OAKCROFT LANE, STUBBINGTON

SHADOW HABITATS REGULATIONS ASSESSMENT

Final Document (Rev.1)

September 2020

Preliminary Ecological Appraisals • Protected Species Surveys and Licensing • NVC • EcIA • HRA • Management Plans
Habitats • Badger • Bats • Hazel Dormouse • Birds • Reptiles • Amphibians • Invertebrates • Riparian and Aquatic Species

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OAKCROFT LANE, STUBBINGTON

SHADOW HABITATS REGULATION ASSESSMENT

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1.0 INTRODUCTION

1.1 Background

Ecological Survey and Assessment Limited (ECOSA) have been appointed by Persimmon Homes Limited to prepare a shadow Habitats Regulations Assessment in relation to the proposed residential development of land at Oakcroft Lane, Stubbington, Hampshire PO14 2EB (hereafter referred to as the application site).

ECOSA has previously undertaken a range of ecological survey work at the application site with an extended Phase 1 ecological assessment originally undertaken in February 2014 (ECOSA, 2015) and subsequent protected species surveys including bat activity, reptile surveys and great crested newt surveys undertaken in 2015 (ECOSA, 2015) and a suite of wintering bird surveys undertaken between 2014 and 2016 (ECOSA, 2015) (ECOSA, 2015) (ECOSA, 2016). A subsequent update of various elements of the survey work was undertaken in 2018 in order to inform the Ecological Impact Assessment to support the planning application (ECOSA, 2020).

A planning application for the development of the site for 261 residential dwellings was submitting to Fareham Borough Council on 14th March 2019. The planning application was subsequently refused on 22nd August 2019 including a number of reasons in relation to the ecology.

The proposals for the site have subsequently been revised and a new planning application for 209 residential units was submitted in June 2020. Following comments received from Hampshire County Council Ecology Team and Natural England and subsequent discussions with the consultees this document has been updated accordingly.

This Shadow Habitats Regulations Assessment will be submitted in combination with a Biodiversity Impact Calculator (ECOSA, 2020), Ecological Impact Assessment (ECOSA, 2020) and Ecological Management Plan (ECOSA, 2020). Reference is made to these three documents throughout this report, where relevant.

1.2 The Site

The application site is located in Stubbington, Hampshire, centred on National Grid Reference (NGR) SU 5536 0454 (**Map 1**).

The site covers approximately 18.5 hectares and comprises two agricultural fields with boundary vegetation and a small copse to the south-west of the site. The site is bounded to the south and east by existing residential development, to the north-east by Peak Lane, and to the north by agricultural fields, including the area of land proposed for the construction of the consented Stubbington Bypass. Crofton Ditch with

associated vegetation and Crofton Cemetery bounds the west of the site whilst a ditch is also present in the south of the site. The northern and southern parcels of land are bisected by Oakcroft Lane.

The wider landscape comprises Stubbington to the south and Fareham to the north and east. To the west lies a cemetery with open countryside comprising agricultural fields with associated boundary vegetation, occasional areas of woodland and the River Meon. The Solent lies towards the south and west separated from the site by open countryside and existing residential development.

1.3 Aims and Scope of Report

This shadow Habitats Regulations Assessment Report is aimed at assessing the Likely Significant Effects of the proposals upon internationally designated sites (hereafter referred to as European Sites) and their qualifying features. The objectives of this assessment are:

- Identify any aspects of the proposed development that would have a Likely Significant Effect on Natura 2000 sites, otherwise known as European sites or internationally designated sites (Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and, as a matter of National Planning Policy, Ramsar sites[1]), either in isolation or in-combination with other plans and projects. In addition, it is a matter of law that candidate SAC (cSAC) are considered in this process. It is also a matter of UK Government policy that potential SACs (pSACs) and potential SPAs (pSPA) are considered; and

- To advise on appropriate mechanisms for delivering mitigation where such effects are identified.

1.4 Site Proposals

The proposals entail erection of 209 dwellings with new access from Peak Lane and stopping up of Oakcroft Lane together with car parking, landscaping, Public Open Space and associated works. The land to the north of Oakcroft Lane is to be removed from agricultural use as a result of the development and delivered as an Ecological Enhancement Area. At the time of writing it is proposed to transfer this to Fareham Borough Council.

The Ecological Impact Assessment is based on the Site Layout produced by Persimmon Homes Limited, dated March 2019 (Drawing No. A-02-015-SL Revision F) (**Appendix 1**).

[1] Wetlands of International Importance designated under the Ramsar Convention 1979

Planning permission is being sought during 2020 with construction proposed to commence in late/early 2020/2021.

2.0 HABITATS REGULATIONS ASSESSMENT PROCESS

2.1 Introduction

This section provides an outline of the Habitats Regulations and the Habitats Regulations Assessment process.

2.2 The Habitats Regulations

The Habitats Regulations or the Conservation of Habitats and Species Regulations 2017 (as amended) as it is formally known, is a piece of national legislation derived from Directive 2009/147/EC on the conservation of wild birds (the Birds Directive) and Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive).

The aim of the Habitats Directive is to conserve habitats and species in Europe by establishing a network of important sites referred to as Natura 2000 sites. Under Article 6(3) of the Habitats Directive, an Appropriate Assessment of its implications for the European Site in view of the site's conservation objectives is required where a plan or project is likely to have a significant effect upon a European site, either alone or in combination with other projects (Infrastructure Planning Commission, 2011).

Under Article 6(4), where an Appropriate Assessment has been carried out and any proposed avoidance or mitigation measures anticipated are unable to reduce the potential effect, so it is no longer significant, or if uncertainty remains over the significant effect, consent will only be granted if:

- There are no alternative solutions;
- There are imperative reasons of over-riding public interest for the development; and
- Compensatory measures have been secured.

2.3 European Sites

Types of European sites considered in the HRA screening process are detailed in **Table 1**. This report considers Natura 2000 and Ramsar sites[2], collectively referred to as European sites.

[2] Whilst Ramsar sites are not European designated sites National Planning Policy is to subject them to the same HRA process as if Natura 2000 sites

Table 1: European Sites considered in HRA

Designation Type	Origin	Description
Special Protection Area (SPA)	EU Birds Directive	Strictly protected sites classified for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species. SPAs form part of the Natura 2000 network.
Potential SPA (pSPA)	EU Birds Directive	Sites that are proposed as SPAs but have yet to be formally classified. pSPA sites form part of the Natura 2000 network. These sites are assessed within HRA in accordance with National Planning Policy.
Special Area of Conservation (SAC)	EU Habitats Directive	Strictly protected sites forming part of a European network of important high-quality conservation sites that will make a significant contribution to conserving the habitat types and species identified in Annexes I and II of the Directive (as amended). The listed habitat types and species are those considered to be most in need of conservation at a European level (excluding birds). SACs form part of the Natura 2000 network.
Candidate SAC (cSAC)	EU Habitats Directive	Sites that are proposed as SACs and have been submitted to the European Union but have yet to be formally designated. cSACs form part of the Natura 2000 network. These sites are assessed within HRA in accordance with National Planning Policy.
Ramsar	Ramsar Convention	Internationally important wetland habitats are recognised under the Ramsar Convention, with Ramsar sites overlying SPA classifications and SAC designations. While the criteria differ from those of SPAs and SACs, the criteria for Ramsar sites are equally significant in terms of maintaining the ecological integrity of the site. Ramsar designated sites are not part of the Natura 2000 network (although by proxy they relate to the same sites). However, they are assessed within HRA in accordance with National Planning Policy

2.3.1 Conservation Objectives

SPAs and SACs

Each SPA and SAC has set conservation objectives defining what constitutes a favourable conservation status of each primary qualifying feature. These are set out by Natural England and describe the targets to be met in order for the feature to qualify as 'favourable'. Conservation objectives vary from site to site but follow the same general principles:

- To avoid deterioration of the qualifying habitats and the habitats of qualifying species;
- To avoid significant disturbance of qualifying species;
- To ensure the integrity of the site is maintained; and

- To ensure that the site makes a full contribution to achieving the favourable conservation status of each of the qualifying features.

The aims are broadly to maintain or restore the structure, function, extent, distribution and supporting processes of qualifying natural habitats and habitats of qualifying species, and to maintain or restore the populations and distribution of qualifying species.

Ramsar Sites

While Ramsar sites lack set conservation objectives, the correlation between Ramsar qualifying criteria and SAC/SPA qualifying features is such that the objectives of SPAs and SACs negate the need for separate objectives. For sites that are designated both as a Natura 2000 site and a Ramsar site, the conservation objectives of SPAs and SACs incorporate the designated features of the Ramsar site.

2.3.2 Conservation Status

Conservation status of a habitat is taken to be (European Economic Community (EEC), 1992):

'*The sum of the influences acting on a natural habitat 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*'.

Species conservation status is defined as:

'*The sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations*'.

Favourable conservation status of a site is defined as when (McLeod, 2005):

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

European sites often have associations with, or are overlaid by, Sites of Special Scientific Interest (SSSIs). SSSIs are assessed on the basis of their condition at the time of the most recent assessment survey in order to determine whether the site meets its objectives. The assessment of SSSIs draws upon recent and historic condition assessments, capable of establishing whether a site or component unit is *declining* or *recovering*.

European sites are assessed in more depth, on the basis of their conservation status, including an assessment of the presence of specific structure and functions required for its long-term maintenance. It also takes account of whether these necessary structures and functions are likely to persist into the future.

2.4 Habitat Regulations Assessment Process

The four stages of HRA (Infrastructure Planning Commission, 2011) are detailed in **Table 2**. If the proposed development cannot be screened out as being unlikely to lead to significant effects, then Appropriate Assessment (AA) is required which will include detailed analysis of identified likely significant effects in order to develop appropriate mitigation that will enable the Local Planning Authority (LPA) in their role as 'competent authority' to conclude that no adverse effect on the integrity of Natura 2000 sites will result.

Table 2: HRA screening process

Stage	Description
Stage 1 Screening	The process to identify the likely impacts of a project upon a European site, either alone or in combination with other plans and projects, and consider whether there is a Likely Significant Effect.
Stage 2 Appropriate Assessment	The consideration of the impacts on the integrity of the European site, either alone or in combination with other plans and projects, with regard to the site's structure and function and its conservation objectives. Where there are adverse impacts, an assessment of mitigation options is carried out to determine adverse effect on the integrity of the site. If these mitigation options cannot avoid adverse effects, and that there will an adverse effect on site integrity, then development consent can only be given if stages 3 and 4 are followed.
Stage 3 Assessment of Alternative Solutions	Examining alternative ways of achieving the objectives of the project to establish whether there are solutions that would avoid or have a lesser effect on European sites.
Stage 4 Imperative Reasons of Overriding Public Interest (IROPI)	This is the assessment where no alternative solution exists and where adverse impacts remain. The process to assess whether the development is necessary for IROPI and, if so, the potential compensatory measures needed to maintain the overall coherence of the site or integrity of the European site network.

The Habitats Regulations apply the precautionary principle to SACs, SPAs and Ramsar sites. This means that it is presumed that a likely significant effect may occur unless it can be demonstrated with a sufficient level of confidence that it will not.

Throughout this document the phrase Habitats Regulations Assessment (HRA) has been used to refer to the overall process required, while Appropriate Assessment (AA) is used for the specific stage of the process in which it is necessary to determine in more detail adverse effects on the integrity of Natura 2000 sites and mitigation required.

The need for HRA and AA is set out within Article 6.3 of the EC Habitats Regulations 1992, and transposed into British law by the Conservation of Habitats and Species Regulations 2017. The ultimate aim of the Regulations is to "maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest" (Habitats Regulations, Article 2(2)). This aim relates to habitats and species, not the Natura 2000 sites themselves, although the sites have a significant role in delivering favourable conservation status.

Habitats Directive 1992

"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives."

Conservation of Habitats and Species Regulations 2017 (as amended)

"A competent authority, before deciding to … give any consent, permission or other authorisation for a plan or project which is likely to have a significant effect on a European site … must make an appropriate assessment of the implications for the site in view of that sites conservation objectives … The authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site".

2.4.1 Screening

The first stage of any Habitats Regulations Assessment is a Likely Significant Effect test which is a high level risk assessment to decide whether the full subsequent stage known as Appropriate Assessment is required. The essential question is:

"Is the project, either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon European sites?"

Likely Significant Effect

The process will firstly involve identifying any effects on the ecological functionality of European sites likely to arise from the proposed development, either alone or in combination with other development projects in the area.

These effects would be considered significant if they undermine any of the European site's conservation objectives.

The likelihood of each significant effect is then determined. A likely effect is defined as one which cannot be ruled out based on the objective information available.

A recent European Court of Justice ruling (People Over Wind and Peter Sweetman v Coillte Teoranta - Case C323/17, 2018) has determined that it is not sufficient to screen out projects that include mitigation if that mitigation would not form part of the plan or project were it not for the consideration of the conservation objectives of Natura 2000 sites. In other words, the project must be screened on its own merits and if mitigation would be required to prevent Likely Significant Effects on European sites then this must be subject to full Appropriate Assessment.

With regard to those European sites where it is considered not possible to 'screen out' the project without detailed appraisal, it is necessary to progress to the later Appropriate Assessment stage to explore the adverse effects and devise mitigation.

In Combination

HRA takes into account the impacts of proposals both in their own right and in combination with other developments in the vicinity. It is possible for a proposed development to have no significant impact when taken in isolation, but in conjunction with other proposed development projects it may contribute to a likely significant effect. This is known as an 'in combination' effect, whether or not the proposals have a likely significant effect alone.

2.4.2 Appropriate Assessment

An Appropriate Assessment is required when HRA screening of the proposals and the in-combination assessment cannot rule out the possibility that a European site's conservation objectives (see Paragraph 2.3.1) will be undermined, because of one or more likely significant effects.

Integrity

An effect that directly or indirectly affects a European site's qualifying features resulting in harm to the ecological structure and functioning of the site, its supporting processes and/or adversely affects the site's ability to meet conservation objectives would be considered an adverse effect on the integrity of the site. Site integrity is defined as (Jones, 2002):

'*The coherence of its ecological structure and function, across its whole area, which enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified*'.

3.0 PLANNING POLICY CONTEXT

3.1 Introduction

This section summarises the planning policy in relation to ecology and biodiversity within the Fareham Borough Council administrative area with specific reference to those elements in relation to European sites.

3.2 National Policy

The National Planning Policy Framework (NPPF) sets out the government's requirements for the planning system in England. The original document was published in 2012 with the most recent revision published in February 2019. A number of sections of the NPPF are relevant when taking into account development proposals and the environment. As set out within Paragraph 11 of the NPPF *"Plans and decisions should apply a presumption in favour of sustainable development".* However, Paragraph 177 goes on to state that "*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*[3] *(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.*"

The general impetus of the NPPF in relation to ecology and biodiversity is for development proposals to not only minimise the impacts on biodiversity but also to provide enhancement. Paragraph 170 states that the planning system should contribute to and enhance the natural environment by *"…minimising impacts on biodiversity and providing net gains in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures..."*.

