Shadow Habitats Regulation Assessment

Mill Lane Flood Defence, Langstone

Ecosupport Ltd
K4 Keppel,
Daedalus Park,
Lee-on-the-Solent
PO13 9FX

info@ecosupport.co.uk

VAT: 228 4314 18

ecosupport

Site	Mill Lane Flood Defences, Langstone
Report	Shadow Habitat Regulations Assessment (sHRA)
Author	Darrelle Moffat BES (Hons) PGCert ACIEEM
Client	Mr. Robert Carrell
Date of Issue	5th November 2025
Issue	Final

Ecosupport ltd, K4 Keppel, Daedalus Park, Daedalus Drive, Lee-on-the-Solent
Tel: 01329 832841 *www.ecoupport.co.uk*

Table of Contents

1.0 INTRODUCTION....3

1.1 Background....3
1.2 Site Description....3
1.3 Proposed Development....4
1.4 Legislation....1
1.4.1 Habitats Directive- Natura 2000....1
1.4.2 Case Law....1

2.0 HRA PROCESS....2

2.1 Introduction....2
2.2 Preliminary Screening....2
2.3 Screening....2
2.3.1 Assessing Significance....2
2.3.2 Screening Assessment....3
2.4 Appropriate Assessment....3
2.5 Alternative Solutions/Overriding Public Interest....4

3.0 EUROPEAN SITES WITHIN ZOI....5

3.1 Conservation Status, Objective and Vulnerabilities....5
3.1.1 Conservation Status....5
3.1.2 Conservation Objective....5
3.2 Zone of Influence....6
3.3 European Sites within ZoI....6

4.0 EXEMPTION, EXCLUSION AND ELIMINATION....10

4.1 Preliminary Screening....10

5.0 SCREENING ASSESSMENT....11

5.1 Chichester and Langstone Harbours SPA & Ramsar....11
5.2 Solent Maritime SAC....20
5.3 Screening Summary....24

6.0 APPROPRIATE ASSESSMENT....25

6.1 Chichester and Langstone Harbour SPA/Ramsar & Solent Maritime SAC....25
6.1.1 Construction Environmental Management Plan....25

7.0 CONCLUSION....26

8.0 REFERENCES....27

APPENDIX 1 – EMAIL CONFIRMATION OF CHANGE IN SITE BOUNDARY....28

1.0 INTRODUCTION

1.1 Background

Ecosupport Ltd was commissioned by Mr. Robert Carrell to carry out a Shadow Habitat Regulations Assessment (HRA) of the proposed development of the sea defence at the western parcel off Mill Lane, Langstone.

Under Regulation 63 of the Habitats Regulations (2017), the competent authority must consider whether land use plans of proposed developments are likely to have a significant impact on Natura 2000 sites. This Shadow Habitats Regulations Assessment (HRA) will provide information to assist the competent authority in determining the level of impact of the development on Natura 2000 sites that fall within the Zone of Influence (ZoI).

This document should be read in conjunction with the corresponding application forms, documents and plans which accompany the application and the Environmental Statement (Ecosupport, 2025).

Coastal Partners have kindly provided survey information and reports relating to the wider scheme. With permission from Coastal Partners, survey data has been included within this report where relevant to aid in the preparation of this sHRA.

1.2 Site Description

The site is a parcel of land located off Mill Lane, Langstone, Havant, PO9 1RX (centred on OS grid reference SU 71473 04903) (**Fig 1**). The site is bound by a residential property to the east, by Mill Lane to the north and the remainder of the field and coastal habitats to the southwest and south. In the wider environment, the site lies within the southwest corner of Langstone village on the edge of Langstone Harbour.

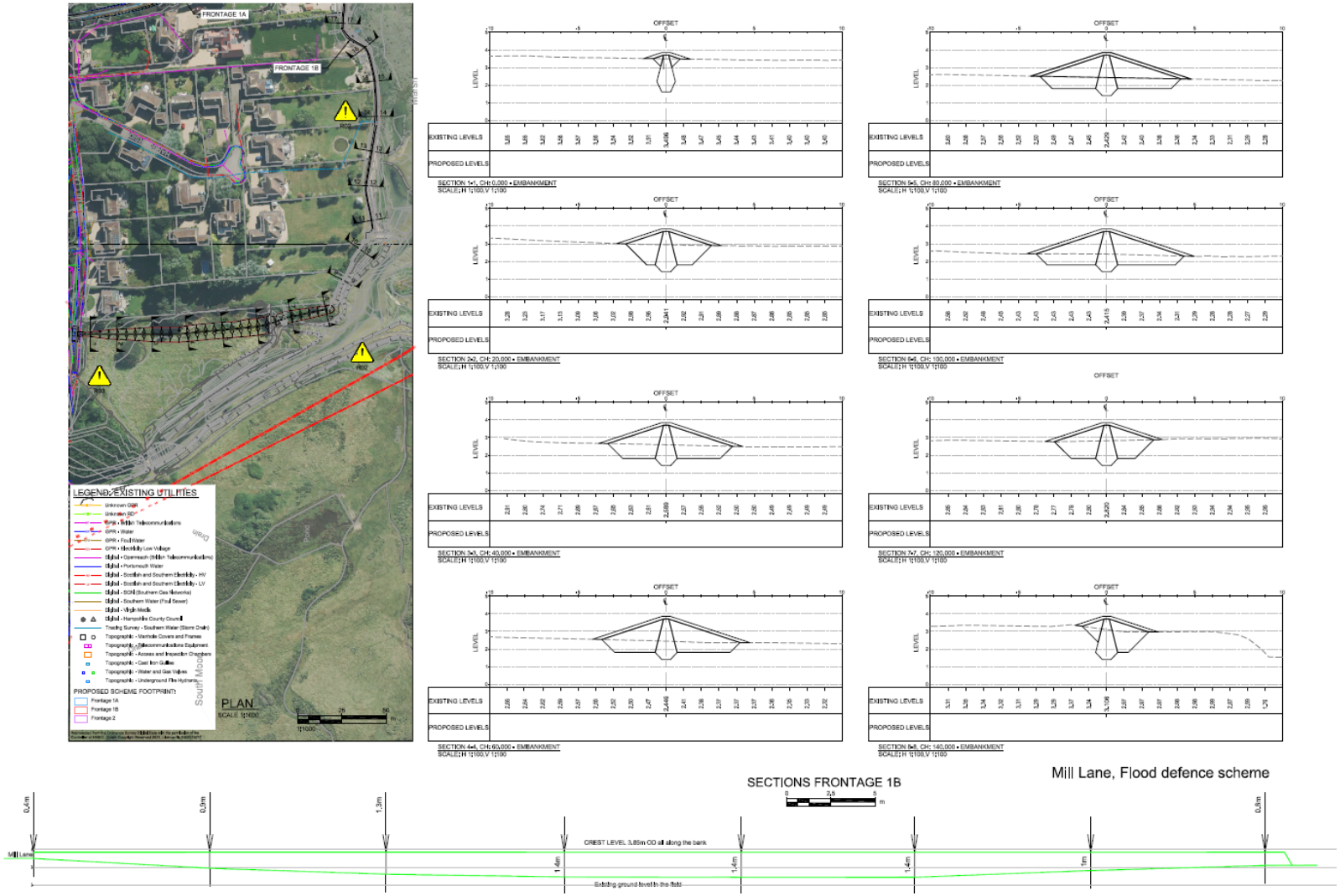
Figure 1. Location of the site (Google, 2025)

Ecosupport ltd, K4 Keppel, Daedalus Park, Daedalus Drive, Lee-on-the-Solent
Tel: 01329 832841 *www.ecoupport.co.uk*

1.3 Proposed Development

The proposals entail the construction of a bund within the east of the field for flood defence purposes to a crest level of 3.85m and the installation of a small number of PU12 section piles at the southeast corner. In addition, a drain will be created under the bund to take water from the field through a French drain discharging to an existing ditch to allow the field to continue to drain (**Fig 2**).

