



CD1.19

GLADMAN DEVELOPMENTS LTD

LAND OFF DUKE'S PARK
WOODBIDGE
SUFFOLK

**Information to enable a
Habitats Regulations Assessment
of the impacts on the
Deben Estuary Special
Protection Area and Ramsar site
pursuant to Regulation 61
of The Conservation of
Habitats and Species
Regulations 2010
(as amended)**

This page has been left blank intentionally

COPYRIGHT

The copyright of this document
remains with Ecology Solutions
The contents of this document
therefore must not be copied or
reproduced in whole or in part
for any purpose without the
written consent of Ecology Solutions.

This page has been left blank intentionally

CONTENTS

1	INTRODUCTION	1
2	LEGISLATIVE AND PLANNING POLICY BACKGROUND	3
3	SITE LOCATIONS AND BACKGROUND	15
4	CONSERVATION STATUS OF THE DEBEN ESTUARY SPA	16
5	ASSESSMENT OF THE IMPLICATIONS OF THE DEVELOPMENT PROPOSALS FOR THE SPA CONSERVATION OBJECTIVES	18
6	MITIGATION/AVOIDANCE MEASURES AND IN COMBINATION TEST	26
7	SUMMARY AND CONCLUSIONS	30

PLANS

PLAN ECO1	Application Site location in relation to the Deben Estuary SPA
PLAN ECO2	Rights of Way and Car Parks

APPENDICES

APPENDIX 1	Flow Diagram from ODPM / Defra Circular
APPENDIX 2	Conservation Objectives for the Deben Estuary SPA
APPENDIX 3	SPA Natura Form and the SSSI citation
APPENDIX 4	Relevant SSSI Unit Condition Tables
APPENDIX 5	The Framework Plan
APPENDIX 6	Correspondence received from Natural England
APPENDIX 7	SWT Trading report 'Table 1'
APPENDIX 8	Extracts from SWT Trading report

This page has been left blank intentionally

1. INTRODUCTION

1.1. Background

- 1.1.1. Ecology Solutions was commissioned by Gladman Developments Ltd to undertake ecological assessment work pursuant to the production of documentation in support of a planning application to be submitted in respect of Land off Duke's Park, Woodbridge, Suffolk.
- 1.1.2. Specifically, Ecology Solutions were instructed to assess implications of the Development Proposals on a nearby designated site of European importance, namely the Deben Estuary Special Protection Area (SPA) and Ramsar site, located approximately 390m from the Application Site at its closest point (see Plan ECO1).
- 1.1.3. The findings of this assessment work are set out within this 'Information to enable a Habitats Regulations Assessment' document, such that the competent authority (in this instance Suffolk Coastal district Council) has all the necessary information before it in order to carry out its duties in considering the application in line with relevant planning policy and legislation, including specifically The Conservation of Habitats and Species Regulations 2010 (hereinafter referred to as the Habitats Regulations).
- 1.1.4. Development Proposals for the Application Site are for the provision of residential development (up to 215 units) along with a convenience store associated infrastructure, public open space and landscaping.

1.2. Purpose of this Report

- 1.2.1. FPCR Environment and Design Ltd produced a Draft "Habitats Regulations Assessment" (August 2014) in connection with the Development Proposals. This was produced in the light of Natural England's advice (letter of 23rd July 2014) provided through the Discretionary Advice Service (DAS). Following a review of the Draft Habitats Regulations Assessment, Natural England stated (by way of letter 1st May 2015) that it "is currently not satisfied, on the basis of the objective information which has so far been provided, that it can be excluded that the proposed plan or project will have a significant effect on the Deben Estuary SPA/Ramsar, either individually or in combination with other plans or projects.
- 1.2.2. This report specifically assesses the potential significant effects of the Development Proposals on the nearby SPA/Ramsar site, expanding on the original work undertaken by FPCR in order to fully address the concerns of Natural England and ensure that the Competent Authority has all necessary information before it to discharge its legal obligations in granting a consent.
- 1.2.3. Within this document specific regard is had to the test under Regulation 61(1) of the Habitats Regulations. Regulation 61(1) is described and considered further in Section 2 of this document.

- 1.2.4. The proximity of the Application Site to the SPA/Ramsar site is described in detail at Section 3 of this report and is also shown on Plan ECO1.
- 1.2.5. As part of this assessment, professional judgement has been applied in some instances in order to interpret information. Ecology Solutions is a member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and the Institute of Environmental Management and Assessment and its' professional ecologists are qualified to make such judgements where appropriate.
- 1.2.6. This document assesses the likely significant effects of the Development Proposals associated with the Application Site as a whole, both alone and in combination with other plans / projects.
- 1.2.7. It is the opinion of Ecology Solutions, following appropriate and detailed assessment, that the Development Proposals would not result in a significant adverse effect on the SPA/Ramsar site either alone or in combination with other plans or projects, and that as such the tests contained at Regulation 61(1) of the Habitats Regulations would not be failed and that there is no need therefore to undertake an Appropriate Assessment.

1.3. Application Site Characteristics

- 1.3.1. The Application Site is approximately 12.67ha in size (of which 7.70ha is net developable area) and is located to the south west of the existing settlement of Woodbridge, beyond Sandy Lane. It is bounded by the B1438 (Ipswich Road) and Top Street to the north, existing residential development and Top Street to the west, and the East Coast Railway line to the south.
- 1.3.2. The Application Site itself is currently used as agricultural fields comprising neutral grassland, rabbit grazed ephemeral/short perennial vegetation, hedgerows scattered mature trees, ruderal vegetation and a drainage ditch.

2. LEGISLATIVE AND PLANNING POLICY BACKGROUND

Legislation and relevant case law

- 2.1. The proximity of the Application Site to the nearby designated site of European/international importance, namely the Deben Estuary SPA / Ramsar site means that the EC Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna (Habitats Directive) and the EC Directive on Wild Birds (the Birds Directive) are relevant in this instance. These two Directives are transposed in UK legislation through the Habitats Regulations (2010).
- 2.2. The Deben Estuary is also classified as a Ramsar site. The UK is a signatory to the Convention on Wetlands of International Importance Especially as Wildfowl Habitat 1971, commonly known as the Ramsar Convention after the town in which it was signed. Parties to the Ramsar Convention are obliged to designate particular sites as Wetlands of International Importance. The obligations imposed by the Convention are in themselves not particularly strong, in that they require the promotion and encouragement of the stated aims, rather than any specific action. However, as a matter of policy, Ramsar sites receive the same protection as designated SPAs and Special Areas of Conservation (SACs). The procedures applicable to European sites are therefore to be applied to Ramsar sites, even though these are not European sites as a matter of law.
- 2.3. The relevant Directives and UK legislation are discussed below.

Habitats and Birds Directives

- 2.4. Under the EC Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, commonly referred to as the Habitats Directive (Council Directive 92/43/EEC), Member States are required to take special measures to maintain the distribution and abundance of certain priority habitats and species (listed in Annexes I and II of the Directive). In particular each Member State is required to designate the most suitable sites as SACs. All such SACs will form part of the Natura 2000 network under article 3(1) of the Habitats Directive.
- 2.5. Article 2(3) sets out that member states have a duty, in exercising their obligations under the Habitats Directive to:

“.. take account of economic, social and cultural requirements and local characteristics.”
- 2.6. Under the EC Directive on Wild Birds (the Birds Directive) (Council Directive 2009/147/EEC, previously 79/409/EEC), Member States are required to take special measures to conserve the habitats of certain rare species of birds (listed in Annex I of the Directive) and regularly occurring migratory birds. In particular each Member State is required to classify the most suitable areas of such habitats as SPAs. This is designed to protect wild birds, and to provide sufficient diversity of habitats for all species so as to maintain populations at an ecologically sound level. All Bird Directive SPAs

will also be part of the Natura 2000 network under article 3(1) of the Habitats Directive.

- 2.7. Thus there is an obligation under the Habitats Directive and the Birds Directive for member states to designate sites before turning to measures for their protection.
- 2.8. The protection afforded to SPAs is delivered through Article 6 of the Habitats Directive. Article 6(2) requires member states to take appropriate steps to avoid the deterioration of natural habitats and disturbance of species for which the sites have been designated, in so far as the disturbance could be significant in relation to the objectives of the Directive. Article 6(3) and Article 6(4) require that a plan or project not directly connected with the management of the site, but likely to have a significant effect upon it, either individually or in combination with other plans or projects, must be subject to an appropriate assessment of its implications on the site, in view of the sites conservation objectives.
- 2.9. Having undertaken an appropriate assessment, the competent authority may agree to a plan or project where it can be concluded that it will not adversely affect the integrity of the site. In light of a negative assessment on the implications for the integrity of the site, Article 6(4) provides that the plan or project may still proceed where it can be demonstrated that there are no alternatives and there are imperative reasons of over-riding public interest as to why it must proceed. In the event that a plan or project is to proceed on the basis of imperative reasons of over-riding public interest, by direction of Article 6(4), compensatory measures must be put in place to ensure that the overall coherence of the Natura 2000 network is protected.

The Conservation of Habitats and Species Regulations 2010

- 2.10. The Conservation of Habitats and Species Regulations 2010, commonly referred to as the Habitats Regulations, transpose the requirements of the Habitats Directive and Birds Directive into UK legislation. The Habitats Regulations aim to protect a network of sites in the UK that have rare or important habitats and species in order to safeguard biodiversity. Note that the Conservation of Habitats and Species Regulations 2010 replace the Conservation (Natural Habitats &c.) Regulations 1994.
- 2.11. Under the Habitats Regulations, Competent Authorities have a duty to ensure that all the activities they regulate have no adverse effect on the integrity of any of the Natura 2000 sites. Regulation 61 of the Habitats Regulations requires that:

“61(1) 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 in Great Britain (either alone or in combination with other plans or projects) and
- (b) is not directly connected with or necessary for the management of the site,

shall make an appropriate assessment of the implications for the site in view of that site's conservation objectives.

61(3) The competent authority must for the purposes of the assessment consult the appropriate nature conservation body and have regard to any representations made by that body within such reasonable time as the authority may specify.

61(5) In the light of the conclusions of the assessment, and subject to regulation 62, the authority shall agree to a plan or project only after having ascertained that it will not adversely affect the integrity of the European site.

61(6) In considering whether a plan or project will adversely affect the integrity of the site, the authority shall have regard to the manner in which it is proposed to be carried out or to any conditions or restrictions subject to which they propose that the consent, permission or other authorisation should be given."

- 2.12. Regulation 61 of the Habitats Regulations therefore sets out a two stage process. The first test is to determine whether the plan / project is likely to have a significant effect on the European site, the second test (if applicable) is to determine whether the plan / project will affect the integrity of the European site.
- 2.13. Some key concepts of the Habitats Directive and Habitats Regulations have been clarified through case law. The most pertinent cases in relation to Development Proposals are the "Waddenzee Judgment", the "Dilley Lane Decision" and the Sweetman Case. These are discussed below.

Waddenzee Judgement

- 2.14. In the 'Waddenzee' case the European Court of Justice considered the trigger for 'Appropriate Assessment'. It decided that an appropriate assessment is required for a plan or project where there is a probability or a risk that it will have a significant effect on the SPA. The Judgement states [at paragraph 3(a)] that:
- "...any plan or project not directly connected with or necessary to the management of the site is to be subject to an appropriate assessment of its implications for the site in view of the site's conservation objectives if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either individually or in combination with other plans or projects."
- 2.15. Hence the need for an appropriate assessment should be determined on a precautionary basis.
- 2.16. The Judgement gives clarity that the test of 'likely significant effect' should also be undertaken in view of the European sites conservation objectives. It is stated at paragraph 3(b)] that:

“where a plan or project not directly connected with or necessary to the management of a site is likely to undermine the site's conservation objectives, it must be considered likely to have a significant effect on that site.”

- 2.17. Paragraph 4 of the Judgement emphasises the requirement for the appropriate assessment to rely on objective scientific information:

“...an appropriate assessment...implies that, prior to its approval, all the aspects of the plan or project which can, by themselves or in combination with other plans or projects, 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 appropriate assessment of the implications...for the site concerned in the light of the site's conservation objectives, are to authorise such an 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.”

Dilly Lane Decision

- 2.18. The Secretary of State's decision to allow an appeal in relation to applications for a total of 170 new homes on a greenfield site off Dilly Lane, Hartley Witney was challenged in High Court by Hart District Council. The legal challenge was made on the grounds that the Secretary of State had erred in departing from her Inspector's conclusions as to the effects on the Thames Basin Heaths SPA. A key issue for the case was whether mitigation measures should be disregarded when assessing whether the project would have a significant effect on the SPA. Mr Justice Sullivan ruled in favour of the Secretary of State after concluding that there was no absolute legal rule that mitigation measures should be disregarded in assessing whether the new homes would have significant effect on the SPA. Mr Justice Sullivan states at paragraph 55 of his judgement:

“The competent authority is not considering the likely effect of some hypothetical project in the abstract. The exercise is a practical one which requires the competent authority to consider the likely effect of the particular project for which permission is being sought. If certain features (to use a neutral term) have been incorporated into that project, there is no sensible reason why those features should be ignored at the initial, screening, stage merely because they have been incorporated into the project in order to avoid, or mitigate, any likely effect on the SPA.”

- 2.19. As such, it is right and proper that mitigation or avoidance measures, which form a feature of a plan / project should be viewed as integral to the plan / project and not excluded when considering the likely significance test at Regulation 61(1).

Sweetman Case

- 2.20. Further guidance in relation to the consideration of impacts in the light of the Habitats Regulations is provided in the Sweetman case. The case as

set out by the Advocate General considered in detail the test for likely significant effect in paragraphs 50 and 51:

“50. The test which that expert assessment must determine is whether the plan or project in question has ‘an adverse effect on the integrity of the site’, since that is the basis on which the competent national authorities must reach their decision. The threshold at this (the second) stage is noticeably higher than that laid down at the first stage. That is because the question (to use more simple terminology) is not ‘should we bother to check’ (the question at the first stage) but rather ‘what will happen to the site if this plan or project goes ahead; and is that consistent with “maintaining or restoring the favourable conservation status” of the habitat or species concerned’...

51. It is plan, however, that the threshold laid down at this stage of Article 6(3) may not be set too high, since the assessment must be undertaken having rigorous regard to the precautionary principle. That principle applies where there is uncertainty as to the existence or extent of risks. The competent national authorities may grant authorisation to a plan or project only if they are convinced that it will not adversely affect the integrity of the site concerned. If doubt remains as to the absence of adverse effects, they must refuse authorisation.”

- 2.21. The Court of Justice of the European Union (CJEU) agreed with the Advocate General's conclusions, and held:

“40. Authorisation for a plan or project, as referred to in Article 6(3) of the Habitats Directive, may therefore be given only on condition that the competent authorities – once all aspects of the plan or project have been identified which can, by themselves or in combination with other plans or projects, affect the conservation objectives of the site concerned, and in the light of the best scientific knowledge in the field – are certain that the plan or project will not have lasting adverse effects on the integrity of that site. That is so where no reasonable scientific doubt remains as to the absence of such effects.”

- 2.22. Hence a plan or project may be authorised only if no reasonable scientific doubt remains as to the absence of effects. Reasonable scientific doubt will exist if the evidence is not sufficiently conclusive, or if there are gaps in the information.

Guidance and other Relevant Documents

- 2.23. Guidance on the interpretation of key terms and concepts contained within the European and UK legislation of relevance to European designated sites is provided through several documents issued by the European Commission and national organisations such as the JNCC and Natural England. This guidance is discussed below.

Natura Standard Data Forms

- 2.24. A standard reporting format has been developed for Natura 2000 sites (SPAs and SACs) to ensure that the relevant site selection information is reported and stored in a consistent manner which can be easily made available.
- 2.25. A standard reporting form for SPAs and SACs was developed by the European Commission and published in 1996. The form is used for all sites designated, or proposed to be designated as SPAs and SACs under the relevant Directives, with the information to be stored on a central database.
- 2.26. Article 4 of the Habitats Directive provides the legal basis for providing the data. Article 4 states that information shall include a map of the site, its name, location, extent and the data resulting from application of the criteria specified in Annex III and that this shall be provided in a format established by the Commission. Under Article 4 (paragraph 3) of the Birds Directive Member States are required to provide the Commission with all relevant information to enable it to take any appropriate steps in order to protect relevant species in areas where the Directive applies.
- 2.27. Whilst it is the relevant country agency (i.e. Natural England) that is responsible for designating a site, it is the JNCC who are responsible for collating the lists of European and international designated sites, together with relevant supporting information. The Natura 2000 Data Forms for SPAs and SACs are therefore made available by the JNCC.
- 2.28. Within the explanatory notes for Natura Standard Data Forms (European Commission 1996) the following "main objectives" of the Natura data form / database are given:
 1. "to provide the necessary information to enable the Commission, in partnership with the Member States, to co-ordinate measures to create a coherent NATURA 2000 network and to evaluate its effectiveness for the conservation of Annex I habitats and for the habitats of species listed in Annex II of Council Directive 92/43/EEC as well as the habitats of Annex I bird species and other migratory bird species covered by Council Directive 79/409/EEC."
 2. "to provide information which will assist the Commission in other decision making capacities to ensure that the NATURA 2000 network is fully considered in other policy areas and sectors of the Commission's activities in particular regional, agricultural, energy, transport and tourism policies."
 3. "to assist the Commission and the relevant committees in choosing actions for funding under LIFE and other financial instruments where data relevant to the conservation of sites, such as ownership and management practice, are likely to facilitate the decision making process."
 4. "to provide a useful forum for the exchange and sharing of information on habitats and species of Community interest to the benefit of all Member States."

Managing Natura 2000 Sites (European Communities 2000)

- 2.29. The document entitled "Managing Natura 2000 Sites the provisions of article 6 of the Habitats Directive 92/43/CEE", published by the European Commission in 2000, provides guidelines to the Member States on the interpretation of certain key concepts used in Article 6 of the Habitats Directive. It should be noted that the section relating to Article 6(4) has subsequently been replaced through the publication of a further guidance document by the European Commission in 2007 entitled "Guidance document on Article 6(4) of the 'Habitats Directive', which is considered below under the relevant heading.
- 2.30. This document states at Section 2.3.3 that conservation measures must correspond to the ecological requirements of the habitats and species present for which the site is designated and that these requirements "involve all the ecological needs necessary to ensure their favourable conservation status".
- 2.31. At section 3.5 the guidance states, in relation to deterioration and disturbance of habitats or species:
- "Deterioration or disturbance is assessed against the conservation status of species and habitats concerned. At a site level, the maintenance of the favourable conservation status has to be evaluated against the initial conditions provided in the Natura 2000 standard data forms when the site was proposed for selection or designation, according to the contribution of the site to the ecological coherence of the network. This notion should be interpreted in a dynamic way according to the evolution of the conservation status of the habitat or the species."
- 2.32. Section 4.4.1 sets out that in determining what may constitute a likely 'significant' effect one should take into account the conservation objectives for the site and other relevant baseline information. In the second paragraph of this section of the document it is stated:
- "In this regard, the conservation objectives of a site as well as prior or baseline information about it can be very important in more precisely identifying conservation sensitivities."
- 2.33. Section 4.5.3 of the document sets out the duty of member states to provide certain specific information in support of the inclusion of a site within the Natura 2000 network. This information is to be provided in a format specified by the European Commission (the Natura 2000 Standard Data Form).
- 2.34. A link is drawn between the Standard Data Form and the formation of the sites conservation objectives within the text box at the end of section 4.5.3 of the guidance where it is stated:

"The information provided according to the standard data form established by the Commission forms the basis for a Member State's establishment of the site's conservation objectives."

- 2.35. With regard to an assessment of the effects of a plan / project on the integrity of a site, the 'integrity of the site' is defined at Section 4.6.3 as:

"... the coherence of the site's ecological structure and function, across the whole area, or the habitats, complex of habitats and / or populations of species for which the site is or will be classified."

- 2.36. The guidance is clear, within the text box at the foot of page 39, that an assessment as to the implications of the plan / project on the integrity of the site should be limited to an assessment against the sites conservation objectives:

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

- 2.37. Section 5 of the document deals with Article 6(4) of the Habitats Directive. Note that this section has been expanded upon, and replaced by further guidance issued by the European Commission entitled "Guidance document on Article 6(4) of the Habitats Directive 92/43/EEC" (2007). This document is dealt with below at paragraphs 2.57 – 2.61.

Assessment of Plans and Projects Significantly Affecting Natura 2000 sites- Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission 2001)

- 2.38. This document, published by the European Commission in 2001, gives guidance on carrying out and reviewing those assessments required under Article 6(3) and (4) of the Habitats Directive. It is provided as supplementary guidance and does not over-ride or replace any of that set out within Managing Natura 2000 (European Commission 2000) which as stated at page 6 of the document, "is the starting point for the interpretation of the key terms and phrases contained in the Habitats Directive". The guidance provided is not mandatory and it is clearly set out that its use is "optional and flexible" and that it is for "Member States to determine the procedural requirements deriving from the directive".
- 2.39. The guidance sets out the key stages in following the tests contained within the Habitats Directive. Pertinent to this application, stages one and two are relevant. Stage one is the screening stage assessing the likelihood of a plan / project resulting in a significant effect upon the European site. The second comprises the appropriate assessment.
- 2.40. Section 3.2.4 is concerned with Appropriate Assessment and specifically, the assessment against the conservation objectives of the European Site. Box 9 provides a list of five example conservation objectives for differing broad habitat types. One such example, that for a coastal site, taken from Box 9 is provided below:

“to maintain the status of the European features of this coastal site in favourable condition, allowing for natural change. Features include coastal shingle vegetation and lagoons (within a candidate special area of conservation (SAC), which is also an SPA).”

Internal Guidance to decisions on ‘Site Integrity’: A framework for provision of advice to competent authorities (English Nature 2004)

2.41. Natural England (formerly English Nature) has produced an internal guidance document on the provision of advice to competent authorities regarding the concept of “site integrity” in undertaking an appropriate assessment.

2.42. This guidance sets out a definition for integrity. It states that integrity is considered at the site level and gives the following definition, as taken from PPG9:

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

2.43. Integrity is further defined within section 3.0 where it is stated that:

“In a dynamic context ‘integrity’ can be considered as a site having a sense of resilience and ability to evolve in ways that are favourable to conservation.”

2.44. The need to maintain, or restore the site to, favourable conservation status is dealt with in the final paragraph of section 3.0. Natural England quotes guidance issued jointly by the Environment Agency, English Nature and Countryside Council for Wales.

