CSA environmental

Land East of Posbrook Lane,
Titchfield

Habitats Regulations Assessment

Prepared by
CSA Environmental

on behalf of
Foreman Homes

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1.0 INTRODUCTION

1.1 This document has been prepared by CSA Environmental on behalf of Foreman Homes, in relation to land east of Posbrook Lane, Titchfield (hereafter referred to as 'the Appeal Site') where planning permission is sought for a residential development (hereafter referred to as 'the Appeal Scheme'). The Appeal Site location is shown in Appendix A.

1.2 This document provides information to assist the Planning Inspectorate, as competent authority, in their consideration of whether the proposed development will have likely significant effects on European sites, and in ascertaining any adverse effects on their integrity, as required under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended). This process is commonly termed Habitats Regulations Assessment (HRA).

Project Background

1.3 An outline planning application was submitted to Fareham Borough Council in November 2019 in respect of the Appeal Site, seeking permission for the erection of up to 57 dwellings, together with associated parking, landscaping and access from Posbrook Lane (P/19/1193/OA).

1.4 The Officer's Report to Committee (dated 24 June 2020) recommended refusal of the outline application. At the time of writing there was no objection to the application from the Council's Ecologist, and no objection from Natural England (the Statutory Nature Conservation Board in England) subject to the "*Bird Conservation Area being appropriately secured and any positive nutrient budget being mitigated.*"

1.5 However, reasons for the recommendation for refusal included:

"e) In the absence of a legal agreement to secure such, the proposal fails to appropriately secure mitigation of the likely adverse effects on the integrity of European Protected Sites which, in combination with other developments, would arise due to the impacts of recreational disturbance;

f) In the absence of a legal agreement to secure such, the proposal fails to appropriately secure mitigation of the likely adverse effects on the integrity of European Protected Sites which would arise as a result of the loss of part of a Primary Support Area for Brent geese and waders;

g) In the absence of a legal agreement to secure such, the proposal fails to appropriately secure mitigation of the likely adverse effects on the integrity of European Protected Sites which, in combination with

other developments, would arise due to the additional generation of nutrients entering the water environment;"

1.6 The decision to refuse outline planning permission is being appealed to the Planning Inspectorate. As the decision-making authority, the Planning Inspectorate are the 'competent authority' in respect of Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended). This document can be described as a 'Shadow' HRA, providing all necessary information to the Inspector with which to make their assessment (pursuant to Regulation 63(2) of the above Regulations).

Summary of Applicable Legislation and Policy

1.7 All SACs and SPAs collectively form part of a European suite of sites known as Natura 2000 sites, and are afforded strict protection from the potentially damaging effects of human activities. For ease of reference here, and consistent with their treatment under UK government policy, sites designated by the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention, 1971), or 'Ramsar sites', are also referred to as European sites.

1.8 Article 6(3) of the Habitats Directive states that any plan or project likely to have a significant effect on a European site, either individually or in combination with other plans or projects, shall be subject to an Appropriate Assessment of its implications for the site in view of the site's conservation objectives.

1.9 In England and Wales, the Habitats Directive has been transposed into domestic legislation through the Conservation of Habitats and Species Regulations 2017 (as amended). These Regulations are widely referred to as the 'Habitat Regulations'. Regulation 63 of these Regulations states that, "*A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which (a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and (b) is not directly connected with or necessary to the management of that site, must make an appropriate assessment of the implications of the plan or project for that site in view of that site's conservation objectives.*" This assessment process is commonly referred to as 'Habitats Regulations Assessment' (HRA).

1.10 Further detail of the legislative and case law context, as well as national and local planning policies relevant to HRA, are provided within Appendix B. It should be noted that through the provisions of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, the Regulations retain all protections afforded to sites, habitats and species following the UK's departure from the European Union on 31st January 2020.

2.0 EXEMPTION, EXCLUSION AND ELIMINATION

2.1 It is necessary in the first instance to undertake preliminary screening to determine whether the proposed development is exempt, excluded or eliminated from the Regulation 63 requirements, and to refine which European site designations warrant further consideration. If the proposed development 'passes' any of the preliminary screening tests shown below in Table 1, then no further screening for likely significant effects is required.

Table 1: Preliminary Screening

Preliminary Screening Test	**Pass?**
Is the scheme directly connected with or necessary to the management of a European site for nature conservation purposes?	No
Is the proposed scheme the continuation, without material change, of ongoing activities not subject to any form of authorisation?	No
In light of the nature, scale, duration and location of the scheme, is it obvious that it could not have any conceivable effect on any European site?	No

2.2 In view of the final preliminary screening test in Table 1, it is the professional opinion of the author that the following European sites could conceivably be affected by the scheme, in view of its nature, scale, duration and location. These designations will therefore be screened for likely significant effects in Section 3 of this document.

- Solent and Southampton Water SPA (c. 550m south)
- Solent and Southampton Water Ramsar site (c. 550m south)
- Solent and Dorset Coast pSPA (marine component) (c. 2.7km south)
- Solent Maritime SAC (c. 3.4km west)
- Portsmouth Harbour SPA (c. 3.9km east)
- Portsmouth Harbour Ramsar site (c. 3.9km east)

2.3 Comprehensive details on the characteristics of the above European sites are presented in Appendix C. These characteristics form the basis of assessment and include their distances from the Appeal Site, component Sites of Special Scientific Interest (SSSIs), qualifying features, published conservation objectives and any known vulnerabilities or threats to their favourable conservation statuses.

3.0 SCREENING FOR LIKELY SIGNIFICANT EFFECTS

Potential Impact Pathways

3.1 In the context of the information on European site characteristics (Appendix C), potential impact pathways between the Appeal Scheme and the conservation objectives of the European sites identified in Section 2 of this report are screened below (Tables 2a-f).

3.2 Pathways are considered in Tables 2(a-f) on the basis of the Appeal Scheme *as proposed*, i.e. including any facets which, in addition/secondary to their primary purpose, may act to mitigate effects that might otherwise occur on European sites. However, in accordance with the 'People Over Wind' ruling of the CJEU (Case C-323/17), screening for likely significant effects takes place in the absence of measures specifically adopted to avoid or reduce harmful effects on European sites.

Table 2(a): Screening for Likely Significant Effects: Solent and Southampton Water SPA	
Any potential changes to the site or its qualifying features arising as a result of the following impact pathways:	
Land take by development within European site	None
Fragmentation of European site habitats	None
Increased mortality of key species	None
Disturbance to key species / deterioration of habitats within the European site	Possible
Disturbance to key species / deterioration of supporting habitats, beyond the European site	Possible
Atmospheric pollution/air quality	None
Changes to soil chemistry	None
Hydrological regime change	None
Pollution of surface/ground water	Possible
Those facets of the proposed development, or combination of facets, where the above effects have the potential to be significant, or where the scale or magnitude of effects is not known:	
Foul water discharges from the Appeal Scheme will be treated at the Peel Common Waste Water Treatment Works (WWTW). The WWTW are located within the catchment of the River Alver, which itself drains to the Solent at Stokes Bay. Although the SPA does not include Stokes Bay (see Appendix A), a physical connection is present to this and other European sites of the Solent, which are known to be vulnerable to nitrogen pollution (see Appendix C). The SPA is designated for its assemblage of overwintering and breeding water birds (see Appendix C). The Appeal Site is identified as a Primary	

Support Area under the Solent Water and Brent Goose Strategy. Land use change at the Appeal Site therefore has the potential to result in the loss or deterioration of supporting habitat sharing functional linkage with the SPA.

Overwintering birds are additionally susceptible to disturbance from human activity within the SPA (see Appendix C). Through increasing the human population local to the SPA, the Appeal Scheme could result in an increase in recreational pressure and associated disturbance of key species.

Table 2(b): Screening for Likely Significant Effects: Solent and Southampton Water Ramsar site	
Any potential changes to the site or its qualifying features arising as a result of the following impact pathways:	
Land take by development within European site	None
Fragmentation of European site habitats	None
Increased mortality of key species	None
Disturbance to key species / deterioration of habitats within the European site	Possible
Disturbance to key species / deterioration of supporting habitats, beyond the European site	None
Atmospheric pollution/air quality	None
Changes to soil chemistry	None
Hydrological regime change	None
Pollution of surface/ground water	Possible
Those facets of the proposed development, or combination of facets, where the above effects have the potential to be significant, or where the scale or magnitude of effects is not known:	
As described in Table 2(a), a physical connection is present to this and other European sites of the Solent, which are known to be vulnerable to nitrogen pollution (see Appendix C). Like the co-located SPA, the Ramsar site is designated in part in recognition of its internationally important assemblage of wintering birds (see Appendix C). As described in Table 2(a), land take at the Appeal Site has the potential to result in the loss or deterioration of supporting habitat sharing functional linkage with the Ramsar site. As described in Table 2(a), the Appeal Scheme could result in an increase in recreational pressure and associated disturbance of key species within the designation.	

Table 2(c): Screening for Likely Significant Effects: Solent and Dorset Coast pSPA (marine component	
Any potential changes to the site or its qualifying features arising as a result of the following impact pathways:	
Land take by development within European site	None
Fragmentation of European site habitats	None
Increased mortality of key species	None
Disturbance to key species / deterioration of habitats within the European site	None
Disturbance to key species / deterioration of supporting habitats, beyond the European site	None
Atmospheric pollution/air quality	None
Changes to soil chemistry	None
Hydrological regime change	None
Pollution of surface/ground water	None
Those facets of the proposed development, or combination of facets, where the above effects have the potential to be significant, or where the scale or magnitude of effects is not known:	
The pSPA is a marine designation proposed for the off-shore summer foraging areas used by internationally important populations of common, Sandwich and little terns (which breed in other, existing SPAs within the Greater Solent). No impact pathways have been identified. The qualifying features are vulnerable to off-shore activities, such as marine aggregate dredging and maintenance dredging disposal.	

Table 2(d): Screening for Likely Significant Effects: Solent Maritime SAC	
Any potential changes to the site or its qualifying features arising as a result of the following impact pathways:	
Land take by development within European site	None
Fragmentation of European site habitats	None
Increased mortality of key species	None
Disturbance to key species / deterioration of habitats within the European site	Possible
Disturbance to key species / deterioration of supporting habitats, beyond the European site	None
Atmospheric pollution/air quality	None
Changes to soil chemistry	None
Hydrological regime change	None
Pollution of surface/ground water	Possible
Those facets of the proposed development, or combination of facets, where the above effects have the potential to be significant, or where the scale or magnitude of effects is not known:	

As described in Table 2(a), a physical connection is present to this and other European sites of the Solent, which are known to be vulnerable to nitrogen pollution (see Appendix C).

Table 2(e): Screening for Likely Significant Effects: Portsmouth Harbour SPA	
Any potential changes to the site or its qualifying features arising as a result of the following impact pathways:	
Land take by development within European site	None
Fragmentation of European site habitats	None
Increased mortality of key species	None
Disturbance to key species / deterioration of habitats within the European site	Possible
Disturbance to key species / deterioration of supporting habitats, beyond the European site	None
Atmospheric pollution/air quality	None
Changes to soil chemistry	None
Hydrological regime change	None
Pollution of surface/ground water	Possible
Those facets of the proposed development, or combination of facets, where the above effects have the potential to be significant, or where the scale or magnitude of effects is not known:	
As described in Table 2(a), a physical connection is present to this and other European sites of the Solent, which are known to be vulnerable to nitrogen pollution (see Appendix C). Overwintering birds are additionally susceptible to disturbance from human activity within the SPA (see Appendix C). Through increasing the human population local to the SPA, the Appeal Scheme could result in an increase in recreational pressure and associated disturbance of key species.	

Table 2(f): Screening for Likely Significant Effects: Portsmouth Harbour Ramsar site	
Any potential changes to the site or its qualifying features arising as a result of the following impact pathways:	
Land take by development within European site	None
Fragmentation of European site habitats	None
Increased mortality of key species	None
Disturbance to key species / deterioration of habitats within the European site	Possible
Disturbance to key species / deterioration of supporting habitats, beyond the European site	None
Atmospheric pollution/air quality	None

Changes to soil chemistry	None
Hydrological regime change	None
Pollution of surface/ground water	Possible
Those facets of the proposed development, or combination of facets, where the above effects have the potential to be significant, or where the scale or magnitude of effects is not known:	
As described in Table 2(a), a physical connection is present to this and other European sites of the Solent, which are known to be vulnerable to nitrogen pollution (see Appendix C). As described in Table 2(e), the Appeal Scheme could result in an increase in recreational pressure and associated disturbance of key species within the designation.	

The Appeal Scheme Alone

3.3 In light of the foregoing, it can be concluded that the Appeal Scheme has the potential to result in a likely significant effect on the Solent and Southampton Water SPA and Ramsar site, through land take from functionally linked land, used by species forming qualifying features of the European sites as supporting habitat. As such, further Appropriate Assessment is required, including consideration of proposed measures intended to avoid or reduce effects, in order that it may ascertained whether the scheme will have any adverse effect on the integrity of the above European sites.

3.4 Two further potential impact pathways are identified in respect of the Appeal Scheme; (a) potential for increased nitrate pollution of the water environment arising from increases in foul water discharges (relevant to the Solent and Southampton Water SPA and Ramsar Site, Solent Maritime SAC and Portsmouth Harbour SPA and Ramsar site), and (b) potential for the resultant increase in local population to lead to a corresponding increase in recreational pressure and disturbance of key species within European sites (relevant to the Solent and Southampton Water SPA and Ramsar Site, and Portsmouth Harbour SPA and Ramsar site). These are, however, inherently diffuse and indirect impact pathways. In view of the Appeal Scheme's scale and location, it is not considered that they could, acting alone, manifest an effect of sufficient magnitude to appreciably undermine the conservation objectives (Appendix C) of the applicable European sites via these pathways.

3.5 No potential impact pathways have been identified in respect of the Solent and Dorset Coast pSPA (marine component), and this European site is screened out of further assessment.

The Appeal Scheme In Combination With Other Plans or Projects

3.6 Screening has identified a likely significant effect of the Appeal Scheme when considered in isolation, therefore it is not procedurally necessary to screen for likely significant effects in combination with other plans or projects, as further appropriate assessment (the test for adverse effects on integrity) has already been triggered. However, for completeness and clarity, impact pathways capable of resulting in a likely significant effect when considered in combination with other plans or projects are acknowledged here.

3.7 The Appeal Scheme will introduce additional overnight accommodation within the water catchment of the Solent. Published evidence has identified damage to the sensitive habitats of the Solent and its associated European sites as a result of elevated nutrient load in the water environment (principally nitrates), and their vulnerability to degradation as a result of further increases. While the increase in nitrate load directly deriving from foul water discharges from the Appeal Site would be unlikely to have any appreciable effect on the qualifying features of the European sites in isolation, these discharges could act in combination with further planned housing growth within the Solent catchment to produce potentially damaging increases in nitrate loading, leading to significant effects on the Solent and Southampton Water SPA and Ramsar Site, Solent Maritime SAC and Portsmouth Harbour SPA and Ramsar site.

