

Quality Assurance

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Declaration of Compliance

The information which we have prepared is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

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1. Introduction

1.1 Project Background

In July 2023, Ingleton Wood commissioned Middlemarch to complete a Shadow Habitats Regulations Assessment associated with the proposed redevelopment of land at McMullen Barracks, Marchwood, Hampshire. It is understood that a full planning application will be submitted to New Forest District Council for permission to install a rugby pitch.

Middlemarch has previously carried out the following assessments at this site:

- Preliminary Ecological Appraisal, Report RT-MME-159519-03;
- Preliminary Arboricultural Assessment, Report RT-MME-159302-01;
- Arboricultural Impact Assessment, Report RT-MME-159302-01;
- Arboricultural Method Statement, Report RT-MME-159302-03; and
- Preliminary Bat Roost Assessment, Report RT-MME-159302-05.

In addition, Middlemarch has also been commissioned to undertake the following assessments:

- Dusk Emergence and Dawn Re-Entry Bat Surveys, Report RT-MME-159721; and
- Habitat Suitability Assessment for great crested newts, Report RT-MME-159749-01.

Middlemarch Environmental Ltd was commissioned to prepare this shadow HRA in order to provide a robust evidence base to support the Competent Authority (New Forest District Council) in undertaking the Stage 1 (Screening) and Stage 2 (Appropriate Assessment) of their Habitats Regulations Assessment.

This assessment is required due to the proximity of the Site to the designated Solent & Southampton Water Ramsar and Special Protection Area, the Solent Maritime Special Area of Conservation and the New Forest Ramsar, Special Protection Area and Special Area of Conservation.

1.2 Habitats Regulations Assessment

The need for projects with the potential to affect European designated sites to be assessed is stated in Article 6 of the European Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (hereafter 'the Habitats Directive'). Articles 6(3) and 6(4) of the Habitats Directive state that an 'Appropriate Assessment' is required for any plan or project that is considered likely to have a significant effect on a European site, either individually or in combination with other plans or projects. The land and marine aspects of the Habitats Directive, as well as certain elements of the Wild Birds Directive (Directive 2009/147/EC) (known collectively as the Nature Directives) are transposed into English and Welsh law through the Conservation of Habitats and Species Regulations 2017 as amended ('the Habitats Regulations 2017').

Regulations 63, 64, 65 and 66 of the Habitat Regulations 2017 incorporate the requirements of Articles 6(3) and 6(4) of the Habitats Directive, as regards a competent authority deciding to undertake, or give any consent, permission, or other authorisation for, a plan or project. Additionally, regulations 75, 76, 77 and 78 of the Habitats Regulations 2017 incorporate the requirements of Articles 6(3) and 6(4) of the Habitats Directive, regarding the competent authority's

granting of a planning permission by a general development order (permitted development). The requirements of Articles 6(3) and 6(4) of the Habitats Directive are further incorporated into regulations 105 and 106 of the Habitats Regulations 2017 regarding the requirements of a competent authority (plan-making authority) to undertake an appropriate assessment of implications of any land use plan before the plan is given effect.

Changes have been made to parts of the Habitats Regulations 2017 so that they operate effectively from 1st January 2021. The changes are made by the Habitats Regulations 2019, which transfer functions from the European Commission to the appropriate authorities in England and Wales.

All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant. The obligations of a competent authority in the 2017 Regulations for the protection of sites or species do not change. A competent authority is a public body, statutory undertaker, minister or department of government, or anyone holding public office.

The Habitats Regulations 2019 have created a National Site Network on land and at sea, including both the inshore and offshore marine areas in the UK. The National Site Network includes:

- Existing Special Areas of Conservation (SACs), which are designated due to their importance to the habitats and species listed in Annexes I and II of the Habitats Directive;
- Existing Special Protection Areas (SPAs), which are designated due to their importance for wild birds in accordance with the Wild Birds Directive; and
- New SACs and SPAs designated under these Regulations.

SACs and SPAs in the UK no longer form part of the European Union's Natura 2000 ecological network. Any references to Natura 2000 in the 2017 Regulations and in guidance now refers to the new National Site Network. However, guidance provided by Freeths (2020a)¹ recommends that existing SACs and SPAs in the UK can continue to be referred to as 'European sites' and 'European marine sites'.

Designated Wetlands of International Importance (known as Ramsar sites) do not form part of the National Site Network. Many Ramsar sites overlap with SACs and SPAs and may be designated for the same or different species and habitats. All Ramsar sites remain protected in the same way as SACs and SPAs and are treated, for planning purposes, as European sites.

Under the Habitats Regulations, the competent authority (New Forest District Council) may only agree to the proposed development after having ascertained that it will not adversely affect the integrity of any European site alone or in-combination with other plans and projects. Where adverse impacts are anticipated, the proposed development may only be permitted where there are no alternative solutions, and the proposed development is considered to be of overriding public interest. In such instances, appropriate compensatory measures are required to ensure that the overall coherence of the National Site Network is protected.

¹ Freeths. (2020a). *The Habitats Regulations Assessment regime after 31 December 2020 – how will it look?* 22nd October 2020. Available at: <https://www.freeths.co.uk/2020/10/22/the-habitats-regulations-assessment-regime-after-31-december-2020-how-will-it-look/?cmpredirect>

2. Methodology

2.1 Stages of Habitat Regulations Assessment

The following assessment is based on the best practice for Habitats Regulations Assessment as outlined in *The Habitats Regulations Handbook* (DTA Publications, 2013² and subsequent updates). This document expands upon previous guidance published by the Impacts Assessment Unit at Oxford Brookes University (2001)³ and the Department for Communities and Local Government (2006)⁴.

Best practice guidance identifies that the Habitats Regulations Assessment process is broadly divisible into four stages, with the need to complete each stage determined by the results of the previous stage. In summary, these stages are:

- **Stage 1: Evidence Gathering and Screening**

This stage is associated with collecting evidence regarding those parts of the National Site Network (SACs and SPAs) that have the potential to be impacted by a project or plan, either alone or in combination with other projects or plans. Where no significant effects are perceived, sites may be screened out of the need for further assessment during Stage 2.

