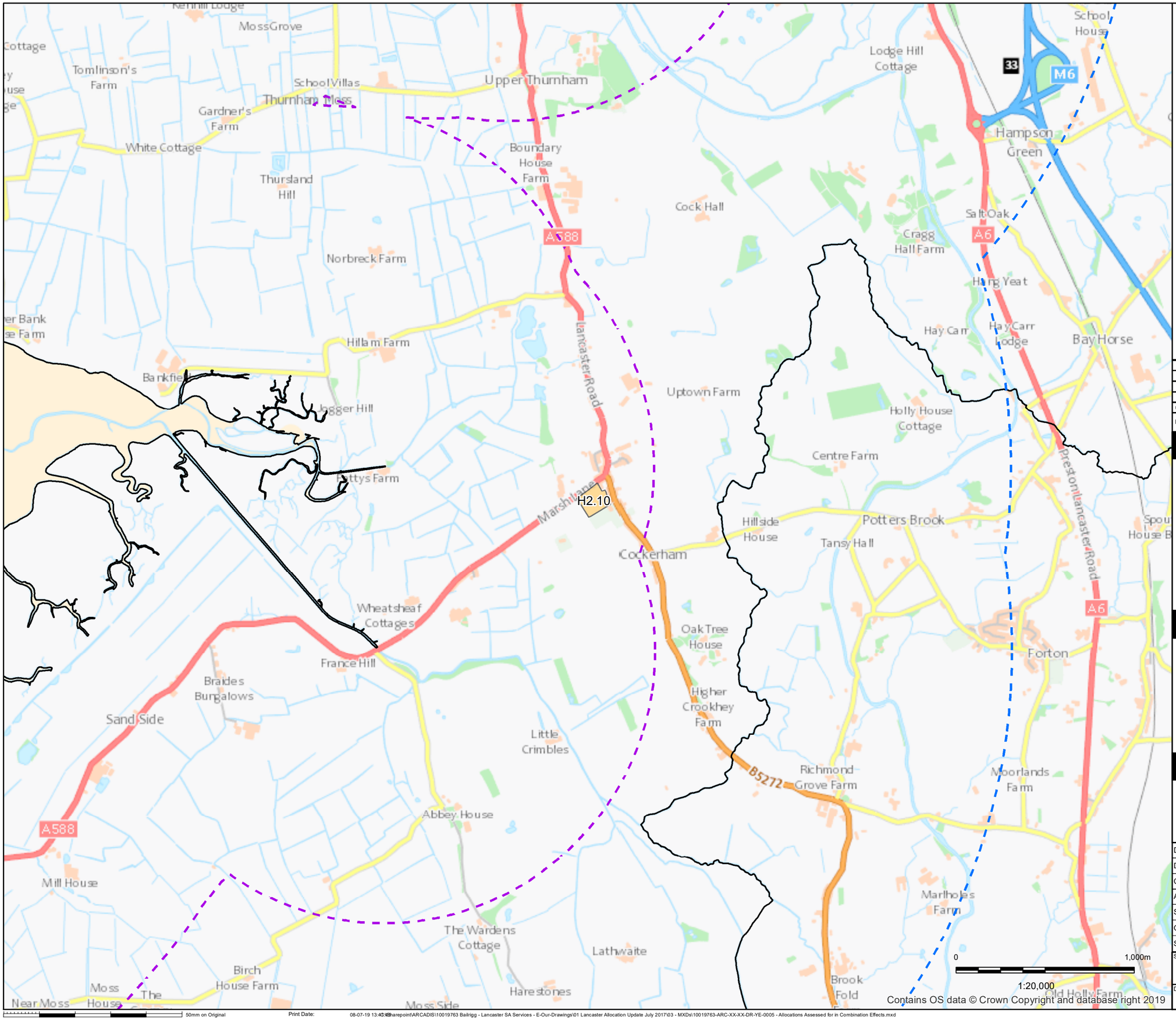
Designed	X.XXXXX	Date	Signed
Drawn	R.MILLMAN	Date 07AUG19	Signed
Checked	L.TURLEY	Date 07AUG19	Signed
Approved	D.HOURD	Date 07AUG19	Signed
Scale:	1:20,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

Suitability Description: Issued for Information

Drawing Number: 10019763-ARC-XX-XX-DR-YE-0005 Revision: P01

50mm on Original

Print Date: 08-07-19 13:43:55 I:\Sharepoint\ARCADIS\10019763 Bailrigg - Lancaster SA Services - E-Our-Drawings\01 Lancaster Allocation Update July 2017\03 - MXDs\10019763-ARC-XX-XX-DR-YE-0005 - Allocations Assessed for in Combination Effects.mxd



NOTES:

Legend:

- Allocation Sites
- Morecambe Bay 1.5 km Buffer
- Morecambe Bay 3.5 km Buffer
- Lancaster

Rev	Date	Description	Drawn	Check	Approv
01	07/08/19	First draft	RM	LT	DH

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN
PART ONE: HRA

Site: Lancaster

Client: Lancaster City Council, Town Hall, Dalton Square, Lancaster, LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB

Coordinating office: 5TH Floor, 401 Faraday Street, Warrington, WA3 6GA

www.arcadis.com

TITLE:

Figure 5
Allocations Assessed for in Combination Effects
Page 7 of 7

Designed	X.XXXXX	Date	Signed
Drawn	R.MILLMAN	Date 07AUG19	Signed
Checked	L.TURLEY	Date 07AUG19	Signed
Approved	D.HOURD	Date 07AUG19	Signed
Scale:	1:20,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

