Date: 09 February 2023
Our ref: 419762
Your ref: TR010060

Tracey Harvey
The Planning Inspectorate
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BY EMAIL ONLY

Dear Ms Harvey

NSIP Reference Name / Code: A12 Chelmsford to A120 Widening Scheme / TR010060
User Code: 20032607

Written Representations and response to the Examining Authority's first written questions

Examining authority's submission deadline 2 with a date of 13 February 2023

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

For any further advice on this consultation please contact the case officer Camilla Davidge and copy to consultations@naturalengland.org.uk.

Yours sincerely

Camilla Davidge
Lead Advisor – Land Use Planning
West Anglia Area Team

Written Representation

PART I: Summary of Natural England's advice. We are satisfied that there are no areas of concern regarding internationally and nationally designated sites. We have provided a Letter of No Impediment (LONI) in relation to badger mitigation and we are currently considering the licensing implications for bats with a view to issuing a LONI provided that we are satisfied with the mitigation measures submitted. We are awaiting further information from Highways England with respect to soils, including 'best and most versatile' (BMV).

PART II: Annexes including Natural England's evidence and answers to the Examining Authority's first written questions

Content

PART I ADVICE OF NATURAL ENGLAND

1.1. Purpose and structure of these representations

1.1.1. These Written Representations are submitted in pursuance of rule 10(1) of the Infrastructure Planning (Examination Procedure) Rules 2010 ('ExPR') in relation to an application under the Planning Act 2008 for a Development Consent Order ('DCO') for the A12 Chelmsford to A120 Widening scheme ('the Project') submitted by National Highways ('the Applicant') to the Secretary of State.

1.1.2. Natural England has already provided a summary of its principal concerns in its Relevant Representations, submitted to the Planning Inspectorate on 03 November 2022. This document comprises an updated detailed statement of Natural England's views, as they have developed in view of the common ground discussions that have taken place with the Applicant to date. These are structured as follows:

a. Section 2 describes the conservation designations, features and interests that may be affected by the Project and need to be considered.
b. Section 3 comprises Natural England's submissions in respect of the issues that concern it. This submission cross-refers to, and is supported by, the evidence contained in the Annexes.
c. Section 4 is a dedicated section answering the Examining Authority's written questions which were asked on 20 January 2023, cross-referenced to the rest of this document.
d. Section 5 provides a summary of Natural England's case.
e. The Annexes contain evidence referred to in the main body of these Representations.

2. Conservation designations, features and interests that could be affected by the proposed project

The following is a brief summary of the interest features of the relevant designated areas of concern in this matter. Designation citations and maps are included in Annex A

2.1. International conservation designations

2.1.1. Essex Estuaries Special Area of Conservation (SAC)

The Essex Estuaries is the second largest estuarine site on the east coast of England. It contributes to the essential range and variation of estuaries in the UK as the best example of a coastal plain estuary system on the British North Sea coast. Covering an area of 472 square kilometres, this relatively undeveloped estuary complex contains the major estuaries of the Colne, Blackwater, Crouch and Roach, as well as extensive open coast tidal flats at Foulness, Maplin and the Dengie. The intertidal mudflats and sandflats within the European marine site support a wide range of typical estuarine and marine communities on sediments ranging from the finer estuarine muds and muddy sands to coarser sands and gravels.

The SAC is 6km south-east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Essex Estuaries SAC, alone or in combination with any other plan or project.

2.1.2. Blackwater Estuary (Mid-Essex Coast Phase 4) Special Protection Area (SPA)

The Blackwater Estuary SPA covers an area of 4395.15 hectares. The Mid-Essex Coast SPAs support a diverse range of species. These include internationally important populations of breeding birds, as well as internationally important assemblages of wintering waterfowl, present in both nationally and internationally important numbers. The Mid-Essex Coast comprises an

extensive complex of estuaries and intertidal sand and silt flats, including several islands, shingle and shell beaches and extensive areas of saltmarsh.

The SPA is 6km south-east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Blackwater Estuary (Mid-Essex Coast Phase 4) Special Protection Area (SPA), alone or in combination with any other plan or project.

2.1.3. **Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar**

The site, one of the largest estuarine complexes in East Anglia, consists of intertidal mudflats fringed by saltmarsh, shingle and shell banks, and offshore islands. Surrounding terrestrial habitats include a sea wall, grassland, ancient grazing marsh and associated fleet and ditch system. This rich mosaic of habitats supports an outstanding assemblage of nationally scarce plants and a nationally important assemblage of rare invertebrates. Internationally and nationally important numbers of waterbirds winter at the site.

The Ramsar is 6km south-east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar, alone or in combination with any other plan or project.

2.1.4 **Colne Estuary (Mid-Essex Coast Phase 2) SPA**

The Colne Estuary SPA covers an area of 2719.93 hectares. It includes internationally important populations of breeding birds, as well as internationally important assemblages of wintering waterfowl, present in both nationally and internationally important numbers. The Colne Estuary is a site of significant international ornithological importance for overwintering birds, including raptors, geese, ducks and waders. The diversity of estuarine habitats provides good quality feeding areas for a diversity of waterbird species. At high tide, the birds roost along the shoreline and salt marsh fringe. The site is also important in summer for breeding birds.

The SPA is 9.7cm south east of the Order Limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Colne Estuary (Mid-Essex Coast Phase 2) SPA, alone or in combination with any other plan or project.

2.1.5 **Colne Estuary (Mid-Essex Coast Phase 2) Ramsar**

Colne Estuary is a comparatively short and branching estuary, with five tidal arms which flow into the main river channel. The estuary has a narrow intertidal zone predominantly composed of flats of fine silt with mudflat communities typical of south-eastern estuaries. The estuary is of international importance for wintering Brent Geese and Black-tailed Godwit and of national importance for breeding Little Terns and five other species of wintering waders and wildfowl. The variety of habitats which include mudflat, saltmarsh, grazing marsh, sand and shingle spits, disused gravel pits and reedbeds, support outstanding assemblages of invertebrates and plants.

The Ramsar is 9.7cm south east of the Order Limits After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report

TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Colne Estuary (Mid-Essex Coast Phase 2) Ramsar, alone or in combination with any other plan or project.

2.1.6 Abberton Reservoir SPA

Abberton Reservoir is a large storage reservoir. It is the largest freshwater body in Essex with a water area of about 500ha and is one of the most important reservoirs in Britain for wildfowl. About 30,000 birds visit the reservoir annually including internationally important numbers of one species and nationally important numbers of twelve others.

The SPA is 5.4km south east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Abberton Reservoir SPA, alone or in combination with any other plan or project.

2.1.7 Abberton Reservoir Ramsar

Abberton Reservoir is a large storage reservoir built in a long shallow valley. It is the largest freshwater body in Essex and is one of the most important reservoirs in Britain for wildfowl. It is less than 8 km from the coast and its primary role is as a roost for the local estuarine wildfowl population.

The Ramsar is 5.4km south east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Abberton Reservoir Ramsar, alone or in combination with any other plan or project.

2.1.8 Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA

The SPA covers an area of 1,847.87 hectares . The site is of importance for wintering water-birds. The intertidal mud together with the saltmarsh and grazing marsh regularly support internationally important numbers of Dark-bellied brent geese, and nationally important numbers of Shoveler *Spatula clypeata*, Shelduck *Tadorna tadorna* and Black-tailed godwit *Limosa limosa*. These habitats also support an outstanding assemblage of aquatic and terrestrial invertebrates including 56 which are rare or notable, and 13 nationally scarce plants.

The SPA is 11.7km south-east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA, alone or in combination with any other plan or project.

2.1.9 Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) Ramsar

The Rivers Crouch and Roach are situated in South Essex. The River Crouch occupies a shallow valley between two ridges of London Clay, whilst the River Roach is set predominantly between areas of brick earth and loams with patches of sand and gravel. The intertidal zone along the Rivers Crouch and Roach is 'squeezed' between the sea walls of both banks and the river channel. This leaves a relatively narrow strip of tidal mud unlike other estuaries in the county, which, nonetheless, is used by significant numbers of birds. One species is present in internationally important numbers, and three other species of wader and wildfowl occur in

nationally important numbers. Additional interest is provided by the aquatic and terrestrial invertebrates and by an outstanding assemblage of nationally scarce plants.

The Ramsar is 11.7km south-east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) Ramsar, alone or in combination with any other plan or project

2.1.10 **Dengie (Mid-Essex Coast Phase 1) SPA**

The Dengie SPA is located on the coast of Essex in eastern England and covers an area of 3127.22 hectares. It is a large and remote area of tidal mudflats and saltmarshes at the eastern end of the Dengie peninsula, between the adjacent Blackwater and Crouch estuaries. The site was classified on the basis that it supports internationally important numbers of overwintering bird species (dark-bellied brent goose, grey plover, knot and hen harrier), including its waterbird assemblage.The saltmarsh at the Dengie SPA contains the largest continuous example of its type in Essex. At high tide the saltmarsh is host to many of the overwintering bird populations. Behind the seawall are wide borrow dykes, some containing reed beds. The formation of cockleshell spits and beaches, saltmarsh and mudflats at the site are of geomorphological interest. The foreshore, saltmarsh and beaches support an outstanding assemblage of rare coastal flora.

The SPA is 14.1km south-east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Dengie (Mid-Essex Coast Phase 1) SPA, alone or in combination with any other plan or project.

2.1.11 **Dengie (Mid-Essex Coast Phase 1) Ramsar**

Dengie is a large and remote area of tidal mudflat and saltmarsh at the eastern end of the Dengie peninsula, between the Blackwater and Crouch Estuaries. The saltmarsh is the largest continuous example of its type in Essex. Foreshore, saltmarsh and beaches support an outstanding assemblage of rare coastal flora. It hosts internationally and nationally important wintering populations of wildfowl and waders, and in summer supports a range of breeding coastal birds including rarities. The formation of cockleshell spits and beaches is of geomorphological interest.

The Ramsar is 14.1km south-east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Dengie (Mid-Essex Coast Phase 1) Ramsar, alone or in combination with any other plan or project

2.1.12 **Outer Thames Estuary SPA**

The SPA consists of areas of shallow and deeper water, high tidal current streams and a range of mobile sediments. Large areas of mud, silt and gravelly sediments form the deeper water channels.. Throughout much of the site, sand forms large sandbanks separated by troughs. The site is designated for non-breeding red-throated diver (*Gavia stellata*), a diving seabird which overwinters in large numbers within the southern North Sea. The site is also designated for breeding common tern (*Sterna hirundo*) and little tern (*Sternula albifrons*). The Outer Thames Estuary SPA protects important at-sea foraging waters for common and little tern. The

coastal waters of the SPA are used for foraging, as well as a wide range of maintenance activities, such as bathing and loafing.

The SPA is 16.3km east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Outer Thames Estuary SPA, alone or in combination with any other plan or project

2.1.13 **Stour and Orwell Estuaries SPA**

The Stour and Orwell Estuaries SPA straddle the Suffolk-Essex border on the east coast of England. The Estuaries are adjacent but combine near the mouth as they join the North Sea. Both are tidal, shallow and relatively sheltered, although the Orwell Estuary is narrower and more linear compared to the wider Stour Estuary. Invertebrate-rich mudflats flank the edges of both estuaries, regularly being covered and uncovered by the tide. Diverse communities of saltmarsh fringe the edges of both estuaries. Several freshwater pools and grazing marshes fall within the SPA boundary. Breeding avocet feed upon the intertidal mudflats and use the grazing marshes to nest during the summer. The SPA also supports important numbers of overwintering waterbirds, which also use the mudflats extensively for feeding. The saltmarsh and grazing marsh provide important roosting sites, whilst some birds feed and roost on the surrounding arable land. The SPA also supports a large and diverse waterbird assemblage.

The SPA is 14.2km south-east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Stour and Orwell Estuaries SPA, alone or in combination with any other plan or project

2.1.14 **Stour and Orwell Estuaries Ramsar**

The Stour and Orwell Estuaries is a wetland of international importance, comprising extensive mudflats, low cliffs, saltmarsh and small areas of vegetated shingle on the lower reaches. It provides habitats for an important assemblage of wetland birds in the non-breeding season and supports internationally important numbers of wintering and passage wildfowl and waders. The site also holds several nationally scarce plants and British Red Data Book invertebrates.