Figure 2. Proposed plan of bund (provided by Robert Carrell, 2024).



1.4 Legislation

1.4.1 Habitats Directive- Natura 2000

Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsars form a collection of European protected sites known as the Natura 2000 sites. The Habitats Directive (adopted in 1992) is the means for which the European Union meets targets set under the Bern Convention (1992) for the Conservation of Wildlife and Natural Habitats and is transposed into UK law via the Habitats Regulations (2017) and updated post-Brexit into the Habitat Regulations (2019). SPAs are European protected sites falling under the Birds Directive (2009) with birds listed in Annex I and internationally important wetlands (Article 4) being the qualifying features. Under Article 6(3) of the Habitats Directive, any plan or project likely to have a significant impact on a European site, either individually or in combination with other plans and projects, shall be subject to an Appropriate Assessment of its implications on the site's conservation objectives.

1.4.2 Case Law

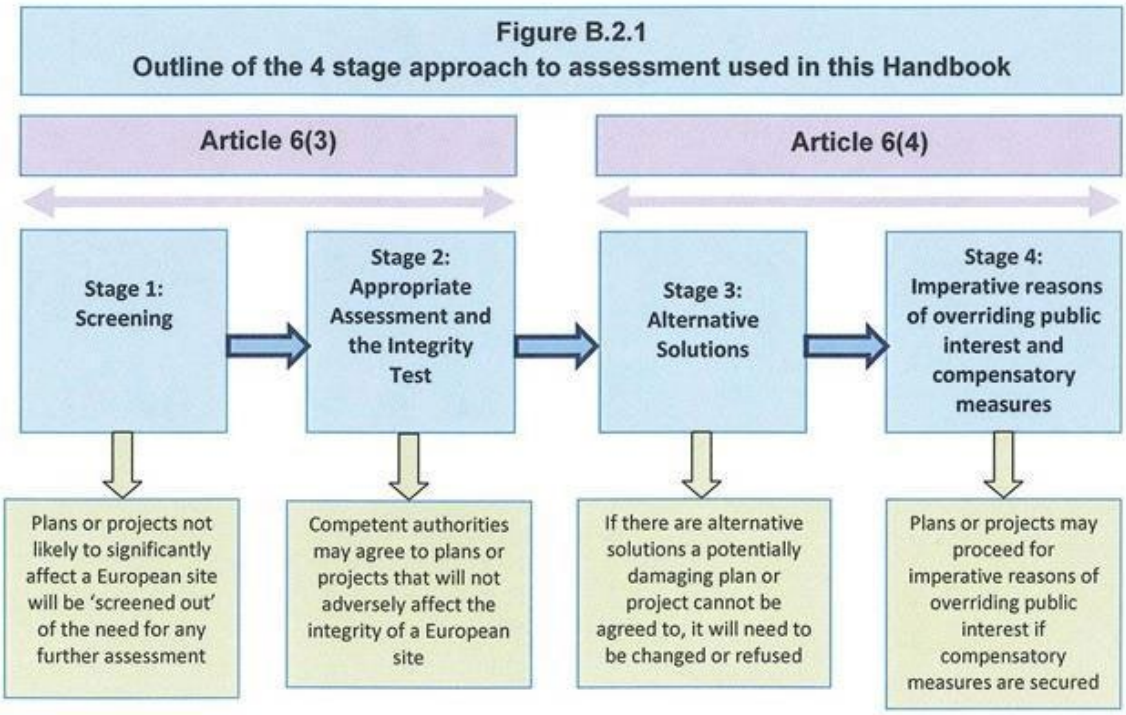
The 2017 CJEU judgement 'People Over Wind and Sweetman vs. Coillte Teoranta (C-323/17)' has changed the way in which Competent Authorities must address the HRA process. Any measures that are incorporated into a project specifically to address impacts to international sites can no longer be considered to avoid or reduce (mitigate) a likely significant effect, unless the avoidance effects of a particular feature of the development are essential for the delivery of that project regardless of any effect that feature may have in avoiding or mitigating impacts to the International site.

2.0 HRA PROCESS

2.1 Introduction

This assessment has a number of phases and is collectively referred to as a Habitats Regulation Assessment (HRA) (**Fig 3**) (Natural England, 2021). The HRA process must be applied before a plan or project which may affect a European site can be lawfully authorised. In line with Regulation 10 of the Habitats Regulations, European sites are taken to comprise Ramsar sites, Special Protection Areas (SPA) and Special Areas of Conservation (SAC). The HRA Screening Assessment requires the competent authority to determine whether a project is likely to have a *significant* effect upon the integrity of the relevant European site, either alone or in combination with other projects or plans.

Figure 3. Outline of the HRA stages taken from the HRA handbook (Tyldesley & Chapman, 2018).



2.2 Preliminary Screening

Where plans or projects are directly connected with or necessary to managements of a European site, are the continuation of on-going activities not subject to any form of authorisation or it is obvious that it could not have any conceivable effect on any European Site then no further screening for likely significant effects under the Habitats Regulations is required.

2.3 Screening

2.3.1 Assessing Significance

Terminology:

Likelihood: A likely effect is one that cannot be ruled out on the basis of objective information. Ordinarily, 'likely' might be considered to mean that an effect is probable or might well happen.

However, the Waddenzee case (ECJC-127/02) in the European Court ruled that a project should be the subject of an Appropriate Assessment if:

'…it cannot be excluded, on the basis of objective information, that it will have a significant effect on the site either individually or in combination with other plans and projects'.

'Objective', in the context of HRA, means information based upon clear, verifiable fact rather than subjective opinion. Conclusions of either nature must be based upon credible evidence rather than supposition or speculation.

Significance: Where a project, either alone or in combination with other plans or projects, could undermine the site's conservation objectives, the effects on the site must be considered to be significant. The relevant consideration is the potential effect on the ecological functioning of the site, rather than consideration solely on the proportion or area of the habitats or species affected on a site. These effects may be direct or indirect, and could relate to works within the European site itself, or beyond its boundaries but which might cause impacts to qualifying mobile features within the site when they are outside it.

Effect: It is therefore apparent that the first task is to identify the effects that could follow from the implementation of the project, and how and to what level they might affect any given International site.

2.3.2 Screening Assessment

The first stage of the HRA process is a Screening Assessment (SA), where all proposals are screened for potential likely significant effects upon European sites, both in isolation and in combination with other plans and proposals in the locality. If the SA concludes that such impacts cannot be excluded, the HRA progresses to the Appropriate Assessment (AA) stage, to classify such impacts and determine whether effects upon the integrity of the European site can be ruled out. If the SA concludes that no significant impacts are likely to result from the scheme, however, the scheme is screened out and no further HRA consideration is required.

2.4 Appropriate Assessment

If an AA is required, following its completion, permission should only be granted if the competent authority is satisfied that, based upon the best available scientific information and in light of any suitable mitigation measures, the proposed scheme will result in no significant adverse effects upon the integrity of the European site through appropriate measures being established, either alone or in combination with other plans or projects in the area. The only exception to this is when further tests as described in Article 6(4) can be met, as detailed below. This process requires consultation with, and the agreement of, Natural England to ensure the requirements of the Habitats Regulations are satisfied prior to authorisation of the proposals.

2.5 Alternative Solutions/Overriding Public Interest

A precautionary approach must be adopted in the HRA, and where a loss of site integrity cannot be ruled out (i.e. a 'significant impact' is likely to occur), the proposals will either have to be changed or may only be authorised under very exceptional circumstances (such as overriding public interest and with no viable alternative), as detailed in full under Article 6(4)) and following consultation with the European Commission.

3.0 EUROPEAN SITES WITHIN ZOI

3.1 Conservation Status, Objective and Vulnerabilities

3.1.1 Conservation Status

The conservation status of European sites is not routinely reported on by Natural England, however, condition monitoring of component Sites of Scientific Interest (SSSIs) is undertaken at regular intervals. Whilst the boundaries of component SSSI units do not always match the boundaries of European Sites, SSSI condition status gives an indication of overall ecological status.