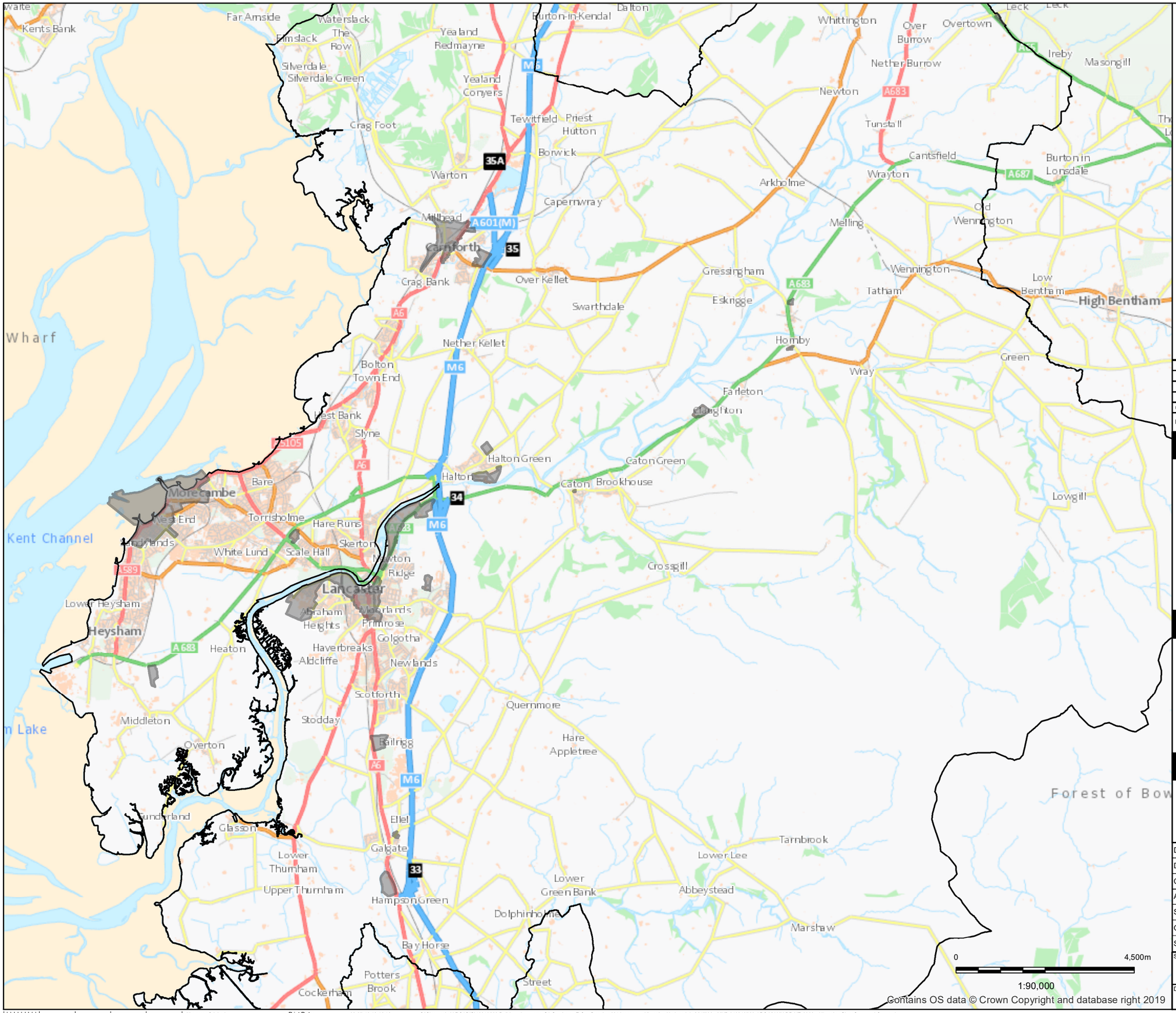
Suitability Description: Issued for Information

Drawing Number: 10019763-ARC-XX-XX-DR-YE-0005

Revision: P01

50mm on Original

Print Date: 08-07-19 13:43



NOTES:

Legend

- Allocation Sites
- Lancaster

Rev	Date	Description	Drawn	Check	Approv
01	07/08/19	First draft	RM	LT	DH

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN PART ONE: HRA

Site: Lancaster

Client: Lancaster City Council, Town Hall, Dalton Square, Lancaster, LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB
Coordinating office: 5TH Floor, 401 Faraday Street, Warrington, WA3 6GA
www.arcadis.com

TITLE:

Figure 6
Allocation Sites Screened Out
Page 1 of 9

Designed	X.XXXXX	Date	Signed
Drawn	R.MILLMAN	Date 07AUG19	Signed
Checked	L.TURLEY	Date 07AUG19	Signed
Approved	D.HOURD	Date 07AUG19	Signed
Scale:	1:90,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

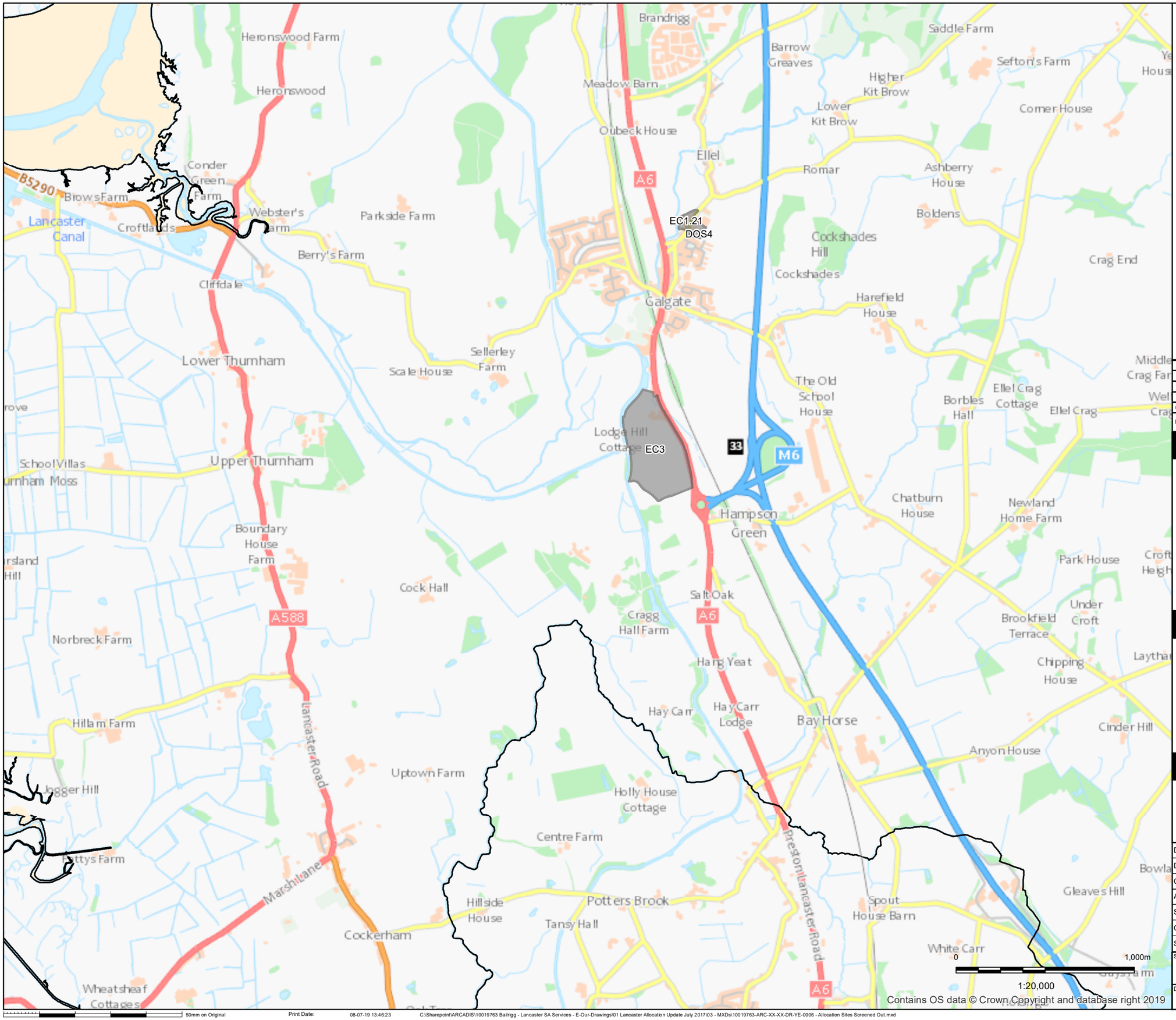
Suitability Description: Issued for Information