The April 2018 decision by the Court of Justice of the European Union (CJEU) in the case of *People Over Wind and Sweetman v Coillte Teoranta* (C-323/17) means that measures intended to avoid or reduce the harmful effects of a proposed project on a European site, may no longer be taken into account by competent authorities at the Habitats Regulations Assessment 'screening stage' when judging whether a proposed plan or project is likely to have a significant effect on the integrity of a European site. This is a reversal of a previously settled principle in English and Welsh law. As such, where a proposed development is proximate to a SAC or SPA and could give rise to significant effects, even if these effects can be mitigated for, an Appropriate Assessment (Stage 2) is required.

Regarding CJEU judgments given prior to 31st December 2020, reference to *Freeths* (2020b)⁵ and the Ministry of Justice (2020)⁶, confirms that the courts in the UK, with the exception of the UK Supreme Court; the Court of Appeal in England and Wales; the Court of Appeal in Northern Ireland; the High Court of Justiciary in Scotland, when sitting as a court of appeal in relation to a compatibility issue with EU law or a devolution issue; the Inner House of the Court of Session; the Lands Valuation Appeal Court; and the Registration Appeal Court, will continue to be bound by judgments handed down by the CJEU and by domestic courts prior to 31st December 2020, when interpreting retained EU

² DTA Publications. (2013 and subsequent updates). *The Habitat Regulations Assessment Handbook*. DTA Publications, Nottingham.

³ Oxford Brookes University. (2001). *Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological Guidance on the provisions of Article 6(3) and 6(4) of the 'Habitats' Directive 92/43/EEC*. European Commission DG Environment.

⁴ Department for Communities and Local Government. (2006). *Planning for the Protection of European Sites: Appropriate Assessment. Guidance for Regional Spatial Strategies and Local Development Documents*.

⁵ Freeths. (2020b). *Environmental Law after 31 December 2020*. 5th November 2020. Available at: <https://www.freeths.co.uk/2020/11/05/environmental-law-after-31-december-2020/>

⁶ Ministry of Justice. (2020). *Government response to consultation. Response to the consultation on the departure from retained EU case law by UK courts and tribunals*. October 2020. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/926811/departure-eu-case-law-uk-courts-tribunals-consultation-response.pdf

law. This is the case as long as the relevant piece of legislation remains unmodified by Parliament.

Under these regulations, the courts named above as exceptions, will not be bound by (and therefore can choose to depart from) any CJEU judgments given prior to 31st December 2020 (including those relating to environmental law matters), except, in so far as “there is post-transition case law which modifies or applies that retained EU case law and which is binding on the relevant court”.

- **Stage 2: Appropriate Assessment of Significant Impacts**

Where it is considered that a European site may experience significant effects from a project or plan, either alone or in combination with other projects or plans, a detailed assessment of likelihood and severity of the perceived impact, on the integrity of the European site and the National Site Network is undertaken. This assessment is based on a detailed review of the project or plan in conjunction with the structure, function and conservation objectives of the European site. This stage may also include a preliminary assessment regarding the potential for the identified impacts to be mitigated.

- **Stage 3: Assessment of Alternative Solutions**

Where impacts on the integrity of the European site and the National Site Network are perceived, this stage examines alternative ways of achieving the objectives of the project or plan in order to avoid these impacts.

- **Stage 4: Imperative Reasons of Overriding Public Interest and Compensation Measures**

Where the potential for adverse impacts remains, and where it is deemed that a project or plan should proceed for Imperative Reasons of Overriding Public Interest (IROPI), an investigation of appropriate compensatory measures is undertaken.

This report focuses on Stage 1 of the Habitats Regulations Assessment process.

2.2. The 'Precautionary Principle'

Oxford Brooks (2001) Methodological Guidance on Art 6(3) and 6(4) Habitats Directive states that “*Implicit in the habitats directive is the application of the **precautionary principle**, which requires that the conservation objectives of Natura 2000 should prevail where there is uncertainty*”. The European Commission’s Final Communication from the Commission on the Precautionary Principle (European Commission, 2000a⁷) states that the use of the precautionary principle presupposes:

- Identification of potentially negative effects resulting from a phenomenon, product or procedure
- A scientific evaluation of the risks which because of the insufficiency of the data, their inconclusive or imprecise nature, makes it impossible to determine with sufficient certainty the risk in question (CEC, 2000).

According to best practice guidance, this means that the emphasis for assessment should be on objectively demonstrating, with supporting evidence, that there will be no significant effects on a

⁷ European Commission. (2000a). *Final Communication from the Commission on the Precautionary Principle*.

European site. The publication 'Managing Natura 2000 Sites: The Provision of Article 6 of the 'Habitats' Directive 92/43/EEC' (European Commission, 2000b⁸) provides explanatory guidance regarding this point, which is paraphrased below.

It is clear from the context and from the purpose of the directive that the 'integrity of the site' relates to the site's conservation objectives. For example, it is possible that a plan or project will adversely affect the integrity of a site only in a visual sense or only habitat types or species other than those listed in Annex I or Annex II. In such cases, the effects do not amount to an adverse effect for the purposes of Article 6(3), provided that the coherence of the network is not affected.

The expression 'integrity of the site' shows that focus is here on the specific site. Thus, it is not allowed to destroy a site or part of it on the basis that the conservation status of the habitat types and species it hosts will anyway remain favourable within the European territory of the Member State.

As regards the connotation or meaning of 'integrity', this can be considered as a quality or condition of being whole or complete. In a dynamic ecological context, it can also be considered as having the sense of resilience and ability to evolve in ways that are favourable to conservation. The 'integrity of the site' has been usefully defined as 'the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or levels of populations of the species for which it was classified' (IEEM, 2006).

The integrity of the site involves its ecological functions. The decision as to whether it is adversely affected should focus on and be limited to the site's conservation objectives.