3.8 A further implication of the increased human population within close proximity to the coastal European sites is the potential for increases in recreational pressure. Again, at 57 units the Appeal Scheme in isolation would be unlikely to produce a sufficient increase in recreation to have an appreciable effect on the qualifying features of the European sites. However, when viewed in the context of wider projected urban development within the catchment area from which the coastal sites draw recreational visitors, the Appeal Scheme could produce a likely significant effect in combination with other plans and projects.

4.0 APPROPRIATE ASSESSMENT

The Appeal Site

4.1 The Appeal Site comprises a plot of land immediately to the south of Titchfield Village accessed via Posbrook Lane, PO14 4JD (centred on OS grid reference SU537 051). The west of the site is bounded by Posbrook Lane, by residential houses to the north, by the Meon River to the east and by arable fields to the south.

4.2 The Appeal Site where referenced here-in refers to both the red line (c. 4ha) and 'blue land' to its south and east (c. 8.5ha), as shown in Appendix E.

4.3 An extended Phase 1 Habitat survey was undertaken at the Appeal Site in 2017 and updated in 2019[1], characterising the site as being dominated by species-poor semi-improved grassland managed as horse pasture, bound by mature tree lines and hedgerows, with areas of scattered scrub and tall ruderal vegetation. In addition, targeted baseline ecological survey work carried out at the Appeal Site by EcoSupport (2016-2017) has confirmed the presence of low numbers of common reptiles, a typical assemblage of bat species and the presence of hazel dormice (see above citation).

4.4 In addition, wintering bird surveys undertaken by ECOSA during the winter months of 2015-2016 and 2016-2017 recorded a peak of 31 black-tailed godwit and 5 Mediterranean gull using the site, confirming some usage by species which form qualifying species of the Solent and Southampton Water SPA.[2]

Potential Adverse Effects

Nitrate Pollution

4.5 It has been determined that residential development at the Appeal Site will lead to a direct increase in foul water effluent entering the local sewerage system, and that this is likely to result in an increase in nitrate loading within discharges from the applicable WWTW into the water environment.

4.6 In 2018 and 2019 Natural England undertook a number of condition assessments of the features of the designated European sites of the Solent, as well as the nationally designated SSSIs that underpin these international designations. The best available up-to-date evidence has

[1] EcoSupport, December 2019. Preliminary Ecological Appraisal: Land East of Posbrook Lane, Titchfield.
[2] ECOSA, May 2017. Wintering Bird Survey 2016-2017: Posbrook Lane, Titchfield, Hampshire.

identified that some interest features at the designated sites, such as intertidal mudflat habitats and the wildlife they support, are widely in unfavourable condition due to existing high levels of nutrients (such as nitrate), and are therefore at risk from additional nutrient inputs.[3]

4.7 Through their above cited published advice, Natural England (as Statutory Nature Conservation Board in England) has advised that there is a likely significant effect on several of the Solent's European sites due to the increase in wastewater from the new developments coming forward.

4.8 Foul water discharges from the Appeal Scheme will be treated at the Peel Common WWTW, within the catchment of the River Alver, which itself drains to the Solent at Stokes Bay. Although Stokes Bay is not itself directly covered by any of the European sites screened in for assessment, a physical connection and potential impact pathway is nevertheless present to the Solent and Southampton Water SPA and Ramsar site, Solent Maritime SAC and Portsmouth Harbour SPA and Ramsar site.

4.9 Natural England advise that one way to address the potential effects of new development on the European sites of the Solent via this pathway is for such to achieve 'nitrate neutrality'. However, applicable HRA case law (see Appendix B) makes clear that a competent authority can authorise a plan or project only after having first established certainty that the integrity of European sites will not be compromised. To assist in demonstrating the required certainty, Natural England have published a practical methodology for calculating the Nitrogen Budget of any given residential development. A completed Nitrogen Budget for the Appeal Scheme is provided at Appendix D.

4.10 The proposed number of units at the Appeal Site is 57, therefore at an assumed occupation of 2.4/dwelling, the Appeal Scheme would generate a total net population increase of 136.8 persons. With wastewater generation assumed at 110l/person/day, this equates to 15,048l/day of total wastewater likely to be generated by the Appeal Scheme.

4.11 The Peel Common WWTW has a permit limit of 9mg/l Total Nitrogen (TN); i.e. the maximum permissible discharge rate. Natural England advise that a reasonable worst case scenario for calculation of the Nitrogen Budget is to assume that a WWTW operates at 90% of its permit limit; in this case equating to 8.1mg/l TN. After deducting acceptable nitrogen loading from wastewater (6.1mg/l), this equates to 91792.8mg TN/day, or 33.5kg TN/year resulting from the Appeal Scheme via wastewater discharges.

[3] Natural England, June 2020. Advice on achieving nutrient neutrality for new development in the Solent region. Version 5.

4.12 To calculate the TN load that will result from a development, the above projected wastewater discharges are combined with the calculated net change in nitrogen leaching from existing to proposed land uses. The entirety of the 12.5ha Appeal Site is currently horse grazed lowland grassland, while the proposed land uses are c. 3ha urban area and c. 9.5ha ecological mitigation land (the 'Bird Conservation Area'; see below and Appendix E). Using the standardised leaching rates prescribed within the above cited Natural England guidance (based on modelled data representing the best available evidence) it can be calculated that nitrogen leaching from the Appeal Site would be reduced from 162.9kg/year to 90.83kg/year as a result of the Appeal Scheme.

4.13 When combined with the additional 33.5kg TN/year leaving the Peel Common WWTW, the 72.06kg/year reduction of nitrogen leaching from the Appeal Site generates a total nitrogen budget for the Appeal Scheme of -38.6. The Appeal Scheme can therefore be described as 'nitrate negative' (a betterment upon neutrality). As such, it can be ascertained that the Appeal Scheme will have no adverse effect on the integrity of the Solent and Southampton Water SPA and Ramsar site, Solent Maritime SAC or Portsmouth Harbour SPA and Ramsar site via the nitrate pollution impact pathway, either when considered alone or in combination with other plans or projects.

Supporting Habitat

4.14 It is important to recognise that the species which form qualifying features of spatial designations will not restrict their movements or activities to the confines of such a designated area, and that impacts which threaten the viability of a species population will by extension undermine the integrity of an associated designation, regardless of where said impacts occur. It has been determined that the Appeal Scheme has the potential to result in a likely significant effect on the Solent and Southampton Water SPA and Ramsar site through land-take from functionally linked land; occurring outside of, but used as supporting habitat by species forming qualifying features of, the European sites.

4.15 The Solent Waders and Brent Goose Strategy (SWBGS) is a conservation partnership project, which aims to conserve the internationally important brent goose and wading bird populations within and around the European sites of the Solent coast. In 2010 a new Solent-wide Strategy was published,[4] and an updated strategy is currently under preparation. The updated strategy will focus on understanding bird movements from the SPA to and between inland sites, based on survey

[4] King, D., 2010. Solent Waders and Brent Goose Strategy 2010. Hampshire and Isle of Wight Wildlife Trust.

data collected 2016-2019 to inform current use mapping. Current use mapping is available to view on the strategy, maps and data pages of the SWBGS website.[5] This is now based upon a new site classification system, following a metric-based analysis technique, as set out in the Interim Project Report.[6]

4.16 Under current SWBGS mapping the Appeal Site is identified by Site Code F48B. Under the classification system set out in the Interim Project Report, the Appeal Site is categorised as a Primary Support Area for bird populations which form qualifying features of the Solent and Southampton Water SPA and Ramsar site. Although raw survey data is not available from the SWBGS, data obtained by EcoSupport from the Hampshire Biodiversity Information Centre lists the following information for parcel F48B: max count 82, SPA score 3 and number of records 15.[7]

4.17 Primary Support Areas are, "*land that, when in suitable management, make an important contribution to the function of the Solent waders and brent goose ecological network*" through the provision of alternative roosting and foraging sites.[8] In doing so, such sites contribute to the achievement of the European sites' conservation objectives (see Appendix C). Land take for residential development, therefore, has the potential to undermine the conservation objectives for the Solent and Southampton Water SPA, thereby constituting an adverse effect on its integrity, in the absence of mitigation.

Recreational Pressure

4.18 Coastal habitats of mudflats, shingle and saltmarshes provide essential winter feeding and roosting grounds for wintering birds which form qualifying features of the various European sites; notably in the present context the Solent and Southampton Water SPA and Ramsar site and Portsmouth Harbour SPA and Ramsar site.

4.19 As identified in Appendix C, these sites are known to be vulnerable to the effects of human recreational activities. On publicly accessed sites birds may be more alert, resulting in a reduction in the amount of food eaten, or they may move away from the disturbance. A bird which moves away forgoes valuable feeding time whilst in the air and also uses energy in flying - a double impact on the bird's energy reserves. If the disturbance is substantial, then food-rich areas may be little used by the birds or avoided altogether, leading to other areas hosting a higher density of birds and intensifying the competition for the available food.

[5] https://solentwbgs.wordpress.com/
[6] Whitfield, D., 2019. Solent Waders and Brent Goose Strategy 2019 Interim Project Report: Year One. Hampshire and Isle of Wight Wildlife Trust. Curdridge.
[7] EcoSupport, December 2019. Preliminary Ecological Appraisal: Land East of Posbrook Lane, Titchfield.
[8] Solent Waders and Brent Goose Strategy Steering Group, October 2018. Solent Waders and Brent Goose Strategy Guidance on Mitigation and Off-setting Requirements. Final Report.

Extensive research, known as the Solent Disturbance Mitigation Project, was undertaken during 2009-2013 to assess the impact of recreational activity on wintering birds on the Solent coast. The research was coordinated by the Solent Forum, and included recording the response of birds to disturbance, face-to-face surveys of visitors at the coast and a postal survey of households living around the Solent.[9]

4.20 On the basis of this research, Natural England issued formal advice to the Solent local planning authorities in March 2013, stating that "*This follows the completion of Phase II of the Solent Disturbance and Mitigation Project (SDMP), which reported that there is a Likely Significant Effect associated with the new housing planned around the Solent. Natural England's advice is that the SDMP work represents the best available evidence, and therefore avoidance measures are required in order to ensure a significant effect, in combination, arising from new housing development around the Solent, is avoided.*"

4.21 The research evidence indicated that the significant majority (75%) of visitors to the Solent's coastal sites were resident within 5.6km (straight line distance) of the SPAs.[10] As the Appeal Site is located within c. 550m of the Solent and Southampton Water SPA and Ramsar site, and within c. 3.9km of the Portsmouth Harbour SPA and Ramsar site, it must be concluded that in the absence of mitigation the Appeal Scheme has the potential to adversely affect the integrity of these European sites, when viewed in combination with wider projected urban development within the coastal boroughs.

Mitigation Measures

Supporting Habitat

4.22 In respect of functionally linked land, which provides supporting habitat to the species of the Solent and Southampton Water SPA and Ramsar site, the Appeal Scheme makes provision for mitigation centred around provision of a Bird Conservation Area (BCA). For the absence of doubt, the location of the proposed BCA (which includes all 'blue land' as well as undeveloped land in the east of the red line area) is shown in Appendix E.

4.23 The approach to mitigation has been developed with reference to guidance published by the Solent Waders and Brent Goose Strategy Steering Group.[11] Commensurate with the outline nature of the Appeal Scheme, an Outline Proposal for the Bird Conservation Area has been

[9] Solent Bird Aware, December 2017. Solent Recreation Mitigation Strategy.
[10] Liley D & Tyldesley D, 2013. Solent Disturbance & Mitigation Project Phase III Towards an Avoidance and Mitigation Strategy. Paragraphs 7.28 – 7.30
[11] Solent Waders and Brent Goose Strategy Steering Group, October 2018. Solent Waders and Brent Goose Strategy Guidance on Mitigation and Off-setting Requirements. Final Report.

prepared (EcoSupport, October 2019; Appendix F), led by the following key design principles:

- The maintenance of clear sight and flight lines
- Minimisation of human disturbance (i.e. the BCA will not have a dual function as public open space)
- Provision of short grassland and seasonal wetland areas for bird feeding and roosting
- To ensure continued ecological functionality, capital works on the BCA will be completed prior to commencement of the residential development

4.24 It is intended that the submitted Outline Proposal provide an initial vision of the BCA, with further refinement and detail of both capital works and future management to be agreed with Fareham Borough Council and the future managing agent at the Reserved Matters planning stage. The Outline Proposal identifies that capital works will be the responsibility of the applicant, who will additionally provide funding via a commuted sum to an appropriate management organisation, for a management term of 80 years.

4.25 The Hampshire and Isle of Wight Wildlife Trust (HIWWT) has been approached as a suitable management organisation, and have provided written confirmation that, subject to finalising the contractual arrangements, the Trust would be willing to take on ownership and subsequent management of the BCA, and that this has been approved by the Trust's Board of Trustees. The HIWWT has also provided indicative costings for management. Please refer to written communication from John Durnell of HIWWT, dated 10/02/2020, provided as an extract within Appendix F.

4.26 As set out in the Outline Proposal, it is envisaged that a legal agreement would be put in place to enable 'step in rights' for Fareham Borough Council, in the unlikely event that the management organisation were not considered to be implementing the agreed management correctly.

4.27 In respect of the Outline Proposal for the BCA, the Hampshire County Council Senior Ecologist commented as follows at the application stage:[12]

"I agree that the fundamentals are acceptable which is provision of wetland features, continued management to ensure a short sward of grass and restricting public access to ensure no public disturbance of the overwintering birds. However, as the area to be retained and

[12] Hampshire County Council, 19 November 2019. Comments submitted by Maral Miri CEnv MCIEEM, Senior Ecologist, in respect of planning application P/19/1193/OA (Land East of Posbrook Lane, Titchfield).

enhanced for brent geese and waders is already classed as a 'Primary Support Area', it would be required to assess if the proposed enhancement measures are adequate to compensate for the loss of the Primary Support Area in the north-west. Therefore, it is considered necessary to consult Natural England. Once Natural England's approval for the proposed Bird Conservation Area is received, the LPA would be in a position to undertake an Appropriate Assessment to assess the likely significant effects of the proposed works on the Solent and Southampton Water SPA and Ramsar site."

4.28 Subsequent to this, a Natural England Sustainable Development Advisor commented as follows:[13]

"The BCA Addendum confirms that the area devoted to the Bird Conservation Area (BCA)…will not be physically severed by any fencing or access infrastructure associated with the attenuation pond. Natural England welcomes the confirmation that the Hampshire and Isle of Wight Wildlife Trust (HIWWT) are willing to take on ownership and management of the site in perpetuity. It is advised that recommendations and advice made in our previous response (letter dated 7th January 2020) regarding the management and enhancements for the site, including an agreement for 'step in rights', for Fareham Borough Council, are incorporated into the arrangement with the HIWWT.