Drawing Number: 10019763-ARC-XX-XX-DR-YE-0006 | Revision: P01

50mm on Original

Print Date: 08-07-19 13:46:18

C:\Sharepoint\ARCADIS\10019763 Bailrigg - Lancaster SA Services - E-Our-Drawings\01 Lancaster Allocation Update July 2017\03 - MXDs\10019763-ARC-XX-XX-DR-YE-0006 - Allocation Sites Screened Out.mxd



NOTES:

Legend

- Allocation Sites
- Lancaster

Rev	Date	Description	Drawn	Check	Approv
01	07/08/19	First draft	RM	LT	DH

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN
PART ONE: HRA

Site
Lancaster

Client
Lancaster City Council
Town Hall
Dalton Square
Lancaster
LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office:
Arcadis House
34 York Way,
London
N1 9AB

Coordinating office:
5TH Floor,
401 Faraday Street,
Warrington
WA3 6GA

www.arcadis.com

TITLE:

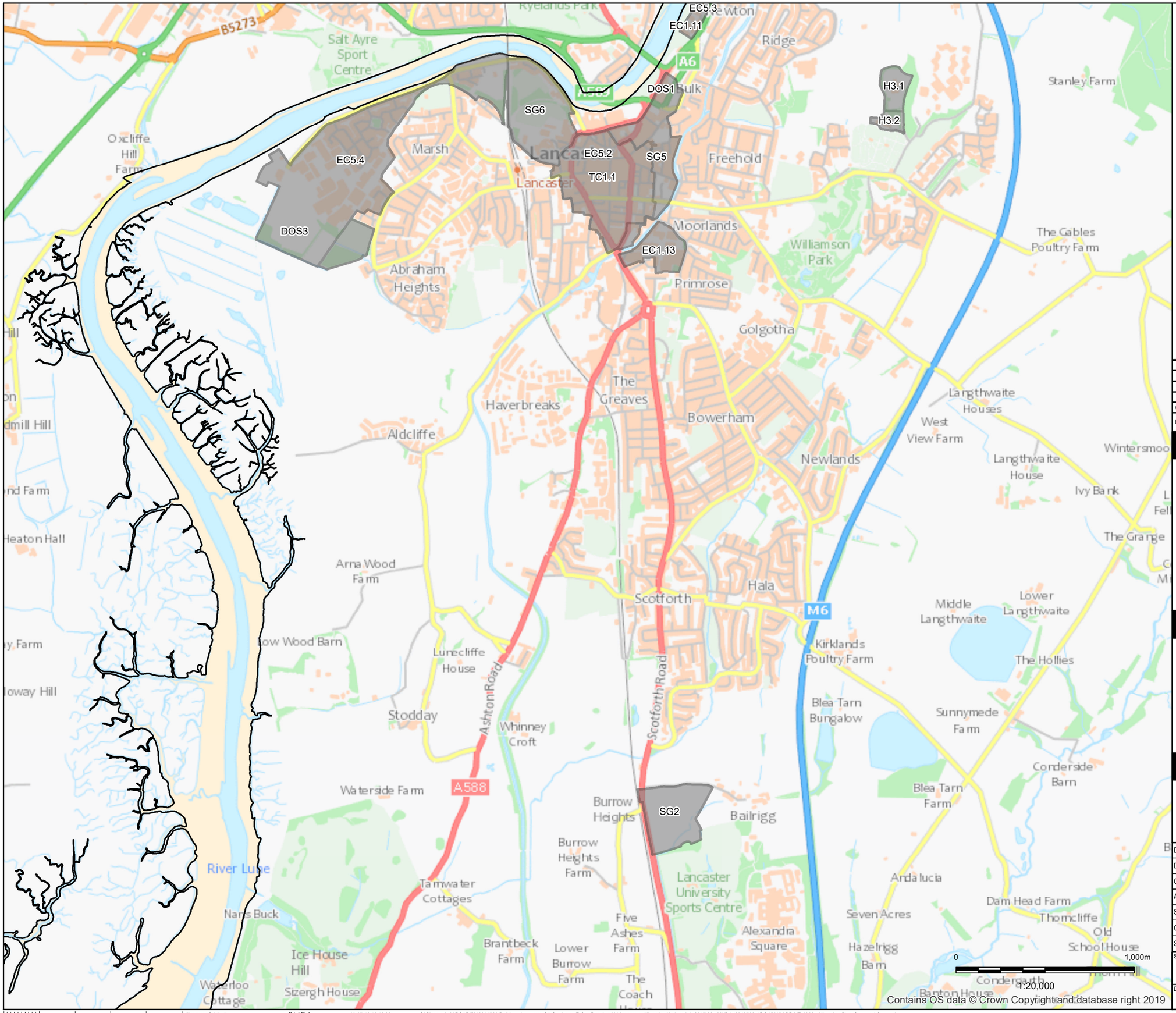
Figure 6
Allocation Sites Screened Out
Page 2 of 9

Designed	X.XXXXX	Date	Signed
Drawn	R.MILLMAN	Date 07AUG19	Signed
Checked	L.TURLEY	Date 07AUG19	Signed
Approved	D.HOURD	Date 07AUG19	Signed
Scale:	1:20,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

Suitability Description:
Issued for Information

Drawing Number: 10019763-ARC-XX-XX-DR-YE-0006
Revision: P01

50mm on Original
Print Date: 08-07-19 13:46:23
C:\Sharepoint\ARCADIS\10019763 Bailrigg - Lancaster SA Services - E-Our-Drawings\01 Lancaster Allocation Update July 2017\03 - MXDs\10019763-ARC-XX-XX-DR-YE-0006 - Allocation Sites Screened Out.mxd



NOTES:

Legend

- Allocation Sites
- Lancaster

Rev	Date	Description	Drawn	Check	Approv
01	07/08/19	First draft	RM	LT	DH

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN
PART ONE: HRA

Site: Lancaster

Client: Lancaster City Council, Town Hall, Dalton Square, Lancaster, LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB
Coordinating office: 5TH Floor, 401 Faraday Street, Warrington, WA3 6GA
www.arcadis.com

TITLE:

Figure 6
Allocation Sites Screened Out
Page 3 of 9

Designed	X.XXXXX	Date	Signed
Drawn	R.MILLMAN	Date 07AUG19	Signed
Checked	L.TURLEY	Date 07AUG19	Signed
Approved	D.HOURD	Date 07AUG19	Signed
Scale:	1:20,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

