



www.osecology.co.uk

Ecological Impact Assessment

Whitby Maritime Hub

February 2024

Willmott Dixon



Client	Willmott Dixon
Project Name	Whitby Maritime Hub
Project Number	23083
Report Type	Ecological Impact Assessment
Version	V1

	Name	Position	Date
Report Originator	James Streets	Director	December 2023
Reviewed	Becky White	Principal Ecologist	December 2023
Amended	James Streets	Director	February 2024

This report is issued to the Client for the purpose stated in the Agreement between the Client and OS Ecology Ltd, under which this work was undertaken. The report may only be used for this aforementioned purpose and copyright remains with OS Ecology Ltd. The report is only intended for the Client and must not be relied upon or reproduced by anyone other than the Client without the express written agreement of OS Ecology Ltd. The use of this report by unauthorised persons is at their own risk. OS Ecology Ltd accepts no duty of care to any such party.

OS Ecology Ltd has exercised due care and attention in the preparation of this report. Unless specifically stated, there has been no independent verification of information provided by others. No other warranty, express or implied, is made in relation to the content of this report and OS Ecology Ltd accepts no liability for any loss or damage resulting from errors, omissions or misrepresentations of others.

The findings of the report and subsequent assessment and opinions of OS Ecology Ltd are based entirely on the facts and circumstances at the time the work was undertaken. OS Ecology Ltd have produced this report in line with best practice guidance and following the principles and requirements of British Standard BS42020. The report has been provided taking due regard of the provisions of the CIEEM Code of Professional Conduct. It must be noted that the none of the information provided within this report constitutes legal opinion.

Where required to do so by law or regulatory authority, OS Ecology Ltd may disclose any information obtained from the Client to a third party. Should OS Ecology Ltd become aware that the Client has breached or is likely to breach legislation relating to wildlife or the environment, OS Ecology Ltd will be entitled to disclose such information to the relevant authority, including the relevant governmental body or the police.

Contents

Summary	5
1. Introduction.....	7
Site Location.....	7
Site Description	7
Objectives of the Study	7
Development Proposals.....	7
2. Methodology	8
Scope of Study.....	8
Planning Policy	8
Desk Study	8
Field Survey.....	9
Habitats/Protected Species.....	9
Limitations to Survey.....	10
Assessment Methodology.....	10
3. Results	11
Desk Study	11
General Land Use.....	11
Designated Sites.....	11
Priority Habitats.....	11
Ancient Woodland.....	12
European Protected Species Licensing.....	12
Data Search.....	12
Local Records Centre.....	12
Field Survey.....	14
Habitats	14
Protected Species	18
4. Site Assessment	20
Assessment of Survey Findings	20
Habitats	20
Bats	20
Birds.....	20
Otter	20
Other Protected Species.....	20
5. Impact Assessment.....	22
Designated Sites.....	22
6. Mitigation and Compensation Measures.....	23
Further Survey.....	23
Avoidance Measures.....	23
Mitigation Strategy	23
Compensation Scheme.....	23
Appendix 1 – Bat Suitability and Survey Effort.....	24
Appendix 2 – Policy and Legislation	26
Appendix 3 – UK Habitat Classification	35

Appendix 4 - Receptor Valuation 38
Appendix 5 – Figures 40

Tables

Table 2.1: Survey Conditions..... 10
Table 3.1: Designated Sites Within 2km..... 11
Table 3.2: Records from LRC Data Search..... 12
Table 3.3: LWS Data from LRC Data Search..... 13
Table 3.4: Habitat Descriptions 14
Table 3.5: Bat Risk Assessment Results 15
Table 3.6: Bird Species Recorded During Survey 18

Summary

OS Ecology Ltd were commissioned by Willmott Dixon in 2023 to undertake an Ecological Impact Assessment of land to the centre of Whitby, North Yorkshire. The site is proposed for the development of a Maritime Hub.

Summary Table	
Habitat Assessment	<p>The site is dominated by an area of carparking which comprises a sealed surface. There are a small number of lighting columns within the site as well as a small substation, a small storage building and the tourist information centre.</p> <p>The development area is adjacent to the River Esk to the east with the western and northern boundaries formed by quay walls. Overall the habitat value of the site is considered to be of low ecological value.</p>
Bats	<p>The majority of the site is considered to be of negligible value to bats comprising an area of developed land. The buildings on site which are to be impacted by the proposals are considered to have a negligible to low suitability for roosting bats.</p> <p>The tourist information centre to the south of the site is considered to have a low suitability for roosting bats with a small number of potential roosting opportunities recorded, however the location of the structure adjacent to the centre of Whitby as well as the estuarine area of the River Esk reduces its suitability. The stores within the site which are due to be demolished as part of the works are considered to be of low suitability due to the gaps at the ridge of the roof creating potential opportunities for individual bats.</p>
Birds	<p>Small numbers of Herring Gulls and Black-headed Gulls were recorded on site and around the local area however there are no suitable nesting areas for these species. Due to the lack of vegetation on site, the value of the site to birds is considered to be low.</p>
Otter	<p>No evidence of otter was recorded on site, however the species is known to use the River Esk and the adjacent habitats are likely to be used at times by the species. The quay walls are not considered to have significant potential for use by the species due to the lack of undisturbed opportunities for resting up, however otter may commute along these walls at times. Overall the value of the site to the species is considered to be low.</p>
Other Protected Species	<p>No other protected or notable species were recorded on site. Due to the lack of vegetation, the habitats on site and its urban location, the risk of other such species being present within the site boundary is considered to be low.</p> <p>Migratory and resident fish use the River Esk and include European eel, Atlantic salmon, and brown/sea trout as well as marine species including plaice, smelt, whiting, herring and Atlantic cod. The importance of the River Esk to these species is considered to be of regional significance.</p>
Designated Sites	<p>The only Site of Special Scientific Interest (SSSI) within 2km of the site is designated for geological reasons and not considered likely to be impacted by the development.</p>
Further Survey	<p>Based on the nature of the site the building on site be demolished as part of the scheme, will be subject to additional bat surveys will be undertaken in 2024 during the</p>

	determination of the building in order to confirm the potential presence/absence of roosts.
Impact Assessment	<ul style="list-style-type: none"> • The loss of habitats of low ecological value comprising built structures • Causing harm to bats should they be present within the structures on site during demolition works. • Causing the loss of potential roosting sites from the demolition of buildings on site should these structures support roosting bats. • Causing damage to the adjacent River Esk through pollution, including siltation. • Causing disturbance to adjacent habitats within the River Esk through an increase in noise and lighting during both construction and operation of the development. • Causing disturbance to migratory fish should vibration and noise be created at sufficiently high levels during migratory periods. • Causing harm and/or disturbance to otter should they be present within or adjacent to the site during works. • Causing harm to nesting birds should they be present at the time of works, although the risk of their presence is considered to be low due to the nature of the habitats on site.
Mitigation and Compensation	<ul style="list-style-type: none"> • External lighting that may affect the site's suitability for bats will be avoided. If required this will be limited to low level, avoiding use of high intensity security lighting. • Works will not be undertaken during the nesting bird season (March to August inclusive) unless the site is checked by an appropriately experienced ecologist and nests are confirmed to be absent. • Any excavations left open overnight will have a means of escape for mammals that may become trapped in the form of a ramp at least 300mm in width and angled no greater than 45°. • Works will take place more than 30m from the river corridor and as such impacts on migratory fish are considered to be limited. • All works on site will take place under an Ecological Construction Environmental Management Plan (ECEMP) in order to protect the River Esk from construction impacts. • Where possible, any landscape planting will include native species. • Integrated bat and bird boxes will be provided within the scheme.

1. Introduction

Site Location

1.1 The site is located in the centre of Whitby, North Yorkshire adjacent to the River Esk at an approximate central grid reference of NA899108. The site location is illustrated within figure 1 in the appendices.

Site Description

1.2 The site is approximately 0.93ha in size and comprises a carpark and a small number of associated buildings.

Objectives of the Study

1.3 The objectives of this report are:

- To identify and describe any potential ecological receptors that may be present on site or within an identified zone of influence.
- To identify and assess whether proposals may impact on the identified receptors.
- To identify potential mitigation, compensation or enhancement measures if required.
- To identify and detail further surveys if required.

Development Proposals

1.4 The development will comprise the construction of a new maritime hub on the site.

2. Methodology

Scope of Study

- 2.1 The site was surveyed to identify whether the following were present for legislative and planning purposes:
- Habitats of Conservation Value
 - Priority Habitats
 - Protected and Priority Species
- 2.2 A summary of relevant legislation is provided within Appendix 2.
- 2.3 The ecological characteristics of the site were reviewed to identify the scope of the assessment, with the zone of influence determined through professional judgement.
- 2.4 The survey area comprised the "site" defined within figure 2 (Appendix 4). The desktop study included a data search covering the site and a 2km buffer zone while habitats within the local area were reviewed via aerial imagery.
- 2.5 Access permitting, all potential bat roosting sites within the survey area were assessed. Guidance regarding the assessment of the suitability of sites for use by bats is provided within Appendix 1.