A number of principles are set out in Paragraph 175, including that where harm cannot be adequately avoided then it should be mitigated for, or as a last resort, compensated for. Where impacts occur on nationally designated sites, the benefits must clearly outweigh any adverse impact and incorporating biodiversity in and around developments should be encouraged. Specific reference is also made to the protection of irreplaceable habitats[4]. Where loss to irreplaceable habitats occurs planning permission would normally be refused unless there are wholly exceptional reasons and an adequate compensation strategy is in place. Paragraph 175 also states "*development whose primary objective is to conserve or enhance biodiversity should*

[3] The NPPF defines a habitats site as "*Any site which would be included within the definition at regulation 8 of the Conservation of Habitats and Species Regulations 2017 for the purpose of those regulations, including candidate Special Areas of Conservation, Sites of Community Importance, Special Areas of Conservation, Special Protection Areas and any relevant Marine Sites.*"

[4] The NPPF defines irreplaceable habitats as "*Habitats which would be technically very difficult (or take a very significant time) to restore, recreate or replace once destroyed, taking into account their age, uniqueness, species diversity or rarity. They include ancient woodland, ancient and veteran trees, blanket bog, limestone pavement, sand dunes, salt marsh and lowland fen.*"

be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity". Protection of sites proposed as Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar sites or acting as compensation for SPAs, SACs and Ramsar sites, should receive the same protection as habitat sites.

Government Circular ODPM06/2005 (ODPM, 2005) accompanies the NPPF, adding the following in relation to European sites[5]:

'*Regulation 48 of the Habitats Regulations restricts the granting of planning permission for development which is likely to significantly affect a European site…by requiring that an appropriate assessment is first carried out of the implications of the development for the site's conservation objectives…*

The decision on whether an appropriate assessment is necessary should be made on a precautionary basis. An appropriate assessment is required where there is a probability or a risk that the plan or project will have significant effects…. either individually or in combination with other projects…. this means that the planning authority should identify the potential risks so far as they may be reasonably foreseeable in light of such information as can reasonably be obtained, and put in place a legally enforceable framework with the aim of preventing the risks from materialising….

Regulation 54(4) of the Habitats Regulations prohibits the grant of outline planning permission unless the planning authority is satisfied, whether by reason of the conditions or limitations imposed on the permission, or otherwise, that no development likely to adversely affect the integrity of a European site could be carried out under the permission…

If the decision-taker is unable to conclude that the proposed development will not adversely affect the integrity of the site, and this effect, or possible effect, will not be removed by conditions or other restrictions, they must not grant planning permission.'

3.3 Local Policy

Local planning policy within Fareham Borough is provided by the adopted Core Strategy August 2011 and polices within the Fareham Borough Council Local Plan, adopted June 2015. A total of two policies within the Local Plan specifically refer to ecology and biodiversity:

[5] ODPM06/2005 was published prior to the 2017 update to the Habitats Regulations and therefore, specific Regulation numbers have since been amended

- **Policy DSP13**: Nature Conservation. This policy refers to the protection and enhancement of designated sites and sites of nature conservation and protected species and their habitats. Where development may cause a detrimental impact, it may be considered if the impacts are outweighed by the benefits of the development and adverse impacts can be minimised and provision is made for mitigation and, where necessary, compensation for those impacts is provided.

- **Policy DSP14**: Supporting Sites for Brent Geese and Waders. Development on "uncertain" sites for Brent geese and/or waders may be permitted where studies have been completed that clearly demonstrate that the site is not of 'importance'. Development on 'important' sites for Brent Geese and/or Waders, may be granted planning permission where it can be demonstrated that there is no adverse impact on those sites, or appropriate avoidance and/or mitigation measures to address the identified impacts, and a programme for the implementation of these measures, can be secured.

In addition to these policies, a single policy within the adopted Core Strategy refers to ecology and biodiversity:

- **Policy CS4**: Green Infrastructure, Biodiversity and Geological Conservation. This policy is a largely an all-encompassing policy which refers to the protection of designated sites and important habitats. The policy also refers to the need to have regard for Biodiversity Opportunity Areas and targets within the local, regional and national Biodiversity Action Plans (BAP). The policy also refers to the importance to incorporate networks of green infrastructure and to the implementation of a strategy in order to minimise recreational impacts on European sites.

4.0 ASSESSMENT METHODS

4.1 Introduction

This section presents the methodology employed during the shadow Habitats Regulation Assessment.

4.2 Habitats Regulations Assessment Methodology

Currently there is only limited guidance on HRA screening methodology, namely Planning for the Protection of European Sites: Appropriate Assessment guidance (DCLG, 2006) and Habitats Regulations Appraisal of Plans: Guidance for Plan-making Bodies in Scotland (David Tyldesley and Associates, 2012). These documents have been used for the purpose of this exercise, along with supporting guidance (Infrastructure Planning Commission, 2011). This HRA exercise has been completed in the following stages:

- European Sites have been identified within the Zone of Influence;
- The vulnerabilities and potential development effects, both alone and in combination have been established;
- The development proposals have been screened for likelihood of significant effect on those European Sites; and
- Measures are introduced to avoid any identified likely significant effect which have been considered as part of the Appropriate Assessment.

The results of the Screening exercise are presented in Section 5.0, including details of the geographical scope of the assessment, the particular characteristics of the European sites within that area and consideration of how the proposed works may affect those European Sites. Following the completion of the screening exercise the Appropriate Assessment is detailed in Section 6.0.

4.3 Consultation Resources

This report has involved consultation of the following resources to identify designated sites and their features that may be affected by the proposed works:

- Multi-Agency Geographic Information for the Countryside (MAGIC) (DEFRA, 2020);
- Hampshire Biodiversity Information Centre Desktop Study;
- Solent Wader and Brent Goose Strategy (Whitfield, 2019);
- Solent Recreation Mitigation Strategy (Bird Aware Solent, 2017); and

- Consultation respond received by Natural England dated 12th August 2020.

4.3.1 Zone of Influence

Plans and projects have the potential to impact on European sites beyond the confines of the individual sites themselves. Guidance on Ecological Impact Assessment (CIEEM, 2018) states that potential impacts should be investigated which occur within the zone of influence that arises during the whole lifespan of the proposed plan or project. The potential zone of influence is defined as:

- Areas outside a European site which could be used by individuals of a species qualifying as a primary ecological feature of that site and potentially associated with that site;
- Areas directly within the land take for the proposed development or plans;
- Areas which will be temporarily affected;
- Areas likely to be impacted by hydrological disruption; and
- Areas where there is a risk of pollution and disturbance (e.g. noise).

Given the current guidance available in relation to potential recreational impacts on the European designated sites in the Solent (Bird Aware Solent, 2017) a Zone of Influence of 5.6 kilometres was deemed appropriate for this assessment.

4.3.2 In Combination Scope

The impacts and effects of any plan being assessed are not considered in isolation but in combination with other plans and projects that may also be affecting the European sites in question. In practice, 'in combination assessment' is of greatest importance when a plan or project would otherwise be screened out because the individual contribution is inconsequential.

For the purposes of this assessment, we have determined that, due to the nature of the identified impacts, the key plans and projects that are likely to result in 'in-combination' effects with the proposed development relate to additional housing allocations within 5.6 kilometres of the Southampton and Solent Water SPA/Ramsar site, Portsmouth Harbour SPA/Ramsar site and Solent Maritime SAC that could lead to likely significant effects on the Natura 2000 sites considered in Paragraph 2.4 in combination with the proposed development.

5.0 SCREENING

5.1 Introduction

This section details the screening for likely significant effects process and a discussion of the findings to establish how the likely significant effect outcome was determined.

5.2 Relevant European Sites

The Multi-Agency Geographic Information for the Countryside (MAGIC) database was consulted on 30th March 2020 for locations of statutory nature conservation sites of national and international importance within the Zones of Influence of the application site to allow an assessment of the likely impacts of the proposals on European sites.

The European sites identified within the zone of influence are as follows:

- Solent and Southampton Water SPA - located approximately 320 metres to west of the application site;
- Solent and Southampton Water Ramsar site – located approximately 320 metres to west of the application site;
- Portsmouth Harbour SPA - located approximately 2.2 kilometres to east of the application site;
- Portsmouth Harbour Ramsar site – located approximately 2.2 kilometres to the east of the application site; and
- Solent and Dorset Coast SPA – located approximately 2.5 kilometres south of the application site; and
- Solent Maritime SAC – located approximately five kilometres to west of the application site;

The boundaries of the European sites in relation to the application site are provided on **Map 2**.

In addition, a review was also undertaken of the Solent Wader and Brent Goose Strategy sites which are present within one kilometre of the application site boundary in order to consider direct impacts (such as habitat loss) and indirect impacts (such as disturbance). Those identified within a one kilometre radius of the site are:

- F17C Secondary Support Area – within the site boundary;
- F17D Low Use – within the site boundary;
- F17M Low Use – immediately adjacent to eastern site boundary (separated by Peak Lane);
- F32 Low Use – approximately 80 metres west of the site;

- F28A Low Use – approximately 130 metres west of the site
- F17B Low Use – approximately 150 metres north of the site;
- F76 Secondary Support Area – approximately 240 metres east of the site;
- F31 Low Use – approximately 280 metres west of the site;
- F17N Low Use – approximately 330 metres east of the site;
- F17O Low Use – approximately 360 metres east of the site.
- F17J Low Use – approximately 400 metres north-east of the site;
- F29 Low Use – approximately 740 metres west of the site; and
- F29 Low Use – approximately 950 metres north-west of the site.

The location of these sites is shown on **Map 3**.

5.3 Effects

The European sites within the zone of influence are vulnerable to a range of direct and indirect effects. Those activities associated with development projects causing specific harm to habitats or species within, or originating from the European site that are primary reasons for designation, would cause direct effects.

Article 6(2) of the Habitats Directive defines the two main effects upon European sites as habitat deterioration and species disturbance.

Habitat deterioration can occur when: the extent of a qualifying habitat decreases; or the structure and functions of that habitat that are necessary for its long-term maintenance no longer exist or are threatened; or the conservation status of its typical species is no longer favourable, as a result of a process or event. Consideration of the sources of deterioration, the likelihood of these occurring and whether those effects would be significant are considered.

A process or event contributing to the long-term decline of a species population on a site can be considered a significant disturbance, defined as species disturbance.

5.4 Characteristics of the European Sites

A summary of qualifying features of each of the European sites within the zone of influence can be found in the sections below. **Appendix 2** to **Appendix 4** provides citations for each of the European sites considered.

5.4.1 Solent and Southampton Water SPA/Ramsar site

The site comprises of estuaries and adjacent coastal habitats including intertidal flats, saline lagoons, shingle beaches, saltmarsh, reedbeds, damp woodland, and grazing marsh. The diversity of habitats support internationally important numbers of wintering waterfowl, important breeding gull and tern populations and an important assemblage of rare invertebrates and plants. The qualifying features of the Solent and Southampton Water SPA/Ramsar site are detailed in **Table 4** and **Table 5**, respectively.

Table 3: Solent and Southampton Water SPA qualifying features

Qualifying Feature		**Proportion of National Population (%)**
During the Breeding Season	Common Tern *Sterna hirundo*	267 pairs representing at least 2.2% of the breeding population in Great Britain (5 year peak mean, 1993-1997)
	Little Tern *Sterna albifrons*	49 pairs representing at least 2.0% of the breeding population in Great Britain (5 year peak mean, 1993-1997)
	Mediterranean Gull *Larus melanocephalus*	2 pairs representing at least 20.0% of the breeding population in Great Britain (5 year peak mean, 1994-1998)
	Roseate Tern *Sterna dougallii*	2 pairs representing at least 3.3% of the breeding population in Great Britain (5 year peak mean, 1993-1997)
	Sandwich Tern *Sterna sandvicensis*	231 pairs representing at least 1.7% of the breeding population in Great Britain (5 year peak mean, 1993-1997)
Over Winter	Dark-bellied Brent Goose *Branta bernicla bernicla*	7,506 individuals representing at least 2.5% of the wintering Western Siberia/Western Europe population (5 year peak mean, 1992/3-1996/7)
	Black-tailed Godwit *Limosa limosa islandica*	1,125 individuals representing at least 1.6% of the wintering Iceland - breeding population (5 year peak mean, 1992/3-1996/7)
	Ringed Plover *Charadrius hiaticula*	552 individuals representing at least 1.1% of the wintering Europe/Northern Africa - wintering population (5 year peak mean, 1992/3-1996/7)
	Teal *Anas crecca*	4,400 individuals representing at least 1.1% of the wintering Northwestern Europe population (5 year peak mean, 1992/3-1996/7)
Assemblage Qualification	Solent and Southampton Water SPA is also designated under Article 4.2 for regularly supporting at least 20,000 waterfowl.	

Table 4: Solent and Southampton Water Ramsar qualifying features

Ramsar Criteria	Importance
Ramsar Criterion 1 Site contains representative, rare or unique wetland types	The site is one of the few major sheltered channels between a substantial island and mainland in European waters, exhibiting an unusual strong double tidal flow and has long periods of slack water at high and low tide. It includes many wetland habitats characteristic of the biogeographic region: saline lagoons, saltmarshes, estuaries, intertidal flats, shallow coastal waters, grazing marshes, reedbeds, coastal woodland and rocky boulder reefs.
Ramsar Criterion 2 Site supports vulnerable, endangered, or critically endangered species or threatened ecological communities	The site supports an important assemblage of rare plants and invertebrates. At least 33 British Red Data Book invertebrates and at least eight British Red Data Book plants are represented on site.
Ramsar Criterion 5 Site regularly supports 20,000 or more waterbirds	The site supports internationally important bird assemblages. Species with peak counts in winter: 51,343 waterfowl (5 year peak mean 1998/99-2002/2003)
Ramsar Criterion 6 Site regularly supports 1% of the individuals in a population of one species/subspecies of waterbirds	Qualifying Species/populations occurring at levels of international importance: Species with peak counts in spring/autumn: ▪ Ringed plover, Europe/Northwest Africa: 397 individuals, representing an average of 1.2% of the GB population (5 year peak mean 1998/9-2002/3) Species with peak counts in winter: ▪ Dark-bellied brent goose, 6,456 individuals, representing an average of 3% of the population (5 year peak mean 1998/9-2002/3) ▪ Eurasian teal *Anas crecca*, NW Europe: 5,514 individuals, representing an average of 1.3% of the population (5 year peak mean 1998/9-2002/3) ▪ Black-tailed godwit, Iceland/W Europe: 1,240 individuals, representing an average of 3.5% of the population (5 year peak mean 1998/9-2002/3)

5.4.2 Portsmouth Harbour SPA/Ramsar site

The estuary includes one of the four largest expanses of mud-flats and tidal creeks on the south coast of Britain. The harbour has only a narrow connection to the sea via the Solent, and receives comparatively little fresh water, thus giving it an unusual hydrology. The site supports significant number of dark-bellied Brent goose and a diverse of mudflat habitat. The qualifying features for Portsmouth Harbour SPA and Ramsar site are provided in **Table 6** and **Table 7**, respectively.