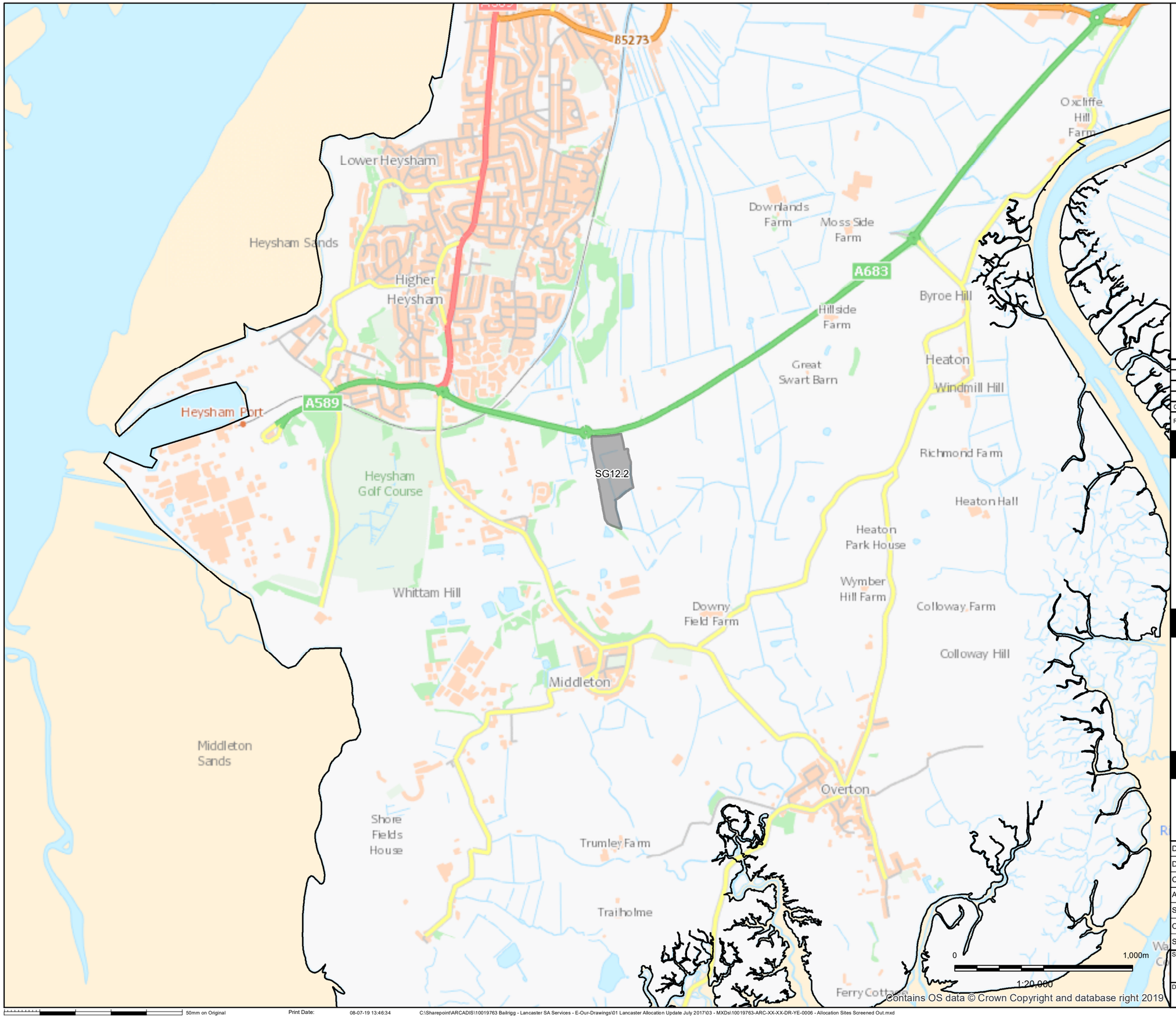
Suitability Description: Issued for Information

Drawing Number: 10019763-ARC-XX-XX-DR-YE-0006
Revision: P01

50mm on Original

Print Date: 08-07-19 13:46:29

C:\Sharepoint\ARCADIS\10019763 Bailrigg - Lancaster SA Services - E-Our-Drawings\01 Lancaster Allocation Update July 2017\03 - MXDs\10019763-ARC-XX-XX-DR-YE-0006 - Allocation Sites Screened Out.mxd



NOTES:

Legend

- Allocation Sites
- Lancaster

Rev	Date	Description	Drawn	Check	Approv
01	07/08/19	First draft	RM	LT	DH

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN
PART ONE: HRA

Site: Lancaster

Client: Lancaster City Council, Town Hall, Dalton Square, Lancaster, LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB
Coordinating office: 5TH Floor, 401 Faraday Street, Warrington, WA3 6GA
www.arcadis.com

TITLE:

Figure 6
Allocation Sites Screened Out
Page 4 of 9

Designed	X.XXXXX	Date	Signed
Drawn	R.MILLMAN	Date 07AUG19	Signed
Checked	L.TURLEY	Date 07AUG19	Signed
Approved	D.HOURD	Date 07AUG19	Signed
Scale:	1:20,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

