

Northney Farm, Hayling Island - Habitat Coastal Protection Habitat Regulations Appraisal



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Habitat Regulations Appraisal

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1 INTRODUCTION

1.1 Terms of Reference

EnviroCentre Limited was commissioned by Dandara Southern to undertake a Habitat Regulations Appraisal for the creation of a coastal flood prevention scheme at Northney, Hayling Island to determine whether the works will have any Likely Significant Effects (LSEs) on Chichester and Langstone Harbours Special Protection Area (SPA) and Solent Maritime Special Area of Conservation (SAC).

1.2 Scope of Report

It is the responsibility of the competent authority (in this case, Havant Borough Council) to conduct the Habitats Regulations Assessment (HRA), however, this document aims to provide the information necessary for the Council to undertake the appraisal by:

- Providing an outline of the proposed works and any integral mitigation;
- Identifying how works may impact the qualifying features of the designated site(s), the test of LSE);
- Conducting an 'Appropriate Assessment' for qualifying features of sites for which LSE cannot be ruled out; and
- Propose further mitigation which would be required to avoid adverse impacts on the qualifying features of the European designated sites.

1.3 Legislative Context

The Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (hereafter called the Habitats Directive) requires 'appropriate assessment' of plans and projects that are likely to have a significant effect on European designated Natura 2000 sites.

Article 6(3) establishes the requirement for Appropriate Assessment (AA):

"Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implication for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public".

Article 6(4) goes on to discuss alternative solutions, the test of 'imperative reasons of overriding public interest' (IROPI) and compensatory measures:

"If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted".

Should a decision be reached to the effect that it cannot be said with sufficient certainty that the development will not have any significant effect on the Natura site, then, as stated above, it is necessary and appropriate to carry out an Appropriate Assessment of the implications of the development for the sites in view of their conservation objectives.

The EEC (2001) guidance for Appropriate Assessment states (Section 3.2 pg. 25):

"It is the competent authority's responsibility to carry out the Appropriate Assessment. However, the assessment process will include the gathering and consideration of information from many stakeholders, including the project or plan proponents, national, regional and local nature conservation authorities and relevant NGOs. As with the EIA process, the Appropriate Assessment will usually involve the submission of information by the project or plan proponent for consideration by the competent authority. The authority may use that information as the basis of consultation with internal and external experts and other stakeholders. The competent authority may also need to commission its own reports to ensure that the final assessment is as comprehensive and objective as possible.

In this stage, the impact of the project or plan (either alone or in combination with other projects or plans) on the integrity of the Natura 2000 site is considered with respect to the conservation objectives of the site and to its structure and function."

1.3.1 Special Protection Areas (SPAs)

SPAs are designated under Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds (the Birds Directive), transposed into law through the Wildlife & Countryside Act 1981 (as amended) and the Conservation (Natural Habitats, & c.) Regulations 2010 (as amended) in England, Scotland and Wales. Under the Directive England is obliged to protect the habitats of birds which are vulnerable to habitat change or due to their low population numbers i.e. rarity, especially species on Annex 1 of the Directive. Aspects of habitat protection are in the context of pollution, deterioration of habitat and disturbance. SPAs, together with SACs, form what is known as the "Natura 2000 Network".

1.3.2 Special Areas of Conservation (SACs)

SACs are designated under Article 3 of the Habitats Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, as part of the Natura 2000 network. The Conservation of Habitats and Species Regulations 2017 transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into UK law. The Regulations came into force on 30th November 2017 and extend to England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters).

This network comprises Annex I habitats - "natural habitat types of community interest whose conservation requires the designation of Special Areas of Conservation" and the habitats of Annex II species - "animal and plant species of community interest whose conservation requires the designation of Special Areas of Conservation".

Candidate SACs (cSACs) are sites that have been submitted to the European Commission, but not yet formally adopted. They are given the same level of protection as SACs.

1.3.3 Conservation Objectives

The overriding objective of the Habitats Directive is to ensure that the habitats and species covered achieve 'Favourable Conservation Status' and that their long-term survival is secured across their

entire natural range within the European Union (EU). In its broadest sense, favourable conservation status means that an ecological feature is being maintained in a satisfactory condition, and that this status is likely to continue into the future. Definitions as per the EU Habitats Directive are given below.

Favourable Conservation Status as defined by Articles 1 (e) and 1(i) of the Habitats Directive

The conservation status of a natural habitat is the sum of the influences acting on it and its typical species that may affect its long-term natural distribution, structure and functions as well as the long-term survival of its typical species. The conservation status of a natural habitat will be taken as favourable when:

- its natural range and areas it covers within that range are stable or increasing; and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future; and
- the conservation status of its typical species is favourable'.