Table 5: Portsmouth Harbour SPA qualifying features

	Species	Proportion of National Population (%)
Over Winter	Dark-bellied brent goose *Branta bernicla bernicla*	2,847 individuals representing at least 0.9% of the wintering Western Siberia/Western Europe population (5 year peak mean 1991/2 - 1995/6)

Table 6: Portsmouth Harbour Ramsar site qualifying features

Ramsar Criteria	Importance
Ramsar Criterion 3 Site supports populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region.	The intertidal mudflat areas possess extensive beds of eelgrass *Zostera angustifolia* and *Zostera noltei* which support the grazing dark-bellied brent geese populations. The mud-snail *Hydrobia ulvae* is found at extremely high densities, which helps to support the wading bird interest of the site. Common cord-grass *Spartina anglica* dominates large areas of the saltmarsh and there are also extensive areas of green algae *Enteromorpha* species and sea lettuce *Ulva lactuca*. More locally the saltmarsh is dominated by sea purslane *Halimione portulacoides* which gradates to more varied communities at the higher shore levels. The site also includes a number of saline lagoons hosting nationally important species.
Ramsar Criterion 6 Site regularly supports 1% of the individuals in a population of one species/subspecies of waterbirds	Qualifying Species/populations occurring at levels of international importance: Species with peak counts in winter: ▪ Dark-bellied brent goose, 2,105 individuals, representing an average of 2.1% of the Great Britain population (5 year peak mean 1998/9-2002/3)

5.4.3 Solent and Dorset Coast SPA

The site is located along the coasts of Dorset, Hampshire, the Isle of Wight and West Sussex and overlaps a number of existing SPA, SACs and Ramsar sites. The qualifying features of the Solent and Dorset Coast SPA are detailed in **Table 8**.

Table 7: Solent and Dorset Coast SPA qualifying features

Qualifying Feature		Proportion of National Population (%)
During the Breeding Season	Sandwich Tern *Sterna sandvicensis*	441 pairs representing at least 4.01% of the breeding population in Great Britain (2013)
	Common Tern *Sterna hirundo*	492 pairs representing at least 4.47% of the breeding population in Great Britain (2013)
	Little Tern *Sterna albifrons*	63 pairs representing at least 3.31% of the breeding population in Great Britain (2013)

5.4.4 Solent Maritime SAC

The Solent Maritime SAC covers a major estuarine system on the south coast of England which includes the largest number of small estuaries in the tightest cluster anywhere in Great Britain and situated within one of the only major sheltered channels in European. The qualifying features of the Solent Maritime SAC are set out in **Table 9**.

Table 8: Solent Maritime SAC qualifying features

Category	Qualifying Features
Annex 1 habitats that are primary reason for the selection of the site	Estuaries
	Spartina *Spartinion maritimae* swards
	Atlantic salt meadows *Glauco-Puccinellietalia maritimae*
Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site	Sandbanks which are slightly covered by sea water all the time
	Mudflats and sandflats not covered by seawater at low tide
	Coastal lagoons
	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"")"
Annex II species present as a qualifying feature, but not a primary reason for site selection	Desmoulin`s whorl snail *Vertigo moulinsiana*

5.5 Potential Effects on European Sites

Details of the effects on each of the European sites, as defined by JNCC in the relevant citations (refer to **Appendix 2** to **Appendix 4**) are summarised in **Table 10**[6]. Those which are relevant to the proposed development are highlighted and discussed in further detail.

[6] The Solent and Dorset Coast SPA was designated in January 2020. However, this information is not currently available for this SPA.

Table 9: Effects on European sites and relevance to development at the application site

European Site	Potential Effect	Relevant
Solent and Southampton Water SPA/Ramsar site	Pollution to groundwater (point sources and diffuse sources)	Y
	Fishing and harvesting aquatic resources	N
	Changes in abiotic conditions	Y
	Changes in biotic conditions	N
	Outdoor sports and leisure activities, recreational activities	Y
Solent Maritime SAC	Pollution to groundwater (point sources and diffuse sources)	N
	Changes in abiotic conditions	Y
	Fishing and harvesting aquatic resources	N
	Changes in biotic conditions	N
	Outdoor sports and leisure activities, recreational activities	Y
Portsmouth Harbour SPA/Ramsar site	Pollution to groundwater (point sources and diffuse sources)	N
	Changes in biotic conditions	N
	Changes in abiotic conditions	Y
	Outdoor sports and leisure activities, recreational activities	Y
	Fishing and harvesting aquatic resources	N

5.5.1 Pollution to Ground Water

Construction Activities

The application site is hydrologically linked to the Crofton Ditch, which flows into Titchfield Haven[7] which is the closest point of Solent and Southampton Water SPA and Ramsar site. Therefore, pollution events as a result of construction activities (for example run-off, chemical spills, sediment entering the water course) have the potential to result in pollution event on Solent and Southampton Water SPA and Ramsar site at Titchfield Haven.

In the absence of mitigation there is **a likely significant effect** either alone or in-combination with other plans or projects on Solent and Southampton Water SPA/Ramsar site in combination with other plans or projects.

Given the removed nature of the application site from Solent Maritime SAC, Portsmouth Harbour SPA/Ramsar site and Solent and Dorset Coast SPA and lack of direct hydrological connectivity it is concluded there is **no likely significant effect** either

[7] Tichfield Haven SSSI is a competent part of the Solent and Southampton Water SPA

alone or in-combination with other plans on projects on these sites in relation to construction phase pollution.

Operational Phase

During the operational phase there is the potential for an increase in pollutants through surface water run-off entering the Crofton Ditch which is hydrologically linked to Titchfield Haven and the Solent and Southampton Water SPA/Ramsar site. Therefore, in the absence of mitigation there is a **likely significant effect** either alone or in-combination with other plans or projects.

However, given the removed nature of the application site from Solent Maritime SAC, Portsmouth Harbour SPA/Ramsar site and Solent and Dorset Coast SPA and lack of hydrological connectivity it is concluded there is **no likely significant effect** either alone or in-combination with other plans on projects on these sites.

5.5.2 Change in Abiotic Conditions

Change in Nitrogen Output

The proposals would result in waste water discharge from the site, which has the potential to result in an increase in nitrogen output into the Solent waters.

The most recent guidance from Natural England (Natural England, 2020) indicates that an occupancy rate of 2.4 residents per dwelling should be utilised which indicates the new development would support approximately 501.6 residents. This guidance has then been used to calculate the likely nitrogen output as a result of the development, below.

Based on an assumed waste water generation of 110 litres per day this would result in 55,176.00 litres per day of waste water from the development. It is assumed that the waste water will be treated at Peel Common Waste Water Treatment Works which has an environmental permit limit of 9 milligrams per litre. Assuming the water is treated at 90% of the consent limit this would result in a total discharge of 8.1 milligrams of nitrogen per litre. Natural England's most recent guidance indicates that 2 milligrams of nitrogen per litre can be subtracted to account for baseline nitrogen in groundwater and rivers which means 6.1 milligrams per litre needs to be taken into account in the calculation. This gives a total generation of 336753.60 milligrams of total nitrogen per day or 122.85 kilograms of total nitrogen generated by the development per year.

The second stage of the calculation is to determine the amount total nitrogen currently discharged through existing land uses. 15.90 hectares of land is cropped which outputs 25.4 kilograms of nitrogen per hectare per year (a total of 403.90 kilograms per year). In addition, other areas of habitat within the development totalling 1.9 hectares outputs

5.0 kilograms of nitrogen per year. Therefore, the estimated total nitrogen generated through existing and uses is 413.2 kilograms of total nitrogen per year.

The third stage of the calculation is to determine the nitrogen load from future land use. A total of 5.40 hectares of the site will be developed to provide new urban area. A figure of 14.3 kilograms of nitrogen per hectare is used to calculate leaching from urban space whilst a figure of 5.0 kilograms per hectare is used for open space, of which 12.37 hectares is present within the proposals. Therefore, this would result in an output of 139.07 kilograms of nitrogen in the catchment from leaching. When taken with the waste water figure, the total future output of the site would be 261.92 kilograms of nitrogen per year.

In summary the total output of the site based on current land uses is approximately 413.21 kilograms of nitrogen per year whilst approximate future output as a result of new uses would be approximately 261.92.22 kilograms of total nitrogen per year. This would result in **a net reduction** of 151.29 kilograms of total nitrogen per year. Given that the net future outputs are less that the current it can be concluded that there will be no net increase in nitrogen as a result of the proposal. A summary of this calculation is provided in **Appendix 5**.

Therefore, it is possible to concluded that there is **no likely significant effect** either alone or in-combination with other plans or projects on Solent and Southampton Water SPA/Ramsar site, Portsmouth Harbour SPA, Solent Maritime SAC and Solent and Dorset Coast SPA and there will be a net betterment in terms of nitrogen discharge as a result of the proposals.

5.5.3 Recreational Activities

A range of research has been undertaken by the Solent Disturbance and Mitigation Project and Bird Aware Solent which has identified that any residential development within 5.6 kilometres of the Solent SPAs has the potential to result in a likely significant effect on the Solent SPAs either alone or in-combination with other plans or projects (Bird Aware Solent, 2017).

Therefore, in the absence of mitigation there would be **a likely significant effect** either in-combination with other plans or projects on Solent and Southampton Water SPA/Ramsar site, Portsmouth Harbour SPA/Ramsar site, Solent Maritime SAC and Solent and Dorset Coast SPA.

5.5.4 Functionally Linked Land

In addition to the above risk factors listed on the Natura 2000 data form research has been undertaken by the Solent Waders and Brent Goose strategy which has specifically highlighted a network of sites which are functionally linked to the Solent

SPAs (Whitfield, 2019). Therefore, it is necessary to consider the potential effects on these sites as part of the Habitats Regulations Assessment.

Direct Impacts

A total of three seasons of wintering bird surveys were undertaken at the site between 2014 and 2016 (ECOSA, 2015) (ECOSA, 2016). A range of wintering bird surveys were also undertaken by WSP between 2013 and 2015 as part of a wider survey of the Stubbington Bypass proposals. The ECOSA survey work did not identify the presence of any waders within either Strategy Site F17C or F17D. However, subsequent survey visits undertaken as part of the Solent Wader and Brent Goose strategy have recorded the presence of golden plover *Pluvialis apricaria*, lapwing *Vanellus vanellus* and snipe *Gallinago gallinago* in F17C and a single record of lapwing on one occasion in F17D. **Table 3** provides a summary of the known records at the site made between 2013 and 2019.

Table 10: Summary of Waders Recorded

Year	Recorder	F17C		F17D	
		Visits	**Records**	**Visits**	**Records**
Pre-2014	Strategy Records	7	-	6	-
2013/2014	ECOSA	3	-	3	-
	WSP	12	Golden Plover 80 Lapwing 1	12	
2014/2015	ECOSA	12	-	12	-
	WSP	12	Lapwing 40 Snipe 1	12	
2015/2016	ECOSA	12	-	12	-
2017/2018	Strategy Records	4	Golden Plover 39 Lapwing 30 Snipe 1	0	-
2018/2019	Strategy Records	2	Lapwing 162 Golden Plover 109	1	Lapwing 16
Total Visits		64		58	

The proposals will result in the loss of Solent Wader and Brent Goose Strategy (SWBGS) Site F17D which is classified as a low use site. The Solent Wader and Brent Goose Strategy defines low use sites as (SWBGS Steering Group, 2018):

"All Low Use sites have the potential to be used by waders or brent geese. These sites have the potential to support the existing network and provide alternative options and resilience for the future network. The in-combination loss of these sites would impact on the continued ecological function of the wader and brent goose network."

Therefore, it is possible to conclude a **likely significant effect** on Southampton and Solent Water SPA/Ramsar site and Portsmouth Harbour SPA/Ramsar site as a result of direct impacts on functionally linked land in-combination with other plans or projects.

Indirect Impacts – Recreation Activities

There are a number of SWBGS sites in the surrounds which are used, or have potential to be used, by wildfowl and waders associated with the European sites. Therefore, these sites are considered to be functionally linked to the SPAs themselves. As with the SPAs the wildfowl and waders using these sites are potentially vulnerable to both visual disturbance from walkers and disturbance from dogs. However, given that a number of sites are situated on private land consideration has only been given to those which are publicly accessible. It is also important to note that these sites are not directly comparable to the costal European sites which are activity promoted for recreational use, and are in themselves “attractions”, but existing agricultural fields which may have rural footpaths across them.

F28A is present to the north-west of the application site. A review of aerial photography and OS mapping did not identify the presence of any publicly accessible footpaths traversing this site. However, Ranvilles Lane does run adjacent to this site, which is a no through lane, which could present a suitable walking opportunity for new residents. A review of aerial photography reveals that the side of Ranvilles Lane which is situated adjacent to F28A is well screened from the potential walking route by an existing tree line. Therefore, there would be no direct visual disturbance from this walking route.

Two public footpath networks are present leading from the application site to the east and west which traverse SWBG strategy sites F17M and F17N to the east and F31 to the west.

The western network will not be directly accessible from the application site and is approximately 0.83 kilometres to the west at its nearest point. In order to access this, residents would need to travel down the existing Oakcroft Lane, which lacks a pedestrian carriageway, and this the usability of this route as an access point.

A review of aerial photography indicates the footpath adjacent to F31 is well demarcated by fence lines and treelines which limits the potential visual disturbance on any birds utilising the application site and particularly restricts the likelihood of dogs accessing F31.

The eastern network will likely be accessible from the road and pedestrian access provided on to Peak Lane. However, the majority of the footpath network which exists within this area is provided on well demarcated vehicle tracks, which in part are buffered by margins, tree line and hedgerows. A single footpath traverses F17N which may

occasionally be used by small number of walkers. However, given that this is already assessed as being a low use site it is not considered that any such disturbance would be significant.

Therefore, given the reasoning set out above and that F17M, F17N and F31 are all low use sites no impacts as a result of the increase in recreational pressure on these sites.

