



Habitats Regulations Assessment for the Gosport Waterfront & Town Centre Supplementary Planning Document

NATURAL PROGRESSION



Habitats Regulations Assessment for the Gosport Waterfront & Town Centre Supplementary Planning Document

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Abbreviations

AA	Appropriate Assessment
dpa	Dwellings per annum
DPD	Development Plan Document
FCL	Functionally Connected Land
GBC	Gosport Borough Council
HRA	Habitats Regulations Assessment
LSE	Likely Significant Effect
MHW	Mean high water
MLW	Mean low water
OAN	Objectively Assessed Need
pSPA	potential Special Protection Area
SAC	Special Areas of Conservation
SAT	Supplementary Advice Table
SNM	Square nautical miles
SPA	Special Protection Area
SPD	Supplementary Planning Document
SSSI	Sites of Special Scientific Interest
WTC	Waterfront and Town Centre



0 Executive Summary

0.1 Introduction

- 0.1.1 Gosport Borough Council is preparing the Gosport Waterfront and Town Centre Supplementary Planning Document (SPD) to potential development opportunities within the area including the options for the scale and mix of future proposals on a number of different sites. As an integral part of this process, the Council has undertaken a Habitats Regulations Assessment.
- 0.1.2 Habitats Regulations Assessment (HRA) is a requirement of the Conservation of Habitats and Species Regulations 2010 (as amended; commonly referred to as 'the Habitats Regulations'), and must be applied to any plan or project in England and Wales with the potential to adversely affect the ecological integrity of any sites designated for their nature conservation importance as part of a system known collectively as the Natura 2000 network of European sites.

0.2 Scope of the Assessment

- 0.2.1 As the SPD does not exceed the overall development quanta for the Waterfront and Town Centre area envisaged in the Gosport Local Plan, there are a number of strategically operating pathways of impact to European sites which do not require re-assessment within the SPD HRA. These are summarised below:
 - Atmospheric pollution;
 - Disturbance (strategic impacts);
 - Flood risk and coastal squeeze;
 - Water resources and abstraction; and
 - Waste water pollution.
- 0.2.2 As a result, the HRA for the SPD need only focus on the potential for site specific impacts to the following European sites:
 - Portsmouth Harbour SPA;
 - Portsmouth Harbour Ramsar; and
 - Solent and Dorset Coast potential Special Protection Area (pSPA).
- 0.2.3 Chapter 4 presents information about these sites, including their qualifying features and conservation objectives.



0.3 Impact Pathways

0.3.1 The following impact pathways are considered for likely significantly effects on the European sites:

Construction impacts

- Habitat loss due to the location/footprint of development;
- Construction noise;
- Construction activity; and
- Aquatic/atmospheric pollution during remediation, demolition or construction.

Operation impacts

- Disturbance due to increased activity (including the impacts of recreation which are not addressed by the SDMP);
- > Displacement due to shortened view lines; and
- Collision mortality risk.
- 0.3.2 Chapters 5 and 6 describe the available evidence about these impact pathways in relation to the European sites, and present an impact assessment.

0.4 Summary of Findings

- 0.4.1 In summary, the HRA of the SPD finds that:
 - Taking account of incorporated mitigation measures, and provided that the boundary of opportunity site 31 (Haslar Marina) is redrawn to specifically exclude the SPA/Ramsar, it can be concluded that there will be no adverse effect on the integrity of Portsmouth Harbour SPA/Ramsar, either alone or in combination with other plans and projects; and
 - No effects on any other European sites were predicted.

0.5 Conclusion

0.5.1 The Gosport Waterfront and Town Centre SPD can be considered compliant with the Habitats Regulations with regards to Portsmouth Harbour SPA/Ramsar.



1 Introduction

1.1 Purpose of this Report

1.1.1 This report has been prepared for Gosport Borough Council as part of the Habitats Regulations Assessment (HRA) for the Gosport Waterfront and Town Centre Supplementary Planning Document (SPD).

1.2 The Gosport Waterfront and Town SPD

- 1.2.1 The SPD provides a development strategy for the Waterfront and Town Centre (WTC). It outlines the potential development opportunities within the area including the options for the scale and mix of future proposals on a number of different sites. It also aims to articulate the Council's aspirations for the whole Waterfront and Town Centre area including issues relating to the public realm, the overall appearance of the centre and to ensure that the Waterfront and Town Centre are well linked and form a coherent area within the Borough.
- 1.2.2 The SPD is linked to Policy LP4 of the Adopted Gosport Borough Local Plan 2011-2029 (GBLP) (Oct 2015) which identifies the Gosport Waterfront and Town Centre as a major regeneration area for a mix of uses. These include employment uses, additional retail and other town centre uses, significant residential development, a range of community and leisure uses, a new transport interchange and enhanced public realm and open spaces. The SPD also has regard to linkages with adjoining local areas as well as connections with the rest of the Borough, the City of Portsmouth and parts of Fareham Borough.

1.3 Habitats Regulations Assessment

- 1.3.1 Habitats Regulations Assessment is a requirement of the Conservation of Habitats and Species Regulations 2010 (as amended; 'the Habitats Regulations'), the UK's transposition of *European Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora* ('the Habitats Directive'). HRA must be applied to any plan or project in England and Wales with the potential to adversely affect the ecological integrity of any sites designated for their nature conservation importance as part of a system known collectively as the Natura 2000 network of European sites.
- 1.3.2 European sites provide ecological infrastructure for the protection of rare, endangered or vulnerable natural habitats and species of exceptional importance within the European Union. These sites consist of Special Areas of Conservation (SAC, designated under the Habitats Directive) and Special Protection Areas (SPA, designated under European Council Directive 2009/147/EC on the conservation of wild birds ('the Birds Directive')). Meanwhile, the National Planning Policy Framework (DCLG, 2012) and Circular 06/05 (ODPM, 2005) require that Ramsar

sites (UNESCO, 1971) are treated as if they are fully designated European sites for the purposes of considering development proposals that may affect them.

1.4 Scope and Structure of this Document

- 1.4.1 This document is structured around the following sections:
 - Chapter Two: HRA methodology;
 - Chapter Three: Information about the Gosport Waterfront and Town Centre SPD, including incorporated mitigation measures;
 - Chapter Four: European sites, qualifying features, conservation objectives, condition status, population trends and threats to site integrity;
 - Chapter Five: Evidence relating to the pathways of impacts to European sites;
 - Chapter Six: Impact assessment against the sites' conservation objectives;
 - Chapter Seven: Determining adverse effects on European site integrity; and
 - Chapter Eight: Summary and conclusions.



2 Methodology

2.1 Good Practice Guidance

- 2.1.1 Draft guidance on HRA has been defined by DEFRA (2012) and DCLG (2006) with more detailed draft guidance from Natural England (Tyldesley, 2009) and a range of other bodies1. More recently *The Habitats Regulations Assessment Handbook* (Tyldesley & Chapman, 2013) was developed to improve earlier methodologies on the basis of recent good practice and case law, and in response to Defra's Habitats and Birds Directives Implementation Review. The requirement for HRA stems from Articles 6(3) and 6(4) of the Habitats Directive, which are represented by four stages within the HRA process as listed in Table 2.1 which illustrates their relationship to stages within the DEFRA (2012) guidance.
- 2.1.2 The Screening Assessment and Appropriate Assessment for the Gosport WTC SPD have been undertaken with reference to the *HRA Handbook*.

HRA Handbook stage	Equivalent DEFRA stage
Stage 1: Screening	Stage 1: Screening for likely significant effects
Stage 2: Appropriate Assessment & Integrity Test	Stage 2: Appropriate assessment
Stage 3: Alternative Solutions	Derogations Test 1: Alternative solutions
Stage 4: Imperative Reasons of Overriding Public Interest and Compensatory Measures	Derogations Test 2: Imperative reasons of overriding public interest
	Derogations Test 3: Compensatory measures

Table 2.1: Stages of HRA in guidance from Tyldesley & Chapman (2013) & DEFRA (2012)

- 2.1.3 In The Habitats Regulations Assessment Handbook (Tyldesley & Chapman, 2013) section F.1.1.2 (Introduction and overview to 'Plan' assessment) it is recognised that the assessment of a plan may not be as precise and detailed as that of a project at application stage. Strategic documents such as Local Plans also vary in their degree of specificity ranging from very general statements which may cover a wide geographic area to more prescriptive proposals that are scale and location specific.
- 2.1.4 An HRA must determine whether or not a plan or project will adversely affect the integrity of the European site(s) concerned, in view of the site's conservation objectives. Where adverse effects are anticipated changes must be made to the plan or project. The process is characterised by the precautionary principle, defined as (European Commission, 2000a):

"If a preliminary scientific evaluation shows that there are reasonable grounds for concern that a particular activity might lead to damaging effects on the environment, or on human, animal or

¹ For example European Commission (2001) and RSPB (Dodd *et al*, 2007)



plant health, which would be inconsistent with the protection normally afforded to these within the European Community, the Precautionary Principle is triggered.

"Decision-makers then have to determine what action to take. They should take account of the potential consequences of taking no action, the uncertainties inherent in the scientific evaluation, and they should consult interested parties on the possible ways of managing the risk. Measures should be proportionate to the level of risk, and to the desired level of protection. They should be provisional in nature pending the availability of more reliable scientific data.

"Action is then undertaken to obtain further information enabling a more objective assessment of the risk. The measures taken to manage the risk should be maintained so long as the scientific information remains inconclusive and the risk unacceptable."

2.2 Screening

- 2.2.1 The Handbook defines a list of 'screening categories' to provide a rigorous and transparent approach to determining which aspects of the plan could potentially result in significant (adverse) effects. These are listed in Table 2.2, where green indicates that the proposal can be screened-out, orange denotes proposals which may have a significant effect in combination and require further analysis, and red specifies proposals likely to have a significant effect. The colour-coded categories provide the means of recording the results of the assessment in such a way that important issues are identified whilst proposals that have no effect are screened out.
- 2.2.2 Chapter 4 defines which European sites are considered during the assessment, together with their qualifying features, conservation objectives and baseline information about the sites. The ways in which each site might be significantly affected by the SPD are described in Chapter 5. The results of the screening assessment are presented in Appendix I.

2.3 The Appropriate Assessment Stage

- 2.3.1 The purpose of the Appropriate Assessment is to further analyse likely significant effects identified during the screening stage, as well as any effects which were uncertain or not well understood and taken forward for assessment in accordance with the precautionary principle. The Appropriate Assessment evaluates the implications of the plan, either alone or in combination with other plans or projects, in light of the conservation objectives of affected European sites.
- 2.3.2 The Appropriate Assessment stage includes a test of whether the plan proposals will result in significant adverse effects on site integrity which can be defined as:

"The integrity of a site is the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified." (ODPM, 2005)



Cat.	Description
А	General statement of policy / aspiration
В	Policy listing general criteria for testing the acceptability / sustainability of proposals
с	Proposal referred to but not proposed by the plan
D	Environmental protection / site safeguarding policy
Е	Policy/proposal steers change in such a way as to protect European sites from adverse effects
F	Policy that cannot lead to development or other change
G	Policy/proposal that could not have any conceivable effect on a European site
Н	Policy/proposal the (actual or theoretical) effects of which cannot undermine the conservation objectives (either alone or in combination with other aspects of this or any other plan/project)
I.	Policy/proposal with a likely significant effect on a European site alone
J	Policy/proposal with an effect on a site but not likely to be significant alone; check for likely significant effects in combination
К	Policy/proposal not likely to have a significant effect either alone or in combination (after the in combination test)
L	Policy/proposal likely to have a significant effect in combination (after the in combination test)

Table 2.2: Screening categories (Source: Tyldesley & Chapman, 2013)

2.4 Counteracting Measures

- 2.4.1 This section draws on Principle C.5 of the *HRA Handbook* (Tyldesley & Chapman, 2013) to identify different types of counteracting measure and describe how they should be considered within the HRA. There is a well-established policy and ethical approach to assessment which recognises a hierarchy of counteracting measures, which prefers avoidance of adverse effects in the first instance, then cancellation, then reduction, and finally compensatory measures where these can be adequately justified. This approach is embedded in guidance (e.g. CIEEM, 2016), professional standards (BS42020:2013) and the National Planning Policy Framework (para. 118; DCLG, 2012).
- 2.4.2 A distinction must be drawn between measures intended to avoid, cancel or reduce adverse effects on European sites (collectively referred to as mitigation measures) and those which are intended to compensate for adverse effects (compensatory measures); the latter must only be considered following application of the Imperative Reasons of Overriding Public Interest test:
 - Mitigation: Avoidance measures: intended to stop or prevent effects from occurring, or to eliminate the risk of them occurring. Successful avoidance measures mean there will be no adverse effect, and hence no requirement to assess effects in combination.
 - Mitigation: Cancellation measures: intended to completely neutralise adverse effects. In this context a proposal will have a potential effect, but its potentially negative outcomes have been cancelled without residual effect, and there is no requirement to assess effects in combination.

- Mitigation: Reduction measures: intended to diminish an effect either by reducing the scale of the effect, or its likelihood of occurring, or both. Such measures can reduce the severity/likelihood of an effect to the point where it can no longer be regarded as a likely significant effect, but may result in a risk of residual effects. Residual effects need to be considered for their potential to lead to cumulative or in combination effects.
- Compensatory measures: intended to offset the harm to the integrity of a European site that would occur as a result of a plan or project. They are considered only after having established that the harm to the site itself cannot be further reduced by mitigation or alternative solutions, and are the measures required to ensure that the overall coherence of Natura 2000 is protected.
- 2.4.3 Mitigation measures proposed by the plan maker must be incorporated into the plan so that they are inseparable parts of it and are guaranteed to be delivered. Mitigation measures of this kind are referred to as '*incorporated mitigation measures*'. Where they are effective, reliable, timely, guaranteed and of sufficient duration they should be taken into account throughout the HRA process, including the screening stage. A competent authority can impose '*additional mitigation measures*' over and above incorporated mitigation, if necessary, so as to ensure that a plan or project would not adversely affect the integrity of a European site, either alone or in combination with other plans and projects. Additional mitigation measures must be considered at the integrity test stage (Stage 2) but should not be relied upon during screening.

2.5 In Combination Effects

- 2.5.1 Other plans and projects being prepared or implemented in the area may have the potential to cause negative effects on European sites. These effects may act in combination with the effects of the SPD, possibly leading an insignificant effect to become significant. It is therefore important to consider which other plans and projects could generate similar effects as development within the SPD, at the same European sites, and which may act in-combination. The following plans or projects could act in combination:
 - Gosport Borough Local Plan 2011-2029 (adopted);
 - Portsmouth Plan 2012 (adopted);
 - Fareham Borough Local Plan 2011-2026 Part 1: Core Strategy (adopted);
 - Fareham Borough Local Plan 2011-2026 Part 2: Development Sites & Policies (adopted);
 - Fareham Borough Local Plan 2011-2026 Part 3: Welborne (adopted);
 - South Marine Plan (draft for consultation November 2016);
 - River Hamble to Portchester Coastal Flood and Erosion Risk Management Strategy 2016;
 - Portchester Castle to Emsworth Coastal Flood and Erosion Risk Management Strategy 2012; and
 - Portsea Island Coastal Strategy Study 2011.
- 2.5.2 In combination effects are considered in Chapter 6.

3 The Gosport Waterfront & Town Centre SPD

3.1 Introduction

3.1.1 This chapter presents a summary of the key policy proposals of the Gosport Waterfront & Town Centre SPD, and discusses them in the context of the Gosport Borough Local Plan and its HRA.

3.2 Gosport Waterfront & Town Centre SPD: Key Policy Proposals

- 3.2.1 The area covered by the SPD provides a number of significant opportunities for development and investment. It includes several large under-utilised brownfield sites and sites which would benefit from further intensification or alternative uses. These opportunity sites are predominately within the Gosport Waterfront and Town Centre Regeneration Area, as identified in the Gosport Borough Local Plan (Policy LP3).
- 3.2.2 The SPD sets out a development strategy organised under nine themes, as listed below, each of which is guided by a set of principles which development proposals should take into account:
 - Creating an attractive townscape;
 - Creating new economic and employment opportunities;
 - > Enhancing the shopping and leisure experience;
 - Providing new homes;
 - Improving accessibility;
 - Improving public realm and green infrastructure provision;
 - Manging flood risk;
 - Providing appropriate infrastructure; and
 - Creating a healthier town.
- 3.2.3 Section 5 of the SPD identifies nine areas of change within the SPD boundary, as listed below and illustrated on Figure 3.1, each of which is represented by a number of key opportunities for development (37 in total; see Figure 3.2). It is these key opportunity sites which are the focus of attention in the HRA, although the themes, principles and areas of change were also assessed for likely significant effects as part of the HRA screening procedure (see Appendix I).
 - Gosport Bus Station and Falkland Gardens;
 - Gosport Waterfront, north of Mumby Road;
 - Royal Clarence Yard and the 'Retained Area';
 - North of High Street;
 - High Street;





Figure 3.1: Gosport Waterfront & Town Centre SPD boundary and areas of change



- South Street;
- Trinity Green area;
- Haslar Marina; and
- ▶ Gosport Lines.

3.3 Gosport Borough Local Plan

- 3.3.1 The Local Plan identifies the Gosport Waterfront and Town Centre as a Regeneration Area (Policy LP3) with a specific policy relating to this area in Policy LP4. It sets out key development principles and proposes the following:
 - > 33,000 m2 (gross) of employment floorspace (B uses);
 - Approximately 6,500m2 of retail (A1) and additional floorspace for other town centre uses (A2-A5);
 - A range of community and leisure uses (D1 and D2);
 - > 700-900 dwellings;
 - A new transport interchange; and
 - Enhanced public realm.
- 3.3.2 It is important to note that the SPD covers a broader area than the Gosport Waterfront and Town Centre Regeneration Area (as defined by Policy LP4). The SPD area also includes Royal Clarence Yard which has the potential for a further 105 dwellings (Policy LP9D), which will form part of the housing land supply for the wider Local Plan target of 3,060 net additional dwellings over the plan period.