3.1.2 Conservation Objective

In line with conservation objectives for European sites published by Natural England, the following high-level objectives apply to all of the SACs and SPAs:

3.1.2.1 SAC

To ensure that the integrity of the site is maintained/restored as is appropriate and ensure the site contributes towards meeting a favourable conservation status of its qualifying features by maintaining:

- 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
- The distribution of qualifying species within the site.

3.1.2.2 SPA

To maintain the integrity of SPAs and ensure they are achieving the aims of the Birds Directive, the following must be maintained:

- 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.

3.1.2.3 Ramsar

With regards to Ramsar sites, Natural England has indicated that as the provisions of the Habitats Regulations relating to HRA extend to Ramsar sites, it is considered that the Conservation Objectives and associated advice packages, for SACs/ SPAs with overlapping boundaries and similar features for designation for Ramsar sites, should be considered when assessing potential effects.

3.2 Zone of Influence

Quantifying this area is complex and is rarely limited to the development site or some set distance from the project area. The zone of influence is often dependent on the impacting factor (both direct and indirect) and the affected resource. Certain impacts associated with a development can be calculated using various factors; for example, for water pollution you can use the volume and flow of that water body, the nature of the pollutant and the chemical characteristics of the water body and computer models can be used to calculate air pollution. Ecological resources are impacted by the zone of influence of the above factors combined along with others.

As distance strongly influences the scale and likelihood of most effects it is considered that the use of a precautionary radii is appropriate as a starting point. In accordance with the HRA Screening undertaken in relation to plans and projects within this region, the ZoI of the proposed development is considered to comprise European sites within a 10km radii of the site; and European sites in excess of 10km where specific environmental sensitivities are present in relation to the scale and type of development proposed.

3.3 European Sites within ZoI

The following sites are within the ZoI of 10km from the site are shown in **Table 1** below.

NB the boundary of several of the designated sites has been confirmed by Natural England as being updated. The overlapping SSSI digital mapping has been updated and is shown correctly but the SAC, Ramsar and SPA have yet to be updated. Therefore, the overlapping SSSI boundary has been used to determine distances from the site.

Table 1. List of European Sites within ZoI including distances, qualifying features and known vulnerabilities.

Site	Designation	Distance/ Orientation	Qualifying Features	Component SSSI Condition	Known Vulnerabilities
Chichester & Langstone Harbours	SPA	0.006km S	Breeding populations of Sandwich Tern (*Sterna sandvicensis*), Common Tern (*Sterna hirundo*) and Little Tern (*Sterna albifrons*) Non-breeding populations of Dark-bellied Brent Goose (*Branta bernicla bernicla*, Common Shelduck (*Tadorna tadorna*), Eurasian wigeon (*Anas Penelope*), Eurasian Teal (*Anas crecca*), Northern Pintail (*Anas acuta*), Northern shoveler (*Anas clypeata*), Red-breasted Merganser (*Mergus serrator*), Ringed Plover (*Charadrius hiaticula*), Grey Plover (*Pluvialis squatarola*), Sanderling (*Calidris alba*), Dunlin (*Calidris alpina alpina*), Bar-tailed Godwit (*Limosa lapponica*), Eurasian Curlew (*Numenius arquata*), Common Redshank (*Tringa tetanus*) and Ruddy Turnstone (*Arenaria interpres*). Waterbird assemblage.	SSSI units within Chichester and Langstone Harbours SPA comprise units of 'unfavourable no change', 'unfavourable declining', 'favourable' and 'unfavourable recovering'. The SSSI unit within/adjacent the site boundary (Unit 6) is in 'unfavourable recovering' condition and Unit 5 only 40m west is in 'favourable' condition.	Water level management; water depth; changes in flow velocity; extent and condition of habitat cover; extent of suitable foraging habitat; changes in creek system pattern; coastal defences / coastal squeeze; sea level rise; sedimentation regime; physical loss – removal, smothering; physical damage - abrasion/erosion, selective extraction; non-physical disturbance – noise, visual disturbance; toxic and nontoxic contamination – synthetic/non-synthetic compounds, changes in nutrient/organic loading; biological disturbance - non-native species, translocation or introduction, selective extraction of species; predation - domestic animals; height/density of vegetative cover (as bird refuge); obstruction to sight lines; connectivity - between sheltering and foraging habitats; food availability
	Ramsar		Criterion 1: intertidal mudflats, saltmarsh, sand and shingle spits and sand dunes. Criterion 5: Assemblages of international importance, with peak counts of 76,480 waterfowl Criterion 6: internationally important populations of waterbirds including Dark-bellied Brent goose, Ringed Plover, Black-tailed Godwit, Common Redshank, Common Shelduck, Grey Plover, Dunlin and Little Tern		

Solent Maritime	SAC	0.006km S	Annex I habitats (primary reason for selection): 1130 Estuaries, 1320 Spartina swards (*Spartinion maritimae*), 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) Annex I habitats (not a primary reason for selection): 1110 Sandbanks which are slightly covered by sea water all the time, 1140 Mudflats and sandflats not covered by seawater at low tide, 1150 coastal lagoons, 1210 annual vegetation of drift lines, 1220 perennial vegetation of stony banks, 1310 Salicornia and other annuals colonizing mud and sand, 2120 Shifting dunes along the shoreline with *Ammophila arenaria* Annex II species (not a primary reason for selection): 1016 Desmoulin's Whorl Snail (*Vertigo moulinsiana*)	SSSI units within the SAC comprise units of 'unfavourable no change', 'unfavourable declining', 'favourable' and 'unfavourable recovering'. The SSSI unit within/adjacent the site boundary (Unit 6) is in 'unfavourable recovering' condition and Unit 5 only 40m west is in 'favourable' condition.	Public access / disturbance; coastal squeeze; commercial marine and estuarine fisheries; water pollution, changes in species distributions; changes to site conditions; invasive species; direct land take from development; change in land management, air pollution (atmospheric nitrogen deposition; hydrological changes; direct impact from third parties; extraction of non-living resources.
Solent & Isle of Wight Lagoons	SAC	3.3km W	Annex 1 habitats: 1150 Coastal lagoons, including percolation, isolated and sluiced lagoons	Closest isolated overlying SSSI in 'unfavourable – no change' condition	Human induced changes in hydraulic conditions; changes in abiotic conditions; interspecific floral relations; invasive non-native species; and air pollution.
Solent & Dorest Coast	SPA	4.6km W	Breeding populations of Sandwich Tern (*Sterna sandvicensis*), Common Tern (*Sterna hirundo*) and Little Tern (*Sterna albifrons*).	No overlying SSSI at closest point. Closest SSSI at Portsmouth Harbour SPA & Ramsar includes units of favourable, unfavourable recovering and unfavourable no change.	Recreational disturbance; pollution; predation; climate change
Portsmouth Harbour	SPA	6.2km W	Nonbreeding populations of Dark-bellied Brent Goose (*Branta bernicla bernicla*), Red-breasted Merganser (*Mergus serrator*), Dunlin (*Calidris*	SSSI units within Portsmouth Harbour include units of favourable, unfavourable	Eutrophication; disturbance and land-take pressures (on and off-site) from urban and industrial

			alpina alpina) and Black-tailed Godwit (*Limosa limosa islandica*).	recovering and unfavourable no change.	development; coastal squeeze / coastal defences; public access / disturbance; commercial marine and estuarine fisheries; water pollution; changes in species distribution; climate change; change to site conditions; invasive species; biological resource use; change in land management; air pollution.
	Ramsar	6.2km W	Criterion 3: Intertidal mudflat areas with extensive beds of eelgrass *Zostera angustifolia* and *Zostera noltei* and high densities of Mud Snail (*Hydrobia ulvae*). Other species of note include Common Cord-grass (*Spartina anglica*), Green Algae (*Enteromorpha* spp), Sea Lettuce (*Ulva latuca*), and Sea Purslane (*Halmione portulacoides*). Criterion 6: internationally important populations of waterbirds including Dark-bellied Brent goose		

Ecosupport ltd, K4 Keppel, Daedalus Park, Daedalus Drive, Lee-on-the-Solent
Tel: 01329 832841 *www.ecoupport.co.uk*

4.0 EXEMPTION, EXCLUSION AND ELIMINATION

4.1 Preliminary Screening

As a result of the preliminary screening process, given the small scale of works and the distance from some sites, it is considered that the following sites can be screened out:

- Solent & Isle of Wight Lagoons SAC
- Solent & Dorset Coast SPA
- Portsmouth Harbour SPA
- Portsmouth Harbour Ramsar

While hydrologically connected to the site through the Solent, these sites are at such a distance and with complex aquatic connections (Portsmouth Harbour and Solent & Dorset Coast are separated by Portsea Island and the SAC lagoon parcel is largely isolated, connected only through a sluice drain), that given the scale of works potential significant impacts on these sites are inconceivable.