The Ramsar is 14.2km south-east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Stour and Orwell Estuaries Ramsar, alone or in combination with any other plan or project

2.1.15 **Alde-Ore Estuary SPA**

The Alde-Ore Estuary SPA is located on the Suffolk coast between Aldeburgh to the North and Bawdsey to the South. The Alde-Ore Estuary SPA is composed of Atlantic salt meadows *Glauco- Puccinellietalia maritimae*, intertidal mudflats, shingle, coastal lagoons and estuarine fish communities. Bird usage of habitats within the SPA varies seasonally, with different areas being utilised for nesting and feeding at different times of the year.

The SPA is 42.8km north-east of the Order limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report TR010060/APP-201), Natural England is satisfied on the basis of the information submitted

that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Alde-Ore Estuary SPA, alone or in combination with any other plan or project

2.1.16 **Alde-Ore Estuary Ramsar**

The site comprises the estuary complex of the rivers Alde, Butley and Ore, including Havergate Island and Orfordness. There are a variety of habitats including, intertidal mudflats, saltmarsh, vegetated shingle (including the second-largest and best-preserved area in Britain at Orfordness), saline lagoons and grazing marsh. The Orfordness/Shingle Street landform is unique within Britain in combining a shingle spit with a cuspate foreland. The site supports nationally-scarce plants, British Red Data Book invertebrates, and notable assemblages of breeding and wintering wetland birds.

The Ramsar is 42.8km north-east of the Order Limits. After the submission of the Habitat Regulations Assessment (6.8 Habitats Regulations Assessment: No significant effects report - TR010060/APP-201), Natural England is satisfied on the basis of the information submitted that, for the purposes of the Habitats Regulations, the project will not have a likely significant effect on Alde-Ore Estuary Ramsar, alone or in combination with any other plan or project

2.2. National conservation designations

2.2.1 **River Ter Site of Special Scientific Interest (SSSI)**

The River Ter is representative of a lowland stream with a distinctive floor regime. It is flashy, draining a low-lying catchment on glacial till, and has a very low base-flow discharge but high flood peaks; daily, monthly and annual flow variability are also high. In addition the site demonstrates characteristic features of a lowland stream including pool-riffle sequences, bank erosion, bedload transport and dimensional adjustments to flooding frequency.

The River Ter SSSI is located approximately 8km upstream from the proposed Scheme. Natural England is satisfied that the project is unlikely to have a significant impact on the nearby River Ter SSSI, based on the information provided in 6.1 Environmental Statement Chapter 9 Biodiversity (TR010060/APP-076).

2.2.2 **Marks Tey Brickpit SSSI**

Marks Tey has uniquely important Pleistocene sediments, which have yielded a continuous pollen record through the entire Hoxnian Interglacial. No other site in the British Isles has so far produced a comparable vegetational record for this or any other interglacial.

Marks Tey Brickpit SSSI is located approximately 80m from the Order Limits. Natural England is satisfied that the project is unlikely to have a significant impact on Marks Tey Brickpit SSSI, based on the information provided in 6.1 Environmental Statement Chapter 9 Biodiversity (APP- 076) and for the reasons outlined within Chapter 10: Geology and soils [TR010060/APP/6.1].

2.2.3 **Tiptree Heath SSSI**

Tiptree Heath lies between Colchester and Maldon on a ridge of glacial sand and gravel. It is the largest surviving fragment of heathland in the county and shows a complete succession from acidic grassland and dwarf shrub heath, through gorse and birch scrub to secondary woodland. It supports a number of plants that are rare in Essex.

Tiptree Heath SSSI, designated for heathland habitats is located within 200m of the ARN. Natural England is satisfied that the project is unlikely to have a significant impact on Tiptree Heath SSSI based on the air quality assessment (Chapter 6: Air quality [TR010060/APP/6.1]) which showed there would be no impact from changes in air quality at Tiptree Heath SSSI as a result of operation of the proposed scheme**.**

2.3. Protected Species

2.3.1 **Bats**

Bats are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended).

Natural England is in the process of assessing the draft licence application.

2.3.2 **Great Crested Newts (GCN)**

Great crested newts are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended).

We note that District Level Licensing (DLL) will be used for GCN mitigation. Should DLL not be progressed for any reason Highways England will require a Natural England European Protected Species (EPS) Licence. In such case we recommend that a full draft GCN application is agreed with Natural England as soon as possible, in order to expedite the issue of a Letter of No Impediment (LONI) for the examination.

Otter

Otters are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended).

Natural England has not undertaken a detailed review of species surveys and mitigation as the applicant has advised that no licences are required. Natural England welcomes confirmation that Natural England's standing advice has been/will be followed in relation to species licencing.

Dormouse

Dormice are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended).

Natural England has not undertaken a detailed review of species surveys and mitigation as the applicant has advised that no licences are required. Natural England welcomes confirmation that Natural England's standing advice has been/will be followed in relation to species licencing.

Badgers

Badgers are protected under the Protection of Badgers Act 1992 (as amended).

Natural England has assessed a draft licence application and issued a ‘letter of no impediment’ (Annex C) confirming that it sees no impediment to granting a licence, with caveats, in the future.

2.4. Non-designated interests

2.4.1. Natural England refers you to our Standing Advice on ancient woodland

[redacted]

2.5 Impacts on soils (including “best and most versatile land”)

Approximately 460.2 ha of agricultural land, including 332.5 ha of Best and Most Versatile (BMV) land would be permanently sealed by the proposed scheme or otherwise lost to agricultural production. An additional 85ha of agricultural land, including at least 63ha of BMV

land is anticipated to be temporarily acquired for the proposed scheme.

NE provided our advice requesting additional sampling points and clarification on numerous elements in our Relevent Representation.

To date, no futher information has been submitted on soils for Natural England to comment on, but we have been in discussion with National Highways through the Disgretionary Advice contract and expect the requested information to be provided shortly.

2.6 Biodiversity net gain

2.6.1 As Biodiversity Net Gain (BNG) is pre-mandatory, we are not able to require specific measures and would defer to the local authorities as the responsible body for Biodiversity Net Gain. However, there are some aspects of the BNG calculation that we suggest could be improved:

We advise that the habitat surveys (using UK Habitat Classification rather than Phase 1 methodology) and condition assessments could be updated. Currently there are too many assumptions and limitations to provide an accurate baseline assessment.

2.6.2 The proposals are largely based on Metric 3.0. We note that some calculations have been undertaken using Metric 2.0 instead of Metric 3.0. We advise aligning all data with the latest version of the metric used for the project (3.0) to ensure consistency.

2.6.3 The report notes that there are some situations where the metric trading rules are not met. We wish to re-iterate the importance of the trading rules. We note the creation of a significant number of new ponds and this appears to be an issue relating to the fact that some ponds are classed as “ditches” so there may be discrepancies in whether it counts as “area” or “riverine” units. Provision of “like for like” open mosaic habitat should be considered within the design scheme.

For a fuller explanation of our comments, please see Annex A (Q3.0.1)

2.7 Natural England's outstanding concerns and advice

2.7.2 **Soils**

Natural England identified the following main issues in its Relevant Representations:

Land Use/ Land Take and Likely BMV impacts –

- Clarification on what is considered to be permanent development;
- The design principles should be updated to allow this land to maintain or return to its original physical characteristics (ie to retain its ALC grade).
- Request additional clarification around robustness of the Agricultural Land Classification field survey.

Soils-

- Detailed sampling is needed a form a comprehensive Soil Resources Survey in line with the Defra Construction Code of Practice for the Sustainable Use of Soil on Construction Sites
- The ES (chapter 10) does not appear to follow the methodology for Geology and Soils as set out in LA109 methodology, in that in that agricultural land, agricultural soils and other soils have been considered as separate receptors rather than with soil as a single receptor. Our understanding is that this should be a single assessment for the soil as a receptor and would reflect the likely impact on the baseline soils criteria combined.

First Iteration of the Soil Handling Management Plan (Appendix M) August 2022

- The plan should apply to all soils affected by the scheme

- For agricultural soils, topsoils and subsoils should normally be restored to a combined depth of 1.2m. To reduce the incidence of anaerobic conditions developing below the normal cultivation depth, no replaced topsoils should be more than 40cm deep.
- We welcome use of the Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (2009) to guide soil management during construction. However alongside this there should also be a commitment for 'best and most versatile' (BMV) agricultural temporality required for the development to be returned back to its original ALC grade.
- A more detailed sampling is needed for the ALC survey to form a comprehensive Soil Resources Survey in line with the Defra Construction Code.
- Soil handling should normally be avoided during November to March inclusive. Soils should only be handled in a dry and friable condition. A field suitable method for assessing whether soils are in a dry and friable condition based on plastic limits is set out in Part One (Explanatory Note 4 – Table 4.2) of the Institute of Quarrying's Good Practice Guide for Handling Soils in Mineral Working , and this approach together with the associated rainfall protocols should be adopted
- Apart from the replacement of topsoil (using the modified loose tipping method of soil replacement), use of bulldozers should not be permitted for any soils being returned to best and most versatile quality due to the high risk of soil compaction due to repeated trafficking. To minimise risk of soil damage, best practice is for soils to be stripped and replaced by excavators and dump trucks using the methods described in the Defra Construction Code.
- In addition to topsoil and subsoils being stored separately, different soil types as identified form the soil resource survey, will also need to be segregated and stored separately.
- To minimise the risk of internal compaction and maximise soil aeration, best practice is for soil stockpiles heights to be a maximum height of 3m for topsoil and 5m for subsoil.
- Soil stockpiles should also be seeded if in place over the winter period
- Where soils are being reinstated, there should also be a specific commitment for 'best and most versatile' (BMV) agricultural land temporality required for the development to be returned to its original Agricultural Land Classification (ALC) gradeTo reduce the incidence of anaerobic conditions developing below the normal cultivation depth, no replaced topsoils should be more than 40cm deep.
- Clarification requested on what 'substrate' in this context means (Para M.7.6 and M.7.9 -).
- To minimise risk of soil damage, best practice is for subsoils to be replaced by excavators and dump trucks using the loose-tipping methods described in the Defra Construction Code. Use of bulldozers should not be permitted for any subsoils being returned to best and most versatile quality.
- Clarificaton is required on how long a period of aftercare is envisaged should be provided.

2.8 Conclusions

2.8.1 Natural England has reviewed the Environmental Statement (ES), Habitats Regulations Assessment (HRA) and accompanying documents and is broadly satisfied that impacts to statutorily designated sites can be ruled out. We are awaiting further information regarding impacts to soils before we can provide further comments.

Part II: Annexes

Annex A: Natural England's answers to first written questions from the Examining Authority

Examining Authority's written questions were asked on 20 January 2023.

3.	Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA))	
3.0.1	NE, CoCC, CCC, MDC, BDC, ECC	In relation to Applicant's approach toward biodiversity net gain, are the parties satisfied with this approach and the Applicant's conclusion? If not, please explain why.
3.0.2	NE, CoCC, CCC, MDC, BDC, ECC	Has ES Chapter 8: Biodiversity [APP-076], identified all relevant legislation and policy, in particular local policy? If not, please identify which elements are missing and how this relates to the proposed development.
3.0.3	NE, CoCC, CCC, MDC, BDC, ECC	In terms of ES Chapter 8: Biodiversity [APP-076] and its Assessment Methodology, including scope, approach, assessment of significance, assumptions and limitations and study area, do the parties consider the approach and conclusions to be robust? If not, please explain why and what is required.
3.0.4	NE, CoCC, CCC, MDC, BDC, ECC	Are the parties satisfied with Applicant's approach towards mitigation of impact upon protected species? If not, please explain why.
3.0.5	The Applicant	Paragraph 9.10.26 of ES Chapter 9 [APP-076] states '*Impacts to Whetmead LNR and LWS would be offset through creation of habitats within the proposed scheme. Due to ground*

ExQ1	Question to:	Question:
	NE, CoCC, CCC, MDC, BDC, ECC	*conditions, there is limited scope for additional planting to improve the existing LNR/LWS or to restore or improve the condition of formerly wet habitats within the site.'* Please explain in more detail and in particular, identify where within the proposed scheme will the impact be offset. Are the parties satisfied with the Applicant's approach?