Provided this arrangement is appropriately secured in perpetuity with any granting of permission, Natural England considers the continued ecological function of site F48B is maintained and would have no further concerns over this aspect of the proposals."

Recreational Pressure

4.29 Further to the above cited research into the effects of visitor pressures associated with urban development within the recreational catchments of the coastal SPA and Ramsar sites, a strategic approach to mitigation has been universally adopted by the affected local planning authorities, including Fareham Borough Council. This is centred around the collection of financial contributions from developers to fund the following interventions:[14]

- Establishment of a team of rangers
- Communications, marketing and education initiatives
- Initiatives to encourage responsible dog walking

[13] Natural England, 27 February 2020. Comments submitted by Becky Aziz ACIEEM, Sustainable Development Lead Advisor, in respect of planning application P/19/1193/OA (Land East of Posbrook Lane, Titchfield).
[14] Solent Bird Aware, December 2017. Solent Recreation Mitigation Strategy.

- Codes of conduct
- New/enhanced strategic greenspaces
- Site-specific visitor management and bird refuge projects
- Monitoring

4.30 The above interventions are fully costed under the 2017 Solent Recreation Mitigation Strategy, with tariffs revised each April in line with the Retail Prices Index. From 01 April 2020 financial contributions applicable to all new residential development are as follows:[15]

- 1 bedroom property £356
- 2 bedroom property £514
- 3 bedroom property £671
- 4 bedroom property £789
- 5 bedroom property £927
- Flat Rate £595 (where the number of bedrooms isn't known)

4.31 The Appellants will make the applicable financial contribution in accordance with the above tariff, thereby securing effective mitigation for the potential increase in recreational pressure.

Residual Effects on Site Integrity

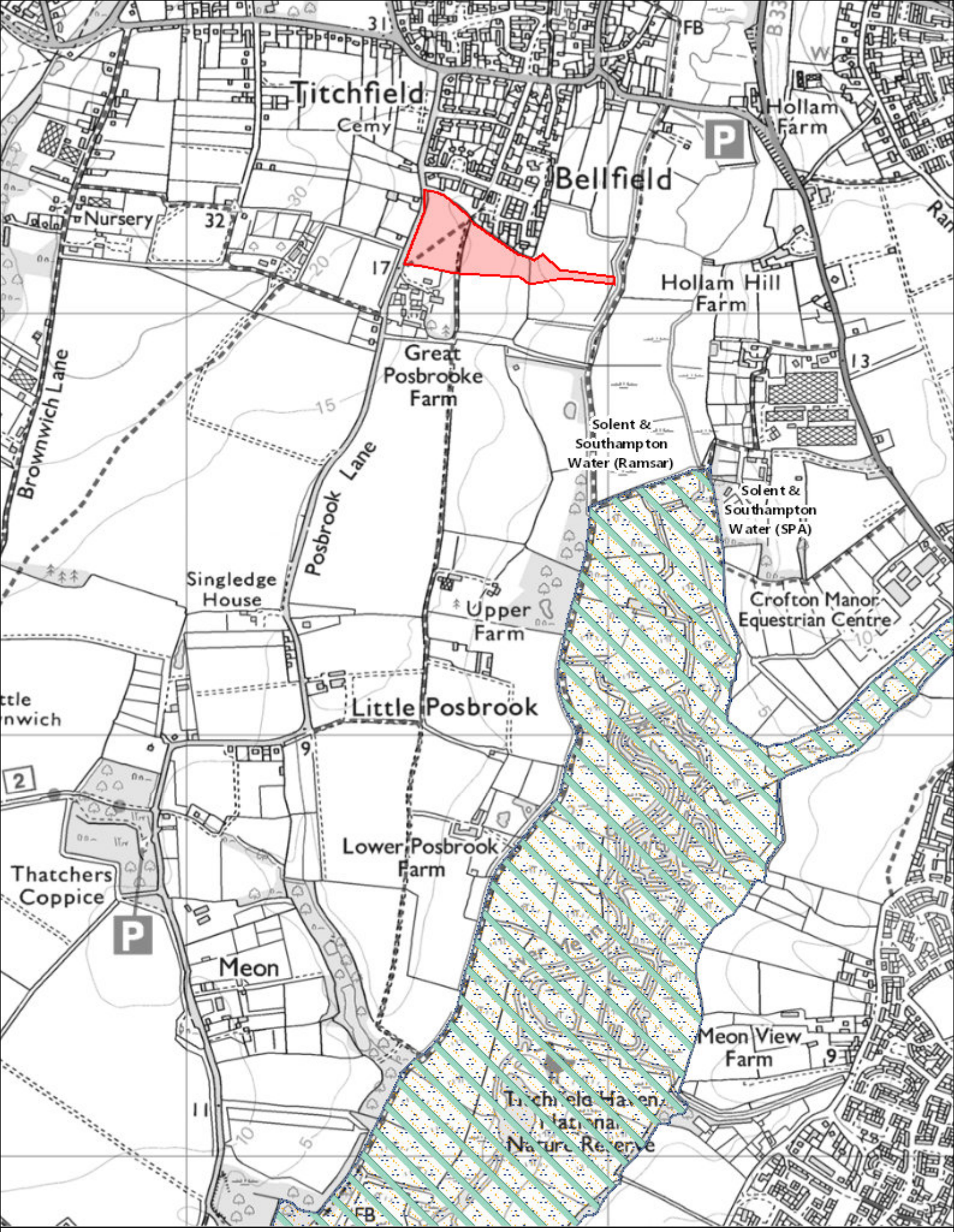
4.32 With implementation of the proposed measures intended to avoid or reduce adverse effects, i.e. establishment of the proposed Bird Conservation Area and the funding of strategic mitigation for recreational pressures, it can be concluded that the Appeal Scheme will have no adverse effect on the integrity of the Solent and Southampton Water SPA and Ramsar site, Solent Maritime SAC or Portsmouth Harbour SPA and Ramsar site.

4.33 These measures may readily be secured through appropriate legal mechanisms as part of a planning permission, therefore the Appeal Scheme may be allowed without conflict with the provisions of Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended).

[15] https://solent.birdaware.org/article/28101/Developer-contributions

Appendix A

Site Location



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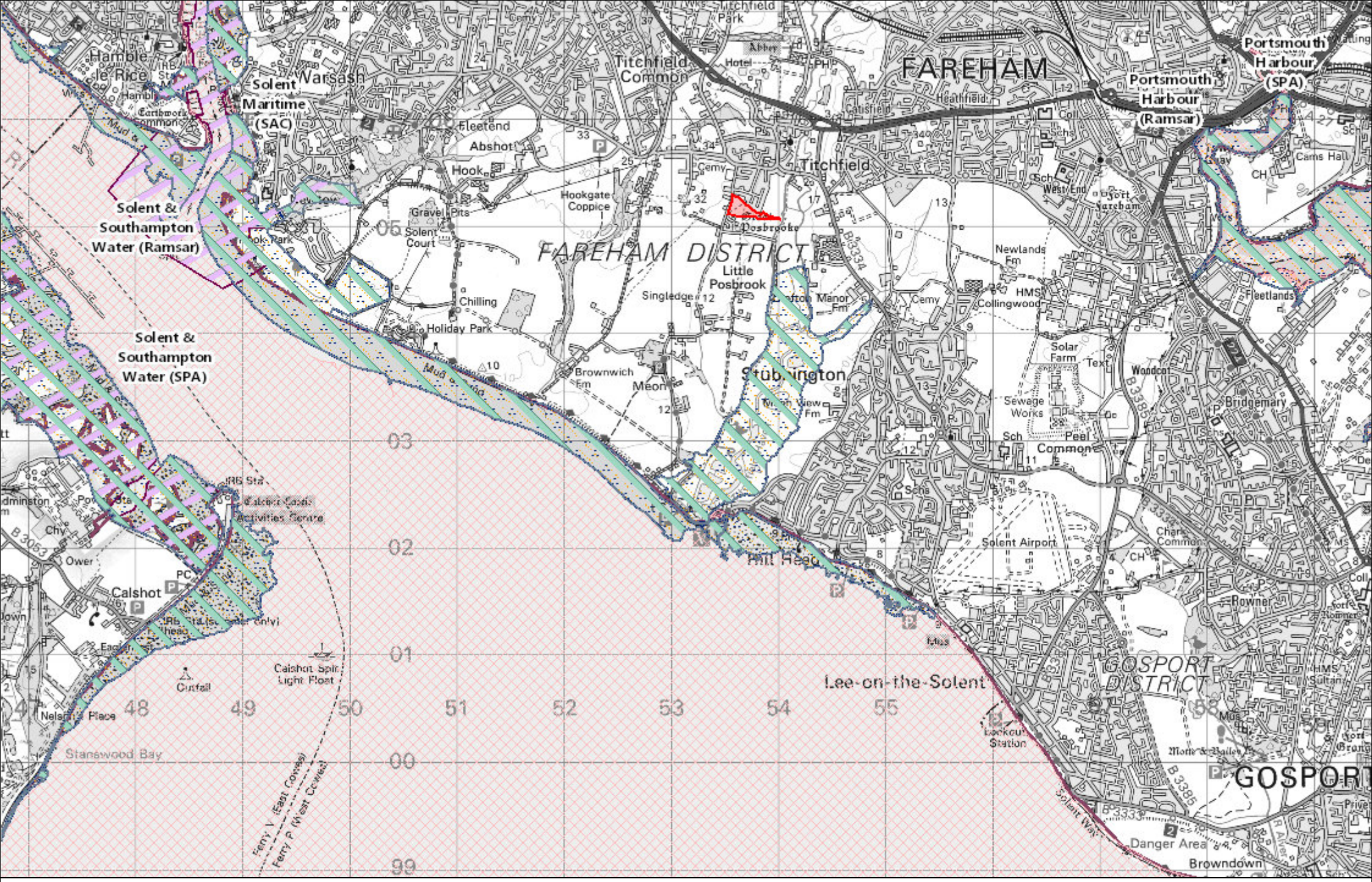
km



Map produced by MAGIC on 16 July, 2020.

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km

Appendix B

Legislation and Planning Context

European Sites

All SACs and SPAs collectively form part of a European suite of sites known as Natura 2000 sites, and are afforded strict protection from the potentially damaging effects of urban development.

Council Directive 92/43/EEC on the 'Conservation of Natural Habitats and of Wild Fauna and Flora', commonly referred to as the 'Habitats Directive', was adopted in 1992. This Directive is the means by which the European Union meets its obligations under the Bern Convention (1992) on the Conservation of European Wildlife and Natural Habitats. Under Article 2 of the Directive, Member States must take appropriate steps to avoid, in the case of SACs, the deterioration of natural habitats and the habitats of species, as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of the Directive. The Natura 2000 network also includes Special Protection Areas (SPAs) classified under Article 4 of Council Directive 79/409/EEC on the conservation of wild birds (the 'Birds Directive').

Article 6(3) of the Habitats Directive states that any plan or project likely to have a significant effect on a European site, either individually or in combination with other plans or projects, shall be subject to an appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of this assessment, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned.

In England and Wales, the Habitats Directive has been transposed into domestic legislation through the Conservation of Habitats and Species Regulations 2017 (as amended). These Regulations are widely referred to as the 'Habitat Regulations'. Regulation 63 of these Regulations sets out the assessment provisions. Specifically, Regulation 63(1) states that, "*A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which (a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and (b) is not directly connected with or necessary to the management of that site, must make an appropriate assessment of the implications of the plan or project for that site in view of that site's conservation objectives.*" This assessment process is commonly referred to as 'Habitats Regulations Assessment' (HRA).

Notable case law

Many important aspects of the Habitats Directive and how HRA is completed have been established through case law. A non-exhaustive summary of some of some key judgements is provided below:

In Relation to HRA Screening

Waddenzee (ECJ Case C-127/02; 07.09.04.)

This case considered when Appropriate Assessment might be triggered and concluded that it is required where there is a, "*probability or risk*," of significant effects, and that, "*such a risk exists if it cannot be excluded on the basis of objective information that the plan or project will not have significant effects on the site concerned*." The ruling clarifies that, "*in case of doubt as to the absence of significant effects such an assessment must be carried out*."

The ruling further states that, "in assessing the potential effects of a plan or project, their significance must be established in the light, inter alia, of the characteristics and species environmental conditions of the site concerned by that plan or project." As such, when assessing potential effects the current condition of the features for designation of a European site must be considered. Such information may be provided within, amongst other sources, published Condition Assessments of component Sites of Special Scientific Interest (SSSI's) and Site Improvement Plans (SIPs).

Boggis v Natural England (EWCA Civ 1061; 20.10.09.)

This case built upon guidance for the correct interpretation of what constitutes a 'likely' significant effect from that provided in Waddenzee. It was ruled that, "*Notwithstanding the word 'likely'...the precondition before there can be a requirement to carry out an appropriate assessment is not that significant effects are probable, a risk is sufficient...*" however this must be, "*real, rather than a hypothetical, risk…*"

People over Wind (CJEU Case C-323/17, 12.04.2018)

The recent 'People Over Wind' ruling determined whether mitigation measures may be considered when determining if a an effect is 'likely' and therefore whether it should be 'screened-in' for further assessment within the HRA process (i.e. be subject to Appropriate Assessment). Previously it has been established (R (Hart DC) v SSCLG; known as the 'Dilly Lane' decision) that any measures introduced to avoid or mitigate effects on a European sites could be considered in the initial screening stage. However, in the People Over Wind case the CJEU ruled that that such measures not be considered during HRA screening.

Paragraph 40: "…in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site."

In Relation to Appropriate Assessment

Waddenzee (ECJ Case C-127/02; 07.09.04)

Paragraph 59 of the ruling provides guidance on confidence thresholds in Appropriate Assessment, stating that, "An appropriate assessment of the

implications for the site concerned of the plan or project implies that prior to its approval, all the aspects of the plan or project which can…affect the site's conservation objectives must be identified in the light of the best scientific knowledge in the field. The competent national authorities, taking account of the conclusions of the appropriate assessment of the implications of [a project] for the site concerned, in light of the site's conservation objectives, are to authorise such activity only if they have made certain that it will not adversely affect the integrity of that site. That is the case where no reasonable scientific doubt remains as to the absence of such effects."

National Policy

The term 'European site' is widely used in reference to the network of SAC and SPA Natura 2000 sites. The National Planning Policy Framework establishes that sites designated by the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention, 1971), or 'Ramsar sites', as well as 'potential SPAs' and 'possible SACs', should be given the same protection as European sites.

At paragraph 177, the Framework establishes that the presumption in favour of sustainable development (also known as the 'tilted balance' in planning) does not apply where the plan or project is likely to have a significant effect on a European site, unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the European site.

Local Policy

The adopted Local Plan Part 2 sets out development management policies relevant to HRA in Fareham Borough. These are shown in Table C.1 below.