F17B (Low Use Site) and the remainder of F17C are situated to the north of the site with a public footpath running along the boundary of the two SWBGS sites connecting Peak Lane to Ranvilles Lane. It is feasible that this route could be used as part of a circular route from the site with access to the nearest point of the footpath approximately 400 metres form the access point of the development.

Given the above factors it is considered that it is concluded that there will be a **likely significant effect** on the Solent and Southampton Water SPA/Ramsar site and Portsmouth Harbour SPA/Ramsar site in combination with other plans or projects in respect of functionally linked land.

5.6 Conclusion

Potential effects as a result of the development either alone or in-combination with other plans and projects have been identified as part of the screening exercise. In accordance with current case law (People Over Wind and Peter Sweetman v Coillte Teoranta - Case C323/17, 2018) it is not possible to consider proposed mitigation measures as part of the screening stage of Habitats Regulation Assessment. Therefore, in conclusion, it is not possible to screen out likely significant effects on Solent and Southampton Water SPA and Ramsar site, Solent Maritime SAC, Portsmouth Harbour SPA/Ramsar site or Solent and Dorset Coast SPA at the screening stage.

6.0 APPROPRIATE ASSESSMENT

6.1 Introduction

The section presents the Appropriate Assessment and sets out relevant mitigation in order to address the likely significant effects identified as part of the screening stage.

6.2 Summary of Likely Significant Effects

In summary, the potential likely significant effects identified as part of the screening process are as follows:

- Loss of SWBGS Site F17D which has the potential to result in an in-combination effect with other future plans or projects on the wider SWBGS site network;
- Increase in recreational pressure on the Solent and Southampton Water SPA/Ramsar site, Portsmouth Harbour SPA/Ramsar site, Solent Maritime SAC and Solent and Dorset Coast SPA either in-combination with other plans or projects;
- Potential for pollution events as a result of the construction and operational phase of the development and effects on Solent and Southampton Water SPA/Ramsar site; and
- Potential for increased disturbance to SWBGS F17B and F17C either alone or in-combination with other plans or projects.

6.3 Proposed Mitigation

6.3.1 Loss of Functional Land

The proposals will result in the permanent loss of SWBGS Site F17D. In order to compensate for this loss it is proposed that the area of F17C currently within the red line boundary be subject to enhancement and long-term management to deliver a new bird refuge area totalling approximately 10 hectares. Whilst F17C is already designated as a Secondary Support Area for supporting lapwing, golden plover and snipe this field is currently subject to agricultural management, including ploughing during the overwintering period. Therefore, the suitability of this site to support overwintering waders is currently dependent on the management of the site in any given winter.

It is therefore, proposed to sow the Ecological Enhancement Area with a new grassland seed mix and the creation of new scrapes specifically designed for waders. The proposals for the Ecological Enhancement Area are detailed in the Ecological Management Plan (ECOSA, 2020).

Following the establishment of the Ecological Enhancement Area it is proposed the land will be transferred to Fareham Borough Council for long-term management. A commuted sum is likely to be provided to Fareham Borough Council for the management of the land in perpetuity in accordance with the Solent Wader and Brent Goose Strategy Mitigation Guidelines. The exact sum associated with the delivery of the Ecological Management will be secured as part of the Section 106 agreement attached to any planning consent.

A separate Ecological Management Plan has been prepared to cover this land. This includes:

- Creation of new wader scrapes to be located central to the area, away from the newly proposed Stubbington Bypass and residential development;
- Creation of new areas of open grassland to provide foraging resources for waders including snipe, lapwing and golden plover all of which have been recorded within F17C with 16 lapwing on a single location recorded in F17D;
- Additional screening planting along the southern boundary of the Ecological Enhancement Area to screen views from the road network to the south and east;
- No public access will be allowed to this land in order to ensure that any waders are not subject to regular disturbance from dog walkers.

The Ecological Enhancement Area has been specifically designed in order to increase the suitability of the site for the assemblage of waders which utilise the Solent and Southampton Water SPA. In consultation with Natural England it has been highlighted that golden plover in particular favour more arable farmland in recent years with a study in 2007 highlighting the use of an arable landscape (Gillings, et al., 2007). However, this article also re-iterates that the species is a generalist in terms of foraging habitat and the Hampshire Bird Atlas (Hampshire Ornithological Society, 2015) also refers to the species utilising permanent grassland in southern Hampshire. It is also important to note that arable habitat is prevalent in the area with F17C only accounting for a small proportion of habitat in the wider area where as permanent grassland is rare in the area.

Given that this area of habitat is currently subject to disturbance from the agricultural management regime, which also results in varying foraging resources being available to overwintering waders dependent on yearly management, it is considered that this will deliver a significant enhancement over the baseline situation for a range of overwintering species beyond those which have currently been recorded from the site.

In addition, the proximity of this land to the Solent and Southampton Water SPA has the opportunity for its use to be dramatically increased by waders once delivered and will deliver a enhancement to the Solent Wader and Brent Goose Strategy network.

6.3.2 Pollution to Ground Water – Construction Phase

In order to mitigate for the potential pollution events during construction a Construction Environmental Management Plan (CEMP) will be implemented as part of the construction process. This will include the following measures:

- Location of site compound, materials and chemicals all of which are to be located away from Crofton Ditch; and
- Pollution prevention measures and waste disposal in order to ensure no potential pollution into Crofton Ditch and thus Titchfield Haven.

It is anticipated that the detail of the CEMP would be secured by Fareham Borough Council as part of a planning condition.

6.3.3 Pollution to Ground Water – Operational Phase

Pollution Events

The proposals include a suitable SuDs drainage strategy which will remove any pollutants from the development prior to re-entering the watercourse. For further information refer to the Flood Risk Assessment and Drainage Strategy associated with the proposals.

6.3.4 Recreational Activities

The proposals will be required to make contributions towards the Bird Aware Solent Strategy at the time of writing the contributions to the strategy are set out in **Table 11**.

Table 11: Bird Aware Solent Strategy Contributions

Property	Contribution	Number	Total
1 Bedroom Dwelling	£337.00	4	£1,348.00
2 Bedroom Dwelling	£487.00	71	£34.577.00
3 Bedroom Dwelling	£637.00	110	£70,070.00
4 Bedroom Dwelling	£749.00	24	£17,976.00
			£123,971.00

These contributions will go towards the wider Solent Bird Aware strategy which includes provisions for rangers, communication, marketing and education initiatives, dog

walking initiatives, codes of conduct development, creation and enhancement of greenspaces, site-specific access management and monitoring. The strategy is designed to address the in-combination effect of recreational pressure in the Solent.

In addition, in order to provide further education and advise to new residents a wildlife awareness leaflet, with specific focus on minimising disturbance to wildlife at coastal areas will be distributed to new residents within the development.

Whilst it is acknowledged that there may be a minor increase in recreational disturbance to the SWBGS Sites F17C and F17D the delivery of the Ecological Enhancement Area (see Paragraph 6.3.1) would create new wader habitat which would mitigate the potential disturbance increase.

6.4 In-Combination Effects

6.4.1 Loss of Functional Habitat

Following the delivery of the mitigation package outline in this documents and the long term management of the mitigation package there will be no long-term loss in functional habitat and in the long-term the habitat will be enhanced over the current baseline.

6.4.2 Pollution to Ground Water

Given the mitigation measures set out in Paragraph 6.3.1 and Paragraph 6.3.3, no impacts on ground water will result from the proposed development. Therefore, no in combination effects with other plans or project will result from the development.

6.4.3 Recreational Activities

The Solent Bird Aware Strategy is intended to provide mitigation for recreational pressure either alone or in combination with other plans or projects. Therefore, no in combination effects with other plans or project will result from the development.

6.5 Conclusion

Following the implementation of the mitigation measures set out in this section and the Appropriate Assessment undertaken, **no adverse effects** on Solent and Southampton Water SPA and Ramsar site, Portsmouth Harbour SPA and Ramsar site, Solent Maritime SAC and Solent and Dorset SPA will result from the proposed development either alone or in-combination with other plans or projects.

7.0 CONCLUSION

The screening stage of the shadow Habitats Regulation Assessment concluded that there would be a likely significant effect as a result of the proposals on European sites within the Zone of Influence of the proposals when considered both alone or in-combination with other plans or projects. Therefore, an Appropriate Assessment was required in order to determine whether the proposals would have an effect on the integrity of these sites.

Following the incorporation of appropriate mitigation, including creation of a new Ecological Enhancement Area, financial contributions to the Solent Bird Aware strategy and implementation of pollution control measures it has been concluded that there would be no adverse impact on site integrity either alone or in-combination with other plans or projects on the Solent and Southampton Water SPA/Ramsar site, Portsmouth Harbour SPA/Ramsar site, Solent Maritime SAC and Solent and Dorset Coast SPA.

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Map 1 Site Location

OAKCROFT LANE, STUBBINGTON, HAMPSHIRE

SHADOW HABITAT REGULATIONS ASSESSMENT

Map 1 - Site Location Plan

Client:	Persimmon Homes South Coast
Date:	April 2020
Status:	Final

KEY

Site Boundary

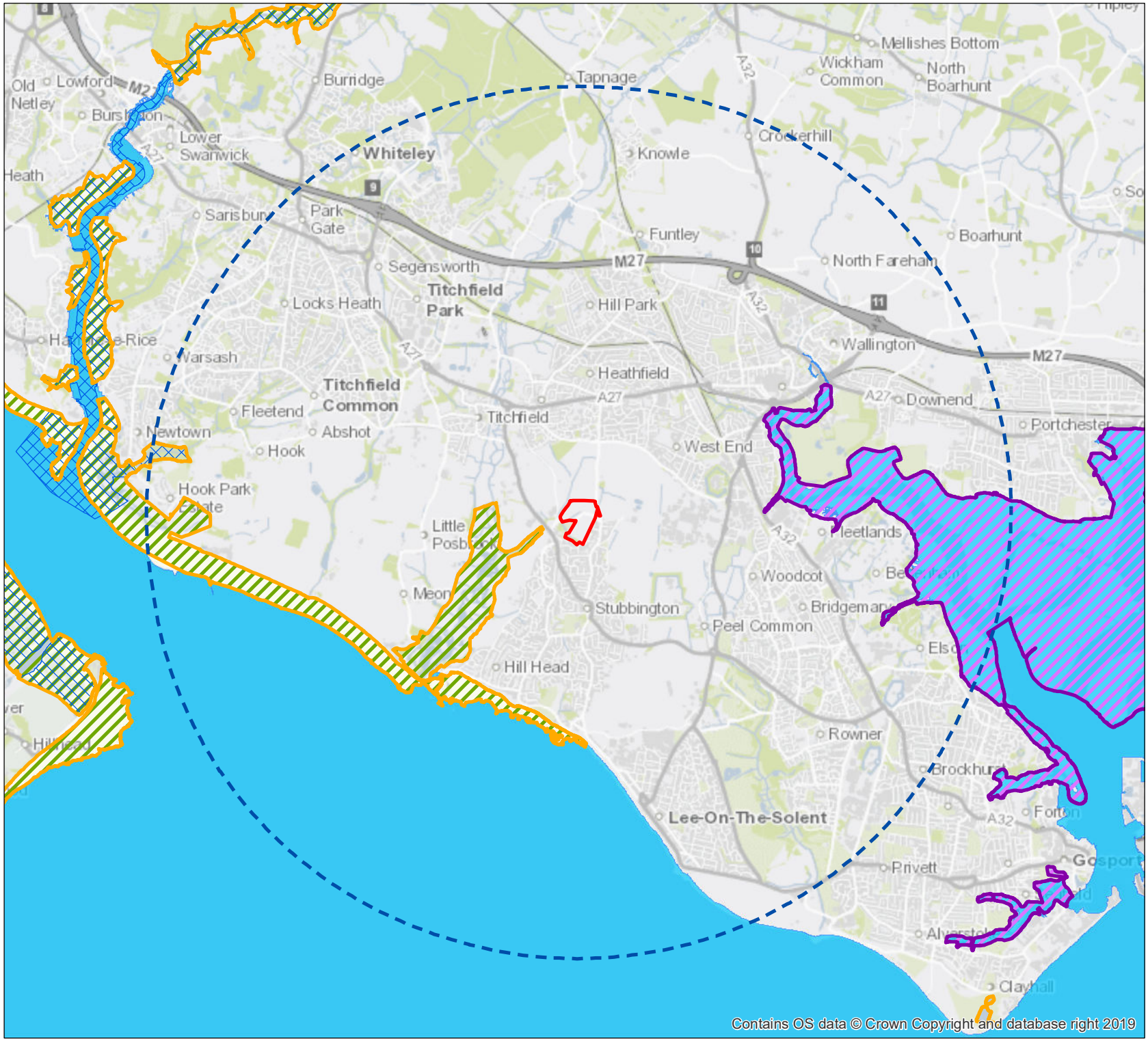
Scale at A4: 1:10,000

0 100 200 400 Metres

N

ECOSA
Ecological Survey & Assessment
A Trinity Consultants Company
ECOSA Ltd., Ten Hogs House, Manor Farm Offices,
Flexford Road, North Baddesley, Hampshire SO52 9DF
Telephone: 02380 261065 Email: info@ecosa.co.uk
Web: www.ecosa.co.uk

Map 2 Site Location in Relation to European Sites



OAKCROFT LANE, STUBBINGTON, HAMPSHIRE

SHADOW HABITAT REGULATIONS ASSESSMENT

Map 2 - Statutory Designated Sites

Client:	Persimmon Homes South Coast
Date:	September 2020
Status:	Final Rev. 1

KEY

- Site Boundary
- Statutory Designated Sites Buffer: 5.6km
- Portsmouth Harbour Ramsar
- Solent & Southampton Water Ramsar
- Solent Maritime SAC
- Solent and Southampton Water SPA
- Portsmouth Harbour SPA
- Solent and Dorset Coast SPA