The conservation status of a species is the sum of the influences acting on the species that may affect the long-term distribution and abundance of its populations. The conservation status will be taken as 'favourable' when:

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

Site-specific conservation objectives define the desired condition or range of conditions that a habitat or species should be in, in order for these selected features within the site to be judged as favourable. At site level, this state is termed 'favourable conservation condition.' Site conservation objectives also contribute to the achievement of the wider goal of biodiversity conservation at other geographic scales, and to the achievement of favourable conservation status at national level and across the Natura 2000 network.

1.4 Report Usage

The information and recommendations contained within this report have been prepared in the specific context stated above and should not be utilised in any other context without prior written permission from EnviroCentre Ltd.

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2 METHODOLOGY

2.1 The Habitats Regulations Appraisal Process

The Habitats Regulations Appraisal is a four-stage process with specific issues and tests outlined at each stage. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required. The stages are summarised in Table 2-1.

Table 2-1 Key Stages in the HRA Process

Stage 1	
Screening for Likely Significant Effect (LSE)	- Identify international sites in and around the project area. - Examine conservation objectives of the interest feature(s) (where available). - Review plan policies and proposals and consider potential effects on UK sites (magnitude, duration, location, extent). - Examine other plans and programmes that could contribute to 'in combination' effects.
	- If no effects likely – report no likely significant effect. - If effects are judged likely or uncertainty exists – the precautionary principle applies, proceed to Stage 2. - If following screening the project is reviewed and includes integral mitigation which will ensure no likely significant effects, then no further Appropriate Assessment needed.
Stage 2	
Appropriate Assessment (AA)	- Complete additional scoping work including the collation of further information on sites as necessary to evaluate impact in light of conservation objectives. - Agree scope and method of AA with the competent authority. - Consider how the project 'in combination' with other projects will interact when implemented (the Appropriate Assessment). - Consider how effects on integrity of the site could be avoided by changes to the project and the consideration of alternatives. - Develop mitigation measures (including timescale and mechanisms). - Report outcomes of AA including mitigation measures.
	- If the project will not adversely affect European site integrity proceed with plan. - If effects or uncertainty remain following the consideration of alternatives and development of mitigation proceed to Stage 3.
Stage 3	
Alternative Solutions	- Consider alternative solutions, delete from project or modify. - Consider if priority species/habitats affected - identify 'imperative reasons of overriding public interest' (IROPI), economic, social, environmental, human health, public safety (only applicable in highly exceptional circumstances).
Stage 4	
Imperative Reasons of Overriding Public Interest (IROPI)	- Stage 4 is the main derogation process of Article 6(4) which examines whether there are imperative reasons of overriding public interest (IROPI) for allowing a plan or project that will have adverse effects on the integrity of a UK site to proceed in cases where it has been established that no less damaging alternative solution exists. - The extra protection measures for Annex I priority habitats come into effect when making the IROPI case. Compensatory measures must be proposed and assessed. The Commission must be informed of the compensatory measures. Compensatory measures must be practical, implementable, likely to succeed, proportionate and enforceable, and they must be approved by the Minister.

2.2 Screening

With reference to guidance the screening stage determines whether Appropriate Assessment is required, by:

- Determining whether a project (or plan) is directly connected with or necessary to the conservation management of any European sites;
- Describing the details of the project (or plan) proposals and other projects that may cumulatively affect any European sites;
- Describing the characteristics of relevant European sites; and
- Appraising likely significant effects of the proposed project on relevant European sites.

The guidance gives the following definition of LSE:

“The test of significance is where a plan or project could undermine the site’s conservation objectives. The assessment of that risk (of ‘significance’) must be made in the light, amongst other things, of the characteristics and specific environmental conditions of the site concerned.”

*“A likely effect is one that cannot be ruled out on the basis of objective information. The test is a ‘likelihood’ of effects rather than a ‘certainty’ of effects. Although some dictionary definitions define ‘likely’ as ‘probable’ or ‘well might happen’, in the Waddenzee case the European Court of Justice ruled that a project should be subject to 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**”. Therefore, ‘likely’, in this context, should not simply be interpreted as ‘probable’ or ‘more likely than not’, but rather whether a significant effect can objectively be ruled out.”*

2.3 Appropriate Assessment

The Appropriate Assessment establishes whether or not a project’s LSE identified during the screening stage will have an adverse effect on the integrity of the affected site with regard to its conservation objectives. Based on the guidance, the effects of the proposal on the designated sites’ qualifying features will determined by:

- Gathering information required to assess impacts (from site documents, scientific literature, EU and UK guidance on impact assessment and impact assessments from similar projects);
- Predicting the type and nature of impacts e.g. direct or indirect, short or long term;
- Assessing whether there will be adverse effects on the integrity of the site as defined by the conservation objectives and the status of the site. The precautionary principle must be applied at this stage. If it cannot be demonstrated with supporting evidence that there will be no adverse effects then adverse effects will be assumed; and
- Ascertaining if it is possible to mitigate adverse effects.