Planning Policy

- 2.6 Planning policy relevant to this site, specifically the National Planning Policy Framework and the Scarborough Local Plan, can be found within Appendix 2.

Desk Study

- 2.7 Desk study was undertaken to assess the nature of the surrounding habitats and included:
- Assessment of aerial imagery and Ordnance Survey mapping.
 - A search of the MAGIC website¹ for statutorily designated sites for nature conservation, habitat listed within the Priority Habitat Inventory or the Ancient Woodland Inventory and European protected species licensing records within 2km of the survey area.
 - A data search request submitted to the Local Record Centre.

¹ Multi Agency Geographic Information for the Countryside (www.magic.gov.uk)

Field Survey

Habitats/Protected Species

- 2.8 The site was subject to a walk over, during which habitats were assessed in line with the habitat classifications detailed within the UK Habitat Classification User Manual². Definitions of broad habitat types and commonly recorded habitat types are provided within the appendices.
- 2.9 Mandatory Secondary Codes within the UK Habitat Classification have been used as defined within the User Manual.
- 2.10 During the survey the site was checked for evidence of protected species and habitats were assessed for their potential to support such species.
- 2.11 As per the Guidelines provided by the Bat Conservation Trust³, an initial assessment of the suitability of any trees on site for use by roosting bats was undertaken with tree suitability categorised as follows.

Suitability	Description
NONE	Either no PRFs in the tree or highly unlikely to be any
FAR	Further assessment required to establish if PRFs are present in the tree
PRF	A tree with at least one PRF present

- 2.12 The potential suitability of any structures within the site for use by roosting bats was also assessed as per the Bat Conservation Trust Guidelines as was the suitability of habitats as potential flight-paths or foraging habitat. Suitability was categorised as 'none', 'negligible', 'low', 'moderate' or 'high' as per Table 4.1 of the guidelines, reproduced within the appendices of this report.
- 2.13 Survey was undertaken by James Streets CEcol MCIEEM, an experienced surveyor who holds protected species licences for a range of species including bats and great crested newts.
- 2.14 The following equipment was utilised during survey:
- 8x30 binoculars.
 - Digital camera.
- 2.15 The survey was undertaken on the 31st October 2023 in the following weather conditions:

² UKHab Ltd (2023) UK Habitat Classification Version 2.0 (at <http://www.ukhab.org>)

³ Collins, J. (ed) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition) The Bat Conservation Trust, London

Table 2.1: Survey Conditions				
Date	Temperature	Cloud Cover	Precipitation	Wind Conditions
31 st October 2023	14°C	100%	Light Rain	0-1

Limitations to Survey

2.16 Survey was undertaken outside the core botanical survey period (April to September) however given the nature of the habitats on site this is not considered to be a significant limitation.

Assessment Methodology

2.17 Guidance from the Chartered Institute of Ecology and Environmental Management (CIEEM) is utilised to provide habitat valuations.

2.18 The level of value of specific ecological receptors is assigned using a geographic frame of reference. For, example international value being most important (SACs, SPAs and pSPAs), then national (SSSIs), regional, county (LWS), district (LNR), local and lastly, within the immediate zone of influence of the site only (low).

2.19 In terms of species, for example breeding birds, should the population within the site constitute greater than 1% of the geographic population, it would be considered significant at that level. In addition, presence of designated sites, scarce species and or quality⁴/diversity of habitats are used to guide that valuation

2.20 Assessment methods for bats have been undertaken with reference to Wray et al. (2007)⁵, which correlates with the geographic frame of reference. Within which they define the relative rarity of each species based on the known distribution⁶ at the time and the value of the roost type, assuming that roosts such as feeding perches are of lower value that maternity roosts or sites that have a high level of fidelity.

2.21 Examples of ecological receptors at various levels of value are provided within Appendix 3.

⁴ Quality can be subjective and vary in different geographic areas. Reasoned professional judgement is therefore used to inform the assessment.

⁵ Wray et al (2007) Valuing Bats in Ecological Impact Assessment. In Practice. Based on a presentation at the Mammal Society – Specific Issues with Bats

⁶ It should be noted that there are regular changes to our understanding of distribution as further studies are undertaken.

3. Results

Desk Study

General Land Use

3.1 A review of aerial imagery and Ordnance Survey mapping highlighted that the general land use in the surrounding area is dominated by urban development to the west and east with the River Esk and North Sea to the north and further development immediately to the south of the site.

Designated Sites

3.2 A search of the Multi Agency Geographic Information for the Countryside Website⁷ indicated that the following designated sites for nature conservation lie within 2km of the site.

Table 3.1: Designated Sites Within 2km			
Designation	Site Name	Reason for Designation	Distance from Survey Area (Closest point)
Site of Special Scientific Interest	Whitby to Saltwick	An area of geological interest along the North Yorkshire coast with a range of fossils recorded within this area.	500m to the north east

SSSI Impact Risk Zone (IRZ)

3.3 The site lies within an identified SSSI Impact Risk Zone relating to designated sites in the wider area, however development of the nature proposed does not meet the identified impact risk triggers.

Priority Habitats

3.4 A search of the MAGIC website identified areas of habitat within 2km of the site identified within the Priority Habitat Inventory as the following habitat types:

- Deciduous woodland
- Lowland fens
- Mudflats
- Maritime cliffs and slopes

⁷ Multi Agency Geographic Information for the Countryside (MAGIC) www.magic.gov.uk (Accessed December 2023)

3.5 Of the identified areas of habitat, the closest is an area of mudflat along the River Esk which lies 100m to the east of the site.

Ancient Woodland

3.6 The MAGIC website identified the no areas of woodland listed within the Ancient Woodland Inventory lie within 2km of the site.

European Protected Species Licensing

3.7 The MAGIC website identified no granted Natural England European Protected Species licences within 2km of the site⁸.

Data Search

Local Records Centre

3.8 The following table summarises the data search results from North and East Yorkshire Ecological Data Centre. Records were provided for all protected and notable species within 2km of the site, of which key species are listed. The full data search can be provided on request.

Taxon	Species	No. of Records within Search Area	Records of Particular Note
Amphibians	Common Frog	1	-
	Great Crested Newt	4	The most recent record is from 2020 and 600m to the east of the site. The nearest record is more than 500m to the east.
	Midwife Toad	1	-
	Palmate Newt	1	-
	Smooth Newt	2	-
	Eurasian Otter	12	The most recent record is from 2004 but there are records from the harbour in Whitby
	European Water Vole	4	All of the records are located more than 1km from the site on a tributary.
Bats	Brown Long-eared Bat	1	-
	Common Pipistrelle	13	-
	Daubenton's Bat	4	-
	Myotis Bat species	2	-
	Noctule Bat	6	-
	Pipistrelle Bat species	1	-

⁸ The dataset is noted as having been last updated in January 2022.

Table 3.2: Records from LRC Data Search			
Taxon	Species	No. of Records within Search Area	Records of Particular Note
	Soprano Pipistrelle	5	-
Butterflies	White-letter Hairstreak	1	-
Birds	Blue Tit	1	-
	Buzzard	1	-
	Duncock	1	-
	Goldfinch	1	-
	Grey Heron	1	-
	House Martin	1	-
	House Sparrow	1	-
	Swallow	1	-
	Swift	13	-
	Wren	1	-
Reptiles	Slow-worm	2	More than 1km to the north west of the site
Fish	Atlantic Cod	2	-
	Atlantic Salmon	28	-
	Brown/Sea Trout	12	-
	European Eel	5	-
	Herring	4	-
	Plaice	3	-
	Smelt	1	-
	River Lamprey	1	-
	Whiting	2	-
Marine Mammal	Harbour Seal	1	-
	Minke Whale	1	-
	White Whale	1	-

3.9 The records centre also provided information regarding the following Local Wildlife Sites (LWS) which lie within 2km of the site. A map is provided in the appendices.

Table 3.3: LWS Data from LRC Data Search			
Site Name	Site Ref.	Grid Reference	Status
Cock Mill and Larpool Wood – Stainsacre Beck	NZ90-01	NZ901088	SINC
Khyber Pass	NZ81-06	NZ897114	SINC
Larpool and Whitehall Woods, Esk Valley	NZ91-02	NZ899098	SINC
River Esk	NZ80-04	NZ899097	SINC
Spital Vale. Whitby	NZ91-01	NZ904102	SINC
The Bats, Whitby	NZ80-02	NZ891097	SINC
Uppang Beck	NZ81-02	NZ880116	SINC
Whitehall Wood	NZ91-03	NZ899100	Deleted SINC

Field Survey

Habitats



Table 3.4: Habitat Descriptions	
Overview of habitats	
<p>The site comprises an active carpark and area of quay wall to the north and east of the site which is used by fishing and other vessels. There are three buildings within the survey area as well as lighting columns.</p> <p>The habitats within the site are illustrated within Figure 3.</p>	
Habitat Description	
<p>Sealed Surface</p> <p>The main area of the site comprises a car park which is in active use and as such is regularly disturbed. The site is bound to the north and east by a quay wall which along the eastern boundary is active use with equipment stored at the top of the quay wall. A small number of plant species were identified within and around crevices at the edges of the carpark. These are detailed below.</p>	<p><u>UK Habs Code</u></p> <p>u1b – Developed Land; Sealed Surface 804 Car Park</p>
<p>Species List</p> <p>Ragwort (<i>Senecio jacobaea</i>) Broadleaved willowherb (<i>Epilobium montanum</i>) Dandelion (<i>Taraxacum officinale</i> agg.) Daisy (<i>Bellis perennis</i>) Meadow grass (<i>Poa</i> sp.)</p>	
Schedule 9/Undesirable species present (Y/N): No	Further Survey Needed (Y/N): No
	