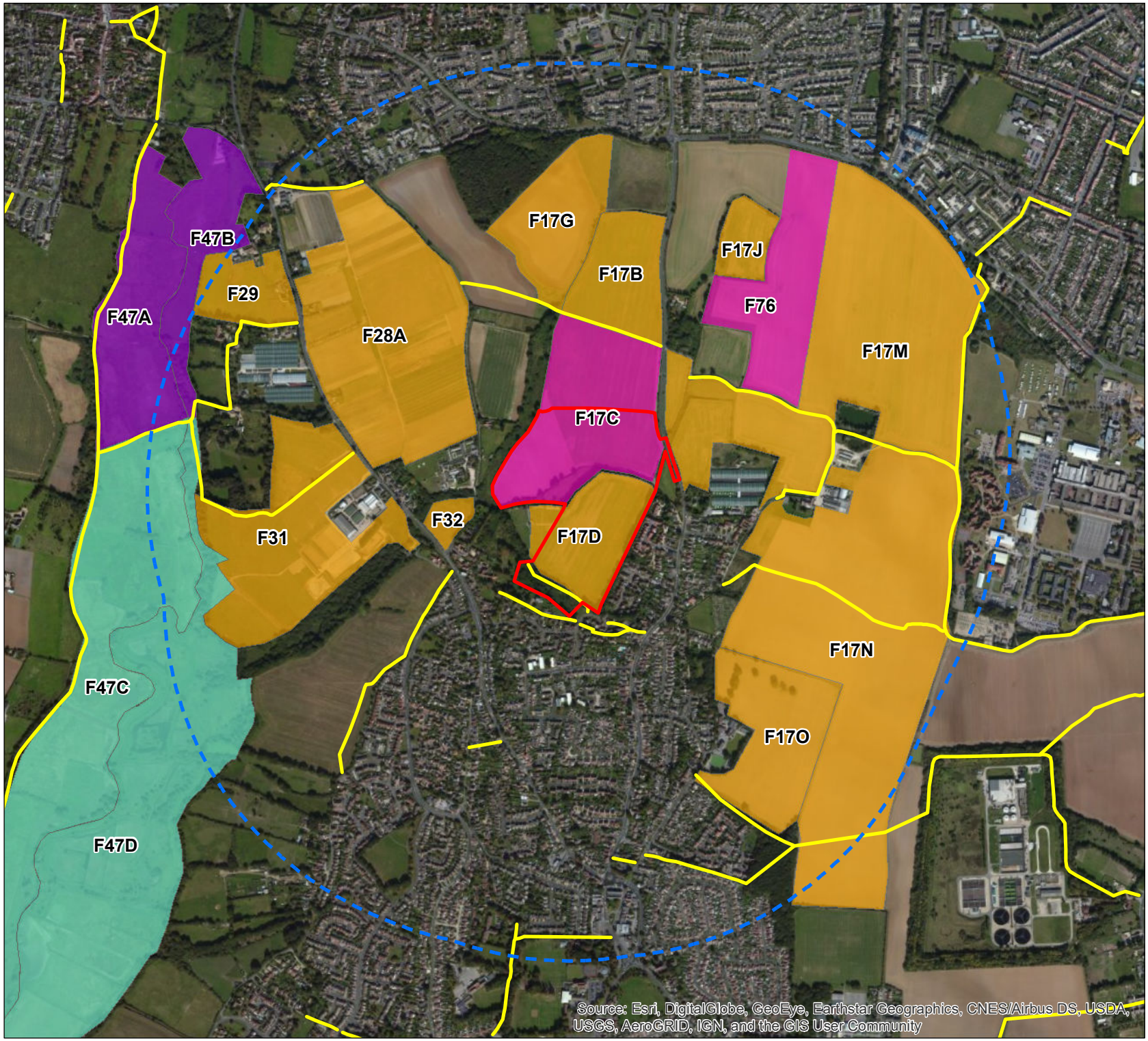
Scale at A4: 1:70,000

0 0.5 1 2 Km

N

ECOSA
Ecological Survey & Assessment
A Trinity Consultants Company
ECOSA Ltd., Ten Hogs House, Manor Farm Offices,
Flexford Road, North Baddesley, Hampshire SO52 9DF
Telephone: 02380 261065 Email: info@ecosa.co.uk
Web: www.ecosa.co.uk

Map 3 Solent Wader and Brent Goose Strategy Sites



OAKCROFT LANE, STUBBINGTON, HAMPSHIRE

SHADOW HABITAT REGULATIONS ASSESSMENT

Map 3 - Solent Wader and Brent Goose Strategy Sites

Client:	Persimmon Homes South Coast
Date:	April 2020
Status:	Final

KEY

- Site Boundary
- Solent Wader and Brent Goose Strategy Buffer: 1km
- Hampshire Rights of Way

Solent Wader and Brent Goose Strategy Site Classification

- SPA Site
- Primary Support Area
- Secondary Support Area
- Low Use

N.B. Solent Wader and Brent Goose Strategy classifications are taken from the Hampshire & Isle of Wight Solent Waders and Brent Goose Strategy 2019 and Current Use Mapping 2018 data (https://solentwbgs.wordpress.com/page-2/) accessed on 1st April 2020.

Scale at A4: 1:15,000

0 125 250 500 Metres

N

ECOSA
Ecological Survey & Assessment
A Trinity Consultants Company
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Web: www.ecosa.co.uk

Appendix 1 Site Proposals

Rev	Date	Revision Details	Dr	Ch
F	16.09.20	Planning Officer comments incorporated	br	db
E	22.04.20	Bypass junction amended	br	db
D	25.02.20	see planning cover note	br	db
C	05.11.19	see planning cover note	br	db
B	20.09.19	see planning cover note	br	db
A	22.07.19	see planning cover note dated 23 July	br	db

PERSIMMON
Together, we make a home

Job Title
Oakcroft Lane, Stubbington

Drawing Title
Site Layout

Job No	Drawing No	Rev
220	A-02-015-SL	F

Drawn	Checked	Date
BR	DB	March '19

Scale
1:1000 @ A1 / 1:2000 @ A3
metres 20 40 60 80 100

Status
PLANNING

File Location: x:\south coast\technical\current sites\stubbington - oakcroft\drawings\architect\planning\drawings

Appendix 2 Solent and Southampton Water SPA/Ramsar site Citations

NATURA 2000 – STANDARD DATA FORM

Special Protection Areas under the EC Birds Directive.

Each Natura 2000 site in the United Kingdom has its own Standard Data Form containing site-specific information. The data form for this site has been generated from the Natura 2000 Database submitted to the European Commission on the following date:

22/12/2015

The information provided here, follows the officially agreed site information format for Natura 2000 sites, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

The Standard Data Forms are generated automatically for all of the UK's Natura 2000 sites using the European Environment Agency's Natura 2000 software. The structure and format of these forms is exactly as produced by the EEA's Natura 2000 software (except for the addition of this coversheet and the end notes). The content matches exactly the data submitted to the European Commission.

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

Further technical documentation may be found here
http://bd.eionet.europa.eu/activities/Natura_2000/reference_portal

As part of the December 2015 submission, several sections of the UK's previously published Standard Data Forms have been updated. For details of the approach taken by the UK in this submission please refer to the following document:
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

More general information on Special Protection Areas (SPAs) in the United Kingdom is available from the SPA home page on the JNCC website. This webpage also provides links to Standard Data Forms for all SPAs in the UK.

Date form generated by the Joint Nature Conservation Committee
25 January 2016.

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9011061**

SITENAME **Solent and Southampton Water**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

Back to top

1.1 Type	1.2 Site code
A	UK9011061

1.3 Site name

Solent and Southampton Water

1.4 First Compilation date	1.5 Update date
1998-10	2015-12

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	1998-10
National legal reference of SPA designation	Regulations 12A and 13-15 of the Conservation Habitats and Species Regulations 2010, (http://www.legislation.gov.uk/uksi/2010/490/contents/made) as amended by The Conservation of Habitats and Species (Amendment) Regulations 2011 (http://www.legislation.gov.uk/uksi/2011/625/contents/made).

2. SITE LOCATION

Back to top

2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
-1.525833333	50.74027778

2.2 Area [ha]:

5401.12

2.3 Marine area [%]

59.3

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKJ3	Hampshire and Isle of Wight

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo
B	A052	Anas crecca			w	4400	4400	i		G	B		C	
B	A675	Branta bernicla bernicla			w	7506	7506	i		G	B		C	
B	A137	Charadrius hiaticula			w	552	552	i		G	C		C	
B	A176	Larus melanocephalus			r	2	2	p		G	A		C	
B	A616	Limosa limosa islandica			w	1125	1125	i		G	A		C	
B	A195	Sterna albifrons			r	49	49	p		G	B		C	
B	A192	Sterna dougallii			r	2	2	p		G	B		A	
B	A193	Sterna hirundo			r	267	267	p		G	B		C	
B	A191	Sterna sandvicensis			r	231	231	p		G	C		C	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public

access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

3.3 Other important species of flora and fauna (optional)

Species					Population in the site				Motivation					
Group	CODE	Scientific Name	S	NP	Size		Unit	Cat.	Species Annex		Other categories			
					Min	Max		C|R|V|P	IV	V	A	B	C	D
B	WATR	Waterfowl assemblage			51361	51361	i						X	

- **Group:** A = Amphibians, B = Birds, F = Fish, Fu = Fungi, I = Invertebrates, L = Lichens, M = Mammals, P = Plants, R = Reptiles
- **CODE:** for Birds, Annex IV and V species the code as provided in the reference portal should be used in addition to the scientific name
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Unit:** i = individuals, p = pairs or other units according to the standard list of population units and codes in accordance with Article 12 and 17 reporting, (see reference portal)
- **Cat.:** Abundance categories: C = common, R = rare, V = very rare, P = present
- **Motivation categories: IV, V:** Annex Species (Habitats Directive), **A:** National Red List data; **B:** Endemics; **C:** International Conventions; **D:** other reasons

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N02	47.7
N07	3.4
N05	10.2
N16	0.6
N03	18.2
N04	2.8
N10	17.1
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: mud,acidic,alluvium,sedimentary,neutral 2 Terrestrial: Geomorphology and landscape: floodplain,coastal,lowland 3 Marine: Geology: sand,gravel,sedimentary,shingle 4 Marine: Geomorphology: open coast (including bay),lagoon,estuary,intertidal rock,enclosed coast (including

embayment),shingle bar,islands,intertidal sediments (including sandflat/mudflat) Ramsar Wetland Types: Marine and coastal wetlands

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC) During the breeding season the area regularly supports: Larus melanocephalus 15.4% of the GB breeding population 5 year peak mean, 1994-1998 Sterna albifrons (Eastern Atlantic - breeding) 2% of the GB breeding population 5 year peak mean, 1993-1997 Sterna dougallii (Europe - breeding) 3.1% of the GB breeding population 5 year peak mean, 1993-1997 Sterna hirundo (Northern/Eastern Europe - breeding) 2.2% of the GB breeding population 5 year peak mean, 1993-1997 Sterna sandvicensis (Western Europe/Western Africa) 1.7% of the GB breeding population 5 year peak mean, 1993-1997 ARTICLE 4.2 QUALIFICATION (79/409/EEC) Over winter the area regularly supports: Anas crecca (North-western Europe) 1.1% of the population 5 year peak mean, 1992/3-1996/7 Branta bernicla bernicla (Western Siberia/Western Europe) 2.5% of the population 5 year peak mean, 1992/3-1996/7 Charadrius hiaticula (Europe/Northern Africa - wintering) 1.2% of the population 5 year peak mean, 1992/3-1996/7 Limosa limosa islandica (Iceland - breeding) 1.7% of the population 5 year peak mean, 1992/3-1996/7 ARTICLE 4.2 QUALIFICATION (79/409/EEC): AN INTERNATIONALLY IMPORTANT ASSEMBLAGE OF BIRDS Over winter the area regularly supports: 51361 waterfowl (5 year peak mean 1991/92-1995/96) Including: Branta bernicla bernicla , Anas crecca , Charadrius hiaticula , Limosa limosa islandica

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	H02		B
H	F02		I
H	M01		B
H	M02		B
H	G01		I

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	A04		I
H	A02		I
H	D05		I
H	B02		I
H	D05		I
H	A03		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/3212324
http://publications.naturalengland.org.uk/category/6490068894089216

http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0	UK01	21.8		

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

- [ ] Yes
- [ ] No, but in preparation
- [X] No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE NATURA 2000 STANDARD DATA FORMS

The codes in the table below are also explained in the official European Union guidelines for the Standard Data Form. The relevant page is shown in the table below.

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	Designated Special Protection Area	53
B	SAC (includes candidates Special Areas of Conservation, Sites of Community Importance and designated SAC)	53
C	SAC area the same as SPA. Note in the UK Natura 2000 submission this is only used for Gibraltar	53

3.1 Habitat representativity

CODE	DESCRIPTION	PAGE NO
A	Excellent	57
B	Good	57
C	Significant	57
D	Non-significant presence	57

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha□ rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	15%-100%	58
B	2%-15%	58
C	< 2%	58

3.1 Conservation status habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global grade habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	15%-100%	62
B	2%-15%	62
C	< 2%	62
D	Non-significant population	62

3.2 Conservation status species (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' Or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Assemblages types

CODE	DESCRIPTION	PAGE NO
WATR	Non breeding waterfowl assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code
BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK02	Marine Nature Reserve	67
UK04	Site of Special Scientific Interest (UK)	67

Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.

2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.

3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

1. Name and address of the compiler of this form:

FOR OFFICE USE ONLY.

DD MM YY

Designation date | Site Reference Number

Joint Nature Conservation Committee
Monkstone House
City Road
Peterborough
Cambridgeshire PE1 1JY
UK
Telephone/Fax: +44 (0)1733 – 562 626 / +44 (0)1733 – 555 948
Email: RIS@JNCC.gov.uk

2. Date this sheet was completed/updated:

Designated: 01 October 1998

3. Country:

UK (England)

4. Name of the Ramsar site:

Solent and Southampton Water

5. Designation of new Ramsar site or update of existing site:

This RIS is for: Updated information on an existing Ramsar site

6. For RIS updates only, changes to the site since its designation or earlier update:

a) Site boundary and area:

** Important note: If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

7. Map of site included:

Refer to Annex III of the *Explanatory Notes and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

i) **hard copy** (required for inclusion of site in the Ramsar List): *yes* ✓ -or- *no* □;
ii**) an electronic format** (e.g. a JPEG or ArcView image) Yes
iii) **a GIS file providing geo-referenced site boundary vectors and attribute tables** *yes* ✓ -or- *no* □;

b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The site boundary is the same as, or falls within, an existing protected area.

For precise boundary details, please refer to paper map provided at designation

8. Geographical coordinates (latitude/longitude):

50 44 25 N 01 31 32 W

9. General location:

Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

Nearest town/city: Southampton

Solent and Southampton Water lies on the central south coast of England.

Administrative region: City of Portsmouth; City of Southampton; Hampshire; Isle of Wight

10. Elevation (average and/or max. & min.) (metres): 11. Area (hectares): 5346.44

Min. -1
Max. 9
Mean 1

12. General overview of the site:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

The area covered extends from Hurst Spit to Gilkicker Point along the south coast of Hampshire and along the north coast of the Isle of Wight. The site comprises of estuaries and adjacent coastal habitats including intertidal flats, saline lagoons, shingle beaches, saltmarsh, reedbeds, damp woodland, and grazing marsh. The diversity of habitats support internationally important numbers of wintering waterfowl, important breeding gull and tern populations and an important assemblage of rare invertebrates and plants.

13. Ramsar Criteria:

Circle or underline each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11).