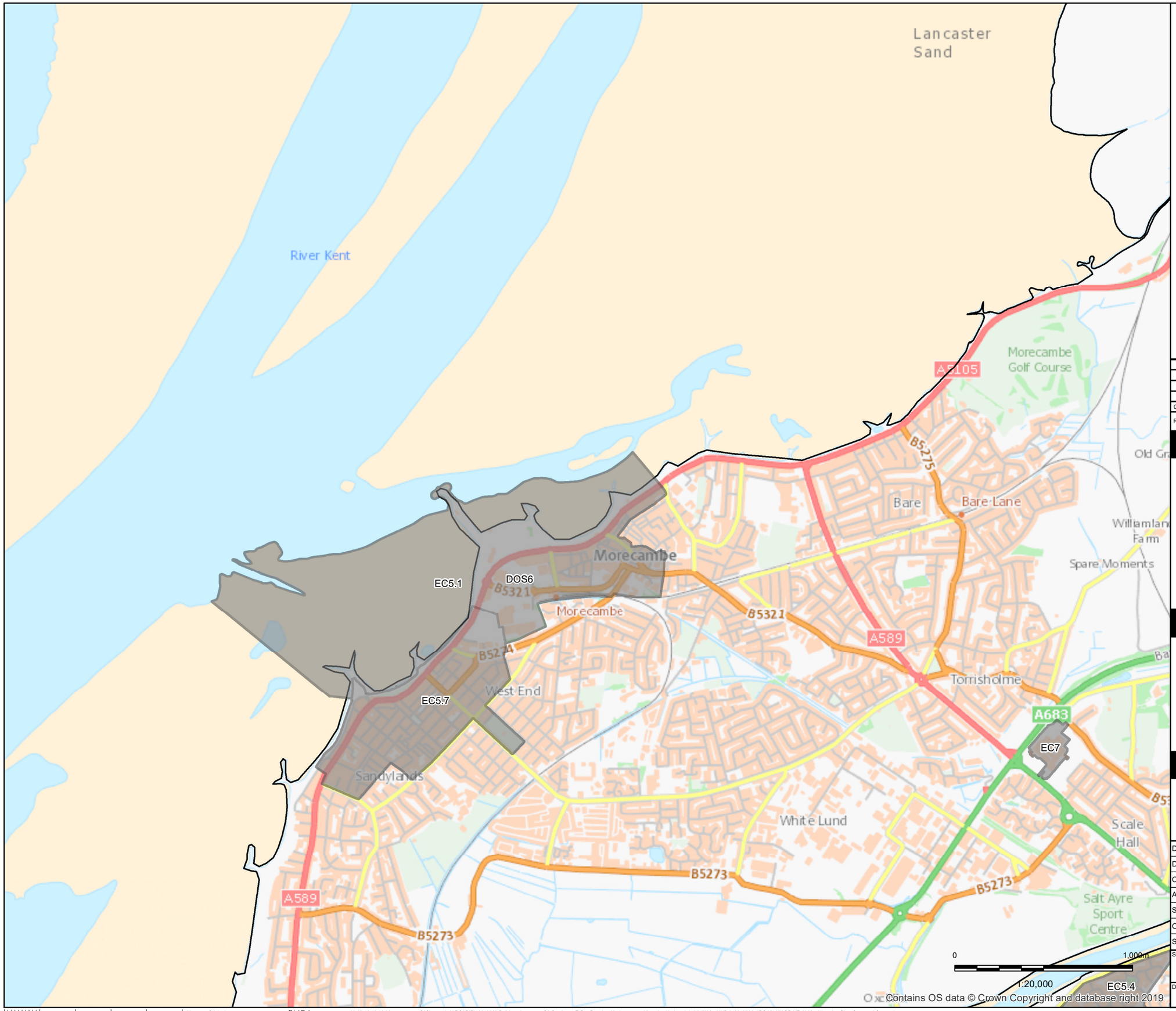
Suitability Description: Issued for Information

Drawing Number: 10019763-ARC-XX-XX-DR-YE-0006 | Revision: P01

50mm on Original

Print Date: 08-07-19 13:46:34

C:\Sharepoint\ARCADIS\10019763 Bailrigg - Lancaster SA Services - E-Our-Drawings\01 Lancaster Allocation Update July 2017\03 - MXDs\10019763-ARC-XX-XX-DR-YE-0006 - Allocation Sites Screened Out.mxd



NOTES:

Legend

- Allocation Sites
- Lancaster

Rev	Date	Description	Drawn	Check	Approv
01	07/08/19	First draft	RM	LT	DH

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN
PART ONE: HRA

Site: Lancaster

Client: Lancaster City Council, Town Hall, Dalton Square, Lancaster, LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB

Coordinating office: 5TH Floor, 401 Faraday Street, Warrington, WA3 6GA

www.arcadis.com

TITLE:

Figure 6
Allocation Sites Screened Out
Page 5 of 9

Designed	X.XXXXX	Date	Signed
Drawn	R.MILLMAN	Date 07AUG19	Signed
Checked	L.TURLEY	Date 07AUG19	Signed
Approved	D.HOURD	Date 07AUG19	Signed
Scale:	1:20,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

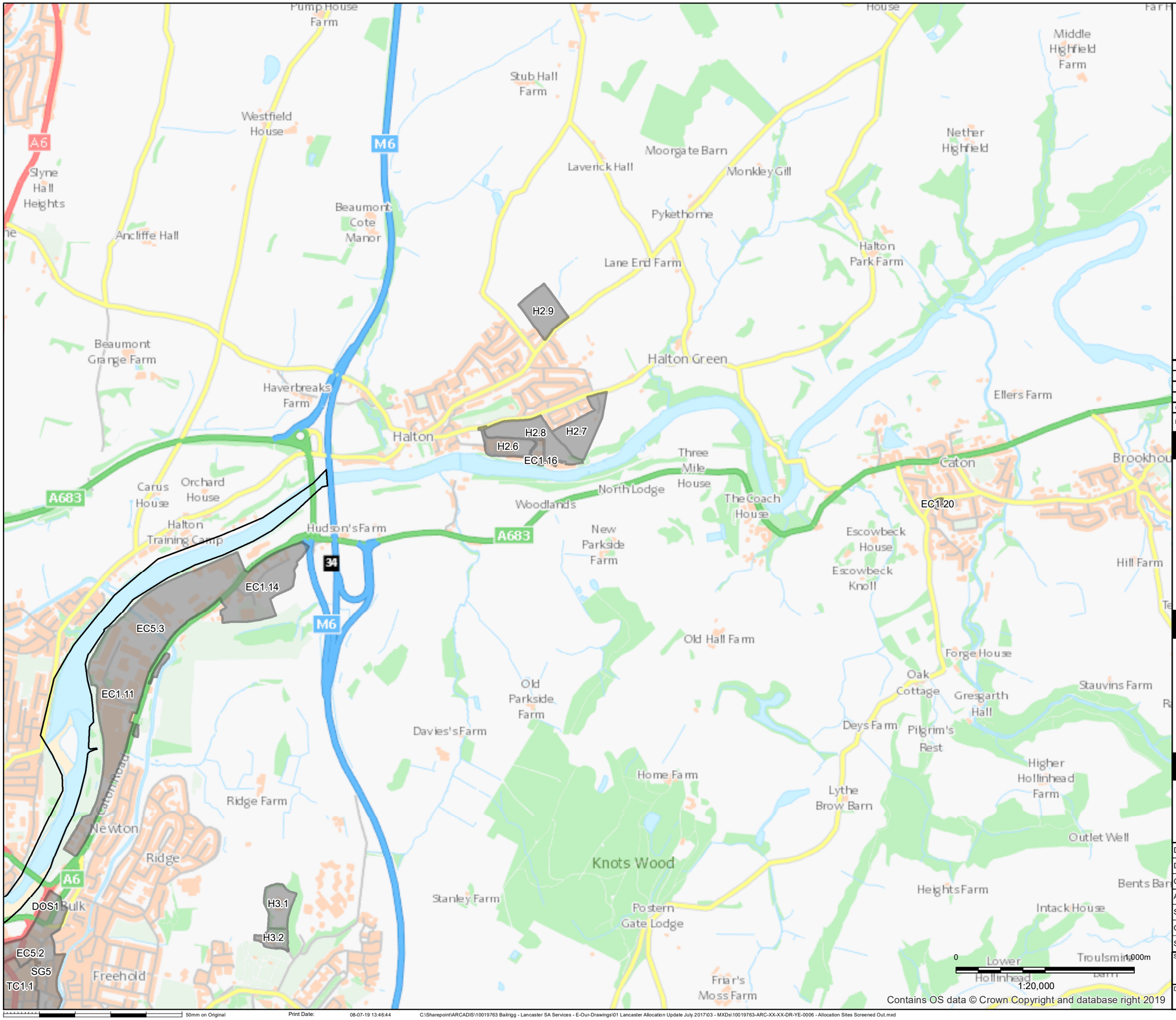
Suitability Description: Issued for Information