2.45. The guidance provides a checklist within section 4.1, for assessing the likelihood of an adverse effect on integrity occurring as a result of the proposed plan / project. It is stated that if the answer to all of the questions posed within the checklist is “yes” then it is reasonable to conclude that there will be no adverse effect upon integrity. In the event that one or more of the answers is no, then the guidance suggests that a series of further site specific factors, listed at 4.2 – 4.7 of the guidance must be.

Common Standards Monitoring (JNCC February 2004)

- 2.46. Common Standards Monitoring is a means by which condition objectives for habitats, species, or other features of designated sites (e.g. Sites of Special Scientific Interest – SSSIs, and SPAs) are set based on key attributes of the features.
- 2.47. The Joint Nature Conservation Committee (JNCC) and the country Conservation Agencies (e.g. Natural England) developed guidance on the setting and assessing of condition objectives, as required under the Birds and Habitats Directives and set out a framework for this in 1999. This framework is provided in the form of Common Standards Monitoring (CSM) guidance which comprises a suite of documents including an “Introduction to the Guidance Manual on Common Standards Monitoring” and several species / habitat specific documents, including those for lowland heathland, birds, reptiles and invertebrates. The Introduction to the Guidance Manual covers various relevant concepts and terms. It also provides a background to the setting of conservation objectives and sets out the desired approach to setting targets, monitoring, management and reporting on conservation measures in designated sites.
- 2.48. The Introduction to CSM Guidance and CSM guidance for individual site attributes (e.g. its bird interest) set out specific criteria regarding the identification of interest features, targets and methods of assessment. There is in-built flexibility and allowances for 'judgements to be made' when assessing, for example, favourable condition.
- 2.49. It is understood that Natural England applies the Common Standards Monitoring approach to European designated sites through an assessment of the SSSI unit condition. This is undertaken on a cycle of approximately 6 years. The assessment does not relate to the Conservation Objectives of the European site, but provides a tool for tailoring future management of the SSSI such that favourable condition of the interest features can be maintained or restored as appropriate.

National Planning Policy Framework (2012) and ODPM / Defra Circular (ODPM & Defra, 2005)

- 2.50. Paragraphs 113 and 118 of the National Planning Policy Framework (2012) are of direct relevance. Paragraph 113 is concerned with the hierarchy of international, national and locally designated sites such that “protection is commensurate with their status and gives appropriate weight to their importance and the contribution that they make to wider ecological networks”. Bullet point six at paragraph 118 asserts that Ramsar sites, proposed SPAs, SACs and sites providing compensatory measures for adverse effects on European sites should be afforded the same level of protection as classified SPAs and designated SACs.
- 2.51. Guidance on the determination of whether an effect on a European designated site is likely to be significant, together with the scope of appropriate assessments and ascertaining the effect on the integrity are provided within the DEFRA Circular (ODPM & DEFRA, 2005). This DEFRA Circular was published in relation to Planning Policy Statement 9 (PPS(9),

which was superseded by the National Planning Policy Framework (2012). However, the National Planning Policy Framework retains reference to the DEFRA Circular (2005).

- 2.52. With respect to the significance test, the DEFRA Circular states at paragraph 13 that:

“The decision as to whether an appropriate assessment is necessary should be made on a precautionary basis”.

- 2.53. The Waddenzee Judgement is specifically referred to at paragraph 13 of the Circular. With regards to the need to undertake an appropriate assessment; this is only required where it is not possible to conclude, on the basis of objective information, that the plan / project will not have a significant effect on the European site, either individually or in combination with other plans / projects.

- 2.54. Paragraph 14 clarifies that in considering the likely significance of an effect, the decision taker should assess whether the effect would be significant in terms of the sites conservation objectives.

- 2.55. Paragraph 15 clarifies the importance of assessing the likely significant effect on each of the interest features for which the site is designated.

- 2.56. Guidance on the scope of an Appropriate Assessment is provided at paragraph 17:

“If the decision-taker concludes that a proposed development (not directly connected with or necessary to the management of a site) is likely to significantly affect a European site, they must make an appropriate assessment of the implications of the proposal for the site in view of the site's conservation objectives. These relate to each of the interest features for which the site was classified...The scope and content of an appropriate assessment will depend on the nature, location, duration and scale of the proposed project and the interest features of the relevant site. It is important that an appropriate assessment is made in respect of each interest feature for which the site is classified; and for each designation where a site is classified under more than one international obligation...”

- 2.57. At paragraph 20 the definition of “integrity” for the purpose of interpreting the tests contained within the Habitats Regulations is given as:

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

- 2.58. The DEFRA Circular includes a flow diagram (see Appendix 1) setting out the series of steps competent authorities are required to take in considering proposals affecting internationally designated Nature Conservation Sites. This is based on the information and flow charts given in guidance issued

by the European Commission (European Commission Environment DG, 2001).

- 2.59. The information contained within this report follows the steps outlined in the flow diagram and takes account of the EC guidance on the basis of information currently available on the nature of the development in relation to those Internationally Designated Nature Conservation Sites identified within this assessment. Professional judgement has been applied to interpret this information within the context of the sites' conservation objectives and the criteria under which they are designated.

Guidance document on Article 6(4) of the 'Habitats Directive' (European Commission 2007)

- 2.60. This document, published by the European Commission in 2007, is intended to provide clarification on key terms / concepts as referred to within "Managing Natura 2000 Sites" and replaces the section on Article 6(4) within that earlier document.
- 2.61. The Guidance document covers, in particular, the concepts of Alternative Solutions, Imperative Reasons of Overriding Public Interest, Compensation Measures, Overall coherence and the Opinion of the Commission.
- 2.62. With regard to ensuring the quality of an appropriate assessment, and to define exactly what needs to be compensated, it is stated at Section 1.3 that:

"Assessment procedures of plans or projects likely to affect Natura 2000 sites should guarantee full consideration of all elements contributing to the site integrity and to the overall coherence of the network, both in the definition of the baseline conditions and in the stages leading to identification of potential impacts, mitigation measures and residual impacts. These determine what has to be compensated, both in quality and quantity."

- 2.63. The need to use information contained within the Natura Standard Data Form, in tandem with the sites conservation objectives when undertaking an appropriate assessment is specifically referred to (under the second hyphenated point at Section 1.3 on page 5).
- 2.64. Section 1.3.2 gives guidance on the application of Article 6(4) in respect of reasons of overriding public importance and Section 1.4.1 gives guidance on the application of Article 6(4) in respect of compensatory measures.

Conservation Objectives

- 2.65. The Conservation Objectives for SPAs and SACs are published by Natural England. Those for the Deben Estuary SPA are included at Appendix 2.

3. SITE LOCATIONS AND BACKGROUND

- 3.1. The Deben Estuary SPA/Ramsar site is located to the south and west of the Application Site, approximately 390m away at its closest point. Other European / international designated sites are located at considerably greater distances.
- 3.2. For completeness, the closest such sites are the Sandlings SPA (located approximately 4.2km to the east) and the Stour and Orwell Estuaries SPA/Ramsar site (approximately 10km to the south).
- 3.3. Given the nature of the Development Proposals and the distances involved, it is considered that no potential significant effects would arise in relation to the Sandlings SPA and the Stour and Orwell Estuaries SPA/Ramsar site, or any other European designated site located at greater distances. It is also noted that Natural England have not raised any concerns in relation to potential significant effects on European site other than the Deben Estuary SPA/Ramsar site. Further detailed consideration in relation to any of these other sites is not considered necessary for the purpose of this assessment.
- 3.4. Detailed consideration has however been given to potential significant effects arising in relation to the Deben Estuary SPA/Ramsar site.

3.5. Deben Estuary SPA/Ramsar site

- 3.5.1. The Deben Estuary SPA and Ramsar site covers an area of 978.93ha. The relevant Natura Standard Data Form and Ramsar Information Sheet is included at Appendix 3.
- 3.5.2. The Deben Estuary SPA/Ramsar site comprises one underpinning SSSI, namely the Deben Estuary SSSI. The citation for this SSSI is included at Appendix 3.

3.6. Relationship between the SPA/Ramsar site and the Application Site

- 3.6.1. The relationship between the SPA/Ramsar site is shown graphically at Plan ECO1.

4. CONSERVATION STATUS OF THE SPA/RAMSAR SITE

4.1. SPA Qualifying Features

- 4.1.1. The Deben Estuary is relatively narrow and sheltered. It comprises shifting sandbanks within the estuary mouth with saltmarsh and intertidal mudflats occupying the majority of the rest of the site. The estuary holds a range of swamp communities that fringe the estuary and the site holds the most complete range of saltmarsh community types in Suffolk.
- 4.1.2. The Deben Estuary SPA qualifies under Article 4.1 of the Birds Directive on account of it supporting Annex I species Avocet *Recurvirostra avocetta*.
- 4.1.3. The SPA further qualifies under Article 4.2 of the Birds Directive on account of it supporting important populations of over-wintering Dark-bellied Brent Goose *Branta bernicla bernicla*.
- 4.1.4. The Natura 2000 Standard Data Form for the SPA is included in Appendix 3.

4.2. Ramsar Site Qualifying Features

- 4.2.1. The Deben Estuary Ramsar site qualifies under Ramsar criteria 2 and 6. The qualifying features under criterion 2 relate to the site supporting the mollusc Narrow Mouthed Whorl Snail *Vertigo angustior* and under criterion 6 due to the site supporting an over-wintering population of Dark-bellied Brent Goose.
- 4.2.2. The Ramsar Information Sheet for the Ramsar site is included in Appendix 3.

4.3. Condition of SPA/Ramsar site habitats

- 4.3.1. Habitat information for each of the management units of the Deben Estuary SSSI is given within the 'condition assessment comment' included at Appendix 4. There are currently 22 management units, of which the majority are documented as being in "unfavourable and declining condition", with the condition of six units being documented as "favourable". For clarity, the unit in closest proximity to the Application Site (6) is classified as being in unfavourable and declining condition.
- 4.3.2. Favourable condition for the SSSI is defined as being adequately conserved and meeting its 'conservation objectives'.

4.4. Conservation Objectives

- 4.4.1. The Habitats Regulations require an appropriate assessment to be undertaken "in view of the site's nature conservation objectives". Conservation objectives are a statement of the measures required to maintain at, or restore to, favourable conservation status the natural

habitats and / or the populations of species of wild fauna and flora for which the site has been selected. The conservation status of a species is defined as favourable when the population, range and natural habitats of the species are stable or increasing. Similarly the conservation status of a habitat is favourable when the range, structure and function, and typical species thereof, are stable or increasing.

- 4.4.2. The Conservation Objectives for the Deben Estuary SPA are included at Appendix 2.

4.5. Deben Estuary SSSI qualifying features

- 4.5.1. The Deben Estuary SSSI is designated on account of the quality of the saltmarsh habitat which supports some nationally significant communities of flora and fauna. Plant, mollusc and bird communities are specifically cited as being of importance.
- 4.5.2. Whilst the principal purpose of this document is to address potential significant effects on the SPA, for completeness, given the underpinning nature of the SSSI designation and the consistency of site boundaries, consideration is also give to effects on the SSSI where relevant.

5. ASSESSMENT OF THE IMPLICATIONS OF THE DEVELOPMENT PROPOSALS FOR THE SPA CONSERVATION OBJECTIVES

- 5.1. Section 2 of this document sets out the legislation, guidance and case law of relevance to an assessment of the implications of a plan / project on a European site. Having regard to this legislation and supporting guidance it is clear that the assessment is a two stage process, the first being the 'likely significant effect' stage, the second being the 'integrity test'.
- 5.2. It is clear that the Conservation Objectives of the European site are the most important consideration in determining whether the plan / project will have an adverse effect on the site, including any effects on its integrity. Indeed, some guidance indicates that it is only the Conservation Objectives against which the plan / project should be tested in line with the Habitats Directive / Regulations. However, other European guidance implies that additional information is relevant.
- 5.3. It is evident that there is a clear hierarchical approach to assessing effects on European sites in line with the Habitats Directive / Regulations. The primary test is that against the Conservation Objectives (updated since 2012 to include specific reference to qualifying interest features) with other considerations following these. Such other considerations would include:
- Other features of interest associated with the site; and
 - Other relevant baseline information for the site.
- 5.4. In line with the above, whilst the qualifying interest features of the site and other baseline information have informed this assessment, the greatest weight has been placed upon the formal conservation objectives for the European site, as set out by Natural England.
- 5.5. This section includes a description of the potentially significant effects arising from the Development Proposals at the Application Site on the SPA/Ramsar site. The potential effects are assessed within this section in order to address the test under Regulation 61(1) in the first instance. The assessment of potential significant effects is undertaken at this stage of the Development Proposals "alone" (i.e. not "in combination").
- 5.6. In undertaking this assessment, consideration has been given to the best available scientific knowledge. An appropriate assessment (if required) could therefore be undertaken consistent with the *Waddenzee* Judgement, which requires the use of the best scientific knowledge to inform a decision where no reasonable scientific doubt remains as to the presence and / or absence of effects that would adversely affect the integrity of the designated site (see Section 2 above). Furthermore, consideration is given to the *Dilly Lane* High Court Judgement; whereby it is deemed right and proper to consider the mitigation designed into the plan / project as being an integral part of the plan / project and that as such, they should not be viewed separately (see section 2 above).

5.7. **Potential Effects on the SPA/Ramsar site/SSSI in the absence of Mitigation**

- 5.8. The planning application is for the development of up to 215 residential dwellings. A framework plan have been submitted demonstrating the general design principles of the Development Proposals (see Appendix 5). The detailed design and layout would be submitted as part of a future Reserved Matters application.
- 5.9. Key to the design principles of the scheme is the provision of public open-space, which forms a central spine through the development, running from east to west. This area will comprise new and retained vegetation, an attenuation basin and a circular footpath. Existing habitat features within this area, such as hedgerows, trees/scrub and grassland will be retained and enhanced where possible. New features to be present in this area include an attenuation basin, woodland and buffer planting, a circular walking route and an amenity play area.
- 5.10. In view of the reasons for the qualification of the SPA/Ramsar site, the distance of the Application Site from these designated sites and the nature of the Development Proposals, the following pathways for potential significant effects have been screened out of requiring further detailed assessment:
- Effects from increased **noise** and **lighting** during both the construction and operational phases of the Development Proposals;
 - Effects relating to **air quality** (e.g. dust deposition) during both the construction and operational phases of the Development Proposals;
 - Matters relating to direct '**land take**' at the SPA/Ramsar site; and
 - Matters relating to **supporting habitat** for the SPA/Ramsar site.
- 5.11. In reaching the above conclusion, due regard has been had to the position of Natural England as expressed within correspondence (letters dated 23rd July 2015 and 1st May 2015). Copies of the relevant letters are included at Appendix 6).
- 5.12. Natural England's clear position (by reference to the letters dated 23rd July 2014 and 1st May 2015) is that in order to properly inform the Habitats Regulations Assessment, specific consideration should be given to the impact of increased recreational activity on qualifying bird features of the SPA and Ramsar site. It is Natural England's advice (letter dated 23rd July 2014) that the Ramsar qualifying feature, Narrow Mouthed Whorl Snail, "is not likely to be affected by these proposals" and as such potential effects have been screened out of requiring any detailed assessment.
- 5.13. In light of the above, potential pathways for significant effects are considered to be limited to the following:
- Disturbance effects on **qualifying bird features** through increased recreational use of the SPA/Ramsar site (e.g. dog walking, walking and cycling) during the operational phase of the Development Proposals.

Disturbance effects on qualifying bird interest features

- 5.14. Given the distances involved, it is considered that there is potential for new residents associated with the proposed development to access areas of the SPA/Ramsar site (e.g. for recreational purposes), thereby increasing visitor pressure on the site and potentially disturbing birds, including those listed as designating features of the site.

Vulnerability

- 5.15. The SPA/Ramsar site is designated on account of its over-wintering bird populations (Avocet and Dark-bellied Brent Goose - see Section 4). Thus potential significant effects are limited to the winter period only.
- 5.16. During winter, birds are susceptible to adverse effects through disturbance due to food sources being scarcer and efficient use of energy being of heightened importance to survival.
- 5.17. The recent report titled "The Deben Estuary and its hinterland: Evaluation of key areas for birds, recreational disturbance issues and opportunities for mitigation and enhancement"¹ (produced by SWT Trading Ltd in 2014) has been used in order to inform the baseline position, in terms of population numbers and distribution of the two key species in question (Avocet and Dark-bellied Brent Goose). Relevant extracts from this report are appended to this IHRA, and these are referenced where appropriate below.
- 5.18. A table ("Table 1") showing the current and historic population status of bird interest features (SSSI/SPA and Ramsar site), together with the associated level of importance (e.g. national or international) is shown at Appendix 7.
- 5.19. As can be seen in Table 1 at Appendix 7, the numbers of Dark-bellied Brent Goose and Avocet have declined since classification/designation of the SPA/Ramsar site, with the current population levels below the threshold for international importance. They are however still at a level which would be considered of national importance (exceeding the relevant threshold). Population numbers of Black-tailed Godwit, an interest feature of the SSSI but not a qualifying feature of the SPA or Ramsar site, have risen over recent years and this species would now meet the relevant qualifying population threshold for international importance. Since Black-tailed Godwit is not a qualifying feature of the SPA or Ramsar site, detailed assessment for the purpose of addressing the tests of the Habitats Regulations is not required in this instance and any reference to this species in this report is purely by way of completeness, to provide additional comfort that the Development Proposals would not adversely impact upon the Deben Estuary SSSI. Other species considered in this light include Shelduck and Redshank, which along with Black-tailed Godwit were specifically cited by Natural England as important features of the SSSI, which could be affected by the Development Proposals.

¹ Mason *et al* The Deben Estuary and its hinterland: Evaluation of key areas for birds, recreational disturbance issues and opportunities for mitigation and enhancement (2014) SWT Trading Ltd.

- 5.20. In terms of the recorded distribution of the above named species, detail is provided in the aforementioned report (Mason *et al*, 2014). This information is summarised below.
- 5.21. Avocets are known to forage throughout the estuary / river, with the main roost sites between Bawdsey Quay and north to Ramsholt, with Woodbridge also used by some birds.
- 5.22. Dark-bellied Brent Geese are documented as consistently using arable fields between Bawdsey and Ramsholt; at Felixstowe, Falkenham and Kirton Marshes; north of Hemley and north of Waldringfield. They have also been recorded in the fields around Methergate. In addition to arable habitat, they are known to forage on Common Eelgrass *Zoostera marina* (present but declining) within the estuary when the birds first arrive and also use other parts of the estuary (SPA/Ramsar site) for either loafing, roosting or foraging.
- 5.23. Black-tailed Godwit were historically concentrated in the stretch of the river between Martlesham Creek and Woodbridge / Melton at low tide (e.g. foraging). At low tide they are now likely to be found more widely spread, in small groups north of Ramsholt. At high tide they feed on grazing marshes and the main roost sites appear to be in the Falkenham Creek area.
- 5.24. Shelduck forage, roost and loaf throughout the estuary. Redshank are again widespread within the estuary, foraging in the main at, or close to the tide line but also on drier exposed mud or saltmarsh habitat. The main foraging area for this species is from Falkenham Creek to the Kirton Creek area.
- 5.25. The key foraging and roosting sites for the above species are shown at Appendix 8.
- 5.26. The SWT Trading report highlights those parts of the estuary which are deemed to be most sensitive to recreational disturbance. These areas are shown graphically on the plan included at Appendix 8. As can be seen, from this plan, Martlesham Creek, which is the closest part of the SPA/Ramsar site to the Application Site is not listed as a sensitive area. However, the area immediately south of the creek is highlighted as being "highly sensitive", and that to the north (near the settlement of Woodbridge) as "sensitive".

Assessment of impacts (SPA / Ramsar site)

- 5.27. This assessment is necessarily focussed upon the potential for disturbance to Dark-bellied Brent Geese and Avocets.
- 5.28. In terms of foraging, in line with the evidence available Avocet are assumed to utilise all parts of the estuary including those parts in closest proximity to the Application Site, whilst Dark-bellied Brent Geese will use the estuary near Woodbridge to some extent (before moving off to arable habitat), but the main foraging area is in excess of 4km south of the Application Site.

- 5.29. With regard to roosts, the main Avocet roost is located approximately 9km southeast of the Application Site and that for Dark-bellied Brent Geese is (as for foraging) in excess of 4km south of the Application Site.
- 5.30. It should be noted that the Application Site does not contain any habitat which would be utilised by the qualifying bird species and thus there would be no direct effect on 'supporting habitat' for the SPA/Ramsar site.

Pathways for potential effects

- 5.31. The following main pathways for potential significant recreational disturbance effects on the bird interest features have been identified:
- Dogs (dog walking);
 - Walkers;
 - Watercraft / water-sports (e.g. boats, canoes/kayaks and jet-skis);
 - Wildfowling / shooting.
- 5.32. All of these activities are specifically cited within the SWT Trading report and such pathways are typical of those cited for other coastal SPAs and Ramsar sites. In particular a comparison can be made with the Chichester and Langstone Harbours SPA/Ramsar site where a considerable amount of detailed research into recreational disturbance (including quantitative assessment) has been undertaken regarding effects on wintering (and breeding) bird species. In the case of the Chichester and Langstone Harbours SPA/Ramsar site, additional pathways cited include fishing and bait collection and 'wildlife watching'.
- 5.33. There is little available information in terms of a quantitative assessment into existing recreational pressure, although the SWT Trading report gives a useful account for assessment purposes and the findings (in terms of relevant pathways) are comparable to those for other estuaries (SPAs), such as the Chichester and Langstone Harbours SPA/Ramsar site, mentioned above, and also the Stour and Orwell Estuaries SPA (Ravenscroft et al – 2007)².
- 5.34. Without suitable mitigation the Development Proposals are likely to result in a measurable increase in walkers / dog walkers using the SPA and further consideration is required. Watercrafting / watersports are typically associated with summer months and increases in these activities as a result of the development proposals will be *de minimis*. Shooting and Wildfowling are highly specialised and regulated activities and the potential increase in residents that undertake such activities is again considered *de minimis*.
- 5.35. Detailed research into recreational pressure on qualifying bird interest features at SPA's, including an analysis of visitor use, is available for other sites, most notably the Thames Basin Heaths SPA and Dorset Heathlands. These studies are often cited when assessing visitor impacts at SPAs and the findings have been used to steer mitigation and avoidance packages at

² Ravenscroft et al, (2007) Disturbance to waterbirds wintering in the Stour and Orwell Estuaries SPA, Wildside Ecology.

project and plan level Habitats Regulations Assessments. Similar detailed studies have also been undertaken for Sandlings SPA in Suffolk (Cruickshanks *et al*, 2010)³. These studies were all used (in part) to assess potential significant effects (and effects on Integrity) on European/international designated sites which could arise through the Suffolk Coastal District Council Core Strategy.