1, 2, 5, 6

14. Justification for the application of each Criterion listed in 13 above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Ramsar criterion 1

The site is one of the few major sheltered channels between a substantial island and mainland in European waters, exhibiting an unusual strong double tidal flow and has long periods of slack water at high and low tide. It includes many wetland habitats characteristic of the biogeographic region: saline

lagoons, saltmarshes, estuaries, intertidal flats, shallow coastal waters, grazing marshes, reedbeds, coastal woodland and rocky boulder reefs.

Ramsar criterion 2

The site supports an important assemblage of rare plants and invertebrates. At least 33 British Red Data Book invertebrates and at least eight British Red Data Book plants are represented on site.

Ramsar criterion 5

Assemblages of international importance:

Species with peak counts in winter:
51343 waterfowl (5 year peak mean 1998/99-2002/2003)

Ramsar criterion 6 – species/populations occurring at levels of international importance.

Qualifying Species/populations (as identified at designation):

Species with peak counts in spring/autumn:

Ringed plover , *Charadrius hiaticula*, Europe/Northwest Africa	397 individuals, representing an average of 1.2% of the GB population (5 year peak mean 1998/9-2002/3)

Species with peak counts in winter:

Dark-bellied brent goose, *Branta bernicla bernicla*,	6456 individuals, representing an average of 3% of the population (5 year peak mean 1998/9-2002/3)
Eurasian teal , *Anas crecca*, NW Europe	5514 individuals, representing an average of 1.3% of the population (5 year peak mean 1998/9-2002/3)
Black-tailed godwit , *Limosa limosa islandica*, Iceland/W Europe	1240 individuals, representing an average of 3.5% of the population (5 year peak mean 1998/9-2002/3)

Contemporary data and information on waterbird trends at this site and their regional (sub-national) and national contexts can be found in the Wetland Bird Survey report, which is updated annually. See www.bto.org/survey/webs/webs-alerts-index.htm.
Details of bird species occuring at levels of National importance are given in Section 22

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15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region:
Atlantic

b) biogeographic regionalisation scheme (include reference citation):
Council Directive 92/43/EEC

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16. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Soil & geology	acidic, neutral, shingle, sand, mud, alluvium, sedimentary
Geomorphology and landscape	lowland, island, coastal, floodplain, shingle bar, subtidal sediments (including sandbank/mudbank), intertidal sediments (including sandflat/mudflat), open coast (including bay), enclosed coast (including embayment), estuary, lagoon, intertidal rock
Nutrient status	eutrophic
pH	no information
Salinity	brackish / mixosaline, fresh, saline / euhaline
Soil	mainly mineral
Water permanence	usually permanent
Summary of main climatic features	Annual averages (Everton, 1971–2000) (www.metoffice.com/climate/uk/averages/19712000/sites/everton.html) Max. daily temperature: 14.0° C Min. daily temperature: 7.0° C Days of air frost: 32.5 Rainfall: 763.7 mm Hrs. of sunshine: 1750.7

General description of the Physical Features:

The Solent and Southampton Water comprises a series of estuaries and harbours with extensive mudflats and saltmarshes together with adjacent coastal habitats including saline lagoons, shingle beaches, reedbeds, damp woodland and grazing marsh.

17. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

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 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.

18. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

Shoreline stabilisation and dissipation of erosive forces, Sediment trapping

19. Wetland types:

Marine/coastal wetland

Code	Name	% Area
G	Tidal flats	47.9
H	Salt marshes	18.5
Sp	Saline / brackish marshes: permanent	14.9
E	Sand / shingle shores (including dune systems)	12.1
Tp	Freshwater marshes / pools: permanent	3.7
D	Rocky shores	1.5

J	Coastal brackish / saline lagoons	0.7
Xf	Freshwater, tree-dominated wetlands	0.7

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

The estuaries and harbours of the Solent are particularly sheltered and form the largest number and tightest cluster of small estuaries anywhere in Great Britain. The Solent and Isle of Wight system is notable for its large range and extent of different habitats.

The intertidal area is predominantly sedimentary in nature with extensive intertidal mud and sandflats within the sheltered harbours and areas of gravel and pebble sediments on more exposed beaches. These conditions combine to favour an abundant benthic fauna and green algae which support high densities of migrant and over-wintering wildfowl and waders. Eelgrass *Zostera* beds occur discontinuously along the north shore of the Isle of Wight and in a few places along the northern shore of The Solent.

The Solent system supports a wide range of saltmarsh communities. Upper saltmarshes are dominated by sea purslane *Atriplex portulacoides*, sea plantain *Plantago maritima*, sea meadow grass *Puccinellia maritima* and sea lavender *Limonium vulgare*; locally thrift *Armeria maritima* and the nationally scarce golden samphire *Inula crithmoides* are abundant. Lower saltmarsh vegetation tends to be dominated by sea purslane, cord grass *Spartina* spp., glasswort *Salicornia* spp. and sea-blite *Suaeda maritima*. Cord-grasses dominate much of the saltmarsh in Southampton Water and in parts of the Solent and it was the original location of the introduction of *Spartina alterniflora* and subsequent hybridisation with the native species.

There are several shingle spits including Hurst spit, Needs Ore Point, Calshot spit and Newtown Harbour spits which support a characteristic shingle flora.

A range of grassland types lie inshore of the intertidal zone including unimproved species-rich neutral and calcareous grasslands, brackish grazing marsh systems and reed dominated freshwater marshes.

The brackish water lagoons associated with grazing marsh systems behind the seawalls, e.g. Keyhaven-Lymington, Gilkicker lagoon, and at Brading Marshes contain internationally important communities of rare and endangered invertebrates and plants.

Ecosystem services

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in **12**. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Nationally important species occurring on the site.

Higher Plants.

Eleocharis parvula, Geranium purpureum forsteri, Lotus angustissimus, Ludwigia palustris, Orobanche purpurea, Lamprothamnium papulosum, Spartina maritima Zostera marina

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in **12**. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Birds

Species currently occurring at levels of national importance:

Species regularly supported during the breeding season:

Mediterranean gull , *Larus melanocephalus*, Europe	11 apparently occupied nests, representing an average of 10.1% of the GB population (Seabird 2000 Census)
Black-headed gull , *Larus ridibundus*, N & C Europe	6911 apparently occupied nests, representing an average of 5.4% of the GB population (Seabird 2000 Census)
Sandwich tern , *Sterna (Thalasseus) sandvicensis sandvicensis*, W Europe	268 apparently occupied nests, representing an average of 2.5% of the GB population (Seabird 2000 Census)
Roseate tern , *Sterna dougallii dougallii*, W Europe	1 apparently occupied nests, representing an average of 1.9% of the GB population (Seabird 2000 Census)
Common tern , *Sterna hirundo hirundo*, N & E Europe	192 apparently occupied nests, representing an average of 1.8% of the GB population (Seabird 2000 Census)
Little tern , *Sterna albifrons albifrons*, W Europe	22 apparently occupied nests, representing an average of 1.1% of the GB population (Seabird 2000 Census)

Species with peak counts in spring/autumn:

Little egret , *Egretta garzetta*, West Mediterranean	115 individuals, representing an average of 6.9% of the GB population (5 year peak mean 1998/9-2002/3)
Spotted redshank , *Tringa erythropus*, Europe/W Africa	13 individuals, representing an average of 9.5% of the GB population (5 year peak mean 1998/9-2002/3)
Common greenshank , *Tringa nebularia*, Europe/W Africa	58 individuals, representing an average of 9.7% of the GB population (5 year peak mean 1998/9-2002/3)

Species with peak counts in winter:

Little grebe , *Tachybaptus ruficollis ruficollis*, Europe to E Urals, NW Africa	105 individuals, representing an average of 1.3% of the GB population (5 year peak mean 1998/9-2002/3)
Slavonian grebe , *Podiceps auritus*, Northwest Europe	12 individuals, representing an average of 1.6% of the GB population (5 year peak mean 1998/9-2002/3)
Black-necked grebe , *Podiceps nigricollis nigricollis*, Europe, N Africa	3 individuals, representing an average of 2.5% of the GB population (5 year peak mean 1998/9-2002/3)
Great cormorant , *Phalacrocorax carbo carbo*, NW Europe	247 individuals, representing an average of 1% of the GB population (5 year peak mean 1998/9-2002/3)

Common shelduck , *Tadorna tadorna*, NW Europe	964 individuals, representing an average of 1.2% of the GB population (5 year peak mean 1998/9-2002/3)
Eurasian wigeon , *Anas penelope*, NW Europe	7907 individuals, representing an average of 1.9% of the GB population (5 year peak mean 1998/9-2002/3)
Northern pintail , *Anas acuta*, NW Europe	359 individuals, representing an average of 1.2% of the GB population (5 year peak mean 1998/9-2002/3)
Northern shoveler , *Anas clypeata*, NW & C Europe	267 individuals, representing an average of 1.8% of the GB population (5 year peak mean 1998/9-2002/3)
Red-breasted merganser , *Mergus serrator*, NW & C Europe	142 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1998/9-2002/3)
Water rail , *Rallus aquaticus*, Europe	17 individuals, representing an average of 3.7% of the GB population (5 year peak mean 1998/9-2002/3)
Grey plover , *Pluvialis squatarola*, E Atlantic/W Africa -wintering	1171 individuals, representing an average of 2.2% of the GB population (5 year peak mean 1998/9-2002/3)
Dunlin , *Calidris alpina alpina*, W Siberia/W Europe	10417 individuals, representing an average of 1.8% of the GB population (5 year peak mean 1998/9-2002/3)
Eurasian curlew , *Numenius arquata arquata*, N. a. arquata Europe (breeding)	1766 individuals, representing an average of 1.2% of the GB population (5 year peak mean 1998/9-2002/3)

Species Information

Nationally important species occurring on the site.

Invertebrates.

Allomelita pellucida, Gammarus insensibilis, Nematostella vectensis, Arctosa fulvolineata, Aulonia albimana, Anisodactylus poeciloides, Anthonomus rufus, Baris analis, Berosus spinosus, Cantharis fusca, Drypta dentata, Leptura fulva, Meligethes bidentatus, Paracymus aeneus, Staphylinus caesareus, Aphrosylus mitis, Atylotus latistriatus, Dorycera graminum, Haematopoda grandis, Hippobosca equina, Linnaemya comta, Stratiomys longicornis, Syntormon mikii, Tetanocera freyi, Villa circumdata, Trachysphaera lobata, Paludinella littorina, Truncatellina cylindrica, Andrena alfkenella, Acleris lorquiniana, Elachista littoricola, Melissoblaptes zelleri, Platytes alpinella, Psamathrocrita argentella, Armandia cirrhosa

23. Social and cultural values:

Describe if the site has any general social and/or cultural values e.g. fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values.

Aesthetic
Aquatic vegetation (e.g. reeds, willows, seaweed)
Archaeological/historical site
Environmental education/ interpretation
Fisheries production
Livestock grazing
Non-consumptive recreation
Scientific research

Sport fishing
Sport hunting
Tourism
Traditional cultural
Transportation/navigation

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning? No

If Yes, describe this importance under one or more of the following categories:

i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:

ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:

iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:

iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

24. Land tenure/ownership:

Ownership category	On-site	Off-site
Non-governmental organisation (NGO)	+	+
Local authority, municipality etc.	+	+
National/Crown Estate	+	+
Private	+	+
Public/communal	+	+
Other	+	+

25. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	
Tourism	+	
Recreation	+	
Current scientific research	+	
Collection of non-timber natural products: (unspecified)	+	
Commercial forestry		+
Cutting/coppicing for firewood/fuel	+	
Fishing: (unspecified)	+	
Fishing: commercial	+	
Fishing: recreational/sport	+	
Marine/saltwater aquaculture	+	
Gathering of shellfish	+	
Bait collection	+	

Arable agriculture (unspecified)		+
Permanent arable agriculture		+
Permanent pastoral agriculture	+	
Hay meadows	+	
Hunting: recreational/sport	+	
Industry		+
Sewage treatment/disposal	+	
Harbour/port	+	
Flood control	+	
Irrigation (incl. agricultural water supply)		+
Mineral exploration (excl. hydrocarbons)		+
Oil/gas exploration		+
Oil/gas production		+
Transport route		+
Domestic water supply		+
Urban development		+
Non-urbanised settlements		+
Military activities	+	+

26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

Explanation of reporting category:

1. *Those factors that are still operating, but it is unclear if they are under control, as there is a lag in showing the management or regulatory regime to be successful.*
2. *Those factors that are not currently being managed, or where the regulatory regime appears to have been ineffective so far.*

NA = Not Applicable because no factors have been reported.

Adverse Factor Category	Reporting Category	Description of the problem (Newly reported Factors only)	On-Site	Off-Site	Major Impact?
Erosion	2		+		+

For category 2 factors only.
What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors?
Erosion - Coastal Defence Strategies, regulation of private coastal defences, shoreline management plans, ChAMPs are in place or are being developed.

Is the site subject to adverse ecological change? YES

27. Conservation measures taken:

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

Conservation measure	On-site	Off-site
Site/ Area of Special Scientific Interest (SSSI/ASSI)	+	
National Nature Reserve (NNR)	+	+
Special Protection Area (SPA)	+	
Land owned by a non-governmental organisation for nature conservation	+	+
Management agreement	+	+
Special Area of Conservation (SAC)	+	
Management plan in preparation	+	

b) Describe any other current management practices:
The management of Ramsar sites in the UK is determined by either a formal management plan or through other management planning processes, and is overseen by the relevant statutory conservation agency. Details of the precise management practises are given in these documents.

28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

No information available

29. Current scientific research and facilities:

e.g. details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Contemporary.
Numbers of migratory and wintering waterfowl are monitored annually as part of the national Wetland Birds Survey (WeBS) organised by the British Trust for Ornithology, Wildfowl & Wetlands Trust, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee. Bird Ringing by Solent Shorebirds Study Group.

Environment.
Coastal Sediment (SCOPAC)
Water Quality (EA/Southern Water)
Various research and educational establishments carry out ongoing research into a number of different aspects of the environment.

Flora.
Saltmarsh Monitoring (EN project).
Spartina survey (EN project).

Completed.

Flora.
Sand dune and saltmarsh NVC survey.
Habitats.
Habitat surveys (various local individual surveys).
Species surveys (various local individual surveys).

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitor centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

Various educational programmes exist within the voluntary conservation organisations, research institutes, education centres and also Local Authorities e.g. Newtown National Nature Reserve managed by National Trust, Medina Valley Centre, and Southampton Oceanography Centre.

There are a number of interpretation facilities present and proposed in the area e.g. National Nature Reserve & Local Nature Reserve and proposed centre of coastal management on Isle of Wight.