3 DESCRIPTION OF THE PROPOSED DEVELOPMENT

3.1 Site Location

Northney Farm is located on the north-east side of Hayling Island as shown in Figure 3-1 below.

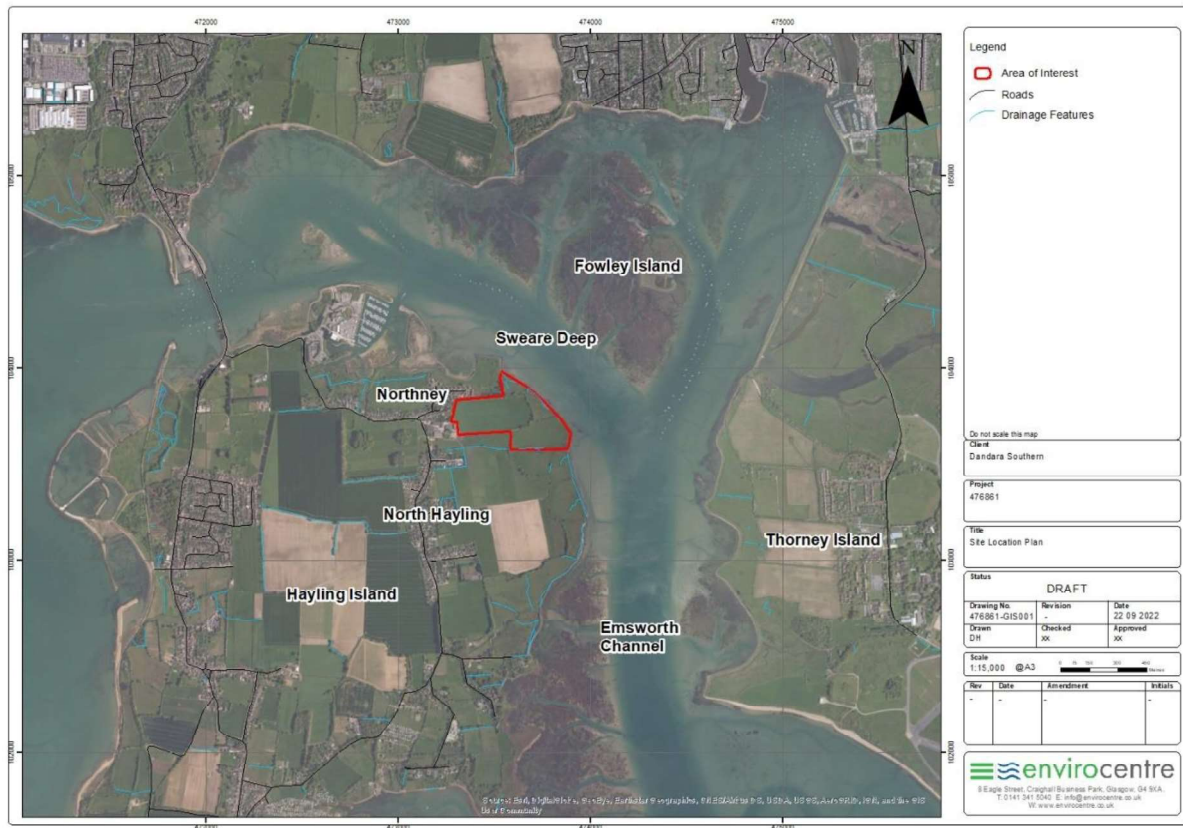


Figure 3-1: Northney Farm Location Plan

3.2 Project Description

It is proposed to secure a parcel of land at Northney (Field H59A – see figure 3-2) as a winter bird reserve, to be used by Curlew and Brent Geese.

In order to deliver this, two types of new flood defence measures will be required. These are a refurbished 200m long sea wall and a new 1200m long embankment. These are described below:

H59C-3

For H59C-3, a specification of patch repairs is proposed where the sea wall is in poor condition. This will comprise filling of existing holes and repointing of fractures where present. In addition, a c.15m section which has collapsed onto the foreshore will be fully reinstated. The indicative construction details are described below.

Sea wall reconstruction: This will involve the excavation of the retained embankment, and storage of material on site. The existing concrete sea wall will then be removed. Following this will be the installation of new modular pre-cast concrete sea wall units and the construction of new buttresses along the foreshore. Finally the retained embankment will be reinstated using the original stored material, along with imported material if required.