Conservation objectives for the European sites considered in this assessment are presented in Chapter 4.

⁸ European Commission. (2000b). *Managing Natura 2000 Sites: The Provision of Article 6 of the 'Habitats' Directive 92/43/EEC*.

3. Stage 1: Site Description and Proposed Development

3.1 Current Land Use

Table 3.1 provides a brief summary of the site and its surroundings.

Table 3.1: Summary of Site and Surroundings

Attribute	Description
Site Location	McMullen Barracks, Marchwood, Hampshire
National Grid Reference	SU 39346 10780
Site Area	2.98ha
Topography	The immediate site and surrounding terrain are flat.
Land Cover (on site)	The site is dominated by an area of semi-improved grassland, used predominantly by dog walkers. The southern boundary is delineated by a stream, whilst much of the north, east and west is bordered by fences and scattered tree lines.
Land Cover (site surrounds)	The wider landscape is dominated by the urban fringes of Southampton, located to the north and east. Agricultural land and pockets of woodland spread to the south and west. A railway is present to the south of the site and Marchwood Industrial Park is located immediately to the east.

3.2 Summary of Development Proposals

The proposed works involve the installation of a rugby pitch within the site with associated flood lighting and drainage. In order to facilitate the development, it will be necessary to remove some trees currently within the site. The drainage strategy has not been finalised at the time of writing.

3.3 Documentation Provided

Documentation made available by the client is listed in Table 3.2.

Table 3.2: Documentation Provided by Client

Document / Drawing Number	Author
22046-CBP-Z0-00-DR-A-1501_P01_Demolition Site Plan	CBP Architects
22046-CBP-Z0-00-DR-A-2001_P03_Proposed Site Plan	CBP Architects
NTS191 01 - Existing Levels	NTS
NTS191 02 - Proposed Finished Levels	NTS
NTS191 04 - Proposed Drainage	NTS

4. Stage 1: Relevant European Sites

4.1 Identification of European Sites at Risk

A search for European statutory nature conservation sites within a 5km radius of the application site was completed as part of the Preliminary Ecological Appraisal (Report RT-MME-159519-03) using Natural England's Multi-Agency Geographic Information for the Countryside (MAGIC) website.

The following statutory sites were identified: Solent and Southampton Water Ramsar and Special Protection Area (SPA), the Solent Maritime Special Area of Conservation (SAC) and the New Forest Ramsar, SPA and SAC.

The relative distance of these sites from the application site boundary and the justification for scoping these sites into or out of further assessment is provided in Table 4.1.

Table 4.1: Summary of European Sites (continues on page 11)

European Site	Distance from Application Site	Justification for Scoping In/Out of Further Assessment
Solent & Southampton Water Ramsar and SPA	845m	<p>This site comprises a number of estuaries and various coastal habitats including intertidal flats, saline lagoons, shingle beaches, reefs, saltmarsh, reedbeds, damp woodland and grazing marsh. Internationally important numbers of wintering waterfowl are present, including ringed plover <i>Charadrius hiaticula</i>, teal <i>Anas crecca</i>, and dark-bellied brent goose <i>Branta bernicla bernicla</i>. There are breeding colonies of Mediterranean gull <i>Larus melanocephalus</i>, Sandwich tern <i>Sterna sandvicensis</i>, common tern <i>Sterna hirundo</i>, and little tern <i>Sterna albifrons</i>. There are also assemblages of rare invertebrates and plants.</p> <p>Given the proximity of the development site to the Ramsar and SPA, and the presence of a hydrological link between the sites, the Solent and Southampton Water Ramsar and SPA are scoped in for further assessment.</p>
Solent Maritime SAC	845m	<p>The Solent is unique within Europe for having four tides each day. The site supports the only sward of smooth cord-grass <i>Spartina alterniflora</i> in the UK, as well as being one of two sites to contain significant amounts of small cord-grass <i>S. maritima</i>. There are also areas of Atlantic salt meadow.</p> <p>Given the proximity of the development site to the SAC, and the presence of a hydrological link between the sites, the Solent Maritime SAC is scoped in for further assessment.</p>

European Site	Distance from Application Site	Justification for Scoping In/Out of Further Assessment
New Forest Ramsar, SPA and SAC	3.2km	<p>This site comprises various habitats, including heath, scrub, broadleaved deciduous woodland, coniferous woodland and bog. The site is designated as a SAC for its oligotrophic ponds which include rare plant species, wet and dry heaths, moor grass <i>Molinia</i> spp. meadows, beech <i>Fagus sylvatica</i> and oak <i>Quercus</i> spp. woodlands, bog woodland, and alluvial forests. Rare invertebrate species are supported, including southern damselfly <i>Coenagrion mercuriale</i> and stag beetle <i>Lucanus cervus</i>. The site is important for both breeding and wintering raptors, including hen harrier <i>Circus cyaneus</i>. The site is designated as a SPA for large breeding populations of nightjar <i>Caprimulgus europaeus</i>, woodlark <i>Lullula arborea</i>, and Dartford warbler <i>Sylvia undata</i>, as well as breeding honey buzzard <i>Pernis apivorus</i>. The site is also designated for its value to bats, including Bechstein's bat <i>Myotis bechsteinii</i>.</p> <p>Given the distance between the site and this designation, it is considered highly unlikely that there will be any impact on the qualifying features of the Ramsar, SPA and SAC. This site is therefore ruled out from further assessment.</p>

The locations of the Solent & Southampton Water Ramsar and SPA, Solent Maritime SAC and the New Forest Ramsar, SPA and SAC in relation to the application site are shown on Drawing C159749-03-01 in Chapter 9.

The designation criteria, conservation objectives and known areas of vulnerability for the Solent and Southampton Water Ramsar and SPA and the Solent Maritime SAC are detailed in Sections 4.2, 4.3 and 4.4 below.

4.2 Solent & Southampton Water Ramsar

The following information is taken from the Information Sheet on Ramsar Wetlands⁹ for the site.