Table 3.5: Bat Risk Assessment Results	
Building 1: Substation	Suitability: Negligible
<i>Building Description and Summary of Potential Roost Features</i>	
There is a small building to the north of the site within a central location. It is assumed to be a substation.	
Building Type	Substation
No. of Storeys	1
Roof Type	Flat
Roof Material	Felt covered
Roof Condition	No obvious crevices
Other Roof Features	There are no other roof features
Fascias	There are fascia boards at the wall tops, however these appear well sealed
Wall - Material and Condition	The walls are of breeze block construction and well-sealed with no potential roosting features recorded.
Lintels and Sills – Material and Condition	The lintel is timber and well sealed with the surrounding blockwork
Windows – Material and Condition	There are no windows
Doors – Material and Condition	The door is timber and well-sealed with the surrounding blockwork.
Other Wall Features	There are no other wall features
Field Signs	No field signs were recorded.
<i>Maternity Roost Assessment</i>	
Due to the lack of suitable roosting opportunities, the suitability of the building to support a maternity roost is considered to be negligible.	
<i>Hibernation Assessment</i>	
Due to the lack of suitable roosting opportunities, the suitability of the building to support a hibernation roost is considered to be negligible.	
Building 2: Stores	Suitability: Low
<i>Building Description and Summary of Potential Roost Features</i>	
There is a small building to the west of the site within a central location. It is used as a workshop and stores.	
Building Type	Workshop and stores
No. of Storeys	1
Roof Type	Pitched
Roof Material	Corrugated sheet material
Ridge Tiles	Well-sealed with the corrugated material on the roof, with only small gaps under these features but considered to be shallow
Coping tiles	No obvious gaps recorded



Gable ends	The gable ends are similarly comprised of corrugated material and well sealed.
Roof Condition	No obvious crevices
Other Roof Features	There are no other roof features
Fascias	There are fascia boards at the wall tops, however these appear well sealed
Wall - Material and Condition	The walls are of brick to around 2m and then sheet material to the roof. The walls are well-sealed with no potential roosting features recorded.
Lintels and Sills – Material and Condition	The lintels are not visible but there are no gaps associated with this area of the building
Windows – Material and Condition	There are no windows
Doors – Material and Condition	The door is timber and well-sealed with the surrounding brickwork.
Other Wall Features	There are no other wall features
Internal	Internal access was not possible
Field Signs	No field signs were recorded.



Maternity Roost Assessment

Due to the lack of suitable roosting opportunities other than at the ridge of the roof, the suitability of the building to support a maternity roost is considered to be low.

Hibernation Assessment

Due to the lack of suitable roosting opportunities other than at the ridge of the roof, the suitability of the building to support a maternity roost is considered to be low.

Building 3: Tourist Information Centre **Suitability: Low**

Building Description and Summary of Potential Roost Features

There is a building to the south of the site and is to be retained as part of the proposals. It is currently used as a Tourist Information Centre as well as the Harbour Master's office.

Building Type	Tourist Information Centre as well as the Harbour Master's office.
No. of Storeys	2
Roof Type	Pitched
Roof Material	Tiles
Ridge Tiles	Well-sealed with the tiles along the roof with no obvious gaps recorded.
Coping Stones	No obvious gaps recorded at the gable ends where coping stones are present
Gable ends	No obvious gaps recorded at the gable ends
Roof Condition	A small number of gaps are present
Other Roof Features	There are no other roof features



Fascias	There are fascia boards at the wall tops in places however these appear well sealed.
Wall - Material and Condition	The walls are of brick with stone sections at the gable ends. The section of the building to the north is rendered. The walls are well-sealed with no potential roosting features recorded.
Lintels and Sills – Material and Condition	The lintels and sills are brick and well sealed.
Windows – Material and Condition	The windows are well sealed.
Doors – Material and Condition	The doors are well-sealed with the surrounding brickwork.
Other Wall Features	There are no other wall features
Internal	Internal access was not possible
Field Signs	No field signs were recorded.
<i>Maternity Roost Assessment</i>	
Due to the lack of suitable roosting opportunities other around the roof, the suitability of the building to support a maternity roost is considered to be low.	
<i>Hibernation Assessment</i>	
Due to the lack of suitable roosting opportunities other than around the roof, the suitability of the building to support a maternity roost is considered to be low.	

Protected Species

Bats

- 3.10 Buildings within the site were assessed as per the guidelines provided by the Bat Conservation Trust⁹. There are two buildings within the site which have been identified as having at least one potential roost feature present. If these buildings are to be impacted by the works then it is recommended that a dusk activity survey is completed in order to confirm the absence of bats from these structures. The structures are the workshops and the Tourist Information Centre. The substation has been identified as having no suitability for use by roosting bats.
- 3.11 The habitats within the site are considered to be of negligible value to bats, however the adjacent River Esk may provide some connectivity and foraging habitat further upstream from the site.

Birds

- 3.12 The site comprises an area of hardstanding and a small number of built structures. None are considered suitable for nesting gull species however being small and single storey or having sloping roofs. The lighting towers are not considered to provide suitable nesting opportunities and there are no other potential locations within the main body of the suitable for use by birds.
- 3.13 A total of two species were recorded during the survey, these are listed in the following table:

Species	Priority species ¹⁰	Comment
Herring Gull	Yes	Recorded in the wider area
Black headed Gull	No	Recorded in the wider area
Notes: 1. Red list species are of high conservation concern 2. Amber list species are of medium conservation concern ¹¹		

Great Crested Newts

- 3.14 There are no wetlands on site and the habitats present are of limited value for use by great crested newts being sealed, hard standing and built development. The adjacent

⁹ Collins, J. (ed) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition) The Bat Conservation Trust, London

¹⁰ National Priority Species are species of principal importance listed in Section 41 of the NERC Act (2006),

¹¹ Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D. and Win, I. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain.

River Esk and the town of Whitby are also likely to limit movement into the site due to the saline nature of the River and the built nature of the land use.

Otter

- 3.15 No evidence of otter was recorded on site with no suitable locations for resting sites recorded within or adjacent to the site along the Quay walls. The quay walls are constructed from sheet piles and as a result are well sealed providing limited opportunities for the species. The River Esk itself is however considered to provide an important dispersal and foraging resource with resting places likely to be present within the wider area.

Other protected or priority species

- 3.16 No other protected or notable species were recorded on site. Due to the lack of vegetation, the habitats on site and its urban location, the risk of other such species being present within the site boundary is considered to be low.
- 3.17 Migratory and resident fish may use the River Esk through the year with the river providing suitable marine and freshwater habitats with no obvious barriers to movement recorded.

4. Site Assessment

Assessment of Survey Findings

Habitats

- 4.1 Habitats on site are considered to be of low ecological value comprising built structures and a sealed carpark.
- 4.2 The River Esk which lies adjacent to the development is considered to be of regional value due to the habitats and connectivity it provides as well as the species it supports.

Bats

- 4.3 The majority of the site is considered to be of negligible value to bats comprising an area of developed land. The buildings on site which are to be impacted by the proposals are considered to have a negligible to low suitability for roosting bats.
- 4.4 The tourist information centre to the south of the site is considered to have a low suitability for roosting bats with a small number of potential roosting opportunities recorded, however the location of the structure adjacent to the centre of Whitby as well as the estuarine area of the River Esk reduces its suitability. The stores within the site which are due to be demolished as part of the works are considered to be of low suitability due to the gaps at the ridge of the roof creating potential opportunities for individual bats.

Birds

- 4.5 Small numbers of Herring Gulls and Black-headed Gulls were recorded on site and around the local area however there are no suitable nesting areas for these species. Due to the lack of vegetation on site, the value of the site to birds is considered to be low.

Otter

- 4.6 No evidence of otter was recorded on site, however the species is known to use the River Esk and the adjacent habitats are likely to be used at times by the species. The quay walls are not considered to have significant potential for use by the species due to the lack of undisturbed opportunities for resting up, however otter may commute along these walls at times. Overall the value of the site to the species is considered to be low.

Other Protected Species

- 4.7 No other protected or notable species were recorded on site. Due to the lack of vegetation, the habitats on site and its urban location, the risk of other such species being present within the site boundary is considered to be low.
- 4.8 Migratory and resident fish use the River Esk and include European eel, Atlantic salmon, and brown/sea trout as well as marine species including plaice, smelt, whiting, herring

and Atlantic cod. The importance of the River Esk to these species is considered to be of regional significance.