- 5.36. A further study undertaken by the No Adastral New Town (NANT) action group is referenced within the Appropriate Assessment for the Core Strategy (The Landscape Partnership – 2011). However, it is considered that only limited weight can be placed on the findings of this study given its narrow scope.
- 5.37. Whilst a note of caution must always be exercised when comparing visitor access patterns on heathland (and other inland sites / habitats) with coastal sites, several key themes can be accepted. These are:
- Visitors will generally walk somewhere between 1.5km and 3km;
 - Visitors will travel by car to access the designated site and travel several kilometres to do so;
 - A significant number of visits (very often in excess of 50% will be connected with dog walking);
 - Of the dog walkers a significant proportion will arrive by car.

- 5.38. It should be noted that the 'coast' itself has been found to be a significant draw for people during relevant work undertaken in respect of such sites. This matter is discussed further below in relation to appropriate mitigation / avoidance measures.

Defining the number of visitors

- 5.39. The Development Proposals are for the provision of 215 residential properties, a convenience store, associated infrastructure, open space and landscaping.
- 5.40. The proposals are for the construction of 215 residential units. The average number of residents per household within the Suffolk Coastal District⁴ is 2.3. On this basis, the new development could give rise to 495 additional people.
- 5.41. A proportion of the existing population and some of the new residents would be expected to own pets, including dogs. Based on survey information available from the Pet Food Manufacturers Association⁵ the latest available data shows that nationally 24% of households own dogs. However, data from the east of England region shows that 23% of households own dogs.

³ Cruickshanks *et al* (2010) Suffolk Sandlings Living Landscape Project Visitor Survey Report, Footprint Ecology and Suffolk Wildlife Trust.

Footprint Ecology / Suffolk Wildlife Trust.

⁴ 2011 Census, Office for National Statistics

⁵ PFMA (2014) Pet Population 2014: <http://www.pfma.org.uk/pet-population-2014>

- 5.42. Using the regional data for dog ownership, it can be estimated that the existing number of households in Suffolk Coastal District which own dogs (one or more) is 13,346. The Development Proposals would deliver an additional 215 residential properties, of which 50 may be expected to own dogs. Thus, potentially 13,396 households would own dogs in Suffolk Coastal District (following full occupation of the Development Proposals) and this equates to an increase over the existing situation of around 0.37%.
- 5.43. Given the lack of specific reliable visitor survey data for the Deben Estuary SPA the population increase of 0.37% is used as a worst case basis to calculate increased visitor numbers at the site. If the number of visitors to the SPA were to increase by 0.37% as a result of the Development Proposals an additional 3 visitors per day. If these 3 visitors were dog owners, they may visit the SPA twice per day and result in an additional 6 visits per day. This is again considered on a worst case basis and it would not be expected that dog walkers would use the SPA twice daily.
- 5.44. Whilst it is important to consider this potential increase in dog ownership, it is also important to recognise that the existing residential households in the local area which own dogs will already be contributing to a level of 'pressure' on birds at the SPA including those listed as designating species of the site.
- 5.45. Access to nearby recreational areas for dog walking will be required by new residents. In the absence of suitable additional recreation / open space provision in the immediate vicinity of the new dwellings, it is possible that new residents would access habitat associated with the SPA on a more regular basis than would otherwise be the case. Access to the footpaths along the SPA is possible by using existing roads and footpaths in the local vicinity most notably via Sandy lane to the east of the Application Site. Information of existing public footpaths, including formal rights of way is shown on Plan ECO2.
- 5.46. On the evidence available, it is considered that the Development Proposals would not give rise to a significant effect on the SPA, by way of impacts on wintering birds. Notwithstanding this, in order to provide 'certainty' (in line with the Waddenzee Judgment and the Sweetman case) and additional comfort to the Competent Authority in granting a legally compliant consent, a package of mitigation and avoidance measures aimed at mitigating / avoiding recreational impacts on the SPA has been put forward. This is discussed in detail further below in Section 6.

Consideration of impacts on the River Deben SSSI

- 5.47. In its letter of 1st May (see Appendix 6), Natural England raised concerns in relation to potential impacts on the Deben Estuary SSSI as a result of the Development Proposals. It stated that:

"Natural England is not yet satisfied that the proposed operations are not likely to damage any of the interest features of the Deben Estuary SSSI."

- 5.48. It is considered that in undertaking this detailed assessment of the Development Proposals and in the light of the mitigation / avoidance measures described herein, no adverse impacts on the qualifying features of the SSSI would arise. Those mitigation / avoidance measures proposed in relation to potential significant effects on the SPA would be equally relevant to the Deben Estuary SSSI. No additional mitigation is considered necessary.

6. MITIGATION / AVOIDANCE MEASURES AND IN COMBINATION TEST

- 6.1. The mitigation / avoidance strategy for the SPA comprises a single key element focussed on measures to reduce both existing and (potential) additional recreational pressures on the SPA through walking / dog walking (effects on birds).

Effects on the SPA / Ramsar / SSSI with Mitigation / Avoidance Measures

- 6.2. A recognised means of mitigating potential detrimental effects on an SPA through increased visitor pressure is through the provision of additional informal green space in close proximity to a new residential development. This has been the approach used in relation to the Thames Basin Heaths SPA and has been advocated by Natural England in the production of the Thames Basin Heaths Draft Delivery Plan (DDP), which provides a vehicle for mitigation in respect of new residential development in close proximity to the Thames Basin Heaths SPA.
- 6.3. Whilst it is accepted that the designating features and conservation objectives of the Thames Basis Heaths SPA, which are concerned with the populations of Woodlark, Nightjar and Dartford Warbler (heathland birds) are different from those of the Deben Estuary SPA, it is considered that the principles in respect of visitor pressure and the resultant potential disturbance to the birds are fundamentally similar, although with some key differences. As such, it has been agreed with Natural England (Appendix 6) that the provision of additional informal green space represents a good way of alleviating any increase in visitor pressure at Deben Estuary SPA site in respect of the proposed development. The use of additional informal green space in respect of mitigating potential effects from increased recreational pressure on coastal sites is however untested. Nonetheless it forms a sensible approach, at least in part, to avoiding or reducing recreational pressure.
- 6.4. The Development Proposals will deliver cycling and walking / dog walking opportunities within the Application Site in the form of a circular walk / cycle path and additional open space in the centre of the site (see Appendix 5). Furthermore, the scheme design will not provide any direct links to the SPA and promote alternative recreation resources. The Development Proposals will provide 3.57ha of informal open space containing a circular route of 1.7km. This area will provide features of interest including a wooded area in the west, pond habitat in the east, grassland throughout and new boundary hedgerows. This open space will be managed to provide benefits to wildlife and will provide an attractive alternative to walks associated with the SPA. The convenience will be further enhanced with the removal direct access links to the SPA via Sandy Lane with the installation of hedgerows and fencing along this boundary.
- 6.5. The network of public footpaths and lanes within the vicinity of the Application Site provide opportunities for walking / dog walking and example circular routes have been identified (see Plan ECO2). A longer route leading from the Application Site entrance heads west, away from the SPA, and extends for 5.6km. A shorter circular route, again leading from

the Application Site entrance, extents of 1.3km and in combination with the 1.7km circular route within the Application Site forms a 3km walk.

- 6.6. Promotion of these routes will draw walkers / dog walkers away from footpaths leading to the SPA (specifically around the Martlesham Creek). These walks will be promoted by providing homeowner information packs detailing the walks and sensitivities of the SPA. Additionally, information boards at key points along the walk will be installed informing users of additional recreational resources. It is considered that due to the attractiveness, availability and convenience of these promoted walks they will form the most frequently used resource for walks per day by new residents.

Additional measures to reduce recreational pressures on the SPA

- 6.7. The scheme design has ensured that no direct link is provided to the footpath which runs adjacent to the SPA.
- 6.8. The Development Proposals will deliver additional informal recreation opportunities 'on the doorstep' of new residents. Recreational (including dog walking) opportunities will be created in the form of public open space, with such provision including a circular walk of approximately 1.7km within the Application Site. This is shown on the plan included at Appendix 5.
- 6.9. Notwithstanding the above, on a precautionary basis it has been assumed that new residents will from time to time, gain access to the footpath leading to the Deben Estuary SPA, potentially increasing disturbance to birds. On this basis, additional measures have been put forward. These additional measures are as follows:
- Removing the available access point onto Sandy Lane from the Application Site with the installation of fencing and planting of hedgerow along the eastern boundary. As part of the site management the integrity of this barrier will be monitored for damage / breaches and once identified will be repaired immediately.
 - Provision of new homeowner information packs highlighting the sensitivities of the SPA, the need to keep dogs on a lead and alternative recreation resources in the local area.
 - Provision of a financial contribution towards the wardening and visitor management of the SPA.
 - Provision of a financial contribution towards the design and installation of signage at access points of the Application Site. The signs would highlight circular routes available and the sensitivities of the SPA and the reasons why dogs should be kept on a lead near the estuary.
- 6.10. The contribution towards wardening would be secured through a planning obligation.

- 6.11. It is considered that the above measures would negate any perceived potential significant effects arising from the Development Proposals on the SPA through impacts on birds. Furthermore the installation of signage would help reduce potential significant effects arising in respect of existing use of the footpath by local residents.

Summary conclusion

- 6.12. It is considered that, having adopted a precautionary stance, the provision of mitigation / avoidance measures as described above, would avoid any potential significant adverse effects on the Deben Estuary SPA when the project is considered alone. Having undertaken an assessment of all possible effects on the SPA as a result of the Development Proposals, in view of the European sites Conservation Objectives, it is considered that the plan / project would not be likely to give rise to any significant effects. At worst, the plan / project would give rise to effects which would be classed as *de minimis*.

Specific consideration of the In-Combination Test

- 6.13. It is considered by Ecology Solutions that the potential effects identified in relation to the Development Proposals will be avoided or mitigated through the implementation of the measures described above such as contributions to wardening and visitor management. As such that there would be no significant residual adverse effects on the SPA when the plan / project is considered alone. In this light, in combination effects would not be possible.
- 6.14. Since Development Proposals are scrutinised so carefully by Competent Authorities and the relevant Statutory Authorities (including Natural England) in light of the Habitats Regulations, recent case law and guidance, it is not likely that another plan / project would come forward without appropriate and proportionate mitigation or avoidance measures to off set any perceived deleterious effects on a European designated site. In granting a legally compliant permission / consent for a plan or project, any necessary mitigation / avoidance measures, at an appropriate and proportionate scale must be secured.
- 6.15. The Development Proposals include measures which fully mitigate / avoid any detrimental impacts on the SPA and when considered alone, the project is not likely to result in a significant effect on the SPA. Indeed, the proposed measures will assist in reducing existing pressure on wintering birds (which are qualifying features of the SPA) in addition to avoiding further perceived effects on birds as a result of the Development Proposals.
- 6.16. On the basis that all relevant development proposals (plans / projects) must provide appropriate mitigation / avoidance measures, it is therefore concluded that there would not be any potential significant in-combination effects on the SPA as a result of the Development Proposals.

Summary Conclusion

- 6.17. Having considered all of the potential significant effects that could arise from the Development Proposals, in light of the avoidance and mitigation

measures which form an integral part of the project, Ecology Solutions conclude that the proposals would not be likely to give rise to a significant effect on the SPA when the Development Proposals are considered either alone or in combination with other plans or projects.

- 6.18. No additional adverse impacts have been identified in relation to the Deben Estuary SSSI and no additional mitigation would be required.

7. SUMMARY AND CONCLUSIONS

- 7.1. Ecology Solutions has undertaken a detailed assessment of the implications of the Development Proposals on the Deben Estuary SPA in view of the European sites conservation objectives.
- 7.2. The findings of this work are set out within this Information to enable a Habitats Regulations Assessment document, such that the competent authority, in exercising its duties under the Habitats Regulations, has all the necessary information before it to considering the application.
- 7.3. Assessment under Regulation 61 of the Habitats Regulations is required in this instance, since the Application Site lies in close proximity to the Deben Estuary SPA. Consideration has also been given (where relevant) to any additional impacts which could arise in relation to the Deben Estuary SSSI.
- 7.4. All potential pathways for significant effects to arise on the SPA as a result of the Development Proposals have been fully examined. Where necessary mitigation / avoidance measures, which are integral to the project, have been described. This assessment has been undertaken with due regard had to relevant legislation, case law and planning decisions, guidance and information provided by Natural England during consultation on the Development Proposals.
- 7.5. It is considered that (having adopted a precautionary stance to the assessment) the provision of the mitigation / avoidance measures described within this document would avoid any potential significant adverse effects that the Development Proposals could have on the SPA in the absence of such measures.
- 7.6. It has been concluded that there would be no potential likely significant (adverse) effects on the Deben Estuary SPA when the Development Proposals are considered either alone or in combination with other plans/projects, in light of the tests at Regulation 61(1) of the Habitats Regulations. There is therefore no requirement to undertake an Appropriate Assessment of the Development Proposals. No additional impacts have been identified in relation to Deben Estuary SSSI and no additional mitigation measures are considered necessary.
- 7.7. As the project alone or in combination would not contribute to an overall significant effect that may have an adverse impact on the integrity of the SPA (in view of the SPA conservation objectives), or adverse impacts on the SSSI, the Development Proposals would by definition be acceptable, subject to securing the mitigation and avoidance measures proposed. In those terms the competent authority could legally and safely grant consent for the proposed plan/project.

PLANS AND APPENDICES

This page has been left blank intentionally

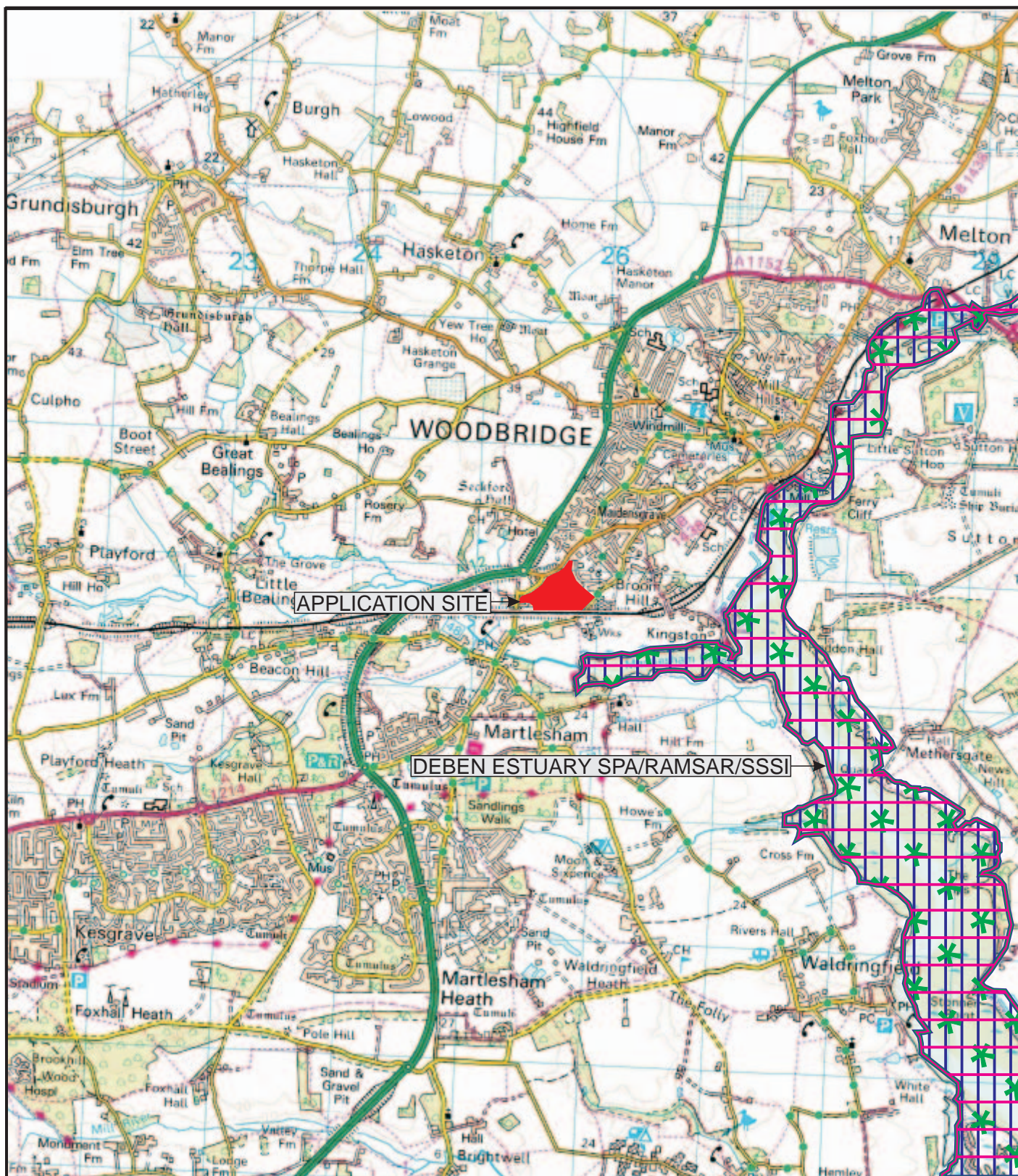
PLANS

This page has been left blank intentionally





PLAN ECO1

Application Site location in relation to the Deben Estuary SPA

This page has been left blank intentionally



KEY:

-  APPLICATION SITE
-  SPECIAL PROTECTION AREA (SPA)
-  RAMSAR
-  SITE OF SPECIAL SCIENTIFIC INTEREST (SSSI)



ecology solutions ltd

6512: LAND OFF DUKE'S PARK,
WOODBRIDGE

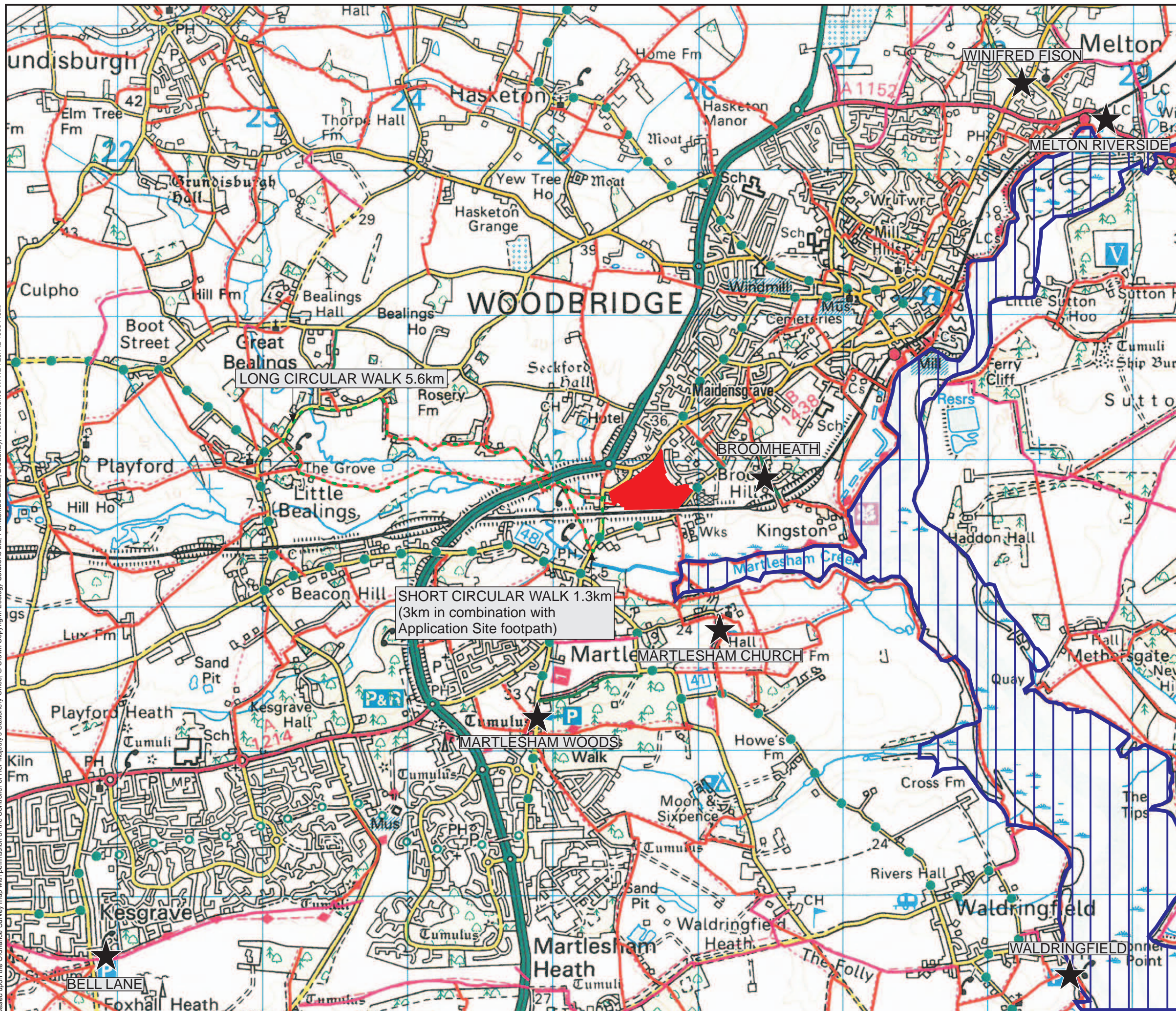
PLAN ECO1: APPLICATION SITE
LOCATION IN RELATION TO
DEBEN ESTUARY
(SPA/RAMSAR/SSSI)

This page has been left blank intentionally

PLAN ECO2

Rights of Way and Car Parks

This page has been left blank intentionally



KEY:

- APPLICATION SITE
- PUBLIC FOOTPATH
- BRIDLEWAY
- RESTRICTED BYWAY
- CAR PARK
- DEBEN ESTUARY SPA/RAMSAR/SSSI
- EXAMPLE CIRCULAR WALK



ecology solutions ltd

6512: LAND OFF DUKES PARK
WOODBIDGE

PLAN ECO2: RIGHTS OF WAY
AND CAR PARKS

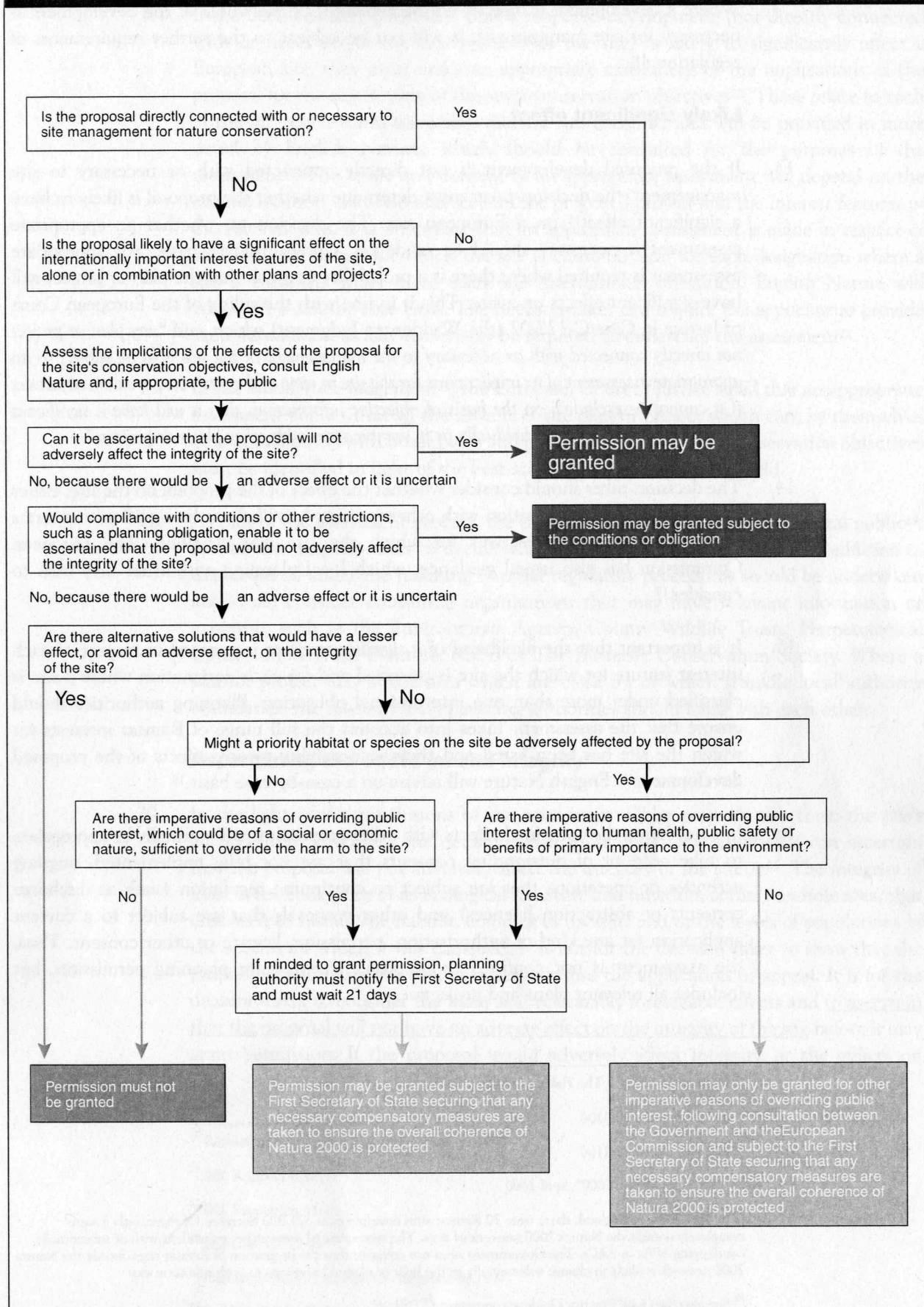
APPENDICES

APPENDIX 1

Flow Diagram from ODPM / Defra Circular

This page has been left blank intentionally

Figure 1: Consideration of development proposals affecting Internationally Designated Nature Conservation Sites



This page has been left blank intentionally

APPENDIX 2

Conservation Objectives for the Deben Estuary SPA

This page has been left blank intentionally



European Site Conservation Objectives for Deben Estuary Special Protection Area Site Code: UK9009261

With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change;

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

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

This document should be read in conjunction with the accompanying *Supplementary Advice* document, which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

Qualifying Features:

A046a *Branta bernicla bernicla*; Dark-bellied brent goose (Non-breeding)

A132 *Recurvirostra avosetta*; Pied avocet (Non-breeding)

This is a European Marine Site

This SPA is a part of the Deben Estuary European Marine Site (EMS). These Conservation Objectives should be used in conjunction with the Regulation 35 Conservation Advice document for the EMS. For further details about this please visit the Natural England website at:

<http://www.naturalengland.org.uk/ourwork/marine/protectandmanage/mpa/europeansites.aspx> or contact Natural England's enquiry service at enquiries@naturalengland.org.uk or by phone on 0845 600 3078.

Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") and Article 6(3) of the Habitats Directive. They must be considered when a competent authority is required to make a 'Habitats Regulations Assessment' including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives and the accompanying Supplementary Advice (where this is available) will also provide a framework to inform the management of the European Site under the provisions of Articles 4(1) and 4(2) of the Wild Birds Directive, and the prevention of deterioration of habitats and significant disturbance of its qualifying features required under Article 6(2) of the Habitats Directive.

These Conservation Objectives are set for each bird feature for a [Special Protection Area \(SPA\)](#). Where the objectives are met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving the aims of the Wild Birds Directive.

Publication date: 30 June 2014 (Version 2). This document updates and replaces an earlier version dated 29 May 2012 to reflect Natural England's Strategic Standard on European Site Conservation Objectives 2014. Previous references to additional features identified in the 2001 UK SPA Review have also been removed.

APPENDIX 3

SPA Natura Form and the SSSI citation

This page has been left blank intentionally

Information Sheet on Ramsar Wetlands (RIS)

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

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

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

Joint Nature Conservation Committee

Monkstone House

City Road

Peterborough

Cambridgeshire PE1 1JY

UK

Telephone/Fax: +44 (0)1733 – 562 626 / +44 (0)1733 – 555 948

Email: RIS@JNCC.gov.uk

FOR OFFICE USE ONLY.

DD MM YY

--	--	--

Designation date

--	--	--	--	--	--

Site Reference Number

2. Date this sheet was completed/updated:

Designated: 11 March 1996

3. Country:

UK (England)

4. Name of the Ramsar site:

Deben Estuary

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

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

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

a) Site boundary and area:

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

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

7. Map of site included:

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

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

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

b) Describe briefly the type of boundary delineation applied:

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

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

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

8. Geographical coordinates (latitude/longitude):

52 02 31 N 01 20 44 E

9. General location:

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

Nearest town/city: Ipswich

Deben Estuary is located in East Anglia, on the east coast of Suffolk. It extends 18 km from the tidal limit above Wilford Bridge near Woodbridge, south to the mouth of the estuary at Felixstowe.

Administrative region: Suffolk

10. Elevation (average and/or max. & min.) (metres): **11. Area** (hectares): 978.93

Min. -1

Max. 4

Mean 1

12. General overview of the site:

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

This estuary is relatively narrow and sheltered. It has limited amounts of freshwater input and the intertidal areas are constrained by sea-walls. The site supports nationally and internationally-important flora and fauna.

13. Ramsar Criteria:

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

2, 6

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

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

Ramsar criterion 2

Supports a population of the mollusc *Vertigo angustior* (Habitats Directive Annex II (S1014); British Red Data Book Endangered). Martlesham Creek is one of only about fourteen sites in Britain where this species survives.

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

Qualifying Species/populations (as identified at designation):

Species with peak counts in winter:

Dark-bellied brent goose, *Branta bernicla* 1953 individuals, representing an average of 1.9% of the GB population (5 year peak mean 1998/9-2002/3)

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

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

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

a) biogeographic region:

Atlantic

b) biogeographic regionalisation scheme (include reference citation):

Council Directive 92/43/EEC

16. Physical features of the site:

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

Soil & geology	mud, sedimentary
Geomorphology and landscape	lowland, coastal, valley, intertidal sediments (including sandflat/mudflat), estuary
Nutrient status	eutrophic
pH	no information
Salinity	saline / euhaline
Soil	mainly mineral
Water permanence	usually permanent
Summary of main climatic features	Annual averages (Lowestoft, 1971–2000) (www.metoffice.com/climate/uk/averages/19712000/sites/lowestoft.html) Max. daily temperature: 13.0° C Min. daily temperature: 7.0° C Days of air frost: 27.8 Rainfall: 576.3 mm Hrs. of sunshine: 1535.5

General description of the Physical Features:

The Deben Estuary extends south-eastwards for over 12 km from the town of Woodbridge to the sea just north of Felixstowe. It is relatively narrow and sheltered, and has limited amounts of freshwater input. The estuary mouth is the narrowest section and is protected by the presence of shifting sandbanks. The intertidal areas are constrained by sea-walls. The saltmarsh and intertidal mudflats that occupy the majority of the site, however, display the

most complete range of saltmarsh community types in Suffolk. The estuary holds a range of swamp communities that fringe the estuary, and occasionally form larger stands. In general, these are dominated by common reed *Phragmites australis*.

17. Physical features of the catchment area:

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

The Deben Estuary extends south-eastwards for over 12 km from the town of Woodbridge to the sea just north of Felixstowe. It is relatively narrow and sheltered, and has limited amounts of freshwater input. The estuary mouth is the narrowest section and is protected by the presence of shifting sandbanks. The intertidal areas are constrained by sea-walls. The saltmarsh and intertidal mudflats that occupy the majority of the site, however, display the most complete range of saltmarsh community types in Suffolk.

18. Hydrological values:

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

No special values known

19. Wetland types:

Marine/coastal wetland

Code	Name	% Area
H	Salt marshes	46.8
G	Tidal flats	36.8
F	Estuarine waters	15.3
U	Peatlands (including peat bogs swamps, fens)	1
E	Sand / shingle shores (including dune systems)	0.1

20. General ecological features:

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

The estuary supports a highly complex mosaic of habitat types including:

mudflats, lower and upper saltmarsh, swamp and scrub. The composition of the mosaic varies with substrate, frequency and duration of tidal inundation, exposure, location and management.

Ecosystem services

21. Noteworthy flora:

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

Nationally important species occurring on the site.

Higher Plants.

Althaea officinalis, *Bupleurum tenuissimum*, *Lepidium latifolium*, *Puccinellia fasciculata*, *Sarcocornia perennis*, *Suaeda vera*, *Zostera angustifolia* are nationally scarce plants associated with estuarine habitats.

22. Noteworthy fauna:

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

Birds**Species currently occurring at levels of national importance:****Species with peak counts in spring/autumn:**

Black-tailed godwit , *Limosa limosa islandica*, 307 individuals, representing an average of 1.9% of the GB population (5 year peak mean 1998/9-2002/3)

Common greenshank , *Tringa nebularia*, 22 individuals, representing an average of 3.6% of the GB population (5 year peak mean 1998/9-2002/3)

Species with peak counts in winter:

Bean goose , *Anser fabalis fabalis*, NW Europe - wintering 5 individuals, representing an average of 1.2% of the GB population (Source period not collated)

Common shelduck , *Tadorna tadorna*, NW Europe 832 individuals, representing an average of 1% of the GB population (5 year peak mean 1998/9-2002/3)

Pied avocet , *Recurvirostra avosetta*, Europe/Northwest Africa 167 individuals, representing an average of 4.9% of the GB population (5 year peak mean 1998/9-2002/3)

Spotted redshank , *Tringa erythropus*, Europe/W Africa 3 individuals, representing an average of 2.2% of the GB population (5 year peak mean 1998/9-2002/3)

Common redshank , *Tringa totanus totanus*, 2124 individuals, representing an average of 1.8% of the GB population (5 year peak mean 1998/9-2002/3)

Species Information**Nationally important species occurring on the site.****Invertebrates.**

Vertigo angustior (Nationally Scarce)

Vertigo pusilla (Nationally Scarce)

23. Social and cultural values:

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

Aesthetic

Fisheries production

Non-consumptive recreation

Sport fishing

Sport hunting

Tourism

Transportation/navigation

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

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

- i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:
- ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
- iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

24. Land tenure/ownership:

Ownership category	On-site	Off-site
Non-governmental organisation (NGO)	+	+
National/Crown Estate	+	
Private	+	+

25. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	+
Tourism	+	+
Recreation	+	+
Cutting of vegetation (small-scale/subsistence)	+	
Fishing: commercial	+	
Fishing: recreational/sport	+	
Bait collection	+	
Arable agriculture (unspecified)		+
Grazing (unspecified)	+	+
Hunting: recreational/sport	+	
Flood control		+
Irrigation (incl. agricultural water supply)		+
Urban development		+
Non-urbanised settlements		+

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

Explanation of reporting category:

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

NA = Not Applicable because no factors have been reported.

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

For category 2 factors only.

What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors? Erosion - English Nature provides advice to the Environment Agency and coastal local authorities in relation to flood and coastal protection management. This will inform the development of the Suffolk Estuaries strategies and the second generation shoreline management plan.

Is the site subject to adverse ecological change? YES

27. Conservation measures taken:

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

Conservation measure	On-site	Off-site
Site/ Area of Special Scientific Interest (SSSI/ASSI)	+	
Special Protection Area (SPA)	+	
Land owned by a non-governmental organisation for nature conservation	+	
Site management statement/plan implemented	+	
Other	+	+
Area of Outstanding National Beauty (AONB)	+	
Environmentally Sensitive Area (ESA)	+	

b) Describe any other current management practices:

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

28. Conservation measures proposed but not yet implemented:

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

No information available

29. Current scientific research and facilities:

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

Fauna.

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

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

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

None reported

31. Current recreation and tourism:

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

Activities.

Boating and walking locally and bird watching centred on Martlesham Creek and Felixstowe Ferry. Fishing.

Facilities provided.

Moorings along the river at Woodbridge, Waldring Field, Ramsholt.

Seasonality.

Activities are predominantly undertaken during the summer especially fishing, as this is when thin-lipped grey mullet *Liza ramada* enter the estuary.

32. Jurisdiction:

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

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

33. Management authority:

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

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

34. Bibliographical references:

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

Site-relevant references

Anon. (2002) *Suffolk Coast and Estuaries Coastal Habitat Management Plan: Executive summary*. English Nature, Peterborough (Living with the Sea LIFE Project) www.english-nature.org.uk/livingwiththesea/project_details/good_practice_guide/HabitatCRR/ENRestore/CHaMPs/SuffolkCoast/SuffolkCHaMP.pdf

Barne, JH, Robson, CF, Kaznowska, SS, Doody, JP, Davidson, NC & Buck, AL (eds.) (1998) *Coasts and seas of the United Kingdom. Region 7 South-east England: Lowestoft to Dungeness*. Joint Nature Conservation Committee, Peterborough. (Coastal Directories Series.)

Beardall, CH, Dryden, RC & Holzer, TJ (1988) *The Suffolk estuaries: a report...on the wildlife and conservation of the Suffolk estuaries*. Suffolk Wildlife Trust, Saxmundham [accompanied by separate volume, *Suffolk estuaries bibliography*]

- Bratton, JH (ed.) (1991) *British Red Data Books: 3. Invertebrates other than insects*. Joint Nature Conservation Committee, Peterborough
- Buck, AL (ed.) (1993) *An inventory of UK estuaries. Volume 5. Eastern England*. Joint Nature Conservation Committee, Peterborough
- Burd, F (1989) *The saltmarsh survey of Great Britain. An inventory of British saltmarshes*. Nature Conservancy Council, Peterborough (Research & Survey in Nature Conservation, No. 17)
- Carter, I (1994) *Departmental Brief: the Deben Estuary proposed Special Protection Area and Ramsar site (926A)*. English Nature (Ornithology Section), Peterborough
- Covey, R (1998) Chapter 6. Eastern England (Bridlington to Folkestone) (MNCR Sector 6). In: *Benthic marine ecosystems of Great Britain and the north-east Atlantic*, ed. by K. Hiscock, 179-198. Joint Nature Conservation Committee, Peterborough. (Coasts and Seas of the United Kingdom. MNCR series)
- Cranswick, PA, Waters, RJ, Musgrove, AJ & Pollitt, MS (1997) *The Wetland Bird Survey 1995–96: wildfowl and wader counts*. British Trust for Ornithology, Wildfowl and Wetlands Trust, Royal Society for the Protection of Birds & Joint Nature Conservation Committee, Slimbridge
- Davidson, NC, Laffoley, D d'A, Doody, JP, Way, LS, Gordon, J, Key, R, Pienkowski, MW, Mitchell, R & Duff, KL (1991) *Nature conservation and estuaries in Great Britain*. Nature Conservancy Council, Peterborough
- Doody, JP, Johnston, C & Smith, B (1993) *Directory of the North Sea coastal margin*. Joint Nature Conservation Committee, Peterborough
- Hill, TO, Emblow, CS & Northen, KO (1996) *Marine Nature Conservation Review Sector 6. Inlets in eastern England: area summaries*. Joint Nature Conservation Committee, Peterborough (Coasts and seas of the United Kingdom. MNCR series)
- McLeod, CR, Yeo, M, Brown, AE, Burn, AJ, Hopkins, JJ & Way, SF (eds.) (2004) *The Habitats Directive: selection of Special Areas of Conservation in the UK*. 2nd edn. Joint Nature Conservation Committee, Peterborough. www.jncc.gov.uk/SACselection
- Musgrove, AJ, Langston, RHW, Baker, H & Ward, RM (eds.) (2003) *Estuarine waterbirds at low tide. The WeBS Low Tide Counts 1992–93 to 1998–99*. WSG/BTO/WWT/RSPB/JNCC, Thetford (International Wader Studies, No. 16)
- Musgrove, AJ, Pollitt, MS, Hall, C, Hearn, RD, Holloway, SJ, Marshall, PE, Robinson, JA & Cranswick, PA (2001) *The Wetland Bird Survey 1999–2000: wildfowl and wader counts*. British Trust for Ornithology, Wildfowl and Wetlands Trust, Royal Society for the Protection of Birds & Joint Nature Conservation Committee, Slimbridge. www.wwt.org.uk/publications/default.asp?PubID=14
- Pritchard, DE, Housden, SD, Mudge, GP, Galbraith, CA & Pienkowski, MW (eds.) (1992) *Important Bird Areas in the United Kingdom including the Channel Islands and the Isle of Man*. Royal Society for the Protection of Birds, Sandy
- Ratcliffe, DA (ed.) (1977) *A Nature Conservation Review. The selection of biological sites of national importance to nature conservation in Britain*. Cambridge University Press (for the Natural Environment Research Council and the Nature Conservancy Council), Cambridge (2 vols.)
- Stroud, DA, Chambers, D, Cook, S, Buxton, N, Fraser, B, Clement, P, Lewis, P, McLean, I, Baker, H & Whitehead, S (eds.) (2001) *The UK SPA network: its scope and content*. Joint Nature Conservation Committee, Peterborough (3 vols.) www.jncc.gov.uk/UKSPA/default.htm
- Suffolk Wildlife Trust (1993) *National Vegetation Classification of the saltmarsh of the Deben, Alde–Ore and Blyth estuaries, Suffolk*. Suffolk Wildlife Trust, Saxmundham

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

CITATION AS NOTIFIED ON 18 FEBRUARY 1991

COUNTY: SUFFOLK SITE NAME: DEBEN ESTUARY

DISTRICT: SUFFOLK COASTAL

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981

Local Planning Authority: SUFFOLK COUNTY COUNCIL, Suffolk Coastal District Council

National Grid Reference: TM 295504–TM 330378 Area: 976.0 (ha.) 2411.7 (ac.)

Ordnance Survey Sheet 1:50,000: 169 & 156 1:10,000: TM 24 NE/SE, 255E, 33NW, 34SW

Date Notified (Under 1949 Act): – Date of Last Revision: –

Date Notified (Under 1981 Act): 18.2.91 Date of Last Revision: –

Other Information:

The boundary of this site partially overlaps the boundaries of two geological SSSIs, Ferry Cliff, Sutton and Ramsholt Cliff.

Description and Reasons for Notification:

The Deben Estuary is important for its populations of overwintering waders and wildfowl and also for its extensive and diverse saltmarsh communities. Several estuarine plants and invertebrates with a nationally restricted distribution are also present.

The Estuary extends for over 12km in a generally south-easterly direction. It is sinuous, relatively sheltered and narrow, particularly at its mouth which is protected by shifting sand banks. Much of the intertidal area is occupied by mudflats with more sandy deposits occurring where exposed Red Crag erodes from cliffs.

The numbers of Redshank *Tringa totanus* overwintering on the Estuary are of international importance and the summer breeding population of this species is of county significance. The site is of national importance for its winter populations of Dark-bellied Brent Goose *Branta bernicla*, Shelduck *Tadorna tadorna* and Black-tailed Godwit *Limosa limosa* with the numbers of Wigeon *Anas penelope*, Pintail *Anas acuta* and Grey Plover *Pluvialis squatarola* approaching this level in some years. The Estuary supports many other species including high numbers of Dunlin *Calidris alpina*, Curlew *Numenius arquata* and Mute Swan *Cygnus olor*.

The Deben Estuary supports approximately 40% of Suffolk's area of saltmarsh which also displays the most complete range of the vegetation's community types in the county. These occur in a highly complex mosaic with the variation in the proportions

of species being dependent upon several factors including substrate type, frequency of tidal inundation, exposure, position within the Estuary and past management practices.

Low-marsh communities, which are mainly situated towards the head of the Estuary, are characterised by a vegetation dominated by Sea Aster *Aster tripolium*, Annual Seablite *Suaeda maritima*, Glasswort *Salicornia europea*, Sea Poa *Puccinellia maritima* and Sea Purslane *Halimione portulacoides*. In places, particularly where steep cliffs abut the mudflats, virtually pure stands of Common Cord-grass *Spartina anglica* occur. Where the old seawalls have been breached a saltmarsh community that is typical of formerly disturbed sites has established. This is characterised by a mosaic of Sea Poa, Sea-milkwort *Glaux maritima*, Common Sea-lavender *Limonium vulgare*, Sea Arrow-grass *Triglochin maritima* and Sea Plantain *Plantago maritima*. Varying proportions of these species are also to be found in the more typical mid-marsh communities which became prevalent towards the lower end of the Estuary. There are several areas where upper-marsh occurs, characterised by the presence of Sea Rush *Juncus maritimus*, Red Fescue *Festuca rubra*, Saltmarsh Rush *J. gerardii* and Creeping Bent *Agrostis stolonifera*.