Drawing Number: 10019763-ARC-XX-XX-DR-YE-0006 | Revision: P01

50mm on Original

Print Date: 08-07-19 13:46:39

C:\Sharepoint\ARCADIS\10019763 Bailrigg - Lancaster SA Services - E-Our-Drawings\01 Lancaster Allocation Update July 2017\03 - MXDs\10019763-ARC-XX-XX-DR-YE-0006 - Allocation Sites Screened Out.mxd



Contains OS data © Crown Copyright and database right 2019

NOTES:

Legend

- Allocation Sites
- Lancaster

Rev	Date	Description	Drawn	Check	Approv
01	07/08/19	First draft	RM	LT	DH

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN
PART ONE: HRA

Site: Lancaster

Client: Lancaster City Council, Town Hall, Dalton Square, Lancaster, LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB

Coordinating office: 5TH Floor, 401 Faraday Street, Warrington, WA3 6GA

www.arcadis.com

TITLE:

Figure 6
Allocation Sites Screened Out
Page 6 of 9

Designed	X.XXXXX	Date	Signed
Drawn	R.MILLMAN	Date 07AUG19	Signed
Checked	L.TURLEY	Date 07AUG19	Signed
Approved	D.HOURD	Date 07AUG19	Signed
Scale:	1:20,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

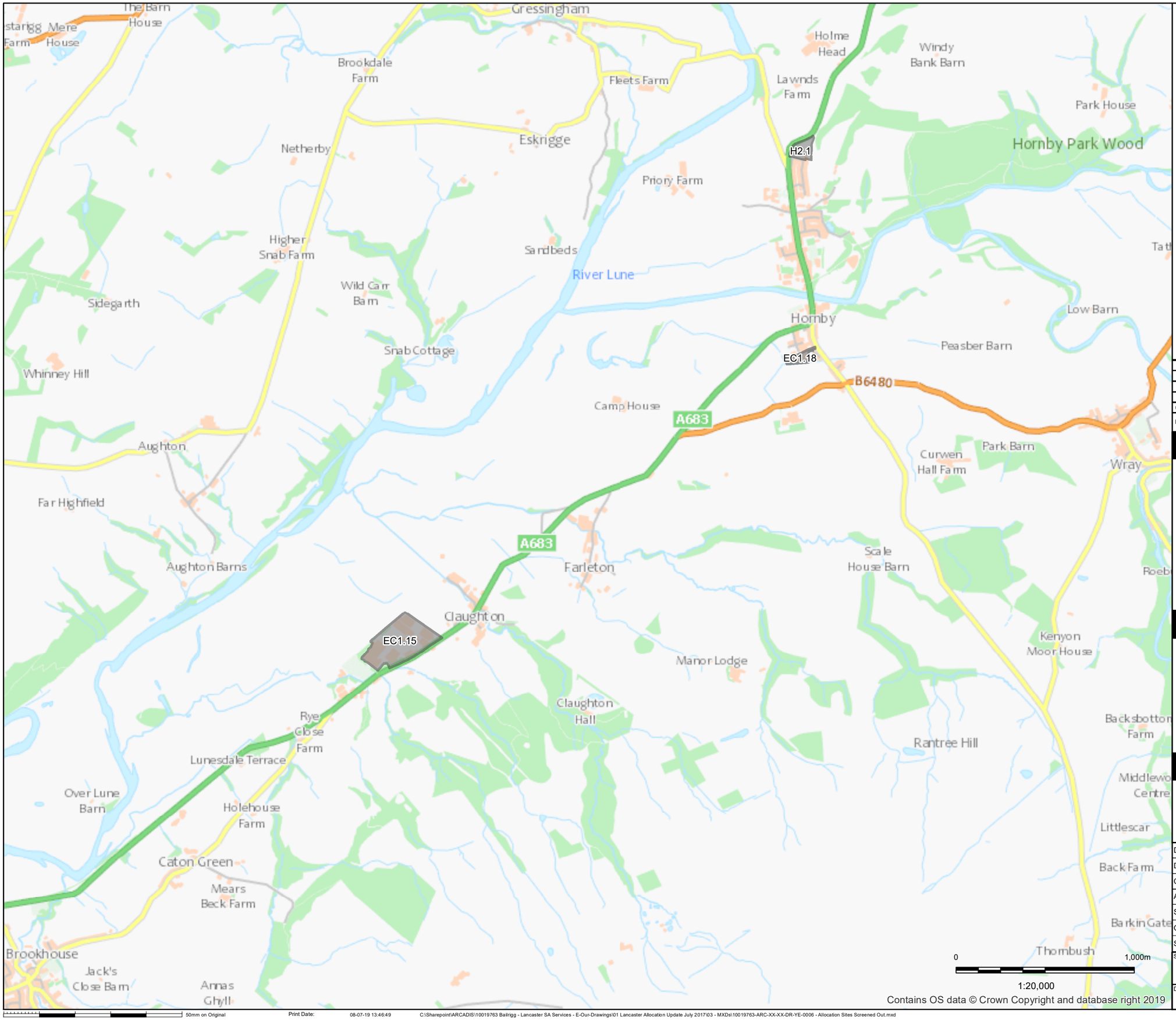
Suitability Description: Issued for Information

Drawing Number: 10019763-ARC-XX-XX-DR-YE-0006 | Revision: P01

50mm on Original

Print Date: 08-07-19 13:46:44

C:\Sharepoint\ARCADIS\10019763 Bailrigg - Lancaster SA Services - E-Our-Drawings\01 Lancaster Allocation Update July 2017\03 - MXDs\10019763-ARC-XX-XX-DR-YE-0006 - Allocation Sites Screened Out.mxd



NOTES:

Legend

- Allocation Sites
- Lancaster

Rev	Date	Description	Drawn	Check	Approv
01	07/08/19	First draft	RM	LT	DH

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN
PART ONE: HRA

Site
Lancaster

Client
Lancaster City Council
Town Hall
Dalton Square
Lancaster
LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office:
Arcadis House
34 York Way,
London
N1 9AB

Coordinating office:
5TH Floor,
401 Faraday Street,
Warrington
WA3 6GA

www.arcadis.com

TITLE:

Figure 6
Allocation Sites Screened Out
Page 7 of 9

Designed	X.XXXXX	Date	Signed
Drawn	R.MILLMAN	Date 07AUG19	Signed
Checked	L.TURLEY	Date 07AUG19	Signed
Approved	D.HOURD	Date 07AUG19	Signed
Scale:	1:20,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