5. Impact Assessment

- 5.1 The following impact assessment is based on the survey work to date and the understanding that the Client wishes to redevelop the site with the construction of a Maritime Hub.
- 5.2 As a result of the assessment completed and the nature of the proposed works, the likely impacts, without appropriate avoidance measures, mitigation and/or compensation scheme, are anticipated to be:
- The loss of habitats of low ecological value comprising built structures
 - Causing harm to bats should they be present within the structures on site during demolition works.
 - Causing the loss of potential roosting sites from the demolition of buildings on site should these structures support roosting bats.
 - Causing damage to the adjacent River Esk through pollution, including siltation.
 - Causing disturbance to adjacent habitats within the River Esk through an increase in noise and lighting during both construction and operation of the development.
 - Causing disturbance to migratory fish should vibration and noise be created at sufficiently high levels during migratory periods.
 - Causing harm and/or disturbance to otter should they be present within or adjacent to the site during works.
 - Causing harm to nesting birds should they be present at the time of works, although the risk of their presence is considered to be low due to the nature of the habitats on site.

Designated Sites

- 5.3 The site is within the Impact Risk Zone for nearby Sites of Special Scientific Interest, however there is only a single SSSI within 2km of the site which is designated for geological reasons.
- 5.4 The site lies within an identified SSSI Impact Risk Zone relating to designated sites in the wider area, however development of the nature proposed does not meet the identified impact risk triggers.

6. Mitigation and Compensation Measures

Further Survey

6.1 The building on site which will be demolished as part of the scheme, will be subject to additional bat surveys to confirm the potential presence/absence of roosts from these buildings.

Avoidance Measures

6.2 The following measures should be incorporated into the design of the scheme to avoid impacts on wildlife:

- External lighting that may affect the site's suitability for bats will be avoided. If required this will be limited to low level, avoiding use of high intensity security lighting.
- Site clearance works will not be undertaken during the nesting bird season (March to August inclusive) unless the site is checked by an appropriately experienced ecologist and nests are confirmed to be absent.
- Any excavations left open overnight will have a means of escape for mammals that may become trapped in the form of a ramp at least 300mm in width and angled no greater than 45°.
- Works are due to take place more than 30m from the river banks and as such impacts on migratory fish are considered to be limited.

Mitigation Strategy

6.3 The following is recommended:

- All works on site will take place under an Ecological Construction Environmental Management Plan (ECEMP) in order to protect the River Esk from construction impacts.

Compensation Scheme

6.4 The following is recommended:

- Where possible, any landscape planting will include native species.
- Integrated bat and bird boxes will be provided within the scheme.

Appendix 1 – Bat Suitability and Survey Effort

Classifications of suitability of structures and habitats within the site are based on those provided within the Bat Conservation Trust Good Practice Survey Guidelines¹², as detailed within the extract below, Table 4.1 reproduced from page 44 of the guidelines.

Table 4.1. Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.

Potential suitability	Description	
	Roosting habitats in structures	Potential flight-paths and foraging habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible ^a	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions ^b and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats ^c).	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions ^b and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions ^b and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

a Negligible is defined as 'so small or unimportant as to be not worth considering, insignificant'. This category may be used where there are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute).

b For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.

c Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten *et al.*, 2016 and Jansen *et al.*, 2022). Common pipistrelle swarming has been observed in the UK (Bell, 2022 and Tomlinson, 2020) and winter hibernation of numbers of this species has been detected at Seaton Delaval Hall in Northumberland (National Trust, 2018). This phenomenon requires some research in the UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in prominent buildings in the landscape, urban or otherwise.

¹² Collins, J. (ed) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition) The Bat Conservation Trust, London

The classification of the suitability of structures and habitats relates to the level of further survey likely to be recommended. The following recommendations are extracted from the Bat Conservation Trust Guidelines¹³.

Recommended Survey Effort and Timing for Presence/Absence Surveys – To Give Confidence in a Negative Result for Structures (also recommended for trees where other methods such as aerial inspection of potential roost features is not possible, however unlikely to give confidence in a negative result due to dynamic nature of tree roosts) (Tables 7.1-7.2 in the BCT Guidelines)			
	Low roost suitability or PRF-I	Moderate roost suitability	High roost suitability or PRF-M
Survey Effort	One dusk emergence survey (structures). No further survey required (trees)	Two separate dusk emergence survey visits.	Three separate dusk emergence survey visits.
Timings	May-August (structures) No further survey required (trees)	May to September, with at least one survey between May and August. Multiple survey visits should be spaced at last three weeks apart, preferably more.	May to September with at least two surveys between May and August. Multiple survey visits should be spaced at least three weeks apart, preferably more.
If bats are recorded	If the presence of a bat roost(s) is established, the next stage of the process is to carry out roost characterisation surveys. Additional surveys may be required to obtain sufficient information regarding the nature of the roost to carry out an impact assessment and design an appropriate mitigation, enhancement and mitigation strategy.		
PRF-I – A potential roost feature within a tree suitable for use by individual bats or very small numbers of bats. PRF-M – A potential roost feature within a tree suitable for multiple bats that may therefore be used by a maternity colony.			

Minimum Recommended Number of Repeats for Activity Surveys (Habitats) (Tables 8.3 in the BCT Guidelines)			
Survey Type	Low suitability habitat for bats	Moderate suitability habitat for bats	High suitability habitat for bats
Night Time Bat Walkover Survey	One survey visit per season (spring-April/May, summer – June/July/August, autumn – September/October). Further surveys may be required if these visits or the results of static detector surveys, reveal activity of interest that requires more observation on site.		
Automated/Static Bat Detector Surveys	Data to be collected for a minimum of five consecutive nights per season in appropriate (or the best available) weather conditions for bats.	Data to be collected for a minimum of five consecutive nights per month (April to October) in appropriate (or the best available) weather conditions for bats.	
Note: Multiple survey visits should be separated by at least three weeks, preferably longer, to observe temporal changes in activity.			

¹³ Collins, J. (ed) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition) The Bat Conservation Trust, London

Appendix 2 – Policy and Legislation

Planning Policy

National Planning Policy Framework (NPPF)¹⁴

The revised National Planning Policy Framework sets out the government's planning policies for England and how these are expected to be applied. It provides a framework within which locally prepared plans for housing and other development can be produced. Planning law requires that applications for planning permission be determined in accordance with the development plan. The key paragraphs from the relating to the natural environment are detailed below.

Ecologically Relevant Paragraphs of the NPPF	
Paragraph	Statement
8	<p>Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives):</p> <p>a) an economic objective – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;</p> <p>b) a social objective – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and</p> <p>c) an environmental objective – to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy</p>
180	<p>Planning policies and decisions should contribute to and enhance the natural and local environment by:</p> <p>a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);</p> <p>b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;</p>

¹⁴ National Planning Policy Framework December 2023
https://assets.publishing.service.gov.uk/media/65829e99fc07f3000d8d4529/NPPF_December_2023.pdf

Ecologically Relevant Paragraphs of the NPPF	
Paragraph	Statement
	<p>c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;</p> <p>d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;</p> <p>e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and</p> <p>f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate</p>
181	Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.
185	<p>To protect and enhance biodiversity and geodiversity, plans should:</p> <p>a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and</p> <p>b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.</p>
186	<p>When determining planning applications, local planning authorities should apply the following principles:</p> <p>a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;</p> <p>b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;</p>

Ecologically Relevant Paragraphs of the NPPF	
Paragraph	Statement
	<p>c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and</p> <p>d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.</p>
187	<p>The following should be given the same protection as habitats sites:</p> <p>a) potential Special Protection Areas and possible Special Areas of Conservation;</p> <p>b) listed or proposed Ramsar sites; and</p> <p>c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.</p>
188	<p>The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.</p>

Local Planning Policy

The following table details the ecologically relevant policies of the local plan relevant to this site.

Ecologically Relevant Policies of the Scarborough Borough Local Plan¹⁵	
Policy No.	Policy
Policy ENV 5	<p>The Natural Environment Proposals should respond positively and seek opportunities for the enhancement of species, habitats or other assets thereby resulting in a net gain in biodiversity by</p> <p>a. ensuring that development does not result in an unacceptable impact on any locally, nationally or internationally designated sites unless the impact can be outweighed by a greater benefit as commensurate to the designation;</p> <p>b. considering whether any potential adverse impacts on species and habitats can be successfully mitigated;</p> <p>c. supporting the recovery of priority species and habitat creation as identified in the Scarborough Borough Biodiversity Action Plan (2005) or any subsequent update;</p> <p>d. increasing trees and woodland through ensuring new developments include appropriate tree planting whilst retaining and integrating healthy, mature trees and hedgerows and maintaining those which make an important contribution to the setting and character of an area; and</p> <p>e. ensuring that development does not result in deterioration in the Water Framework Directive ecological status of surface, ground or coastal waterbodies.</p>
8.50	<p>The Local Planning Authority will respond favourably to proposals that aim to conserve or enhance biodiversity as a primary objective and proposals that</p>