Sea couch *Elymus pycnanthus* is mainly confined to sea walls but at the northern-most end of the site it forms extensive stands which show a natural transition to Blackthorn *Prunus spinosa* scrub on the higher ground. In addition, swamp communities occur in several places along the Estuary, usually as relatively narrow fringes but occasionally forming large stands. Such areas may be dominated by Sea Club-rush *Scirpus maritimus*, Greater Pond sedge *Carex riparia* or, most frequently, Common Reed *Phragmites australis*.

The Estuary supports three nationally scarce plant species, namely Marsh Mallow *Althaea officinalis*, Shrubby Seablite *Suaeda fruticosa* and Small Cord-grass *Spartina maritima*. The nationally rare Mollusc *Vertigo augustior* and nationally scarce *V. pusilla* have also been recorded.

NATURA 2000

STANDARD DATA FORM

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

--	--	--	--	--	--	--	--	--

1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	
date confirmed as SCI	
date site classified as SPA	199603
date site designated as SAC	

2. Site location:

2.1 Site centre location

longitude	latitude
01 20 44 E	52 02 31 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UK403	Suffolk	100.00%

2.6 Biogeographic region

☐ Alpine

☒ Atlantic

☐ Boreal

☐ Continental

☐ Macaronesia

☐ Mediterranean

3. Ecological information:

3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment

3.2 Annex I birds and regularly occurring migratory birds not listed on Annex I

		Population			Site assessment				
		Resident	Migratory						
Code	Species name		Breed	Winter	Stage	Population	Conservation	Isolation	Global
A046a	<i>Branta bernicla bernicla</i>			2516 I		B		C	
A132	<i>Recurvirostra avosetta</i>			95 I		B		B	

4. Site description:

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	80.0
Salt marshes. Salt pastures. Salt steppes	18.0
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	1.0
Inland water bodies (standing water, running water)	
Bogs. Marshes. Water fringed vegetation. Fens	1.0
Heath. Scrub. Maquis and garrigue. Phygrana	
Dry grassland. Steppes	
Humid grassland. Mesophile grassland	
Alpine and sub-alpine grassland	
Improved grassland	
Other arable land	
Broad-leaved deciduous woodland	
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Scree. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Mud, Sedimentary

Geomorphology & landscape:

Coastal, Estuary, Intertidal sediments (including sandflat/mudflat), Lowland, Valley

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC)

Over winter the area regularly supports:

Recurvirostra avosetta

(Western Europe/Western Mediterranean - breeding)

7.5% of the GB population

5 year peak mean 1991/92-1995/96

ARTICLE 4.2 QUALIFICATION (79/409/EEC)

Over winter the area regularly supports:

Branta bernicla bernicla
(Western Siberia/Western Europe)

0.8% of the population
5 year peak mean 1991/92-1995/96

4.3 Vulnerability

The saltmarsh and intertidal habitats are vulnerable to sea level rise and coastal squeeze. These issues are being addressed through the Environment Agency LEAP, the estuary Shoreline Management Plan and research into possible managed retreat in parts of the site.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK04 (SSSI/ASSI)	100.0

APPENDIX 4

Relevant SSSI Unit Condition Tables

This page has been left blank intentionally

Main Habitat	Responsible Officer	Unit Number	Unit Id	Area (ha)	NNR Overlap Area (ha)	Latest Assessment Date	Assessment Description	Comment	Adverse Condition Reasons
DEBEN ESTUARY - SUFFOLK, (SUFFOLK COASTAL,)									
FEN, MARSH AND SWAMP - Lowland	EMMA HAY	001	1009465	9.0838	0.00	04/05/2010	Favourable	The northern end of the unit is a mosaic of reedbed, saltmarsh, brackish pools, rough grassland and scrub. wole area influenced by saltwater with grass areas dominated by common saltmarsh grass and sea couch. The southern section comprises the estuary channel, saltmarsh and reedbed. The reedbed looks like 100% Phragmites with no signs of scrub invasion. There seemed little point in taking any quadrats and in any event most of the unit was difficult and potentially dangerous to access. Comparison of aerial photographs showed a small (not significant) increase in saltmarsh.	
LITTORAL SEDIMENT	EMMA HAY	002	1009467	33.5341	0.00	13/11/2009	Unfavourable - Declining	<p>On the northern side of the unit tidal muds back straight onto the sea wall which follows the length of the whole unit. Patches of Spartina anglica are present along the base of the sea wall, with some sea purslane and sea aster present on the base of the wall itself. On the south side of site, following the line of the old sea wall, a transition from marsh (with coarse grass and rush) and common reed phragmites australis to wet woodland occurs. Large areas of mud flat are also present within this area. On the peninsula (middle of unit) transition from Spartina anglica and rush to reed phragmites australis and on higher ground, woodland. Curlew, Dunlin, Egret, Turnstone, Oyster catcher, Redshank, Shelduck all recorded feeding on mud flats.</p> <p>Assessed as declining in condition due to loss of high tide roost within the unit. Tidal scour resulting from increased sea wall breaches has resulted in loss of salt marsh habitats.</p>	OTHER - OTHER - SPECIFY IN COMMENTS,
LITTORAL SEDIMENT	EMMA HAY	003	1009468	18.1517	0.00	13/11/2009	Unfavourable - Declining	<p>Tidal muds back straight onto the sea wall on the north side of the unit (Woodbridge town) which follows the whole unit. Patches of Spartina are present along the base of the sea wall, with some sea purslane and sea aster present on the base of the wall itself. A number of boatyards operate along the unit. On the south side of site, Spartina and purslane beds dominate edge of saltmarsh. Higher ground has coarse grass and rush growing. Agricultural land borders eastern edge of unit. Potential disturbance and management impacts include houseboats, boatyards and pontoons, as well as a number of Environment Agency sluices along the western boundary of site. Also main channel is possibly dredged for recreational sailing. No other disturbance issues noted. Curlew, Dunlin, Egret, Turnstone, Oyster catcher, Redshank, Shelduck all feeding on tidal mud.</p> <p>This unit is backed by a sea wall and coastal squeeze could therefore be an issue. In order to investigate coastal squeeze a study by IECS (2010 in prep.) was commissioned and this showed a 0.27 ha loss in extent of saltmarsh between 1999/00 to 2006/07 in this unit. This leads us to the conclusion that this unit is in unfavourable declining condition due to the loss of extent as a result of coastal squeeze.</p>	COASTAL - COASTAL SQUEEZE,

LITTORAL SEDIMENT	EMMA HAY	004	1009469	24.9883	0.00	13/11/2009	Favourable	Tidal muds back straight onto the sea wall on the west side of site (Woodbridge town) which follows the whole unit. Patches of Spartina are present along the base of the sea wall, with some sea purslane, sea aster and sea beet present on the base of the wall itself. A number of boatyards and jetties operate along the NW of the unit. On south side of site, Spartina, aster and purslane beds dominate edge of saltmarsh. Behind a large creek separates this marsh from an area dominated by rush, reed and red fescue, with transition to sea couch, bramble and woodland sp. (sycamore, fir, hawthorn and field maple) forming a small tree belt on the higher ground. Agricultural land borders the eastern edge of unit, behind the tree belt. Possible dredging of main channel and a number of sluices present along the western edge of the estuary. No other management or disturbance impacts occurring. Curlew, Dunlin, Egret, Turnstone, Oyster catcher, Redshank, Shelduck all feeding on tidal mud. A study by IECS (2010 in prep.) was commissioned to investigate the change of extent in saltmarsh and this showed a 0.19ha loss in extent of saltmarsh between 1999/00 to 2006/07 in this unit.	
LITTORAL SEDIMENT	EMMA HAY	005	1009470	78.754	0.00	18/11/2009	Unfavourable - Declining	<p>In the northeast corner of the unit an area of salt marsh is present close to the sea wall, with agricultural field abutting the marsh, gradually sloping upwards. Spartina anglica is dominant in low salt marsh while Purslane, Sea lavender and Sea arrowgrass are found on mid salt marsh. In the southeast section of the unit there are a number of deep and well established creeks with Spartina anglica dominant.</p> <p>The south of the unit there is a transition from saltmarsh to rush and reed and then woody scrub.</p> <p>Main channel is possibly dredged. No evidence of grazing or other disturbance occurring.</p> <p>Waders and wildfowl present within the unit.</p> <p>This unit is backed by a sea wall, meaning that coastal squeeze could be an issue. In order to investigate coastal squeeze a study by IECS (2010 in prep) was commissioned and this showed a 2.69ha loss in extent of saltmarsh between 1999/00 to 2006/07 in this unit. This leads us to the conclusion that this unit is in unfavourable declining condition due to the loss of extent as a result of coastal squeeze.</p>	COASTAL - COASTAL SQUEEZE,
LITTORAL SEDIMENT	EMMA HAY	006	1009471	20.3466	0.00	03/11/2009	Unfavourable - Declining	<p>The unit is backed along the entire shoreline by a solid sea wall, along which runs a public right of way. A small area of salt marsh is present at the eastern end of the unit where Martlesham creek enters the Deben. The marsh is dominated by mid communities containing sea purslane, sea aster, Spartina and salt marsh grass. An area of sea couch is present towards the back of the marsh where the land rises toward the footpath. Vegetation is of even height, around 20-30cm, the area is fenced and therefore there is no trampling/grazing occurring. Aside from this area of marsh, the remainder of the unit has very little vegetation at the base of the sea wall. Large patches of Spartina anglica are present along the sea wall, particularly along the northern bank of the creek.</p> <p>This unit is backed by a sea wall and coastal squeeze could therefore be an issue. In order to investigate coastal squeeze a study by IECS (2010 in prep) was commissioned and this showed a 0.71ha loss in extent of saltmarsh between 1999/00 to 2006/07 in this unit. This leads us to the conclusion that this unit is in unfavourable declining condition due to the loss of extent as a result of coastal squeeze.</p>	COASTAL - COASTAL SQUEEZE,

FEN, MARSH AND SWAMP - Lowland	EMMA HAY	007	1009466	1.3422	0.00	04/05/2010	Favourable	<p>This unit comprises reedbed fronted by a narrow fringe of saltmarsh with sea purslane and common saltmarsh grass grwing in with reeds adjacent to the estuary. There was tidal mud and patches of Spartina to seaward and rising land to landward. There is a narrow strip of oak woodland with some old oak trees and dead wood to landward. A study by IECS (2010) to assess changes in extent in saltmarsh was commissioned and this showed a 0.11ha loss in extent of saltmarsh between 1999/00 to 2006/07 in this unit. The unit is considered favourable as the loss in saltmarsh has occurred through natural processes (no sea wall). It would have been difficult and potentially dangerous to obtain quadrat data and in any event there would have been little advantage in doing so. It is unlikely that the habitat has changed in nature in the last 10 years or so and is probably still suitable for the Vertigo angustio (RDB mollusc). □</p>	
LITTORAL SEDIMENT	EMMA HAY	008	1009472	29.7304	0.00	03/11/2009	Unfavourable - Declining	<p>Only small amounts of salt marsh present. A section of marsh in the centre of the unit contains mainly mid-level communities, with no low/pioneer level communities present. Towards the southern end is an additional area of marsh which could not be accessed. This area has many large and well-developed creeks, and is dominated by Spartina anglica.</p> <p>Elsewhere tidal muds back straight onto the sea wall which follows the river bank along the whole unit, in some places patches of Spartina are present along the base of the sea wall, with some sea purslane and sea aster present on the base of the wall itself.</p> <p>Dredging of the main river channel is likely. Enlarged creeks and steep shelf to the outer edge of the marsh suggest the marsh is eroding. No evidence of poaching or grazing, or additional human disturbance.</p> <p>This unit is backed by a sea wall, meaning that coastal squeeze could be an issue. In order to investigate coastal squeeze a study by IECS (2010 in prep) was commissioned to investigate change in extent of saltmarsh. This showed a 1.61ha loss in extent of saltmarsh between 1999/00 to 2006/07 in this unit. This leads us to the conclusion that this unit is in unfavourable declining condition due</p>	COASTAL - COASTAL SQUEEZE,
LITTORAL SEDIMENT	EMMA HAY	009	1009473	74.3342	0.00	11/11/2009	Unfavourable - Declining	<p>Salt marsh comprises mainly mid and high level communities, with a network of well-developed creeks. The marsh shelves steeply into the muds of the river bed. No pioneer communities were observed. A solid sea defence wall backs the salt marsh along the majority of the unit, although the wall has been breached towards the northern end of the unit, allowing an area of marsh to develop behind the old sea wall. This area is dominated by Spartina anglica with some sea aster and purslane, and was not accessible during the survey. Behind this habitat is a large swathe of reed bed.</p> <p>An area of mid level marsh which is similar to that behind the sea wall has developed extending into the river channel in the central part of the unit, but was also not accessible. A large proportion of this marsh was made up of beds of Spartina with apparently few other species present. Behind the marsh most of the land is occupied by arable farming. Dredging of the main channel is likely, no other negative impacts (trampling/grazing) noted.</p> <p>This unit is backed by a sea wall and coastal squeeze could therefore be an issue. In order to investigate coastal squeeze a study by IECS (2010 in prep) was commissioned to and this showed a 3.62ha loss in extent of saltmarsh between 1999/00 to 2006/07 in this unit. This leads us to the conclusion that this unit is in unfavourable declining condition due to the loss of extent as a result of</p>	COASTAL - COASTAL SQUEEZE,

LITTORAL SEDIMENT	EMMA HAY	010	1009474	91.7807	0.00	18/11/2009	Favourable	The unit is backed by naturally rising ground with a public footpath following the river edge. In the northwest corner of the unit an area of saltmarsh is present which includes some shorter vegetation with thrift and sea plantain. South of The Hams tidal muds reach up to the river edge, with patches of Spartina, and sea beet and sea couch on higher ground. A transition from saltmarsh to reedbed to higher woodland is present on bank along northern section of the unit. Wildfowl and waders were recorded within the unit.	
LITTORAL SEDIMENT	EMMA HAY	011	1009475	47.2365	0.00	10/08/2011	Unfavourable - Declining	Waldringfield Sailing Club downstream to north of Early Creek to the south of the unit, partly backed by a small seawall/ hedged embankment with arable land beyond. Saltmarsh comprises mainly low to mid level communities, with a extensive network of creeks and salt pans. Much evidence of waders and wildfowl. Quality of the saltmarsh present was good with characteristic species. Marsh shelves into the mud of the river bed forming soft mud cliffs 1- 0.5m in height and there appears to be active erosion of the marsh frontage. Wash from boats evident and probably havng some impact. Some Spartina present. The unit is partly backed by a sea wall, meaning that coastal squeeze is an issue. The study by IECS (2010) was commissioned to investigate coastal squeeze mapped this stretch of saltmarsh. This noted that of the saltmarsh extent was mapped at 16.00ha in 2000 with a slight decrease by 2007 to 15.29ha (-0.71ha which equates to a loss of -0.10ha/yr-1). Although a lot of the saltmarsh extent remained stable (14.56ha), losses occurred on the outer marsh edge along the full extent of this Unit and along internal creek edges. This ISA concludes that the Unit is Unfavourable Declining due to coastal squeeze due to the active erosion of the saltmarsh frontage and lack of scope to respond to this by rolling back due to the seawall presence. However this seawall is fragile and has been	COASTAL - COASTAL SQUEEZE,
LITTORAL SEDIMENT	EMMA HAY	012	1009476	76.9712	0.00	08/10/2009	Unfavourable - Declining	Unit dominated by large swathes of sea aster, particularly in a band along the base of the sea wall. Cord grass is recorded as covering approximately 70% of the unit. Creeks are large and are present over around 50% of the unit area. The majority of the marsh is formed of low/mid level communities. Towards the southern end of the unit an area of reedbed is present towards the landward side of the saltmarsh behind which a soft cliff rises approximately 10m. North of this there is a transition from saltmarsh to shingle and dune. The rest of the unit is mainly backed by sea wall with a footpath running along the wall. The saltmarsh is accessible by cattle for grazing but there is no evidence of poaching on the salt marsh. Flocks of Canada geese present on the Deben. This unit is backed by a sea wall and coastal squeeze could be an issue. In order to investigate coastal squeeze a study by IECS (2010 in prep.) was commissioned and this showed a 1.41ha loss in extent of saltmarsh between 1999/00 to 2006/07 in this unit. This leads us to the conclusion that this unit is unfavourable declining due to the loss of extent as a result of coastal squeeze.	COASTAL - COASTAL SQUEEZE,

LITTORAL SEDIMENT	EMMA HAY	013	1009478	62.7937	0.00	10/08/2011	Favourable	South of Waldringfield from Early Creek downstream to Spinney Marsh. It represents the largest area of saltmarsh within the estuary. A defunct seawall runs through the middle of the site which has been breached half way down the unit and there is a large area of intertidal mud behind it. The marsh shelves inland a fairly natural manner as the ground is naturally rising. The saltmarsh in front of the seawall comprises mainly low to mid level communities, with a extensive network of creeks and pans. The quality of the saltmarsh present was good with characteristic species. The marsh shelves into the mud of the river bed forming soft mud cliffs 0.5-1.00m in height and there appears to be active erosion of the marsh frontage. Wash from boats evident and probably having some impact. Some Spartina present. The intertidal area behind the seawall showed pioneer saltmarsh developing on mud that was quite cliffed. The unit is probably an important roost site. Much evidence of waders and wildfowl. The study by IECS (2010) was commissioned to investigate coastal squeeze mapped this stretch of Saltmarsh at 31.53ha in 2000 with only minimal change in extent by 2007 to 30.87ha. Large areas of saltmarsh have remained stable (with only slight erosion mapped at the saltmarsh edge and within internal creek systems. As there has been a relatively good balance between erosion and accretion, this unit has lost only 0.66ha over the seven years averaging -0.09ha/yr-1. This ISA concludes that the Unit is in Favourable as the saltmarsh is not anthropogenically squeezed by a seawall due to the breach, intertidal habitat development and naturally rising land behind it. □	
LITTORAL SEDIMENT	EMMA HAY	014	1009479	37.2574	0.00	30/06/2011	Favourable	Kirton Creek upstream to Spinney Marsh. It is partly backed by a small seawall/embankment with some large oaks, then arable land beyond. Saltmarsh comprises mainly low to mid level communities, with a extensive network of creeks and salt pans in front of the seawall. There is further saltmarsh behind the seawall also. The unit is probably an important roost site with evidence of waders and wildfowl. The quality of the saltmarsh present was good with characteristic species. The marsh shelves into the mud of the river bed forming soft mud cliffs 1- 0.5m in height and there appears to be active erosion of the marsh frontage. Wash from boats evident and probably having some impact. Some Spartina present throughout, abundant locally. The study by IECS (2010) was commissioned to investigate coastal squeeze mapped this stretch of saltmarsh. This noted that of the saltmarsh extent was mapped at the 16.68ha present in 2000, a total of 0.93ha was lost to erosion or a transition in vegetation, but 0.76ha was gained elsewhere through natural accretion resulting in a net loss of -0.17ha by 2007. This resulted in the extent in 2007 mapped as 16.51ha, averaging a -0.02ha/yr-1 over the seven years. Erosion was mapped along the leading marsh edge and some widening of creeks within the marsh structure. Encroachment from the scrub vegetation at the back of the site accounted for some loss along the landward boundary at Hemley. Areas of accretion were mainly mapped within the main saltmarsh body where creeks formerly mapped had accreted or saltpans had recolonised. There are seawalls present in the unit but these were low, and would probably have little influence on natural roll back of marsh in reaction to squeeze as that land rose naturally behind it leaving little scope, plus the breach in Unit 13 had allowed intertidal habitat development behind the seawall in Unit 14. This ISA concludes that the	

LITTORAL SEDIMENT	EMMA HAY	015	1009480	57.8211	0.00	08/10/2009	Unfavourable - Declining	<p>At the southern end of the unit there are patches of vegetation dominated by Glasswort and Annual Sea-blite, patches of Spartina (15%) and patches of Sea Purslane all backed by sea wall. The majority of the salt marsh across the rest of the unit (95%) is low-mid marsh dominated by Sea Purslane and Saltmarsh Grass with extensive patches dominated by Cord Grass (more than 50% cover over about 50% of area). There are small areas of `pioneer marsh? (approx 5%). Approximately 10% of area of salt marsh is saltpans and 15% creeks. At the northern end of the unit there is a sand/shingle beach fronting soft cliff then rising land with scrub. There is a natural and un-interrupted transition from salt marsh to reed bed with approximately 25 metres of reed bed, 10 metres transition and 50 metres of salt marsh. Behind this there is a soft cliff/rising land with willow scrub and woodland. No evidence of dredging or other negative impacts occurring.</p> <p>The unit was assessed as unfavourable declining because it is backed by a sea wall and coastal squeeze may therefore be an issue. □</p>	COASTAL - COASTAL SQUEEZE,
LITTORAL SEDIMENT	EMMA HAY	016	1009481	29.8411	0.00	11/11/2009	Unfavourable - Declining	<p>Very little salt marsh habitat is present. A solid sea wall follows the estuary edge, which is vegetated with sea beet and sea couch, and supports the coastal footpath. Salt marsh habitat is present in two distinct areas along the unit, and is composed of mid/high level communities. A few small creeks are present. The edge of the marsh shelves sharply into the mud of the estuary bed. The marsh is backed by arable land intersected by drainage ditches. No other significant negative impacts noted other than dredging of main channel if this is taking place. No obvious transitions are present within the marsh.</p> <p>The unit was assessed as unfavourable declining because it is backed by a sea wall and coastal squeeze may therefore be an issue. □</p>	COASTAL - COASTAL SQUEEZE,
LITTORAL SEDIMENT	EMMA HAY	017	1009482	58.9908	0.00	12/11/2009	Unfavourable - Declining	<p>Salt marsh comprises mainly low to mid level communities, with a network of well-developed creeks and salt pans. The marsh shelves into the muds of the river bed forming soft mud cliffs 0.5-1m in height. No pioneer communities were observed.</p> <p>The sea wall runs along the eastern boundary of the site with Sea beet, Sea couch, Sea wormwood and Common reed on the sea wall. Behind the sea wall is an area of reed with grazing marsh and arable land. At the northeastern end of the unit a transition occurs from saltmarsh through Phragmites australis reedbed to wooded bank. Some straight creeks are present which may have been dug out or enlarged previously, no evidence of other negative impacts. Wildfowl and waders present within the unit. Brown Hare recorded on marsh.</p> <p>This unit is backed by a sea wall, meaning that coastal squeeze could be an issue. In order to investigate coastal squeeze a study by IECS (2010 in prep) was commissioned and this showed a 0.36ha loss in extent of saltmarsh between 1999/00 to 2006/07 in this unit. This leads us to the conclusion that this unit is in unfavourable declining condition due to the loss of extent as a result of coastal squeeze.</p>	COASTAL - COASTAL SQUEEZE,