3.4 Strategic Impacts dealt with by the Local Plan HRA

- 3.4.1 As the SPD does not exceed the overall development quanta for the Waterfront and Town Centre area envisaged in the Local Plan, there are a number of strategically operating pathways of impact to European sites which do not require re-assessment within the SPD HRA. These are summarised below:
 - Atmospheric pollution;
 - Disturbance (strategic impacts);
 - Flood risk and coastal squeeze;
 - Water resources and abstraction; and
 - Waste water pollution.
- 3.4.2 As a result, the HRA for the SPD need only focus on the potential for site specific impacts to the following European sites:
 - Portsmouth Harbour SPA;



- Portsmouth Harbour Ramsar; and
- Solent and Dorset Coast potential Special Protection Area (pSPA).

3.5 Incorporated Mitigation Measures

3.5.1 Based on an earlier draft of this HRA Report, a number of mitigation measures have already been incorporated within the SPD with the intention of avoiding or cancelling the potential for adverse effects on European sites. These are summarised in Table 3.1.



Table 3.1: Summary of how HRA recommendations have been incorporated in the SPD

Impact	Site(s)	HRA Report Recommendation	Measures included in the SPD
Habitat loss	Site 46- Arden Park	It is recommended that the scope for actual loss of habitat within the Important Brent Goose / Wader site is minimised by routeing the proposed new pedestrian/cycle paths along the edge of the site adjacent to the existing boundary features to maximise the area available for feeding.	The measure is specifically referred to in the Arden Park part of Section 5. Elsewhere in the SPD references to pedestrian/cycle links in the SPD include a footnote signposting the reader to Section 5.
Aquatic/At- mospheric pollution during construction	All relevant sites	Where a site is close to or hydrologically linked with the SPA/Ramsar, the Report recommends a range of measures and a site specific Construction Environmental Management Plan.	A specific principle relating to contaminated land and the water environment has been included under the 'Health Theme' of the Development Strategy which sets out the range of possible measures. It also links back to policies LP 39 (Water Resources) and LP47 (Contaminated Land of the GBLP.
Construction Noise, Construction Activity, Operational	Site 3- Gosport Marina	The report recommends the following mitigation: <u>Collision Mortality Risk</u> : Landmark buildings in this location, if tall, could create the potential for collision risk and associated impacts. It is not currently known whether tall buildings will be proposed, however, the potential for effects on the SPA/Ramsar should be considered during detailed design and HRA at the planning application stage.	These issues are flagged in Section 5 regarding the key principles for the Waterfront area and specifically Gosport Marina (Gosport Waterfront) with a cross-reference back to the HRA Report.
Activity, Shortened View lines, Collision Mortality Risk	Site 9- Royal Clarenc e Yard Retaine d Area	The report recommends the following mitigation: <u>Construction noise</u> : Construction methods should adopt technologies with lower noise emissions (e.g., vibro-piling); use of screening and sound barriers around construction site to dissipate noise; Very loud (>70dB) construction activities such as percussive piling should be programmed to avoid the most sensitive periods for the overwintering bird assemblage; timing works to be undertaken outside of the overwintering period (October-March) so that the SPA/Ramsar species are unlikely to be present in significant numbers; timing works in the north-eastern part of the site	These issues are flagged in Section 5 regarding Retained Area (Royal Clarence Yard and Retained Area) with a cross-reference back to the HRA Report.



Impact	Site(s)	HRA Report Recommendation	Measures included in the SPD
		to be undertaken at high tide so that SPA/Ramsar species are unlikely to be feeding in inter-tidal habitats around Burrow Island; timing works in the south-western part of the site to be undertaken at low tide so that the Brent geese are likely to be feeding at BG siteG03. <u>Construction activity</u> : Use of hoarding at the construction site boundary to screen activity within the site; timing restrictions (seasonal and/or tidal) are listed above in relation to construction noise. <u>Operational activity</u> : Use of close-board fencing, wall or landscape planting to screen waterfront activity (dog-walking, cycling etc.); prevention of access to the inter-tidal. <u>View-lines</u> : design and layout of development to ensure buildings are adequately set back from the waterfront, with building heights stepped down towards waterfront; gaps between buildings should be maintained or designed into development; or planted buffer zones created to break up continuous facades as viewed from the water.	
Construction Noise, Construction Activity, Operational Activity, Shortened View lines	Site10- Officers Houses	<u>Construction noise</u> : Construction methods should adopt technologies with lower noise emissions (e.g., vibro-piling); use of screening and sound barriers around construction site to dissipate noise; Very loud (>70dB) construction activities such as percussive piling should be programmed to avoid the most sensitive periods for the overwintering bird assemblage; timing works to be undertaken outside of the overwintering period (October-March) so that the SPA/Ramsar species are unlikely to be present in significant numbers; timing works to be undertaken at low tide so that the Brent geese are likely to be feeding at BG site G03.	These issues are flagged in Section 5 regarding Retained Area (Royal Clarence Yard and Retained Area) with a cross-reference back to the HRA Report.
Construction Noise, Construction Activity, Operational Activity, Shortened View lines	Site 11- Mumby Road Lorry Park	<u>Construction noise</u> : Construction methods should adopt technologies with lower noise emissions (e.g., vibro-piling); use of screening and sound barriers around construction site to dissipate noise; Very loud (>70dB) construction activities such as percussive piling should be programmed to avoid the most sensitive periods for the overwintering bird assemblage; timing works to be undertaken outside of the overwintering period (October-March) so that the SPA/Ramsar species are unlikely to be present in significant numbers; timing works to be undertaken at low tide so that the Brent geese are likely to be feeding at BG siteG03.	This issue is flagged in Section 5 regarding the key principles for the Waterfront area with a cross- reference back to the HRA Report.
Construction Noise,	Site 31- Haslar	<u>Construction noise</u> : Construction methods should adopt technologies with lower noise emissions (e.g., vibro-piling); use of screening and sound barriers around construction site to dissipate noise;	These issues are flagged in Section 5 regarding Haslar Marine with a



Impact	Site(s)	HRA Report Recommendation	Measures included in the SPD
Construction Activity, Operational Activity, Shortened View lines, Collision Mortality Risk	Marina	 Very loud (>70dB) construction activities such as percussive piling should be programmed to avoid the most sensitive periods for the overwintering bird assemblage; timing works to be undertaken outside of the overwintering period (October-March) so that the SPA/Ramsar species are unlikely to be present in significant numbers; timing works to be undertaken at high tide so that SPA/Ramsar species are unlikely to be feeding in intertidal habitats in Haslar Lake. <u>Construction activity</u>: Use of hoarding at the construction site boundary to screen activity within the site; timing restrictions (seasonal and/or tidal) are listed above in relation to construction noise. Operational activity: Use of close-board fencing, wall or landscape planting to screen waterfront activity (dog-walking, cycling etc.); prevention of access to inter-tidal areas. <u>View-lines</u>: Design and layout of development to ensure buildings are adequately set back from the waterfront, with building heights stepped down towards waterfront; gaps between buildings should be maintained or designed into development; or planted buffer zones created to break up continuous facades as viewed from the water. <u>Collision Mortality Risk</u>: Landmark buildings in this location, if tall, could create the potential for collision risk and associated impacts. It is not currently known whether tall buildings will be proposed, however, the potential for effects on the SPA/Ramsar should be considered during detailed design and HRA at the planning application stage. 	cross-reference back to the HRA Report.
Construction Noise, Construction Activity, Operational Activity, Shortened View lines	Site 32- Church Path Car Park	<u>Construction noise</u> : Construction methods should adopt technologies with lower noise emissions (e.g., vibro-piling); use of screening and sound barriers around construction site to dissipate noise; Very loud (>70dB) construction activities such as percussive piling should be programmed to avoid the most sensitive periods for the overwintering bird assemblage; timing works to be undertaken outside of the overwintering period (October-March) so that the SPA/Ramsar species are unlikely to be present in significant numbers; timing works to be undertaken at low tide so that SPA/Ramsar species are unlikely to be present at Cockle Pond.	This issue is flagged in Section 5 regarding the Trinity Green area with a cross-reference back to the HRA Report.
Construction Noise, Construction Activity,	Site 44- Walpole Park South	<u>Construction noise</u> : Construction methods should adopt technologies with lower noise emissions (e.g., vibro-piling); use of screening and sound barriers around construction site to dissipate noise; Very loud (>70dB) construction activities such as percussive piling should be programmed to avoid the most sensitive periods for the overwintering bird assemblage; timing works to be	This issue is flagged in Section 5 regarding the Walpole park section (Gosport Lines) area with a cross- reference back to the HRA Report.



Impact	Site(s)	HRA Report Recommendation	Measures included in the SPD
Operational Activity, Shortened View lines		undertaken outside of the overwintering period (October-March) so that the SPA/Ramsar species are unlikely to be present in significant numbers; timing works to be undertaken at low tide so that SPA/Ramsar species are less likely to be present at Cockle Pond. <u>Construction activity</u> : Use of hoarding at the construction site boundary to screen activity within the site; timing restrictions (seasonal and/or tidal) are listed above in relation to construction noise.	
Construction Noise, Construction Activity, Operational Activity, Shortened View lines	Site 46- Arden Park	<u>Construction noise</u> : Construction methods should adopt technologies with lower noise emissions (e.g., vibro-piling); use of screening and sound barriers around construction site to dissipate noise; Very loud (>70dB) construction activities such as percussive piling should be programmed to avoid the most sensitive periods for the overwintering bird assemblage; timing works to be undertaken outside of the overwintering period (October-March) so that the SPA/Ramsar species are unlikely to be present in significant numbers; timing works to be undertaken at low tide so that the Brent geese are less likely to be present within BG site G03. <u>Construction activity</u> : Use of hoarding at the construction site boundary to screen activity within the site; timing restrictions (seasonal and/or tidal) are listed above in relation to construction noise. <u>Operational activity</u> : Disturbance/displacement from operational activity should be minimised by routeing the proposed new pedestrian/cycle path along the treeline at the western site boundary next to Spring Garden Lane; the pedestrian/cycle path should be screened with a low (1m high) wall or closed board fence to further reduce the likelihood of dogs or cyclists disturbing Brent geese within the site while ensuring the site retains its open aspect; access to the site for dog-walkers should not be present, although it may be more practicable to simply prevent dog-walkers from accessing the site during winter (October-March).	These issues are flagged in Section 5 regarding Arden Park (Gosport Lines) with a cross-reference back to the HRA Report.
Construction Noise, Construction Activity, Operational Activity,	Site 47- Northern Ramparts	<u>Construction noise</u> : Construction methods should adopt technologies with lower noise emissions (e.g., vibro-piling); use of screening and sound barriers around construction site to dissipate noise; Very loud (>70dB) construction activities such as percussive piling should be programmed to avoid the most sensitive periods for the overwintering bird assemblage; timing works to be undertaken outside of the overwintering period (October-March) so that the SPA/Ramsar species are unlikely to be present in significant numbers; timing works in the northern part of the site to	These issues are flagged in Section 5 regarding the Northern Ramparts (Gosport Lines) with a cross- reference back to the HRA Report.



Impact	Site(s)	HRA Report Recommendation	Measures included in the SPD
Shortened		be undertaken at high tide so that SPA/Ramsar species are unlikely to be feeding in inter-tidal	
View lines		habitats at Forton Lake; timing works in the southern part of the site to be undertaken at low tide	
		so that Brent geese are less likely to be feeding at BG site G03.	
		Construction activity: Use of hoarding at the construction site boundary to screen activity within	
		the site; timing restrictions (seasonal and/or tidal) are listed above in relation to construction	
		noise.	
		Operational activity: Use of close-board fencing, wall or landscape planting to screen waterfront	
		activity (dog-walking, cycling etc.) and prevent disturbance impacts to birds within the SPA at	
		Forton Lane; prevention of access to intertidal areas.	
		Construction noise: Construction methods should adopt technologies with lower noise emissions	
		(e.g., vibro-piling); use of screening and sound barriers around construction site to dissipate noise;	
		Very loud (>70dB) construction activities such as percussive piling should be programmed to	
Construction		avoid the most sensitive periods for the overwintering bird assemblage; timing works to be	
Noise,		undertaken outside of the overwintering period (October-March) so that the SPA/Ramsar species	
Construction	Site 49-	are unlikely to be present in significant numbers; timing works to be undertaken at low tide so that	These issues are flagged in Section
Activity,	South	SPA/Ramsar species are less likely to be present at Cockle Pond.	5 regarding the South Street area
Operational	Street	Construction activity: Use of hoarding at the construction site boundary to screen activity within	with a cross-reference back to the
Activity,	(West)	the site; timing restrictions (seasonal and/or tidal) are listed above in relation to construction	HRA Report.
Shortened		noise.	
View lines		View-lines: Design and layout of development to ensure buildings are adequately set back from	
		the waterfront, with building heights stepped down towards waterfront; gaps between buildings	
		should be maintained or designed into development; or planted buffer zones created to break up	
		continuous facades as viewed from the SPA/Ramsar.	

4 European Sites, Qualifying Features and Conservation Objectives

4.1 European Sites within the Scope of the Assessment

- 4.1.1 Acknowledging that the SPD is not directly connected with or necessary to management of the sites for nature conservation, the HRA considers the following European sites for likely significant or adverse effects on integrity; see Figure 4.1:
 - Portsmouth Harbour SPA;
 - Portsmouth Harbour Ramsar; and
 - Solent and Dorset Coast potential Special Protection Area (pSPA).

4.2 Portsmouth SPA/Ramsar

- 4.2.1 The following site description is adapted from JNCC² and Natural England³. Portsmouth Harbour, located on the central south coast of England, is a large industrialised estuary and includes one of the four largest expanses of mud-flats and tidal creeks on the south coast of Britain. Portsmouth Harbour SPA is comprised of extensive intertidal mudflats and sandflats with seagrass beds, areas of saltmarsh, shallow coastal waters, coastal lagoons and coastal grazing marsh.
- 4.2.2 At low tide the extensive mudflats are exposed, the water drained by channels and creeks uniting to form a narrow exit into the Solent. There is comparatively little freshwater input to Portsmouth Harbour. The largest input is the River Wallington which flows into the north-west of the estuary and gives rise to Fareham Creek, the most notable channel. The estuarine sediments support rich populations of intertidal invertebrates, which provide an important food source for wintering birds.
- 4.2.3 There are approximately 67 ha of seagrass beds in Portsmouth Harbour, which are found mainly in the north-west of the harbour. These beds include both common eelgrass *Zostera marina* (found on the low shore) and dwarf eelgrass *Z. noltii* (on the upper to mid shore). The seagrass beds are amongst the most extensive in Britain and are an important food source for dark-bellied Brent goose *Branta bernicla bernicla*. The mud-flats also support narrow-leaved eelgrass *Z. angustifolia* and extensive green algae beds, mainly *Enteromorpha* species, and sea lettuce *Ulva lactuca*.

³ Natural England (2015): Marine Conservation Advice for Portsmouth Harbour SPA: Site Information. Accessed online [26/9/16] at: https://www.gov.uk/government/publications/marine-conservation-advice-for-special-protection-area-portsmouth-harbouruk9011051/portsmouth-harbour-spa-site-information



² JNCC(2001): SPA Review, Site Accounts: Portsmouth Harbour [accessed 26/9/16]: <u>http://jncc.defra.gov.uk/default.aspx?page=2036</u>



4.2.4 The saltmarsh areas are mainly comprised of cordgrass (Spartina spp.) swards and provide feeding and roosting areas for overwintering birds. Areas outside the SPA contain important supporting habitats for the birds that use the site, including coastal grazing marsh and agricultural land. Details of these can be found online, in particular via the Solent Wader and Brent Goose Strategy.

Qualifying features

4.2.5 Features⁴ for which the site was classified as SPA and Ramsar are listed in Table 4.1.

Table 4.1: Qualifying features of Portsmouth Harbour SPA/Ramsar

Portsmouth Harbour SPA

Article 4.2 Qualification (populations of regularly occurring migratory species):

Over winter

- Dark-bellied Brent goose Branta bernicla bernicla (Western Siberia/Western Europe), 0.9% of the population (2,847 individuals) (5yr peak mean 1991/92-1995/96)
- Dunlin Calidris alpina alpina (Northern Siberia/Europe/Western Africa), 1% of the population in Great Britain (5,123 individuals) (5yr peak mean 1991/92-1995/96)
- Black-tailed godwit Limosa limosa islandica (Iceland breeding), 0.4% of the population in Great Britain (31 individuals) (5yr peak mean 1991/92-1995/96)
- Red-breasted merganser Mergus serrator (North-western/Central Europe), 0.9% of the population in Great Britain (87 individuals) (5yr peak mean 1991/92-1995/96)

Portsmouth Harbour Ramsar

Criterion 3: 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 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 and sea lettuce. 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

Criterion 6: internationally important species population

Over winter

Dark-bellied Brent goose Branta bernicla bernicla, 2.1% of the GB population (2,105 individuals) (5yr peak mean 1998/99-2002/03)

⁴ Qualifying features of the site (features/criteria for which the site was classified, designated or notified) as listed on the Natura 2000 Standard Data Form (published by the JNCC, accessed online [26/9/16] at: http://jncc.defra.gov.uk/page-1401) and/or the original accessed [26/9/16] citation (published by Natural England, online at: http://publications.naturalengland.org.uk/category/6528471664689152) and/or the Information Sheet on Ramsar Wetlands (published by the JNCC, accessed online [26/9/16] at: http://jncc.defra.gov.uk/page-1390).