Sea wall repairs: For repair works, the concrete joists will be cleared of vegetation and degraded sealant. Sealant will then be replaced at expansion joists. Where defects are located beyond expansion joists, the concrete will be broken back to a suitable depth and cleared of surface debris. The wall profile will then be re-formed with a cement-based repair mortar. If the size of the repair is significant, reinforcement may be required to provide additional restraint against the repair detail loosening. Finally, the existing buttresses will be cleared of vegetation and degraded mortar and replaced with mortar between buttresses and the sea wall.

H59A

For H59A, a new secondary defence will be constructed along the boundary between H59A and H59C-1 and C-2, and between H59C-2 and C-3, totalling 1200m. This will comprise an earth embankment with an impermeable clay core (or alternative such as vinyl sheet pile), with a crest height of 4.44m. To do this, the existing topsoil will be removed and stored on site. Embankment core material will be imported and compacted in layers, working from the seaward end of the site to landward ends. Once this is completed, the stored topsoil will be reinstated above the core material and the embankments will then be seeded.

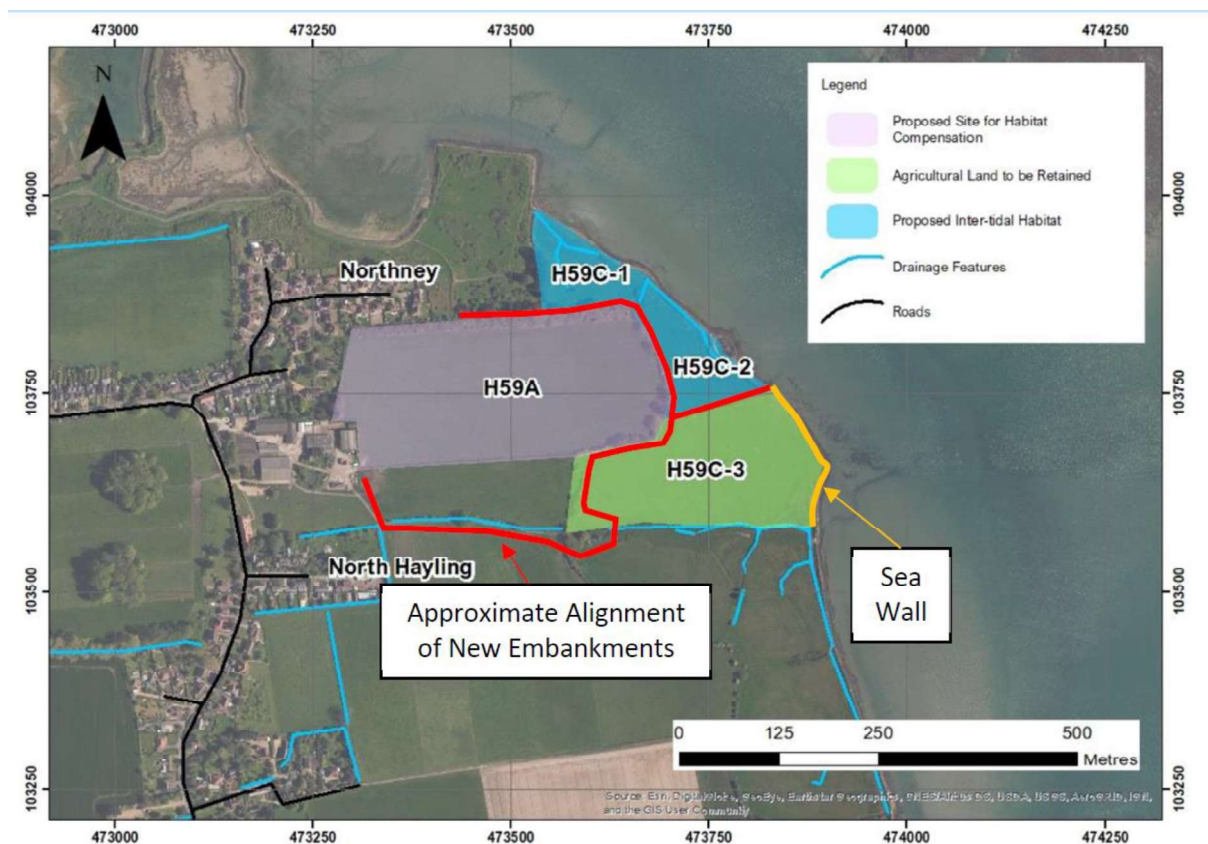


Figure 3-2: Map showing areas for proposed flood defence measures.