6.1.2	The Applicant NE	Requirements 3 and 4. Are there other bodies, such as Natural England, Environment Agency and Historic England and/or local groups that should be consulted, along with those already

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ExQ1: 20 January 2023
Responses due by Deadline 2 (Monday 13 February 2023).

ExQ1	Question to:	Question:
	EA HE	identified? If so, please amend as necessary, if not please explain. Please clarify how long the parties would be given to review and comment on the documents?

Q3.0.1 Biodiversity Net Gain (BNG)

As Biodiversity Net Gain (BNG) is pre-mandatory, we are not able to require specific measures and would defer to the local authorities as the responsible body for Biodiversity Net Gain. However, there are some aspects of the BNG calculation that we suggest could be improved:

<u>Irreplaceable habitats</u>
There are five veteran trees that may be lost as part of the development. These have been excluded from the BNG calculations as they are classed as "irreplaceable habitats" and therefore bespoke compensation would be required in the event of their removal. This is the correct approach although we advise that wherever possible the applicant should look to retain and protect these features.

<u>Update surveys and metric</u>
A precautionary approach is welcomed however we advise that the condition assessments and the habitat surveys should be updated using UKHabitat Classification rather than Phase 1 methodology. Currently there are too many assumptions and limitations to provide an accurate

baseline assessment. CIEEM's advice note (see below) recommends that ecological surveys more than 3 years old should be updated.

"The report is unlikely to still be valid and most, if not all, of the surveys are likely to need to be updated (subject to an assessment by a professional ecologist, as described above)"

Advice-Note.pdf (cieem.net)
See relevant sections of the report below for clarity:

> 3.4.3 (Page 10): *Phase 1 habitat (JNCC, 2010) surveys were carried out between August 2017 and February 2020. Due to refinements in the proposed scheme design, some land was visited more than once, and where this was the case, the most up-to1date results (February 2020) were used (see Appendix 9.8: Phase 1 habitat survey report, of the Environmental Statement [TR010060/APP/6.3]).*
>
> 3.6.3 (Page 20): *As the field data was collected prior to the publication of condition criteria for either Metric 2.0 or 3.0, condition assessment has been applied retrospectively. This is not considered a substantial constraint for the hedgerow data as sufficient information was collected to inform condition assessment. However, for area-based habitat types, condition is assumed for each habitat type based on limited supporting information. To address this constraint, a precautionary approach has been taken which is likely to over-estimate the baseline and therefore raise the requirement in terms of units for achieving a net gain in biodiversity units.*
>
> 3.6.5 (Page 20): *In these instances, gaps in baseline mapping were filled by digitising features from aerial imagery, checking these areas against desk study data on designated sites and priority habitats, and using professional judgement to interpret an appropriate Phase 1 habitat type. There is a risk that some habitats could be undervalued and in the absence of any field data, condition scores have had to be assumed. Given the dominant habitat types are of low and medium distinctiveness, the use of aerial imagery is unlikely to be a substantial constraint. The precautionary approach taken to condition assessment also mitigates the risk of undervaluing the baseline.*
>
> *5.1.1 (Page 31): At this stage, the Metric forecasts should be treated with some caution due to the limitations of the data, the assumptions made to allow a quantitative forecast of biodiversity unit change (see Section 3.6 of this report), and the preliminary nature of the design. However, it is considered that this assessment provides a good indicator of the likely performance of the proposed scheme in terms of net biodiversity, and a precautionary approach has been applied. The metric therefore provides a realistic 'worst-case' assessment of BNG.*

The applicants precautionary approach seems reasonable if, where baseline information is incomplete, they are assigning a condition assessment erring on the side of a higher condition score and assigning all 'High' distinctiveness habitats 'Good' condition in the Metric.

The proposals are largely based on Metric 3.0. There is now a later version of the metric (3.1) but this only has minor changes. The guidance (FAQ section of the metric) suggests that it is acceptable to continue using an older version of the metric if a project has already begun – see below.

> *FAQ section of metric: Which Version of the Biodiversity Metric Should I Use? You should use the most current published version of the Biodiversity Metric, unless specified otherwise by the consenting body. If a project has already begun using a previous version of the Biodiversity Metric we do not recommend changing metrics mid-project, as this may result discrepancies between calculations*

We note that some calculations have been undertaken using Metric 2.0 instead of Metric 3.0. We advise aligning all data with the latest version of the metric used for the project (3.0) to ensure consistency.

See relevant section of the report below:

> *3.6.8 (Page 21): Due to the timing of the field work in 2020, the detailed condition assessment for all hedgerow types, including lines of trees, was carried out using the Metric 2.0 condition criteria. This assessment has been carried across in the Metric 3.0 assessment. The Metric 3.0 condition criteria for hedgerows is the same at Metric 2.0 with the exception of additional criteria for hedgerows with trees which relate to tree age and health. As the information on tree health was not available, it was considered proportionate to carry the 2.0 assessment across into this assessment. Given the limited difference in the condition assessment for hedgerows with trees between the two versions of the metric this is not considered a substantial limitation.*

We note the inclusion of other mitigation areas, within the BNG calculations. If these areas were to be removed then they would still be achieving an overall 10% net gain in biodiversity which is positive.

> 4.2.8 (Page 28): *Planting provided in respect of 'essential' ecological mitigation areas generates a forecast 442 biodiversity units in the assessment, so 15% of the total (2,876) biodiversity units created in the post-development assessment and 14% of the total post-development biodiversity units.*

<u>Trading rules</u>
The report notes that there are some situations where the metric trading rules are not met. We wish to re-iterate the importance of the trading rules. Taken from the metric user guide: **Rule 3**: *'Trading down' must be avoided. Losses of habitat are to be compensated for on a 'like for like' or 'like for better' basis. New or restored habitats should aim to achieve a higher distinctiveness and/or condition than those lost.*

> Note: whilst it is important that the Rules and Principles (Chapter 2) are followed, ecological judgement should always be applied in determining the most appropriate replacement habitats, based on the nature of the habitats being lost and the location.
>
> *4.2.3 (Page 28): The metric results highlight that trading rules are not met for a number of habitats including ponds, open mosaic habitats on previously developed land, woodland (of different types) and scrub (of different types).*
>
> *4.2.4 (Page 28): For ponds, the assessment shows a loss of pond extent and biodiversity units despite the creation of a number of ponds in the Environmental Masterplan (Figure 2.1 of the Environmental Statement [TR0100060/APP/6.2]). However, to provide context, the number of ponds to be lost would be eight, compared to 57 new wildlife ponds to be created, in addition to 71 new attenuation ponds. In the current assessment, loss is driven both by the absence of ditch creation in the post-intervention assessment for area-based habitats i.e. some 'ponds' included in the baseline would actually be ditches for which habitat creation is addressed in the rivers and streams assessment (see Section 3.6 of this report), and the loss of the lake/pond habitat within the Colemans Farm Quarry restoration plan to be replaced by built surface (i.e. road).*

We note the creation of a significant number of new ponds and this appears to be an issue relating to the fact that some ponds are classed as "ditches" so there may be discrepancies in whether it counts as "area" or "riverine" units.

4.2.5 (Page 10): For open mosaic habitats on previously developed land, the 4.74ha identified in the baseline is largely lost permanently and the are no proposals for creation of this habitat.

Provision of “like for like” open mosaic habitat should be considered within the design scheme.

4.2.6 (Page 10): For woodland, there is an increase in the extent of woodland cover for the proposed scheme as compared to the baseline, however, there is a loss of 119 biodiversity units generated by woodland habitat as compared to the baseline of 648.25. This is due to the loss of areas of semi-natural woodland habitat types being replaced by 'other broadleaved woodland' i.e. woodland generated by planting which generates fewer biodiversity units due to its lower distinctiveness, and due to the risk multipliers applied to woodland creation in the Metric. It should be noted that in the absence of detailed condition data, the value of semi-natural woodland in the baseline was assumed to be ' good' which is likely to have been an over valuation of the baseline for woodland.

The overall extent of woodland cover is increasing post-development.

Whilst the assessment records a loss in extent and biodiversity units (127) generated by scrub habitats, it should be noted that intermittent tree and shrub planting included in the landscape design is not captured by the metric which only captures the primary habitat type of planting which in this case is grassland. There is >23ha of grassland with intermittent tree and shrub planting proposed in the landscape design which will go some way to offsetting the reduction of scrub habitat as assessed in the Metric.

3.0.2 – Legislation and policy

3.0.2	NE, CoCC, CCC, MDC, BDC, ECC	Has ES Chapter 8: Biodiversity [APP-076], identified all relevant legislation and policy, in particular local policy? If not, please identify which elements are missing and how this relates to the proposed development.

We are generally satisfied that legislation and national policy relating to biodiversity that has been identified, however, we defer to the local authorities for local policy.

3.0.3 – Biodiversity approach and conclusions

3.0.3	NE, CoCC, CCC, MDC, BDC, ECC	In terms of ES Chapter 8: Biodiversity [APP-076] and its Assessment Methodology, including scope, approach, assessment of significance, assumptions and limitations and study area, do the parties consider the approach and conclusions to be robust? If not, please explain why and what is required.

We are satisfied that Natural England’s Standing Advice has been followed.

3.0.4 – Mitigation on protected species

3.0.4	NE, CoCC, CCC, MDC, BDC, ECC	Are the parties satisfied with Applicant's approach towards mitigation of impact upon protected species? If not, please explain why.

We are satisfied that Natural England’s Standing Advice has been followed

3.0.5 Impacts on LNR/LWS

3.0.5	The Applicant	Paragraph 9.10.26 of ES Chapter 9 [APP-076] states '*Impacts to Whetmead LNR and LWS would be offset through creation of habitats within the proposed scheme. Due to ground*
	NE, CoCC, CCC, MDC, BDC, ECC	*conditions, there is limited scope for additional planting to improve the existing LNR/LWS or to restore or improve the condition of formerly wet habitats within the site.'* Please explain in more detail and in particular, identify where within the proposed scheme will the impact be offset. Are the parties satisfied with the Applicant's approach?