Table B.1 Summary of relevant local planning policies

Policy	Provisions
Policy DSP14: Supporting Sites for Brent Geese and Waders	Development on 'uncertain' sites for Brent Geese and/or Waders (as identified on the Policies Map or as updated or superseded by any revised plans, strategies or data) may be permitted where studies have been completed that clearly demonstrate that the site is not of 'importance'. Development on 'important' sites for Brent Geese and/or Waders, (as identified on the Policies Map or as updated or superseded by any revised plans, strategies or data) may be granted planning permission where: i. it can be demonstrated that there is no adverse impact on those sites; or ii. appropriate avoidance and/or mitigation measures to address the identified impacts, and a programme for the implementation of these measures, can be secured. Where an adverse impact on an 'important' site cannot be avoided or satisfactorily mitigated, an Appropriate Assessment will be required to determine whether or not the proposed development would have an adverse effect on the integrity of the Special Protection Areas supporting sites. Where an adverse effect

	on the integrity of a Solent Special Protection Area cannot be mitigated, planning permission is likely to be refused.
Policy DSP15: Recreational Disturbance on the Solent Special Protection Areas (SPA)	In Combination Effects on SPA: Planning permission for proposals resulting in a net increase in residential units may be permitted where 'in combination' effects of recreation on the Special Protection Areas are satisfactorily mitigated through the provision of a financial contribution that is consistent with the approach being taken through the Solent Recreation Mitigation Strategy. In the absence of a financial contribution toward mitigation, an Appropriate Assessment will be required to demonstrate that any 'in combination' negative effects can either be avoided or satisfactorily mitigated through a developer provided package of measures. Direct Effects on Special Protection Areas: Any application for development that is of a scale, or in a location, such that it is likely to have a direct effect on a European-designated site, will be required to undergo an individual Appropriate Assessment. This may result in the need for additional site-specific avoidance and/or mitigation measures to be maintained in perpetuity. Where proposals will result in an adverse effect on the integrity of any Special Protection Areas, planning permission will be refused.

Appendix C

European Site Characteristics

Table C.1. Site Characteristics of: **Solent and Southampton Water SPA**	
Distance and direction from Site	c. 550m south
Size	5401.12ha
Grid reference	SZ 452 975
Component SSSIs	Brading Marshes to St. Helen's Ledges SSSI Eling and Bury Marshes SSSI Hurst Castle and Lymington River Estuary SSSI Hythe to Calshot Marshes SSSI King's Quay Shore SSSI Lee-on-The Solent to Itchen Estuary SSSI Lincegrove and Hackett's Marshes SSSI Lower Test Valley SSSI Lymington River Reedbeds SSSI Medina Estuary SSSI Newtown Harbour SSSI North Solent SSSI River Test SSSI Ryde Sands and Wootton Creek SSSI Sowley Pond SSSI The New Forest SSSI Thorness Bay SSSI Titchfield Haven SSSI Upper Hamble Estuary and Woods SSSI Whitecliff Bay and Bembridge Ledges SSSI Yar Estuary SSSI

Qualifying features	• *Branta bernicla bernicla*; Dark-bellied brent goose (Non-breeding) • *Anas crecca*; Eurasian teal (Non-breeding) • *Charadrius hiaticula*; Ringed plover (Non-breeding) • *Limosa limosa islandica*; Black-tailed godwit (Non-breeding) • *Larus melanocephalus*; Mediterranean gull (Breeding) • *Sterna sandvicensis*; Sandwich tern (Breeding) • *Sterna dougallii*; Roseate tern (Breeding) • *Sterna hirundo*; Common tern (Breeding) • *Sterna albifrons*; Little tern (Breeding) • Waterbird assemblage
Published Conservation Objectives	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.
Known vulnerabilities	The following threats which could result from nearby development have been identified within the Site Improvement Plan (SIP) for the Solent[16], which deals with the Solent and Southampton Water SPA, Solent Maritime SAC and Portsmouth Harbour SPA, as well as the Chichester and Langstone Harbours SPA: • Public access/disturbance • Water pollution • Changes in species distributions • Invasive species • Direct land take from development

[16] Natural England. (2014). Site Improvement Plan: Solent. Available at: http://publications.naturalengland.org.uk/publication/4692013588938752

	• Air pollution (atmospheric nitrogen deposition) • Hydrological changes Relevant threats and pressures, each ranked as high, identified on the Standard Data Form for the SPA include: • Pollution to groundwater (point sources and diffuse sources) • Changes in abiotic conditions • Changes in biotic conditions • Outdoor sports and leisure activities, recreational activities In addition, published advice from Natural England based on recent research evidence has highlighted uncertainties concerning the impact of new development on nutrient loading in the water environment, principally through increases in foul water discharges, and the effect on the qualifying features of coastal Solent sites.

Table C.2. Site Characteristics of: **Solent and Southampton Water Ramsar site**	
Distance and direction from Site	c. 550m south
Size	5415ha
Grid reference	SZ 454 977
Component SSSIs	Brading Marshes to St. Helen's Ledges SSSI Eling and Bury Marshes SSSI Gilkicker Lagoon SSSI Hurst Castle and Lymington River Estuary SSSI Hythe to Calshot Marshes SSSI King's Quay Shore SSSI Lee-on-The Solent to Itchen Estuary SSSI

	Lincegrove and Hackett's Marshes SSSI Lower Test Valley SSSI Lymington River Reedbeds SSSI Lymington River SSSI Medina Estuary SSSI Newtown Harbour SSSI North Solent SSSI River Test SSSI Ryde Sands and Wootton Creek SSSI Sowley Pond SSSI The New Forest SSSI Thorness Bay SSSI Titchfield Haven SSSI Upper Hamble Estuary and Woods SSSI Whitecliff Bay and Bembridge Ledges SSSI Yar Estuary SSSI
Qualifying features	The Solent and Southampton Water Ramsar site qualifies under the following Ramsar criteria: • Ramsar Criterion 1: The site is one of the few major sheltered channels between a substantial island and mainland in European waters, exhibiting an unusual strong double tidal flow and has long periods of slack water at high and low tide. It includes many wetland habitats characteristic of the biogeographic region: saline lagoons, saltmarshes, estuaries, intertidal flats, shallow coastal waters, grazing marshes, reedbeds, coastal woodland and rocky boulder reefs. • Ramsar Criterion 2: The site supports an important assemblage of rare plants and invertebrates. At least 33 British Red Data Book invertebrates and at least eight British Red Data Book plants are represented on site. Ramsar Criterion 5: A mean peak count of waterfowl for the 5 year period of 1998/99 – 2002/2003 of 51,343

	• Ramsar Criterion 6: The site regularly supports more than 1% of the individuals in a population for the following species: Ringed Plover *Charadrius hiaticula*, Dark-bellied Brent Goose *Branta bernicla bernicla,* Eurasian Teal *Anas crecca* and Black-tailed Godwit *Limosa limosa islandica*.
Published Conservation Objectives	No specific conservation objectives are published in respect of Ramsar sites. For the purposes of assessment, the objectives of this site are taken to mirror those as set out in Table C.1., given the overlap of spatial area and special interest features.
Known vulnerabilities	No relevant threats or pressures are specifically listed on the Ramsar Information Sheet (RIS) for this designation, although discursive is devoted to the extent of recreation and tourism. For the purposes of assessment, the vulnerabilities of this site are taken to mirror those as set out in Table C.1., given the overlap of spatial area and special interest features.

Table C.3. Site Characteristics of: **Solent and Dorset Coast pSPA (marine component)**	
Distance and direction from Site	c. 2.7km south
Size	87,531.75ha
Grid reference	N/A
Component SSSIs	Numerous
Qualifying features	• Common tern (*Sterna hirundo*), Breeding • Little tern (*Sternula albifrons*), Breeding • Sandwich tern (*Sterna sandvicensis*), Breeding
Published Conservation Objectives	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.
Known vulnerabilities	Off-shore activities, such as marine aggregate dredging and maintenance dredging disposal.

Table C.4. Site Characteristics of: **Solent Maritime SAC**	
Distance and direction from Site	c. 3.4km west
Size	11243.12ha
Grid reference	SZ 610 994
Component SSSIs	Bouldnor and Hamstead Cliffs SSSI Chichester Harbour SSSI Eling and Bury Marshes SSSI Hurst Castle and Lymington River Estuary SSSI Hythe to Calshot Marshes SSSI King's Quay Shore SSSI Langstone Harbour SSSI Lee-on-The Solent to Itchen Estuary SSSI Lincegrove and Hackett's Marshes SSSI Lower Test Valley SSSI Medina Estuary SSSI Newtown Harbour SSSI North Solent SSSI Thorness Bay SSSI Upper Hamble Estuary and Woods SSSI Yar Estuary SSSI

Qualifying features	The Solent encompasses a major estuarine system with four coastal plan estuaries. Spartina swards (*Spartinion maritimae*), the only site where smooth cord-grass *Spartina alterniflors* is found in the UK and one of only two sites where significant amounts of *S. maritima* are found. The Solent contains the second-largest aggregation of Atlantic salt meadows in the south and south-west England. Other qualifying features present, but not primary reasons for selection of the site include: Sand banks which are slightly covered by sea water all the time, mudflats and sandflats not covered by seawater at low tide, coastal lagoons, annual vegetation of drift lines, perennial vegetation of stony banks, Salicornia and other annuals colonising mud and sand and shifting dunes long the shoreline with *Ammophila arenaria* (white dunes). The Annex II species Desmoulin's whorl snail *Vertigo moulinsiana* is also present.
Published Conservation Objectives	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats and habitats of qualifying species • The structure and function (including typical species) of qualifying natural habitats • The structure and function of the habitats of qualifying species • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site.
Known vulnerabilities	See Table C.1 for threats identified in the Site Improvement Plan for the Solent, and potential implications of nutrient loading.

Table C.5. Site Characteristics of: **Portsmouth Harbour SPA**	
Distance and direction from Site	c. 3.9km east
Size	1249.6ha
Grid reference	SU 616 035
Component SSSIs	Portsmouth Harbour SSSI
Qualifying features	• Dark-bellied brent goose, *Branta bernicla bernicla* (Non-breeding) • Red-breasted merganser *Mergus serrator* (Non-breeding) • Dunlin *Calidris alpina alpina* (Non-breeding) • Black-tailed godwit *Limosa limosa islandica* (Non-breeding)
Published Conservation Objectives	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.
Known vulnerabilities	See Table C.1 for threats identified in the Site Improvement Plan for the Solent. Relevant threats and pressures, each ranked as high, identified on the Standard Data Form for the SPA include: • Pollution to groundwater (point sources and diffuse sources) • Changes in abiotic conditions • Changes in biotic conditions • Outdoor sports and leisure activities, recreational activities

	Also as described in Table C.1, published advice from Natural England has highlighted uncertainties concerning the impact of new development on nutrient loading in the water environment through increases in foul water discharges.

Table C.6. Site Characteristics of: **Portsmouth Harbour Ramsar site**	
Distance and direction from Site	c. 3.9km east
Size	1248ha
Grid reference	SU 617 034
Component SSSIs	Portsmouth Harbour SSSI
Qualifying features	The mudflats support large beds of eelgrass *Zostera angustifolia* and *Z. noltii* and large numbers of phytoplankton. The saltmarshes contain *Spartina* with a sea couch *Elymus pycnanthus* zone above the high water mark. The channel is a nursery for sea bass *Dicentrarchus labrax*. The estuary regularly supports an internationally important wintering population of *Branta bernicla bernicla*. In the five winter period 1986/87-1990/91, an average peak count of over 2,290 birds was recorded. The area also supports nationally important numbers of the following species (figures given are average peak counts for the five year winter period between 1986/87 - 1990/91): *Calidris alpina* (8,010), *Limosa limosa* (70) and *Mergus serrator* (100). (Criteria 2b,3c).
Published Conservation Objectives	No specific conservation objectives are published in respect of Ramsar sites. For the purposes of assessment, the objectives of this site are taken to mirror those as set out in Table C.5., given the overlap of spatial area and special interest features.
Known vulnerabilities	No relevant threats or pressures are specifically listed on the Ramsar Information Sheet (RIS) for this designation, although discursive is devoted to the extent of recreation and tourism. For the purposes of assessment, the vulnerabilities of this site are taken to mirror those as set out in Table C.5., given the overlap of spatial area and special interest features.

Appendix D

Nitrogen Budget

Nitrogen Budget Calculation

Planning Application Reference No.	APP/A1720/W/20/3254389
Site Name:	Land east of Posbrook Lane, Titchfield

Additional Information:

The below calculation has been made as part of a shadow HRA appropriate assessment exercise in respect of the above appeal scheme, and will form an appendix to document CSA/4084/03. The spatial areas cited below relate to the 'red' and 'blue line' areas of the Appeal site, with the former being the developable area and the later representing the footprint of the proposed open space and Bird Conservation Area.