¹⁵ Scarborough Borough Local Plan, 2011/32

Ecologically Relevant Policies of the Scarborough Borough Local Plan¹⁵	
Policy No.	Policy
	incorporate biodiversity in and around developments, therefore, development proposals should demonstrate how they respond positively to those assets in the following paragraph and can result in a net gain to biodiversity
8.51	<p>The Local Plan area has a number of nationally, regionally and locally designated sites. The Local Plan affords commensurate protection to designated sites according to their importance and the contribution they make to the wider ecological network. Proposals will be considered in accordance with Circular 06/2005 where they may impact upon designated sites as this provides a context to the level of protection each designation has afforded to them and whether mitigation measures will be sufficient to allow development.</p> <p>a. Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) 122 Scarborough Borough Local Plan - 2011/32 8 Resources and the Environment The European Birds and Habitats Directive designates Special Protection Areas (for wild birds and their habitats) and Special Areas of Conservation (for other habitats of significant importance). Together, SPAs and SACs make up the network of sites that form Natura 2000. At present, there are both two SPAs and SACs partly within the Borough, however, the North York Moors is outside of the Local Plan area and the Flamborough Head and Bempton Cliffs SPA and SAC extends only a short distance within the Borough along the coastline north of Speeton. Furthermore, there may be additional sites that are considered for designation and, once identified, the same level of protection will be afforded to potential Special Protection Areas (pSPA's), possible Special Areas of Conservation (pSAC's), and listed or proposed Ramsar sites.</p> <p>b. Sites of Special Scientific Interest (SSSI) There is a number of designated Sites of Special Scientific Interest (SSSIs). These sites are nationally identified by Natural England and are statutorily protected under the Wildlife and Countryside Act 1981 for biological or geological importance. Proposals that may have an adverse effect on a SSSI either individually or cumulatively should only be permitted where the benefits of the development clearly outweigh the impact. Particular attention should be placed upon the site's notified special interest features.</p> <p>c. Local Geological Sites (LGS) and Sites of Importance for Nature Conservation (SINCs) Both Local Geological Sites and Sites of Importance for Nature Conservation are local designations that are non-statutorily protected. Local Geological Sites are selected by the North East Yorkshire Geology Trust for their educational, historical and aesthetic value in geological interest. Sites of Importance for Nature Conservation are identified for their importance in habitat and species protection. Proposals should demonstrate how development may impact on a designated site including the specific features that may be of particular importance to the designation.</p> <p>d. Biodiversity Action Plan and species and habitat protection The UK Biodiversity Action Plan and Scarborough Borough Biodiversity Action Plan set out priority habitats and species by implementing Habitat Action Plans and development proposals should seek to contribute towards achieving its targets. It is also important to protect and enhance habitats and species that have no national or international protection and proposals should demonstrate how they may impact upon such</p>

Ecologically Relevant Policies of the Scarborough Borough Local Plan¹⁵	
Policy No.	Policy
	<p>species and mitigation measures. The Scarborough Borough Biodiversity Action Plan and future updates should be taken into account when considering how development may provide opportunities for habitat enhancement. The Borough Council will support the Biodiversity Action Plan in its attempts to form newly-created habitats such as those created by the Cayton Flixton Carrs Wetland Project. This project has been a success having brought together support from a wide range of organisations and has gone a long way in achieving targets set in the Biodiversity Action Plan.</p> <p>e. Woodland Habitats including Ancient Woodlands Scarborough Borough Local Plan - 2011/32 123 Resources and the Environment 8 The importance of protecting ancient woodlands and the role woodlands can play in the restoration and creation of natural habitats and their networks is recognised. Development proposals should recognise not only the importance of protecting species-rich trees or hedgerows but the value of incorporating them in design and consider how new planting can interact with existing habitats. The loss of irreplaceable habitats, including ancient woodland or aged or veteran trees found outside ancient woodland, will only be permitted where the benefits of development in that location can clearly be demonstrated to outweigh the loss.</p>
8.52	Where necessary, proposals will be required to demonstrate that developments are in compliance with Water Framework Directive objectives, particularly for developments which result in physical modifications to water bodies or which pose a substantial pollution risk.
8.53	The Borough Council will continue to work closely with Biodiversity groups to ensure these sites receive appropriate protection or enhancement. This includes the North Yorkshire and York Local Nature Partnership (LNP) and emerging LNP strategy with specific reference to the two LNP priority areas within the Borough; The Vale of Pickering, and the North York Moors & Coast. In addition, the Borough Council will continue to work with its neighbouring authorities where the impacts of proposals may cause an issue on a cross-boundary basis. This includes any impact on strategic habitat connections that extend into the Local Plan area from the North York Moors National Park that could adversely affect biodiversity. These connections are identified in the North York Moors National Park Management Plan and any relevant proposals should be considered against Paragraph 115 of the NPPF

Government Circular ODPM 06/2005 Biodiversity and Geological Conservation¹⁶ (England only)

This Circular provides administrative guidance on the application of the law relating to planning and nature conservation as it applies in England.

Part IV - Conservation of Species protected by Law details that the presence of a protected species is a material consideration when considering a development proposal that may result in harm to the species or its habitat and that planning authorities must have regard to species protected under the Habitat Regulations.

It goes on to say that: *it is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision. The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances, with the result that the surveys are carried out after planning permission has been granted.*

Natural Environment and Rural Communities (NERC) Act 2006^{17 18}

Section 40 – To conserve biodiversity

This section puts a duty on public authorities to conserve biodiversity when undertaking its duties and functions.

Section 41 – Biodiversity list and Action

Requires the Secretary of State to *publish a list of the living organisms and types of habitat which in the Secretary of State's opinion are of principal importance for the purpose of conserving biodiversity. They must also take such steps as appear to the Secretary of State to be reasonably practicable to further the conservation of the living organisms and types of habitat included in any list published under this section or promote the taking by others of such steps.*

The 2007 lists were superseded by the UK Post-2010 Biodiversity Framework.

UK Priority Habitats (excl. marine habitats)¹⁹	
UK BAP Broad Habitat	UK BAP Priority Habitat
Rivers and Streams	<ul style="list-style-type: none"> • Rivers
Standing Open Waters and Canals	<ul style="list-style-type: none"> • Oligotrophic and Dystrophic Lakes • Eutrophic Standing Waters • Ponds • Aquifer Fed Naturally Fluctuating Water Bodies • Mesotrophic Lakes
Arable and Horticultural	<ul style="list-style-type: none"> • Arable Field Margins

¹⁶ODPM Circular 06/2005 Office of the Deputy Prime Minister Eland House, Bressenden Place, London SW1E 5DU
Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System

¹⁷ <https://www.legislation.gov.uk/ukpga/2006/16/section/40>

¹⁸ <https://www.legislation.gov.uk/ukpga/2006/16/section/41>

¹⁹ <http://jncc.defra.gov.uk/page-5706>

UK Priority Habitats (excl. marine habitats)¹⁹	
UK BAP Broad Habitat	UK BAP Priority Habitat
Boundary and Linear Features	<ul style="list-style-type: none"> • Hedgerows
Broadleaved, Mixed and Yew Woodland	<ul style="list-style-type: none"> • Traditional Orchards • Upland Mixed Ashwoods • Wood-Pasture and Parkland • Wet Woodland • Upland Oakwood • Lowland Mixed Deciduous Woodland • Lowland Beech and Yew Woodland • Upland Birchwoods
Coniferous Woodland	<ul style="list-style-type: none"> • Native Pine Woodlands
Acid Grassland	<ul style="list-style-type: none"> • Lowland Dry Acid Grassland
Calcareous Grassland	<ul style="list-style-type: none"> • Lowland Calcareous Grassland • Upland Calcareous Grassland
Neutral Grassland	<ul style="list-style-type: none"> • Lowland Meadows • Upland Hay Meadows
Improved Grassland	<ul style="list-style-type: none"> • Coastal and Floodplain Grazing Marsh
Dwarf Shrub Heath	<ul style="list-style-type: none"> • Lowland Heathland • Upland Heathland
Fen, Marsh and Swamp	<ul style="list-style-type: none"> • Upland Flushes, Fens and Swamps • Purple Moor Grass and Rush Pastures • Lowland Fens • Reedbeds
Bogs	<ul style="list-style-type: none"> • Lowland Raised Bog • Blanket Bog
Montane Habitats	<ul style="list-style-type: none"> • Mountain Heaths and Willow Scrub
Inland Rock	<ul style="list-style-type: none"> • Inland Rock Outcrop and Scree Habitats • Calaminarian Grasslands • Open Mosaic Habitats on Previously Developed Land • Limestone Pavements
Supralittoral Rock	<ul style="list-style-type: none"> • Maritime Cliff and Slopes
Supralittoral Sediment	<ul style="list-style-type: none"> • Coastal Vegetated Shingle • Machair • Coastal Sand Dunes

Protected Species Legislation

European Protected Species

European Protected Species (EPS) are species of plants and animals (other than birds) protected by law throughout the European Union. They are listed in Annexes II and IV of the European Habitats Directive and receive full protection under The Conservation of Species and Habitats Regulations 2017 (as amended). This make it an offence to:

- deliberately capture, injure or kill any European Protected Species (EPS)
- deliberately disturb any European Protected Species (EPS);
- damage or destroy a breeding site or place of rest or shelter used by any European Protected Species (EPS).

The Wildlife and Countryside Act 1981 (as amended) adds further protection by making it an offence to intentionally or recklessly²⁰ disturb an EPS while it is occupying a structure or place which it uses for shelter or protection, or to obstruct access to any structure or place the species uses for shelter or protection.