It is not within Natural England’s remit to comment on specific LNR/LWS sites

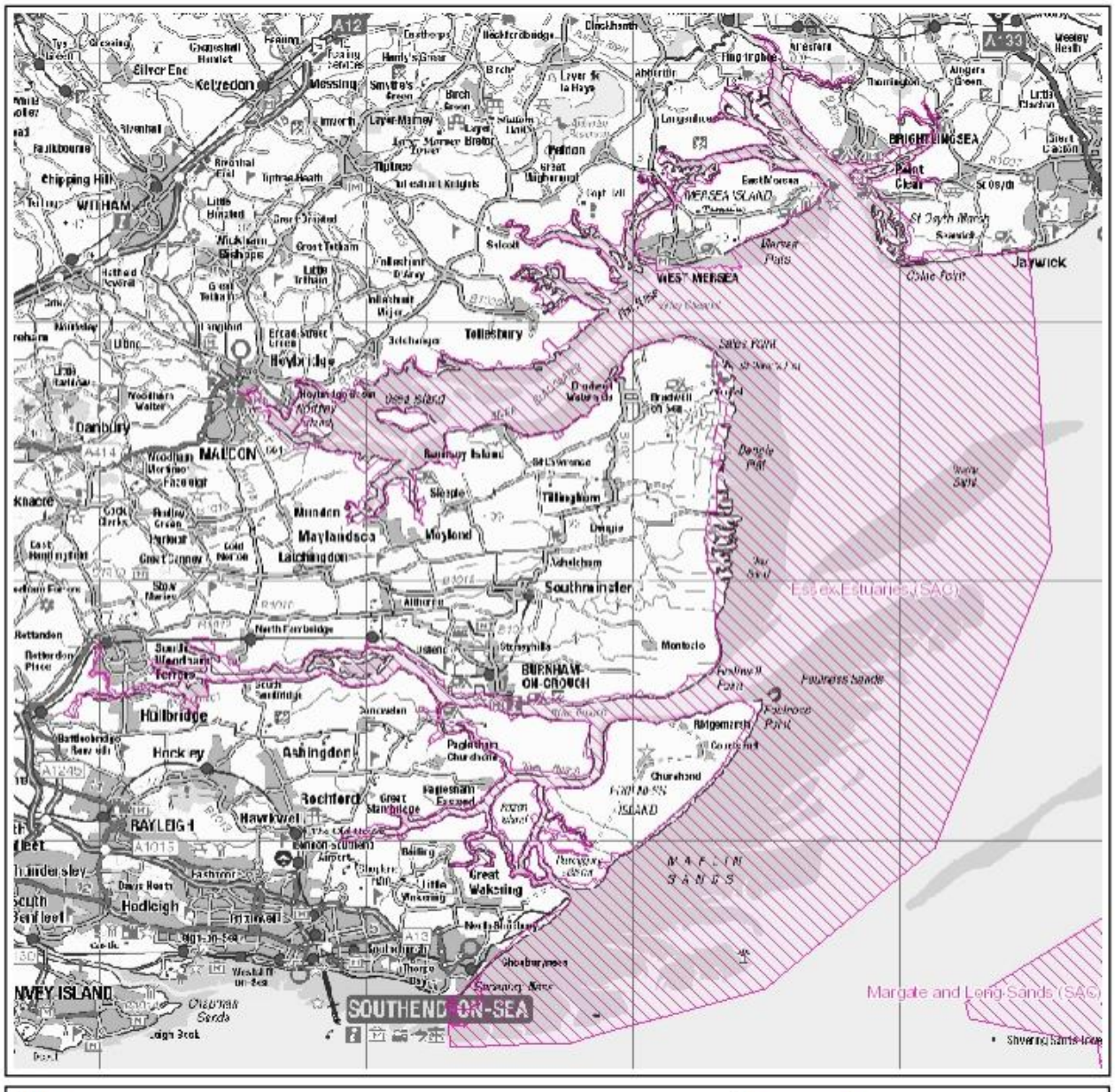
6.1.2 requirments 3 and 4

6.1.2	The Applicant NE	Requirements 3 and 4. Are there other bodies, such as Natural England, Environment Agency and Historic England and/or local groups that should be consulted, along with those already
	EA HE	identified? If so, please amend as necessary, if not please explain. Please clarify how long the parties would be given to review and comment on the documents?

NE would welcome consultation on both the second and third iterations of the EMP.

ANNEX B: Designated site maps and information

Essex Estuaries Special Area of Conservation (SAC)



Key

Special Areas of Conservation England © Natural England

NATURAL ENGLAND

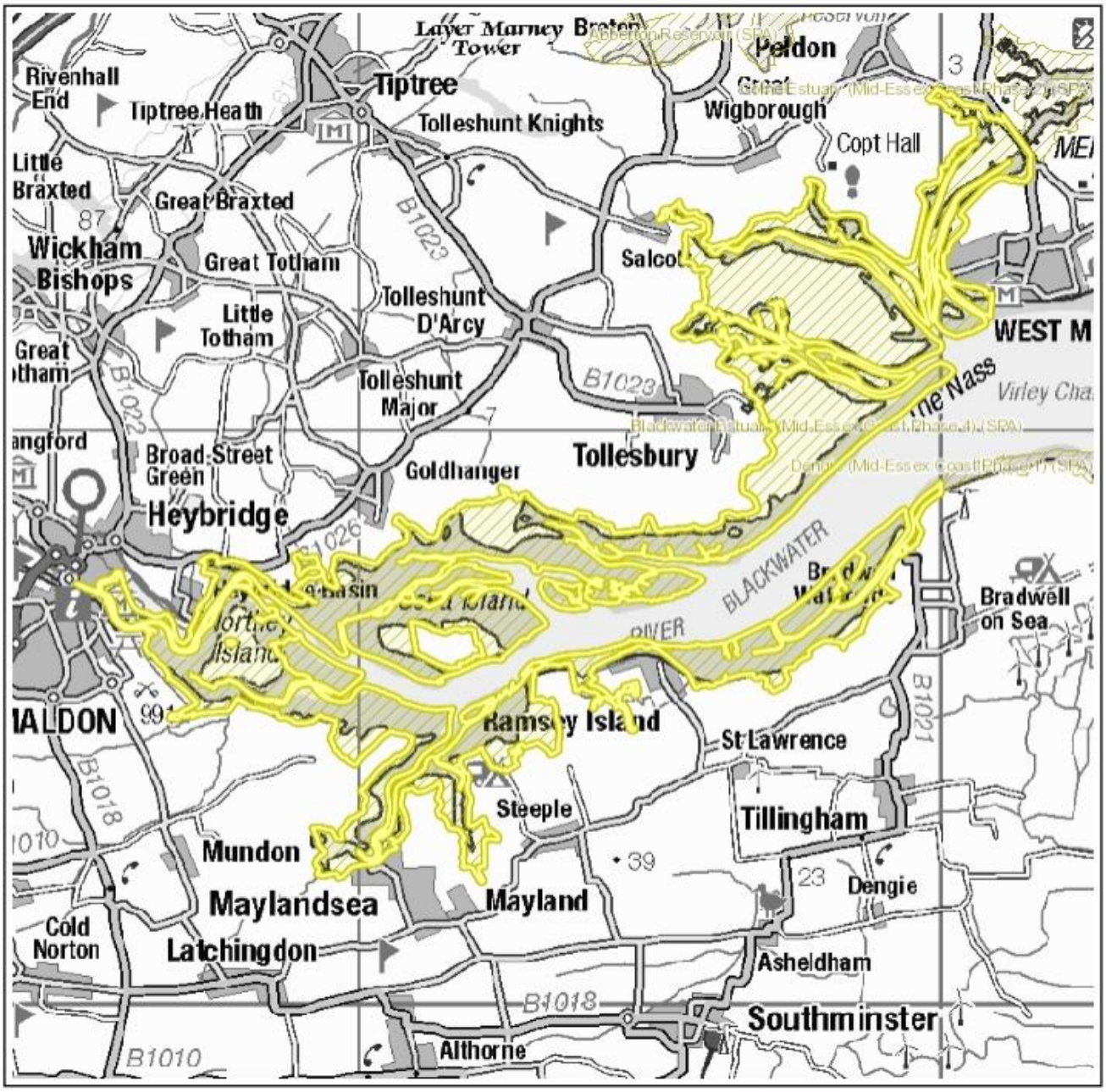
Map Produced from WebMap2 on 08/08/22

Map Projection: British National Grid

Map Scale at A4: 1:219,586

Essex Estuaries Special Area of Conservation (SAC)
Summary information (JNCC) Link - Essex Estuaries - Special Areas of Conservation (jncc.gov.uk)
Conservation Objectives Link – h[redacted]

Blackwater Estuary (Mid-Essex Coast Phase 4) Special Protection Area (SPA)



Key

Special Protection Areas England © Natural England

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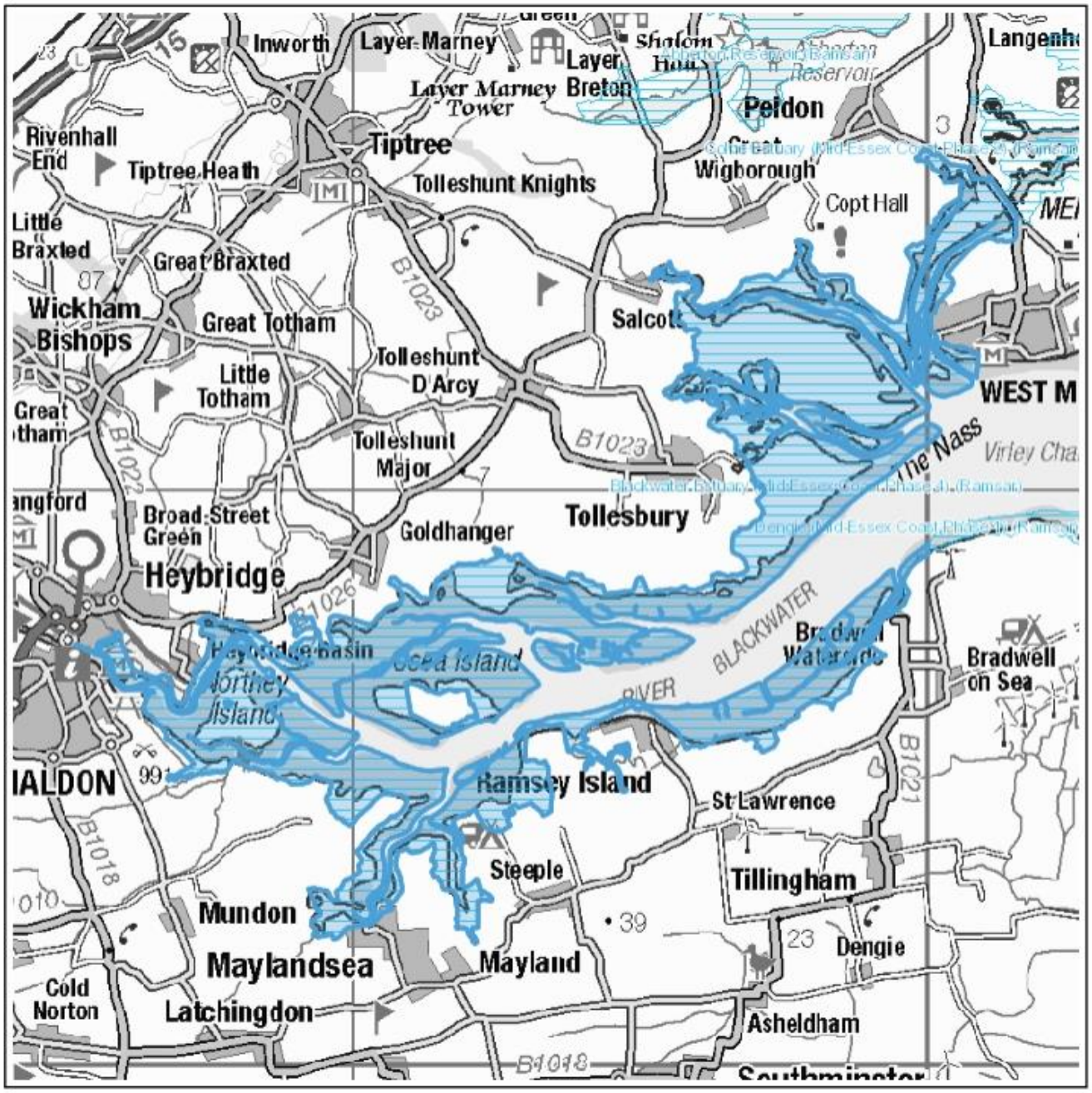
Map Produced from WebMap2 on 08/08/22

Map Projection: British National Grid

Map Scale at A4: 1:100,000

Blackwater Estuary (Mid-Essex Coast Phase 4) Special Protection Area (SPA)
Summary information (JNCC) Link - https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9009245.pdf
Conservation Objectives Link - [redacted]

Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar



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Ramsar sites England © Natural England

NATURAL ENGLAND

Map Produced from WebMap2 on 08/08/22

Map Projection: British National Grid

Map Scale at A4: 1:100,000

Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar
Summary information (JNCC) Link - https://jncc.gov.uk/jncc-assets/RIS/UK11007.pdf
Conservation Objectives Link - [redacted]