Conservation objectives

4.2.6 The conservation objectives defined by Natural England⁵ for Portsmouth Harbour SPA are given in Table 4.2.

Table 4.2: Conservation objectives for Portsmouth Harbour SPA/Ramsar

Portsmouth Harbour SPA

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

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

Portsmouth Harbour Ramsar

Portsmouth Harbour SPA conservation objectives may be applied because they would provide an effective means of assessing the Ramsar features, some of which are similar to the SPA features, and because the sites share similar geography and threats.

Condition status

- 4.2.7 Portsmouth Harbour SPA/Ramsar is also notified as a Site of Special Scientific Interest (SSSI) of national importance for its populations of wintering wildfowl and waders, lagoon sand shrimp *Gammarus insensibilis* and scarlet sea anemone *Nematostella vectensis*, for nationally important plant communities including saltmarsh and lowland calcareous grassland, and for its nationally important vascular plant assemblage.
- 4.2.8 Under the most recent condition assessments, the majority of Portsmouth Harbour SSSI was assessed as being in unfavourable-recovering condition (87.75%) with 11.72% of its area assessed as favourable, 0.02% unfavourable-no change, 0.15% unfavourable-declining and 0.35% destroyed⁶. Frequently mentioned reasons for unfavourable-recovering status within the condition assessments were: dense macroalgal mats, coastal squeeze, bait digging, pollution and recreational pressure.
- 4.2.9 The one SSSI unit (no.22) listed as unfavourable-no change, an area of 0.2ha, was last assessed in March 2014. This is Horsea Lagoon which suffered a significant pollution event in the past, and was subsequently isolated from the rest of the harbour with sluice gates to prevent impacts to the wider site. The aim is to remediate the habitat and restore an intertidal regime, however, further work is needed to devise a comprehensive remediation solution. The one unit (no.1) listed as unfavourable-declining, an area of 1.9ha, was last assessed in March 2014. This is the

https://designatedsites.naturalengland.org.uk/



⁵ Conservation objectives as published by Natural England, accessed online [26/9/16] at:

http://publications.naturalengland.org.uk/category/6528471664689152

⁶ Latest SSSI condition assessment as published by Natural England, accessed online [26/9/16] at:

Cockle Pond artificial pools at Walpole Park which suffer from low salinity and anoxia due to nutrient inputs from the local swan *Cygnus sp.* population. The one unit (no.19) listed as destroyed, an area of 4.5ha, was last assessed in August 2010. This area formerly supported intertidal sediment (mudflat) habitat but has been completely destroyed through development at Haslar Marina and boat yard and there is no scope for restoration in this location.

Population trends

4.2.10 The following summaries have been adapted from the UK SPA Review⁷, published by the Joint Nature Conservancy Committee (JNCC; 2001), together with a review of other literature on the behaviour and ecology of these species⁸. Where available species accounts are supplemented by population trend data, as shown in Table 4.3, expressed as peak counts in any one month of the given Wetland Bird Survey (WeBS) year⁹.

Dark-bellied Brent goose

- 4.2.11 Brent geese have a circumpolar distribution breeding in the extreme high Arctic in all northern countries. The dark-bellied Brent goose breeds in the Russian high Arctic. The main wintering areas of dark-bellied Brent geese in the UK are in England, along the North Sea and Channel coasts, from The Wash south to Poole Harbour. Important concentrations are found around The Wash, along the Norfolk, Essex and north Kent coasts, and in the natural harbours of the south coast.
- 4.2.12 The UK population of dark-bellied Brent geese is estimated at 91,000 individuals representing c.50% of the biogeographic population (Kirby 1995), 94% of which occur within SPA sites for which the species is a qualifying feature. It is an Amber-listed Bird of Conservation Concern (BoCC4; Eaton *et al.*, 2015) in the UK due to its localised distribution and the importance of its UK non-breeding population.
- 4.2.13 The traditional wintering habitat is mostly shallow coasts and estuaries with extensive mudflats and intertidal areas, as dark-bellied Brent geese rarely occur far from the sea and feed on intertidal plants such as *Zostera*, *Enteromorpha* and a small range of littoral plants. In recent years the species has taken to grazing on coastal cultivated grasslands and winter cereal fields. An investigation carried out in one of the species' wintering areas (UK) found that it was most likely to forage on dry, improved grasslands that had high abundances of the grass *Lolium perenne*, were between 5 and 6 ha in area, and were at a distance of up to 1.5 km inland or 4-5 km along the coast from coastal roosting sites (IUCN, 2013).
- 4.2.14 This species is considered to be susceptible to disturbance from vehicles in the UK, although it is relatively tolerant of human disturbance, e.g. walkers, compared to other species. In its winter range the species may be persecuted by farmers, as in recent years it has increasingly taken to grazing on cultivated grasslands and winter cereal fields near the coast (IUCN 2013).

⁷ <u>http://jncc.defra.gov.uk/page-1412</u>

⁸ <u>http://www.iucnredlist.org</u>, <u>http://www.bto.org/about-birds</u>, <u>http://www.birdlife.org/datazone/species/search</u>

⁹ BTO: WeBS Report Online. Accessed online [27/9/16] at: <u>http://app.bto.org/webs-reporting/</u>

4.2.15 As shown in Table 4.3, Portsmouth Harbour is currently maintaining internationally important numbers of dark-bellied Brent geese (>1% of the biogeographical population of a regularly occurring migratory species, or >2,400 individuals in 2014/15¹⁰). Numbers of dark-bellied Brent goose remained relatively stable between 2005/06 and 2010/11, both nationally and at Portsmouth Harbour, with a higher than average proportion of juveniles noted in the winter of 2010/11 (12.7%). This is likely to be due to favourable breeding conditions, notably low predation pressure¹¹ (Holt *et al.* 2012). This trend continued through to 2014/15. The numbers compare well to population estimates at the time of classification as SPA and designation as Ramsar. Dark-bellied Brent geese are typically present in significant numbers at Portsmouth Harbour between October and April.

Species	05/06	06/07	07/08	08/09	09/10	Month	5yr avg
D-b Brent goose ▶	2,925	3,162	(2,500)	2,538	(2,030)	Jan	2,875
Dunlin 4	(9,228)	(6,592)	(7,002)	(6,842)	(6,530)	Feb	9,228
Black-tailed godwit	(494)	(398)	(371)	666	(30)	Nov	666
R-b merganser	88	97	78	89	90	Dec	88
Species	10/11	11/12	12/13	13/14	14/15	Month	5yr avg
Species D-b Brent goose ▶	10/11 2,054	11/12 (2,819)	12/13 (2,106)	13/14 (3,062)	14/15 2,953	Month Feb	5yr avg 2,722
Species D-b Brent goose ► Dunlin ◀	10/11 2,054 (4,182)	11/12 (2,819) (6,575)	12/13 (2,106) 4,070	13/14 (3,062) (5,449)	14/15 2,953 6,254	Month Feb Dec	5yr avg 2,722 5,587
SpeciesD-b Brent goose ▶Dunlin ↓Black-tailed godwit	10/11 2,054 (4,182) 32	11/12 (2,819) (6,575) (653)	12/13 (2,106) 4,070 (189)	13/14 (3,062) (5,449) (361)	14/15 2,953 6,254 452	Month Feb Dec Dec	5yr avg 2,722 5,587 375

Table 4.3: Population trends for overwintering SPA/Ramsar birds at Portsmouth Harbour *

Indicates that site held internationally important numbers in most recent 5 year average.

◀ Indicates that site held nationally important numbers in most recent 5 year average.

Figures in (brackets) signify undercounts i.e. not all planned counts were completed in that month.

* Source: Waterbirds in the UK 2009/10 (Holt et al. 2011); Waterbirds in the UK 2014/15 (Frost et al., 2016)

4.2.16 At night, dark-bellied Brent geese roost on the water in the harbour. They generally do not roost during the day but feed either on the intertidal or on nearby grassland (Potts, 2014¹²). The main food sources for dark-bellied Brent geese in Portsmouth Harbour are the green algae and seagrass beds growing on the intertidal sediments. These provide a valuable high protein food for the birds after their long migratory flight. At low tide, high densities of Brent geese often

¹² Natural England (2015): Portsmouth Harbour SPA: Supplementary advice on conserving and restoring site features. Accessed online [26/9/16] at: <u>https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/485360/portsmouth-harbour-spa-supplementary-advice.pdf</u>



¹⁰ BTO: Species Threshold Levels. Accessed online [27/9/16] at: <u>https://www.bto.org/volunteer-surveys/webs/data/species-threshold-levels</u>

¹¹ Numbers of Brent Geese are largely controlled by predation pressure in the breeding season which is tied to the lemming cycle in the Arctic. In good years, predators such as Arctic Foxes concentrate on lemmings, leaving large numbers of young Brent Geese to survive to fledging. However, in poor lemming years the predators switch their diet to ground nesting birds, which can sometimes result in an almost complete breeding failure for Brent Geese (King, 2010).

feed at Paulsgrove Lake and Porchester in the north and also at Forton Lake in the west of the harbour (Austin et al., 2014).

4.2.17 Pewit Island is an important high tide feeding site for dark-bellied Brent geese within the SPA (King, 2010). In the Solent, dark-bellied Brent geese show diverse feeding habits and will also feed at high tide in areas outside the SPA. These areas include farmland with cereals and pasture along with amenity grasslands and coastal grazing marsh (King, 2010). Important high tide feeding sites are RNAD Gosport in Bedenham, Cams Hall, Portchester, Priddy's Hard, Tipner Ranges, St George's playing field and Port Solent on Horsea Island (King, 2010; Potts, 2014).

Dunlin

- 4.2.18 Most dunlin wintering in north-west Europe are of the nominate sub-species *alpina* which breeds in Scandinavia and Russia. After lapwing, dunlin is the most numerous wader in the UK in winter and are found on estuaries and open coasts throughout the country. They occur in particularly high densities in estuaries, and several important sites are on eastern or south-eastern coasts.
- 4.2.19 The UK winter population of dunlin is estimated at 350,000 individuals (2004/05-2004/09; Musgrove *et al.*, 2011). Having reached its lowest ever point in 2008/09, the WeBS index for dunlin has shown signs of a slight recovery since. It is a BoCC4 Amber-listed species in the UK due to moderate long-term declines in its breeding and overwintering populations and its localised distribution.
- 4.2.20 Overwintering dunlin mainly prefers estuarine mudflats, but also frequent a wide variety of freshwater and brackish wetlands, both coastal and inland. For roosting during high tides and at night this species prefers large fields of naturally fertilised short pasture or soil-based crops with few vertical structures that could be used by predators.
- 4.2.21 In the winter this species is restricted to a small number of estuaries, making it vulnerable to changes in this habitat for example through land reclamation or the invasion of alien plant species (such as the cordgrass *Spartina anglica* which has spread on British mudflats, resulting in the reduction in size of feeding areas available). The species is also threatened by disturbance on intertidal mudflats from construction work and foot-traffic on footpaths. It has been shown that provision of well-surfaced paths in breeding areas which receive over 30 visitors a day can reduce the impact of human disturbance on this species' reproductive success (IUCN 2013).
- 4.2.22 Portsmouth Harbour is currently maintaining nationally important numbers of dunlin (>1% of the GB population of a regularly occurring migratory species, or >3,500 individuals in 2014/15); see Table 4.3. Numbers of dunlin are likely to have remained relatively stable between 2005/06 and 2010/11, given the number of undercounts. However, they have declined over the last five years despite inter-year variations, reflecting the national trend. The numbers nevertheless compare well to population estimates at the time of classification as SPA. Dunlin is typically present in significant numbers at Portsmouth Harbour between November and March.

4.2.23 At high tide, dunlin roost on pontoons near Wicor Shore, on saltmarsh at RNAD Gosport, Bedenham or on an island adjacent to Priddy's Hard¹³. Dunlin also fly over to Langstone Harbour to roost at high tide (Potts, 2014). At low tide, dunlin feed in high densities on the intertidal in the north western corner of the harbour around Cams Bay and Wicor Lake. High densities also feed at Forton Lake and along the western side of the harbour (Austin et al., 2014).

Black-tailed godwit

- 4.2.24 The Icelandic population of black-tailed godwit *Limosa limosa islandica* breeds mainly in Iceland and sporadically in the Faeroes, Britain and Ireland. This sub-species winters mainly in Britain, Ireland and western France, and south to Morocco, with the main concentrations on the muddy estuaries of the south coasts of Ireland and England.
- 4.2.25 The UK winter population of black-tailed godwit is estimated at 43,000 individuals (2004/05-2008/09; Musgrove *et al.*, 2011). Having risen since the mid 1970s and levelled off more recently, the British WeBS index for black-tailed godwit dropped notably in 2011/12. It is perhaps pertinent that this happened after the severe winter of 2010/11, which may have reduced overwinter survival. Black-tailed godwit is a vulnerable species of European conservation concern and is BoCC4 Red-listed in the UK, due to severe long-term declines in its breeding range, breeding rarity in the UK and the localised distribution of its non-breeding population.
- 4.2.26 Black-tailed godwit is threatened by the loss of nesting habitat owing to wetland drainage and agricultural intensification. Detrimental activities include the conversion of wet meadows to arable land, increased fertilisation and drainage of grassland, artificial flooding of nesting habitats, earlier and more frequent cutting as farmers adapt to climate change, spring burning, overgrowing by scrub, land claiming by businesses and developers, the construction of roads and parks, and disturbance by walkers. Habitat fragmentation may cause particular problems for this species, which nests in dispersed colonies and sub-colonies as protection against predators and may be unlikely to breed successfully in small areas of habitat (IUCN 2013).
- 4.2.27 Overwintering black-tailed godwit often winters in brackish habitat (such as sheltered estuaries and lagoons with large intertidal mudflats) and roosts on damp pasture, often inland. Black-tailed godwit feeds mostly on worms whilst the tide is out. Non-breeding black-tailed godwit numbers in the UK increased during the late 2000s, following a plateau of around three years, continuing a long-term rise which has seen estimates of the fly-way population revised upwards by 30% (Holt *et al.* 2012). Most are of Icelandic origin, arriving in July and August with numbers peaking in September; some overwinter while others continue south to Iberia.
- 4.2.28 Portsmouth Harbour does not currently support nationally or internationally important numbers (which would be 430 and 610 individuals, respectively in 2014/15); see Table 4.3. Numbers of black-tailed godwit at Portsmouth Harbour have fluctuated widely over the last ten years, from a high of 666 in 2008/09 to a low of 32 in 2010/11, but the current 5yr mean of 375 is tenfold the

¹³ Ibid.



5yr mean at the time of classification as SPA. Black-tailed godwit are typically present in significant numbers at Portsmouth Harbour between September and February.

4.2.29 At high tide, black-tailed godwits roost on upper saltmarsh areas in Portsmouth Harbour and on coastal grazing marsh outside the SPA boundary¹⁴. Important roost sites are located at RNAD Gosport in Bedenham, Pewit Island and at Farlington Marshes in Langstone Harbour. In wet weather, black-tailed godwits also move between Portsmouth Harbour and Titchfield Haven in the Meon Valley (Potts, 2014). At low tide, high densities of black-tailed godwit feed on the intertidal in the north western section of Portsmouth Harbour at Cams Bay and Wicor Lake (Austin et al., 2014).

Red-breasted merganser

- 4.2.30 Red-breasted mergansers are globally distributed at northerly latitudes across northern Eurasia, Greenland and North America. In winter, birds migrate to coastal waters in the North and Baltic Seas, along Atlantic coasts, as well as further south to the Mediterranean, Black and Caspian Seas. The UK winter population of red-breasted merganser is estimated at 8,400 individuals (2004/05-2008/09; Musgrove *et al.*, 2011). The species is a not considered a species of European conservation concern and is Green-listed on BoCC4.
- 4.2.31 During the winter, this species favours brackish or saline waters, preferring shallow, protected coasts, estuaries, bays and lagoons with an abundance of small fish and aquatic invertebrates. red-breasted mergansers occasionally use inland sites in Britain and Northern Ireland, but usually only during periods of harsh weather conditions. The species is subject to persecution and may be shot by anglers and fish-farmers who believe it causes depletion of fish stocks. It is also threatened by accidental entanglement and drowning in fishing nets (IUCN, 2013).
- 4.2.32 Portsmouth Harbour does not currently support nationally or internationally important numbers of red-breasted merganser (which would be 84 and 1,700 individuals, respectively in 2014/15); see Table 4.3. Numbers at Portsmouth Harbour have remained fairly steady over the last ten years, despite poor years in 2010/11 and 2012/13, and the current 5yr mean of 78 is comparable to that at the time of classification as SPA. Red-breasted merganser are typically present in significant numbers at Portsmouth Harbour between November and April.
- 4.2.33 Red-breasted merganser roost at night with other diving sea ducks, either in the mid-channel in Portsmouth Harbour or other shallow coastal waters in the Solent¹⁵. Red-breasted merganser also raft in Portsmouth Harbour for shelter during times of stormy weather (Potts, 2014; Stone, 2014). Red-breasted merganser forage on small fish and aquatic invertebrates in the shallow coastal waters of Portsmouth Harbour (English Nature, 2001).

Threats to, and conditions supporting, site integrity

4.2.34 The Habitats Regulations require that an Appropriate Assessment is made of the implications of relevant plans and projects for each site in view of the site's conservation objectives. To make such an assessment, it is necessary to understand in more detail the characteristics of a site that

¹⁴ Ibid.

¹⁵ Ibid.

contribute to its favourable conservation status (Table 4.4) and factors which pose a threat to site integrity (Table 4.5). These tables present summarises of information listed on the Natura 2000 Standard Data Form ¹⁶, Ramsar Information Sheet ¹⁷, Site Improvement Plan ¹⁸ and Supplementary Advice Tables (SAT)¹⁹.