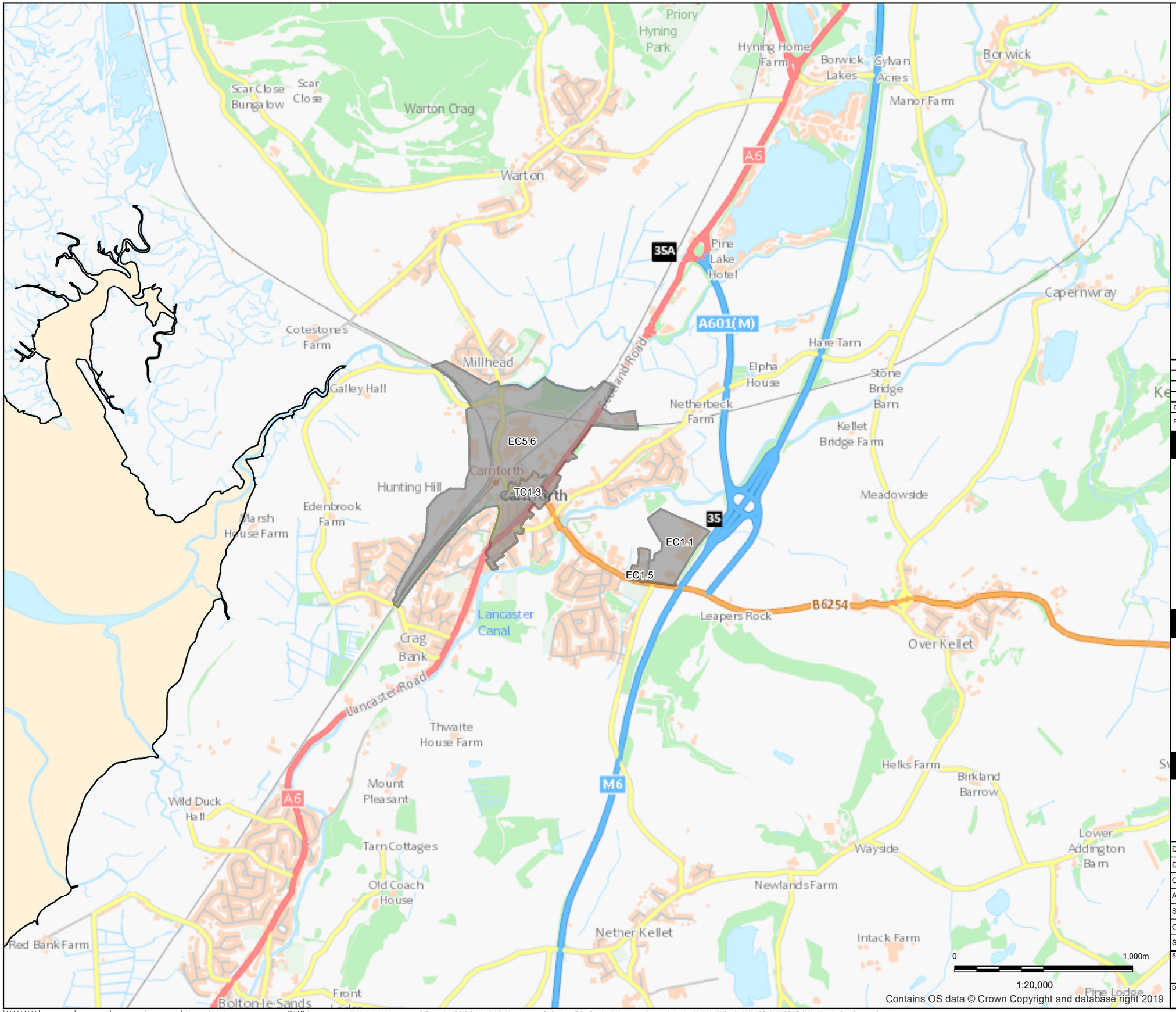
Suitability Description:
Issued for Information

Drawing Number: 10019763-ARC-XX-XX-DR-YE-0006
Revision: P01

50mm on Original

Print Date: 08-07-19 13:46:49

C:\Sharepoint\ARCADIS\10019763 Bailrigg - Lancaster SA Services - E-Our-Drawings\01 Lancaster Allocation Update July 2017\03 - MXDs\10019763-ARC-XX-XX-DR-YE-0006 - Allocation Sites Screened Out.mxd



NOTES:

Legend

- Allocation Sites
- Lancaster

Rev	Date	Description	Drawn	Check	Approv
01	07/08/19	First draft	RM	LT	DH

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN
PART ONE: HRA

Site: Lancaster

Client: Lancaster City Council, Town Hall, Dalton Square, Lancaster, LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB

Coordinating office: 5TH Floor, 401 Faraday Street, Warrington, WA3 6GA

www.arcadis.com

TITLE:

Figure 6
Allocation Sites Screened Out
Page 8 of 9

Designed	X.XXXXX	Date	Signed
Drawn	R.MILLMAN	Date 07AUG19	Signed
Checked	L.TURLEY	Date 07AUG19	Signed
Approved	D.HOURD	Date 07AUG19	Signed
Scale:	1:20,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