Colne Estuary (Mid-Essex Coast Phase 2) SPA

Key

Special Protection Areas England © Natural England

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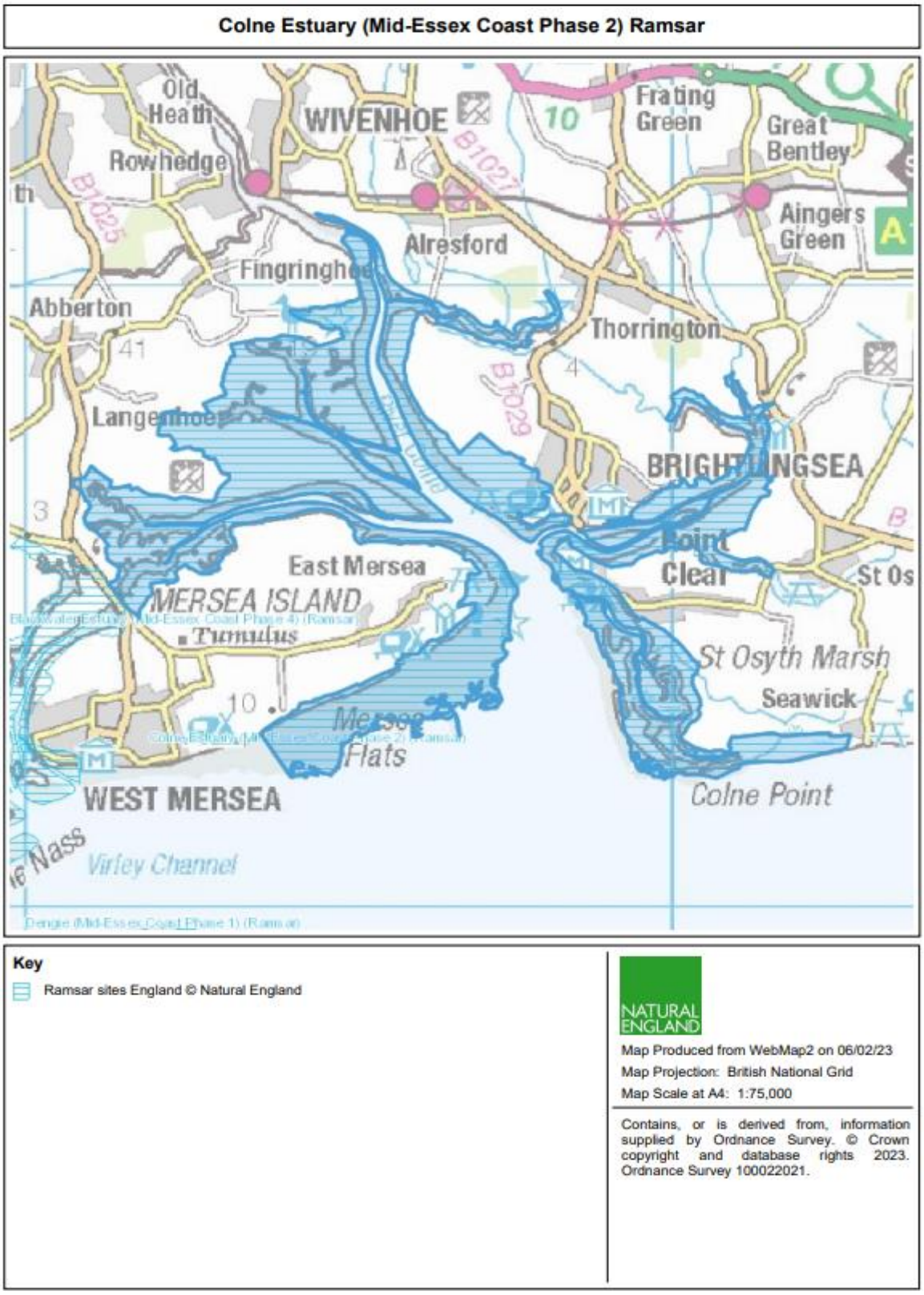
Map Produced from WebMap2 on 06/02/23

Map Projection: British National Grid

Map Scale at A4: 1:75,000

Colne Estuary (Mid-Essex Coast Phase 2) SPA
Summary information (JNCC) Link: https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9009243.pdf
Conservation Objectives Link: [redacted]



Colne Estuary (Mid-Essex Coast Phase 2) Ramsar
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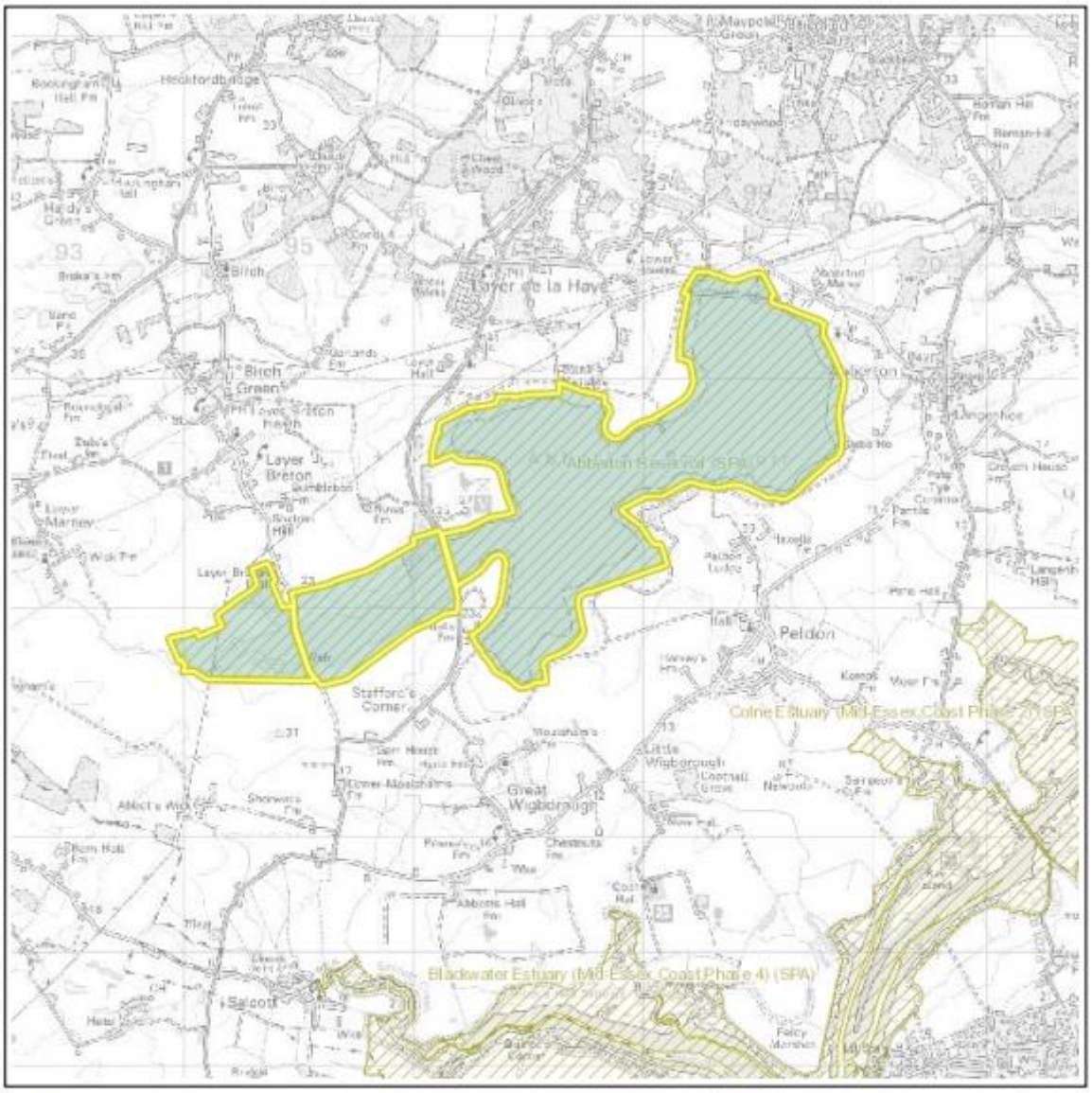
Conservation Objectives Link: [redacted]

Abberton Reservoir SPA



Key

Special Protection Areas England © Natural England

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Map Produced from WebMap2 on 06/02/23

Map Projection: British National Grid

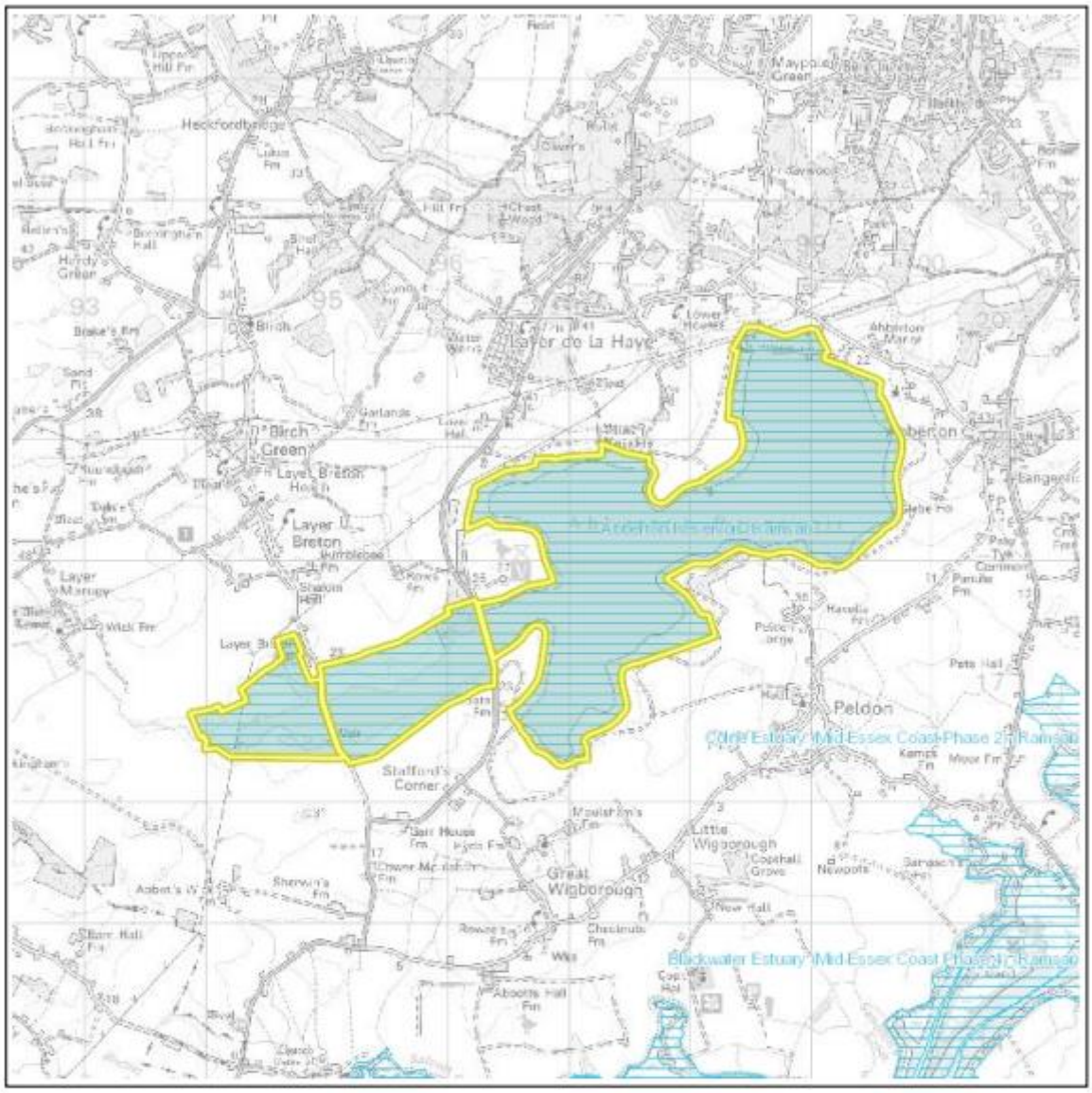
Map Scale at A4: 1:50,000

Abberton Reservoir SPA

Summary information (JNCC) Link: http://jncc.defra.gov.uk/pdf/SPA/UK9009141.pdf

Conservation Objectives Link: [redacted]

Abberton Reservoir Ramsar



Key

Ramsar sites England © Natural England

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Map Produced from WebMap2 on 06/02/23