Table 4.4: Portsmouth Harbour conditions supporting site integrity

Portsmouth Harbour conditions supporting site integrity

Black-tailed godwit

- Population: At least 70 individuals (over winter / on passage)
- Extent and distribution of habitats: 776ha intertidal sediment, 67ha littoral seagrass beds, 52ha saltmarsh, 5.05ha coastal lagoon, important roosts within coastal grazing marsh and amenity grassland
- Habitat connectivity: safe passage of birds moving between roosting & feeding areas
- Food availability in grassland/marsh (earthworm, leatherjacket, chironomids) and intertidal (Macoma, Cadium, Nereis)
- Hydrology in grassland/marsh: high water tables to provide surface water or damp conditions, with 20-30% of area soggy or flooded overall
- Landform: sufficient wet ditch/drain edges, scrapes & pools of shallow edge gradient
- Landscape: Maintain the area of open and unobstructed terrain around roosting and feeding sites, and no overall reduction in field size

Dark-bellied Brent goose

- Population: At least 2,290 individuals (over winter / on passage)
- Extent and distribution of habitats: 776ha intertidal sediment, 67ha littoral seagrass beds, 52ha saltmarsh, important feeding habitats within coastal grazing marsh and amenity grassland
- Habitat connectivity: safe passage of birds moving between roosting & feeding areas
- Food availability in improved grassland (bents, rye-grass, clover) and intertidal (cord-grass, *Enteromorpha*, sea lettuce)
- Landscape: Maintain open and unobstructed terrain and overall field sizes within <u>at</u> <u>least 0.5km</u> of roosting and feeding sites (emphasis added)
- Vegetation characteristics: Maintain extent/distribution of predominantly short (<10cm) grassland swards in areas used for feeding

<u>Dunlin</u>

Population: At least 8,010 individuals (over winter / on passage)

http://jncc.defra.gov.uk/pdf/RIS/UK11055.pdf

¹⁹ Natural England (2015): Portsmouth Harbour SPA: Supplementary advice on conserving and restoring site features. Accessed online [26/9/16] at: <u>https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/485360/portsmouth-harbour-spa-supplementary-advice.pdf</u>



¹⁶ JNCC (2016): Natura 2000 Standard Data Form: Portsmouth Harbour SPA. Accessed online [26/9/16] at: http://jncc.defra.gov.uk/pdf/SPA/UK9011051.pdf

¹⁷ JNCC (1995): Portsmouth Harbour Ramsar Information Sheet. Accessed online [26/9/16] at:

¹⁸ Natural England (2014): Site Improvement Plan: Solent (Chichester and Langstone Harbours SPA, Portsmouth Harbour SPA, Solent & Southampton Water SPA, Solent Maritime SAC). Accessed online [26/9/16] at:

http://publications.naturalengland.org.uk/publication/4692013588938752

- Extent and distribution of habitats: 776ha intertidal sediment, 67ha littoral seagrass beds, 52ha saltmarsh, 5.05ha coastal lagoon, important roosts within coastal grazing marsh and amenity grassland
- Habitat connectivity: safe passage of birds moving between roosting & feeding areas
- Food availability in preferred prey sites (dipertan flies, beetles, caddisfly, wasps, sawflies, mayflies) and intertidal (*Nereis, Macoma, Hydrobia, Crangon, Carcinus*)
- Landscape: Maintain open and unobstructed terrain around nesting, roosting and feeding sites

<u>Red-breasted merganser</u>

- Population: At least 100 individuals (over winter / on passage)
- Maintain extent and distribution of shallow coastal water habitat which supports the feature (current area/extent unknown)
- Habitat connectivity: safe passage of birds moving between roosting & feeding areas
- Food availability in coastal and offshore waters (stickleback, gobies, flatfish, herring, shrimps, Nereis)
- Water depth: Maintain availability of water at optimal depth, typically 2-4m

Table 4.5: Portsmouth Harbour threats to site integrity

Portsmouth Harbour threats to site integrity

Threats to site integrity (adapted from Standard Data Form):

- Pollution to groundwater (point sources and diffuse sources)
- Changes in biotic and abiotic conditions
- Outdoor sports and leisure activities, recreational activities
- Fishing and harvesting aquatic resources

Factors adversely affecting ecological character (from Ramsar Information Sheet):

- Eutrophication
- Disturbance & land-take pressures (on & off-site) from urban & industrial development
- Coastal squeeze arising from coastal defences

Threats to site integrity (adapted from Site Improvement Plan):

- Public access/disturbance
- Coastal squeeze
- Fisheries: commercial marine and estuarine
- Water pollution (point sources and diffuse sources)
- Changes in species distributions
- Change to site conditions, in particular increasing loss of saltmarsh
- Biological resource use (egg collecting and wildfowling)
- Air pollution: impact of atmospheric nitrogen deposition
- Direct impact from third party (e.g. off-roading, private sea defences, military helicopters, houseboats, fly grazing)

Threats to site attributes (ecological characteristics contributing to site integrity; from SAT)

- Air pollution: impact of atmospheric pollutants
- Disturbance caused by human activity



Portsmouth Harbour threats to site integrity

- Changes in hydrology/flow within intertidal area (availability of fresh water)
- Changes in landform (density of channel networks in intertidal feeding areas)
- Changes in vegetation structure (key roost sites should be dominated by bare ground or a short, sparsely-vegetated sward)
- Water quality: aqueous contaminants, dissolved oxygen, nutrient nitrogen, turbidity

4.3 Solent and Dorset Coast pSPA

- 4.3.1 In early 2016 Natural England proposed a new marine designation for three species of bird; common, Sandwich and little tern *Sterna hirundo, S. sandvicensis* and *S. albifrons*. The proposed site is located on the south coast within the English Channel, comprising approximately 255.2 square nautical miles (SNM) and extending from the Isle of Purbeck in the West to Bognor Regis in the East, following the coastline on either side to the Isle of Wight and into Southampton Water. The proposed site is intended to protect important foraging areas at sea used by breeding colonies in nearby SPA.
- 4.3.2 There are already four SPA within the Greater Solent that are designated for breeding terns. These are Chichester & Langstone Harbours SPA (for Sandwich and little tern), the Solent and Southampton Water SPA (for common, Sandwich and little tern) and Pagham Harbour SPA (little tern). The fourth associated SPA lies within Poole Harbour (common tern and Sandwich tern). The new SPA covers the area that the breeding terns use for foraging during April to September. Whilst management measures are already in place in this foraging area due to the existing SPA, the classification of this new site will provide clarity to stakeholders about the areas the terns forage within and the species that require consideration.
- 4.3.3 The recommendations developed so far propose that the new marine designation will include the sub-tidal areas not currently encompassed in the existing SPAs. It will thus have its landward boundary at mean low water (MLW) where it abuts any existing SPA where terns are already a feature. Elsewhere the landward boundary will be mean high water (MHW) so as to afford the birds protection within the intertidal areas; for example at Portsmouth Harbour. However, the landward boundary of the pSPA extends to MHW within Pagham Harbour and hence overlaps with the existing SPA (Natural England, 2016; p.20). This is because the easternmost extremity of the pSPA is determined by the modelled usage of Sandwich terns foraging from Chichester & Langstone Harbours SPA, and Sandwich terns are not a qualifying feature of Pagham Harbour SPA.

Qualifying features

4.3.4 Features²⁰ for which the site is proposed to be classified as SPA are listed in Table 4.6.

²⁰ Natural England: Open Consultation: <u>Solent & Dorset Coast pSPA</u>. Accessed online [22/1/16].


Table 4.6: Proposed qualifying features of Solent and Dorset Coast pSPA

Solent and Dorset Coast pSPA

Article 4.1 Qualification (populations of Annex 1 species):

Breeding season

- Sandwich tern *Sterna sandvicensis*, 4.01% of GB population (441 pairs) (2008-14)
- Common tern *Sterna hirundo*, 4.77% of GB population (492 pairs) (2009-14)
- Little tern Sterna albifrons, 3.31% of GB population (63 pairs) (2009-14)

Conservation objectives

4.3.5 Conservation objectives for the Solent and Dorset Coast pSPA have yet to be defined by Natural England. In the interim, objectives equivalent to those of Portsmouth Harbour SPA will be used in the assessment.

Condition status

4.3.6 Although the pSPA is underpinned by or adjacent to several other nature conservation designations, there are no current common standards condition monitoring data available for the majority of its area.

Population data

4.3.7 The following population data for the pSPA are drawn from the assessment of ornithological interest (section 5) prepared as part of the departmental brief²¹ recommending that the Solent and Dorset Coast be considered as a potential SPA.

Sandwich tern

- 4.3.8 The breeding population of Sandwich terns in Great Britain is estimated to be 11,000 pairs (Musgrove et al. 2013), representing about 19.3% of the Western Europe/West Africa breeding population (57,000 pairs derived by division by 3 of the upper estimate of 171,000 individuals: AEWA 2012). In the UK, the species is restricted to relatively few large colonies, most of which are on the east coast of Britain with a few smaller ones on the south and north-west coasts of England and Northern Ireland. Colonies are mostly confined to coastal shingle beaches, sand dunes and offshore islets (Mitchell et al. 2004).
- 4.3.9 The four larger species of tern which breed regularly in Great Britain have recorded mean foraging ranges between 4.5km and 12.2km, and maximum recorded foraging ranges between 15.2km and 49km (Thaxter *et al.*, 2012). Sandwich tern feeds mainly on surface-dwelling fish. Fish are caught by plunge-diving from 5-10m, often preceded by hovering.
- 4.3.10 The principal Sandwich tern breeding colonies supported by the Solent & Dorset Coast pSPA during the breeding season are located at: Poole Harbour SPA, Solent & Southampton Water SPA and Chichester & Langstone Harbours SPA. The sum of the site-specific recent 5 year means across these three principal source colony SPAs yields a figure of 441 pairs or 882

²¹ Ibid.

breeding adults supported by the pSPA which constitutes 4.01% of the GB breeding population; see Table 4.7.

Table 4.7: Summary of breeding populations of Sandwich tern within SPAs contributingto the foraging population of the Solent & Dorset Coast pSPA

Species	Poole Harbour	Solent/Soton Water	Chich/Lang Hbrs
Popln. at citation (pairs)	n/a	231	31
Old % of GB popln.	n/a	1.7	0.2
Data age	n/a	1993-97	1993-97
Recent mean (pairs)	181	104	156
Recent % of GB popln.	1.65	0.94	1.42
Data age	2010-14	2010-14	2008-11&2013
Solent & Dorset Coast pSPA population (pairs x2 for individuals)		882	
Solent & Dorset Coast pSPA population: % of GB breeding popln.		4.01	

Common tern

- 4.3.11 The breeding population of common terns in Great Britain is estimated to be 10,000 pairs (Musgrove et al. 2013), representing at least 2% of the Northern & Eastern European breeding population (500,000 pairs derived by division by 3 of the upper estimate of 1,500,000 individuals: AEWA 2012). A significant proportion of the British population breeds in Scotland. Coastal colonies in England are concentrated in the north-east, East Anglia, at a few localities along the south coast, and in the north-west (Mitchell et al. 2004).
- 4.3.12 Many tern species exhibit low nest fidelity, and maintaining population levels depends on management of breeding sites; predator control, habitat creation, competition for nesting sites and reducing disturbance are key factors at most breeding localities (Mitchell, Newton, Ratcliffe & Dunn (Eds.) 2004). Common terns breed not only around coasts but, unlike the other tern species which breed in the UK, also breed frequently beside inland freshwater bodies, such as lakes, reservoirs and gravel pits along the large river valleys of south-east and central England, notably the Thames, Ouse, Humber and Trent, and along rivers in south-east Scotland.
- 4.3.13 The four larger species of tern which breed regularly in Great Britain have recorded mean foraging ranges between 4.5km and 12.2km, and maximum recorded foraging ranges between 15.2km and 49km (Thaxter *et al.*, 2012). Common tern feeds chiefly on fish but also crustaceans and is an opportunistic feeder, switching rapidly between prey types and feeding methods as circumstances change. Fish are caught largely by plunge-diving from air, often preceded by hovering. Prey is brought to the surface and swallowed immediately unless intended for mate or young.
- 4.3.14 The principal common tern breeding colonies supported by the Solent & Dorset Coast pSPA during the breeding season are located at: Poole Harbour SPA, Solent & Southampton Water SPA and Chichester & Langstone Harbours SPA. The sum of the site-specific recent 5 year

means across these SPAs yields a figure of 492 pairs or 984 breeding adults supported by the pSPA which constitutes 4.92% of the GB breeding population; see Table 4.8.

Table 4.8: Summary of breeding populations of common tern within SPAs contributing to the foraging population of the Solent & Dorset Coast pSPA

Species	Poole Harbour	Solent/Soton Water	Chich/Lang Hbrs
Popln. at citation (pairs)	155	267	33
Old % of GB popln.	1.3	2.2	0.3
Data age	1993-97	1993-97	1992-96
Recent mean (pairs)	178.4	164.2	149.0
Recent % of GB popln.	1.38	1.6	1.5
Data age	2010-14	2010-14	2009-11/13-14
Solent & Dorset Coast pSPA population (pairs x2 for individuals)		983.2	
Solent & Dorset Coast pSPA population: % of GB breeding popln.		4.92	

Little tern

- 4.3.15 The breeding population of little tern in Great Britain is estimated to be 1,900 pairs (Musgrove et al. 2013), representing about 10.3% of the Eastern Atlantic breeding population (18,500 pairs derived by division by 3 of the upper estimate of 55,500 individuals: AEWA 2012). Breeding occurs in scattered colonies along much of the east and west coasts of Britain, from the north of Scotland to (and including) the south coast of England (Mitchell et al. 2004). The greater part of the population occurs in south and east England from Dorset to Norfolk (Mitchell et al. 2004).
- 4.3.16 All British little terns nest on the coast, in well-camouflaged shallow scrapes, utilising sand and shingle beaches and spits, as well as tiny islets of sand or rock close inshore (Mitchell et al. 2004). Of the five species of tern which regularly breed in Great Britain, little tern is the smallest and has the most limited foraging range (mean of 2.1km, mean of recorded maxima of 6.3km; Thaxter *et al.*, 2012)). This dictates a necessity for breeding close to shallow, sheltered waters where they can easily locate the variety of small fish and invertebrates that make up their diet. Typically it works back and forth over the water with quick wing-beats and head directed downward. It often hovers before making fast, vertical or near-vertical plunge-dives for its prey, with partial or complete immersion.
- 4.3.17 The principal little tern breeding colonies supported by the Solent & Dorset Coast pSPA during the breeding season are located at: Solent & Southampton Water SPA and Chichester & Langstone Harbours SPA. The sum of the site-specific recent 5 year means across these SPAs yields a figure of 63 pairs or 126 breeding adults supported by the pSPA which constitutes 3.31% of the GB breeding population; see Table 4.9.

Species	Solent/Southampton Water	Chichester/Langstone Hbrs
Popln. at citation (pairs)	49	100
Old % of GB popln.	2.0	4.2
Data age	1993-97	1992-96
Recent mean (pairs)	19	43
Recent % of GB popln.	1.02	2.28
Data age	2010-14	2010-14
Solent & Dorset Coast pSPA popln. (pairs x2 for individuals)		126
Solent & Dorset Coast pSPA popIn.: % GB breeding popIn.		3.31

Table 4.9: Summary of breeding populations of little tern within SPAs contributing to theforaging population of the Solent & Dorset Coast pSPA

Threats to site integrity

4.3.18 Threats to the integrity of Solent and Dorset Coast pSPA have not yet been defined but are likely to include activities which could significantly reduce prey availability within the site or impede the qualifying species' ability to exploit the site for foraging. Such activities could include, for example, intensive commercial fishing, major pollution events leading to widespread mortality of fish and crustaceans, or extensive disturbance to terns within, or displacement from, marine foraging habitats. Development proposals within the Gosport WTC SPD boundary are unlikely to result in impacts of this nature, particularly in context of the pSPA's size, and the proposed classification is not considered further during the HRA (see also Appendix I).

5 Identifying Impact Pathways

5.1 Introduction

5.1.1 This chapter discusses the available evidence relating to the pathways of site-specific impacts which could result in actual or functional loss of habitats which have a role in supporting the integrity of the European sites. Impacts can be separated into impacts during the construction or operational phase, and are further defined in the following sections:

Construction impacts

- Habitat loss due to the location/footprint of development;
- Construction noise;
- Construction activity; and
- Aquatic/atmospheric pollution during remediation, demolition or construction.

Operation impacts

- Disturbance due to increased activity (including the impacts of recreation which are not addressed by the SDMP);
- > Displacement due to shortened view lines; and
- Collision mortality risk.

5.2 Habitat Loss

- 5.2.1 This pathway is defined as impacts from development which, due to its location and size (i.e. footprint), changes the extent or distribution of a qualifying habitat or the habitats of qualifying species within a European site, thereby reducing the population or restricting the distribution of qualifying species.
- 5.2.2 It also includes development which would result in the loss of habitats which support the ecological functions of a European site, such as those classified as being "Important" for waders or dark-bellied Brent goose. These sites are identified in the *Solent Waders and Brent Goose Strategy* (King, 2010). There are three Important sites for Brent geese within the WTC SPD boundary, within Forton Lake in the north, at Arden Park in the central west and within Haslar Lake in the south; see Figure 5.1. There are no Important sites for waders in the WTC area.

5.3 Construction Noise

5.3.1 This pathway is defined as impacts from development whose construction processes emit a level of noise which could change the distribution of qualifying species within a European site or important supporting area, displacing the species from otherwise suitable habitats, and thereby reducing individual survival rates and risking a population reduction. This could be due to the proximity of the development site to the European site / supporting area, or the absence of existing topographic features, structures or vegetation which may serve to sufficiently attenuate the noise, or a combination of both.