All other sites are considered to be screened in and subject to a more detailed screening assessment below.

Ecosupport ltd, K4 Keppel, Daedalus Park, Daedalus Drive, Lee-on-the-Solent
Tel: 01329 832841 *www.ecoupport.co.uk*

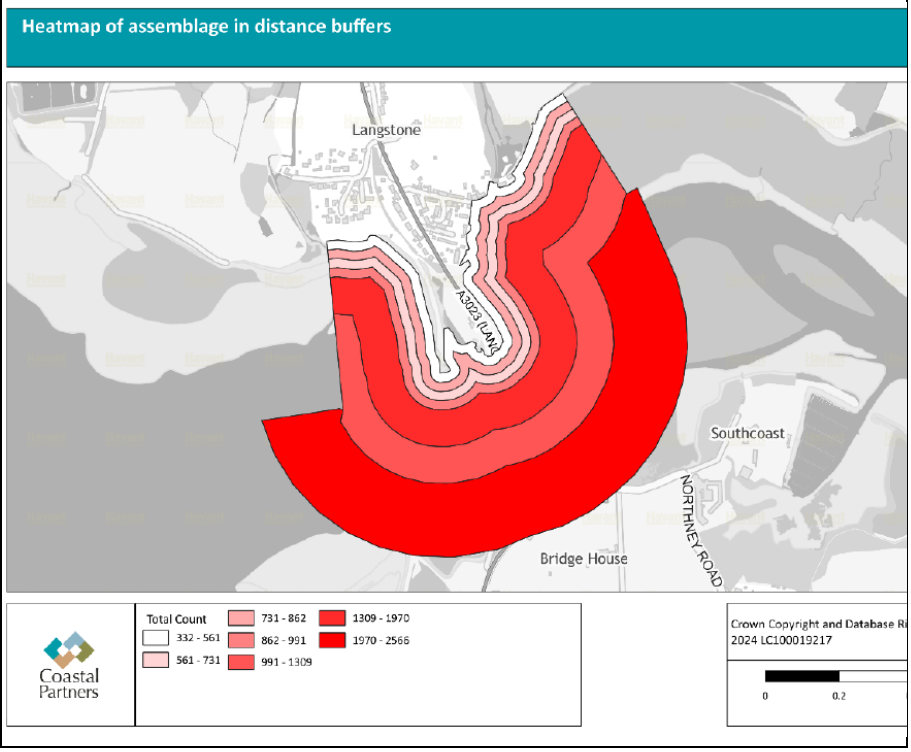
5.0 SCREENING ASSESSMENT

5.1 Chichester and Langstone Harbours SPA & Ramsar

The screening assessment for the likely significant effects of the proposed development on Chichester and Langstone Harbours SPA and Ramsar is shown in **Tables 2-4** below. These sites have been considered together as they overlap and the qualifying features are similar / the same.

Table 2. Identification of impact pathways from the proposed development to the SPA/Ramsar

Describe any likely changes to the site or its qualifying features arising as a result of the following impact pathways:	
Land taken by development within European site	The site is approximately 6m distance from the SPA/Ramsar. Therefore no land within the designated sites will be taken by the development and there will not be any further encroachment of the SPA/Ramsar during construction or operation.
Fragmentation of European site habitats	As above, the habitats in the SPA / Ramsar will not be altered and there will be no fragmentation of habitats within or associated with the designated sites as a result of the proposed development.
Damage or deterioration of supporting habitats, outside European site	Supporting habitats of the SPA/Ramsar would be considered sites outside the SPA boundary with habitat that support qualifying features of the SPA such as sites listed in the Solent Waders & Brent Goose Strategy. As seen in **Fig 4**, there are no closer supporting sites than the SPA. There is a secondary support area approximately 85m north on the other side of residential properties but the proposed development will not result in any fragmentation between this and the SPA. **Figure 4.** Solent Waders & Brent Goose Strategy sites within the vicinity.
Increased mortality of key species	The site was considered to have low suitability for non-breeding birds due to its grassland habitat on site, although no birds were noted during the survey. In addition, immediately adjacent the site supporting habitats including coastal

	saltmarsh and mudflats have been identified, which can support qualifying features of the SPA/Ramsar. Given the scale of works and the type of development, it is unlikely that any non-breeding birds would be killed on site, although they may be disturbed (discussed below). In addition, while it is expected that there will be no direct impacts on these birds, it is possible that a significant contamination event could result in indirect pollution impacts to birds. Chemicals or fuel spillage can result in illness or even death in birds in extreme events. Therefore, based on the scale of works it is highly unlikely but there remains a ***potential pathway*** to increased mortality of SPA birds during construction. Following construction the development will be very similar to the current condition with no change in footprint or use and therefore not considered there will be any increased mortality during site operation.
Disturbance of Qualifying Features	Habitats that can be used by SPA/Ramsar birds are immediately adjacent the site with low potential on site. Bird surveys have been carried out by Coastal Partners (2022 & 2025) including breeding bird surveys in 2021 and over-wintering bird surveys in 2020-2022. No breeding birds that are qualifying features of the SPA/Ramsar (i.e. tern species) were identified in the vicinity and the habitats present are considered unlikely to support nesting terns and are considered likely absent. However, assemblages of over-wintering birds were identified within the vicinity of the site. Greatest numbers of SPA/Ramsar birds were found further from the site but were still in close proximity to be considered sensitive to disturbance (**Fig 5**). **Figure 5.** Heatmap of SPA bird assemblage with distance buffers (Coastal Partners, 2025). 

<table>
<tr><td></td><td>Waders and waterbirds are highly sensitive to noise and visual disturbance, with Brent Geese identified as one of the most sensitive with recommendations for consideration of mitigation within 400m of works (Cutts, Hemingway & Spencer, 2013). The ground movement and small-machinery works will likely constitute regular noise below 50db with occasional irregular noise potentially above this from soil loading, which is considered to be largely low-level disturbance with occasional moderate level disturbance based on Fig 6. Therefore, there is a certain pathway to disturbance of qualifying SPA/Ramsar birds during construction.