Country:	England
Administrative Region:	Hampshire and Isle of Wight
Latitude:	50.74027778
Longitude:	-1.525833333
Site Code:	UK9011061
Area (ha):	5401.12

⁹ <https://jncc.gov.uk/jncc-assets/RIS/UK11063.pdf>

4.2.1 Qualifying Features

This site qualifies under Criteria 1, 2, 5, and 6 of the Ramsar Criterion for identifying wetlands of international importance:

- **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); and
- **Ramsar Criterion 6:** species/populations occurring at levels of international importance. These species are summarised in Table 4.2.

Table 4.2: Summary of Species Occurring at Levels of International Importance

Species	Status on Site
Species with peak counts in spring/autumn	
Ringed plover <i>Charadrius hiaticula</i> , 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 <i>Branta bernicla bernicla</i>	6456 individuals, representing an average of 3% of the population (5-year peak mean 1998/9- 2002/3)
Eurasian teal <i>Anas crecca</i> , NW Europe	5514 individuals, representing an average of 1.3% of the population (5-year peak mean 1998/9-2002/3)
Black-tailed godwit <i>Limosa limosa islandica</i> , Iceland/W Europe	1240 individuals, representing an average of 3.5% of the population (5-year peak mean 1998/9-2002/3)

4.2.3 Factors affecting the Qualifying Features

The Information Sheet for Ramsar Wetlands¹⁰, states that erosion is a factor adversely affecting the qualifying features of the site.

¹⁰ <https://jncc.gov.uk/jncc-assets/RIS/UK11063.pdf>

4.3 Solent & Southampton Water SPA

The following information is taken from the JNCC Website¹¹.

Country:	England
Administrative Region:	Hampshire and Isle of Wight
Latitude:	50.74027778
Longitude:	-1.525833333
Site Code:	UK9011061
Status:	Designated Special Protection Area
Area (ha):	5401.12

4.3.1 Qualifying Features

The following Annex I species are a primary reason for the selection of this site:

- A046a Dark-bellied brent goose *Branta bernicla bernicla* (non-breeding);
- A052 Eurasian teal *Anas crecca* (non-breeding);
- A137 Ringed plover *Charadrius hiaticula* (non-breeding);
- A156 Black-tailed godwit *Limosa limosa islandica* (non-breeding);
- A176 Mediterranean gull *Larus melanocephalus* (breeding);
- A191 Sandwich tern *Sterna sandvicensis* (breeding);
- A192 Roseate tern *Sterna dougallii* (breeding);
- A193 Common tern *Sterna hirundo* (breeding); and
- A195 Little tern *Sterna albifrons* (breeding).

4.3.2 Conservation Objectives

Conservation objectives for the Solent & Southampton Water SPA as detailed by Natural England (2019)¹² are as follows:

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

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

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

¹¹ <https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9011061.pdf>

¹² Natural England (2019). European Site Conservation Objectives for Solent and Southampton Water Special Protection Area. Version 3, February 2019. Available at: <http://publications.naturalengland.org.uk/file/5932771361161216>

- *The distribution of the qualifying features within the site.”*

4.3.3 Factors affecting the Qualifying Features

The Site Improvement Plan for Solent & Southampton Water SPA, which also covers Chichester and Langstone Harbours SPA, Portsmouth Harbour SPA and Solent Maritime SAC, highlights the following pressures/threats affecting the qualifying features of the site:

- Public access/disturbance;
- Coastal squeeze;
- Fisheries: commercial marine and estuarine;
- Water pollution;
- Changes in species distributions;
- Climate change;
- Public access/disturbance;
- Change to site conditions;
- Invasive species;
- Direct land take from development;
- Biological resource use;
- Change in land management;
- Inappropriate pest control;
- Air pollution: impact of atmospheric nitrogen deposition;
- Hydrological changes;
- Direct impact from third party; and
- Extraction: non-living resources.

It is recognised that not all of these issues will be of relevance for the proposed works. Where the proposed works have the potential to interact with and/or exacerbate the factors affecting the qualifying features, this is discussed further in Chapter 5.

4.4 Solent Maritime SAC

The following information is taken from the JNCC Website¹³.

Country:	England
Unitary Authority:	Extra-Regio; Hampshire and Isle of Wight; Surrey, East and West Sussex
Latitude:	50.79638889
Longitude:	-0.927777778
Site Code:	UK0030059
Status:	Designated Special Area of Conservation (SAC)
Area (ha):	11243.12

¹³ JNCC (no date). Solent Maritime Special Area of Conservation (SAC). Available at: <https://sac.jncc.gov.uk/site/UK0030059>

4.4.1 Qualifying Features

The following Annex I habitats are a primary reason for the selection of this site:

- 1130 Estuaries;
- 1320 *Spartina* swards (*Spartinon maritimae*); and
- 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*).

The following Annex I habitats are present as a qualifying feature, but not a primary reason for selection of this site:

- 1110 Sandbanks which are slightly covered by sea water all the time;
- 1140 Mudflats and sandflats not covered by seawater at low tide;
- 1150 Coastal lagoons (* priority feature);
- 1210 Annual vegetation of drift lines;
- 1220 Perennial vegetation of stony banks;
- 1310 *Salicornia* and other annuals colonizing mud and sand; and
- 2120 "Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes")".

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

- 1016 Desmoulin's whorl snail *Vertigo moulinsiana*

4.4.2 Conservation Objectives

Conservation objectives for the Solent Maritime SAC as detailed by Natural England (2019)¹⁴ are as follows:

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

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

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

¹⁴ Natural England (2018). European Site Conservation Objectives for Solent Maritime Special Area of Conservation. Version 3, November 2018. Available at: <https://publications.naturalengland.org.uk/publication/5762436174970880>

- *The populations of qualifying species; and,*
- *The distribution of qualifying species within the site.”*

4.4.3 Factors affecting the Qualifying Features

The pressures/threats affecting the qualifying features of the Solent & Southampton Water SPA discussed in section 4.3.3 are also relevant to the Solent Maritime SAC.