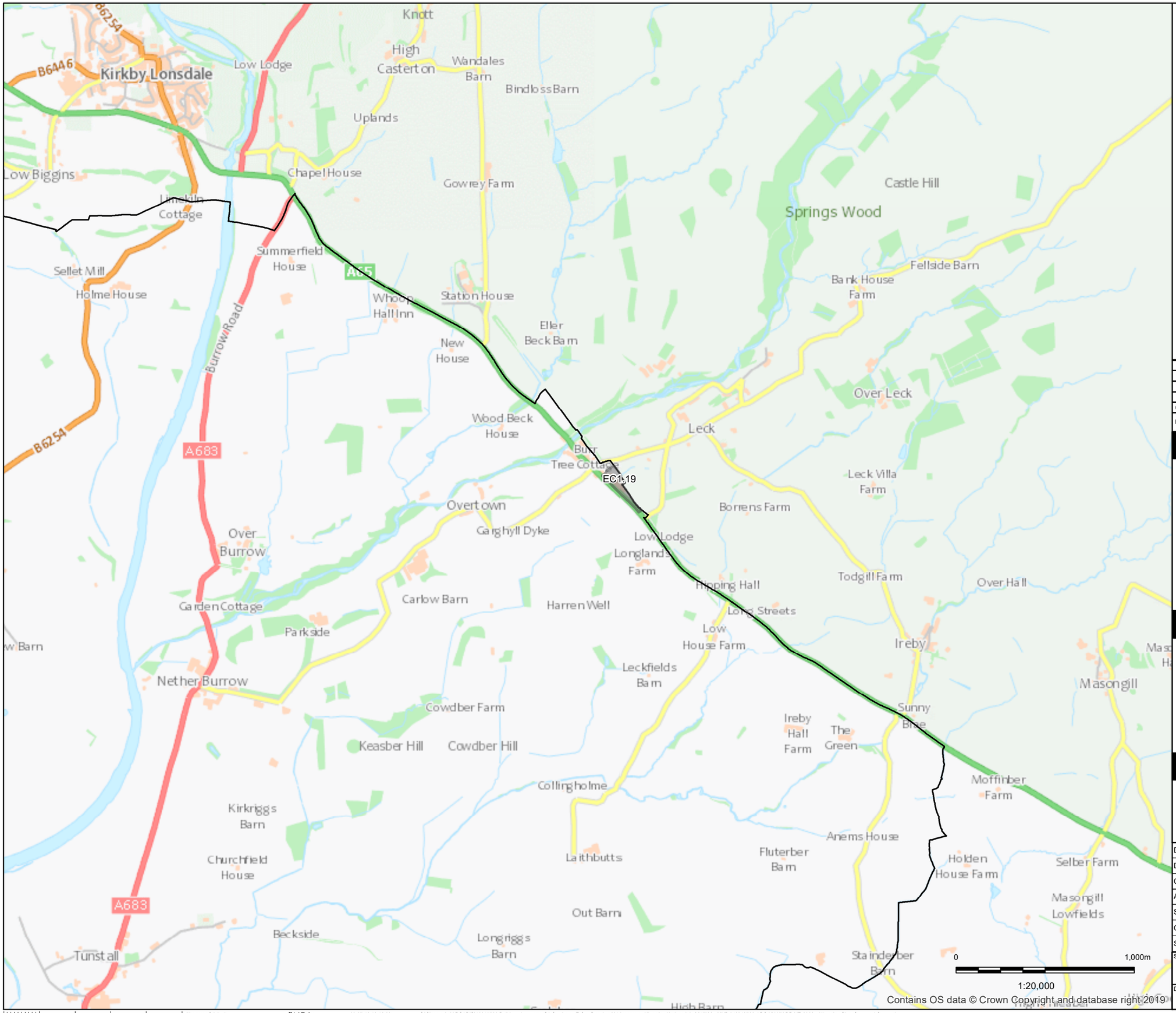
Suitability Description: Issued for Information

Drawing Number: 10019763-ARC-XX-XX-DR-YE-0006 | Revision: P01

50mm on Original

Print Date: 08-07-19 13:46:54

C:\Sharepoint\ARCADIS\10019763 Bailrigg - Lancaster SA Services - E-Our-Drawings\01 Lancaster Allocation Update July 2017\03 - MXDs\10019763-ARC-XX-XX-DR-YE-0006 - Allocation Sites Screened Out.mxd



NOTES:

Legend

- Allocation Sites
- Lancaster

Rev	Date	Description	Drawn	Check	Approv
01	07/08/19	First draft	RM	LT	DH

Client: LANCASTER CITY COUNCIL

PROJECT:
LOCAL PLAN PART ONE: HRA

Site: Lancaster

Client: Lancaster City Council, Town Hall, Dalton Square, Lancaster, LA1 1PJ

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis House, 34 York Way, London, N1 9AB

Coordinating office: 5TH Floor, 401 Faraday Street, Warrington, WA3 6GA

www.arcadis.com

TITLE:

Figure 6
Allocation Sites Screened Out
Page 9 of 9

Designed	X.XXXXX	Date	Signed
Drawn	R.MILLMAN	Date 07AUG19	Signed
Checked	L.TURLEY	Date 07AUG19	Signed
Approved	D.HOURD	Date 07AUG19	Signed
Scale:	1:20,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	10019763

Suitability Description: Issued for Information

Drawing Number: 10019763-ARC-XX-XX-DR-YE-0006 | Revision: P01

50mm on Original

Print Date: 08-07-19 13:46:59

C:\Sharepoint\ARCADIS\10019763 Bailrigg - Lancaster SA Services - E-Our-Drawings\01 Lancaster Allocation Update July 2017\03 - MXDs\10019763-ARC-XX-XX-DR-YE-0006 - Allocation Sites Screened Out.mxd

Appendix C

Information from NE - Buffer distances in relation to European sites

Bird Group	Birds	Extent of Functional Habitat from site	Note
Birds 1	All breeding bird assemblages (excluding ground- nesting heathland species, stone-curlew, marsh harrier & nightjar)	**500m**	Breeding SSSI birds of prey (peregrine, merlin, hen harrier & honey buzzard) can also forage up to 4km. It is not thought likely, however, that these species would make significant use of farmland habitat beyond semi-natural areas encompassed by protected site boundaries.
Birds 2	All wintering birds (except wintering waders and grazing wildfowl; wigeon and geese)1,2	**500m**	Home ranges of dabbling ducks such as teal, mallard and gadwall could extend beyond site boundaries at coastal sites, but less likely to do so at inland water bodies. Where functional habitat of dabbling ducks does extend beyond site boundaries then this is likely to be accommodated by presence of wigeon, geese or waders. Wintering marsh harrier and hen harrier can forage 10s of km and are likely to make significant use of farmland habitat beyond semi-natural areas encompassed by site boundaries. Owing to extensive presence of farmland within 10s of km and low densities of birds, the standard distance of 500m relating to all wintering birds is deemed acceptable.
Birds 3	Wintering waders (except golden plover and lapwing), brent goose & wigeon1,3 marsh harrier[4,5]	**2km**	Breeding marsh harrier can also forage up to 4km and are likely to make significant use of farmland habitat beyond semi-natural areas encompassed by site boundaries. Owing to extensive presence of farmland and low densities of birds, a reduced distance of 2km is deemed acceptable.
Birds 4	Ground nesting heathland species, breeding nightjar & stone curlew	**2km**	Many sites (e.g. TBH/ Dorset Heaths) have issues of recreational disturbance. Buffers need to take into account travel to sites from proposed residential developments. Nightjar - up to 4km foraging distance for nightjars but unlikely to be >2km beyond site boundary. Likely to need site specific assessment as depending on adjacent land use there may be extensive or no functional habitat beyond the site boundary e.g. discrete heathland SSSI amongst grassland and woodland in comparison to discrete heathland site surrounded by development
Birds 5	Wintering lapwing and golden plover	**15-20km**	Golden plover can forage up to 15km from a roost site within a protected site. Lapwing can also forage similar distances. Both species use lowland farmland in winter, so difficult to distinguish between European populations and those present within the wider environment unconnected to a European site. Reduced sensitivity beyond 10km
Birds 6	Wintering white-fronted goose, greylag goose, Bewick's swan, whooper swan & wintering bean goose.	**10km**	No information
Birds 7	Wintering pink-footed goose, barnacle goose	**15-20km**	No information

Arcadis Consulting (UK) Limited

Arcadis Cymru House,
St. Mellons Business Park,
Fortran Road,
Cardiff,
CF3 0EY ~~The Mill~~
~~Brimscombe Port~~
~~Stroud~~
~~GL5 2QG~~
~~United Kingdom~~
~~T: +44 (0)1453 423 100~~

arcadis.com