31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

Activities, Facilities provided and Seasonality.

Almost all the estuaries in the Ramsar site are used extensively for a wide range of leisure and recreational activities, particularly water-based recreation.

Land based recreation:

Walking including dog-walking is popular along large stretches of the coast and estuaries. The presence of country parks, NNR and LNRs on the coast also attract large numbers of people to certain locations.

Bait-digging and collection of shellfish occurs in a number of locations. Birdwatching is also a popular activity with a number of favoured locations with easy access. Some golf courses are also present.

Water-based recreation:

The Solent is an internationally important centre for yachting, dinghy sailing and power-boating and national important for canoeing, and water-skiing. A small amount of hovercraft racing sometimes occurs.

Wildfowling and egg collection:

Private, syndicate and club wildfowling operate on the marshes. Small-scale egg-collecting also occurs. Bait-digging and angling also occur.

Air Recreation:

There is a proposed microlighting centre within the area.

The high degree of recreation in the Solent is accompanied by a high degree of supporting developments e.g. marinas, boatyards, clubs, holiday centres occur throughout the area.

32. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept. of Agriculture/Dept. of Environment, etc.

Head, Natura 2000 and Ramsar Team, Department for Environment, Food and Rural Affairs, European Wildlife Division, Zone 1/07, Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6EB

33. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Site Designations Manager, English Nature, Sites and Surveillance Team, Northminster House, Northminster Road, Peterborough, PE1 1UA, UK

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see **15** above), list full reference citation for the scheme.

Site-relevant references

Anon. (1995) *Biodiversity: The UK Steering Group Report. Volume 2: Action plans.* HMSO, London

Anon. (2003) *The Solent Coastal Habitat Management Plan: Executive summary*. English Nature, Peterborough (Living with the Sea LIFE Project) www.english-nature.org.uk/livingwiththesea/project_details/good_practice_guide/HabitatCRR/ENRestore/CHaMPs/Solent/SolentCHaMP.pdf

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Doody, JP, Johnston, C & Smith, B (1993) *Directory of the North Sea coastal margin*. Joint Nature Conservation Committee, Peterborough

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English Nature (1995) *Departmental Brief: Solent and Southampton Water proposed Special Protection Area and Ramsar site, April 1995*. English Nature, Peterborough

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Please return to: **Ramsar Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**
Telephone**: +41 22 999 0170** • Fax: **+41 22 999 0169** • email: **ramsar@ramsar.org**

Appendix 3 Portsmouth Harbour SPA/Ramsar site Citations

NATURA 2000 – STANDARD DATA FORM

Special Protection Areas under the EC Birds Directive.

Each Natura 2000 site in the United Kingdom has its own Standard Data Form containing site-specific information. The data form for this site has been generated from the Natura 2000 Database submitted to the European Commission on the following date:

22/12/2015

The information provided here, follows the officially agreed site information format for Natura 2000 sites, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

The Standard Data Forms are generated automatically for all of the UK's Natura 2000 sites using the European Environment Agency's Natura 2000 software. The structure and format of these forms is exactly as produced by the EEA's Natura 2000 software (except for the addition of this coversheet and the end notes). The content matches exactly the data submitted to the European Commission.

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

Further technical documentation may be found here
http://bd.eionet.europa.eu/activities/Natura_2000/reference_portal

As part of the December 2015 submission, several sections of the UK's previously published Standard Data Forms have been updated. For details of the approach taken by the UK in this submission please refer to the following document:
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

More general information on Special Protection Areas (SPAs) in the United Kingdom is available from the SPA home page on the JNCC website. This webpage also provides links to Standard Data Forms for all SPAs in the UK.

Date form generated by the Joint Nature Conservation Committee
25 January 2016.

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9011051**

SITENAME **Portsmouth Harbour**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
A	UK9011051

1.3 Site name

Portsmouth Harbour

1.4 First Compilation date	1.5 Update date
1995-02	2015-12

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	1995-02
National legal reference of SPA designation	Regulations 12A and 13-15 of the Conservation Habitats and Species Regulations 2010, (http://www.legislation.gov.uk/uksi/2010/490/contents/made) as amended by The Conservation of Habitats and Species (Amendment) Regulations 2011 (http://www.legislation.gov.uk/uksi/2011/625/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
-1.125555556	50.82805556

2.2 Area [ha]:

1249.6

2.3 Marine area [%]

98.4

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKJ3	Hampshire and Isle of Wight

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A675	Branta bernicla bernicla			w	2847	2847	i		G	B		C	
B	A672	Calidris alpina alpina			w	5123	5123	i		G	C		C	
B	A616	Limosa limosa islandica			w	31	31	i		G	C		C	
B	A069	Mergus serrator			w	87	87	i		G	C		C	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are

deficient (DD) or in addition to population size information

- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

Back to top

4.1 General site character

Habitat class	% Cover
N02	85.0
N03	14.0
N10	1.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: nutrient-rich,mud,neutral,sedimentary,alluvium,acidic 2 Terrestrial: Geomorphology and landscape: lowland,coastal 3 Marine: Geology: sedimentary,mud,gravel 4 Marine: Geomorphology: estuary,enclosed coast (including embayment),intertidal sediments (including sandflat/mudflat),islands,subtidal sediments (including sandbank/mudbank),lagoon

4.2 Quality and importance

ARTICLE 4.2 QUALIFICATION (79/409/EEC) Over winter the area regularly supports: Branta bernicla bernicla (Western Siberia/Western Europe) 0.9% of the population 5 year peak mean 1991/92-1995/96 Calidris alpina alpina (Northern Siberia/Europe/Western Africa) 1% of the population in Great Britain 5 year peak mean 1991/92-1995/96 Limosa limosa islandica (Iceland - breeding) 0.4% of the population in Great Britain 5 year peak mean 1991/92-1995/96 Mergus serrator (North-western/Central Europe) 0.9% of the population in Great Britain 5 year peak mean 1991/92-1995/96

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	H02		B
H	M02		B
H	M01		B
H	G01		I
H	F02		I

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]

Rank: H = high, M = medium, L = low

Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification, T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions

i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0				

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

☐	Yes
☐	No, but in preparation
X	No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE NATURA 2000 STANDARD DATA FORMS

The codes in the table below are also explained in the official European Union guidelines for the Standard Data Form. The relevant page is shown in the table below.

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	Designated Special Protection Area	53
B	SAC (includes candidates Special Areas of Conservation, Sites of Community Importance and designated SAC)	53
C	SAC area the same as SPA. Note in the UK Natura 2000 submission this is only used for Gibraltar	53

3.1 Habitat representativity

CODE	DESCRIPTION	PAGE NO
A	Excellent	57
B	Good	57
C	Significant	57
D	Non-significant presence	57

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha□ rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	15%-100%	58
B	2%-15%	58
C	< 2%	58

3.1 Conservation status habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global grade habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	15%-100%	62
B	2%-15%	62
C	< 2%	62
D	Non-significant population	62

3.2 Conservation status species (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' Or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Assemblages types

CODE	DESCRIPTION	PAGE NO
WATR	Non breeding waterfowl assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code
BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK02	Marine Nature Reserve	67
UK04	Site of Special Scientific Interest (UK)	67

Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.

2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.

3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

1. Name and address of the compiler of this form:

FOR OFFICE USE ONLY.

DD MM YY

Designation date | Site Reference Number

Joint Nature Conservation Committee
Monkstone House
City Road
Peterborough
Cambridgeshire PE1 1JY
UK
Telephone/Fax: +44 (0)1733 – 562 626 / +44 (0)1733 – 555 948
Email: RIS@JNCC.gov.uk

2. Date this sheet was completed/updated:

Designated: 28 February 1995

3. Country:

UK (England)

4. Name of the Ramsar site:

Portsmouth Harbour

5. Designation of new Ramsar site or update of existing site:

This RIS is for: Updated information on an existing Ramsar site

6. For RIS updates only, changes to the site since its designation or earlier update:

a) Site boundary and area:

** Important note: If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

7. Map of site included:

Refer to Annex III of the *Explanatory Notes and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

i) **hard copy** (required for inclusion of site in the Ramsar List): *yes* ✓ -or- *no* □;
ii**) an electronic format** (e.g. a JPEG or ArcView image) Yes
iii) **a GIS file providing geo-referenced site boundary vectors and attribute tables** *yes* ✓ -or- *no* □;

b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The site boundary is the same as, or falls within, an existing protected area.

For precise boundary details, please refer to paper map provided at designation

8. Geographical coordinates (latitude/longitude):

50 49 41 N 01 07 32 W

9. General location:

Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

Nearest town/city: Portsmouth

Portsmouth Harbour lies on the central south coast of mainland England, to the west of Portsmouth City.

Administrative region: Hampshire

10. Elevation (average and/or max. & min.) (metres): 11. Area (hectares): 1248.77

Min. -1
Max. 1
Mean 0

12. General overview of the site:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

Portsmouth Harbour is a large industrialised estuary and includes one of the four largest expanses of mudflats and tidal creeks on the south coast of Britain. The mudflats support large beds of narrow-leaved and dwarf eelgrass, extensive green alga and sea lettuce. The harbour has only a narrow connection to the sea via the Solent, and receives comparatively little freshwater, thus giving it an unusual hydrology. The site supports internationally important numbers of wintering dark-bellied brent geese and nationally important numbers of grey plover, dunlin and black-tailed godwit.

13. Ramsar Criteria:

Circle or underline each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11).

3, 6

14. Justification for the application of each Criterion listed in 13 above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Ramsar criterion 3

The intertidal mudflat areas possess extensive beds of eelgrass *Zostera angustifolia* and *Zostera noltei* which support the grazing dark-bellied brent geese populations. The mud-snail *Hydrobia ulvae* is

found at extremely high densities, which helps to support the wading bird interest of the site. Common cord-grass *Spartina anglica* dominates large areas of the saltmarsh and there are also extensive areas of green algae *Enteromorpha* spp. and sea lettuce *Ulva lactuca*. More locally the saltmarsh is dominated by sea purslane *Halimione portulacoides* which gradates to more varied communities at the higher shore levels. The site also includes a number of saline lagoons hosting nationally important species.

Ramsar criterion 6 – species/populations occurring at levels of international importance.

Qualifying Species/populations (as identified at designation):

Species with peak counts in winter:

Dark-bellied brent goose, *Branta bernicla bernicla*,	2105 individuals, representing an average of 2.1% of the GB population (5 year peak mean 1998/9-2002/3)

Contemporary data and information on waterbird trends at this site and their regional (sub-national) and national contexts can be found in the Wetland Bird Survey report, which is updated annually. See www.bto.org/survey/webs/webs-alerts-index.htm.

See Sections 21/22 for details of noteworthy species

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15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region:

Atlantic

b) biogeographic regionalisation scheme (include reference citation):

Council Directive 92/43/EEC

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16. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Soil & geology	acidic, neutral, mud, alluvium, nutrient-rich, sedimentary, gravel
Geomorphology and landscape	lowland, island, coastal, subtidal sediments (including sandbank/mudbank), intertidal sediments (including sandflat/mudflat), enclosed coast (including embayment), estuary, islands, lagoon
Nutrient status	eutrophic, mesotrophic
pH	circumneutral
Salinity	saline / euhaline
Soil	mainly mineral
Water permanence	usually permanent

Summary of main climatic features	Annual averages (Bognor Regis, 1971–2000) (www.metoffice.com/climate/uk/averages/19712000/sites/bognor_regis.html) Max. daily temperature: 13.7° C Min. daily temperature: 7.7° C Days of air frost: 24.0 Rainfall: 717.4 mm Hrs. of sunshine: 1902.9

General description of the Physical Features:

Portsmouth Harbour is a large industrialised estuary and includes one of the four largest expanses of mudflats and tidal creeks on the south coast of Britain. Portsmouth Harbour has only a narrow connection to the sea via the Solent, and receives comparatively little fresh water, thus giving it an unusual hydrology.

17. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

Portsmouth Harbour is a large industrialised estuary and includes one of the four largest expanses of mudflats and tidal creeks on the south coast of Britain. Portsmouth Harbour has only a narrow connection to the sea via the Solent, and receives comparatively little fresh water, thus giving it an unusual hydrology.

18. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

Shoreline stabilisation and dissipation of erosive forces

19. Wetland types:

Marine/coastal wetland

Code	Name	% Area
G	Tidal flats	59.3
F	Estuarine waters	21.2
H	Salt marshes	14
B	Marine beds (e.g. sea grass beds)	4.8
Other	Other	0.3
J	Coastal brackish / saline lagoons	0.3
E	Sand / shingle shores (including dune systems)	0.08

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

Portsmouth Harbour comprises a large, sheltered estuarine basins supporting extensive intertidal mudflats with *Zostera* beds and significant areas of mainly *Spartina* saltmarsh. The site also includes small, isolated shingle islands supporting scrub and broad-leaved woodland and two saline lagoon habitats. The site supports important overwintering populations of migratory waterfowl. A number of off-site areas of grassland are particularly important feeding sites for overwintering dark-bellied brent geese and as roosting areas for waders.

Ecosystem services

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in **12**. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Nationally important species occurring on the site.

Higher Plants.

Zostera noltei, Zostera angustifolia, Zostera marina, Inula crithmoides

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in **12**. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Birds

Species currently occurring at levels of national importance:

Species with peak counts in spring/autumn:

Little egret , *Egretta garzetta*, West Mediterranean	47 individuals, representing an average of 2.8% of the GB population (5 year peak mean 1998/9-2002/3)
Black-tailed godwit , *Limosa limosa islandica*, Iceland/W Europe	343 individuals, representing an average of 2.2% of the GB population (5 year peak mean 1998/9-2002/3)

Species Information

Nationally important species occurring on the site:
Lagoon sand shrimp *Gammarus insensibilis* (nationally scarce)
Starlet sea anemone *Nematostella vectensis* (RDB vulnerable)

23. Social and cultural values:

Describe if the site has any general social and/or cultural values e.g. fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values.

Aesthetic
Archaeological/historical site
Environmental education/ interpretation
Fisheries production
Non-consumptive recreation
Scientific research
Sport fishing
Subsistence fishing
Tourism
Traditional cultural
Transportation/navigation

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning? No

If Yes, describe this importance under one or more of the following categories:

i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:

ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:

iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:

iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

24. Land tenure/ownership:

Ownership category	On-site	Off-site
Non-governmental organisation (NGO)	+	+
Local authority, municipality etc.	+	+
National/Crown Estate	+	
Private	+	+
Public/communal		+
Other	+	+

25. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	+
Tourism	+	+
Recreation	+	+
Current scientific research	+	
Fishing: (unspecified)	+	+
Fishing: commercial	+	+
Fishing: recreational/sport	+	+
Gathering of shellfish	+	
Bait collection	+	
Industry	+	+
Sewage treatment/disposal	+	+
Harbour/port	+	+
Flood control	+	
Mineral exploration (excl. hydrocarbons)		+
Oil/gas exploration		+
Transport route	+	+
Urban development	+	+
Military activities	+	+

26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

Explanation of reporting category:

1. *Those factors that are still operating, but it is unclear if they are under control, as there is a lag in showing the management or regulatory regime to be successful.*
2. *Those factors that are not currently being managed, or where the regulatory regime appears to have been ineffective so far.*

NA = Not Applicable because no factors have been reported.