3.3 Ornithological Baseline Conditions at Northney

Surveys were undertaken at Northney during the winter 2020/20221 period, which recorded two qualifying species of the Chichester and Langstone Harbours SPA – Curlew and Brent Goose (See section 4.1.1 for the full list of qualifying species of the SPA). A peak count of 200 Curlew was recorded on 16/11/20, with four further counts between 95-135 birds, all corresponding to high-tide roosts at spring tides. These roosting birds were concentrated in a small area within H59C-3 adjacent to the sea wall. According to Wynn and Ward (2021b) this was “probably due to the open aspect and short sward at this location, and the proximity to preferred feeding areas; roosting birds were generally only present within a four-hour period either side of the spring high tide”. Smaller numbers of up to 40 roosting Curlew were also recorded in H59A. Foraging Curlew were also regularly observed from mid-November. These were associated with cattle-grazed pasture. A peak count of 35 was recorded in H59A, with it and H59B-1 the most regularly used areas.

A peak count of 1245 Brent Geese was recorded on 10/02/21, with counts above 1000 on or adjacent to the site on every occasion from mid-November to late-February. Wynn and Ward (2021b) report that: “Initially, birds favoured the winter cereals at H59E (and those southwest of Northney village to the west of the survey site) and moved offshore or onto the coastal grazing marsh at H59C-3 when flushed, but from mid-Nov onwards crop protection measures saw their distribution change and a progressive increase in numbers feeding on pasture.” Pasture fields identified supporting over 500 geese (including the peak of 1245) were H59A, H59B-1, H59D (east only) and H59F-1.