Figure 6. Considered levels of disturbance based on types of activity (Cutts et al, 2013)
<table>
<tr><td>Personnel and plant on mudflat:</td><td>High (and should be restricted at all times)</td></tr>
<tr><td>Third party on mudflat:</td><td>High (but difficult to restrict)</td></tr>
<tr><td>Personnel and plant on seaward toe and face:</td><td>High to Moderate</td></tr>
<tr><td>Intermittent plant and personnel on crest:</td><td>High to Moderate</td></tr>
<tr><td>Third party on bank:</td><td>High to Moderate</td></tr>
<tr><td>Irregular piling noise (above 70db):</td><td>High to Moderate</td></tr>
<tr><td>Long-term plant and personnel on crest:</td><td>Moderate</td></tr>
<tr><td>Regular piling noise (above 70db):</td><td>Moderate</td></tr>
<tr><td>Irregular noise (50db - 70db):</td><td>Moderate</td></tr>
<tr><td>Regular noise (50db - 70db):</td><td>Moderate to Low</td></tr>
<tr><td>Occasional movement of crane:</td><td>Moderate to Low</td></tr>
<tr><td>Noise below 50db:</td><td>Low</td></tr>
<tr><td>Long-term plant only on crest:</td><td>Low</td></tr>
<tr><td>Activity behind flood bank (inland):</td><td>Low</td></tr>
</table>

Following construction the development will be very similar to the current condition with no change in footprint or use and therefore not considered there will be any disturbance to SPA/Ramsar birds during site operation.</td></tr>
<tr><td>Atmospheric pollution/air quality</td><td>Increases in vehicle movements have the potential to increase NOx (nitrogen oxide) emissions, which can affect botanical species composition and structure as a result of acidification and eutrophication. In addition, increased ammonia (NH_3) concentrations within the atmosphere can lead to increased rates of nitrogen deposition. It is conceivable that changes in habitat composition as a result of eutrophication could potentially have a knock-on effect to prey availability for SPA species. Increases in NOx emissions (and therefore nitrogen deposition) can impact vegetation within 200m of a road network, with pollutant concentration dropping off rapidly with distance from the road, and any impact considered to be negligible at distances over 200m (Highway Agency, 2007). Natural England (June 2018) and Highways England are in agreement that effects of protected sites fall within this radii need to be considered.

In addition, during the construction period dust created by vehicle movement and earthworks can result in dust deposition on the nearby environment although the distance travelled can depend on wind strength and direction and the size of dust particles.

As the proposed development nearby the edge of the SPA/Ramsar, there is a certain pathway for atmospheric pollution during construction.</td></tr>
</table>

	Following construction there will be no change in use of the site that would result in potential atmospheric changes during site operation.
Changes to soil chemistry	As above, NOx emissions can result in nitrogen deposition, which can also result in changes to soil chemistry. As well, potential contaminants (e.g. chemical spillages) can result in changes to soil chemistry. Sensitive habitats are located in close proximity of the site including Coastal Saltmarsh and Mudflats, both of which are also likely to support SPA/Ramsar qualifying feature bird species. In addition, there will be soil importation as part of the construction of the bund on site. If contaminated soil were to be introduced to the site, this could alter the soil chemistry on site as well as cause potential indirect impacts due to contamination of groundwater/runoff as noted below. Therefore, there are ***potential pathways*** for changes to soil chemistry due to atmospheric and hydrological pollution and/or contaminants during construction. Following construction there will be no change in use of the site that would result in potential changes to soil chemistry during site operation.
Hydrological regime change AND/OR Pollution of surface/ground water	Construction works will take place nearby the SPA/Ramsar. While the habitats to be directly impacted are not considered to be supporting habitat of the SPA/Ramsar as it is modified grassland, this area does flood occasionally and any contaminants or materials used in this area could result in contamination of the SPA/Ramsar. Similarly, any spills during construction as well as sedimentation through surface run-off and/or contamination of groundwater adjacent the site could result in adverse impacts to the SPA/Ramsar. In addition, if contaminated soil is introduced to the site, this could potential impact on the designated sites due to groundwater or surface water pollution. Therefore, there is a ***certain pathway*** for impacts during construction. During site operation, it is not expected there will be any potential contaminants that may pollute the SPA / Ramsar hydrologically. The embankment will be soil and topped with grassland as currently present. While the embankment will impact the hydrological regime inland by preventing flooding to the residential properties, it is expected the field will continue to flood on occasion. It is not expected that there will be any significant hydrological changes to the SPA / Ramsar as a result of the development.
Coastal Squeeze	Coastal habitats such as saltmarshes are a dynamic, changing landscape which are impacted by tides, sedimentation, sea level rise and stronger events such as storms that can have significant movement. Long-term health of the saltmarsh and other sensitive coastal habitats rely on the ability of these habitats to change and adapt to meet the conditions for these habitats to establish. Coastal saltmarshes include various zones particularly determined by sea level. Currently there is an existing embankment on the west/south of the field (recently maintained under previous 1998 planning permission). The existing permission (Ref

	98/63172) is for a flood defence bund with a height above sea level to 3.95m. This new proposed bund will be constructed to a maximum height of 3.85m and therefore is expected to be shorter height. Further, it will leave a 20 to 60 metre gap between the flood defence and the coast to the west and 6 metres to the south where the proposed bund overlaps with the existing bund. Therefore, the proposed bund will reinforce the existing one but at a lower height. As such, it is likely there will be a ***negligible impact*** on coastal squeeze above the baseline conditions of the existing bund.

Table 3. Potentially significant facets of the proposed development.

Describe from the above, those facets of the proposed development, or combination of facets, where the above effects have the potential to be significant, or where the scale or magnitude of effects is not known
Increased mortality of key species It has been identified that in the event of a significant spillage event that qualifying bird species of the SPA/Ramsar could become ill or killed (although this is considered unlikely to occur). However, any potential death of SPA/Ramsar features would be considered significant and therefore, while unlikely it is considered there is a ***potential significant impact.*** Disturbance of qualifying features While the scale of the works is limited, it is nearby the SPA/Ramsar with confirmed presence of SPA/Ramsar qualifying feature non-breeding bird species in the vicinity. Due to the proximity of the designated sites, despite the low level of disturbance expected, there is a ***potential significant impact*** that could occur during construction to non-breeding aggregations of birds. Atmospheric & Aquatic Pollution & Changes to Soil Chemistry Based on the proximity of works, although it is of a low scale, there could be ***potential significant impacts*** as a result of atmospheric or aquatic pollution created during construction including through NOx and dust deposition from ground works/excavation, surface runoff and any contamination/spills. While the machinery will be very limited it is not expected that any pollution would be large in quantity, the proximity of the designated site means even low amounts have the potential to be significant.

Table 4. Outcome of screening assessment.

Outcome of Screening (proposed development alone)	
Could there be any effect on the European site? (proposed development alone) If no, proposed development is screened out	YES
Will there be likely significant effects on the European site, or does uncertainty remain over the potential for significant effects? (proposed development alone) If yes, proposed development is screened in If no, assess in combination with other plans or projects below	YES .

Table 5. Outcome of screening assessment in combination with other plans or projects.