Figure 5.1: Important Brent goose sites in the Waterfront & Town Centre boundary

5.3.2 Very loud (defined as greater than 70dB) and percussive noises have the potential to disturb birds, increasing time spent alert and in flight, and reducing the time available to feed. Peak levels of sound are most likely to occur from the impact of pneumatic drilling and concrete breaking during site preparation and piling during construction. These activities can have an impact on bird species at a distance of up to 300m. This figure has been used as a worst-case scenario and is based on published research and studies by the Environment Agency for the Humber Estuary Tidal Defences scheme, the Environmental Statement for which states that: "Sudden noise in the region of 80dB appears to elicit a flight response in waders to 250m from the source, with levels below this to approximately 70dB causing flight or anxiety behaviour in some species." (Environmental Statement for the Humber Estuary Tidal Defences: Urgent works, Paull to Kilnsea and Whitton to Pyewipe, cited in Biodiversity by Design, 2008, p.79).

5.4 Construction Activity

- 5.4.1 This pathway is defined as impacts from development whose construction processes involve a heightened level of activity which could change the distribution of qualifying species within a European site or important supporting area, displacing the species from otherwise suitable habitats, and thereby reducing individual survival rates and risking a population reduction. This could be due to the proximity of the allocation site to the European site / supporting area, or the absence of existing topographic features, structures or vegetation which may serve to sufficiently screen the activity, or a combination of both.
- 5.4.2 Stillman *et al* (2012; Table 6.1, p.61) identify median distances for Brent goose and some waders within which the birds commonly respond to human activity, thereby causing changes in behaviour or displacement from otherwise suitable habitats. This response distance, which is around 80-100m for most species analysed in the Solent area, provides some context for sites which are particularly close to a European site or Important wader or Brent goose site.

5.5 Aquatic/Atmospheric Pollution during Construction

- 5.5.1 This pathway is defined as impacts from development of a site which is thought to contain contaminants whose mobilisation during remediation, demolition or construction could result in pollution of a qualifying habitat or habitat of a qualifying species, thereby limiting the function of the habitat or altering the supporting processes on which it relies.
- 5.5.2 This could occur by causing the pollutants to be released into the atmosphere in close proximity to the habitat, or introducing pollutants to an aquatic environment that is hydrologically connected with the habitat. Pollution impacts could also occur as a result of a pollution incident during construction on a site which is hydrologically connected with a qualifying habitat or habitat of a qualifying species (regardless of whether the allocation site is thought to be contaminated).

5.6 Disturbance due to Increased Operational Activity

5.6.1 This pathway is defined as impacts from development (of any type) which results in heightened activity or increased operational noise within the development site, thereby causing changes in the distribution of qualifying species within a European site or important supporting area, displacing the species from otherwise suitable habitats, and thereby reducing individual survival rates and risking a population reduction. This could be due to the proximity of the allocation site to the European site / supporting area and/or the absence of existing topographic features, structures or vegetation which may serve to sufficiently screen the activity or attenuate the noise. The response distance of around 80-100m referred to above provides some context for sites which are particularly close to a European site or Important wader or Brent goose site.

5.7 Displacement during Operation due to Shortened View-lines

- 5.7.1 This pathway is defined as impacts from development (of any type) which changes the distribution of a qualifying species within a European site or important supporting area by reducing view lines available to birds using the habitats within the site.
- 5.7.2 Several bird species can be displaced as a result of their specific line-of-sight requirements while foraging or roosting, whereby obstruction to view lines (necessary for early warning of perceived predation risk) will render areas of habitat unsuitable for use by birds. For example, terns and gulls prefer open nest sites and unrestricted views while roosting and feeding. Waders, including ringed plover, black-tailed and bar-tailed godwits, redshank, curlew, turnstone, dunlin and sanderling, require views of greater than 200m when roosting or feeding. Brent goose requires views of at least 500m (English Nature, 2001; Natural England, 2015²²) in order to feel sufficiently free of predation risk to feed. Additionally, King (2010) highlights a number of factors which significantly correlate with the suitability of sites for waders and Brent geese.

5.8 Collison Mortality Risk

- 5.8.1 Tall buildings and other structures can interfere with the normal commuting or migration routes of birds. The role of tall buildings and other structures, their design and location in relation to the various sites used by birds will be an important factor in the degree of disorientation and collision risk presented. The issue is not well understood in a local context because there is little research into common commuting routes, but is likely to be both highly spatially specific and weather dependant, and to be affected by the relative locations of bird roosts, foraging habitats and proposed new development.
- 5.8.2 Developments which propose tall buildings at the Waterfront or close to supporting habitats should be informed by detailed survey and an assessment of bird strike risk, to ensure their design is appropriate and can avoid negative effects. Design measures could include stepped building heights (lower close to the water), low intensity lighting, reduced ratio of glazing or UV glass/film. Where detailed assessment raises the possibility of residual risk, the following measures should be explored for incorporation into the development as appropriate:
 - Reduce ratio of glass to opaque structure to a realistic minimum.
 - Increase the 'visual noise' of glazed areas. Methods to be considered for enhancing visual noise include: non-reflective fretting of glass; interior artwork; non-reflective one-way glass through use of external treatment; balconies and vegetated facades.
 - Avoid indoor planting where this can be clearly seen from outside without additional measures to obscure the view through the glass.

²² Natural England (2015): Portsmouth Harbour SPA: Supplementary advice on conserving and restoring site features. Accessed online [26/9/16] at: <u>https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/485360/portsmouth-harbour-spa-supplementary-advice.pdf</u>



- Avoid 'see-through' areas in buildings, especially when aligned with features to which birds might be attracted to fly.
- Where possible use angled windows (40 degrees optimal).
- Avoid use of red building strobes where practical/safe to do so (red strobe lights have been shown to have a particular attractant value to migrant birds at night).
- Design lighting in accordance with anti sky-lighting pollution protocols.
- Install movement-responsive systems or manual maintenance protocols to turn off or dim all unnecessary exterior lighting, particularly in the spring and autumn migration seasons.
- Install bird screens, UV films, one-way films, exterior sun screens or interior blinds.

5.9 Distance-based Screening Criteria

5.9.1 Drawing on the previous sections it is possible to devise a series of distance-based screening criteria which are sufficiently precautionary, proportionate and evidence based to determine the likelihood of significant effects. These are set out in Table 5.1 and have been applied to the sites proposed for development in the WTC SPD. The results are illustrated in the screening matrix shown at Appendix I.

Impact	Distance	EU or Important BG/wader site
Habitat loss	0m (within or overlapping site)	Both
Construction pollution	50m or hydrological pathway	EU site
Construction activity	100m	Both
Construction noise	300m	Both
Operational activity	Any type: 100m Residential: 500m	Both
Shortened view-lines	Waders: 200m Brent goose: 500m	Both
Collision mortality risk	n/a	Both

Table 5.1: Distance-based screening criteria



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6 Impact Assessment

6.1 Introduction

6.1.1 The following assessment uses the conservation objectives and ecological data for each European site defined in Chapter 4, and considers these against the range of impact pathways described in Chapter 5.

6.2 Habitat Loss

- 6.2.1 Three of the opportunity sites overlap partially or wholly with the SPA/Ramsar or an Important Brent goose site:
 - > 31: Haslar Marina;
 - > 44: Walpole Park (South); and
 - 46: St George Barracks Playing Field.
- 6.2.2 The Haslar Marina site is proposed for improved waterfront pedestrian access, marine-led employment and mixed uses, and retained existing uses (mixed residential and marine related). There is a slight overlap of c.140m² between the southern part of the site and the SPA/Ramsar boundary within Haslar creek, as show at Figure 6.1. This is likely to be a cartographical error within the opportunity site boundary, and in any event the development brief specifically refers to the need to consider the impact of development on the SPA/Ramsar. Impacts through habitat loss are therefore unlikely but it is recommended that the opportunity site boundary is redrawn to specifically exclude the SPA/Ramsar.
- 6.2.3 Walpole Park (South) contains Cockle Pond and the boating lake which form unit 1 of Portsmouth Harbour SSSI and also forms part of the SPA/Ramsar. This part of the SSSI is in unfavourable-declining condition and suffers from low salinity and anoxia due to nutrient inputs from the local swan population. However, no significant development is proposed for the opportunity site, with no change to the artificial pools, and the development brief specifically refers to the need to consider the impact of development on the SPA/Ramsar. Proposals are limited to public realm improvements including new pedestrian routes linking to adjacent routes and areas.
- 6.2.4 St George Barracks Playing Field is outside of the SPA/Ramsar but contains Important Brent goose site G03. G03 has a maximum count of 838 individuals and is regularly used by Brent geese for high tide feeding, particularly in the early part of the overwintering season. Brent geese have a preference for creeping bent *Agrostis stolonifera*, perennial rye-grass *Lolium perenne* and white clover *Trifolium repens* when feeding in improved grassland, and select sites with a short (<10cm) uniform sward and open, unobstructed terrain, conditions which the site's current management as playing pitches is likely to maintain.





Figure 6.1: Plan showing overlap between site 31 and SPA/Ramsar boundary

- 6.2.5 The playing field is in MoD ownership and is currently inaccessible to the public which is likely to be a significant contributing factor to its importance to Brent geese, although access is provided for local youth teams. No significant development is proposed for the opportunity site, proposals being limited to opening the site up for future public access, including new pedestrian and cycle routes linking to adjacent routes and areas. It is recommended that the scope for actual loss of habitat is minimised by routeing proposed new pedestrian/cycle paths along the edge of the site adjacent to existing boundary features to maximise the area available for feeding. Impacts via functional loss of habitats are addressed in the following sections.
- 6.2.6 In conclusion the WTC SPD is not likely to significantly alter the extent or distribution of the habitats of Brent goose, dunlin, black-tailed godwit or red-breasted merganser via habitat loss, provided that the boundary of opportunity site 31 (Haslar Marina) is redrawn to specifically exclude the SPA/Ramsar.

6.3 Aquatic/Atmospheric Pollution during Construction

- 6.3.1 Six of the opportunity sites are within 50m of the harbour frontage or have known hydrological pathways to the SPA/Ramsar:
 - 28: Walpole Park Car Park Upper Level (Part)
 - 31: Haslar Marina;



- 44: Walpole Park (South);
- 47: Northern Ramparts;
- 48: Royal Clarence Yard (North); and
- > 49: South Street (West).
- 6.3.2 As mentioned above, Walpole Park (South) is currently in use as public open space and no significant development is proposed for this site. As a result, impacts from pollution during construction are unlikely. However, it is possible that any of the other sites may be affected by sources of contamination due to their current or historical uses, and their proximity to or hydrological connection with the SPA/Ramsar renders it possible that sources of pollution could be mobilised during remediation, demolition or construction.
- 6.3.3 It is recommended that potentially contaminated sites are subject to a desk-study and, if necessary, site investigation/remediation before development. Regardless of the potential for historical contaminants, a site-specific Construction Environmental Management Plan should be implemented for sites close to or hydrologically linked with the SPA/Ramsar to ensure that potential sources of pollution are adequately managed, including measures such as: use of interceptors/bunds; sealing of disused drain connections; temporary drainage and dewatering systems; best practice techniques for storage of fuels/chemicals/materials.
- 6.3.4 Provided that suitable measures are devised and implemented on site during construction, development of the sites as promoted by the WTC SPD is not likely to significantly undermine the supporting processes on which the habitats of Brent goose, dunlin, black-tailed godwit or red-breasted merganser rely.

6.4 Construction Noise, Construction Activity, Operational Activity, Shortened View-lines

- 6.4.1 These four impact pathways all operate via similar mechanisms whereby qualifying species are displaced from otherwise suitable habitats, thereby reducing individual survival rates and risking a population reduction, albeit that the cause, timing, longevity and scale of the impact will vary from site to site.
- 6.4.2 Table 6.1 examines each site with reference to the development proposals, its distance from the SPA/Ramsar or an Important Brent goose site, and adjacent topographic features, before concluding whether adverse effects on qualifying species are likely. Suitable mitigation for each site should be designed on a site-specific basis, taking account of the detailed proposals for the site and patterns of use of nearby habitats by the SPA species. However, a range of preliminary measures is listed in Table 6.1 for each site to demonstrate that predicted impacts are capable of being mitigated to avoid adverse effects on site integrity.
- 6.4.3 In summary, the majority of the opportunity sites are not predicted to result in adverse effects because they are either too distant from the SPA/Ramsar or an Important Brent goose site, or intervening topographic features would be likely to screen activities at the site, thereby preventing displacement impacts from occurring.



- 6.4.4 Four of the opportunity sites are much closer to the SPA/Ramsar or an Important Brent goose site but impacts are unlikely because of the very small scale nature of proposals for the site. These are listed below:
 - > 25: Gosport Town Hall
 - ▶ 40: Cultural Square
 - 43: Bastion Number 1
 - 45: Walpole Park (North)
- 6.4.5 Construction noise from two sites (10: Officers Houses; and 11: Mumby Road Lorry Park) could displace Brent geese from using Important site G03 (St George's Barracks Playing Field) due to their relative proximity and a general absence of existing topographic features which would dissipate noise impacts. Site 32 (Church Path Car Park) could displace qualifying species within the SPA/Ramsar at Cockle Pond for similar reasons.
- 6.4.6 A group of four sites close to the SPA/Ramsar at Cockle Pond are likely to result in adverse effects during construction due to the relative proximity of the sites to the SPA/Ramsar. The scale, form and massing of these developments will also require careful consideration to ensure there are no impacts via shortened view-lines. However, impacts as a result of operational activity are unlikely to be significant when viewed in the context of existing activities in Walpole Park and at Cockle Pond. These sites are listed below:
 - > 26: Gosport Town Hall Car Park
 - > 28: Walpole Park Car Park Upper Level
 - 44: Walpole Park (South)
 - 49: South Street (West)
- 6.4.7 The scale of impacts from development at site 9 (Royal Clarence Yard Retained Area) will depend on the nature of detailed proposals for the site, although it is understood that the site likely be used for new boat shed and workshop buildings. Construction noise could displace qualifying species from using SPA/Ramsar habitats around Burrow Island, and could potentially also affect Brent geese using site G03 although this is less likely. Construction and operational activity could adversely affect the SPA/Ramsar due to the site's open water frontage, while the scale, form and massing of developments will require careful consideration to ensure there are no impacts via shortened view-lines.
- 6.4.8 Similarly, development at site 31 (Haslar Marina), which is adjacent to the SPA/Ramsar at Haslar Lake, could adversely affect the site via construction noise, construction and operational activity, and shortened view-lines, dependent on the detailed nature of proposals.
- 6.4.9 The proposals for site 46 (St George Barracks Playing Field (Arden Park)) are fairly small scale but, as discussed above, include opening up currently inaccessible open space to future public access and include new pedestrian and cycle routes. The site contains Important Brent goose site G03 and as such it is possible that even small scale construction noise and activity could displace Brent geese from the site. As recommended in Table 6.1, depending on the precise proposals, mitigation should include adopting technologies with lower noise emissions or



timing the works to avoid the most sensitive periods, either by undertaking the works outside of the overwintering period (October to March) or at low tide so that Brent geese are less likely to be present within BG site G03.

- 6.4.10 Brent geese are relatively tolerant of disturbance. Stillman et al. (2011; Figure 12) found that Brent geese did not respond to a disturbance event in over 80% of instances recorded. Where there was a response, the disturbance effect tended to be greater for events which occurred closer to the birds, particularly for cyclists and walkers with dogs. It is recommended that disturbance/displacement from increasing public access to St George Barracks Playing Field is minimised by routeing the proposed new pedestrian/cycle path along the treeline at the western site boundary next to Spring Garden Lane. The pedestrian/cycle path should be screened with a low (1m high) wall or closed-board fence to further reduce the likelihood of dogs or cyclists disturbing Brent geese within the site while also ensuring the site retains its open aspect. Access to the site for dog-walkers should not be permitted during winter daylight hours at high tide when Brent geese are most likely to be present, although it may be more practicable to simply prevent dog-walkers from accessing the site during the winter months (October to March).
- 6.4.11 The proposals for site 47 (Northern Ramparts) are also fairly small scale but include opening up currently inaccessible open space to future public access with new pedestrian routes. The site is adjacent to the SPA/Ramsar at Forton Lake and only 15m north of Important Brent goose site G03. As such it is possible that even small scale construction noise and activity could result in displacement impacts, while the effects of increased public access will likely also require mitigation depending on the precise proposals.
- 6.4.12 In conclusion, provided that suitable measures are devised and implemented on site, such as those listed in Table 6.1, development of the sites as promoted by the WTC SPD is not likely to significantly alter the distribution of Brent goose, dunlin, black-tailed godwit or red-breasted merganser within the SPA/Ramsar or an Important Brent goose site.

6.5 Collision Mortality Risk

6.5.1 Landmark buildings are proposed at sites 3 (Gosport Marina) and 31 (Haslar Marina). Landmark buildings in these locations, if tall, could create the potential for collision risk and associated impacts. It is not currently known whether tall buildings will be proposed, however, the potential for effects on the SPA/Ramsar should be considered during detailed design and HRA at the planning application stage. Landmark buildings at the Bus Station (site 1) are less likely to present a significant issue due to the distance from the SPA/Ramsar, although the potential for them to impact upon birds commuting between foraging and roosting sites will still need to be considered at the detailed design stage and during HRA for any planning application.