Map Projection: British National Grid

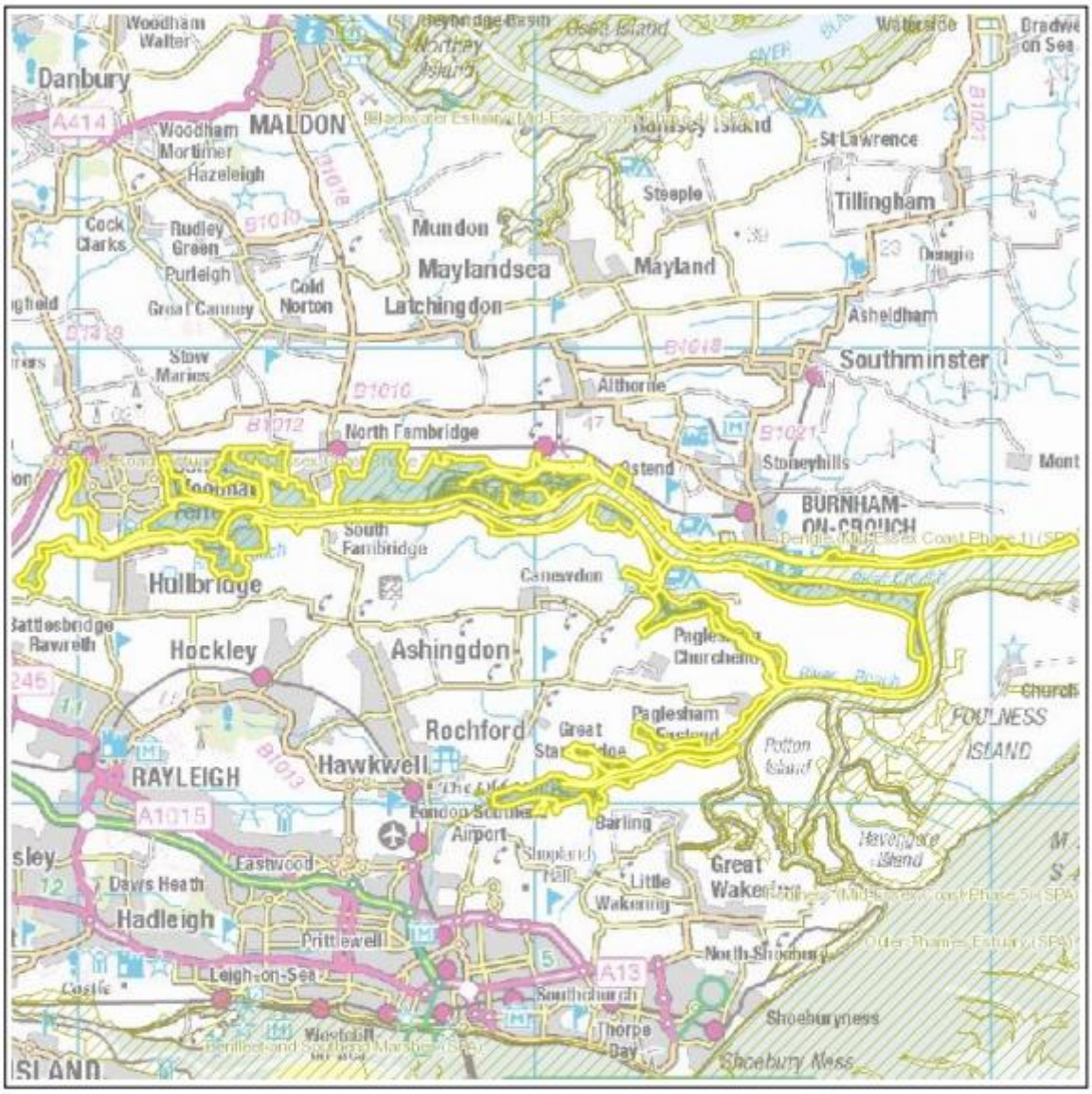
Map Scale at A4: 1:47,429

Abberton Reservoir Ramsar

Summary information (JNCC) Link https://jncc.gov.uk/jncc-assets/RIS/UK11001.pdf

Conservation Objectives Link [redacted]

Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA



Key

Special Protection Areas England © Natural England

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Map Produced from WebMap2 on 06/02/23

Map Projection: British National Grid

Map Scale at A4: 1:125,897

Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) SPA

Summary information (JNCC) Link http://jncc.defra.gov.uk/pdf/SPA/UK9009244.pdf

Conservation Objectives Link [redacted]

Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) Ramsar

Key

Ramsar sites England © Natural England

NATURAL ENGLAND

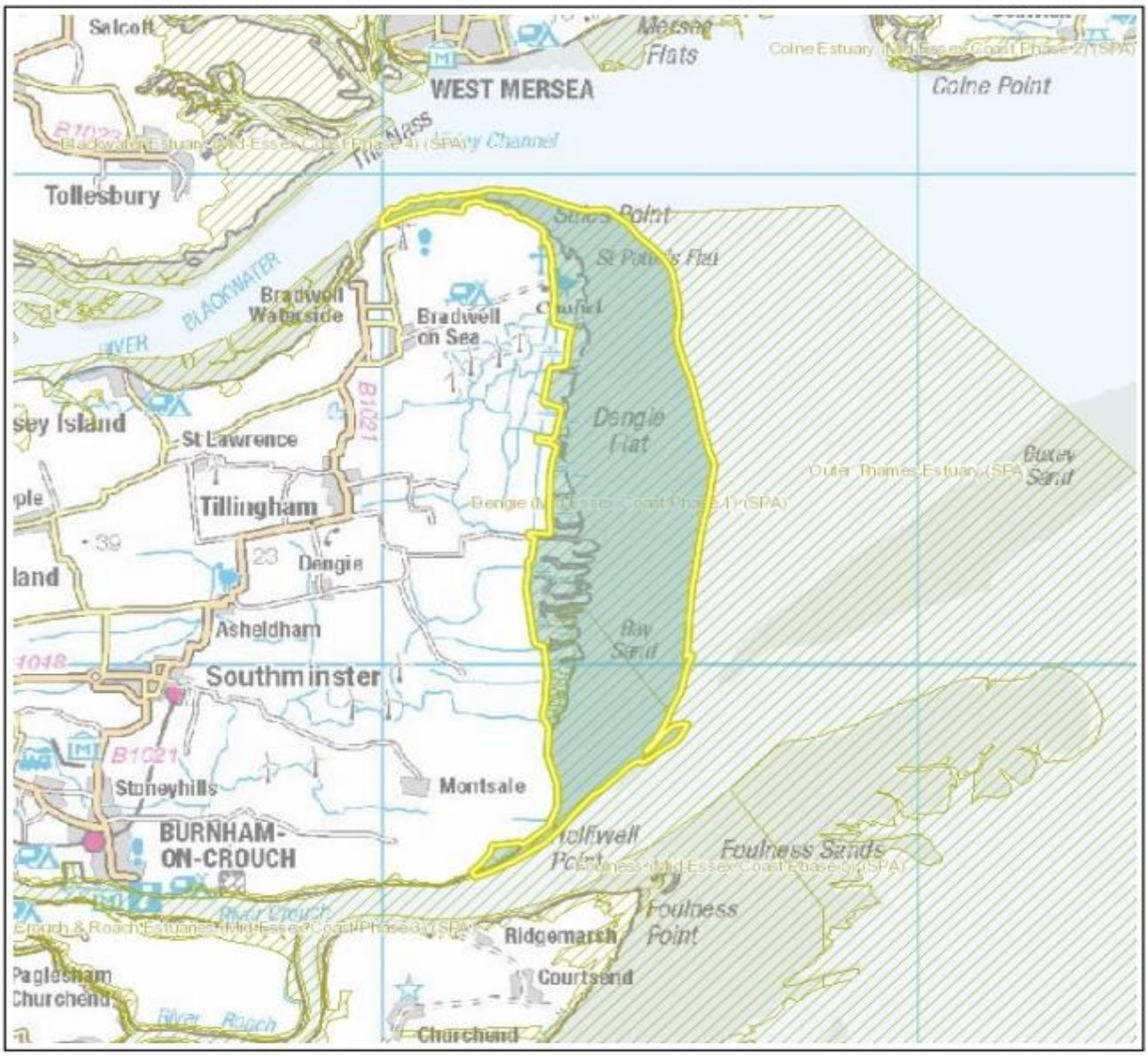
Map Produced from WebMap2 on 06/02/23

Map Projection: British National Grid

Map Scale at A4: 1:157,372

Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) Ramsar
Summary information (JNCC) Link https://jncc.gov.uk/jncc-assets/RIS/UK11058.pdf

Dengie (Mid-Essex Coast Phase 1) SPA



Key

Special Protection Areas England © Natural England

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Map Produced from WebMap2 on 07/02/23

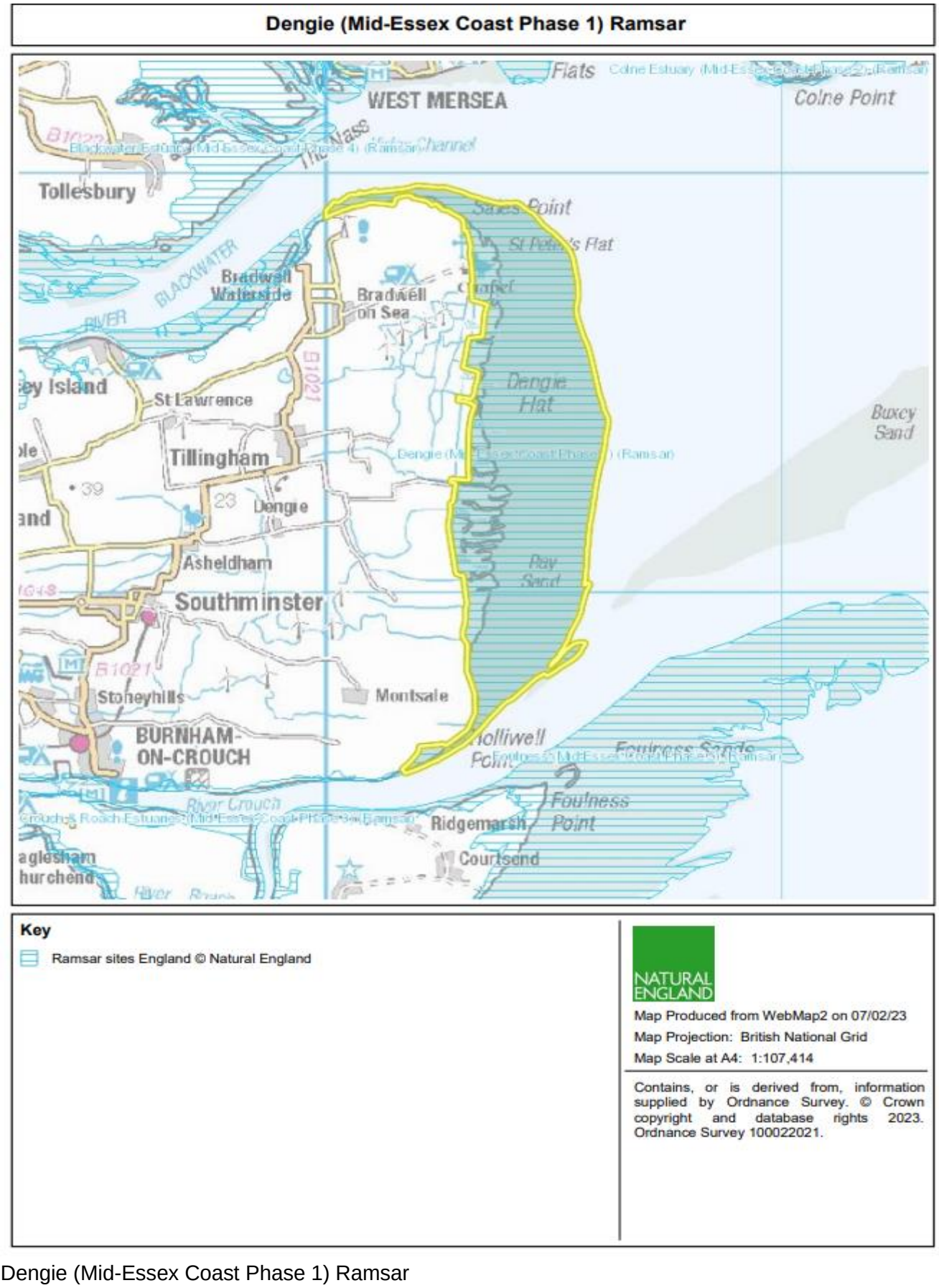
Map Projection: British National Grid

Map Scale at A4: 1:112,617

Dengie (Mid-Essex Coast Phase 1) SPA

Summary information (JNCC) Link http://jncc.defra.gov.uk/pdf/SPA/UK9009242.pdf

Conservation Objectives Link [redacted]