5. Stage 1: Screening – Initial Assessment of Impacts and Effects

5.1 Potential Impacts and Effects Arising as a Result of the Proposals

Following a review of the proposed development and consideration of the wider issues which are recognised as affecting the Solent & Southampton Water Ramsar and SPA and the Solent Maritime SAC the following potential impact pathways have been identified:

Solent & Southampton Water Ramsar and SPA

Construction Phase

- Water pollution as a result of accidental pollution events; and
- Disturbance of qualifying bird species.

Operational Phase

- Water pollution as a result of accidental pollution events.

Solent Maritime SAC

Construction Phase

- Water pollution as a result of accidental pollution events.

Operational Phase

- Water pollution as a result of accidental pollution events.

These impact pathways are discussed further in Sections 5.2, 5.3 and 5.4.

5.2 Water pollution as a result of accidental pollution events during the construction phase

The habitats upon which the qualifying species of the Solent & Southampton Water Ramsar and SPA and the Solent Maritime SAC rely are recognised as being sensitive to water pollution. A hydrological link between the development site and the Solent & Southampton Water Ramsar and SPA and the Solent Maritime SAC has been identified; the Cracknore Hard Stream is located to the south of the site, which flows eastwards towards the River Test. Therefore, it is possible that activities during construction phase could negatively affect the qualifying features of the Ramsar, SPA and SAC should pollutants enter this watercourse.

During the construction phase it is possible that contamination events could result from:

- Run-off from stored friable materials, for example topsoil;
- Spread of dust and debris;
- Improper storage of environmentally harmful materials;
- Improper disposal of waste materials; and
- Pollution caused by accidental release of chemicals, such as fuels.

In order to facilitate the development, clearance of some existing vegetation is required, including removal of a number of trees. It is proposed that this will be undertaken in part by utilising commercial grade weed killer before re-grading the ground and re-seeding. It is therefore possible that during the site preparation phase, improper use and management of chemicals could result in pollution which enters this watercourse.

The site is located 845m from the Solent & Southampton Water Ramsar and SPA as the crow flies, however in terms of hydrological linkage, the site is approximately 1.5km from the River Test and a further 360m from the Solent & Southampton Water Ramsar and SPA. The River Test flows in a southerly direction to Southampton Water, therefore it is possible that any significant pollution event at the site could result in harm to the qualifying features of the Ramsar and SPA.

It can be reasonably expected that, in light of the distance between the Solent & Southampton Water Ramsar and SPA and the development site, minor pollution events, such as small, temporary and localised spillages, would be unlikely to result in any significant impacts upon the Ramsar and SPA, with pollutants dissipating to a level unlikely to be detected at significant levels by the time it reaches the Ramsar and SPA.

However, any significant pollution event, for example an extensive or prolonged fuel spillage, could, in the absence of mitigation result in negative impacts on the features upon which the qualifying features of the Ramsar and SPA rely.

As detailed in Section 2.1 of this report, as a consequence of the 2018 CJEU *'People Over Wind'* judgment, it is no longer possible to take account of mitigation at the Screening Stage (as associated with the Habitats Regulations). This is a reversal of a previously settled principle in English and Welsh law. Accordingly, where a project or plan is proximate to a SAC, Ramsar or SPA and could give rise to significant effects, even if these effects can be mitigated for, an Appropriate Assessment (Stage 2) is required. This issue is therefore discussed further in Chapter 6 in respect of the Solent & Southampton Water Ramsar and SPA.

The Solent Maritime SAC is located to the north-west of the development site, therefore, given that the River Test flows in a southerly direction, impacts as a result of water pollution can reasonably be ruled out in respect of the SAC. This issue for this site can be screened out from the need for further consideration within this report.

5.3 Water pollution as a result of accidental pollution events during the occupational phase

As discussed above, the habitats upon which the qualifying species of the Solent & Southampton Water Ramsar and SPA and the Solent Maritime SAC rely are recognised as being sensitive to water pollution.

In the occupational phase of the development, the site will comprise a Sport England standard rugby pitch, managed to ensure the height of the grassland remains at between 20 and 25mm, and always below 30mm. Although the exact regime is not known at this stage, if required, selective and localised herbicide and pesticide use will be employed to prevent deleterious weeds and prevent disease.

As discussed, the Solent & Southampton Water Ramsar and SPA is hydrologically linked to the site via a watercourse flowing eastwards to the River Test and subsequently to Southampton

Water. A significant pollution event that occurs during the occupational phase of the development has the potential to result in harm to the qualifying features of the Ramsar and SPA.

In light of the proposed management regime of the pitch during the occupational phase of the development and the distance between sites, it is considered highly unlikely that there will be any significant pollution event which could result in harm to the interest features of the Solent & Southampton Water Ramsar and SPA. This issue for this site can be screened out from the need for further consideration within this report.

As discussed in Section 5.2 above, the Solent Maritime SAC is located to the north-west of the development site, therefore, given that the River Test flows in a southerly direction, impacts as a result of water pollution can reasonably be ruled out in respect of the SAC. This issue for this site can be screened out from the need for further consideration within this report.

5.4 Disturbance of qualifying bird species during the construction phase

Development within close proximity to the Solent & Southampton Water Ramsar and SPA has the potential to result in increased indirect impacts upon the sites' qualifying features, through disturbance as a result of works undertaken during the construction phase. The Site Improvement Plan for the Solent & Southampton Water Ramsar and SPA recognises that the sites' qualifying features (wintering ringed plover, teal and dark-bellied brent goose and breeding Mediterranean gull, Sandwich tern, common tern, and little tern) are sensitive to disturbance.

A review of disturbance effects to avifauna, and in particular, construction effects to waterfowl, by Cutts et al. (2009)¹⁵ indicates that waterbirds are susceptible to disturbance by construction activities. It was reported that construction workers within 200m of water birds can cause moderate disturbance that results in water birds leaving the immediate vicinity of the works. The site is located 845m from the Ramsar and SPA, therefore there is no likelihood of direct disturbance to the qualifying bird species as a result of the construction phase of the proposed works.