LITTORAL SEDIMENT	EMMA HAY	018	1009483	54.2561	0.00	30/06/2011	Unfavourable - Declining	<p>Boat Hard at Kirton Marshes in the north to just north of Falkenham Marshes to the south of the unit. It is backed by a seawall with a wide reedy ditch and arable land beyond.</p> <p>Saltmarsh comprises mainly low to mid level communities, with a extensive network of creeks and salt pans on Falkenham Creek area (an important roost site). Much evidence of waders and wildfowl. The quality of the saltmarsh present was good with characteristic species. The marsh shelves into the mud of the river bed forming soft mud cliffs 1- 0.5m in height and there appears to be active erosion of the marsh frontage. Wash from boats evident and probably having some impact. Some Spatina present. The unit is backed by a sea wall, meaning that coastal squeeze is an issue. The study by IECS (2010) was commissioned to investigate coastal squeeze mapped this stretch of saltmarsh. This noted that of the 14.41ha of saltmarsh present in the unit n 2000, a total of 0.81ha was lost to erosion, but 0.71ha was gained elsewhere through natural accretion resulting in a net loss of only -0.10ha by 2007. This resulted in the extent in 2007 being mapped at 14.31ha, averaging only a -0.01ha/yr-1 loss over the seven years. Erosion was predominantly mapped along the whole of the fronting marsh edge, and within the main body of the marsh at Falkenham Creek. Saltmarsh gains were also accounted for within the main saltmarsh extent with the narrowing of internal creek systems, recolonisation of large mud pans and areas of fragmented saltmarsh unmapped in 2000 subsequently mapped in 2007. This ISA concludes that the Unit is Unfavourable Declining due to coastal squeeze due to the active erosion of the saltmarsh frontage and lack of scope to respond to this by rolling back due to the seawall presence.</p>	COASTAL - COASTAL SQUEEZE,
LITTORAL SEDIMENT	EMMA HAY	019	1009484	55.7065	0.00	30/06/2011	Unfavourable - Declining	<p>Saltmarsh comprises mainly low to mid level communities, with a network of well-developed creeks and salt pans throughout. The quality of the saltmarsh was good with characteristic species. The north western edge has some Spartina anglica but not dominant as described in last CA, further Spartina anglica frequently along the seawall but not of concern. The marsh shelves into the mud of the river bed forming soft mud cliffs 1- 0.5m in height and there appears to be some active erosion, this looks dramatic from the other side of the estuary. Wash from boats evident and probably having some impact. The unit is backed by a sea wall with Saltmarsh right up to it. A study by IECS (2010) was commissioned to investigate coastal squeeze found that of the 15.94ha of saltmarsh present in 2000, a total of 0.50ha was lost to erosion, but an additional 0.28ha was gained elsewhere through natural accretion resulting in a net loss of -0.22ha by 2007, plus 15.45ha of saltmarsh remained stable throughout the seven years. This resulted in the extent mapped in 2007 at 15.72ha, averaging only a -0.03ha/yr-1 loss over the seven years. Erosion occurred along the entire marsh frontage, with some erosion of the internal marsh towards the northern end of the unit. The narrowing of creeks, both at the marsh front and within the internal body of the marsh accounts for the majority of saltmarsh gains within this unit. Changes along the landward boundary indicated a change in vegetation type. EH paced the narrowest piece of saltmasrh at ca 30m wide, the OS map (2006) shows this to be ca 50m which suggests erosion is of real concern. This ISA concludes that the Unit is still Unfavourable Declining due to coastal squeeze due to the active erosion of the</p>	COASTAL - COASTAL SQUEEZE,

LITTORAL SEDIMENT	EMMA HAY	020	1009485	30.1027	0.00	30/06/2011	Unfavourable - Declining	<p>Immediately upstream of Kings Fleet and its sluice. Falkenham Marshes are on the landward side behind the sea wall. The narrow strips of saltmarsh present at each end of the unit abutting the seawall tightly and comprises mainly low to mid level communities, with a limited network of creeks and salt pans. In the centre of the unit for a substantial distance there is no saltmarsh at all, however a narrow strip of pioneer saltmarsh developing was evident in places.</p> <p>The quality of the saltmarsh present was good with characteristic species for low to mid level communities. Higher areas were quite grassy and spartina was present throughout the unit. The marsh shelves into the mud of the river bed forming soft mud cliffs 1- 0.5m in height and there appears to be active erosion of the marsh frontage. Wash from boats evident and probably having some impact. Spartina present.</p> <p>The unit is backed by a sea wall, meaning that coastal squeeze is an issue. The study by IECS (2010) was commissioned to investigate coastal squeeze mapped this stretch of saltmarsh. This noted that the saltmarsh lay in two distinct blocks, one to the north adjacent to Red House Farm and the second to the south adjacent to Falkenham Marshes. The saltmarsh within these two areas had remained generally stable with a total of 3.06ha mapped in 2000, with only a 0.26ha loss resulting in 2.80ha in 2007. Of this, 2.70ha remained stable throughout the seven years, with 0.37ha lost and 0.10ha gained by natural accretion throughout the unit.</p> <p>This ISA concludes that the Unit is Unfavourable Declining due to coastal squeeze due to the active erosion of the saltmarsh frontage and lack of scope to</p>	COASTAL - COASTAL SQUEEZE,
LITTORAL SEDIMENT	EMMA HAY	021	1009486	40.6236	0.00	30/06/2011	Unfavourable - Declining	<p>Saltmarsh present comprises mainly low to mid level communities, with a network of well-developed creeks (some large) and salt pans throughout the unit. The quality of the saltmarsh was good with characteristic species for low to mid level communities, plus much thrift, wormwood, sea lavender, etc, on the higher areas. There was frequent Spartina anglica but not dominant or of concern. The marsh shelves into the mud of the river bed forming soft mud cliffs 1- 0.5m in height and there appears to be some active erosion, this looks dramatic from the other side of the estuary. There was small areas of pioneer saltmarsh at the southern end of site by the concrete blocks. Wash from boats evident and probably having some impact. The study by IECS (2010) was commissioned to investigate coastal squeeze found that of the 13.95ha of saltmarsh present in 2000, a total of 0.49ha was lost to erosion, but an additional 0.52ha was gained through natural accretion resulting in a net gain of +0.03ha by 2007. The majority of this saltmarsh gain was mapped at the south of the unit adjacent to the amenity area off Ferry Road. Some erosion of the fronting marsh had occurred along the whole length of the unit with losses and gains to the internal marsh. This resulted in the extent mapped in 2007 at 13.98ha, averaging a +0.004ha/yr-1 gain over the seven years. This ISA concludes that the Unit is still Unfavourable Declining condition due to coastal squeeze due to the active erosion of the saltmarsh frontage and lack of scope to respond to this by rolling back due to the seawall presence. Intertidal sand bars</p>	COASTAL - COASTAL SQUEEZE,

LITTORAL SEDIMENT	EMMA HAY	022	1009487	47.4327	0.00	30/06/2011	Unfavourable - Declining	Immediately upstream of Felixstowe Ferry and south of Kings Fleet and its sluice and runs south east to north west along the sea wall. The saltmarsh present comprises mainly low to mid level communities, with a network of well-developed creeks and salt pans throughout the unit. The presence of the creeks means that the saltings are inaccessible without a boat/crossing equipment, so the saltmarsh was surveyed from the seawall using binoculars. Unit abuts a busy boat yard and there are a number of houseboats/barges moored on the saltings along with some abandoned wrecks (see photos). The quality of the saltmarsh was good with characteristic species for low to mid level communities. The marsh shelves into the mud of the river bed forming soft mud cliffs 1- 0.5m in height and there appears to be some active erosion. Wash from boats evident and probably having some impact. The study by IECS (2010) was commissioned to investigate coastal squeeze mapped this stretch of saltmarsh at 13.44ha in 2000, experiencing a loss of -0.18ha resulting in an extent of 13.27ha by 2007. Although a lot of the saltmarsh extent remained stable (12.70ha) between the seven years, losses occurred at the outer marsh edge along the full extent of this Unit and along the landward edge of the saltmarsh. Losses and gains were also mapped in the internal saltmarsh body mainly at the northern end of this unit with mudpans recolonising or areas experiencing erosion. This ISA concludes that the Unit is Unfavourable Declining due to coastal squeeze due to the active erosion of the saltmarsh frontage and lack of scope to respond to this by rolling back due to the seawall presence. Intertidal sand bars are very dynamic in the Woodbridge Haven area and these coastal processes are likely to influence	COASTAL - COASTAL SQUEEZE,
-------------------	----------	-----	---------	---------	------	------------	--------------------------	--	----------------------------

APPENDIX 5

The Framework Plan

All dimensions to be verified on site. Do not scale this drawing. All discrepancies to be clarified with project Landscape Architect.

This drawing is the property of FPCR Environment and Design Ltd and is issued on the condition it is not reproduced, retained or disclosed to any unauthorised person, either wholly or in part without written consent of FPCR Environment and Design Ltd.

- Application Boundary - 12.67 ha
- Proposed Residential Development - 7.70 ha
 - A - 4.01 ha
 - B - 2.80 ha
 - C - 0.89 ha
- Proposed Convenience Store - 400 m2 unit (Gross) (0.1ha including parking/services)
- Existing Vegetation/ Hedgerows
- Existing Dry stream (5m Easement)
- Proposed Footpath
- Proposed Structural Planting - 1.26 ha
- Proposed Indicative Vehicular Access Route
- Proposed Attenuation Basin - 0.20 ha
- Proposed Site Access
- Informal Open Space - 3.16 ha (including easement)
- Children's Playing Space - 0.25 ha (including 0.04ha equipped play area)
- Proposed Easement Route



J:\6100\6106\LANDS\Plans\Framework\6106 - Framework rev P.indd

Gladman Developments Ltd
Land off Duke's Park
Woodbridge

DEVELOPMENT FRAMEWORK

1:2000@A1

18 November 2015

6106-L-01 P

masterplanning
environmental assessment
landscape design
urban design
ecology
architecture
arboriculture

FPCR Environment and Design Ltd
Lockington Hall
Lockington
Derby DE74 2RH

t: 01509 672772
f: 01509 674565
e: mail@fpcr.co.uk
w: www.fpcr.co.uk

fpcr

APPENDIX 6

Correspondence received from Natural England

This page has been left blank intentionally

Date: 01 May 2015
Our ref: DAS/1420
Your ref: 6106E



Nick Law
Senior Ecologist
FPCR Environment and Design Ltd
Lockington Hall
Lockington
Derby DE74 2RH

Customer Services
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

0300 060 3900

BY EMAIL ONLY

Dear Mr Law

Discretionary Advice Service (Charged Advice)

Contract Reference DAS/8180/135637

Development proposal and location: Land South of Ipswich Road and east of Top Street, Woodbridge, Suffolk

Thank you for your consultation on the above. This advice is being provided as part of Natural England's Discretionary Advice Service. FPCR Environment and Design Ltd has asked Natural England to review their draft Habitat Regulations Assessment for the above proposal. This is in accordance with the Quotation and Agreement dated 19 November 2014, and is based on the information provided in the e-mail dated 19th March 2015.

Protected sites

Deben Estuary Special Protection Area, Ramsar Site, Site of Special Scientific Interest

A draft HRA has been produced which considers the issues raised by Natural England in our earlier initial advice letter of 23rd July 2014 (appended to the HRA). These issues are primarily in relation to the potential for recreational disturbance to estuary birds as a result of the new housing development, which is within walking and driving distance of the estuary.

The HRA assesses the likely number of residents and where they are likely to travel to within the designated site. The report also considers in combination impacts with other developments in close proximity. A number of measures are proposed to reduce and mitigate the identified potential recreational disturbance impacts.

Number of dogs and households

The HRA states that the development would result in an additional 338 people in up to 215 households. These figures are used to generate a figure of around 50 additional dog owners, which is derived using national statistics for dog ownership. It is concluded that as this represents 0.13% additional population in the district, that it would result in 0.13% more visits to the estuary. Based on this analysis it is concluded that this could equate to an additional 10 visits per day to the estuary. Given the close proximity of the site to the estuary compared to other developments in the district (0.5km in places), and the potential for each dog to need walking once or twice per day, it is Natural England's advice that this may represent an under estimate and that 50 dogs might generate the need for between 50 and 100 walks per day (potentially to the nearby SPA). In addition, there is other recreational activity such as walking and cycling which might result in further recreational disturbance.

Walking Distance from the estuary

While the SCDC Core Strategy used a 1km separation from the estuary for housing allocations as a mechanism to reduce recreational disturbance from walking, it does not follow that this separation results in no recreational disturbance. Various studies looking into the distance people are likely to walk suggest distances of between 1.6km and 2.9Km, and a study cited in the HRA (Fearnley & Liley 2014) suggests an average walking distance of 2.6Km, a distance which could bring walkers onto the SPA. For this reason, the conclusion at section 3.33 that a distance of 1km would prevent regular walks should be revisited.

Accessibility for Car Visitors

The HRA examines which car parks are likely to be visited and where visitors are likely to go once they have arrived at these. Several local car parks are described and their use is analysed. Walking distances on local routes are discussed, but these should be reviewed, in the light of our comments above.

Use of path along south shore of Martlesham Creek.

Although much of this route is screened by scrub, there are also open areas, and the potential for dogs off leads to cause disturbance to birds at the head of the creek, and beyond. For this reason the potential for bird disturbance as a result of use of this route should be considered further.

Use of Martlesham Creek by Black Tailed Godwit

Although not an SPA feature, the HRA helpfully discusses disturbance to Black tailed godwit. Martlesham creek is known to be an important area for this species on the estuary, and it would be helpful to further examine the potential for disturbance to roosting or feeding birds here in order to evaluate potential impacts on the SSSI.

Mitigation Measures

Accessibility of sandy lane

There is currently ready access to within 0.5Km of the estuary via sandy lane. Mitigation of recreational impact relies to a great extent on removing this access point and it is stated that this can be achieved by fencing and enhancing the hedgerow. Further details should be provided on the feasibility of securing this boundary in the long term, and how the potential for breaches would be monitored and managed to ensure the effectiveness of this mitigation measure.

Alternative access provision

Mitigation measures include the provision of 1.7km of footpaths and features and facilities to encourage dog walking within the site. While these are helpful measures, given an average walking distance of around 2.6Km, it would be helpful to explore how the routes provided within the development might connect to the existing RoW network in order to provide more substantial walking opportunities.

It will also be necessary to quantify the likely recreational requirement (numbers of dog walks/day) and to specify how this volume of recreational activity would be mitigated by the alternative access provisions. Details of any residual impact and how the effectiveness of mitigation measures would be monitored should also be included in the HRA. Commitments to provide financial contribution to visitor management and wardening to augment those in the core strategy are welcomed.

In combination

While the HRA considers several local developments, impacts in combination with the Core Strategy allocations are not considered. It is likely that these allocations will result in additional recreational pressure at the same access points as this development, and for this reason an in combination assessment is necessary. It is possible that these are the kinds of impacts which could be addressed by contributions to wardening and visitor management.

In conclusion, Natural England is currently not satisfied, on the basis of the objective information which has so far been provided, that it can be excluded that the proposed plan or project will have a

significant effect on the Deben Estuary SPA/Ramsar, either individually or in combination with other plans or projects. Furthermore, Natural England is not yet satisfied that the proposed operations are not likely to damage any of the interest features of the Deben Estuary SSSI.

Natural England therefore requests that additional information is provided, as described above, in order to address these current uncertainties.

For clarification of any points in this letter, please contact John Jackson on 0300 060 1979.

This letter concludes Natural England's Advice within the Quotation and Agreement dated 19 November 2014.

The advice provided in this letter has been through Natural England's Quality Assurance process

The advice provided within the Discretionary Advice Service is the professional advice of the Natural England adviser named below. It is the best advice that can be given based on the information provided so far. Its quality and detail is dependent upon the quality and depth of the information which has been provided. It does not constitute a statutory response or decision, which will be made by Natural England acting corporately in its role as statutory consultee to the competent authority after an application has been submitted. The advice given is therefore not binding in any way and is provided without prejudice to the consideration of any statutory consultation response or decision which may be made by Natural England in due course. The final judgement on any proposals by Natural England is reserved until an application is made and will be made on the information then available, including any modifications to the proposal made after receipt of discretionary advice. All pre-application advice is subject to review and revision in the light of changes in relevant considerations, including changes in relation to the facts, scientific knowledge/evidence, policy, guidance or law. Natural England will not accept any liability for the accuracy, adequacy or completeness of, nor will any express or implied warranty be given for, the advice. This exclusion does not extend to any fraudulent misrepresentation made by or on behalf of Natural England.

Yours sincerely

John Jackson
Lead Adviser
Sustainable Development
Norfolk & Suffolk Team

Cc commercialservices@naturalengland.org.uk

Annex 1

European Protected Species

A licence is required in order to carry out any works that involve certain activities such as capturing the animals, disturbance, or damaging or destroying their resting or breeding places. Note that damage or destruction of a breeding site or resting place is an absolute offence and unless the offences can be avoided (e.g. by timing the works appropriately), it should be licensed. In the first instance it is for the developer to decide whether a species licence will be needed. The developer may need to engage specialist advice in making this decision. A licence may be needed to carry out mitigation work as well as for impacts directly connected with a development. Further information can be found in Natural England's ['How to get a licence'](#) publication.

If the application requires planning permission, it is for the local planning authority to consider whether the permission would offend against Article 12(1) of the Habitats Directive, and if so, whether the application would be likely to receive a licence. This should be based on the advice Natural England provides at formal consultation on the likely impacts on favourable conservation status and Natural England's [guidance](#) on how the three tests (no alternative solutions, imperative reasons of overriding public interest and maintenance of favourable conservation status) are applied when considering licence applications.

Natural England's pre-submission Screening Service can screen application drafts prior to formal submission, whether or not the relevant planning permission is already in place. Screening will help applicants by making an assessment of whether the draft application is likely to meet licensing requirements, and, if necessary, provide specific guidance on how to address any shortfalls. The advice should help developers and ecological consultants to better manage the risks or costs they may face in having to wait until the formal submission stage after planning permission is secured, or in responding to requests for further information following an initial formal application.

The service will be available for new applications, resubmissions or modifications – depending on customer requirements. More information can be found on [Natural England's website](#).

Date: 23 July 2014
Our ref: DAS 8180/124195
Your ref: Land Adjacent to Duke's Park, Woodbridge



Nick Law,
FPCR Environment & Design Ltd
Lockington Hall
Lockington
Derbyshire
DE74 2RH

Customer Services
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

0300 060 3900

BY EMAIL ONLY

Dear Nick

Discretionary Advice Service (Charged Advice)

Contract Reference DAS/8180/124195

Development proposal and location: Land Adjacent to Duke's park, Woodbridge

Thank you for your consultation on the above. This advice is being provided as part of Natural England's Discretionary Advice Service. FPCR Environment & Design Ltd has asked Natural England to provide advice on:

- Natural England's local knowledge of designated site ecology, processes, local policy, etc.
- Potential impacts on designated or proposed designated sites
- The scope of green infrastructure and/or priority habitat delivery
- Information for a draft habitats regulations assessment
- Specific advice on the provision of suitable alternative natural greenspace.

This advice is provided in accordance with the Quotation and Agreement dated 24 June 2014.

Designated Sites

This proposal is close to the Deben Estuary Site of Special Scientific Interest (SSSI), Special Protection Area (SPA), and wetland of international importance under the Ramsar Convention (Ramsar Site). The estuary supports a range of habitat and species features, in particular several species of wintering waders and waterfowl which occur in nationally and internationally important numbers in winter.

Potential Impacts of the proposals

The proposal could potentially result in recreational disturbance impacts on habitats and species as a result of increased numbers of people living in the area and visiting the Deben Estuary. There are already concerns about the impact of recreational disturbance on the Deben Estuary, and this proposal provides potential to increase recreational disturbance impacts on wintering birds protected under the SPA, Ramsar Site and SSSI designations. The bird species protected under the SPA notification are Brent Goose and Avocet, and in addition, wintering Redshank, Shelduck and Black Tailed Godwit are features of the SSSI. Martlesham Creek is known to be an important area for Black Tailed Godwit. Birds are sensitive to disturbance by recreational walkers, cyclists etc., and in particular to dogs off leads. Further background can be found in a local study which looks into

these issues in detail on the Stour and Orwell Estuaries:

<http://www.suffolkcoastandheaths.org/assets/Projects--Partnerships/Stour--Orwell/Recreation-Disturbance-Report-Final-low-quality.pdf>.

Recreational disturbance issues (and potential mitigation measures) are also explored in detail for the Deben in a more recent Suffolk Wildlife Trust Report;

<http://www.suffolkcoastandheaths.org/assets/Projects--Partnerships/DEP/Deben-Bird-Report-Web.pdf>.

Information for a draft habitat regulations assessment

The HRA should examine potential recreational disturbance impacts on the Deben Estuary SPA against the site's conservation objectives (http://www.naturalengland.org.uk/images/uk9009261-deben-estuary-spa_tcm6-32224.pdf), alone and in combination with other plans or projects. It is Natural England's advice that the RAMSAR Feature *Vertigo angustior* (Narrow Mouthed Whorl Snail) is not likely to be affected by these proposals.

A number of significant housing proposals have been put forward in Suffolk Coastal District Council's Core Strategy, and several additional housing proposals close to the Deben Estuary have also been made since the Core Strategy was completed. The HRA should consider in-combination and cumulative impacts in relation to these proposals, with particular reference to the HRA of the SCDC Core Strategy. Other relevant studies on recreational disturbance have been conducted around the country and these may also provide helpful examples of methods and best practice.

The HRA should assess existing (and forecast) recreational disturbance levels in the parts of the SPA likely to be affected by recreational disturbance from the development (areas of the SPA within walking and cycling distance and car parks likely to be used by new residents). Of particular concern are regular dog walkers, as it is known that dogs off leads can cause considerable disturbance to wintering birds if they run onto the foreshore.