Dengie (Mid-Essex Coast Phase 1) Ramsar

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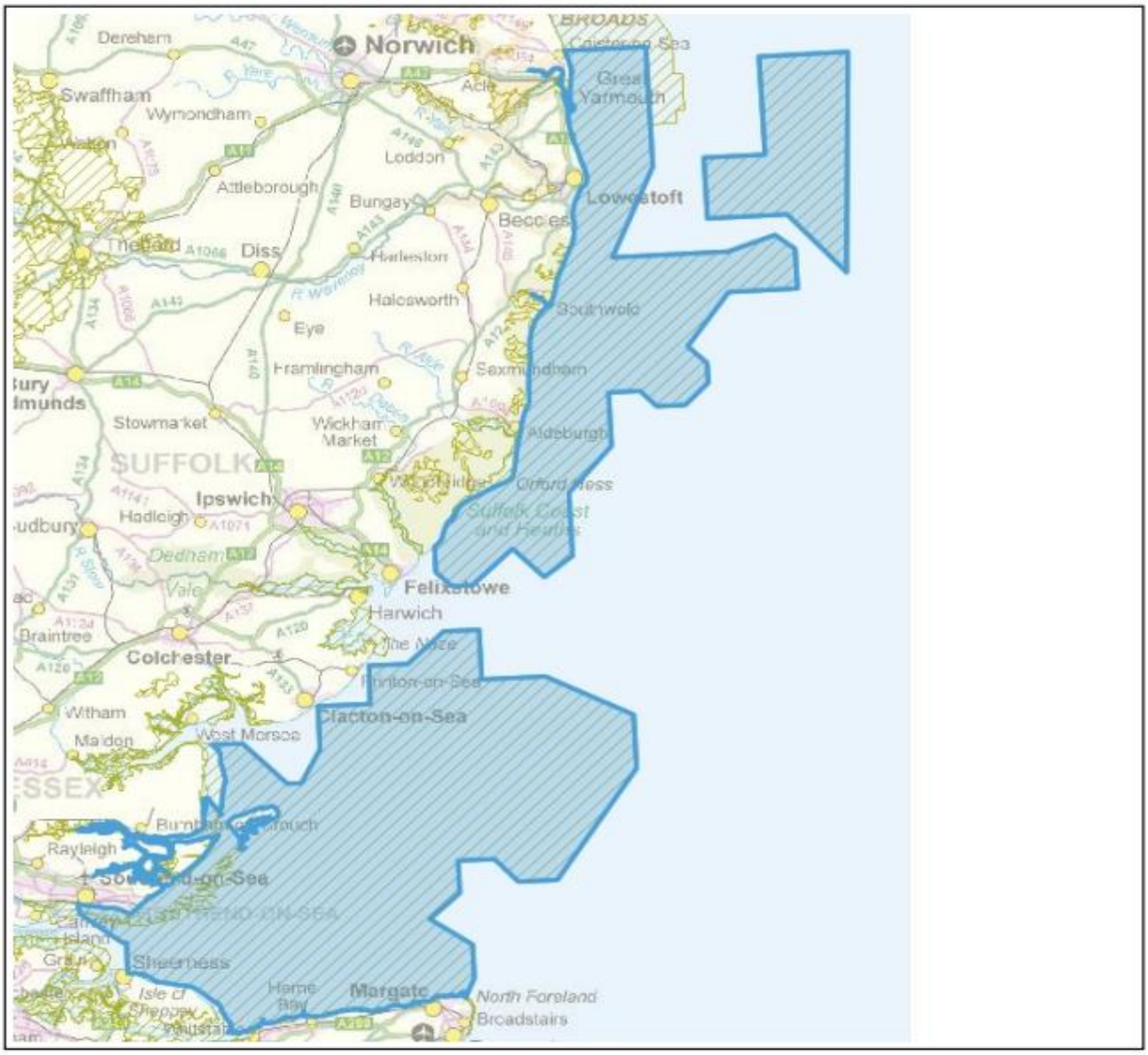
Conservation Objectives Link [redacted]

Outer Thames Estuary SPA



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Special Protection Areas England © Natural England

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Map Produced from WebMap2 on 07/02/23

Map Projection: British National Grid

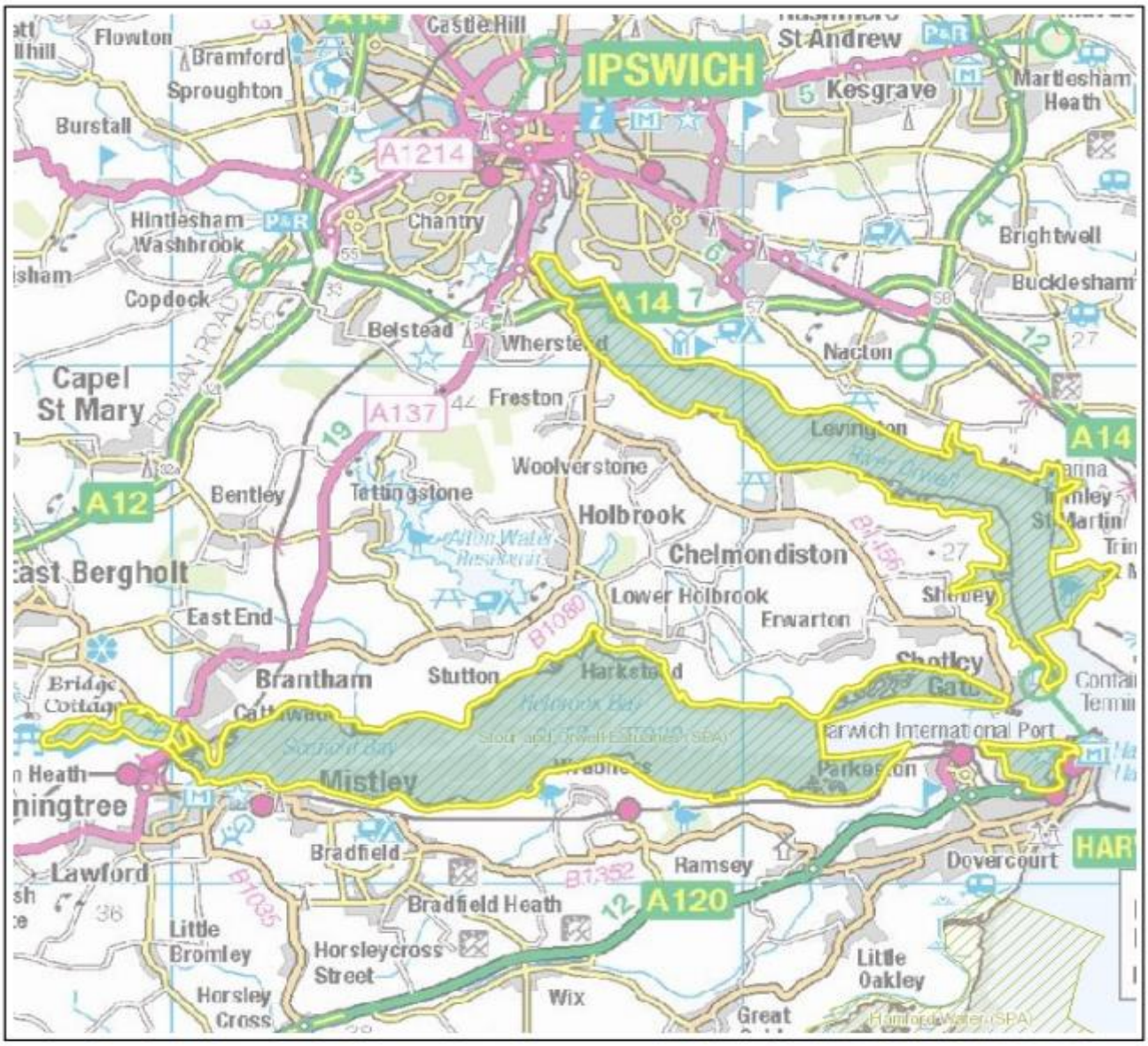
Map Scale at A4: 1:826,431

Outer Thames Estuary SPA

Summary information (JNCC) Link http://jncc.defra.gov.uk/pdf/SPA/UK9020309.pdf

Conservation Objectives Link [redacted]

Stour and Orwell Estuaries SPA



Key

Special Protection Areas England © Natural England

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Map Projection: British National Grid

Map Scale at A4: 1:105,669

Stour and Orwell Estuaries SPA

Summary information (JNCC) Link http://jncc.defra.gov.uk/pdf/SPA/UK9009121.pdf

Conservation Objectives Link [redacted]

Stour and Orwell Estuaries Ramsar

Key

Ramsar sites England © Natural England

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Map Projection: British National Grid

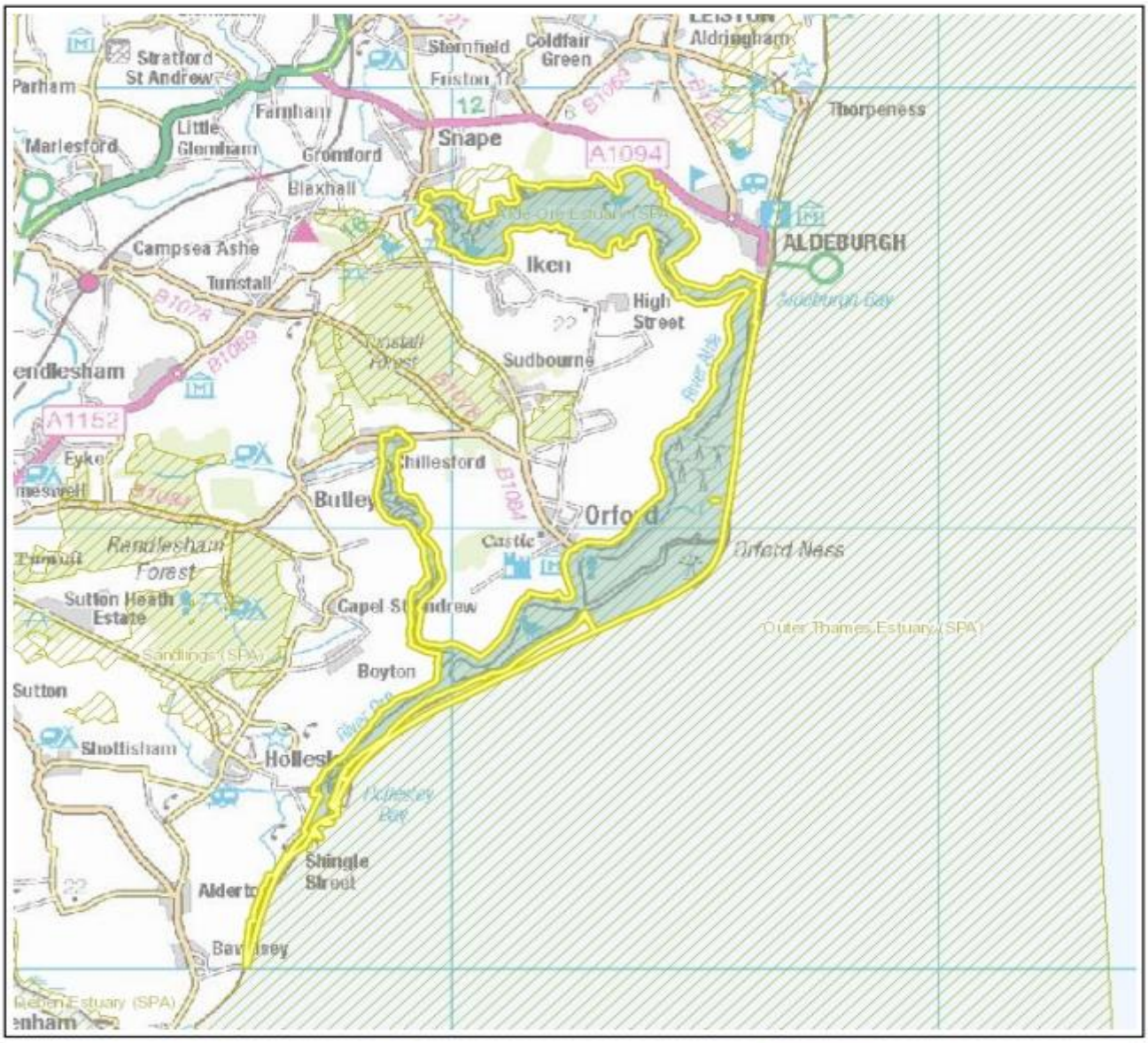
Map Scale at A4: 1:104,021

Stour and Orwell Estuaries Ramsar

Summary information (JNCC) Link https://jncc.gov.uk/jncc-assets/RIS/UK11067.pdf

Conservation Objectives Link [redacted]