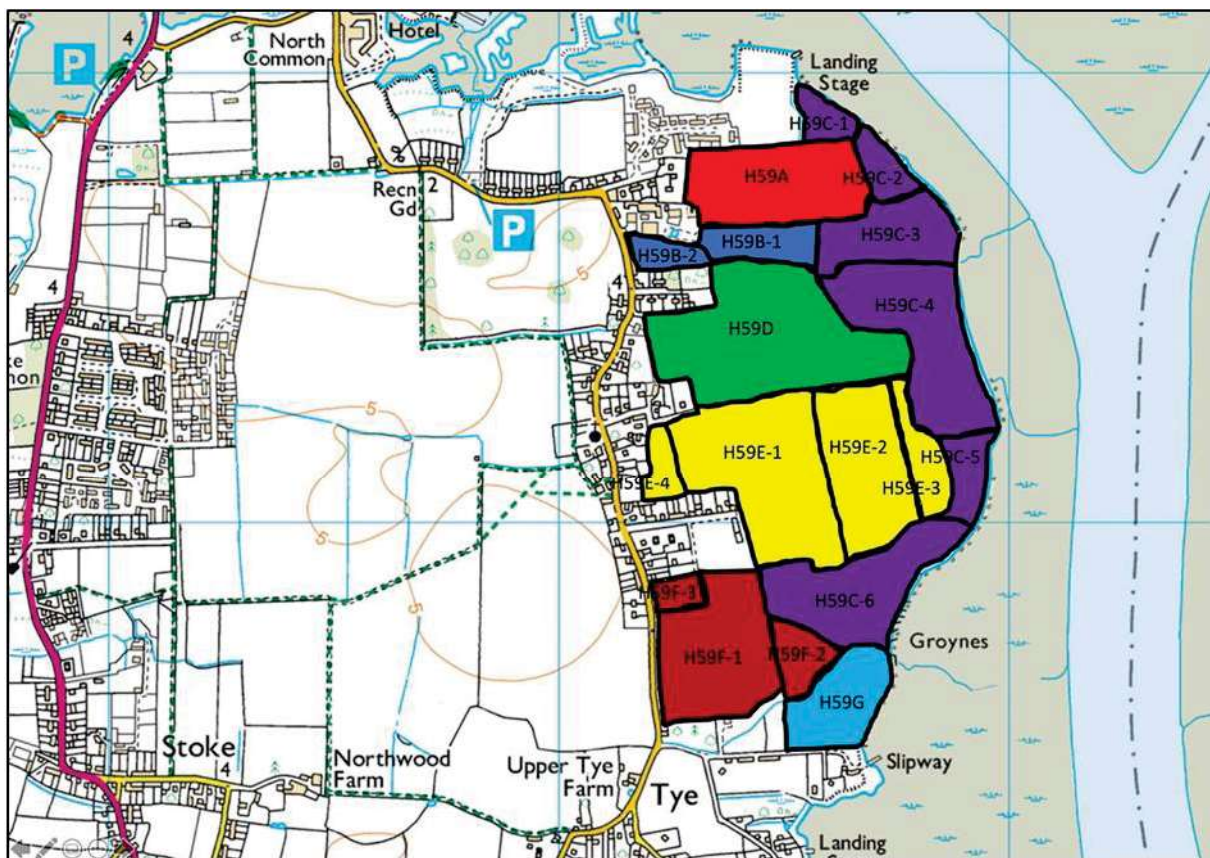


Figure 3-3: Map showing field locations

4 SCREENING FOR APPROPRIATE ASSESSMENT

For LSE to arise there must be a risk enabled by having a 'source' (e.g. construction works at a proposed development site), a 'receptor' (e.g. a European site or its qualifying interests), and a pathway between the source and the receptor (e.g. mobile species travelling between the proposed development site and a European site). The identification of a pathway does not automatically mean that LSE will arise. The likelihood of LSE will depend upon the characteristics of the source (e.g. duration of construction works), the characteristics of the pathway (e.g. what species and the number individuals travelling between the two sites) and the characteristics of the receptor (e.g. the sensitivities of the European site and its qualifying interests).

Guidance states that sites with mobile species should be considered within the screening process where there is a significant ecological link between the designated site and the proposed development site. It also states that for developments which could increase recreational pressures on designated sites, all sites within reasonable travel distance of the development should be considered for screening. It is also necessary to consider sites which are part of the same coastal ecosystem, where the proposed development may affect coastal processes.

4.1 Relevant European Designated Natura 2000 Sites

The following sites have the potential to be affected by the proposed works:

- Chichester and Langstone Harbours SPA
- Solent Maritime SAC

These sites have been included within the screening for AA.

4.1.1 Chichester and Langstone Harbours SPA

Chichester and Langstone Harbours Special Protection Area (SPA) are large, sheltered estuarine basins comprised of extensive sandflats and mudflats exposed at low tide. The two harbours are joined by a stretch of water that separates Hayling Island from the mainland. Tidal channels drain the basin and penetrate far inland. The mudflats are rich in invertebrates and also support extensive beds of algae, especially, eelgrasses (*Zostera* spp.) and *Enteromorpha* species.

Chichester and Langstone Harbours SPA qualifies under Article 4.1 of the Birds Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive

During the breeding season:

- Common Tern (*Sterna hirundo*): 0.3% of the breeding population in Great Britain (5-year mean, 1992-1996);
- Sandwich Tern (*Sterna sandvicensis*): 0.2% of the breeding population in Great Britain (5-year mean, 1993-1997); and
- Little Tern (*Sterna albifrons*): 4.2% of the breeding population in Great Britain (5-year mean, 1992-1996).

Over winter:

- Bar-tailed Godwit (*Limosa lapponica*): 3.2% of the wintering population in Great Britain (5-year peak mean 1991/92-1995/96).

This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species:

Over winter:

- Pintail (*Anas acuta*): 1.2% of the population in Great Britain (5-year peak mean 1991/92-1995/96);
- Shoveler (*Anas clypeata*): 1% of the population in Great Britain (5-year peak mean 1991/92-1995/96);
- Teal (*Anas crecca*): 0.5% of the population (5-year peak mean 1991/92-1995/96);
- Wigeon (*Anas penelope*): 0.7% of the population in Great Britain (5-year peak mean 1991/92-1995/96);
- Turnstone (*Arenaria interpres*): 0.7% of the population in Great Britain (5-year peak mean 1991/92-1995/96);
- Dark-bellied Brent Goose Branta (*bernica bernica*): 5.7% of the population (5-year peak mean 1991/92-1995/96);
- Sanderling (*Calidris alba*): 0.2% of the population (5-year peak mean 1991/92-1995/96);
- Dunlin (*Calidris alpina alpina*): 3.2% of the population (5-year peak mean 1991/92-1995/96);
- Ringed Plover (*Charadrius hiaticula*): 3% of the population in Great Britain (5-year peak mean 1991/92-1995/96);
- Red-breasted Merganser (*Mergus serrator*): 3% of the population in Great Britain (5-year peak mean 1991/92-1995/96);
- Curlew (*Numenius arquata*): 1.6% of the population in Great Britain (5-year peak mean 1991/92-1995/96);
- Grey Plover (*Pluvialis squatarola*): 2.3% of the population (5-year peak mean 1991/92-1995/96);
- Shelduck (*Tadorna tadorna*): 3.3% of the population in Great Britain (5-year peak mean 1991/92-1995/96); and
- Redshank (*Tringa totanus*): 1% of the population (5-year peak mean 1991/92-1995/96).