Figure 6.2: Proposed locations for landmark buildings

Table 6.1: Opportunity sites and site-specific impacts

Assessment of Impacts via Construction Noise, Construction Activity, Operational Activity, Shortened View-lines
Site: 1: Gosport Bus Station and Falkland Gardens
Development proposals: multi-modal transport hub, taller buildings, residential, commercial, retail
Distance from SPA/Ramsar/Important BG site: 310m north-east of SPA at Haslar Lake, 640m south-east of SPA at Burrow Island, 590m east of BG site G03
Adjacent topography: open water to east, built development and open spaces to north, west and south
Construction noise: No; site is beyond impact distance (300m)
Construction activity: No; site is beyond impact distance (100m)
<u>Operational activity</u> : No; site is beyond impact distance (100m)
Shortened view-lines: No; site is within 500m of SPA at Cockle Pond / Haslar Lake, but openness of landscape is already affected by existing development
Mitigation: Not required
Site: 2: Endeavour Quay
Development proposals: retain as boatyard
Distance from SPA/Ramsar/Important BG site: 410m north-east of SPA at Cockle Pond, 550m south-east of SPA at Burrow Island, 550m east of BG site G03
Adjacent topography: jetties and pontoons to north and east, built development to west and south
Construction noise: No; site is beyond impact distance (300m)
Construction activity: No; site is beyond impact distance (100m)
<u>Operational activity</u> : No; site is beyond impact distance (100m)
Shortened view-lines: No; site is within 500m of SPA at Cockle Pond / Haslar Lake, but openness of landscape is already affected by existing development
Mitigation: Not required
Site: 3: Gosport Marina
Development proposals: retain existing marine and residential uses, high density residential to south
Distance from SPA/Ramsar/Important BG site: 370m north-east of SPA at Cockle Pond, 450m south-east of SPA at Burrow Island, 385m east of BG site G03
Adjacent topography: jetties and pontoons to north, built development to east, west and south
Construction noise: No; site is beyond impact distance (300m)
Construction activity: No; site is beyond impact distance (100m)



Assessment of Impacts via Construction Noise, Construction Activity, Operational Activity, Shortened View-lines

Operational activity: No; site is beyond impact distance (100m)

<u>Shortened view-lines</u>: No; site is within 500m of SPA at Cockle Pond / Haslar Lake / Burrow Island and BG site G03, but openness of landscape is already affected by existing development. In addition, existing site uses will largely be retained, and the proposed high density residential part of the site is >500m from SPA at Burrow Island

Mitigation: Not required

<u>Site</u>: 4: Gosport Boatyard

<u>Development proposals</u>: retain existing marine uses

Distance from SPA/Ramsar/Important BG site: 425m north of SPA at Cockle Pond, 400m south of SPA at Burrow Island, 320m east of BG site G03

Adjacent topography: jetties and pontoons to north, built development to east, west and south

<u>Construction noise</u>: No; site is beyond impact distance (300m)

<u>Construction activity</u>: No; site is beyond impact distance (100m)

<u>Operational activity</u>: No; site is beyond impact distance (100m)

<u>Shortened view-lines</u>: No; site is within 500m of SPA at Cockle Pond / Haslar Lake / Burrow Island and BG site G03, but openness of landscape is already affected by existing development. In addition, no development is proposed as existing site uses will be retained

Mitigation: Not required

<u>Site</u>: 5: West of Harbour Road

Development proposals: high density residential

Distance from SPA/Ramsar/Important BG site: 370m north of SPA at Cockle Pond, 490m south of SPA at Burrow Island, 380m east of BG site G03

Adjacent topography: jetties and pontoons to north, built development to east, west and south

<u>Construction noise</u>: No; site is beyond impact distance (300m)

<u>Construction activity</u>: No; site is beyond impact distance (100m)

<u>Operational activity</u>: No; site is beyond impact distance (100m)

Shortened view-lines: No; site is within 500m of SPA at Cockle Pond / Haslar Lake / Burrow Island and BG site G03, but openness of landscape is already affected

by existing development

Mitigation: Not required

Site: 6: Former Crewsaver site



Assessment of Impacts via Construction Noise, Construction Activity, Operational Activity, Shortened View-lines Development proposals: residential (under construction) Distance from SPA/Ramsar/Important BG site: 415m north of SPA at Cockle Pond, 400m south of SPA at Burrow Island, 290m east of BG site G03 Adjacent topography: jetties and pontoons to north, built development to east, west and south Construction noise: No; site is beyond impact distance (300m) to SPA. Within 300m of BG site G03 but existing built form would dissipate construction noise <u>Construction activity</u>: No; site is beyond impact distance (100m) Operational activity: No; site is beyond impact distance (100m) Shortened view-lines: No; site is within 500m of SPA at Cockle Pond / Haslar Lake / Burrow Island and BG site G03, but openness of landscape is already affected by existing development Mitigation: Not required Site: 7: Old School House Development proposals: residential; commercial uses also a possibility Distance from SPA/Ramsar/Important BG site: 385m north of SPA at Cockle Pond, 500m south of SPA at Burrow Island, 285m east of BG site G03 Adjacent topography: built development on all sides Construction noise: No; site is beyond impact distance (300m) to SPA. Within 300m of BG site G03 but existing built form would dissipate construction noise <u>Construction activity</u>: No; site is beyond impact distance (100m) Operational activity: No; site is beyond impact distance (100m) Shortened view-lines: No; site is within 500m of SPA at Cockle Pond / Haslar Lake / Burrow Island and BG site G03, but openness of landscape is already affected by existing development Mitigation: Not required Site: 8: Clarence Wharf (Mumby Road) Industrial Estate Development proposals: retain existing use, potential longer term residential use Distance from SPA/Ramsar/Important BG site: 355m north of SPA at Cockle Pond, 425m south of SPA at Burrow Island, 290m east of BG site G03 Adjacent topography: jetties and pontoons to north, built development to east, west and south Construction noise: No; site is beyond impact distance (300m) to SPA. Within 300m of BG site G03 but existing built form would dissipate construction noise <u>Construction activity</u>: No; site is beyond impact distance (100m) Operational activity: No; site is beyond impact distance (100m)



Assessment of Impacts via Construction Noise, Construction Activity, Operational Activity, Shortened View-lines

Shortened view-lines: No; site is within 500m of SPA at Cockle Pond / Haslar Lake / Burrow Island and BG site G03, but openness of landscape is already affected by existing development

Mitigation: Not required

Site: 9: Royal Clarence Yard Retained Area

Development proposals: MoD ownership, marine-led employment use following disposal

Distance from SPA/Ramsar/Important BG site: Pier at north-east corner is c.95m south of SPA at Burrow Island, 150m north-east of BG site G03

Adjacent topography: open water to north-east, built development to west, open spaces and roads to south-west

<u>Construction noise</u>: Yes, demolition and construction works are likely to displace qualifying species within the SPA at Burrow Island and potentially Brent geese using site G03

<u>Construction activity</u>: Yes, construction activity (at least at the north-east extremity of the site) could displace qualifying species within the SPA at Burrow Island <u>Operational activity</u>: Yes, operational activity (at least at the north-east extremity of the site) could displace qualifying species within the SPA at Burrow Island

Shortened view-lines: Yes, structures and landscape features could be likely to displace qualifying species within the SPA at Burrow Island

Mitigation:

<u>Construction noise</u>: Construction methods should adopt technologies with lower noise emissions (e.g. vibro-piling); Use of screening and sound barriers around construction site to dissipate noise; Very loud (>70dB) construction activities such as percussive piling should be programmed to avoid the most sensitive periods for the overwintering bird assemblage; Timing works to be undertaken outside of the overwintering period (October to March) so that SPA/Ramsar species are unlikely to be present in significant numbers; Timing works in the north-eastern part of the site to be undertaken at high tide so that SPA/Ramsar species are unlikely to be feeding in intertidal habitats around Burrow Island; Timing works in the south-western part of the site to be undertaken at low tide so that Brent geese are less likely to be feeding at BG site G03

<u>Construction activity</u>: Use of hoarding at the construction site boundary to screen activity within the site; Timing restrictions (seasonal and/or tidal state) are listed above in relation to construction noise

<u>Operational activity</u>: Use of close-board fencing, wall or landscape planting to screen waterfront activity (dog-walking, cycling, etc); Prevention of access to intertidal areas

<u>View-lines</u>: Design and layout of development to ensure buildings are adequately set back from waterfront, with building heights stepped down towards waterfront; Gaps between buildings should be maintained or designed into developments, or planted buffer zones created, to break-up continuous facades as viewed from the water

<u>Site</u>: 10: Officers Houses



Assessment of Impacts via Construction Noise, Construction Activity, Operational Activity, Shortened View-lines

Development proposals: conversion of existing buildings for commercial or residential use

Distance from SPA/Ramsar/Important BG site: 405m south-west of SPA at Burrow Island, 160m north-east of BG site G03

Adjacent topography: surface parking to north, marine uses to east, open spaces and roads to south and west

Construction noise: Yes, demolition and construction works could potentially displace Brent geese using site G03

<u>Construction activity</u>: No; site is beyond impact distance (100m)

<u>Operational activity</u>: No; site is beyond impact distance (100m)

<u>Shortened view-lines</u>: No; site is within 500m of SPA at Burrow Island and BG site G03, but openness of landscape is already affected by existing development <u>Mitigation</u>:

<u>Construction noise</u>: Construction methods should adopt technologies with lower noise emissions (e.g. vibro-piling); Use of screening and sound barriers around construction site to dissipate noise; Very loud (>70dB) construction activities such as percussive piling should be programmed to avoid the most sensitive periods for the overwintering bird assemblage; Timing works to be undertaken outside of the overwintering period (October to March) so that SPA/Ramsar species are unlikely to be present in significant numbers; Timing works to be undertaken at low tide so that Brent geese are less likely to be feeding at BG site G03

Site: 11: Mumby Road Lorry Park

Development proposals: retain existing use, potential longer term residential use

Distance from SPA/Ramsar/Important BG site: 425m south-west of SPA at Burrow Island, 125m north-east of BG site G03

Adjacent topography: built development, roads and open spaces

Construction noise: Yes, demolition and construction works could potentially displace Brent geese using site G03

Construction activity: No; site is beyond impact distance (100m)

<u>Operational activity</u>: No; site is beyond impact distance (100m)

<u>Shortened view-lines</u>: No; site is within 500m of SPA at Burrow Island and BG site G03, but openness of landscape is already affected by existing development <u>Mitigation</u>:

<u>Construction noise</u>: Construction methods should adopt technologies with lower noise emissions (e.g. vibro-piling); Use of screening and sound barriers around construction site to dissipate noise; Very loud (>70dB) construction activities such as percussive piling should be programmed to avoid the most sensitive periods for the overwintering bird assemblage; Timing works to be undertaken outside of the overwintering period (October to March) so that SPA/Ramsar species are unlikely to be present in significant numbers; Timing works to be undertaken at low tide so that Brent geese are less likely to be feeding at BG site G03

Site: 14: North Cross Street Car Parks

Development proposals: residential with retail at ground level



Assessment of Impacts via Construction Noise, Construction Activity, Operational Activity, Shortened View-lines Distance from SPA/Ramsar/Important BG site: 255m north of SPA at Cockle Pond, 605m south of SPA at Burrow Island, 225m east of BG site G03 Adjacent topography: built development on all sides Construction noise: No; site is within 300m of SPA at Cockle Pond and BG site G03 but existing built form would dissipate construction noise Construction activity: No; site is beyond impact distance (100m) Operational activity: No; site is beyond impact distance (100m) Shortened view-lines: No; site is within 500m of SPA at Cockle Pond and BG site G03, but openness of landscape is already affected by existing development Mitigation: Not required Site: 15: Masonic Hall Development proposals: residential Distance from SPA/Ramsar/Important BG site: 425m north of SPA at Cockle Pond, 490m south of SPA at Burrow Island, 180m east of BG site G03 Adjacent topography: built development on all sides Construction noise: No; site is beyond impact distance (300m) to SPA. Within 300m of BG site G03 but existing built form would dissipate construction noise Construction activity: No; site is beyond impact distance (100m) Operational activity: No; site is beyond impact distance (100m) Shortened view-lines: No; site is within 500m of SPA at Cockle Pond / Burrow Island and BG site G03, but openness of landscape is already affected by existing development Mitigation: Not required Site: 16: Clarence Road Public Car Park Development proposals: residential Distance from SPA/Ramsar/Important BG site: 390m north of SPA at Cockle Pond, 515m south of SPA at Burrow Island, 165m east of BG site G03 Adjacent topography: built development on all sides Construction noise: No; site is beyond impact distance (300m) to SPA. Within 300m of BG site G03 but existing built form would dissipate construction noise <u>Construction activity</u>: No; site is beyond impact distance (100m) Operational activity: No; site is beyond impact distance (100m) Shortened view-lines: No; site is within 500m of SPA at Cockle Pond and BG site G03, but openness of landscape is already affected by existing development Mitigation: Not required



Assessment of Impacts via Construction Noise, Construction Activity, Operational Activity, Shortened View-lines
Site: 21: Coates Road Car Park
Development proposals: residential
Distance from SPA/Ramsar/Important BG site: 185m north of SPA at Cockle Pond, 365m east of BG site G03
Adjacent topography: built development on all sides
Construction noise: No; site is within 300m of SPA at Cockle Pond but existing built form would dissipate construction noise
Construction activity: No; site is beyond impact distance (100m)
<u>Operational activity</u> : No; site is beyond impact distance (100m)
Shortened view-lines: No; site is within 500m of SPA at Cockle Pond and BG site G03, but openness of landscape is already affected by existing development
Mitigation: Not required
<u>Site</u> : 22: Waterside Church
Development proposals: retained or residential
Distance from SPA/Ramsar/Important BG site: 180m north of SPA at Cockle Pond, 345m east of BG site G03
Adjacent topography: built development on all sides
Construction noise: No; site is within 300m of SPA at Cockle Pond but existing built form would dissipate construction noise
Construction activity: No; site is beyond impact distance (100m)
Operational activity: No; site is beyond impact distance (100m)
Shortened view-lines: No; site is within 500m of SPA at Cockle Pond and BG site G03, but openness of landscape is already affected by existing development
Mitigation: Not required
Site: 23: Gosport Shopping Precinct
Development proposals: ground floor retail/commercial, residential above
Distance from SPA/Ramsar/Important BG site: 165m north of SPA at Cockle Pond, 300m east of BG site G03
Adjacent topography: built development on all sides
Construction noise: No; site is within 300m of SPA at Cockle Pond and BG site G03 but existing built form would dissipate construction noise
Construction activity: No; site is beyond impact distance (100m)
Operational activity: No; site is beyond impact distance (100m)
Shortened view-lines: No; site is within 500m of SPA at Cockle Pond and BG site G03, but openness of landscape is already affected by existing development



Assessment of Impacts via Construction Noise, Construction Activity, Operational Activity, Shortened View-lines
Mitigation: Not required
Site: 24: Police Station site
Development proposals: residential with some commercial at ground floor on South Cross Street
Distance from SPA/Ramsar/Important BG site: 110m north of SPA at Cockle Pond, 235m east of BG site G03
Adjacent topography: built development on all sides
Construction noise: No; site is within 300m of SPA at Cockle Pond and BG site G03 but existing built form would dissipate construction noise
Construction activity: No; site is beyond impact distance (100m)
Operational activity: No; site is beyond impact distance (100m)
Shortened view-lines: No; site is within 500m of SPA at Cockle Pond and BG site G03, but openness of landscape is already affected by existing development
Mitigation: Not required
<u>Site</u> : 25: Gosport Town Hall
Development proposals: consider opportunities to intensify uses within this site
Distance from SPA/Ramsar/Important BG site: 100m north of SPA at Cockle Pond, 170m south-east of BG site G03
Adjacent topography: Built development on all sides
<u>Construction noise</u> : No; focus is on intensification of existing uses with very little if any construction works proposed, and existing built landscape would dissipate construction noise
Construction activity: No; focus is on intensification of existing uses with very little if any construction works proposed, and existing built landscape would screen
construction activity
Operational activity: No; focus is on intensification of existing uses with very little if any construction works proposed, and existing built landscape would screen operational activity
Shortened view-lines: No; site is within 500m of SPA at Cockle Pond and BG site G03, but openness of landscape is already affected by existing development
Mitigation: Not required
<u>Site</u> : 26: Gosport Town Hall Car Park
Development proposals: long term opportunities to develop parts of the site for commercial and residential uses
Distance from SPA/Ramsar/Important BG site: 80m north of SPA at Cockle Pond, 220m south-east of BG site G03
Adjacent topography: built development on all sides



Assessment of Impacts via Construction Noise, Construction Activity, Operational Activity, Shortened View-lines

Construction noise: Yes, demolition and construction works are likely to displace qualifying species within the SPA at Cockle Pond

<u>Construction activity</u>: Yes, construction activity is likely to displace qualifying species within the SPA at Cockle Pond

Operational activity: Unlikely to be significant when viewed in context of existing activities in Walpole Park and at Cockle Pond

Shortened view-lines: Yes, structures and landscape features could be likely to displace qualifying species within the SPA at Cockle Pond

Mitigation:

<u>Construction noise</u>: Construction methods should adopt technologies with lower noise emissions (e.g. vibro-piling); Use of screening and sound barriers around construction site to dissipate noise; Very loud (>70dB) construction activities such as percussive piling should be programmed to avoid the most sensitive periods for the overwintering bird assemblage; Timing works to be undertaken outside of the overwintering period (October to March) so that SPA/Ramsar species are unlikely to be present in significant numbers; Timing works to be undertaken at low tide so that SPA/Ramsar species are less likely to be present at Cockle Pond <u>Construction activity</u>: Use of hoarding at the construction site boundary to screen activity within the site; Timing restrictions (seasonal and/or tidal state) are listed above in relation to construction noise

Operational activity: Not required

<u>View-lines</u>: Design and layout of development to ensure buildings are adequately set back from the SPA/Ramsar, with building heights stepped down towards the SPA/Ramsar; Gaps between buildings should be maintained or designed into developments, or planted buffer zones created, to break-up continuous facades as viewed from the SPA/Ramsar

Site: 27: Land to the rear of New Look

<u>Development proposals</u>: possible scope for a small residential building fronting South Street

Distance from SPA/Ramsar/Important BG site: 275m north-east of SPA at Cockle Pond / Haslar Lake, 530m south-east of BG site G03

Adjacent topography: built development, open space and surface parking

Construction noise: No; site is within 300m of SPA at Cockle Pond / Haslar Lake but existing built form would dissipate construction noise