However, if it is found that the bird species may utilise the site itself on occasion for wintering or breeding, further consideration must be given as to whether disturbance may occur during the construction phase.

The habitats within the site are sub-optimal for the qualifying bird species, comprising semi-improved grassland and scattered trees; with the area utilised by dog walkers. Wintering ringed plover, teal and brent goose are typically found on estuaries, coastal bays and tidal flats, while brent geese will also graze on grassy fields. Breeding Mediterranean gull, Sandwich tern, common tern and little tern typically breed colonially on sandy beaches, low islands in salt or brackish water. The site therefore offers no habitats of value to the qualifying bird species of the Ramsar and SPA.

A review of the Solent Waders & Brent Goose Strategy Network was also carried out to determine whether the site has any acknowledged value to the qualifying bird species of the Ramsar and SPA. The strategy identifies a network of core areas used by important waders and brent geese. This review confirms that the site does not form part of this network and the closest low use sites

¹⁵ Cutts N., Phelps A., & Burdon D. (2009). Construction and Waterfowl: Defining Sensitivity, Response Impacts and Guidance. Report to Humber INCA, Institute of Estuaries and Coastal Studies, University of Hull.

(NF65 and NF73) are located approximately 800m from the site and the closest Secondary Support Area for Solent waders and brent geese (NF72) is located approximately 1.4km from the site. The location of the Solent Waders & Brent Goose Strategy Network in relation to the site is presented in Figure C159749-03-02 at Chapter 9.

As such, based upon the evidence available, it is considered highly unlikely that the proposed development could result in any impact upon the Solent & Southampton Water Ramsar and SPA due to increased disturbance of its qualifying species during its construction phase. This issue for this site can be screened out from the need for further consideration within this report.

5.5 In-Combination Assessment

5.5.1 Other Projects and Plans Considered In-Combination

In accordance with the legal requirement in the Habitats Regulations and best practice methodology, the potential for a project or plan to impact upon a European site must be considered '*either alone, or in combination with other projects or plans*'. As such, it is necessary to consider the potential for the proposed development to impact upon Solent & Southampton Water Ramsar and SPA and the Solent Maritime SAC, both alone and in combination with other plans and projects.

The scope of an in-combination assessment is restricted to plans and projects which are 'live' at the same time as the assessment being undertaken (Natural England, 2018)¹⁶. These types of plans include:

- The incomplete or non-implemented parts of plans or projects that have already commenced;
- Plans or projects given consent or given effect but not yet started;
- Plans or projects currently subject to an application for consent or proposed to be given effect;
- Projects that are the subject of an outstanding appeal;
- Ongoing plans or projects that are the subject of regular review and renewal;
- Any draft plans being prepared by any public body; and
- Any proposed plans or projects that are reasonably foreseeable and/or published for consultation prior to application.

Additionally, the guidance from Natural England makes it clear that plans or projects deemed to cause significant impact within their own right (and so have either incorporated methods of avoidance or proportional mitigation within the proposed plan or scheme) should be dealt with in isolation within their own individual Habitats Regulations Assessment and not be considered in combination with other schemes where impacts (individually) were considered insignificant.

¹⁶ Natural England. (2018). *Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations*. Version 1.4. Available at: <http://publications.naturalengland.org.uk/publication/4720542048845824>

Likewise, where a plan or project is considered to result in an insignificant impact in isolation it should not be considered in combination with plans or projects already determined to be significant.

The evidence available demonstrates that the proposed development, in isolation, could potentially result in a significant impact upon the structure and function of the habitats of qualifying species of the Solent & Southampton Water Ramsar and SPA, via water pollution events.

The evidence available demonstrates that the proposed development is deemed to result in no impact upon the qualifying species/habitats of Solent Maritime SAC, or habitats upon which the qualifying species rely as a result of the proposed development.

5.4 Summary of Screening Assessment

Table 5.1 below provides a summary of the potential impacts and effects arising from the project, either alone or in-combination with other projects and plans.

Table 5.1: Assessment of Effects of Proposed Project on European Sites, Alone and In-Combination with Other Projects and Plans (continues on page 22)

European Site/s	Potential Impact Arising as a Result of the Project	Potential Effect on Designated Features	Likely Significant Impact in Isolation?	Potential for In-Combination Impact?	Appropriate Assessment Required?
Construction Phase					
Solent & Southampton Water Ramsar and SPA	Water Pollution as a result of construction phase pollution events.	Impacts on the qualifying habitats/species and/or the structure and function (including typical species) of habitats which support the qualifying species.	Yes	Yes	Yes
Solent Maritime SAC	Water Pollution as a result of construction phase pollution events.	Impacts on the qualifying habitats/species and/or the structure and function (including typical species) of habitats which support the qualifying species.	No	No	No

European Site/s	Potential Impact Arising as a Result of the Project	Potential Effect on Designated Features	Likely Significant Impact in Isolation?	Potential for In-Combination Impact?	Appropriate Assessment Required?
Solent & Southampton Water Ramsar and SPA	Disturbance of qualifying bird species as a result of construction phase noise, dust and vibration	Impacts on the qualifying habitats/species and/or the structure and function (including typical species) of habitats which support the qualifying species.	No	No	No
Operational Phase					
Solent & Southampton Water Ramsar and SPA	Water Pollution as a result of construction phase pollution events.	Impacts on the qualifying habitats/species and/or the structure and function (including typical species) of habitats which support the qualifying species.	No	No	No
Solent Maritime SAC	Water Pollution as a result of construction phase pollution events.	Impacts on the qualifying habitats/species and/or the structure and function (including typical species) of habitats which support the qualifying species.	No	No	No

6. Stage 2: Appropriate Assessment

6.1 Construction Phase Impacts

The Stage 1 Screening exercise identified one impact pathway through which the construction phases of the proposed development, in the absence of mitigation, has the potential to result in a Likely (or possible) Significant Effect on the Solent & Southampton Water Ramsar and SPA:

- Accidental pollution of qualifying habitats and habitats on which qualifying features rely (via dust and debris, inappropriate storage of environmentally harmful substances, accidental chemical spillage and contaminated surface water run-off).