The area also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting an internationally

important assemblage of birds. Over winter, the area regularly supports 93,230 individual waterfowl (5-year peak mean 01/04/1998) including: Wigeon, Bar-tailed Godwit, Dark-bellied Brent Goose, Ringed Plover, Grey Plover, Dunlin, Redshank, Shelduck, Curlew, Teal, Pintail, Shoveler, Red-breasted Merganser, Sanderling and Turnstone.

The Chichester and Langstone Harbours SPA conservation objectives as available of the Natural England website are:

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

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

4.1.2 Solent Maritime SAC

The Solent Maritime SAC is a complex site encompassing a major estuarine system on the south coast of England. The Solent and its inlets are unique in Britain and Europe for their unusual tidal regime, including double tides and long periods of tidal stand at high and low tide. As a result, the Solent Maritime SAC is a unique suite of functionally linked estuaries and dynamic marine and estuarine habitats. The site has the largest number of small estuaries in the tightest cluster anywhere in Great Britain, with examples of coastal plain estuaries and bar-built estuaries. It is located in one of the only major sheltered channels in Europe, lying between a substantial island (the Isle of Wight) and the mainland. Sediment habitats within the site include extensive areas of intertidal mudflats and sandflats, often supporting eelgrass (*Zostera* spp.), subtidal sandbanks, saltmarsh and natural shoreline transitions such as drift line vegetation.

The following Annex 1 Habitats are the primary reason for selection of this site:

- Estuaries - The Solent encompasses a major estuarine system on the south coast of England with four coastal plain estuaries (Yar, Medina, King's Quay Shore, Hamble) and four bar-built estuaries (Newtown Harbour, Beaulieu, Langstone Harbour, Chichester Harbour). The site is the only one in the series to contain more than one physiographic sub-type of estuary and is the only cluster site. The Solent and its inlets are unique in Britain and Europe for their hydrographic regime of four tides each day, and for the complexity of the marine and estuarine habitats present within the area. Sediment habitats within the estuaries include extensive estuarine flats, often with intertidal areas supporting eelgrass (*Zostera* spp.) and green algae, sand and shingle spits, and natural shoreline transitions. The mudflats range from low and variable salinity in the upper reaches of the estuaries to very sheltered almost fully marine muds in Chichester and Langstone Harbours. Unusual features include the presence of very rare sponges in the Yar estuary and a sandy 'reef' of the polychaete *Sabellaria spinulosa* on the steep eastern side of the entrance to Chichester Harbour.
- Spartina swards (*Spartinion maritimae*) - Solent Maritime is the only site for smooth cord-grass *Spartina alterniflora* in the UK and is one of only two sites where significant amounts of small cord-grass *S. maritima* are found. It is also one of the few remaining sites for Townsend's cord-grass (*S. x townsendii*) and holds extensive areas of common cord-grass (*Spartina anglica*), all four taxa thus occurring here in close proximity. It has additional historical and scientific interest as the site where *S. alterniflora* was first recorded in the UK (1829) and where *S. x townsendii* and, later, *S. anglica* first occurred.
- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) - The Solent contains the second-largest aggregation of Atlantic salt meadows in south and south-west England. Solent Maritime is a composite site composed of a large number of separate areas of saltmarsh. In contrast to the Severn estuary, the salt meadows at this site are notable as being representative of the ungrazed type and support a different range of communities dominated by sea-purslane (*Atriplex portulacoides*), common sea-lavender (*Limonium vulgare*) and thrift (*Armeria maritima*). As a whole the site is less truncated by man-made features than other parts of the south coast and shows rare and unusual transitions to freshwater reed-swamp and alluvial woodland as well as coastal grassland. Typical Atlantic salt meadow is still widespread in this site, despite a long history of colonisation by cord-grass (*Spartina* spp.).

The following Annex 1 habitats are qualifying features but not primary reasons for selection of the site:

- Sandbanks which are slightly covered by sea water all the time
- Mudflats and sandflats not covered by seawater at low tide
- Coastal lagoons * Priority feature
- Annual vegetation of drift lines
- Perennial vegetation of stony banks

- Salicornia and other annuals colonizing mud and sand
- "Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes")"

The following Annex 2 species is present as a qualifying feature, but not a primary reason for site selection:

- Desmoulin's whorl snail (*Vertigo moulinsiana*)

The Solent Maritime SAC conservation objectives as available of the Natural England website are:

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

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

4.2 Likely Significant Effects (LSE)

4.2.1 Chichester and Langstone Harbours SPA

Pathway Identified: Pollution

During the construction/ installation phase pollutants may be released into the habitats associated with the SPA. Pollution could occur as a result of suspended solids being released during bund creation and dust/ sediments released during patching works on the outer flood defence. Fuel leaks or material spillage from machinery could also be a source of pollution. Such pollution could lead to loss of condition to habitat associated with the SPA that qualifying species depend on, leading to permanent impacts. Pollution may also have temporary impacts to qualifying species either directly, or indirectly, via ingestion of toxic pollutants resulting in avoidance of habitat, injury or death of individuals and/or reduced food availability, both within and adjacent to the SPA leading to impacts on the structure, function and supporting processes of habitats supporting the species.