<u>Construction activity</u>: No; site is beyond impact distance (100m)

<u>Operational activity</u>: No; site is beyond impact distance (100m)

Shortened view-lines: No; site is within 500m of SPA at Cockle Pond / Haslar Lake, but openness of landscape is already affected by existing development

Mitigation: Not required

<u>Site</u>: 28: Walpole Park Car Park Upper Level (Part)

<u>Development proposals</u>: retain existing use, potential longer term residential use

Distance from SPA/Ramsar/Important BG site: 45m north of SPA at Cockle Pond, 260m east of BG site G03



Assessment of Impacts via Construction Noise, Construction Activity, Operational Activity, Shortened View-lines

Adjacent topography: Open space and surface parking to south and west, built development to north and east

Construction noise: Yes, demolition and construction works are likely to displace qualifying species within the SPA at Cockle Pond

Construction activity: Yes, construction activity is likely to displace qualifying species within the SPA at Cockle Pond

Operational activity: Unlikely to be significant when viewed in context of existing activities in Walpole Park and at Cockle Pond

Shortened view-lines: Yes, structures and landscape features could be likely to displace qualifying species within the SPA at Cockle Pond

Mitigation:

<u>Construction noise</u>: Construction methods should adopt technologies with lower noise emissions (e.g. vibro-piling); Use of screening and sound barriers around construction site to dissipate noise; Very loud (>70dB) construction activities such as percussive piling should be programmed to avoid the most sensitive periods for the overwintering bird assemblage; Timing works to be undertaken outside of the overwintering period (October to March) so that SPA/Ramsar species are unlikely to be present in significant numbers; Timing works to be undertaken at low tide so that SPA/Ramsar species are less likely to be present at Cockle Pond <u>Construction activity</u>: Use of hoarding at the construction site boundary to screen activity within the site; Timing restrictions (seasonal and/or tidal state) are listed above in relation to construction noise

Operational activity: Not required

<u>View-lines</u>: Design and layout of development to ensure buildings are adequately set back from the SPA/Ramsar, with building heights stepped down towards the SPA/Ramsar; Gaps between buildings should be maintained or designed into developments, or planted buffer zones created, to break-up continuous facades as viewed from the SPA/Ramsar

Site: 31: Haslar Marina

Development proposals: waterfront pedestrian access, marine-led employment and mixed uses, retained existing uses (mixed residential and marine related)

Distance from SPA/Ramsar/Important BG site: adjacent to east of SPA at Haslar Lake, 465m south-east of BG site G03

Adjacent topography: open water and intertidal habitats to west, jetties/pontoons to south, open space and built development to north

Construction noise: Yes, demolition and construction works are likely to displace qualifying species within the SPA at Haslar Lake

Construction activity: Yes, construction activity is likely to displace qualifying species within the SPA at Haslar Lake

Operational activity: Yes, operational activity (including waterfront pedestrian access) is likely to displace qualifying species within the SPA at Haslar Lake

Shortened view-lines: Yes, structures and landscape features could be likely to displace qualifying species within the SPA at Haslar Lake

Mitigation:

<u>Construction noise</u>: Construction methods should adopt technologies with lower noise emissions (e.g. vibro-piling); Use of screening and sound barriers around construction site to dissipate noise; Very loud (>70dB) construction activities such as percussive piling should be programmed to avoid the most sensitive periods



Assessment of Impacts via Construction Noise, Construction Activity, Operational Activity, Shortened View-lines

for the overwintering bird assemblage; Timing works to be undertaken outside of the overwintering period (October to March) so that SPA/Ramsar species are unlikely to be present in significant numbers; Timing works to be undertaken at high tide so that SPA/Ramsar species are unlikely to be feeding in intertidal habitats in Haslar Lake

<u>Construction activity</u>: Use of hoarding at the construction site boundary to screen activity within the site; Timing restrictions (seasonal and/or tidal state) are listed above in relation to construction noise

<u>Operational activity</u>: Use of close-board fencing, wall or landscape planting to screen waterfront activity (dog-walking, cycling, etc); Prevention of access to intertidal areas

<u>View-lines</u>: Design and layout of development to ensure buildings are adequately set back from waterfront, with building heights stepped down towards waterfront; Gaps between buildings should be maintained or designed into developments, or planted buffer zones created, to break-up continuous facades as viewed from the water

In addition, the boundary of opportunity site 31 (Haslar Marina) should be redrawn to specifically exclude the SPA/Ramsar

Site: 32: Church Path Car Park

Development proposals: residential (terraced, with gardens)

Distance from SPA/Ramsar/Important BG site: 105m north-east of SPA at Cockle Pond, 460m south-east of BG site G03

Adjacent topography: built development and amenity open space to west, north, east and south, public open space to south-east, surface parking to south-west

Construction noise: Yes, demolition and construction works could be likely to displace qualifying species within the SPA at Cockle Pond

<u>Construction activity</u>: No; site is beyond impact distance (100m)

<u>Operational activity</u>: No; site is beyond impact distance (100m)

Shortened view-lines: No; site is within 500m of SPA at Cockle Pond and BG site G03, but scale of development (terraced housing with gardens) is commensurate with existing features and openness of landscape is already affected by existing development

Mitigation:

<u>Construction noise</u>: Construction methods should adopt technologies with lower noise emissions (e.g. vibro-piling); Use of screening and sound barriers around construction site to dissipate noise; Very loud (>70dB) construction activities such as percussive piling should be programmed to avoid the most sensitive periods for the overwintering bird assemblage; Timing works to be undertaken outside of the overwintering period (October to March) so that SPA/Ramsar species are unlikely to be present in significant numbers; Timing works to be undertaken at low tide so that SPA/Ramsar species are less likely to be present at Cockle Pond

Site: 33: Barclay House (extended area)

Development proposals: residential, revised parking and open space

Assessment of Impacts via Construction Noise, Construction Activity, Operational Activity, Shortened View-lines Distance from SPA/Ramsar/Important BG site: 145m north-east of SPA at Cockle Pond, 495m south-east of BG site G03 Adjacent topography: built development to west and north, public open space to south and east Construction noise: No; site is within 300m of SPA at Cockle Pond but existing built form would dissipate construction noise Construction activity: No; site is beyond impact distance (100m) Operational activity: No; site is beyond impact distance (100m) Shortened view-lines: No; site is within 500m of SPA at Cockle Pond and BG site G03, but openness of landscape is already affected by existing development Mitigation: Not required Site: 34: Area east of Barclay House Development proposals: residential, revised parking and open space Distance from SPA/Ramsar/Important BG site: 225m north-east of SPA at Haslar Lake, 615m south-east of BG site G03 Adjacent topography: built development to west and north, public open space and surface parking to south and east Construction noise: No; site is within 300m of SPA at Cockle Pond but existing built form would dissipate construction noise Construction activity: No; site is beyond impact distance (100m) Operational activity: No; site is beyond impact distance (100m) Shortened view-lines: No; site is within 500m of SPA at Haslar Lake, but openness of landscape is already affected by existing development Mitigation: Not required Site: 35: Area east of Hammond House Development proposals: residential, revised parking and open space Distance from SPA/Ramsar/Important BG site: 260m north-east of SPA at Cockle Pond / Haslar Lake, 610m south-east of BG site G03 Adjacent topography: build development, open space and surface parking Construction noise: No; site is within 300m of SPA at Cockle Pond / Haslar Lake but existing built form would dissipate construction noise Construction activity: No; site is beyond impact distance (100m) Operational activity: No; site is beyond impact distance (100m) Shortened view-lines: No; site is within 500m of SPA at Cockle Pond / Haslar Lake, but openness of landscape is already affected by existing development Mitigation: Not required Site: 36: Area west of Harbour Tower

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Assessment of Impacts via Construction Noise, Construction Activity, Operational Activity, Shortened View-lines
Development proposals: residential, revised parking and open space
Distance from SPA/Ramsar/Important BG site: 290m north-east of SPA at Cockle Pond / Haslar Lake, 650m south-east of BG site G03
Adjacent topography: build development, open space and surface parking
Construction noise: No; site is within 300m of SPA at Cockle Pond / Haslar Lake but existing built form would dissipate construction noise
<u>Construction activity</u> : No; site is beyond impact distance (100m)
<u>Operational activity</u> : No; site is beyond impact distance (100m)
Shortened view-lines: No; site is within 500m of SPA at Cockle Pond / Haslar Lake, but openness of landscape is already affected by existing development
<u>Mitigation</u> : Not required
Site: 38: Area east of Trinity Church Grounds
Development proposals: residential (terraced, with gardens)
Distance from SPA/Ramsar/Important BG site: 205m north-east of SPA at Haslar Lake, 625m south-east of BG site G03
Adjacent topography: open space to north, west and south, built development to east
Construction noise: No; site is within 300m of SPA at Haslar Lake but existing built form would dissipate construction noise
Construction activity: No; site is beyond impact distance (100m)
<u>Operational activity</u> : No; site is beyond impact distance (100m)
Shortened view-lines: No; site is within 500m of SPA at Haslar Lake, but openness of landscape is already affected by existing development
<u>Mitigation</u> : Not required
Site: 39: Area adjacent the Millennium Promenade
Development proposals: commercial and public realm
Distance from SPA/Ramsar/Important BG site: 270m north-east of SPA at Haslar Lake, 735m south-east of BG site G03
Adjacent topography: built development and open space to west, jetties/pontoons and open water to east
Construction noise: No; site is within 300m of SPA at Haslar Lake but existing built form would dissipate construction noise
Construction activity: No; site is beyond impact distance (100m)
<u>Operational activity</u> : No; site is beyond impact distance (100m)
Shortened view-lines: No; site is within 500m of SPA at Haslar Lake, but openness of landscape is already affected by existing development
Mitigation: Not required



Assessment of Impacts via Construction Noise, Construction Activity, Operational Activity, Shortened View-lines
Site: 40: Cultural Square
Development proposals: intensify use of Discovery Centre, Old Grammar School and outdoor areas
Distance from SPA/Ramsar/Important BG site: 80m north of SPA at Cockle Pond, 80m south-east of BG site G03
Adjacent topography: Built development on all sides, superstore to north-west
Construction noise: No; focus is on intensification of existing uses with very little if any construction works proposed, and existing built landscape would dissipate
construction noise
Construction activity: No; focus is on intensification of existing uses with very little if any construction works proposed, and existing built landscape would screen construction activity
Operational activity: No; focus is on intensification of existing uses with very little if any construction works proposed, and existing built landscape would screen operational activity
Shortened view-lines: No; site is within 500m of SPA at Cockle Pond and BG site G03, but openness of landscape is already affected by existing development
Mitigation: Not required
Site: 41: Potential to increase buildings heights in High Street
Development proposals: Multi-site town centre opportunities to provide additional office space, residential and/or hotel accommodation
Distance from SPA/Ramsar/Important BG site: 155m north of SPA at Cockle Pond, 130m east of BG site G03 (shortest distances)
Adjacent topography: built development on all sides
Construction noise: Within 300m of SPA at Cockle Pond / BG site G03 but existing built form would dissipate construction noise
<u>Construction activity</u> : No; site is beyond impact distance (100m)
<u>Operational activity</u> : No; site is beyond impact distance (100m)
Shortened view-lines: No; site is within 500m of SPA at Cockle Pond and BG site G03, but openness of landscape is already affected by existing development
Mitigation: Not required
Site: 43: Bastion Number 1
Development proposals: public realm and accessibility improvements with heritage and wildlife focus, including new pedestrian routes linking to adjacent routes
& areas
Distance from SPA/Ramsar/Important BG site: 85m east of SPA at Haslar Lake, 535m south-east of BG site G03
Adjacent topography: Haslar Road, surface parking and Haslar Marina to west, open space to north/north-east, jetties/pontoons to south-east

Assessment of Impacts via Construction Noise, Construction Activity, Operational Activity, Shortened View-lines

<u>Construction noise</u>: No; within 300m of SPA at Haslar Lake but very little if any construction works proposed, and existing built landscape would dissipate construction noise

<u>Construction activity</u>: No; within 100m of SPA at Haslar Lake but very little if any construction works proposed, and existing landscape would screen construction activity

Operational activity: No; within 100m of SPA at Haslar Lake but existing landscape would screen operational activity

Shortened view-lines: No; site is within 500m of SPA at Haslar Lake but very little if any development proposed, and openness of landscape is already affected by existing development

Mitigation: Not required

Site: 44: Walpole Park (South)

Development proposals: public realm improvements including new pedestrian routes linking to adjacent routes & areas

Distance from SPA/Ramsar/Important BG site: contains Cockle Pond part of SPA and adjacent to Haslar Lake, 125m south of BG site G03

Adjacent topography: not relevant as site contains and is adjacent to areas of SPA

<u>Construction noise</u>: Yes, although likely to be very small scale given the nature of proposals, demolition and construction works are likely to displace qualifying species within the SPA at Cockle Pond and Haslar Lake

<u>Construction activity</u>: Yes, although likely to be very small scale given the nature of proposals, construction activity is likely to displace qualifying species within the SPA at Cockle Pond and Haslar Lake

Operational activity: Unlikely to be significant when viewed in context of existing activities in Walpole Park and at Cockle Pond

Shortened view-lines: No, given the very small scale nature of proposals for the site

Mitigation:

<u>Construction noise</u>: Construction methods should adopt technologies with lower noise emissions (e.g. vibro-piling); Use of screening and sound barriers around construction site to dissipate noise; Very loud (>70dB) construction activities such as percussive piling should be programmed to avoid the most sensitive periods for the overwintering bird assemblage; Timing works to be undertaken outside of the overwintering period (October to March) so that SPA/Ramsar species are unlikely to be present in significant numbers; Timing works to be undertaken at low tide so that SPA/Ramsar species are less likely to be present at Cockle Pond

<u>Construction activity</u>: Use of hoarding at the construction site boundary to screen activity within the site; Timing restrictions (seasonal and/or tidal state) are listed above in relation to construction noise

<u>Operational activity</u>: Not required

View-lines: Not required



Assessment of Impacts via Construction Noise, Construction Activity, Operational Activity, Shortened View-lines

Site: 45: Walpole Park (North)

<u>Development proposals</u>: public realm improvements including new pedestrian & cycle routes linking to adjacent routes & areas

Distance from SPA/Ramsar/Important BG site: 70m north-west of SPA at Cockle Pond, 50m south of BG site G03

Adjacent topography: South Street and Walpole Park to the south, Walpole Road and Arden Park to the north

<u>Construction noise</u>: Unlikely to be significant given the scale of works proposed

<u>Construction activity</u>: Unlikely to be significant given the scale of works proposed

<u>Operational activity</u>: Unlikely to be significant given the scale of works proposed

Shortened view-lines: Unlikely to be significant given the scale of works proposed

Mitigation: Not required

<u>Site</u>: 46: St George Barracks Playing Field (Arden Park)

Development proposals: currently inaccessible open space, proposed future access including new pedestrian & cycle routes linking to adjacent routes & areas

Distance from SPA/Ramsar/Important BG site: 180m north-west of SPA at Cockle Pond, contains BG site G03

Adjacent topography: mainly open spaces and roads between site and SPA

<u>Construction noise</u>: Yes, although likely to be very small scale given the nature of proposals, demolition and construction works are likely to displace Brent geese using BG site G03

<u>Construction activity</u>: Yes, although likely to be very small scale given the nature of proposals, construction activity is likely to displace Brent geese using BG site G03

<u>Operational activity</u>: Yes, opening the site up for future public access, including new pedestrian/cycle routes, is likely to displace Brent geese using BG site G03 <u>Shortened view-lines</u>: No, given the very small scale nature of proposals for the site

Mitigation:

<u>Construction noise</u>: Construction methods should adopt technologies with lower noise emissions (e.g. vibro-piling); Use of screening and sound barriers around construction site to dissipate noise; Very loud (>70dB) construction activities such as percussive piling should be programmed to avoid the most sensitive periods for the overwintering bird assemblage; Timing works to be undertaken outside of the overwintering period (October to March) so that SPA/Ramsar species are unlikely to be present in significant numbers; Timing works to be undertaken at low tide so that Brent geese are less likely to be present within BG site G03

<u>Construction activity</u>: Use of hoarding at the construction site boundary to screen activity within the site; Timing restrictions (seasonal and/or tidal state) are listed above in relation to construction noise

Operational activity: Disturbance/displacement from operational activity should be minimised by routeing the proposed new pedestrian/cycle path along the



Assessment of Impacts via Construction Noise, Construction Activity, Operational Activity, Shortened View-lines

treeline at the western site boundary next to Spring Garden Lane; The pedestrian/cycle path should be screened with a low (1m high) wall or closed-board fence to further reduce the likelihood of dogs or cyclists disturbing Brent geese within the site while also ensuring the site retains its open aspect; Access to the site for dog-walkers should not be permitted during winter daylight hours at high tide when Brent geese are most likely to be present, although it may be more practicable to simply prevent dog-walkers from accessing the site during winter (October to March)

<u>View-lines</u>: Not required

Site: 47: Northern Ramparts

<u>Development proposals</u>: currently inaccessible open space, proposed future access with heritage and wildlife focus, incorporating a network of pedestrian routes linking to adjacent routes & areas

Distance from SPA/Ramsar/Important BG site: Adjacent to south of SPA at Forton Lake, 15m north of BG site G03

Adjacent topography: Mumby Road is the only feature separating the site from BG site G03

<u>Construction noise</u>: Yes, although likely to be very small scale given the nature of proposals, demolition and construction works are likely to displace qualifying species within the SPA at Forton Lake and potentially Brent geese using site G03

<u>Construction activity</u>: Yes, although likely to be very small scale given the nature of proposals, construction activity is likely to displace qualifying species within the SPA at Forton Lake and potentially Brent geese using site G03

<u>Operational activity</u>: Yes, opening the site up for future public access, including new pedestrian routes, is likely to displace qualifying species within the SPA at Forton Lake and potentially Brent geese using site G03