This issue is discussed in more detail below.

6.2 Accidental pollution of qualifying habitats and habitats on which qualifying features rely

As detailed in Section 5.2, the proposed works have the potential to result in significant harm to individual qualifying habitats and/or the habitats upon which the qualifying species rely via dust and debris, accidental chemical spills, contaminated surface water run-off or environmentally harmful materials entering the Solent & Southampton Water Ramsar and SPA during site preparation/construction works.

Certain substances that may be used during the construction phase can be highly toxic to aquatic life and habitats and some (such as oils, other petrochemicals and herbicides) can be readily transported on the surface of even small amounts of water, potentially being transported a significant distance within the European site under consideration.

Despite the temporal span of the construction phase being short and the likely scale of any accidental pollution event being both small and localised, it is still likely that, if even moderate amounts of these substances were to enter the local environment, they could significantly reduce the water quality and result in alterations to plant communities. This could in turn lead to a reduction in the suitability of the watercourse to support the qualifying species, all of which rely on clean water for breeding and/or foraging. Animal mortalities due to ingestion of toxic substances and/or a reduction in breeding success due to a decline in water quality would likely lead to a reduction in the population size and distribution of qualifying species within the site, impeding the delivery of the conservation objectives for the Ramsar and SPA.

Therefore, mitigation measures must be put in place to address these potential significant impacts by:

- Reducing the likelihood of toxic substances being accidentally spilt or incorrectly stored and subsequently entering the watercourse;
- Reducing the likelihood of these substances (if accidentally released into the environment) from being transported to the European site; and
- If an accidental pollution event were to occur ensuring that it is contained, and the contaminants are removed following best practice methodology.

These mitigation measures and best practice methods of working are outlined in Chapter 7. If adhered to, these mitigation measures are considered sufficient to reduce the scope of harm to no likely impact.

7. Stage 2: Mitigation Measures and Residual Effects

7.1 Mitigation Measures

As discussed, it has been concluded that, in the absence of mitigation, the construction phase of the proposed development has the potential to result in adverse impacts upon the integrity of the Solent & Southampton Water Ramsar and SPA.

Mitigation measures to address potential effects on qualifying species as a result of accidental pollution events. These mitigation measures are considered sufficient for New Forest District Council to conclude that, if enacted, there is no reasonable likelihood that the proposed works will result in significant harm to the qualifying features of the Ramsar and SPA.

7.2 Outline Mitigation Proposals

A Construction Environmental Management Plan (CEMP) (Biodiversity) will be provided and implemented throughout the construction phase of the development. The document must be agreed with New Forest District Council prior to commencement of any works.

As a minimum, the following measures will be implemented to reduce the risk of harm to qualifying features, including:

- Pollution Prevention Guidelines for works and maintenance near water (PPG5) will be adhered to by all site personnel;
- Use of debris netting to catch debris blown during the works, with any tears, holes or damage noticed repaired immediately;
- Plant, equipment and wheel washing to be carried out in a designated area of hardstanding at least 20m from any watercourse, with no way of draining into watercourses;
- Site personnel to ensure boots and equipment are dry and disinfected prior to entering the watercourse or areas in proximity to any watercourse;
- Spill kits are to be placed in strategic areas and be clearly visible. Operatives working close to the watercourses are to be trained to use the spill kits;
- All chemical/fuel storage areas and site offices are to be 20m from any watercourse;
- Storage of fuel, oils and any chemicals are to be in double-skinned containers, locked, clearly labelled as to contents, in a secure compound, stood in an impervious bund that is 110% of the volume of the tank and that all static plant should have a drip tray under it;
- Re-fuelling should be carried out only at designated points with an absorb spill kit adjacent, at least 20m from any watercourse;
- Vehicles, equipment and materials to be stored in designated areas, indicated on the site
- Management plan having been agreed by the Ecological Clerk of Works and/or site manager; these designated areas are to be located away from any ditches or watercourse frontages;
- All substances to have full COSHH assessment. Operatives using these substances will be experienced in their use and fully briefed on the COSHH assessment;

- No piles of debris or sharp materials stored within 20m of any watercourse;
- Any vegetation clearance to be supervised by the Ecological Clerk of Works;
- Any open pipework with an outside diameter of greater than 150mm to be covered at the end of each work day to prevent animals entering/becoming trapped; and
- No works to result in the illumination of any water course during the night. If night working is required, then lighting to be directional to prevent illumination of the water course.

The CEMP will also detail requirements for toolbox talks to inform all contractors of the ecological importance of the area and all mitigation measures that will be required. The CEMP will state that all contractors will be given toolbox talks prior to work commencing on site.

The CEMP will be agreed with Natural England and New Forest District Council prior to works commencing. Should any issues be identified during the course of works, all works will cease temporarily, and New Forest District Council will be contacted for advice on how to proceed.

7.2 Residual Effects

Mitigation measures to address potential effects on qualifying species of the Solent & Southampton Water Ramsar and SPA as a result loss of disturbance during the construction phase of the development have been outlined. These mitigation measures are considered sufficient for New Forest District Council to conclude that, if enacted, there is no reasonable likelihood that the proposed development will result in significant harm to the qualifying habitats or species of any European site, nor impede the delivery of the conservation objectives for European sites, via these impact pathways.

8. Conclusions and Recommendations

8.1 Conclusions

Evidence has been collected and an assessment has been undertaken to assist the competent authority, New Forest District Council, in conducting its Habitats Regulations Assessment as per the requirement placed upon it by Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended). The evidence provided is deemed sufficiently robust (being determined by use of the best scientific evidence available) to allow the authority to determine if it can be certain that there will be no adverse effect on the integrity of any European sites as a result of the proposed development.

Potential impacts on several different European sites have been detailed and considered. It has been displayed that, with appropriate mitigation, the proposed development will not result in a likely significant impact upon qualifying habitats and species, supporting habitats upon which qualifying species rely, or the delivery of the conservation objectives of the European sites under consideration.