European Protected Species Relevant to the UK			
Animals		Plants	
All bat species	Great Crested Newt	Yellow marsh saxifrage	Creeping marshwort
Large blue butterfly	Otter	Shore dock	Slender naiad
Wild cat	Smooth snake	Killarney fern	Fen Orchid
Dolphins, porpoises and whales (all species)	Sturgeon fish	Early gentian	Floating-leaved water plantain
Dormouse	Natterjack toad	Lady's slipper	
Sand lizard	Pool Frog		
Fisher's Estuarine Moth	Snail, Lesser Whirlpool Ram's-horn		
Marine turtles			

Other Protected Species

Other Protected Species Legislation		
Species	Legislation	Level of Protection
Water vole	Wildlife and Countryside Act 1981 (as amended) Wild Mammals (Protection) Act 1996	The species is listed on Schedule 5 of the Wildlife and Countryside Act (1981) makes the following actions offences: <ul style="list-style-type: none"> intentionally killing, injuring, or taking water vole intentionally or recklessly damaging, destroying or obstructing access to any structure or place used for shelter or protection disturbing water vole whilst they are using any structure or place used for shelter or protection <p>Under the Wild Mammals (Protection) Act, water vole are protected from unnecessary suffering by a number of methods.</p>
Birds	Wildlife and Countryside Act 1981 (as amended)	Under the Wildlife and Countryside Act (1981) it is an offence if any person: <ul style="list-style-type: none"> intentionally kills, injures or takes any wild bird intentionally takes, damages or destroys the nest of any wild bird whilst that nest is in use of being built; intentionally takes, damages or destroys eggs of any wild bird; <p>Wild birds listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) are protected from:</p> <ul style="list-style-type: none"> intentional or reckless disturbance whilst it is building a nest or is in, on or near a nest containing eggs or young; disturbance of dependent young

²⁰ Under the Countryside and Rights of Way Act 2000 (CROW Act) extended the protection to cover reckless damage or disturbance

Other Protected Species Legislation		
Species	Legislation	Level of Protection
White-clawed Crayfish	Wildlife and Countryside Act 1981 (as amended)	<p>Under the Wildlife and Countryside Act (1981) it is an offence if any person:</p> <ul style="list-style-type: none"> intentionally takes a white-clawed crayfish sells, offers or exposes for sale, or has in his possession or transports for the purpose of sale, any live or dead white clawed crayfish or any part of, or anything derived from, such an animal
Freshwater Pearl Mussel	Wildlife and Countryside Act 1981 (as amended)	<p>The species is listed on Schedule 5 of the Wildlife and Countryside Act (1981) makes the following actions offences:</p> <ul style="list-style-type: none"> intentionally killing, injuring, or taking freshwater pearl mussels intentionally or recklessly damaging, destroying or obstructing access to any structure or place used for shelter or protection disturbing freshwater pearl mussels whilst they are using any structure or place used for shelter or protection

Appendix 3 – UK Habitat Classification

UK Habitat Classification Habitat Definitions (Broad Habitats) ²¹	
Broad Habitat	Definition
Grassland (g)	Total vegetation cover variable from 25-100% - not on waterlogged soils. Vegetation is >75% herbaceous (grasses, sedges, rushes, ferns and forbs) rather than woody, with halophytic species absent or occasional.
Woodland and Forest (w)	Land with <u>more than 25% cover of trees more than 5m in height</u> . Includes recently felled woodland (but not clear felled forestry plantations unless re-planted), coppice, coppice-with-standards, lines of trees (but not hedgerows), wet woodland and bog woodland.
Heathland and Shrub (h)	Vegetation with <u>more than 25% cover of dwarf shrub species <1.5metres high or woody species up to 5m high</u> . Includes hedgerows of any height. Excludes lines of trees and scattered scrub (secondary code (s.c.)10).
Wetland (f)	A vegetated habitat that is waterlogged or inundated. Excludes wet woodland (w1d), wet habitats where the water table is always within 40cm of the surface and the soil contains free water for most of the year and seasonally wet habitats, inundated for part of the year but becoming mesic in the summer.
Cropland (c)	Agricultural or horticultural land that has been cultivated or cropped within the current or previous year or left as fallow as part of an active arable rotation. Includes ploughed land, intensive orchards, short rotation coppice and Christmas tree and other tree nurseries.
Urban (u)	Constructed, industrial and other artificial habitats. Includes constructed, industrial and other artificial habitats in rural areas. Excludes other ecosystems within cities, towns and villages including grasslands, woodlands, heathlands, wetlands, rivers, lakes, sparsely vegetated land and urban common land.
Sparsely Vegetated Land (s)	Unvegetated, disturbed (regularly or drastically periodically) or sparsely vegetated habitats (permanently or periodically naturally unvegetated areas) inhabited by stress tolerating vegetation with cover <50%. Includes sparsely vegetated natural or extracted rock or soil surfaces. Includes inland rock, supralittoral rock (sea cliffs) supralittoral sediment (mud, sand and shingle) and coastal habitats (including dunes). Excludes sparsely vegetated constructed surfaces (see u1f).
Rivers and Lakes (r)	Inland surface waters (freshwater ecosystems)
Marine Inlets and Transitional Waters (t)	Intertidal habitats on various substrates and with water of variable salinity between Mean High Water Mark and Mean Low Water Mark around the UK coast. Excludes the sublittoral.

²¹ UK Hab Ltd (2023). UK Habitat Classification Version 2.0 (at <https://www.ukhab.org>)

UK Habitat Classification Habitat Definitions (Commonly Recorded Habitat Types)²¹	
Habitat Type	Definition
Grassland (g)	
g1c Bracken	Land with bracken <i>Pteridium aquilinum</i> at >95% canopy cover at the height of the growing season. Excludes scattered patches of bracken or patches of bracken <0.04ha which are included in the broad habitat type with which they are associated.
g3c Other Neutral Grassland	Neutral grassland that does not meet the definition of either g3a (Lowland Meadow) or g3b (Upland Hay Meadow) AND that meets at least three of these four criteria: <ol style="list-style-type: none"> 1) >20% cover of broadleaved herbs and sedges 2) >8 species per m² (including forbs, grasses, sedges and rushes, and excluding bryophytes) 3) >1 grass species that is not generally sown for intensive agricultural production (ie Rye-grasses <i>Lolium spp.</i>, Timothy <i>Phleum pratense</i>, Cock's-foot <i>Dactylis glomerata</i>, Meadow fescue <i>Festuca pratensis</i>) is at least abundant 4) Cover of rye-grasses <i>Lolium spp.</i> and white clover <i>Trifolium repens</i>, where present, is <30% <p>Separately from the criteria above, a neutral grassland that meets the criteria for waxcap grassland.</p> <p>Excludes grasslands <2 years old on land formerly cropped.</p>
g4 Modified Grassland	Species poor vegetation (<9 species per m ²) dominated by a few fast-growing grasses on fertile, neutral soils. It is frequently characterised by an abundance of rye grasses <i>Lolium spp.</i> and white clover <i>trifolium repens</i> . Most broadleaved species present will be associated with high fertility.
Woodland (w)	
w1 Broadleaved and Mixed Woodland	Vegetation dominated by trees that are <u>more than 5m high</u> when mature, which form a distinct although sometimes open canopy with a <u>canopy cover of greater than 25%</u> . Includes stands of both native and non-native broadleaved tree species and Yew <i>Taxus baccata</i> , where the <u>percentage cover of these trees in the stand exceeds 20% of the total cover of the trees present</u> .
w1d Wet Woodland	Wet woodland occurs on poorly drained or seasonally wet soils, usually with Alder <i>alnus glutinosa</i> , birch <i>Betula spp.</i> and willows <i>Salix spp.</i> as the predominant tree species, but sometimes including ash <i>Fraxinus excelsior</i> , oak <i>Quercus spp.</i> , Scots pine, <i>Pinus sylvestris</i> and beech <i>Fagus sylvatica</i> on the drier riparian areas.
w1f Lowland Mixed Deciduous Woodland	Lowland mixed deciduous woodland includes woodland growing on the full range of soil conditions, from very acidic to base-rich. Occurs largely within enclosed landscapes, usually on sites with well defined boundaries, at relatively low altitudes, although altitude is not a defining feature.
w1g Other Broadleaved Woodland	Broadleaved and mixed woodland that does not meet the definitions of w1a-w1f. Includes stands of non-native broadleaved tree species and woodlands of non-native species or Sycamore <i>Acer pseudoplatanus</i> that have developed through recent succession, typically on verges or alongside railway lines.
w1h Other Woodland - Mixed	A mixture of broadleaved and coniferous trees in which neither make up more than 80% of the tree cover.
w2 Coniferous Woodland	Vegetation dominated by trees that are <u>more than 5m high</u> when mature, which form a distinct, although sometimes open canopy which has a <u>cover of greater than 25%</u> . Includes stands of both native and non-native coniferous trees species (with the exception of yew <i>Taxus baccata</i>) where the <u>percentage cover of these trees in the stand exceeds 80% of the total cover of the trees present</u> .
Heathland and Shrub (h)	
h2 Hedgerows	Lines of shrubs that have the base of their leafy canopies <2m in height from the ground, so that the woody linear feature as a whole appears as a 'shrubby' hedgerow, even though some of the woody species in it are capable of growing into trees. Hedges in good condition have the base of their leafy canopies <0.5m from the ground.