Shortened view-lines: No, given the very small scale nature of proposals for the site

Mitigation:

<u>Construction noise</u>: Construction methods should adopt technologies with lower noise emissions (e.g. vibro-piling); Use of screening and sound barriers around construction site to dissipate noise; Very loud (>70dB) construction activities such as percussive piling should be programmed to avoid the most sensitive periods for the overwintering bird assemblage; Timing works to be undertaken outside of the overwintering period (October to March) so that SPA/Ramsar species are unlikely to be present in significant numbers; Timing works in the northern part of the site to be undertaken at high tide so that SPA/Ramsar species are unlikely to be feeding in intertidal habitats at Forton Lake; Timing works in the southern part of the site to be undertaken at low tide so that Brent geese are less likely to be feeding at BG site G03

<u>Construction activity</u>: Use of hoarding at the construction site boundary to screen activity within the site; Timing restrictions (seasonal and/or tidal state) are listed above in relation to construction noise

<u>Operational activity</u>: Use of close-board fencing, wall or landscape planting to screen waterfront activity (dog-walking, cycling, etc) and prevent disturbance impacts to birds within the SPA at Forton Lake; Prevention of access to intertidal areas



Assessment of Impacts via Construction Noise, Construction Activity, Operational Activity, Shortened View-lines
<u>View-lines</u> : Not required
<u>Site</u> : 48N: Royal Clarence Yard (north)
Development proposals: residential use (permitted, not yet under construction)
Distance from SPA/Ramsar/Important BG site: n/a; site already has planning permission
Adjacent topography: n/a; site already has planning permission
Construction noise: n/a; site already has planning permission
Construction activity: n/a; site already has planning permission
<u>Operational activity</u> : n/a; site already has planning permission
Shortened view-lines: n/a; site already has planning permission
<u>Mitigation</u> : n/a; site already has planning permission
<u>Site</u> : 48S: Royal Clarence Yard (south)
Development proposals: residential use (permitted, not yet under construction)
Distance from SPA/Ramsar/Important BG site: n/a; site already has planning permission
Adjacent topography: n/a; site already has planning permission
Construction noise: n/a; site already has planning permission
Construction activity: n/a; site already has planning permission
Operational activity: n/a; site already has planning permission
Shortened view-lines: n/a; site already has planning permission
<u>Mitigation</u> : n/a; site already has planning permission
<u>Site</u> : 49: South Street (West)
Development proposals: potential longer term residential use
Distance from SPA/Ramsar/Important BG site: 40m north of SPA at Cockle Pond, 160m east of BG site G03
Adjacent topography: South Street, open space and surface parking to south and west, built development to north and east
Construction noise: Yes, demolition and construction works could be likely to displace qualifying species within the SPA at Cockle Pond
Construction activity: Yes, construction activity could be likely to displace qualifying species within the SPA at Cockle Pond
Operational activity: Unlikely to be significant when viewed in context of existing activities in Walpole Park and at Cockle Pond



Assessment of Impacts via Construction Noise, Construction Activity, Operational Activity, Shortened View-lines

<u>Shortened view-lines</u>: Yes, structures and landscape features could be likely to displace qualifying species within the SPA at Cockle Pond <u>Mitigation</u>:

<u>Construction noise</u>: Construction methods should adopt technologies with lower noise emissions (e.g. vibro-piling); Use of screening and sound barriers around construction site to dissipate noise; Very loud (>70dB) construction activities such as percussive piling should be programmed to avoid the most sensitive periods for the overwintering bird assemblage; Timing works to be undertaken outside of the overwintering period (October to March) so that SPA/Ramsar species are unlikely to be present in significant numbers; Timing works to be undertaken at low tide so that SPA/Ramsar species are less likely to be present at Cockle Pond <u>Construction activity</u>: Use of hoarding at the construction site boundary to screen activity within the site; Timing restrictions (seasonal and/or tidal state) are listed above in relation to construction noise

Operational activity: Not required

<u>View-lines</u>: Design and layout of development to ensure buildings are adequately set back from the SPA/Ramsar, with building heights stepped down towards the SPA/Ramsar; Gaps between buildings should be maintained or designed into developments, or planted buffer zones created, to break-up continuous facades as viewed from the SPA/Ramsar

6.6 Summary Assessment against Conservation Objectives: Portsmouth Harbour SPA/Ramsar

6.6.1 Taking account of incorporated mitigation measures (section 3.5), Table 6.2 presents a summary assessment of the SPD's proposals against the conservation objectives for Portsmouth Harbour SPA/Ramsar.

Table 6.2: Summary Assessment against Conservation Objectives: Portsmouth HarbourSPA/Ramsar

Conservation objective	Effects of plan proposals
The extent and distribution of the habitats of the qualifying features	No adverse effect predicted following mitigation, provided that the boundary of opportunity site 31 (Haslar Marina) is redrawn to specifically exclude the SPA/Ramsar
The structure and function of the habitats of the qualifying features	No adverse effect predicted following mitigation, provided that the boundary of opportunity site 31 (Haslar Marina) is redrawn to specifically exclude the SPA/Ramsar
Supporting processes on which habitats of the qualifying features rely	No adverse effect predicted following mitigation
The population of each of the qualifying features	No adverse effect predicted following mitigation
The distribution of the qualifying features within the site	No adverse effect predicted following mitigation

6.7 In Combination Effects

6.7.1 As the effects of SPD proposals are considered to be effectively avoided or cancelled by incorporated mitigation measures, there is no impact which could combine with the impacts of other plans and projects.
7 Determining Adverse Effects on Integrity

7.1 Introduction

- 7.1.1 Using the information presented in Chapters 5 and 6, the following sections consider whether there will be adverse effects on the integrity of the Portsmouth Harbour SPA/Ramsar.
- 7.1.2 English Nature (2004; now Natural England) has produced guidance on determining site integrity which includes a 'simple, pragmatic checklist' for assessing likely effects on integrity. This requires the assessor to pose a series of five questions to consider whether the Appropriate Assessment has shown:
 - > That the area of Annex 1 habitats (or composite features) will not be reduced?
 - That there will be no direct effect on the population of the species for which the site was designated or classified?
 - That there will be no indirect effects on the populations of species for which the site was designated due to loss or degradation of their habitat (quantity/quality)?
 - That there will be no changes to the composition of the habitats for which the site was designated (e.g. reduction in species structure, abundance or diversity that comprises the habitat over time)?
 - That there will be no interruption or degradation of the physical, chemical or biological processes that support habitats and species for which the site was designated or classified?
- 7.1.3 The guidance suggests that if the answer to all of these questions is 'Yes' then it is reasonable to conclude that there is not an adverse effect on integrity. If the answer is 'No' to one or more of the questions then further site-specific factors need to be considered in order to reach a decision. Such factors include:
 - Scale of impact;
 - Long term effects and sustainability;
 - Duration of impact and recovery/reversibility;
 - Dynamic systems;
 - Conflicting feature requirements;
 - Off-site impacts; and
 - Uncertainty in cause and effect relationships and a precautionary approach.
- 7.1.4 This two-step process is applied to determine whether there will be adverse effects on the European sites as a result of the Gosport Waterfront and Town Centre SPD.

7.2 Portsmouth Harbour SPA/Ramsar

Step-one tests

Has the Appropriate Assessment shown:	Y/N
That the area of annex I habitats (or habitats of qualifying features) will not be reduced?	Yes
That there will be no direct effect on the population of the species for which the site was designated or classified?	Yes
That there will be no indirect effects on the populations of species for which the site was designated or classified due to loss or degradation of their habitat (quantity/quality)?	Yes
That there will be no changes to the composition of the habitats for which the site was designated (eg reduction in species structure, abundance or diversity that comprises the habitat over time)?	Yes
That there will be no interruption or degradation of the physical, chemical or biological processes that support habitats and species for which the site was designated or classified?	Yes

7.2.1.1 Provided that the boundary of opportunity site 31 (Haslar Marina) is redrawn to specifically exclude the SPA/Ramsar, it can be concluded that there will be no adverse effects on the ecological integrity of Portsmouth Harbour SPA/Ramsar. The Gosport Waterfront and Town Centre SPD can be considered compliant with the Habitats Regulations in this respect.



8 Summary and Conclusions

8.1 Summary of Findings

- 8.1.1 This report presents the findings of the Habitats Regulations Assessment for the Gosport Waterfront and Town Centre SPD. It updates earlier work carried out in support of the SPD by re-screening each of the opportunity site proposals for likely significant effects on nearby European sites, and undertaking an Appropriate Assessment to determine whether there will be adverse effects on ecological integrity.
- 8.1.2 In summary, the HRA of the SPD finds that:
 - Taking account of incorporated mitigation measures, and provided that the boundary of opportunity site 31 (Haslar Marina) is redrawn to specifically exclude the SPA/Ramsar, it can be concluded that there will be no adverse effect on the integrity of Portsmouth Harbour SPA/Ramsar, either alone or in combination with other plans and projects; and
 - No effects on any other European sites were predicted.

8.2 Conclusion

8.2.1 The Gosport Waterfront and Town Centre SPD can be considered compliant with the Habitats Regulations with regards to Portsmouth Harbour SPA/Ramsar.



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Appendix I: Screening Matrix

Please see insert.



June 2017

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Gos	sport Waterfront & Town Centre SPD Screening Matrix		smouth Harbour S	smouth Harbour sar	nt & Dorset Coast A
#	Areas of Change & Opportunity Sites	Likely Significant Effects	Port	Port Ram	Sole pSP,
1	Bus Station and Falkland Gardens Gosport Bus Station and Falkland Gardens: multi-modal transport hub, landmark buildings residential, commercial, retail Cosport Wigterfront	Construction pollution; Shortened view-lines (500m only); Collision mortality risk	J	J	E
2	Endeavour Quay: retain as boatyard	Construction pollution; Shortened view-lines (500m only)	J	J	E
3	Gosport Marina: retain existing marine and residential uses, high density residential to south	Construction pollution; Shortened view-lines (500m only); Collision mortality risk	J	J	E
4	Gosport Boatyard: retain existing marine uses	Construction pollution; Shortened view-lines (500m only)	J	J	E
5	West of Harbour Road: high density residential	Construction pollution; Shortened view-lines (500m only)	J	J	E
6	Former Crewsaver site: residential (under construction)	Construction pollution; Construction noise (Important BG site); Shortened view-lines (500m only)	J	J	E
7	Old School House: residential	Construction noise (Important BG site); Shortened view-lines (500m only)	J	J	E
8	Clarence Wharf (Mumby Road) Industrial Estate: retain existing use, potential longer term residential use	Construction pollution; Construction noise (Important BG site); Shortened view-lines (500m only)	J	J	E
11	Mumby Road Lorry Park: retain existing use, potential longer term residential use	Construction noise (Important BG site); Shortened view-lines (500m only)	J	J	E
3. Royal Clarence Yard and Retained Area					
9	Royal Clarence Yard Retained Area: MoD ownership, marine-led employment use following disposal	Construction pollution; Construction activity; Construction noise; Operational activity; Shortened view-lines (200m & 500m)	J	J	E
10	Officers Houses: potential longer term commercial or residential use	Construction noise (Important BG site); Shortened view-lines (500m only)	J	J	E
48N	Royal Clarence Yard (north): residential use (permitted, not yet under construction)	Construction pollution; Construction activity; Construction noise; Operational activity; Shortened view-lines (200m & 500m)	J	J	E
48S	Royal Clarence Yard (south): residential use (permitted, not yet under construction)	Construction noise; Shortened view-lines (200m & 500m)	J	J	E
	4. North of High Street				
14	North Cross Street Car Parks: residential with retail at ground level	Construction noise; Shortened view-lines (500m only)	J	J	E
15	Masonic Hall: residential (permitted, not yet under construction)	Construction noise (Important BG site); Shortened view-lines (500m only)	J	J	E
16	Clarence Road Public Car Park: residential	Construction noise (Important BG site); Shortened view-lines	J	J	E
	5. High Street				
25	Gosport Town Hall: opportunities to intensify uses within this site	Construction activity; Construction noise; Operational activity; Shortened view-lines (200m & 500m)	J	J	E
40	Cultural Square: intensify use of Discovery Centre, Old Grammar School and outdoor areas	Construction activity; Construction noise; Operational activity; Shortened view-lines (200m & 500m)	J	J	E
41	Potential to increase buildings heights in High Street: to provide office space, residential and/or hotel	Construction noise; Shortened view-lines (200m & 500m)	J	J	Е

Gosport Waterfront & Town Centre SPD Screening Matrix

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Gosport Waterfront & Town Centre SPD Screening Matrix

#	Areas of Change & Opportunity Sites	Likely Significant Effects	Por	Por Ran	Sole pSF
	6. South Street				
21	Coates Road Car Park: residential	Construction noise; Shortened view-lines (200m & 500m)	J	J	E
22	Waterside Church: retained or residential	Construction noise; Shortened view-lines (200m & 500m)	J	J	E
23	Gosport Shopping Precinct: ground floor retail/commercial, residential above	Construction noise; Shortened view-lines (200m & 500m)	J	J	E
24	Police Station site: residential	Construction noise; Shortened view-lines (200m & 500m)	J	J	E
26	Gosport Town Hall Car Park: long term opportunities to develop parts of the site for commercial and residential uses	Construction activity; Construction noise; Operational activity; Shortened view-lines (200m & 500m)	J	J	E
35	Land to the rear of New Look: possible scope for a small residential building fronting South Street	Construction noise; Shortened view-lines (500m only)	J	J	E
28	Walpole Park Car Park Upper Level (Part): retain existing use, potential longer term residential use	Construction pollution; Construction activity; Construction noise; Operational activity; Shortened view-lines (200m & 500m)	J	J	E
49	South Street (West): potential longer term residential use	Construction pollution; Construction activity; Construction noise; Operational activity; Shortened view-lines (200m & 500m)	J	J	E
	7. Trinity Green Area				
32	Church Path Car Park: residential (terraced, with gardens)	Construction noise; Shortened view-lines (200m & 500m)	J	J	E
33	Barclay House (extended area): residential, revised parking and open space	Construction noise; Shortened view-lines (200m & 500m)	J	J	E
34	Area east of Barclay House: residential, revised parking and open space	Construction noise; Shortened view-lines (500m only)	J	J	E
35	Area east of Hammond House: residential, revised parking and open space	Construction noise; Shortened view-lines (500m only)	J	J	E
36	Area west of Harbour Tower: residential, revised parking and open space	Construction noise; Shortened view-lines (500m only)	J	J	E
38	Area east of Trinity Church Grounds: residential (terraced, with gardens)	Construction noise; Shortened view-lines (500m only)	J	J	E
39	Area adjacent the Millennium Promenade: commercial and public realm	Construction pollution; Construction noise; Shortened view-lines (500m only)	J	J	E
	8. Haslar Marina				
31	Haslar Marina: waterfront pedestrian access, marine-led employment and mixed uses, retained existing uses (mixed residential and marine related)	Habitat loss (possible mapping error); Construction pollution; Construction activity; Construction noise; Operational activity; Shortened view-lines (200m & 500m); Collision mortality risk	J	J	E
	9. Gosport Lines				
43	Bastion Number 1: public realm and accessibility improvements with heritage and wildlife focus, including new pedestrian routes linking to adjacent routes & areas	Construction pollution; Construction activity; Construction noise; Operational activity; Shortened view-lines (200m & 500m)	J	J	E
44	Walpole Park (South): public realm improvements including new pedestrian routes linking to adjacent routes & areas	Habitat loss (but no development proposed); Construction pollution; Construction activity; Construction noise; Operational activity; Shortened view-lines (200m & 500m)	J	J	E
45	Walpole Park (North): public realm improvements including new pedestrian & cycle routes linking to adjacent routes & areas	Construction activity; Construction noise; Operational activity; Shortened view-lines (200m & 500m)	J	J	E
46	St George Barracks Playing Field (Arden Park): currently inaccessible open space, proposed future access including new pedestrian & cycle routes linking to adjacent routes & areas	Habitat loss (Important BG site); Construction activity; Construction noise; Operational activity; Shortened view-lines (200m & 500m)	J	J	Е

Gosport Waterfront & Town Centre SPD Screening Matrix

Gos	sport Waterfront & Town Centre SPD Screening Matrix	ffooto	ortsmouth Harbour S	ortsmouth Harbour amsar	olent & Dorset Coast SPA	
#	Areas of change & Opportunity sites		Pc	д ⁸	р С	
47	focus, incorporating a network of pedestrian routes linking to adjacent routes & areas (200m & 500m)	ction activity; Construction noise; Operational activity; Shortened view-lines	J	J	Е	
			J	J	E	
			J	J	E	
Assess	sment Key					
А	General statement of policy / aspiration					
В	Policy listing general criteria for testing the acceptability / sustainability of proposals					
С	Proposal referred to but not proposed by the plan					
D	Environmental protection / site safeguarding policy					
E	Policy/proposal steers change in such a way as to protect European sites from adverse effects					
F	Policy that cannot lead to development or other change					
G	Policy/proposal that could not have any conceivable effect on a European site					
Н	Policy/proposal the (actual or theoretical) effects of which cannot undermine the conservation objectives (either alone or in combin	ation with other aspects of this or any other plan/project)				
l I	Policy/proposal with a likely significant effect on a European site alone					
J	Policy/proposal with an effect on a site but not likely to be significant alone; check for likely significant effects in combination					
K	Policy/proposal not likely to have a significant effect either alone or in combination (after the in combination test)		-			
L	Policy/proposal likely to have a significant effect in combination (after the in combination test)					

mouth Harbour SPA

Gosport Waterfront & Town Centre SPD Screening Matrix		smouth Harbour SPA	smouth Harbour Isar	nt & Dorset Coast A
# Areas of Change & Opportunity Sites	Likely Significant Effects	Por	Por	Sole
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