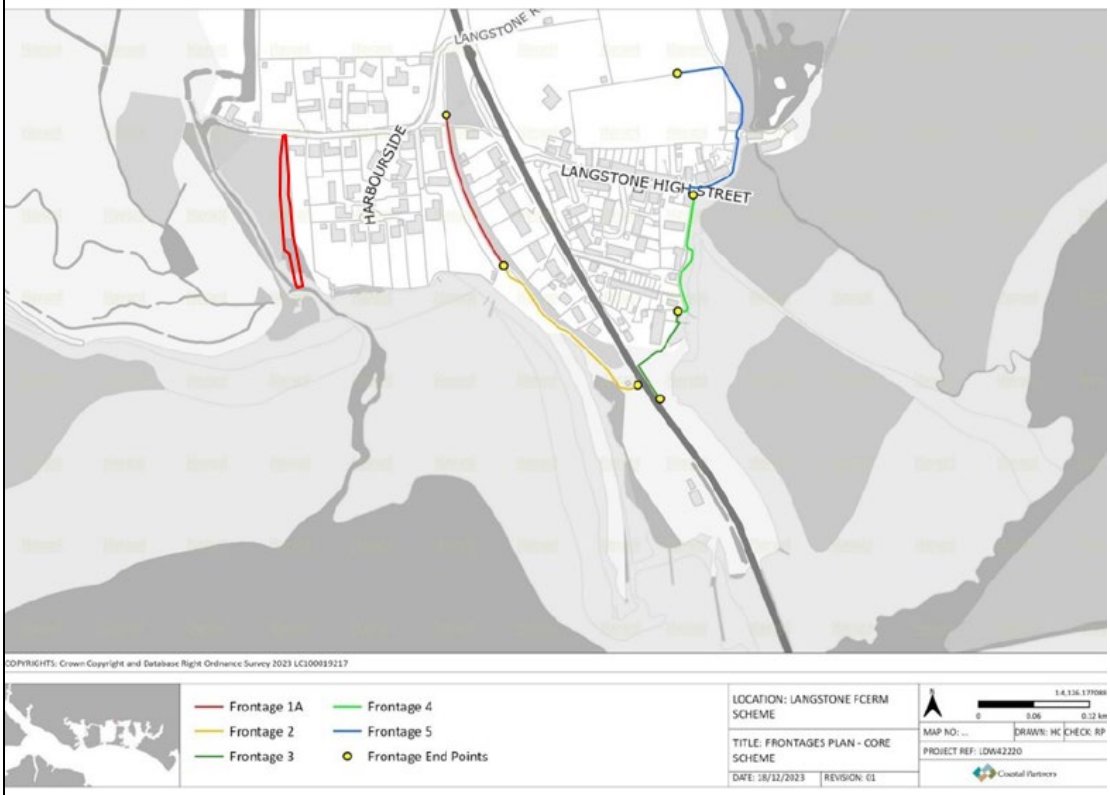
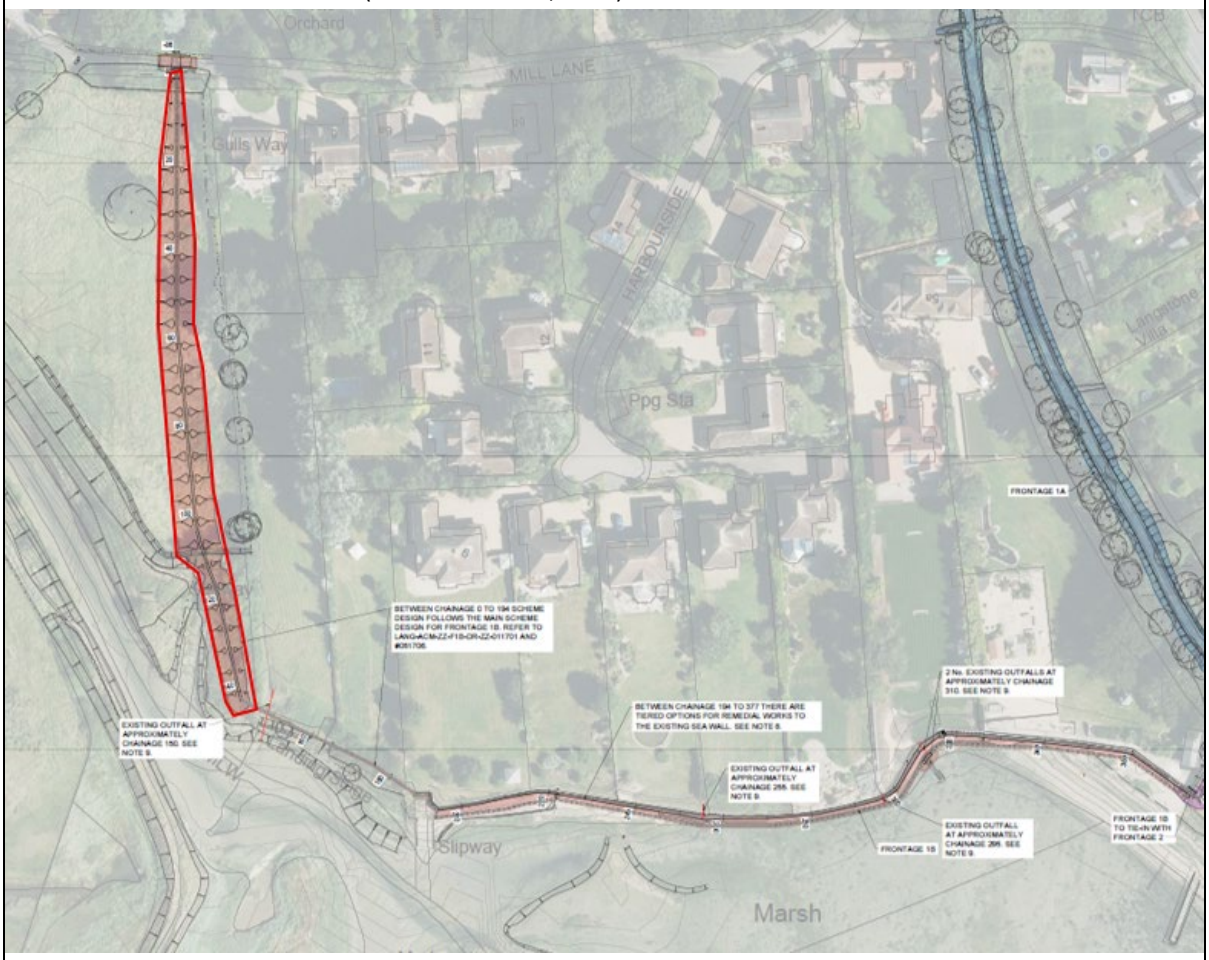
Outline any other plans or projects with likely significant effects when considered in combination with the proposed development:
• APP/25/00162 – The proposed wider Langstone Flood and Coastal Erosion Risk Management (FCERM) scheme by Coastal Partners which entails 5 frontages (1A, 2, 3, 4 & 5) • APP/24/00822 – The proposed flood defence at 9 Harbourside of frontage 1B • Portchester to Emsworth FCERM Strategy – A wider-scale FCERM scheme by Coastal Partners which includes the above development sites.
Describe any potential impact pathways and characterise any likely significant effects on the European site:
A search for proposed plans and projects in the area identified other nearby flood defence schemes. No other significant proposed developments were identified within close proximity of the works. The nearby planning applications APP/25/00162 and APP/24/00822 have not yet been approved as both are under consultation and the second is also within the same ownership of this project. Both of these form part of the Portchester to Emsworth FCERM Strategy, which is a wider-scale FCERM scheme proposed by Coastal Partners. Within this strategy, the Langstone area is one section of this with a total of 7 frontages proposed for flood defence works along the coastline. 5 of the frontages are proposed as part of APP/25/00162 (**Fig 7**). There is a possibility of overlapping construction with nearby projects. This proposed development and APP/24/00822 both form part of Frontage 1B (**Fig 8**), which is outside the scope of the nearby APP/25/00162 project but under the same Portchester to Emsworth FCERM Strategy. While there are currently no further proposed developments along Frontage 1B, there is the possibility that additional applications may be made along the section following the proposals created by Coastal Partners. **Figure 7.** Location of frontages for proposed Langstone FCERM Scheme submitted by Coastal Partners (2025) compared to the site (Project reference: LDW42220 Rev 01. Coastal Partners, 2023). 

Figure 8. Location of site within wider Frontage 1B proposed scheme, which has been provided by Coastal Partners to the local landowners (Coastal Partners, 2023).



Whilst likely significant effects, or uncertainty over likely significant effects has already been identified for the proposed development alone, it should be noted that the following pathways may also result in likely significant effects in combination with other plans or projects:

Increased mortality of key species

Potential pathways for increased mortality are considered to be limited to extreme spill events. For a cumulative impact, extreme events would have to take place simultaneously and given the type/scale of works considered to be so unlikely as to be ***negligible***.

Disturbance of qualifying features

Frontages 1A & 2 of the proposed Langstone FCERM scheme are a minimum of 200m away. However if construction of these sections occur simultaneously there is possibility of increased visual and noise disturbance from the works to SPA over-wintering birds.

As APP/24/00822 is within the same land ownership, should this application be granted, it is understood works will be carried out consecutively rather than simultaneous so unlikely that cumulative disturbance would occur.

Atmospheric & Aquatic Pollution & Changes to Soil Chemistry Due to proximity of the FCERM scheme at 200m distance which is also hydrologically connected along the coast, it is considered there is potential for increased pollution created during the construction periods in the absence of mitigation. Therefore considering the above, it is considered the already identified significant impacts have potential to be increased should works be carried out simultaneously.	
Are significant effects likely when considered in combination with other plans or projects? If yes, proposed development is screened in	YES

5.2 Solent Maritime SAC

The screening process for the likely significant effects of the proposed development on the Solent Maritime SAC are shown in **Table 6-9** below.