UK Habitat Classification Habitat Definitions (Commonly Recorded Habitat Types)²¹	
Habitat Type	Definition
	Includes any bank, wall, ditch, tree or herbaceous vegetation that is <2m from the hedgerow centre. Includes gaps between trees and shrubs that are <20m. Includes tall lines of connected shrubs that remain in a management cycle and allowed to grow tall before being laid. Excludes shrubby components that are >5m wide at the base and woody linear features comprising trees without a shrub layer. Excludes habitat features of trees that are collectively >5m wide at the base.
h2a Native Hedgerow (Priority Habitat)	A hedgerow with >80% canopy cover of UK native or archaeophyte woody species.
h2a5 Species-rich Native Hedgerow	Native hedgerows with 5 or more (or 4 or more in northern and eastern England, upland Wales and Scotland) UK native or archaeophyte woody species in a 30m section.
h2a6 Other Native Hedgerow	Native hedgerows with 4 or less (or 3 or less in northern and eastern England, upland Wales and Scotland) UK native or archaeophyte woody species in a 30m section.
h2b Non-native and Ornamental Hedgerow	A hedgerow with >20% canopy cover of UK non-native woody species. Includes ornamental beech hedgerows and garden varieties or ornamental native species.
h3 Dense Scrub	Patches of shrubs less than 5 metres tall with continuous (>75%) cover. Includes patches with occasional trees more than 5 metres tall and tree species less than 5m tall.
Wetland (f)	
f2e Reedbeds	Wetlands that are dominated by >5m wide stands of the Common Reed <i>Phragmites australis</i> and where the water table is at or above ground level for most of the year.
Cropland (c)	
c1a Arable Field Margins	Herbaceous strips or blocks around arable fields that are managed specifically to provide benefits for wildlife. The arable field must be in a crop rotation that includes an arable crop, even if in certain years the field is in temporary grass, set-aside or fallow. Usually sited on the outer 2-12m margin of the arable field.
c1c Cereal Crops	Crops in the cereal group of domesticated grasses: wheat, barley, oats and maize.
c1d Non-Cereal Crops	Crops other than those defined in c1c.
Urban (u)	
u1b Developed Land - Sealed Surface	Soil surface sealed with impervious materials as a result of urban development and infrastructure construction.
u1b5 Buildings	A relatively permanent enclosed construction over a plot of land, having a roof and usually windows and often more than one level, used for any of a wide variety of activity, as living, entertaining or manufacturing.
u1c Artificial Unvegetated - Unsealed Surface	Land that has no or very low (<10% cover of vegetation through direct or indirect human activity and the soil surface is not sealed with impervious materials.
u1d Suburban/Mosaic of Developed and Natural Surface	Small-scale mosaic of developed and natural surfaces, as in housing and gardens in suburban areas.
u1e Built Linear Features	Roads, railways, walls, fences, surfaced paths.
Rivers and Lakes (r)	
r1 Standing Open Water and Canals	Natural systems such as lakes, meres and pools, as well as human-made waters such as reservoirs, canals, drainage ditches, ponds and gavel pits.
r2 Rivers and Streams	Rivers and streams from bank top to bank top. Where there are no distinctive banks or banks are never overtopped, it includes the extent of the mean annual floor. Includes, the open channel, water fringe vegetation and exposed sediments and shingle banks.

Appendix 4 - Receptor Valuation

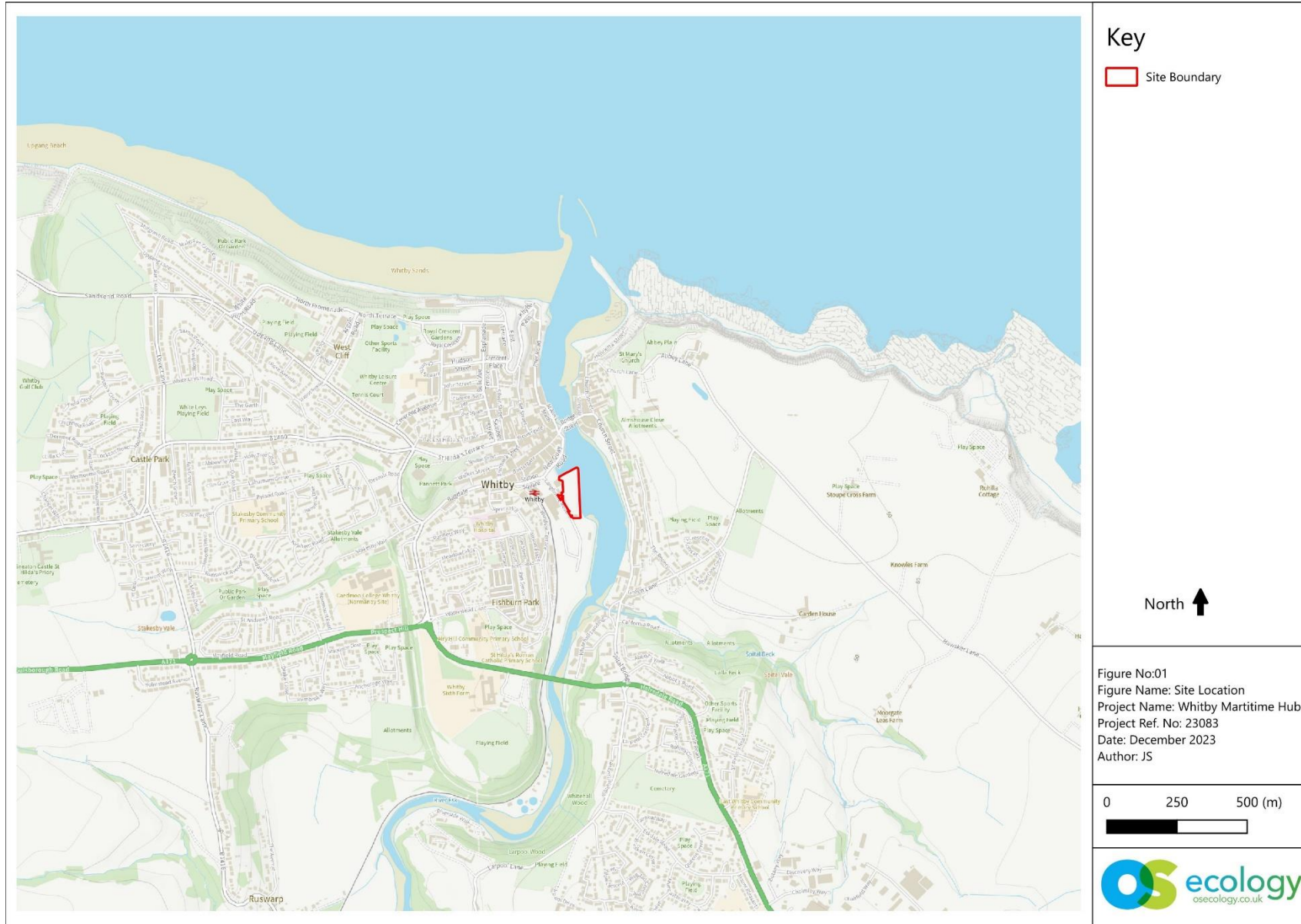
The importance of ecological features is considered within a defined geographic context, examples of which are provided within the table below. The valuation of features is a complex process and, in many cases, requires the application of expert judgement. Valuation considers a range of factors including statutory designations, national biodiversity lists, biodiversity action plan lists and lists of declining, rare or legally protected species. Other factors to be considered include the 'naturalness' of habitats, the functional importance of features and whether habitats are irreplaceable.

Examples of Importance of Ecological Features (Geographic Context)²²			
Importance	Designated Site	Habitat	Species
International and European	Special Protection Area/Proposed Special Protection Area Special Area of Conservation/Proposed Special Area of Conservation Ramsar Site	A significant area of a Priority Habitat listed on Annex 1 of the Habitats Directive or a smaller area of such habitat that is thought to be functionally linked to a significant area of such habitat	An area that is functionally important to a species listed on Annexes II, IV or V of the Habitats Directive or Annex I of the Birds Directive which is present in internationally significant numbers (> 1% of the biogeographic population)
National	Site of Special Scientific Interest	A significant area of a Priority Habitat listed as a habitat of principal importance under Section 41 of the Natural Environment and Rural Communities Act 2006 or a smaller area of such habitat that is thought to be functionally linked to a significant area of such habitat	An area that is functionally important to a species listed as a species of principal importance under Section 41 of the Natural Environment and Rural Communities Act 2006, which is present in nationally significant numbers (> 1% of the national population)
Regional	-	An area of a Priority Habitat listed as a habitat of principal importance under Section 41 of the Natural Environment and Rural Communities Act 2006 which is not significant enough in extent to be considered of national importance but is considered to be of greater than metropolitan or county value.	An area that is functionally important to a species which is present in regionally significant numbers (> 1% of the regional population)
Metropolitan area or County	Local Wildlife Site designated at a metropolitan area or county level	A significant area of a Priority Habitat listed within the relevant local Biodiversity Action Plan or a smaller area	An area that is functionally important to a species listed as a Priority Species within the relevant local Biodiversity

²² Based on information provided within Guidelines for Ecological Impact Assessment in the UK and Ireland (2018) CIEEM

Examples of Importance of Ecological Features (Geographic Context)²²			
Importance	Designated Site	Habitat	Species
Local (District/ Borough of Parish)	Local Wildlife Site designated at a district or borough level	of such habitat that is thought to be functionally linked to a significant area of such habitat	Action Plan, which is present in significant numbers within the geographic context.
Low	-	Habitats that are unexceptional in a local context and do not meet the above criteria.	Species populations that are unexceptional in a local context and do not meet the above criteria.