Pathway Identified: Disturbance

The vast majority of the qualifying species for the SPA relate to over-wintering populations of species. The works are anticipated to be undertaken over a three-to-four-month period in the summer months, when the qualifying features are either absent or present in very small numbers.

Breeding terns do not nest in the vicinity of the proposed works at Northney. Whilst they potentially feed in the waters to the east of the Northney, works on the outer flood protection would not cause an avoidance of feeding in this area.

Any disturbance as a result of the development is therefore not predicted to have an LSE on the designated feature of the SPA.

4.2.2 Solent Maritime SAC

Pathway Identified: Pollution

During the construction/ installation phase pollutants may be released into the habitats associated with the SAC. Pollution could occur as a result of suspended solids being released and dust/ sediments released during patching works on the outer flood defence. Fuel leaks or material spillage from machinery could also be a source of pollution. Such pollution could lead to loss of condition to habitat associated with the SAC, leading to permanent impacts. on the structure, function and supporting processes of qualifying habitats of the SAC.

5 APPROPRIATE ASSESSMENT

5.1 Assessment of Potential Impacts on Conservation Objectives

5.1.1 Chichester and Langstone Harbours SPA

Disturbance to qualifying species as a result of works was previously screened out. The following objectives which may directly link to LSE identified with regards to pollution include:

Conservation Objectives: Distribution and extent of habitats supporting the species; and Structure, function and supporting processes of habitats supporting the species

There is the potential for the habitats that support qualifying species to be impacted during the construction phase. Pollution could occur as a result of suspended solids being released during bund creation and dust/ sediments released during patching works on the outer flood defence. Fuel leaks or material spillage from machinery could also be a source of pollution. Such pollution could lead to loss of condition to habitats associated with the SPA that qualifying species depend on, leading to permanent impacts. Pollution may also have temporary impacts to qualifying species either directly, or indirectly, via ingestion of toxic pollutants resulting in avoidance of habitats, injury or death of individuals and/or reduced food availability, both within and adjacent to the SPA leading to impacts on the structure, function and supporting processes of habitats supporting the species.

The production of a Construction Environmental Management Plan (CEMP) will detail pollution prevention measures. This document will detail measures such as spill kits kept on site and no re-fuelling will occur within 15m of a watercourse/waterbody and where there is a risk of soil or ground water contamination, spill containment measures will be implemented. It is predicted that the risk of such pollution events occurring will be minimal if the mitigation and relevant good practice Guidance for Pollution Prevention (GPP), detailed in section 6 of this report, is adhered to.

5.1.2 Solent Maritime SAC

The following objectives which may directly link to LSE identified with regards to pollution include:

Conservation Objectives: 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

There is the potential for the structure and function and supporting processes of habitats associated with the SAC to be impacted during the construction phase. Pollution could occur as a result of suspended solids being released and dust/ sediments released during patching works on the outer flood defence. Fuel leaks or material spillage from machinery could also be a source of pollution. Such pollution could lead to loss of condition to habitat associated with the SAC, leading to permanent impacts.

The production of a Construction Environmental Management Plan (CEMP) will detail pollution prevention measures. This document will detail measures such as spill kits kept on site and no re-

fuelling will occur within 15m of a watercourse and where there is a risk of soil or ground water contamination, spill containment measures will be implemented. It is predicted that the risk of such pollution events occurring will be minimal if the mitigation and relevant Guidance for Pollution Prevention (GPP), detailed in section 6 of this report, is adhered to.

6 MITIGATION

The following mitigation will be employed to avoid and minimise the risk of significant impacts to the integrity of Chichester and Langstone Harbours SPA and Solent Maritime SAC during the construction of the proposed coastal flood prevention measures:

- A Construction Environment Management Plan (CEMP) detailing pollution prevention measures will be agreed with the regulatory authority prior to works commencing
- Construction works to be undertaken during the summer months to prevent disturbance to qualifying species of the Chichester and Langstone Harbours SPA;
- The following good practice guidelines will be adhered to and incorporated into the CEMP:
 - GGP5: Works and maintenance in or near water;
 - PPG 6: Working at construction and demolition sites;
 - PPG 7: Safe Storage – The safe operation of refuelling facilities;
 - GPP21: Pollution and incident response planning; and
 - PPG22: Incident response – dealing with spills.