Table 6. Identification of impact pathways from the proposed development to the Solent Maritime SAC.

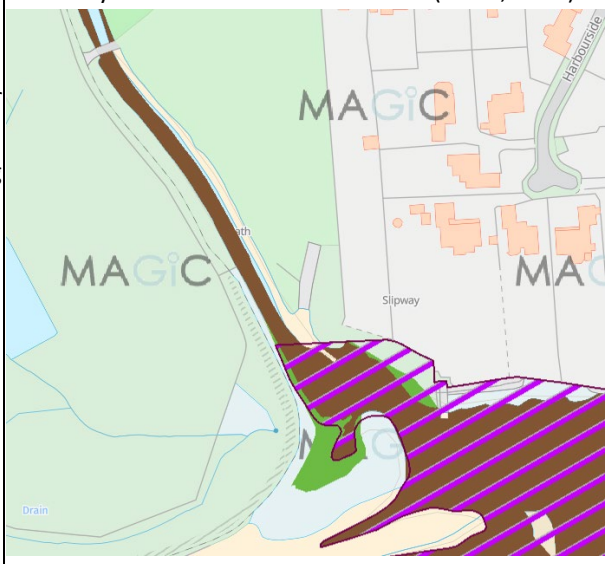
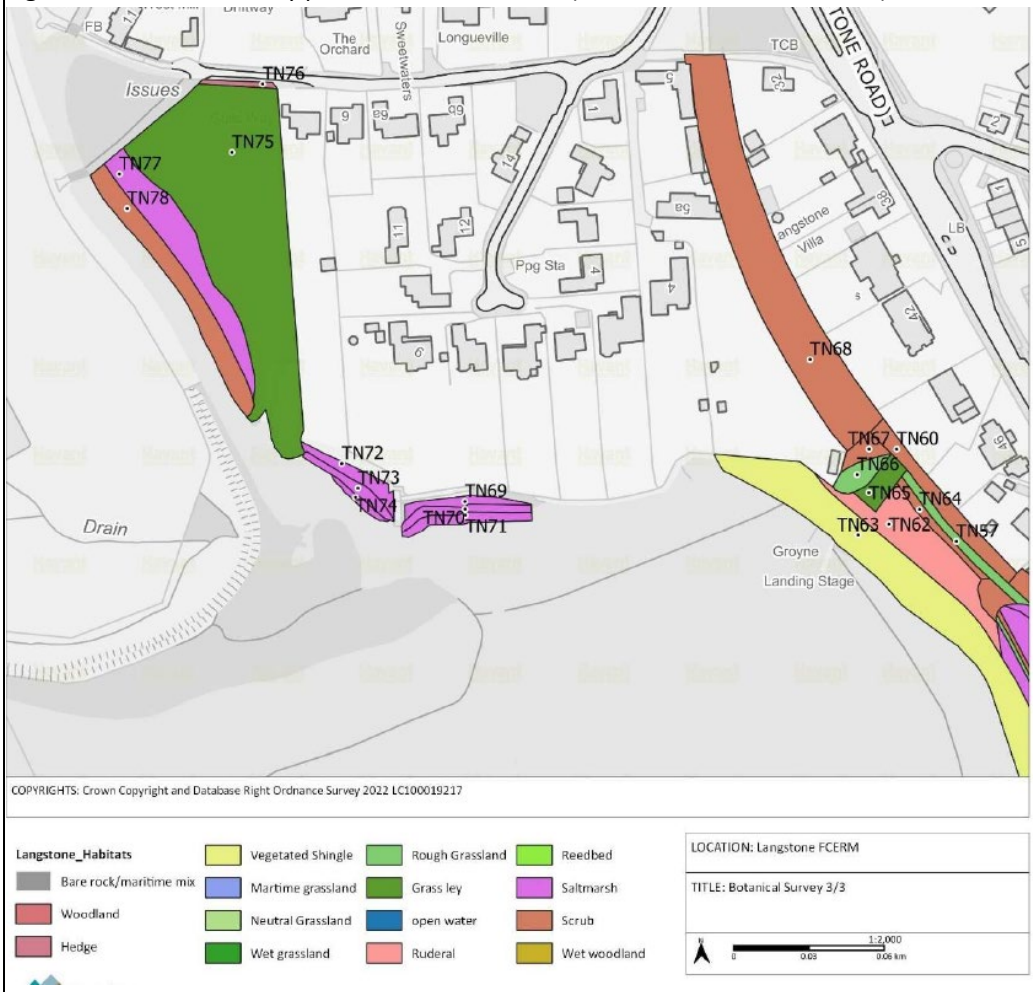
Describe any likely changes to the site or its qualifying features arising as a result of the following impact pathways:	
Land taken by development within European site	As seen above in **Table 2**, the site lies outside the designated site and it is considered there will not be any further encroachment of the SPA/Ramsar during construction or operation.
.Fragmentation of European site habitats	As above, the habitats will not be altered and there will be no fragmentation of habitats within or associated with the designated sites as a result of the proposed development.
Damage or deterioration of supporting habitats, outside European site	Priority habitats that comprise qualifying features of the SAC including coastal saltmarsh and mudflats have been identified in the vicinity outside the SAC, that can be considered supporting habitats. Priority habitat mapping identifies mudflat habitat outside the SAC continues up the river to the west of site, as well as coastal saltmarsh on the other side of the SAC to the south (**Fig 9**). In addition, botanical surveys carried out by Coastal Partners (2021) identified further coastal saltmarsh habitat at the edge of the modified grassland field between the grassland at the mudflat to the west of site (**Fig 10**), which was classified as Annex I 1330, a qualifying feature of the SAC. These supporting habitats are in close proximity and would be subject to the same pollution impacts as the SAC, discussed further below. **Figure 9.** Priority habitat mudflat (brown) and coastal saltmarsh (green) outside the SAC boundary to the west and south of site (Defra, 2025) 

	Figure 10. Botanical survey plan relevant to the site (from Coastal Partners, 2021). 
Increased mortality of key species	The only key species of Solent Maritime SAC is the Desmoulin's Whorl Snail (*Vertigo moulinsian*). This species is restricted to calcareous wetlands and therefore would not be found within the site.
Disturbance of Qualifying Features	It is not expected the proposed development will cause disturbance of the qualifying features during the construction works and there will be no change in site use or increased recreational disturbance as the habitats/development footprint will be the same post-development.
Atmospheric pollution/air quality	As discussed for Chichester and Langstone Harbours SPA/Ramsar (**Table 2**), there will be potential pollution impacts during construction despite the limited scale of works. With identified qualifying feature habitats immediately adjacent the site there is a ***potential pathway for adverse impacts from pollution.***
Changes to soil chemistry	As discussed for Chichester and Langstone Harbours SPA/Ramsar (**Table 2**), there will be potential pollution impacts during construction despite the limited scale of works. With identified qualifying feature habitats immediately adjacent the site there is a ***potential pathway for adverse impacts from pollution.***
Hydrological regime change AND/OR Pollution of	As discussed for Chichester and Langstone Harbours SPA/Ramsar (**Table 2**), there will be potential pollution impacts during construction despite the limited scale of works. With identified qualifying feature habitats immediately adjacent the site there is a ***potential pathway for adverse impacts from pollution.***

surface/ground water	
Coastal Squeeze	As discussed for Chichester and Langstone Harbours SPA/Ramsar (**Table 2**), construction of the new embankment will be to a lower maximum height than the existing bund on site and the location has been selected on the furthest east possible allowing room for expansion should the existing bund fail. As such, it is considered the bund is likely to have a ***negligible impact*** above the baseline conditions.

Table 7. Potentially significant facets of the proposed development.