The HRA should also consider the distribution of wintering birds on the estuary, either through a review of existing survey information (such as Wetland Bird Survey data, existing reports, and information from local bird recorders), or if necessary, through bespoke surveys to assess bird usage. Bird hot spots such as important roosting or feeding areas should be identified and taken into consideration in this work.

There are a number of mitigation measures which could potentially be considered as part of the HRA. These include the provision of alternative green space (see next section), and other measures such as local habitat management (for example screening of sensitive areas), the provision of interpretation in the form of signs and leaflets, and wardening. Should mitigation be required, then the HRA should also set out a process for monitoring and review, indicating triggers and adjustments which might be taken to ensure full effectiveness.

Specific advice on SANGs

One potential mitigation approach for recreational disturbance impacts is the provision of alternative areas of green space which are attractive and convenient for regular activities such as local walks and dog walking. Such areas should be attractive and convenient and provide a real alternative to other routes on the SPA. Ideally they could be linked to existing Rights of Way (where these take people away from the designated site), and provide facilities such as a way marked circular route, dog bins, and in particular area where dogs can be exercised off leads. They might also be designed to encourage people away from the SPA and into other areas. The amount and scale of such proposals would depend on the forecast recreational impact, and would need to demonstrably account for additional recreational pressure. Proposals would also need to take account of the natural draw of the estuary as an attractive walking area, and consider how any residual impact would be mitigated.

The scope of Green Infrastructure and/or Priority Habitat delivery

The proposed development is within an area that Natural England considers could benefit from enhanced green infrastructure (GI) provision. Multi-functional green infrastructure can perform a range of functions including improved flood risk management, provision of accessible green space, climate change adaptation and biodiversity enhancement. Evidence and advice on green infrastructure, including the economic benefits of GI can be found on the Natural England [Green Infrastructure web pages](#).

In this case, GI and priority habitat delivery could also make significant contributions to mitigating against recreational disturbance impacts, as described above.

Overall, Natural England is currently not satisfied, on the basis of the objective information which has so far been provided, that it can be excluded that the proposed plan or project will have a significant effect on the Deben Estuary SPA/Ramsar, either individually or in combination with other plans or projects. Furthermore, Natural England is not yet satisfied that the proposed operations are not likely to damage any of the interest features of the Deben Estuary SSSI.

Natural England therefore requests that additional information is provided along the lines of that described above, in order to address these current uncertainties.

For clarification of any points in this letter, please contact John Jackson on 0300 060 1979

This letter concludes Natural England's Advice within the Quotation and Agreement dated 24 June 2014.

Senior adviser to QA letter and check box below

☐ The advice provided in this letter has been through Natural England's Quality Assurance process

The advice provided within the Discretionary Advice Service is the professional advice of the Natural England adviser named below. It is the best advice that can be given based on the information provided so far. Its quality and detail is dependent upon the quality and depth of the information which has been provided. It does not constitute a statutory response or decision, which will be made by Natural England acting corporately in its role as statutory consultee to the competent authority after an application has been submitted. The advice given is therefore not binding in any way and is provided without prejudice to the consideration of any statutory consultation response or decision which may be made by Natural England in due course. The final judgement on any proposals by Natural England is reserved until an application is made and will be made on the information then available, including any modifications to the proposal made after receipt of discretionary advice. All pre-application advice is subject to review and revision in the light of changes in relevant considerations, including changes in relation to the facts, scientific knowledge/evidence, policy, guidance or law. Natural England will not accept any liability for the accuracy, adequacy or completeness of, nor will any express or implied warranty be given for, the advice. This exclusion does not extend to any fraudulent misrepresentation made by or on behalf of Natural England.

Yours sincerely

John Jackson
Norfolk & Suffolk Team
Cc commercialservices@naturalengland.org.uk

Annex 1

European Protected Species

A licence is required in order to carry out any works that involve certain activities such as capturing the animals, disturbance, or damaging or destroying their resting or breeding places. Note that damage or destruction of a breeding site or resting place is an absolute offence and unless the offences can be avoided (e.g. by timing the works appropriately), it should be licensed. In the first instance it is for the developer to decide whether a species licence will be needed. The developer may need to engage specialist advice in making this decision. A licence may be needed to carry out mitigation work as well as for impacts directly connected with a development. Further information can be found in Natural England's ['How to get a licence'](#) publication.

If the application requires planning permission, it is for the local planning authority to consider whether the permission would offend against Article 12(1) of the Habitats Directive, and if so, whether the application would be likely to receive a licence. This should be based on the advice Natural England provides at formal consultation on the likely impacts on favourable conservation status and Natural England's [guidance](#) on how the three tests (no alternative solutions, imperative reasons of overriding public interest and maintenance of favourable conservation status) are applied when considering licence applications.

Natural England's pre-submission Screening Service can screen application drafts prior to formal submission, whether or not the relevant planning permission is already in place. Screening will help applicants by making an assessment of whether the draft application is likely to meet licensing requirements, and, if necessary, provide specific guidance on how to address any shortfalls. The advice should help developers and ecological consultants to better manage the risks or costs they may face in having to wait until the formal submission stage after planning permission is secured, or in responding to requests for further information following an initial formal application.

The service will be available for new applications, resubmissions or modifications – depending on customer requirements. More information can be found on [Natural England's website](#).

APPENDIX 7

SWT Trading report 'Table 1'

This page has been left blank intentionally

Table 1 Current status and importance of birds using the Deben Estuary**International Importance**

Species	BoCC Status	Mean nos of birds on estuary between 2000/1 and 2004/5	Mean nos of birds on estuary between 2006/7 and 2010/11	Qualifying international threshold
Black-tailed Godwit	Red	248	680	610

National Importance

Species	BoCC Status	Mean nos of birds on estuary between 2000/1 and 2004/5	Mean nos of birds on estuary between 2006/7 and 2010/11	Qualifying UK threshold
Dark-bellied Brent Goose	Amber	1915	1463	910
Shelduck	Amber	799	649	610
Little Egret	Amber	n/a	49	45
Avocet	Amber	241	299	75
Grey Plover	Amber	537	485	430
Redshank	Amber	2095	2140	1200

Other Species Noted in Significant Numbers:

Species	BoCC Status	Mean nos of birds on estuary between Jan 2010 and Dec 2012	Max nos of birds on estuary between Jan 2010 and Dec 2012	Qualifying UK threshold
Bar-tailed Godwit	Amber	41	102 (Feb 2012)	380
Curlew	Amber	768	1032 (Oct 2011)	1400
Dunlin	Red	2919	3670 (Dec 2011)	3500
Golden Plover	Amber	n/a	3813 (6449 in 2010/11)	4000
Knot	Amber	130	223 (Jan 2012)	3200
Lapwing	Red	2681	4478 (Jan 2011)	6200
Little Grebe	Amber	68	102 (Feb 2012)	160
Pintail	Amber	102	176 (Jan 2011)	290