Date:	**03 August 2020**

Stage 1 — Calculate total Nitrogen in kg per year derived from the development that would exit the Wastewater Treatment Works (WwTW) into Solent catchments after treatment

Step 1 — Calculate additional population

Enter the number of units proposed	**57**
Net population increase per housing unit	**2.40**
Total net population increase generated by the development	**136.80**

Step 2 — Calculate wastewater volume generated by the development

Water use in litres per person per day	**110**
Total wastewater volume generated by the development (litres per day)	**15,048**

Step 3 — Confirm receiving WwTW and permit limit

Select the wastewater treatment works the development will connect to	**Peel Common**
Wastewater treatment works' permit limit (mg per litre)	**9.0**
Wastewater treatment works' discharge level (mg per litre)	**8.1**

Step 4 — Calculate total nitrogen in kg per year discharged by the WwTW

Deduct acceptable Nitrogen loading in wastewater (mg per litre)	**6.1**
Total Nitrogen discharged by WwTW (mg per day)	**91,792.8**
Total Nitrogen discharged by WwTW (kg per day)	**0.0918**
Total Nitrogen discharged by WwTW (kg per year)	**33.5**

Stage 2 — Calculate existing (pre-development) nitrogen from current land use of the development site

Step 1 — Total area of development site

Enter the total area of the development site (hectares)	**12.53**

Step 2 — Identify current land uses of the development site

Enter area currently used for urban development (hectares)	**0.00**
Enter area currently used for open space / greenfield (hectares)	**0.00**
Enter area currently used for woodland (hectares)	**0.00**
Enter area currently used for community food growing / catchment average (hectares)	**0.00**
Enter area currently used for cereals (hectares)	**0.00**
Enter area currently used for dairy (hectares)	**0.00**
Enter area currently used for general cropping (hectares)	**0.00**
Enter area currently used for horticulture (hectares)	**0.00**
Enter area currently used for pig farming (hectares)	**0.00**
Enter area currently used for lowland grazing (hectares)	**12.53**
Enter area currently used for mixed farming (hectares)	**0.00**
Enter area currently used for poultry farming (hectares)	**0.00**
Check to help ensure that sum total of land uses in Step 2 equals site area in Step 1	**12.5**

Step 3 — Calculate nitrogen load from current land usage

Total Nitrogen load from current land usage (kg per year)	**162.9**

Nitrogen Budget Calculation

Stage 3 Calculate nitrogen load for the non-built land uses proposed for the development site

Step 1 Identify proposed land uses of the development site

Enter the total urban area to be created (hectares)	3.03
Enter the total designated open space / SANG area to be created (hectares)	9.50
Enter the total nature reserve area to be created (hectares)	0.00
Enter the total woodland area to be created (hectares)	0.00
Enter the total community orchard area to be created (hectares)	0.00
Enter the total community food growing / allotment area to be created (hectares)	0.00
Check to help ensure that sum total of proposed land uses equals site area in Stage 2	12.53

Step 2 Calculate total Nitrogen load from proposed land uses

Total Nitrogen load from future land uses (kg per year)	90.83

Stage 4 Calculate the net change in Nitrogen load from the proposed development

Step 1 Identify Nitrogen load from wastewater (Stage 1)

Nitrogen leaving wastewater treatment works (kg per year)	33.50

Step 2 Calculate net change in Nitrogen load from land use changes

Total Nitrogen load from future land use (kg per year)	-72.06

Step 3 Calculate total Nitrogen budget for the development site

Nitrogen budget for the site (kg per year)	-38.56

Step 4 Calculate precautionary buffer if Nitrogen budget exceeds zero

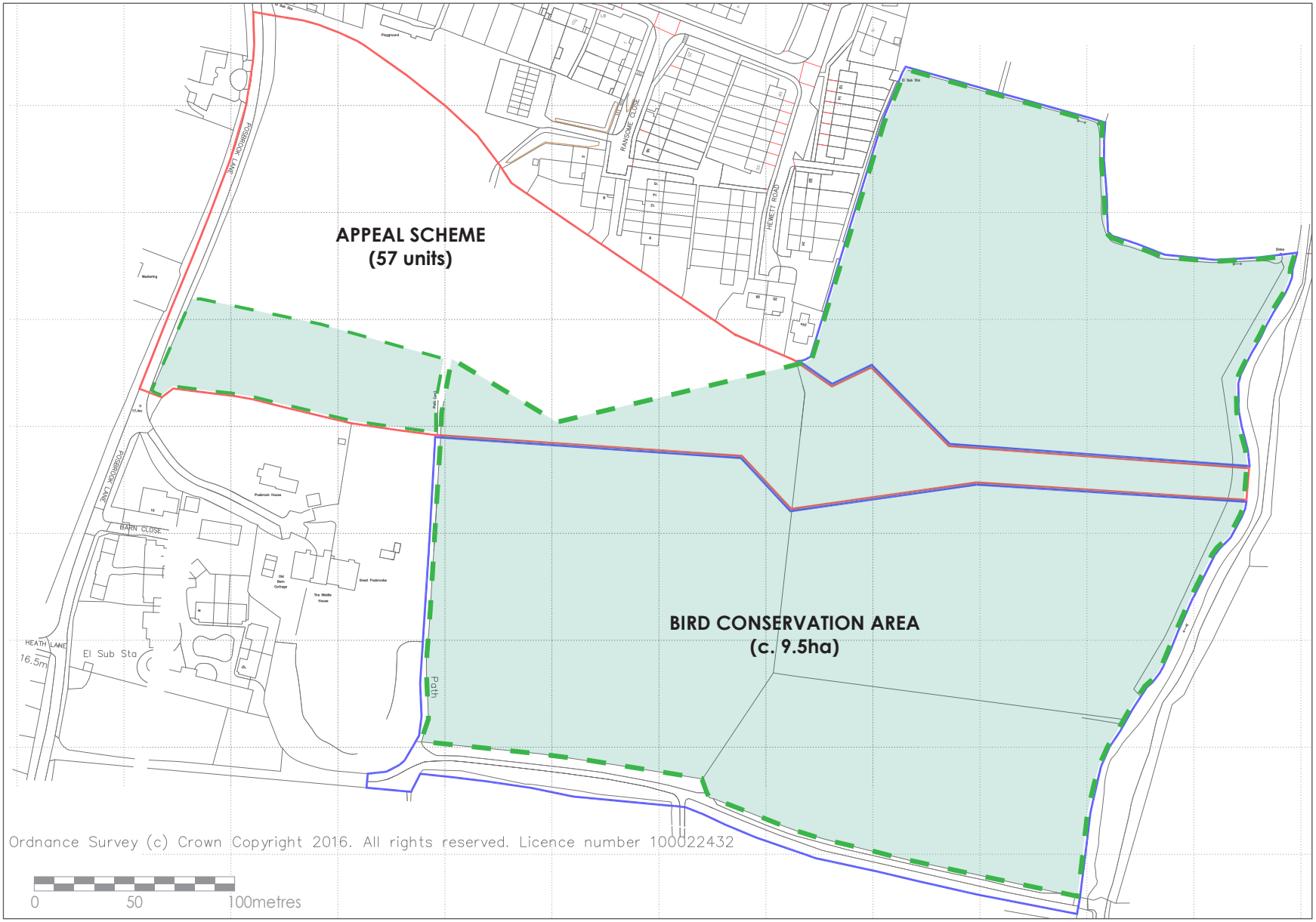
Precautionary Nitrogen buffer (kg per year)	0.00

Total Nitrogen budget for the proposed development (kg per year)	**-38.6**

Development will be Nitrogen neutral - no mitigation will be required

Appendix E

Bird Conservation Area Spatial Plan



CSA environmental

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Project	Land at Posbrook Lane, Titchfield	Date	August 2020	Drawing No.	CSA/4084/100
Drawing Title	Bird Conservation Area Spatial Plan	Scale	Refer to scale	Rev	-
Client	Foreman Homes Ltd	Drawn	AP	Checked	MR

Appendix F

Outline Proposal for Bird Conservation Area
(and associated correspondence)

ecosupport

PROFESSIONAL ECOLOGICAL SOLUTIONS

ECOLOGY

TREE PROTECTION FENCING

SITE PREPARATION & CLEARANCE

HABITAT MANAGEMENT & ENHANCEMENT

Report	Outline Proposal for BCA
Site Name	Land East of Posbrook Lane, Titchfield
Author(s)	Adam Jessop BSc (Hons) MSc & Dean Swensson
Client	Foreman Homes Ltd
Date of Issue	28th October 2019
Status	Updated for new layout

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CONTENTS

1.0 INTRODUCTION

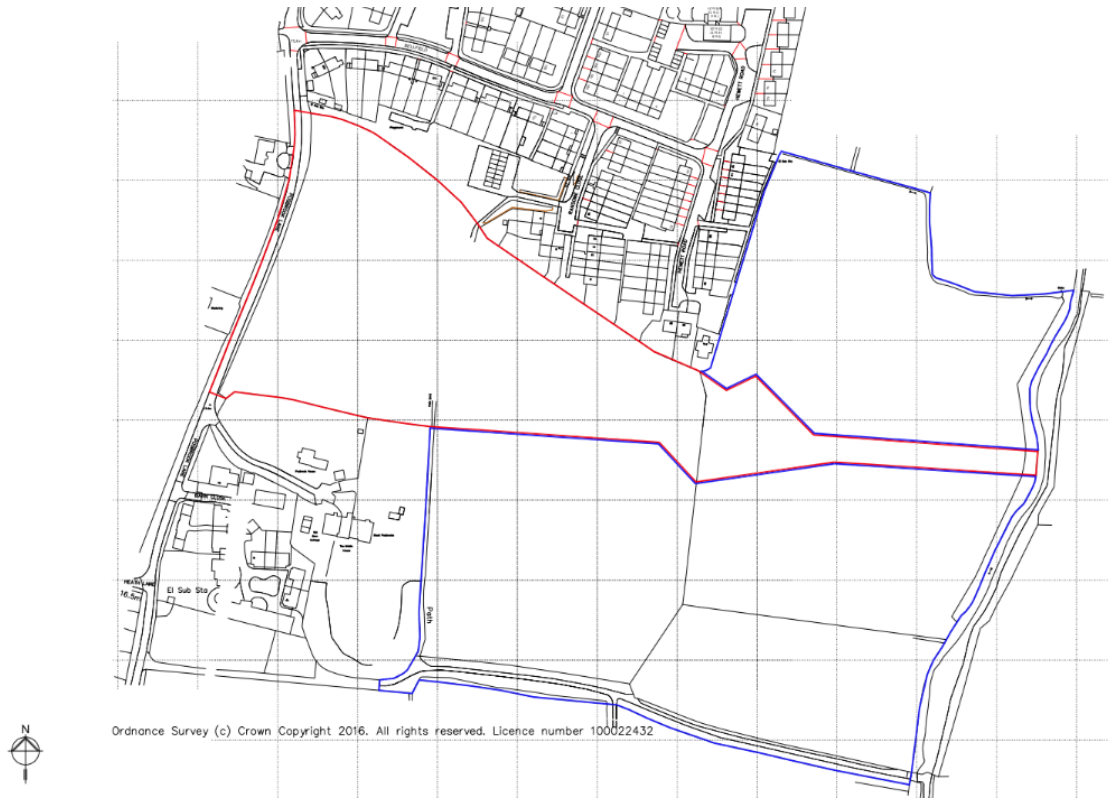
1.1 Brief

Ecosupport Ltd was commissioned by Foreman Homes to prepare an outline proposal for the creation of a dedicated Bird Conservation Area (BCA) within a part of the land east of Posbrook Lane, Titchfield site. This proposal is being submitted at request of Hampshire County Council with the intention to provide an area that will be created (and with future on-going management) endeavour to provide suitable habitats to attract and benefit wintering bird species associated with the nearby Solent & Southampton Water Special Protected Area (SPA) and Titchfield Haven National Nature Reserve (NNR).

1.2 Location

The site comprises of a parcel of land located immediately east of Posbrook Lane, PO14 4JD (centred on OS grid reference SU537 051) (**Fig 1**). The west of the site is bounded by Posbrook Lane, the north of residential houses, the east by horse pasture and the Meon River and the south by arable fields. The wider environ is semi-rural with the site residing to the south of Titchfield village.

Figure 1. Redline location plan of the site with the BCA area within the blueline.



1.3 Proposals

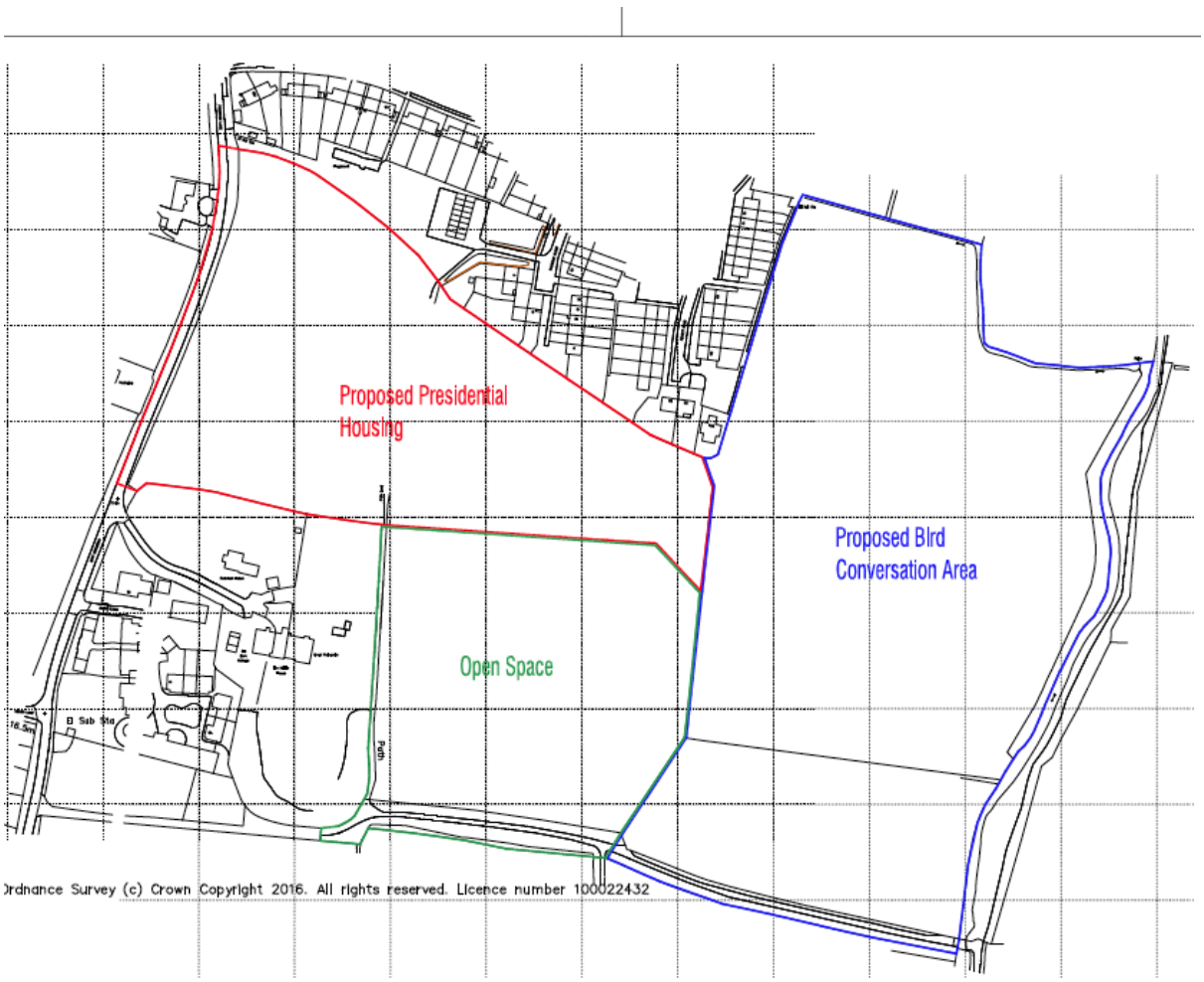
The proposals entail an outline application for the erection of up to 57 dwellings, together with associated parking, landscaping and access from Posbrook Lane.

1.4 Current Land Usage

The site encompasses a pastoral field that has been subject to continued informal grazing by horses. This grazing maintains a reasonably short grassland habitat across the site. The grassland itself is reasonably species poor with limited patchy scrub dispersed within the central and south-east, likely remnants of previous intact hedgerows. The area subject to the proposed creation of a BCA (**Fig 2**) is situated in close proximity to several designated areas of conservation value in particular; Titchfield Canal, Posbrook Meadows, Titchfield Haven NNR and Solent & Southampton Water (SPA). In addition, an identified wader roost is present within 0.1 Kilometres to the south at Great Posbrook Farm and Hollom Farm Meadows are also located in near proximity to the east.