Appendix 5 – Figures





Key

 Site Boundary

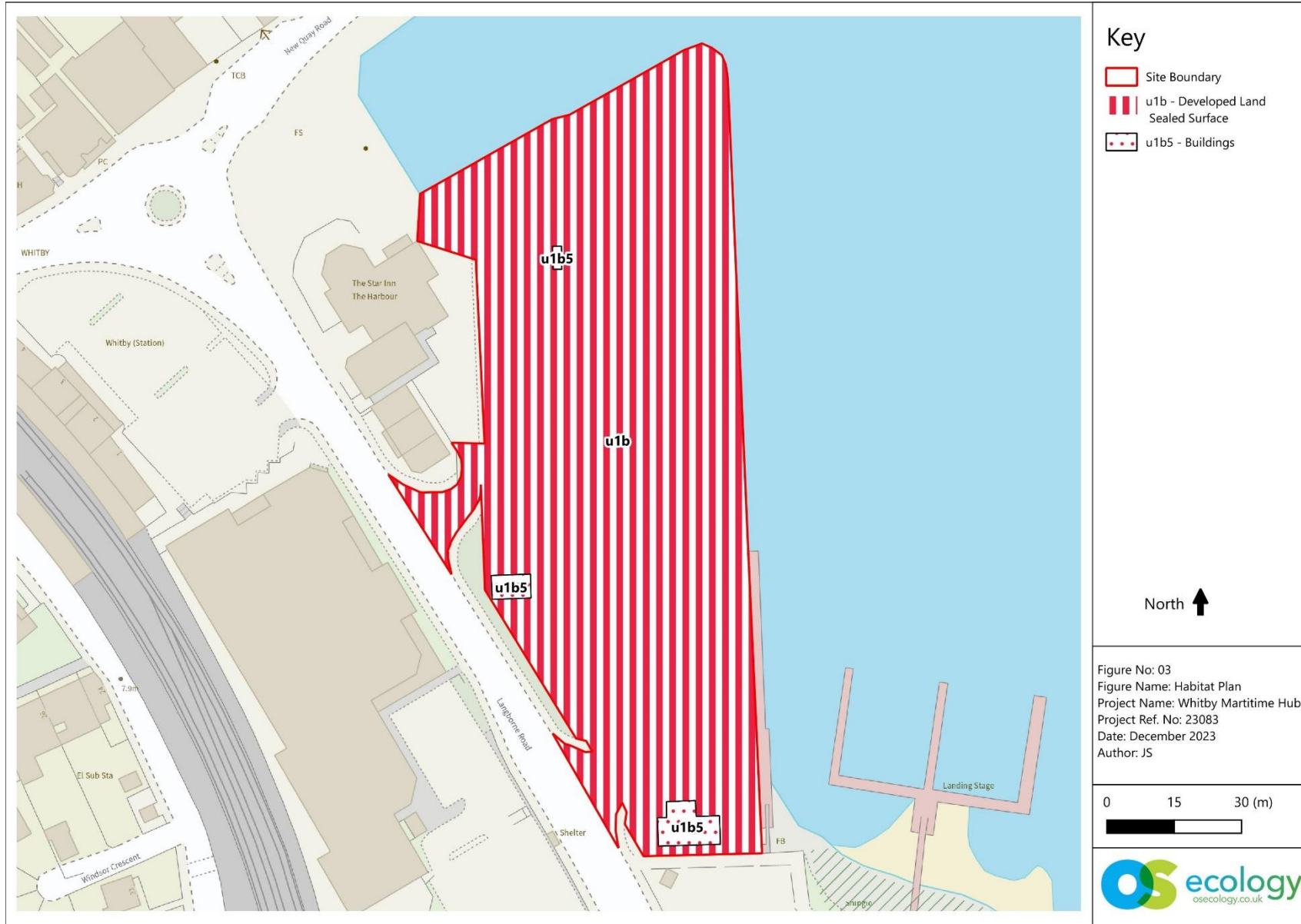
Google Satellite

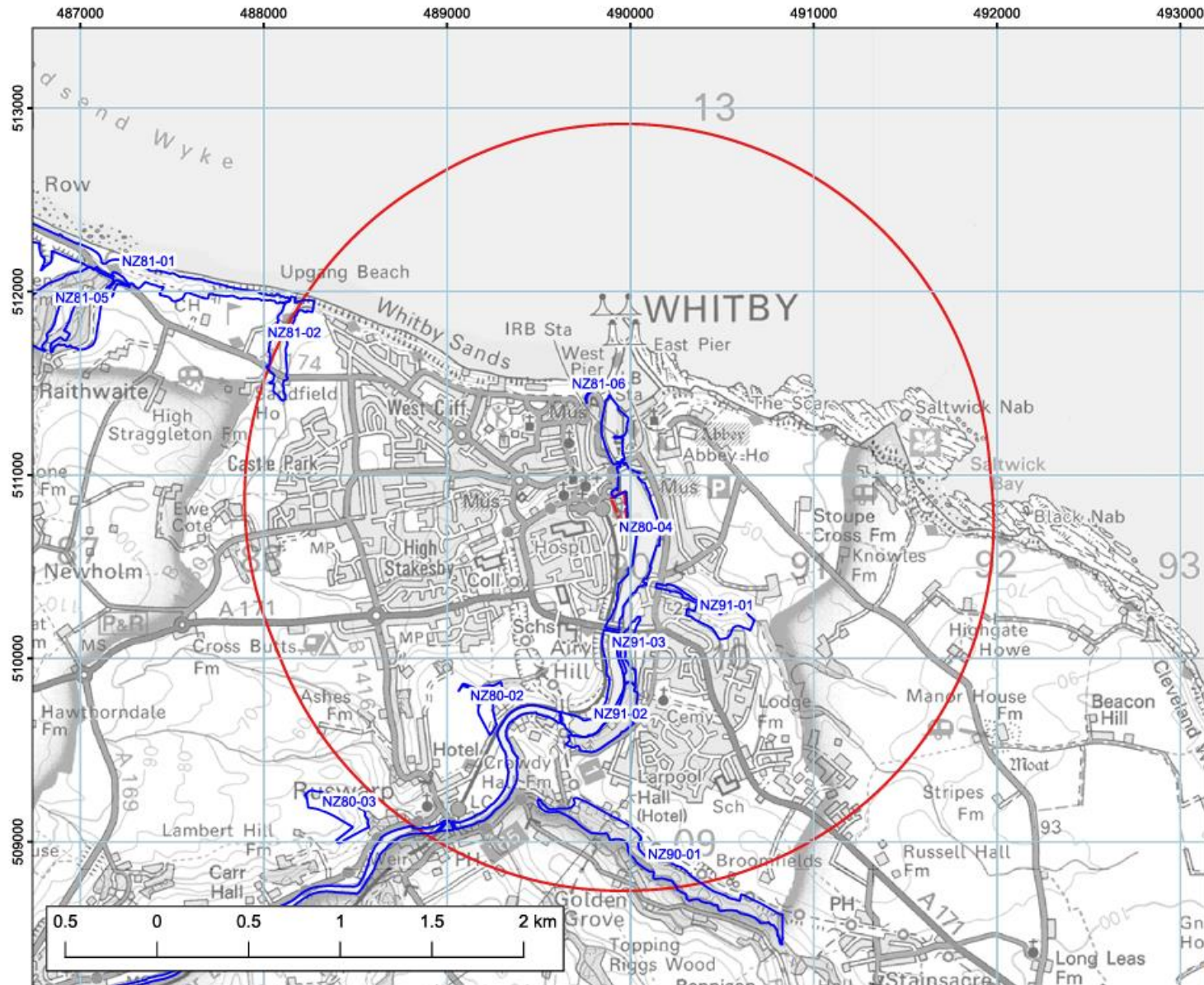
North 

Figure No:02
Figure Name: Site Aerial
Project Name: Whitby Maritime Hub
Project Ref. No: 23083
Date: December 2023
Author: JS

0 25 50 (m)







Locally Designated Sites

Client: OS Ecology

Client ref: 23083



Our ref: E07918

Search area: 2Km from
489950,489950

Map created on: 2023-12-21

Legend

Local Designated Sites

-  North Yorkshire SINC
-  Search Area



© Natural England copyright. Contains Ordnance Survey data © Crown copyright and database rights 2023. OS Licence 0100059530.