This page has been left blank intentionally

APPENDIX 8

Extracts from SWT Trading report

This page has been left blank intentionally

Figure 7: Map Indicating Sensitive Areas for Bird Disturbance

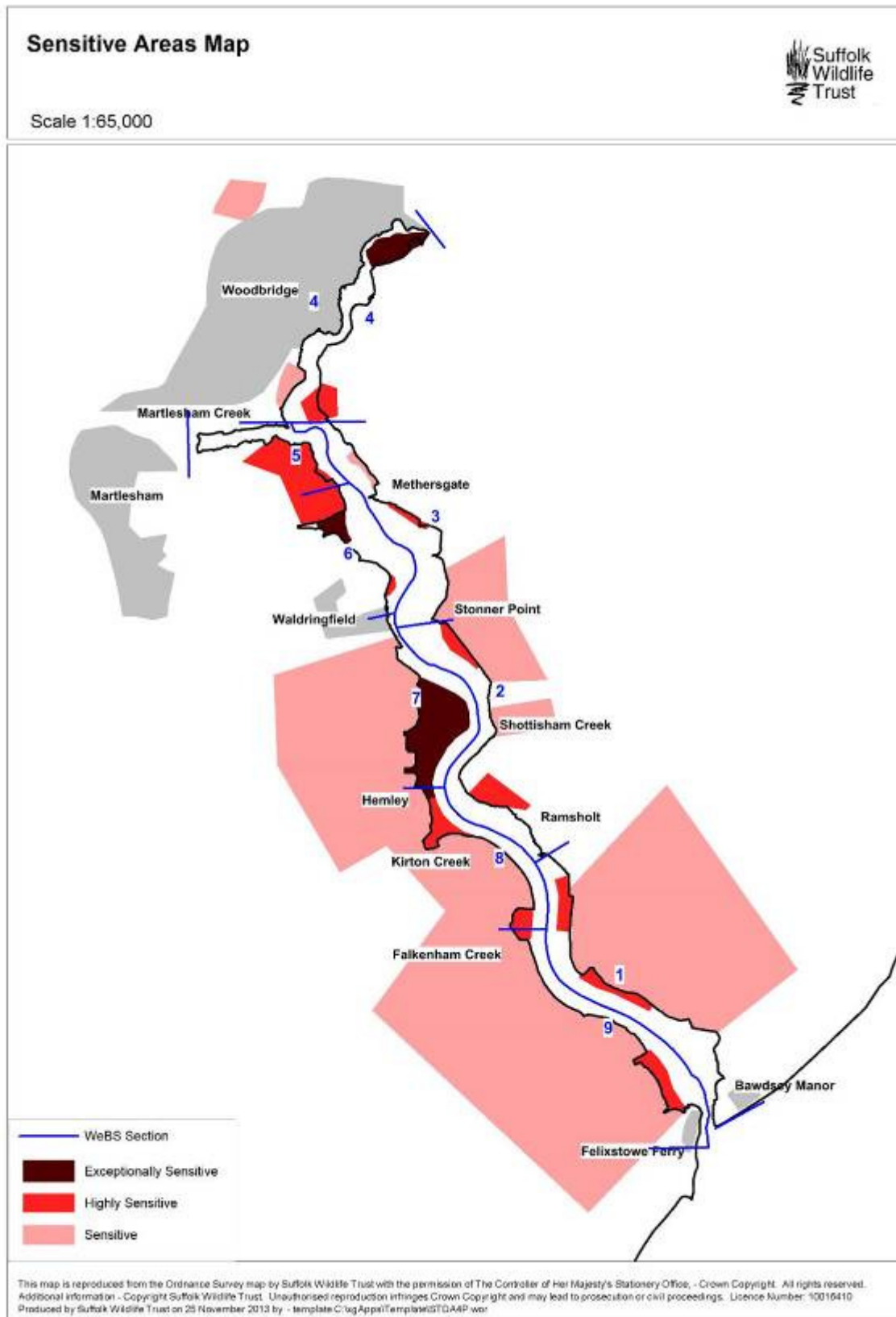


Figure 14: Key Roosting Areas: Avocet

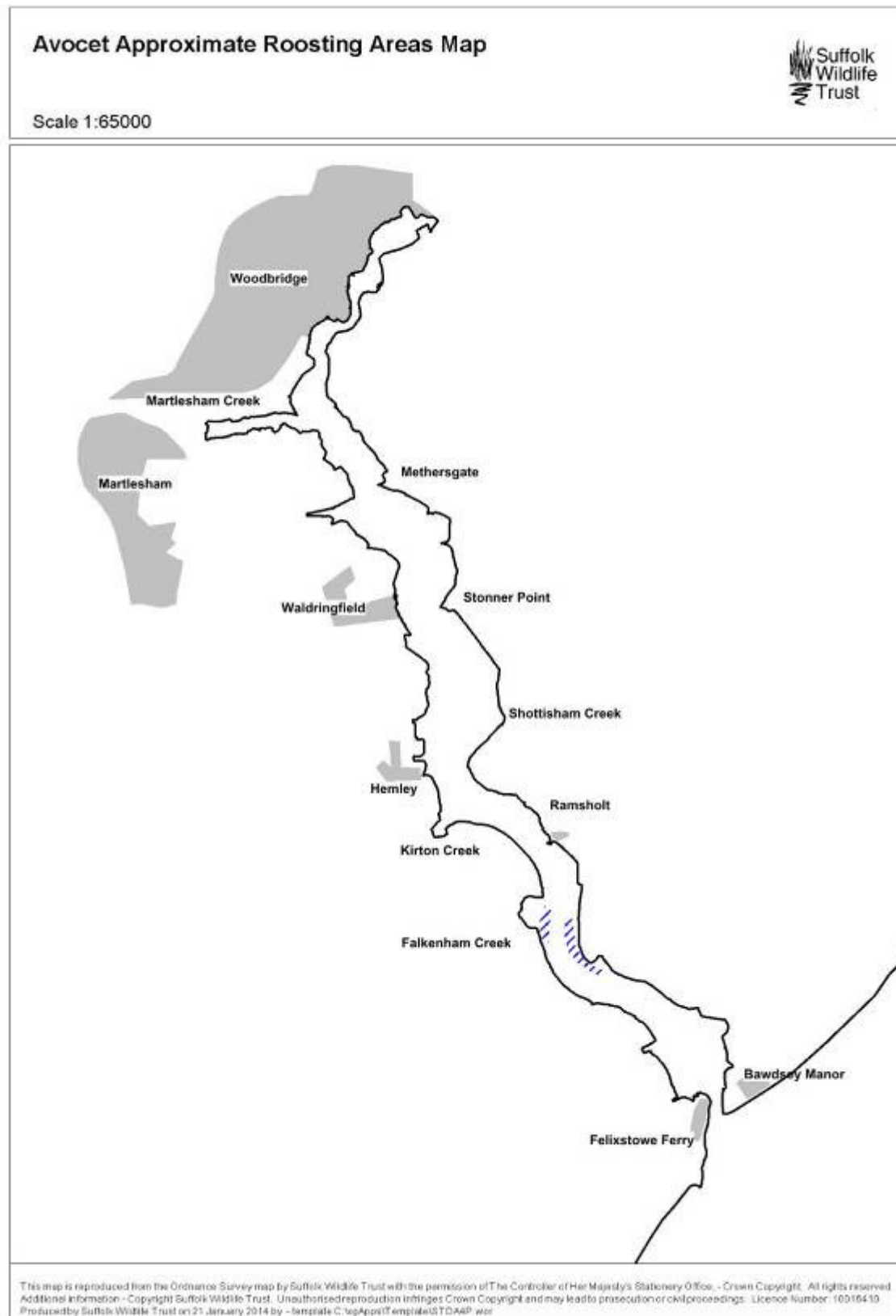


Figure 15: Key Roosting Areas: Black-Tailed Godwit

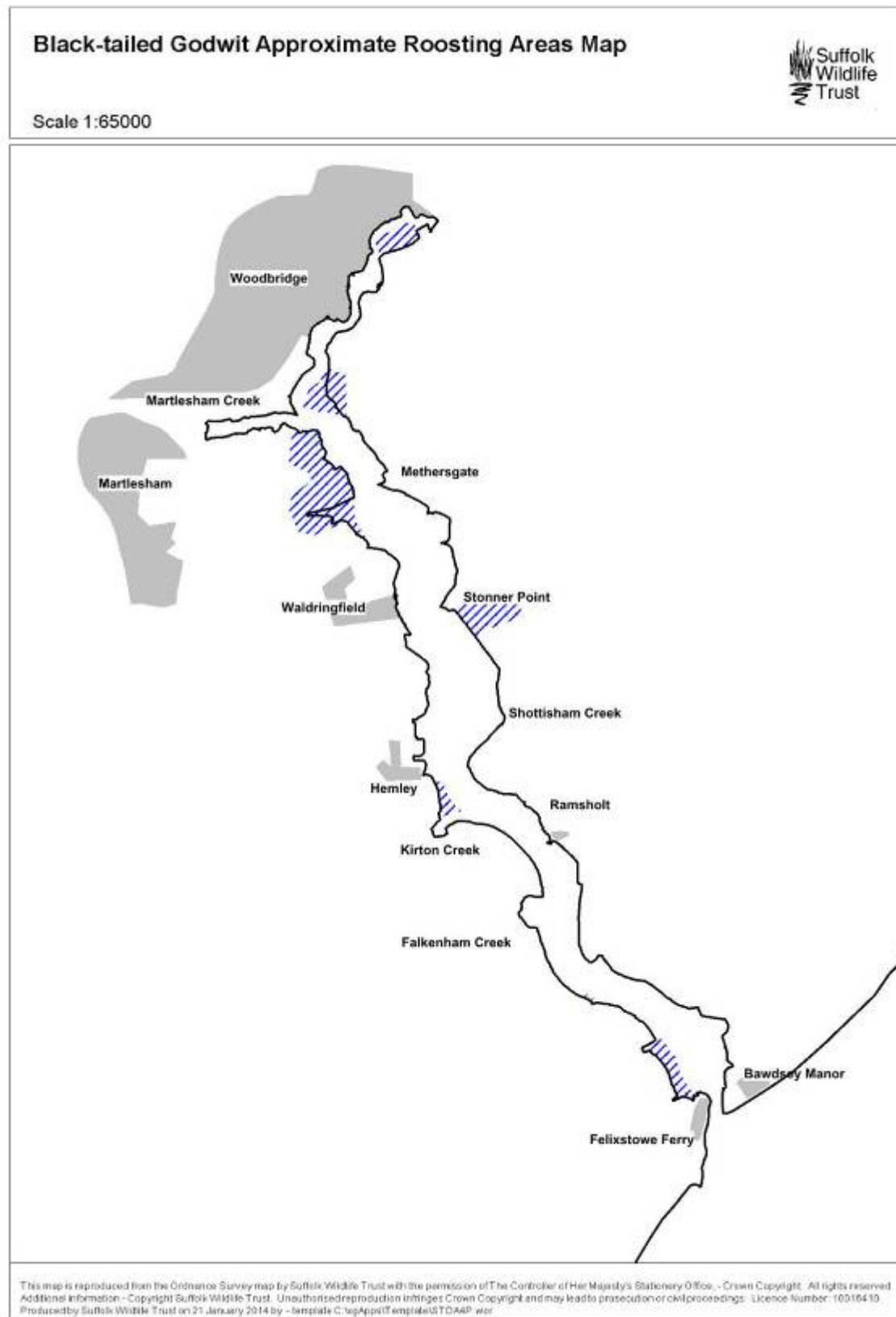


Figure 16: Key Roosting Areas: Dark-Bellied Brent Goose

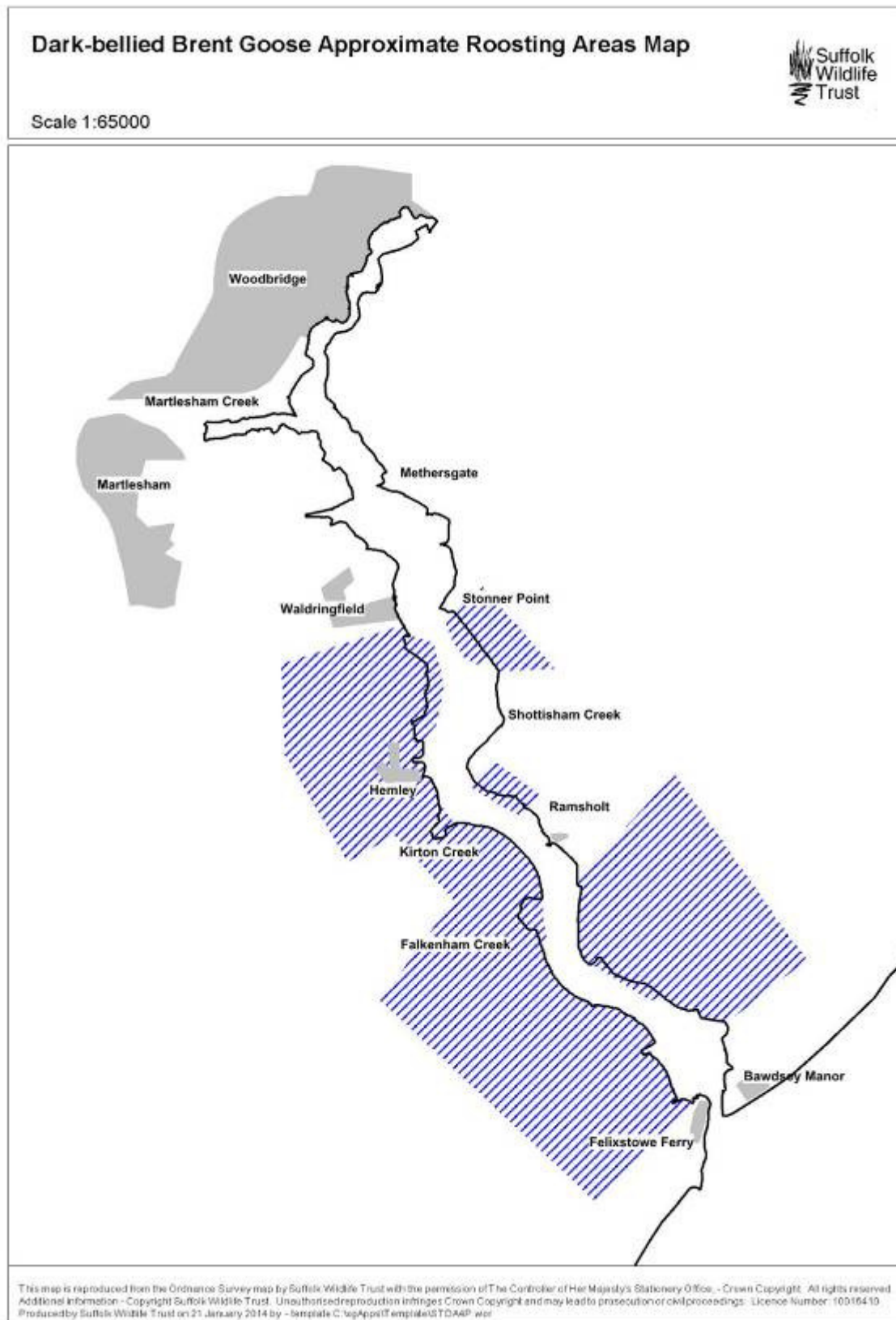


Figure 18: Key Roosting Areas: Redshank

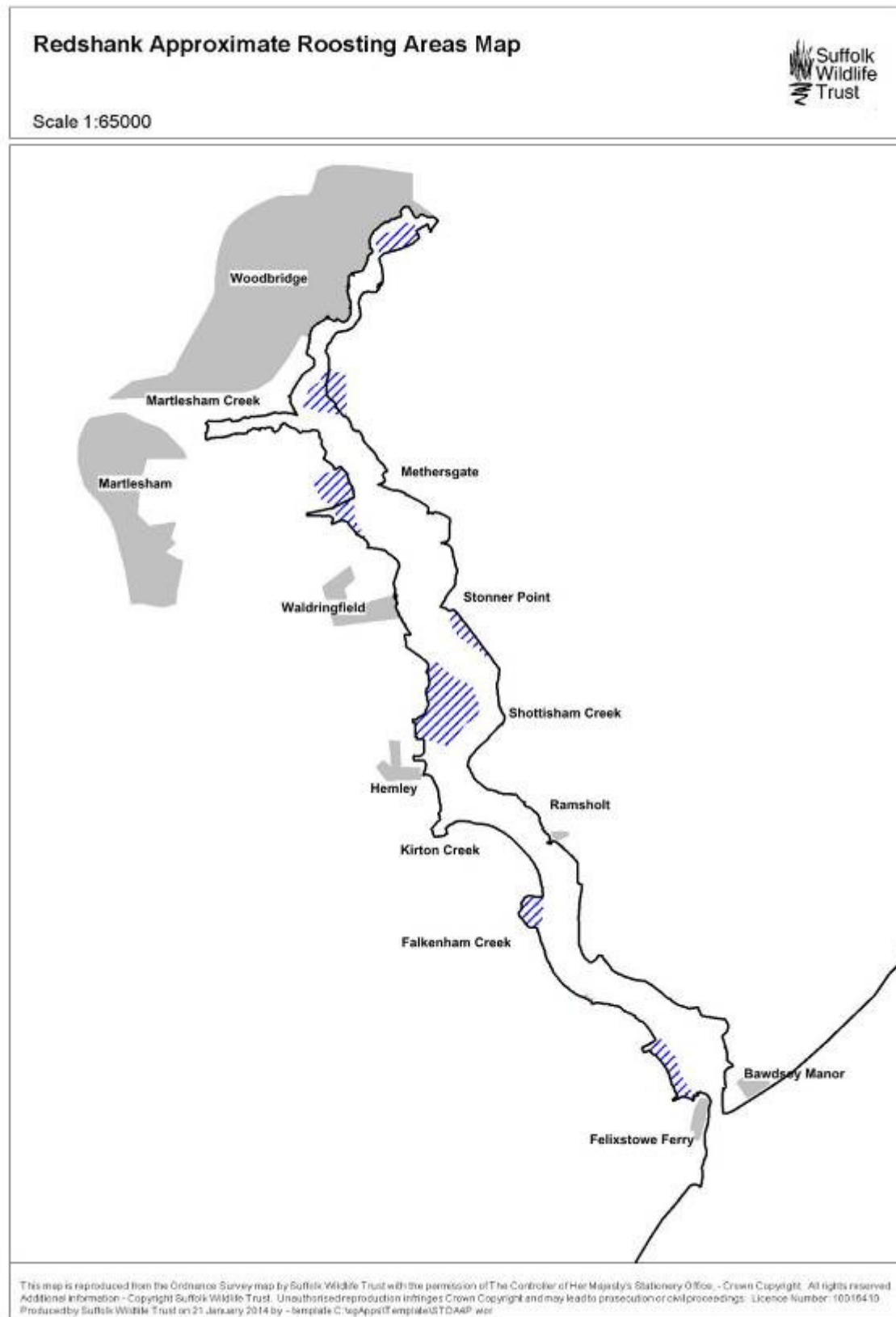


Figure 19: Key Roosting Areas: Shelduck

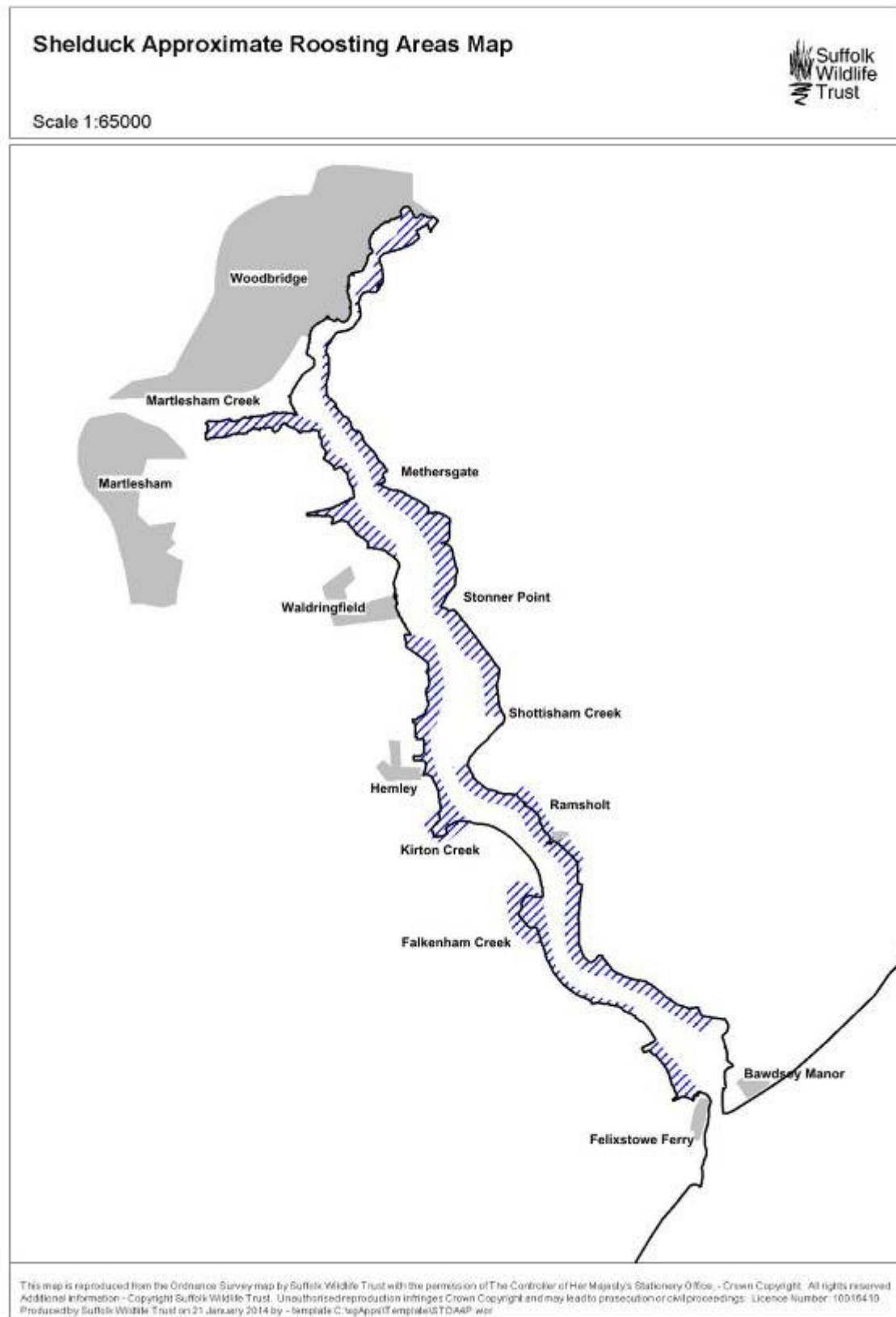


Figure 20: Key Feeding Areas: Avocet

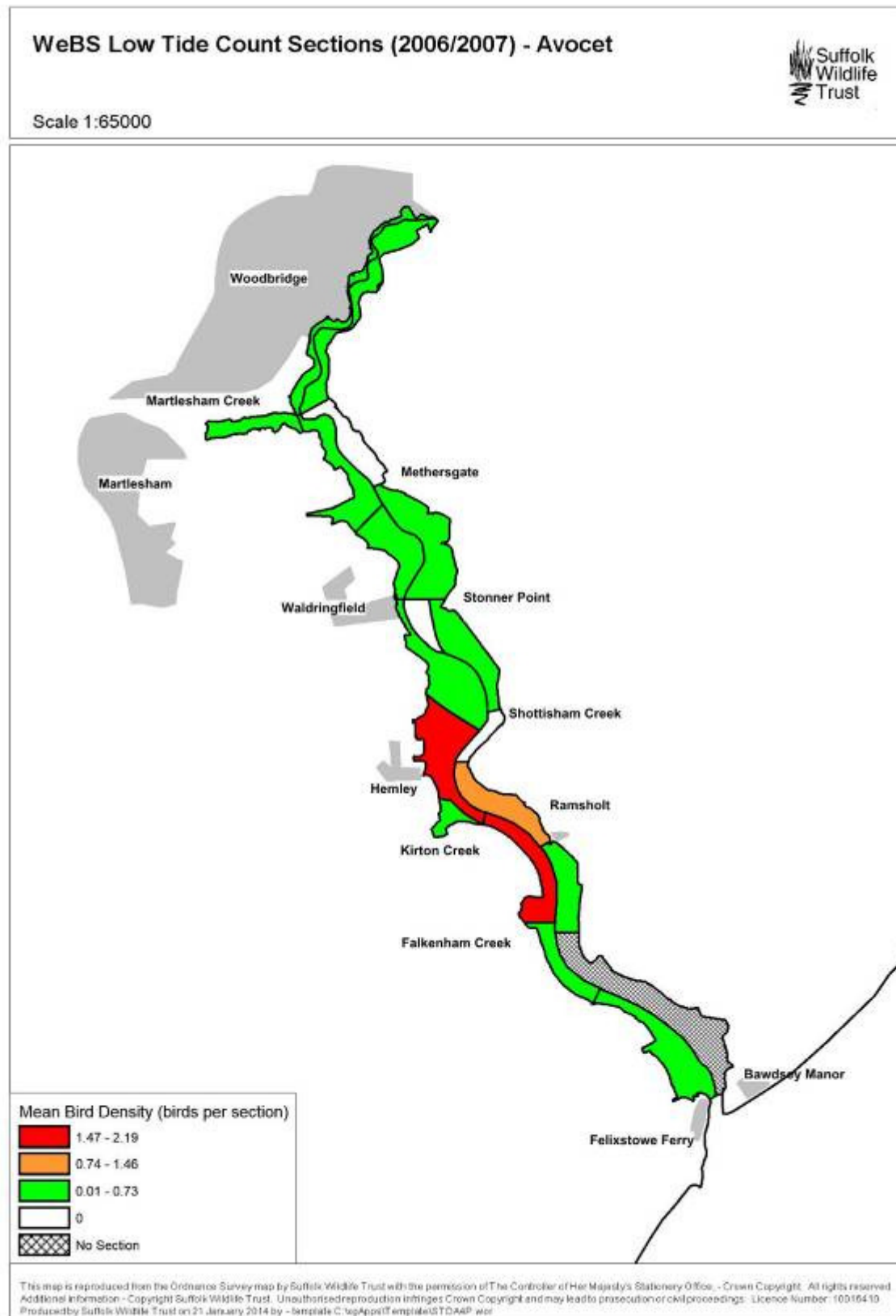


Figure 21: Key Feeding Areas: Black Tailed Godwit

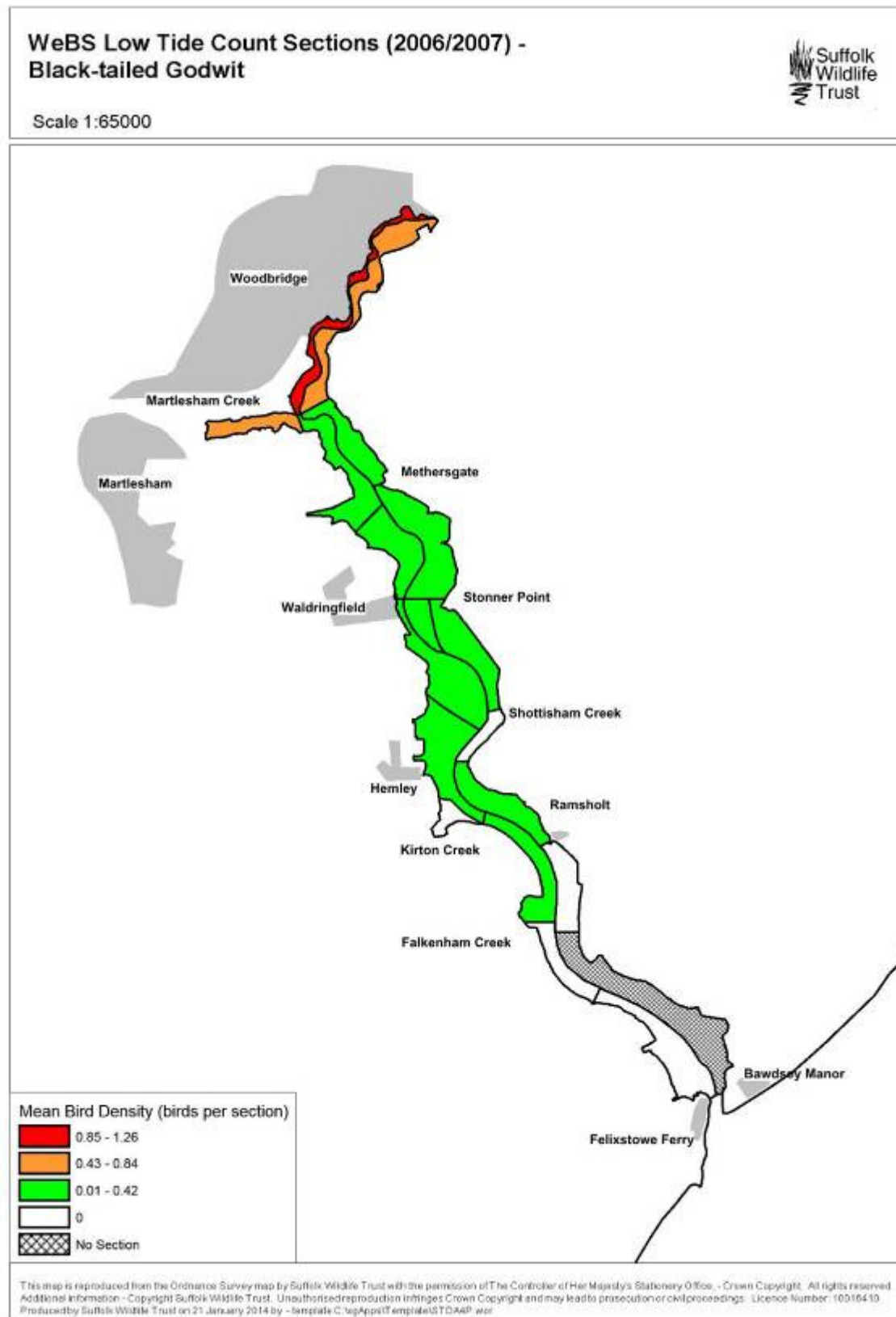


Figure 22: Key Feeding Areas: Dark Bellied Brent Goose

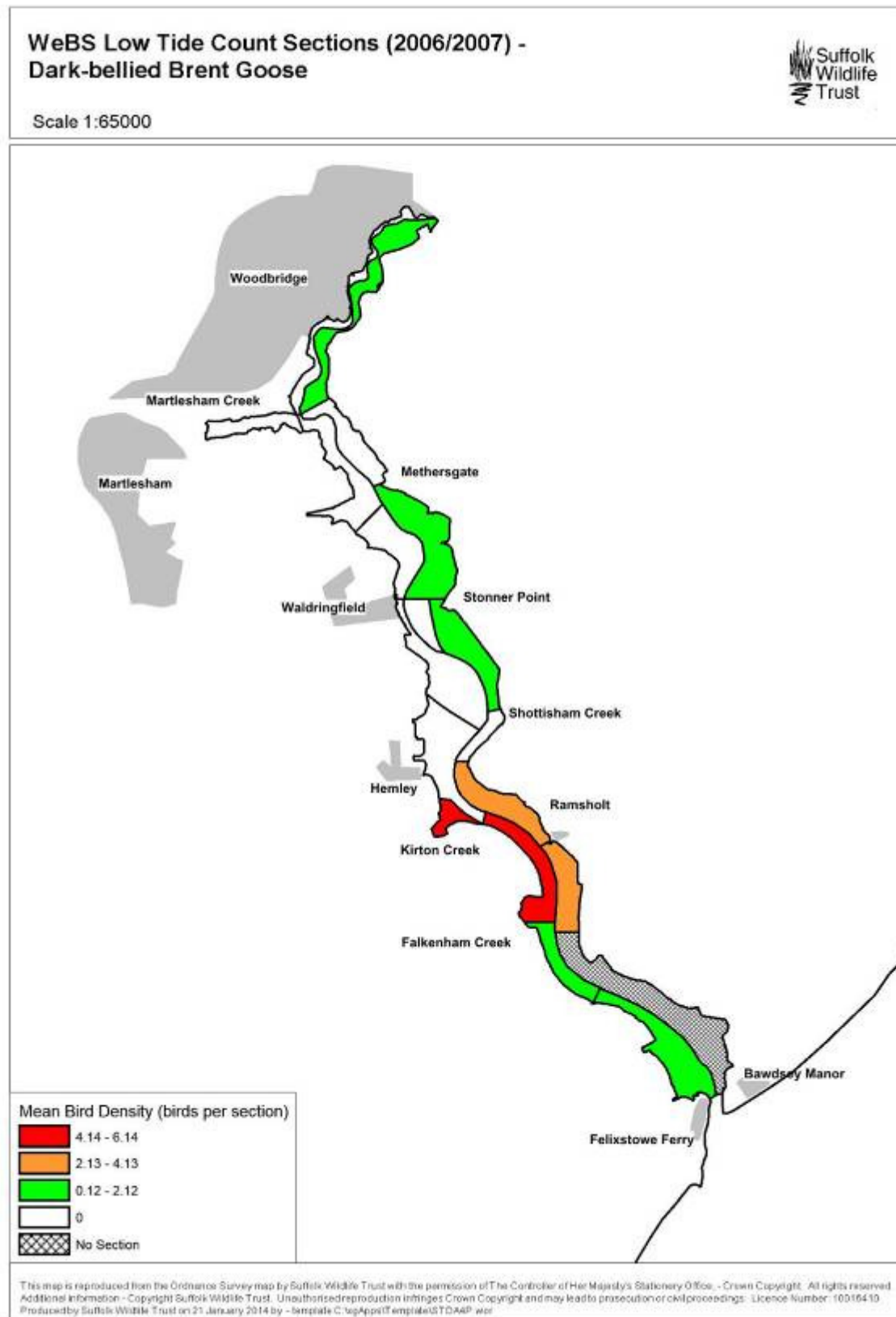


Figure 24: Key Feeding Areas: Redshank

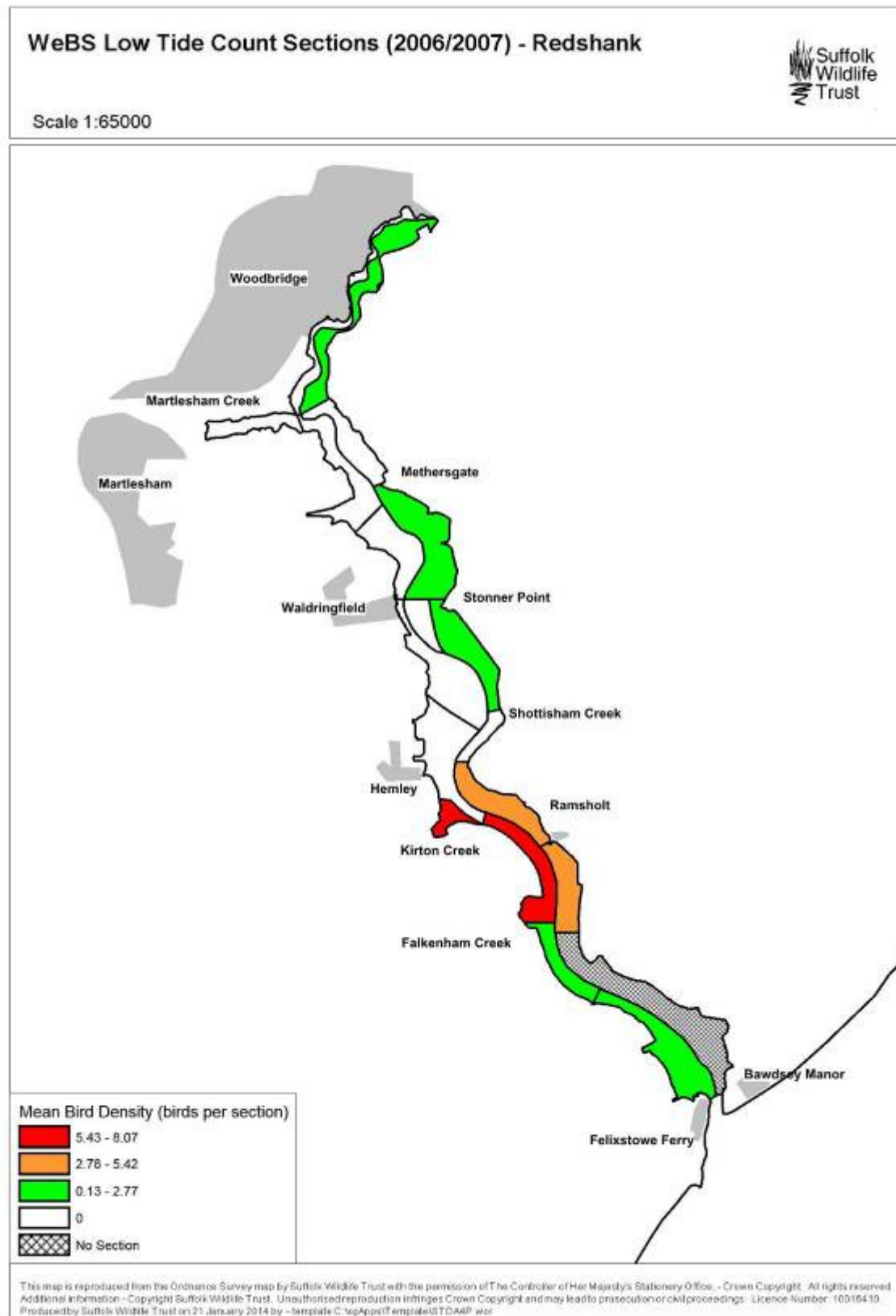


Figure 25: Key Feeding Areas: Shelduck