The proposed Bird Conservation Area measures approximately 5.79ha. The land is subject to a gradual shallow fall from the west descending eastwards towards the Meon River. At the central eastern boundary alongside Titchfield canal lies a main badger sett.

Figure 2. Redline / blueline plan showing the extent of the areas proposed for development, POS and the BCA.



1.5 Consultation

As part of the work for the previous application on site (refused under P/17/0681/OA), this document was written in line with a consultation response received from Rachel Jones of Natural England. Given the BCA design is being retained as agreed for the previous application, this consultation response has been reproduced below in **Fig 3.**

Figure 3. Extract from Natural England's letter request dated 13th October 2017 for further information.

SUMMARY OF NATURAL ENGLAND'S ADVICE

FURTHER INFORMATION REQUIRED TO DETERMINE IMPACTS ON DESIGNATED SITES

As submitted, the application could have potential significant effects on the Solent and Southampton Water Special Protection Area. Natural England requires further information in order to determine the significance of these impacts and the scope for mitigation.

The following information is required:

- Further consideration of the size, design and management of the Bird Conservation Area is needed to ensure the continued ecological function of the site is maintained and enhanced in perpetuity.
- A costed management plan will be required to support the long-term management of the site. The management plan should include full details of the infrastructure to be provided by the applicant, along with details of the ongoing maintenance / replacement requirements with costs calculated for perpetuity (usually taken as 80 years).
- The management plan should also include details of the management body (or bodies) who will be responsible for maintaining the site, along with the details of the arrangements for monitoring the ongoing delivery of the agreed management.
- Consideration will also need to be given to providing appropriate 'step-in' rights for Fareham BC to take over the management of the Bird Conservation Area should it be required.

Without this information, Natural England may need to object to the proposal.

Please re-consult Natural England once this information has been obtained.
Natural England's advice on other issues is set out below.

2.0 RELEVANT LEGISLATION AND POLICY

2.1 Relevant Legislation

The Conservation of Habitats and Species Regulations 2010 (known as the 'Habitats Regulations') (HMSO, 2010), pass two EEC Directives into UK law. The Regulations protect sites and species deemed to be of conservation importance across Europe. The most relevant parts of the Regulations to development related activities are:

- The protection of Special Protection Areas (SPAs) and Special Areas of Conservation (SACs)
- The protection of species listed within Schedule 2 of the Regulations, which prohibits killing, injury, disturbance, damage and/or destruction of breeding sites and/or resting places and sale, this confers some level of habitat protection.

2.2 National Planning Policy

The development would seek to comply with relevant Planning Policy, at a local, regional and national level.

Planning Policy Statement 9 (PPS9) was superseded by the National Planning Policy Framework (NPPF 2019). The NPPF states that the planning system should contribute to and enhance the natural and local environment by:

- Recognising the wider benefits of ecosystem services.
- Minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.
- The conservation of International and National statutorily designated sites.
- Protection of ancient woodland and veteran trees.
- The creation, protection, enhancement and management of networks of biodiversity and green infrastructure.
- The preservation, restoration and recreation of priority habitats and ecological networks.
- The recovery of priority species populations.

2.3 Local Planning Policy

Policy CS4 of the Fareham Borough Local Plan (GI and Geological Conservation) includes a requirement to protect habitats important to the biodiversity of the Borough, including statutory (such as SPAs) and non-statutory (such as Sites of Importance for Nature Conservation SINCs) designated sites. It also states that:

'*Where possible, particularly within identified Biodiversity Opportunity Areas, sites will be enhanced to contribute to the objectives and targets set out in the UK, Regional, County and Local Biodiversity Actions Plans'*.

There is also a requirement to provide GI as part of future development proposals stating:

'GI will be created and safeguarded through:

- *Investing in appropriate management, enhancement and restoration, and the creation of new resources including parks, woodland and trees and wildlife habitats;*
- *Not permitting development that compromises its integrity and therefore that of the overall GI framework'*.

It also details that mitigation to prevent adverse effects on sensitive European sites in and around the Borough will be implemented in conjunction with other local authorities. This mitigation will include provision of alternative recreational space and developer contributions where appropriate. It states:

'Development likely to have an individual or cumulative adverse impact will not be permitted unless the necessary mitigation measures have been secured'.

Additional relevant local policies (DSP13 and DSP15) are provided within the *Local Plan Part 2: Development Sites and Policies* (FBC, 2014).

'Policy DSP:13 Nature Conservation

Development may be permitted where it can demonstrate that;

i) designated sites and sites of nature conservation value are protected and where appropriate enhanced;

ii) protected, priority and target species populations and their associated habitats, breeding areas, foraging areas and protected and where appropriate, enhanced;

iii) where appropriate, opportunities to provide a net gain in biodiversity have been explored and biodiversity enhancements incorporated; and

iv) The proposal would not prejudice or result in the fragmentation of the biodiversity network.

Proposals resulting in detrimental impacts to the above shall only be granted where the planning authority is satisfied that;

i) Impacts are outweighed by the need for, and benefits of the development; and

ii) Adverse impacts can be minimised, and provision is made for mitigation and, where necessary, compensation for those impacts.

Enhancements that contribute to the habitat restoration targets (and population strengthening), set out in the HBAP will be supported.

'Policy DSP15: Recreational Disturbance on the Solent Special Protection Areas

Planning permission for proposals resulting in a net increase in residential units may be permitted where 'in combination' effects of recreation on the Solent Coastal Special Protection Areas are satisfactorily mitigated through the provision of a financial contribution.

In the absence of a financial contribution toward mitigation, an Appropriate Assessment may be required to demonstrate that any 'in combination' negative effects can be avoided or can be satisfactorily mitigated through a developer provided package of measures.

Any application for development that is of a scale, or in a location, such that it is likely to have a direct effect on a European-designated site, will be required to undergo an individual Habitats Regulations Assessment. This may result in the need for additional site-specific avoidance and/or mitigation measures to be maintained in perpetuity. Where proposals will result in an adverse effect on the integrity of any Solent Special Protection Areas, planning permission will be refused.'

3.0 BASELINE

3.1 Proximity of Designated Sites

Table 1 below outlines the proximity of the statutory designated sites relative to the development site of relevance to this document.

Table 1. Nearby statutory designated sites of relevance to this report.

Site Name	Conservation Status	Distance from Site	Qualify Criteria / Features
Solent and Southampton Water	SPA	0.7km southeast	The site qualifies for breeding populations of Common Tern (*Sterna hirundo*), Little Tern (*Sterna albifronsi*), Mediterranean Gull (*Larus melanocephalus*), Roseate Tern (*Sterna dougallii*), Sandwich Tern (*Sterna sandvicensis*); and Overwintering Black-tailed godwit (*Limosa limosa islandica*), Dark-bellied Brent Goose (*Branta bernicla bernicla*), Ringed Plover (*Charadrius hiaticula*), Eurasian Teal (*Anas crecca*) and an internationally important overwintering waterfowl assemblage.
	Ramsar	0.7 km southeast	The site comprises estuaries and adjacent coastal habitats including intertidal flats, saline lagoons, shingle beaches, saltmarsh, reedbeds, damp woodland, and grazing marsh. Supporting an important assemblage of rare plants and invertebrates with at least 33 British Red Data Book invertebrates and at least eight British Red Data Book plants. Species to qualify the site for Ramsar status include migratory Ringed Plover, overwintering Dark-bellied Brent Goose, Eurasian Teal, and Black-tailed Godwit, as well as overwintering waterfowl assemblage.
Titchfield Haven	SSSI / NNR	0.5 km south east	Titchfield Haven was formerly the estuary of the River Meon, which receives most of its water from the chalk. Tidal water is excluded by one-way tidal valves and the former estuary is an extensive fresh marsh, the river being flanked successively by large reed *Phragmites australis* beds and wet, unimproved meadows dissected by drainage ditches and further diversified by pools, 'flashes' and patches of fen. In addition, extensive 'scrapes' have been constructed. The area is an important resort for surface-feeding duck, with winter populations of 2,000 wigeon *Anas penelope*, 1,500 teal *Anas crecca*, and smaller numbers of other surface feeding ducks. It possesses a rich wetland breeding bird community including bearded

			reedlings Panurus biarmicus and large populations of reed warblers *Acrocephalus scirpaceus* and sedge warblers *Acrocephalus schoenobaenus.*

3.2 Solent Waders & Brent Goose Strategy

The site is currently listed as being a Primary Support Area within the most update to Solent Wader and Brent Goose Strategy (SW&BGS)[1] (**Fig 2**). Full details of the species recorded on site are not provided however the HBIC data lists the following information for the F48B parcel: max count 82, SPA score 3 and number of records 15. This information is used to create a score for the site which informs it's subsequent classification (further information available via https://solentwbgs.files.wordpress.com/2019/05/swbgs-2019-interim-report-year-two-dw.pdf).

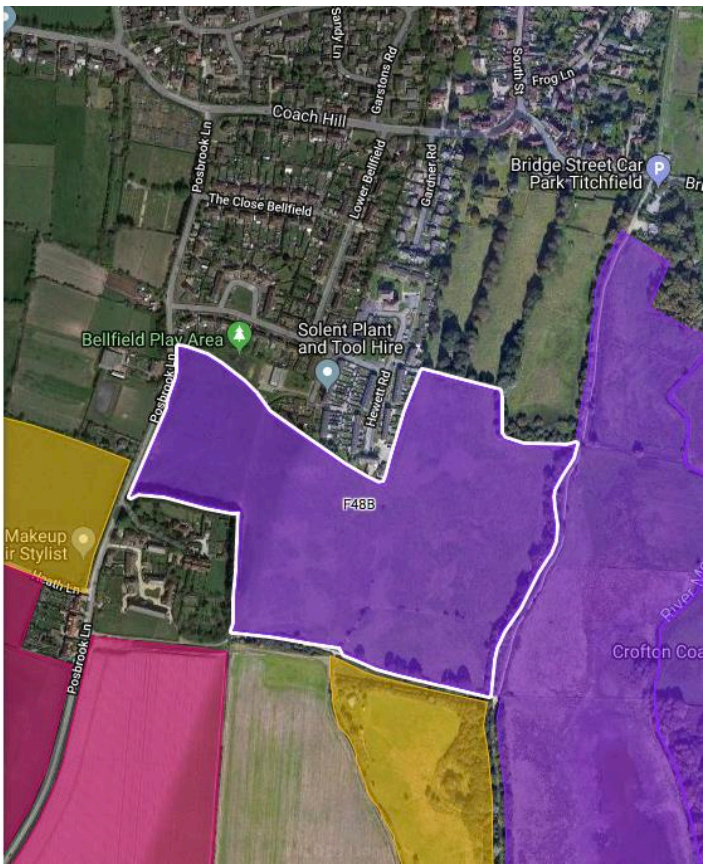
[1] https://solentwbgs.wordpress.com/page-2/ (accessed 28/10/2019)

Figure 2. The site (F48B) outlined in white with the entirety covered by a PSA designation under the SW&BGS.

name
F48B

description

Site_code F48B
Easting 453783
Northing 105086
Area_ha 11.93
Classification Primary



4.0 BIRD CONSERVATION AREA OPPORTUNITY

The SW&BGS (2018) outlines the following information for mitigation and offsetting requirements where impacts to a PSA will result from a proposed development. These factors have been addressed as far as is practicable within the following sections / chapters of this report:

The Primary Support Areas are land that, when in suitable management, make an important contribution to the function of the Solent waders and brent goose ecological network. However, it is generally considered that, where on-site avoidance or mitigation measures are unable to manage impacts, there may be opportunities for the loss or damage to these areas to be off-set by the provision of new sites to ensure a long-term protection and enhancement of the wider wader and brent goose ecological network.

The options for off-setting impacts on Primary Support Areas will be considered on a case-by-case basis and will be subject to ensuring the continued ecological function of the wader and brent goose sites is maintained and enhanced i.e. ensuring that there are significant net benefits to the wader and brent goose ecological network through the creation and on-going management of replacement (off-setting) sites. This may be a site identified within the Strategy provided there is sufficient scope for enhancing and securing its function within the wader and brent goose ecological network, or a site that if brought into appropriate condition has the potential for future use.

There will be a requirement for the off-setting area to fulfil the same special contribution and particular function of the areas lost or damaged for the same species of birds. The appropriateness of any off-setting areas in respect of fulfilling the required ecological function will be judged against the following criteria, ranked in order of importance:

A. Habitat Type – the proposed off setting site must support habitats, or be suitable for recreating habitats that provide the same, or enhanced, ecological function as those that are to be lost or damaged.

B. Disturbance – the ecological function of an off-setting site is likely to be seriously undermined if subject to regular disturbance from recreational use and unmanaged public access. The appropriateness of the location of the off-setting site and the proposed measures to prevent indirect effects will need to be fully assessed.

C. Area of habitat – where the replacement habitat would be of equal ecological quality the area required should be of a similar extent to the site being lost or damaged. There may be situations however, where a greater area is required when habitat created may be of poorer quality to that lost or damaged, or there is a high level of risk involved. Similarly, if significant ecological enhancements are possible that increase the carrying capacity of the replacement site above that of the Primary Support Area affected then a smaller area of replacement habitat might be acceptable. This might include the partial loss of a Primary Support Area providing the remainder can be made significantly improved in habitat quality with long term management so as to provide for a greater capacity for the target species than the original site. In all such cases the test will be to ensure the replacement habitats provide a clear and permanent net gain for the target species.

D. Timing and availability of habitat – operational at the time it is required. Essentially, 'in time' to offset the adverse effects which are being addressed, with evidence to show it is functioning and readily available to SPA birds prior to any loss or damage to the original site.

E. Geographic location – for ecological reasons of structure and function it is considered appropriate for the off-setting habitat to be provided as close to the original site as practicable.
The solution should also be capable of being:
F. Validated in respect of achieving its ecological function / purpose; and

G. Monitored for effectiveness; and

H. Adapted to adjust to unfolding circumstances in future management; and

I. Resilient in the face of predictable future pressures such as natural population fluctuations and climate change.

20. The land will need to be restored to a suitable condition and managed specifically for the waders and / or geese, ideally as a nature reserve owned or leased by LPA or NGO partner (or similar stable management body such as Land Trust) in perpetuity.

21. The management of the land must be set out in an agreed costed management and monitoring plan and sufficient funds provided to the agreed manager of the site to cover full costs in perpetuity. The preferred approach to secure long term funding for all off-setting areas is to provide an endowment whereby the interest is used for on-going management. This approach secures long term funds in perpetuity.

22. Given the difficulty of 1) justifying the need for a scheme and 2) providing the appropriate level of mitigation up front (ie making the off-setting area available prior to the loss or damage to the original site), it is the preferred approach that acceptable schemes affecting Primary Support Areas should come forward through the local plan process. This will ensure an early assessment of viable off-setting areas and consider how the necessary management can be secured and delivered upfront. A local planning authority could adopt a habitat banking approach to release potential sites provided that the above criteria can be met.