Describe from the above, those facets of the proposed development, or combination of facets, where the above effects have the potential to be significant, or where the scale or magnitude of effects is not known
Atmospheric & Aquatic Pollution & Changes to Soil Chemistry Based on the proximity of works, although it is of a low scale, there could be ***potential significant impacts*** as a result of atmospheric or aquatic pollution created during construction including through NOx and dust deposition from ground works/excavation, surface runoff and any contamination/spills. While the machinery will be very limited and it is not expected that any pollution would be large in quantity, the proximity of the designated site with sensitive qualifying feature habitats immediately adjacent the area of works means even low amounts have the potential to be significant.

Table 8. Outcome of screening assessment.

Outcome of Screening (proposed development alone)	
Could there be any effect on the European site? (proposed development alone) If no, proposed development is screened out	YES
Will there be likely significant effects on the European site, or does uncertainty remain over the potential for significant effects? (proposed development alone) If yes, proposed development is screened in If no, assess in combination with other plans or projects below	YES

Table 9. Outcome of screening assessment in combination with other plans or projects.

Outline any other plans or projects with likely significant effects when considered in combination with the proposed development:
• APP/25/00162 – The proposed wider Langstone Flood and Coastal Erosion Risk Management (FCERM) scheme by Coastal Partners which entails 5 frontages (1A, 2, 3, 4 & 5) • APP/24/00822 – The proposed flood defence at 9 Harbourside of frontage 1B • Portchester to Emsworth FCERM Strategy – A wider-scale FCERM scheme by Coastal Partners which includes the above development sites.
Describe any potential impact pathways and characterise any likely significant effects on the European site:
The consideration of the above projects has been discussed in **Table 5.** Whilst likely significant effects, or uncertainty over likely significant effects has already been identified for the proposed development alone, it should be noted that the following pathways may also result in likely significant effects in combination with other plans or projects: Atmospheric & Aquatic Pollution & Changes to Soil Chemistry Due to proximity of the FCERM scheme at 200m distance and APP/24/00822 approximately 40m southeast and hydrologically connected along the coast, it is considered there is potential for increased pollution created during the construction periods in the absence of mitigation. Therefore considering the above, it is considered the already identified significant impacts have potential to be increased.

5.3 Screening Summary

A summary of the results of both the preliminary screening and screening stages are displayed in **Table 10** below.

Table 10. Preliminary screening and screening results.

Site	Designation	Significant effects likely from the proposed development alone?	Significant effects likely when considered in combination with other plans or projects?	Significant impacts (including certain, likely or potential impacts)
Chichester & Langstone Harbours	SPA Ramsar	Yes	Yes (potential increased impacts)	Site construction: • Increased mortality of key species • Disturbance of qualifying features • Atmospheric pollution • Hydrological pollution • Changes to soil chemistry
Solent Maritime	SAC	Yes	Yes (potential increased impacts)	Site construction: • Atmospheric pollution • Hydrological pollution • Changes to soil chemistry

6.0 APPROPRIATE ASSESSMENT

6.1 Chichester and Langstone Harbour SPA/Ramsar & Solent Maritime SAC

As the potential impact pathways identified upon the designated sites are similar for all three overlapping sites, mitigation for all three is discussed collectively.

6.1.1 Construction Environmental Management Plan

A CEMP has been prepared by Cowan Consultancy (2025) for the development. The CEMP identifies the sensitivity of the designated sites and habitats and includes sensitive measures to protect them. The following measures have been included:

- The site compound and store will be at the northeast corner of the field by the entrance (as far as possible from the designated sites) using hardstanding works already present from previous works;
- All soils will be imported clean soil certified from the supplier via a WAC certificate;
- Measures taken to avoid pollution incidents during construction including provision of spill kits and appropriate storage of materials and machinery away from the water course with no storage of materials allowed adjacent to designated sites;
    - Fuel for machinery will be stored in a bunded area within the works compound with all refuelling in this area;
    - Machinery will be parked in the compound outside working hours to reduce risk of leakage;
    - In the unlikely even of soil contamination by oil, the soil will be carefully excavated and removed from site for appropriate disposal;
    - Use of plant nappies and methods to prevent contaminants included where suitable;
- All liquids in containers will be provided with secondary containment;
- A fibre matting barrier (e.g. FlocMat) will be installed along the seaward edge of works;
- Dust suppression measures will be used such as using water to suppress dust during dry weather and removing debris/loose material before construction;
- All works will be undertaken between April to September to avoid impacts on wintering or migratory wildfowl and waders; and
- Works will be restricted to daylight hours;

With a CEMP detailing the above measures it is considered it will be sufficient to prevent significant adverse impacts on the designated sites.

7.0 CONCLUSION

Based on the information provided, it is anticipated that the competent authority, under Regulation 63 of the Conservation of Habitats and Species Regulations 2017, will conclude that the proposed development has the potential to result in likely significant effects alone and in combination on the Chichester and Langstone Harbour SPA/Ramsar and Solent Maritime SAC with the following impact pathways identified:

- Increased mortality of key species
- Disturbance of qualifying features
- Atmospheric pollution
- Hydrological pollution
- Changes to soil chemistry

With provision of the above CEMP, it is considered that the majority of potential significant impacts will be minimised to a level considered insignificant on the European designated sites. Proposed measures to prevent spills, proper storage/refueling away from the designated sites and leakage will minimise risk of contamination events and hydrological pollutions. Only certified clean soil will be used for infill of the bund. Use of minimal machinery will also further prevent pollution from entering into the designated sites. Finally, the restriction on timing of works will reduce disturbance seasonally to avoid impacts on non-breeding aggregations of birds.

As such, it is recommended that the development is permitted to proceed as it passes the required tests as part of the HRA.

8.0 REFERENCES

Coastal Partners (2021). *Botanical Survey Report. Langstone FCERM Scheme.* July 2021.

Coastal Partners (2022). *Breeding Bird Survey Report.* July 2022.

Coastal Partners (2025). *Environmental Statement. Chapter 10 – Ornithology. Langstone FCERM Scheme.* February 2025.

Cowan Consultancy (2025). *Environmental Management Plan (CEMP) for the construction of the sea defences to the rear of 9 & 8 Harbourside, Havant, PO9 1TJ.* 13 January 2025.

Cutts N, Hemingway K & Spencer J (2013). *Waterbird Disturbance Mitigation Toolkit Informing Estuarine Planning & Construction Projects.* Institute of Estuarine & Coastal Studies (IECS) University of Hull.

Ecosupport (2025) *Environmental Statement (Ecology) Mill Lane Flood Defences.* October 2025.

HMSO (2017) The Conservation of Habitats and Species Regulations. Statutory Instrument 2010 No. 490. HMSO, London.

HMSO (2019). The Conservation of Habitats and Species Regulations. Statutory Instrument 2019 No. 579. HMSO, London.

Natural England (2019). *Habitats Regulations Assessment Operational Standard*. 1.12.2017. V1.1.

SWBGS Steering Group (2020) *Solent Waders and Brent Goose Strategy*

Tyldesley, D. and Chapman, C. (2018). *The Habitats Regulations Assessment Handbook*. DTA Publications Ltd., Berkshire.

APPENDIX 1 – Email confirmation of change in site boundary

From: Rebecca Jackson-Pitt <Rebecca.Jackson-Pitt@naturalengland.org.uk>
Date: 14 May 2025 at 16:12:52 BST
To: Robert Carrell <rcarrell@gmail.com>
Cc: Matthew Funnell <Matthew.Funnell@naturalengland.org.uk>
Subject: RE: Langstone Harbour SSSI - boundary query

Dear Robert,
Many thanks for your email.

My understanding is that where an SSSI shares boundaries with Ramsar, SPA or SAC sites, when one boundary changes they will all change. The updates to the Ramsar etc boundaries are however on a different schedule so as you have noted have not yet been updated.

I am in the process of making enquiries and hope to be able to provide you with a fuller response next week.

Kind regards

Rebecca Jackson-Pitt
Principal Manager, Data Science Services
Natural England
07795 126337
www.gov.uk/natural-england