Recommendations regarding the necessary actions to deliver mitigation proportional to the determined scope of impact (where it has been deemed likely to occur) are provided below in addition to appropriate mechanisms by which the mitigation can be secured by the competent authority.

8.2 Recommendations

R1 Creation and Submission of CEMP

Prior to the commencement of works a final Construction Ecological Management Plan (Biodiversity) should be compiled and submitted to New Forest District Council. The avoidance and mitigation measures within the final CEMP will adhere to appropriate national guidelines and best practice principles. The avoidance and mitigation measures will be sufficient in their scope and scale to fully avoid or mitigate against any likely significant harmful impacts to European sites during the construction phase of the development.

The submission of the final CEMP to New Forest District Council prior to commencement and its enactment thereafter can be secured via an appropriately worded planning condition.

R2 Re-Assessment if Material Change

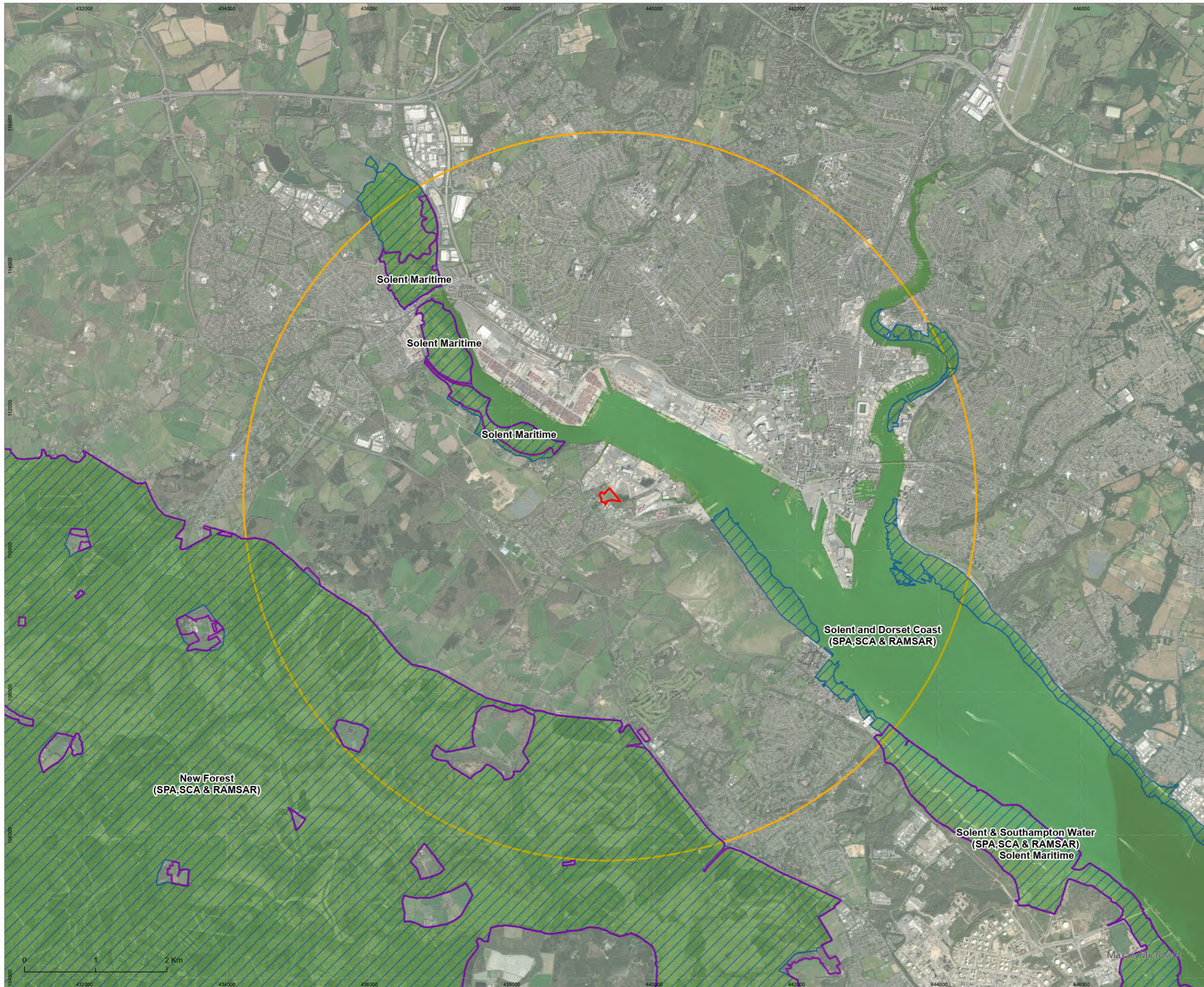
All future material revisions to the development proposals should be subject to an updated screening to determine whether they could give rise to a likely significant effect on a European site, either alone or in-combination with other plans and projects.

9. Drawings

Drawing C159749-03-01 – Location of European Sites

Legend

- Site location
- Special Areas of Conservation (SAC)
- RAMSAR
- Special Protection Areas (SPA)
- 5 km radius from site boundary



Project		McMullen Barracks, Marchwood	
Drawing		Location of European Sites	
Client		Ingleton Wood	
Drawing Number	C159749-03-01	Revision	00
Scale @ A3	1:50,000	Date	August 2023
Approved By	LF	Drawn By	CD



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Drawing C159749-03-02 – Location of Solent Waders and Brent Goose Strategic Network



C159749-03-02

Legend

- Site location
- Solent Waders & Brent Goose Network records

Notes:

Data taken from Solent Waders and Brent Goose Network map, these records are only approximate.

Project		McMullen Barracks, Marchwood	
Drawing		Location of Solent Waders & Brent Goose Strategy Network	
Client		Ingleton Wood	
Drawing Number	C159749-03-02	Revision	00
Scale @ A3	1:7,000	Date	August 2023
Approved By	LF	Drawn By	CD



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