23. Joint working between the LPA, Steering Group and applicant is advised in all cases. However, it is ultimately the applicant's responsibility to identify and secure viable replacement sites for the loss of any non-designated wader and brent goose sites.

4.1 Opportunity

Currently the proposed conservation area includes positive environmental elements that are associated with areas known to be used by SPA bird species. No significant bird usage of the site was identified by the ECOSA surveys during the Winter of 2015-2016. Further results however have come to light in respect of survey work that has been carried out by the Solent Wader & Brent Goose Strategy and additional surveys by ECOSA over the Winter of 2016/17 which recorded a peak count

of 31 (ECOSA) and 82 Black-tailed Godwit foraging on site. It is understood that this usage of the site by a species for which the SPA is designated qualifies the entire site as a 'Primary Support Site' to the SPA.

Although, the site is in close proximity to a known wader roost, Titchfield Haven National Nature Reserve and the SPA, the geographical location inland from the Solent, lack of open water or wetland features and with some irregular human disturbance likely influences the areas limited current reported usage by SPA birds.

The site does however include existing factors that could be contributory towards attracting waterfowl. The short grassland and open aspect of the area would potentially likely attract geese and other waterfowl. However, the site lacks key elements and factors as mentioned above and most predominantly of those being that there are no wetland or water bodies of any type that feature on the site.

Notwithstanding the above, inclusion of constructed features, adaptations and mitigation measures would contribute to an increased likelihood and potential usage by at least some of the bird species for which the SPA is designated as well as attracting bird usage by a number of other species associated with wetland and less disturbed environs.

Essentially areas that regularly attract waders and wildfowl include features and environs such as wetland features, have clear flight and sight lines and have reduced risk of human disturbance.

4.2 Limitations, Investigation & Planning

To enable increased potential for the site to attract waders and wildfowl associated with the SPA various habitat features and mitigation measures will need to be implemented. However, the sites current topography and hydrological conditions could likely provide hurdles or limitations as to the practicality of being able to implement the most desirable wetland creation scheme. Hydrological and soil conditions will also determine the design of any wetland features in terms of how and where water will be sourced to feed these features.

A clear vision for the site needs to be understood by all stakeholders from the outset, but this cannot be clearly provided until an understanding of the limitations and particularly in terms of the practicality and volume of area available for the construction of wetland features is able to be established.

To provide an attractive and adequate area that has the optimum potential to be useful for SPA birds, thorough investigation will need to be carried out of soil and hydrological conditions. This can then inform a clear vision to implementing the most effective outcome possible and provide the most desirable environment opportunities for SPA birds. It is important that all stakeholders will be able to agree an appropriate design informed by investigative surveys that will lead to an appropriate wetland creation scheme.

5.0 BIRD CONSERVATION AREA NECESSARY FACTORS & DESIGN

5.1 Introduction

As previously mentioned certain favourable factors need to be taken into consideration and included within any dedicated SPA Bird Conservation Area that will enable the optimum likelihood of attracting waders and wildfowl species. These include:

- Clear site & flight lines
- Little or no human disturbances including dog walking disturbances
- Seasonal wetland areas for bird feeding and roosting
- Short grassland for bird grazing, roosting and feeding

Two further factors are also key and need to be taken into consideration in relation to the Posbrook site; the known badger sett located on the eastern boundary and the potentially challenging topography.

All the above elements will need to be considered within the design of the scheme. Each factor if not optimally considered, located or designed could have negative influence in achieving the desired vision for the area.

5.1.1 Factors

Clear Site & Flight Lines

Currently the site has a reasonably open aspect although tree lines on the east, north and southern boundaries will need to be taken in to consideration when designing wetland and any waterbodies on site. Location of these wetland features cannot be restricted to being in such close proximity to tree lines that birds will not use them. If clear flight lines are unable to be maintained over the majority of the wetland areas this would undoubtedly reduce the bird usage.

Human & Dog Walking Disturbance

This could be considered easily remedied through the provision of appropriate fencing and signage however some walkers and dog walkers tend to be resilient in respect of continuing the status quo in terms of where they believe to have rights to walk. With this in mind features and mitigation measures will need to be included to lessen any likelihood of human disturbance. As well as including appropriate fencing, ditches and strategic planting will also be included to lessen any human disturbance.

Seasonal Wetlands

Soil, infiltration and hydrological surveys will ultimately determine the type and location of waterbodies that will be achievable within the finalised design of the scheme as well as water sources to feed the wetland areas. Investigative surveys will determine any large-scale landscape engineering that will need to take place to enable optimum design and location of any wetland features.

Short Grassland

On-going management will be necessary to provide suitable grassland structure to allow for favourable roosting and feeding. The easiest and most cost-effective solution being, an appropriate grazing regime being implemented on site.

5.2 Design

Plan 1 shows design and layout incorporating elements of capital works associated with implementing the construction of the BCA. It is intended to be reasonably comprehensive however, dialogue with the identified organisation body that will ultimately take on future management of the BCA may require further additional elements to be included and /or favour alterations to provided prescription of Capital Works listed below and shown within **Plan 1.**

5.3 Capital Works

Bullet points below list and detail initial capital works that will be implemented partially prior to any residential development within the western area of the site commencing and during the build program for the new housing.

5.3.1 Access Track

A vehicular access track to enable maintenance, management, stock handling and recovery will be located at the southern boundary access gateway. This will incorporate a suitable vehicle trailer turning space.

The constructed access roadway will be of a specification to include an inert recycled aggregate top layer. This will not consist of sharp stones, rubble or gravel as the top finished surface layer. The track will measure 4 metres in width and be appropriately specified and constructed to be durable within the area located.

5.3.2 Wetland Creation

To enable favourable conditions to increase regular usage by SPA birds an area will be created to provide shallow water conditions. This will favour both feeding and roosting opportunities for SPA birds including Black-tailed Godwits.

This newly created wetland area will be gravity fed through the use of roof water from the new residential development to the west and secondarily through natural surface runoff. Due to the topography of the site these wetland areas will be created using a cut and fill method to enable level shallow water bodies with the construction of embankments/dikes. These will require fine sediment soils for compaction to form into stable and impervious embankments. If necessary use of imported clays maybe required if soil conditions are not conducive i.e. are too impermeable for water to be held in this area. Proposed positioning and size of this shallow wetland is shown on **Plan 1**. The wetland area proposed will measure approximately 7,352m^2.

5.3.3 Defensive Boundary Hedgerow and Ditch

As part of creating a safe and sheltered area for SPA birds lessening any risk of human disturbance will be a high priority. One of the elements to achieving this will be to create a defensive hedgerow and planted ditch line on the western and southern boundaries. Location of this hedging and ditch is shown on **Plan 1.** *N.B Specific Planting scheme for the ditch line will be dependent upon hydrological conditions. The hedge line will consist of at least 10 native species including climber species. i.e. Honeysuckle and Hop.*

5.3.4 Signage & Educational Interpretation Boards

'Deep Water' and 'No Access' signs will be necessary to be displayed along the defensive ditch system and as well at the BCA's vehicular access gateway. In addition, 2 interpretive boards will be erected to promote the BCA's function and environmental benefits. Proposed locations for these are shown on **Plan 1**.

5.3.5 Stock Fencing/Pen

The entire site will be fenced to provide an instant stock proof barrier as shown on **Plan 1** with the addition of a stock handling pen installed and located at the southern access track (**Fig 4**). The site will also include a fence to allow for the site to be divided into 2 separate grazing compartments.

Design of the fencing will be as such that it will enable both cattle and if required sheep grazing on site. **Fig 3** provides image of suitable stock fencing type/specification to include stock netting and 2 strand barbed wire. Image 6 shows an example double gated stock pen.

Figure 3. Stock Fencing *(Jackson & Son fencing).*

Figure 4. Example of a stock handling pen.

5.3.6 Pond Construction

A single pond will be constructed in the north-eastern corner of the site as shown on **Plan 1**. This will be designed and constructed to provide suitable breeding and foraging opportunities for amphibians and reptile species. Design will be reflective of recommended advice and design concept detailed within the 'Ponds for Amphibians & Reptiles' published by Freshwater Habitats Trust in association with Amphibian Reptile Conservation (ARC) and Amphibian Reptile Groups UK.

6.0 COSTED MANAGEMENT PLAN

6.1 Introduction

This chapter provides detail of associated costs for the on-going management of the BCA after all Capital Works as outlined in the previous chapter have been completed as part of the pre-commencement of the construction of the residential housing and hand over of the BCA to a suitable management company, NGO or local authority. These initial Capital Works will be carried out by and supplied by the developer and their relevant sub-contractors.

All on going costs are provided in good faith and have been calculated with a practical sense in terms of providing maintenance for all elements in relation to the implemented Capital Works and on-going management of the BCA.

An online UK future inflation calculator was used to predict costs of labour and materials based on an increase of annual rates of 1.5% for wage/labour and 2.5% material over the last 10 years. The costs are relevant to an understanding that costs will be required for an 80-year period.

6.2 Associated on Going Management Costs

6.2.1 Access Track (Half tray with geotextile)

Access track maintenance is predicted to be required in years 2040 and 2060. A 20 % cost of the original cost has been allowed for both maintenance stages inclusive of relevant inflation rates. Costs are based on an original access track being no more than 200 metres in length and 4 metres in width and to include a turning an area.

2040	**2060**
£5,646	£9,252

6.2.2 Wetland Area & Pond De-silting

Over time the created wetland features will require maintenance in respect of de-silting maintenance and potentially unwanted vegetation removal. Costs have allowed for two 5-day periods during years 2030 and 2060 for de-silting operations inclusive of 24 tonne 360-degree excavator and two 6 tonne dumpers inclusive of labour to implement these operations if required.

2030	**2060**
£6,616	£13,879

6.2.3 Stock Fencing

Due to the use of recycled plastic posts and the longevity of these posts, replacement of the posts will not be required however 10% material replacement will be allowed for at time of initial erection of the stock fencing and provided to the future BCA management organisation. Two replacement rewires have been accounted for in years 2040 and 2060 predicted costs of which are shown below:

2040	**2060**

£4,948 £10,351

6.2.4 Access Gateway & Stock Pen

The Capital Works will include the erection of recycled plastic access gateway/stock pen and associated posts and fixings. Due to the longevity of the materials no replacement of the gateway materials will be required. However, 20% of the original cost of the materials will be provided to account for un-associated material maintenance that maybe required.

10% of associated original cost £3,000

6.2.5 Defensive Boundary Fencing

A 10% allocation of the initial Capital Works cost for this element has been provided as a maintenance cost along with a cost for the entire fence to be replaced in year 2055.

Maintenance Budget	**2055**
£1,489	£38,069

6.2.6 Signage & Interpretation Panels

Three replacements of signage and interpretation boards have been provided within the costs below. Two interpretation boards and 20 warning Signs have been allocated.

Interpretation Panels x 2 replaced twice	2040	2060
	£2,117	£3,469
Warning Signage x 20 replaced twice	2040	2060
	£168	£275

6.2.7 Grazing

It is proposed that a local conservation grazing herd be employed to provide an appropriate grazing regime on site to provide suitable short grass management over the majority of the site. Costs in relation to this are difficult to forecast. An arbitrary figure of £20,000 has been provided with consideration that the organisation that will take on the BCA will need to be consulted before any confirmation of costs are verified.

6.2.8 Boundary and Reptile Receptor Area Scrub Clearance

To enable reduction and control of scrub along the boundary and within the reptile receptor area of the BCA costs have been provided on an 8-yearly basis for a 4-man crew for 2 days with appropriate machinery to carry out such works. Appropriate grazing will also be employed at a suitable time of year within the reptile receptor area.

2024	**2032**	**2040**	**2048**	**2056**	**2064**	**2072**	**2080**
£2,139	£2,606	£3,176	£3,870	£4,715	£5,745	£7,000	£8,528

6.2.9 Staffing Costs

General staffing of overseeing the site, bird monitoring and associated administration costs are preliminarily proposed as requiring 1 day per week for the first 12 months adjusting to half day per week thereafter. At a salary rate of 25K per annum the costs are outlined below:

2018-2019	2020-2100
£5,408	£377,636

Table 2. Calculated on-going management costs

N.b Material Costs are subject to Vat.	***Costs 2020-2100***
Access track	£14,898
Wetland De-silting	£20,495
Stock Fencing	£15,299
Access gateway Stock Pen	£3,000
Defensive Boundary	£39,558
Signage/Interpretation	£6,029
Grazing	£20,000
Scrub Clearance	£37,779
Staffing Costs	£383,044
Total	£540,102

7.0 FUTURE RESPONSIBILITY

7.1 Pre-construction 2018-2019

All capital works associated with the BCA will be the responsibility of the applicant Foreman Homes. Construction of the BCA will commence at the earliest opportunity to enable the BCA's infrastructure to be in place prior to first occupation of the housing development. At this time monitoring of the works will be encouraged by the future responsible organization for the BCA to provide agreement to contractual works. All capital works will be overseen by an experienced ecologist and land manager.

7.2 Appropriate Future BCA Management Organization

An appropriate organization will be identified for the BCA to be handed over to. The on-going management funds will enable the entrusted organization to deliver on-going maintenance of the BCA along with and where necessary replacement of infrastructure over the next 80 years.

In addition, the future management organization will be responsible for monitoring the success of the newly created bird conservation area in respect of its success in attracting and its usage by SPA bird species.

7.3 'Step in Rights'

If an agreement with an appropriate organization body were not possible or if during the term of the on-going 80-year management the managing organization were not considered to be acting or managing the site appropriately or for other reasons for which Fareham Borough Council considered it inappropriate for the managing organization to continue responsibility for the BCA. Requirements will be put in place to enable legal 'step in rights' for Fareham Borough Council to take over the running and responsibility for the BCA.

8.0 DISCUSSION

This outline plan is intended to offer an initial vision of a proposal that will enable a gain in providing wetland habitat. Capital works and on-going management will be deliverable through the proposed housing development that will clearly benefit biodiversity and with the intention of providing suitable habitats valuable for SPA bird species.

It is important that stakeholders are consulted throughout the process and that the Bird Conservation Area once capital works are completed is handed over to an appropriate organisation or authority that are provided with appropriate resources to continue the on-going management in perpetuity.

It is recommended that if the planning application were to be granted that a condition is included within the planning that requires an update to this report to further refine the design and management strategy once stakeholders are consulted further and investigative surveys carried out to enable an achievable design scheme to be implemented.