Adverse Factor Category	Reporting Category	Description of the problem (Newly reported Factors only)	On-Site	Off-Site	Major Impact?
Eutrophication	1		+		+
Unspecified development: urban use	1	Disturbance and land-take pressures (on and off-site) from urban and industrial development.	+	+	
Coastal engineering, e.g. construction of sea defences for coastal protection	2	Coastal squeeze arising from coastal defences	+		+

For category 2 factors only.
What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors?
Coastal engineering, e.g. construction of sea defences for coastal protection - Shoreline management plan should identify areas to offset losses from coastal squeeze when in place.

Is the site subject to adverse ecological change? YES

27. Conservation measures taken:

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

Conservation measure	On-site	Off-site
Site/ Area of Special Scientific Interest (SSSI/ASSI)	+	
Special Protection Area (SPA)	+	
Land owned by a non-governmental organisation for nature conservation	+	+
Management agreement	+	
Site management statement/plan implemented	+	

b) Describe any other current management practices:

The management of Ramsar sites in the UK is determined by either a formal management plan or through other management planning processes, and is overseen by the relevant statutory conservation agency. Details of the precise management practises are given in these documents.

28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

No information available

29. Current scientific research and facilities:

e.g. details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Contemporary.

Fauna.
Numbers of migratory and wintering wildfowl and waders are monitored annually as part of the national Wetland Birds Survey (WeBS) organised by the British Trust for Ornithology, Wildfowl & Wetlands Trust, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee.
Bird Ringing by Solent Shorebirds Study Group.

Environment.
Coastal Sediment (SCOPAC)
Various research and educational establishments carry out ongoing research into a number of different aspects of the environment.
Proposed:
Intertidal Habitat Monitoring (EN/EA project)I

Completed.

Fauna.
Benthic surveys of Haslar, Forton & Tipner Lakes
Lagoon survey - Cockle Pond, Alver Lake
Site-specific Environmental Assessments eg Priddys Hard, Cold Harbour, Tipner, Continental Ferry Port.

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitor centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

Little at present, however there is scope for interpretation through implementation of the Harbour Plan, and Gosport and Portsmouth Millennium projects.

31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

Activities, Facilities provided and Seasonality.
Land-based recreation:

Walking including dog-walking - All year.

Bait-digging - All year - mainly winter

Birdwatching - Autumn-Spring.

Water-based recreation:

Sailing, power-boating, windsurfing, canoeing - Mainly Spring-Autumn

32. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept. of Agriculture/Dept. of Environment, etc.

Head, Natura 2000 and Ramsar Team, Department for Environment, Food and Rural Affairs, European Wildlife Division, Zone 1/07, Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6EB

33. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Site Designations Manager, English Nature, Sites and Surveillance Team, Northminster House, Northminster Road, Peterborough, PE1 1UA, UK

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see **15** above), list full reference citation for the scheme.

Site-relevant references

Barne, JH, Robson, CF, Kaznowska, SS, Doody, JP & Davidson, NC (eds.) (1998) *Coasts and seas of the United Kingdom. Region 9 Southern England: Hayling Island to Lyme Regis*. Joint Nature Conservation Committee, Peterborough. (Coastal Directories Series.)

Buck, AL (ed.) (1997) *An inventory of UK estuaries. Volume 6. Southern England*. Joint Nature Conservation Committee, Peterborough

Burd, F (1989) *The saltmarsh survey of Great Britain. An inventory of British saltmarshes*. Nature Conservancy Council, Peterborough (Research & Survey in Nature Conservation, No. 17)

Clark, M & Gurnell, A (1987) *The Solent estuary: environmental background*. Southampton University, GeoData Unit, Southampton

Covey, R (1998) Chapter 7. Eastern Channel (Folkestone to Durlston Head) (MNCR Sector 7). In: *Benthic marine ecosystems of Great Britain and the north-east Atlantic*, ed. by K. Hiscock, 199-218. Joint Nature Conservation Committee, Peterborough. (Coasts and Seas of the United Kingdom. MNCR series)

Cranswick, PA, Waters, RJ, Musgrove, AJ & Pollitt, MS (1997) *The Wetland Bird Survey 1995–96: wildfowl and wader counts*. British Trust for Ornithology, Wildfowl and Wetlands Trust, Royal Society for the Protection of Birds & Joint Nature Conservation Committee, Slimbridge

Doody, JP, Johnston, C & Smith, B (1993) *Directory of the North Sea coastal margin*. Joint Nature Conservation Committee, Peterborough

Fowler, SL (1995) *Review of nature conservation features and information within the Solent & Isle of Wight Sensitive Marine Area*. Report to the Solent Forum Strategic Guidance Subgroup [Includes extensive bibliography]

Musgrove, AJ, Langston, RHW, Baker, H & Ward, RM (eds.) (2003) *Estuarine waterbirds at low tide. The WeBS Low Tide Counts 1992–93 to 1998–99*. WSG/BTO/WWT/RSPB/JNCC, Thetford (International Wader Studies, No. 16)

Musgrove, AJ, Pollitt, MS, Hall, C, Hearn, RD, Holloway, SJ, Marshall, PE, Robinson, JA & Cranswick, PA (2001) *The Wetland Bird Survey 1999–2000: wildfowl and wader counts*. British Trust for Ornithology, Wildfowl and Wetlands Trust, Royal Society for the Protection of Birds & Joint Nature Conservation Committee, Slimbridge. www.wwt.org.uk/publications/default.asp?PubID=14

Nicholas Pearson Associates (1996) *Portsmouth Harbour Plan Review: draft for working group. July 1996*. Centre for Coastal Zone Management, University of Portsmouth

Sneddon, P & Randall, RE (1994) *Coastal vegetated shingle structures of Great Britain: Appendix 3. Shingle sites in England*. Joint Nature Conservation Committee, Peterborough

Stroud, DA, Chambers, D, Cook, S, Buxton, N, Fraser, B, Clement, P, Lewis, P, McLean, I, Baker, H & Whitehead, S (eds.) (2001) *The UK SPA network: its scope and content*. Joint Nature Conservation Committee, Peterborough (3 vols.) www.jncc.gov.uk/UKSPA/default.htm

Tubbs, C (1991) The Solent: a changing wildlife heritage. Hampshire and Isle of Wight Wildlife Trust, Romsey

Please return to: **Ramsar Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**

Telephone**: +41 22 999 0170** • Fax: **+41 22 999 0169** • email: **ramsar@ramsar.org**

Appendix 4 Solent Maritime SAC Citation

NATURA 2000 – STANDARD DATA FORM

Special Areas of Conservation under the EC Habitats Directive (includes candidate SACs, Sites of Community Importance and designated SACs).

Each Natura 2000 site in the United Kingdom has its own Standard Data Form containing site-specific information. The data form for this site has been generated from the Natura 2000 Database submitted to the European Commission on the following date:

22/12/2015

The information provided here, follows the officially agreed site information format for Natura 2000 sites, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

The Standard Data Forms are generated automatically for all of the UK's Natura 2000 sites using the European Environment Agency's Natura 2000 software. The structure and format of these forms is exactly as produced by the EEA's Natura 2000 software (except for the addition of this coversheet and the end notes). The content matches exactly the data submitted to the European Commission.

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

Further technical documentation may be found here
http://bd.eionet.europa.eu/activities/Natura_2000/reference_portal

As part of the December 2015 submission, several sections of the UK's previously published Standard Data Forms have been updated. For details of the approach taken by the UK in this submission please refer to the following document:
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

More general information on Special Areas of Conservation (SACs) in the United Kingdom is available from the SAC home page on the JNCC website. This webpage also provides links to Standard Data Forms for all SACs in the UK.

Date form generated by the Joint Nature Conservation Committee
25 January 2016.

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK0030059**

SITENAME **Solent Maritime**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
B	UK0030059

1.3 Site name

Solent Maritime

1.4 First Compilation date	1.5 Update date
1998-10	2015-12

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee

Address: Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY

Email:

Date site proposed as SCI:	1998-10
Date site confirmed as SCI:	2004-12
Date site designated as SAC:	2005-04
National legal reference of SAC designation:	Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
-0.927777778	50.79638889

2.2 Area [ha]:

11243.12

2.3 Marine area [%]

91.9

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKJ3	Hampshire and Isle of Wight
UKJ2	Surrey, East and West Sussex
UKZZ	Extra-Regio

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
1110			3597.8		M	C	C	C	C
1130			6633.44		G	A	B	B	B
1140			5059.4		G	A	C	B	C
1150	X		146.16		P	C	B	B	C
1210			112.43		P	C	A	B	C
1220			112.43		M	C	B	B	C
1310			123.67		P	B	B	B	C
1320									

			94.44		P	A	A	C	A
1330			2023.76		M	B	B	B	B
2120			112.43		M	C	B	B	C
2130	X		112.43		M	D			

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
M	1355	Lutra lutra			p				P	DD	D			
M	1365	Phoca vitulina			p				P	DD	D			
I	1016	Vertigo moulinsiana			p				R	DD	B	B	B	C

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N02	59.0
N03	23.0
N16	0.5

N01	14.0
N05	3.0
N04	0.5
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: shingle,sedimentary,sand,alluvium,mud,neutral,nutrient-rich,clay 2 Terrestrial: Geomorphology and landscape: island,lowland,coastal 3 Marine: Geology: sand,clay,sedimentary,gravel,mud,limestone/chalk,shingle,sandstone/mudstone 4 Marine: Geomorphology: open coast (including bay),estuary,enclosed coast (including embayment),shingle bar,subtidal sediments (including sandbank/mudbank),intertidal sediments (including sandflat/mudflat),islands,lagoon

4.2 Quality and importance

Sandbanks which are slightly covered by sea water all the time for which the area is considered to support a significant presence. Estuaries for which this is considered to be one of the best areas in the United Kingdom. Mudflats and sandflats not covered by seawater at low tide for which the area is considered to support a significant presence. Coastal lagoons for which the area is considered to support a significant presence. Annual vegetation of drift lines for which the area is considered to support a significant presence. which is considered to be rare as its total extent in the United Kingdom is estimated to be less than 100 hectares. Perennial vegetation of stony banks for which the area is considered to support a significant presence. Salicornia and other annuals colonising mud and sand for which the area is considered to support a significant presence. Spartina swards (Spartinion maritimae) for which this is one of only two known outstanding localities in the United Kingdom. which is considered to be rare as its total extent in the United Kingdom is estimated to be less than 100 hectares. Atlantic salt meadows (Glauco-Puccinellietalia maritimae) for which this is considered to be one of the best areas in the United Kingdom. Shifting dunes along the shoreline with Ammophila arenaria (?white dunes?) for which the area is considered to support a significant presence. Vertigo moulinsiana for which the area is considered to support a significant presence.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	H02		B
H	M01		B
H	F02		I
H	M02		B
H	G01		I

Positive Impacts

Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	A04		I
H	A02		I
H	D05		I
H	A03		I
H	B02		I
H	D05		I

Rank: H = high, M = medium, L = low

Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,

T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions

i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324

http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	71.4	UK00	28.6	UK01	4.5

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

- [ ] Yes
- [ ] No, but in preparation
- [X] No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE NATURA 2000 STANDARD DATA FORMS

The codes in the table below are also explained in the official European Union guidelines for the Standard Data Form. The relevant page is shown in the table below.

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	Designated Special Protection Area	53
B	SAC (includes candidates Special Areas of Conservation, Sites of Community Importance and designated SAC)	53
C	SAC area the same as SPA. Note in the UK Natura 2000 submission this is only used for Gibraltar	53

3.1 Habitat representativity

CODE	DESCRIPTION	PAGE NO
A	Excellent	57
B	Good	57
C	Significant	57
D	Non-significant presence	57

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha□ rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	15%-100%	58
B	2%-15%	58
C	< 2%	58

3.1 Conservation status habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global grade habitat

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	15%-100%	62
B	2%-15%	62
C	< 2%	62
D	Non-significant population	62

3.2 Conservation status species (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' Or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Assemblages types

CODE	DESCRIPTION	PAGE NO
WATR	Non breeding waterfowl assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code
BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK02	Marine Nature Reserve	67
UK04	Site of Special Scientific Interest (UK)	67

Appendix 5 Nitrogen Neutrality Calculation

Stage 1 - Nitrogen Load from Wastewater		
New Residents (A)	501.60	People
Waste Waste Generation (B = A x 110 litres/day)	55176.00	l/day
WWTW Environmental Permit Limit (C)	9.00	mg/l TN
Total Nitrogen (TN) Discharged After Treatment (D = B x (C x 90% -2 mg))	336573.60	mg/TN/day
Total (E = D / 1000000 x 365 days)	122.85	kg/TN/year

Stage 2 - Nitrogen Load from Current Land Use							
Land to be Developed (F)						17.8	ha
Existing Uses (G = kg/ha * ha)	General Cropping	25.4	kg/ha/year	15.9	ha	403.9	kg/ha/year
	Open Space	5.0	kg/ha/year	1.9	ha	9.4	kg/ha/year
Total (H = SUM G)						413.2	kg/TN/year

Stage 3 - Nitrogen Load from Future Land Use		
New Urban Area (I)	5.40	ha
Leaching from Urban Area (J = I x 14.3 kg/ha)	77.22	kg/TN/year
New Open Space (K)	12.37	ha
Leaching from Open Space (L = K x 5.0 kg/ha)	61.85	kg/TN/year
New Community Food Growing Provision (M)	0.00	ha
Leaching from Community Food Frowing Provision (N = M x 26.9 kg/ha)	0.00	kg/TN/year
Total (O = J + L + N)	139.07	kg/TN/year

Budget		
Stage 1 - Nitrogen Load from Waterwater (E)	122.85	kg/TN/year
Stage 2 - Nitrogen Load from Current Land Use (H)	413.21	kg/TN/year
Stage 3 - Nitrogen Load from Future Land Use (O)	139.07	kg/TN/year
Total Future (P = E + O)	261.92	kg/TN/year
Total Change (P - H)	-151.29	kg/TN/year
20% Buffer on Total Change ((P-H) x 20%)	0.00	kg/TN/year
Total Including Buffer (P - H + 20% Buffer)	**-151.29**	**kg/TN/year**