Plan 1. Bird Conservation Area

Figure 1. Defensive Boundary Ditch, Hedgerow & Fencing

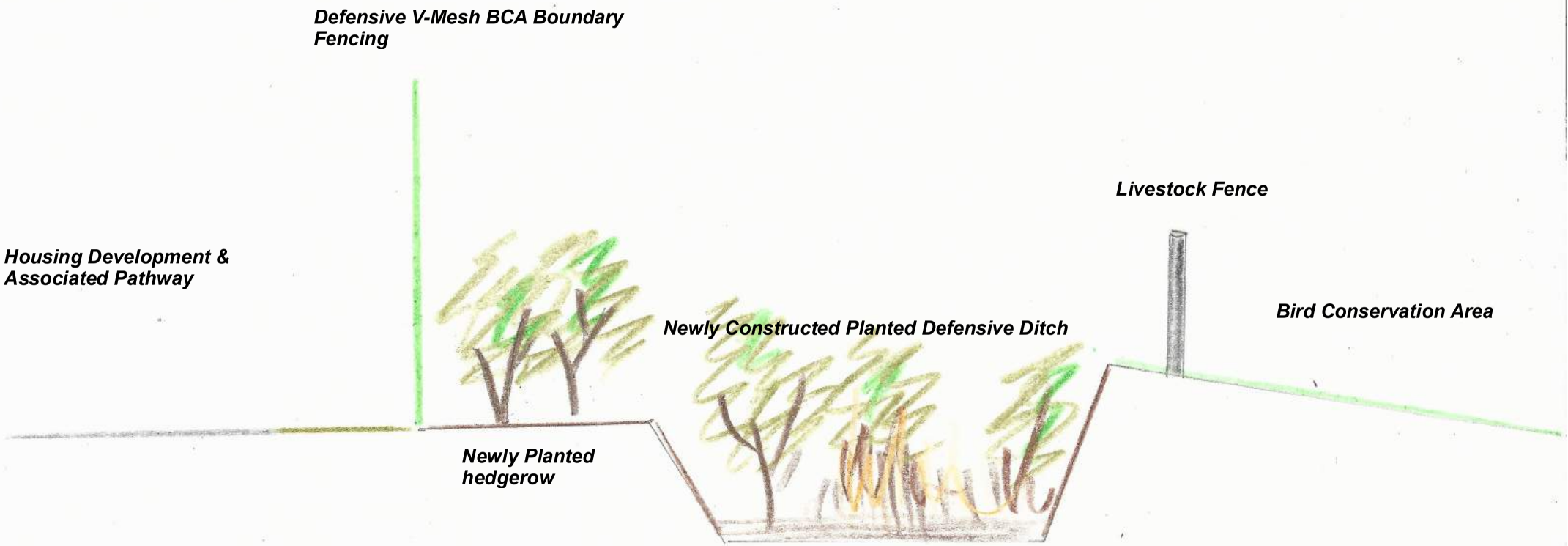
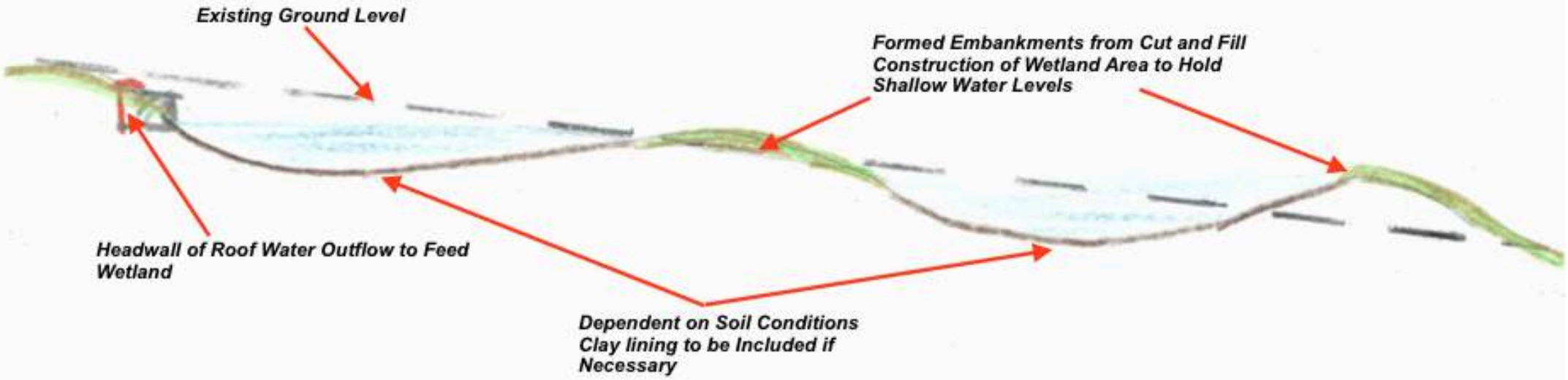


Figure 2. Design Example of Engineered Wetland



Foreman Homes
Unit 1 Station Road Industrial Park
Duncan Road
Park Gate
Hampshire
SO31 1BX

Bird Conservation Area Addendum to Address Natural England Comments

Background

This addendum outlines discussion had to date between ourselves, Natural England and the Hampshire and Isle of Wight Wildlife Trust in order to address comments received on 7th January 2020 in relation planning application number P/19/1193/OA (land east of Posbrook Lane, Titchfield).

Issues

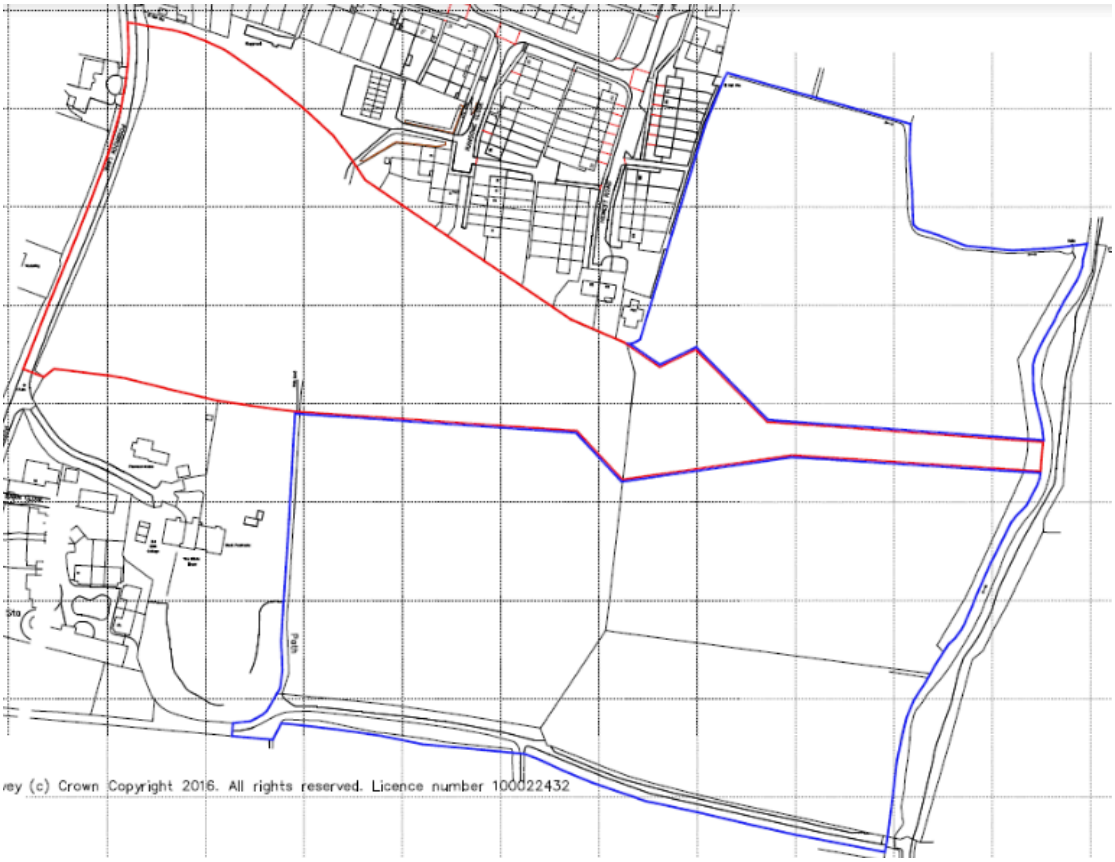
The first point in the NE response requiring further clarification related to the discrepancy between the area shown for use as the BCA and the redline location plan that accompanied the application. An email to address this point was sent to Rachel Jones at NE on the 13th January 2020 during which the following was outlined:

'Following your recent comments on this application I just wanted to clarify the issue with the redline as that seems to be the main point requiring further information on the BCA.'

*The redline location plan as shown below (**Fig 1**) has been indicated that way as this allows for the creation of an attenuation pond and sewer connection into the canal. The attenuation pond is located within the BCA (which I assume won't be an issue) and the sewer connection will be buried. From my understanding, the redline needed to be shown like this to allow for these features to be included although in actuality, they will have no real effect on the function of the BCA or provide any form of severance once it is operational. My estimate also makes the size of the BCA at 6.49 ha and I think the discrepancy with what was in the D&AS has come from the inclusion of the area shown as POS as well (although this isn't in the BCA[1]). '*

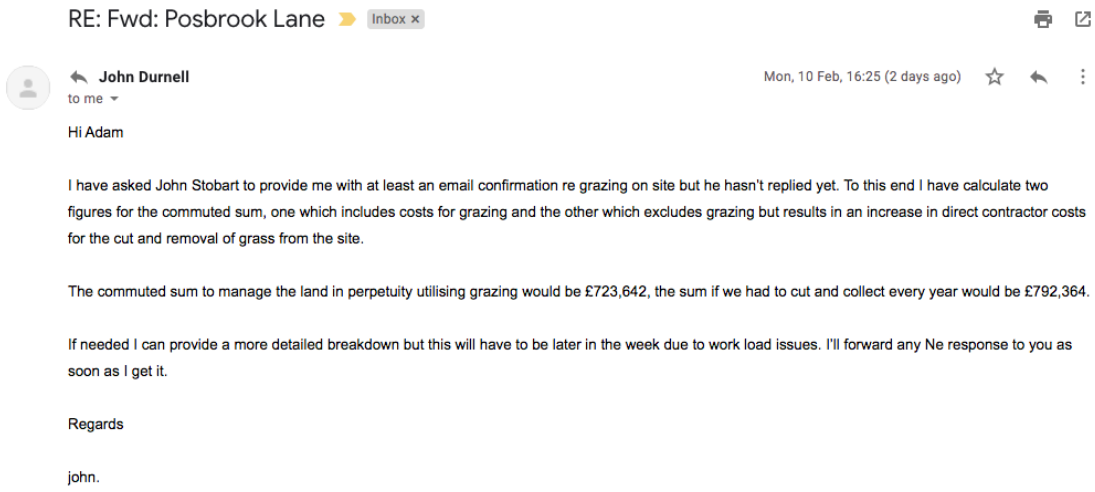
[1] It is my understanding that the correct BCA size has now been provided within the D&AS

Figure 1. The redline location of the site indicating what appears to be a severance through the BCA (although this is only shown for drainage purposes and will not result in the BCA having any permissible rights of way through it).



The second point related to some minor alterations to recommendations within the BCA report and then (more importantly) the proposal for the BCA to be handed over to an appropriate organisation to manage in perpetuity. Under the previous application for the site this was recommended as being the Hampshire and Isle of Wight Wildlife Trust and following re-consultation with them, they have indicated this will still be the case (see **Figs 2** and **3** below which are screen shots from email correspondence with John Durnell at H&IWWT). As alluded 2 in **Fig 2** (the first email), an updated detailed breakdown of the costs could not be provided in line with the timescales to get information re-submitted to FBC and therefore the BCA will be updated when this information is available (during which times the updates to address some technical points made by NE will also be undertaken).

Figure 2. Screenshot of the email correspondence from John Durnell at the H&IWWT outlining what the reivsued costs will be to take over ownership and management of the BCA in perpetuity. This provides 2 figures as there were concerns rasied as to whether grazing will affect the Nitrogen budget of the site although it is understood that the type of grazing that would be employed will be Nitrogen neutral.



RE: Fwd: Posbrook Lane Inbox ×

John Durnell Mon, 10 Feb, 16:25 (2 days ago)
to me

Hi Adam

I have asked John Stobart to provide me with at least an email confirmation re grazing on site but he hasn't replied yet. To this end I have calculate two figures for the commuted sum, one which includes costs for grazing and the other which excludes grazing but results in an increase in direct contractor costs for the cut and removal of grass from the site.

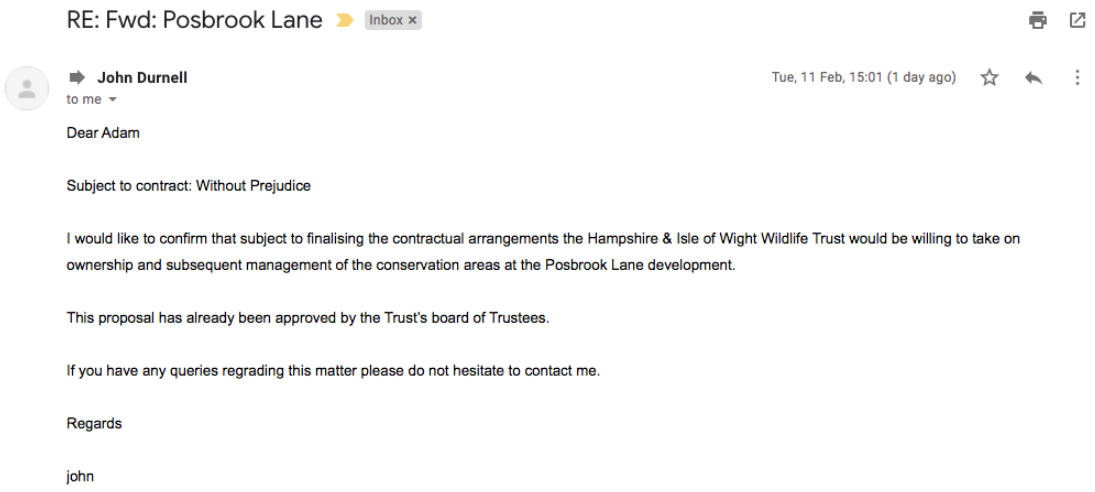
The commuted sum to manage the land in perpetuity utilising grazing would be £723,642, the sum if we had to cut and collect every year would be £792,364.

If needed I can provide a more detailed breakdown but this will have to be later in the week due to work load issues. I'll forward any Ne response to you as soon as I get it.

Regards

john.

Figure 3. Confirmation from the H&IWWT that they will still be willing to take on the BCA.



RE: Fwd: Posbrook Lane Inbox ×

John Durnell Tue, 11 Feb, 15:01 (1 day ago)
to me

Dear Adam

Subject to contract: Without Prejudice

I would like to confirm that subject to finalising the contractual arrangements the Hampshire & Isle of Wight Wildlife Trust would be willing to take on ownership and subsequent management of the conservation areas at the Posbrook Lane development.

This proposal has already been approved by the Trust's board of Trustees.

If you have any queries regrading this matter please do not hesitate to contact me.

Regards

john

Should you have any further queries please don't hesitate to get in touch

Adam Jessop BSc (Hons) MSc

Director

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