Alde-Ore Estuary SPA



Key

Special Protection Areas England © Natural England

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Map Projection: British National Grid

Map Scale at A4: 1:123,962

Alde-Ore Estuary SPA

Summary information (JNCC) Link http://jncc.defra.gov.uk/pdf/SPA/UK9009112.pdf

Conservation Objectives Link [redacted]

Alde-Ore Estuary Ramsar

Summary information (JNCC) Link https://jncc.gov.uk/jncc-assets/RIS/UK11002.pdf

Conservation Objectives Link [redacted]

River Ter Site of Special Scientific Interest (SSSI)

Key

SSSI England Detailed © Natural England

NATURAL ENGLAND

Map Produced from WebMap2 on 08/08/22

Map Projection: British National Grid

Map Scale at A4: 1:7,500

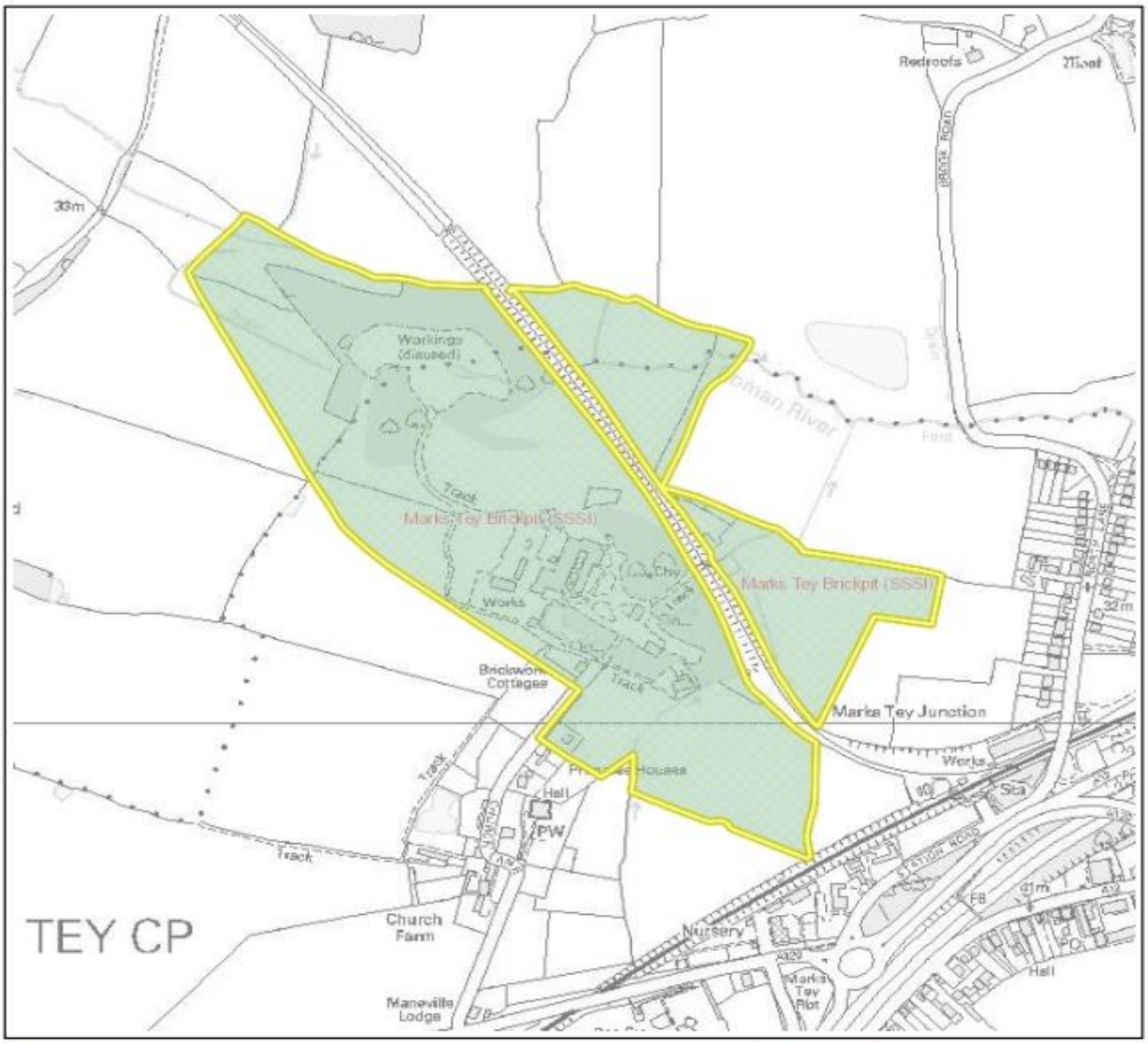
River Ter Site of Special Scientific Interest (SSSI)

SSSI citation – [redacted]

List of operations likely to damage the special interest –

[redacted]

Marks Tey Brickpit SSSI



Key

SSSI England Detailed © Natural England

NATURAL ENGLAND

Map Produced from WebMap2 on 07/02/23

Map Projection: British National Grid

Map Scale at A4: 1:7,071

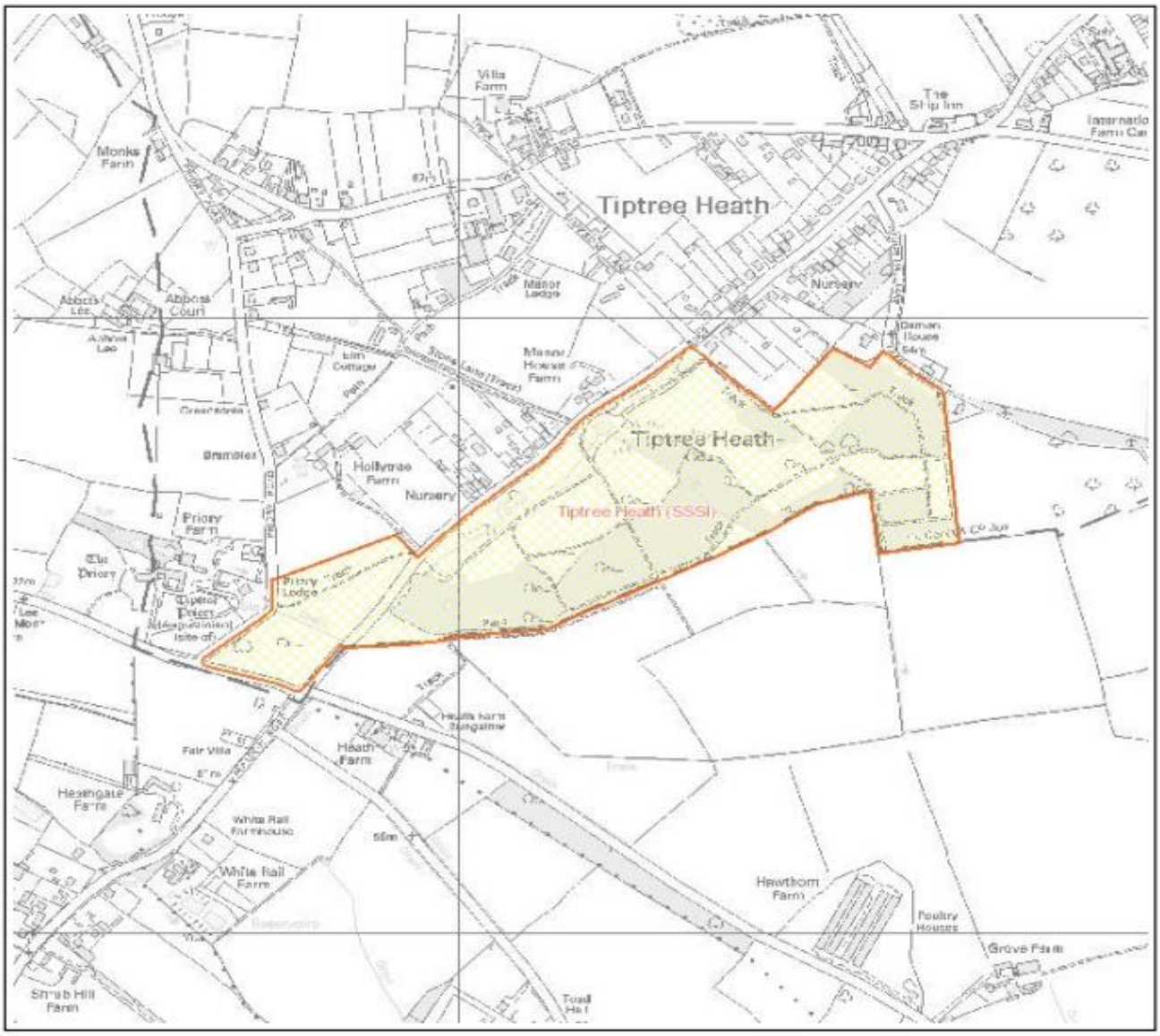
Marks Tey Brickpit SSSI

SSSI citation h[redacted]

List of operations likely to damage the special interest

[redacted]

Tiptree Heath SSSI



Key

SSSI England Detailed © Natural England

NATURAL ENGLAND

Map Produced from WebMap2 on 07/02/23

Map Projection: British National Grid

Map Scale at A4: 1:8,820

Tiptree Heath SSSI

SSSI citation [redacted]

List of operations likely to damage the special interest

[redacted]

Annex C - Letter of No Impediment – Badgers

Date: 17 January 2023
Our ref: 2022-62482-SPM-AD1
(NATIONALLY SIGNIFICANT INFRASTRUCTURE PROJECT)

Mark Berg, Project Director, Costain
Sent by e-mail only

Dear Mr Mark Berg

DRAFT MITIGATION LICENCE APPLICATION STATUS: INITIAL DRAFT APPLICATION 2022-62483-SPM-AD1
LEGISLATION: THE PROTECTION OF BADGERS ACT 1992 (as amended)
NSIP: A12 Chelmsford -A120 Widening Scheme
SPECIES: Badger

Thank you for your subsequent draft badger mitigation licence application in association with the above NSIP site, received in this office. As stated in our published guidance, once Natural England is content that the draft licence application is of the required standard, we will issue a 'letter of no impediment'. This is designed to provide the Planning Inspectorate and the Secretary of State with confidence that the competent licensing authority sees no impediment to issuing a licence in future, based on information assessed to date in respect of these proposals.

Assessment

Following our assessment of the following draft application documents, and following your discussion with my colleagues on 4th November 2022, I can now confirm that, on the basis of the information and proposals provided, Natural England sees no impediment to a licence being issued, should the DCO be granted.

However, please note the following issues have been identified within the current draft of the method statement that will need to be addressed before the licence application is formally submitted. Please do ensure that the Method Statement is revised to include these changes prior to formal submission. For clarity these include:

Site Ownership and Considerations

- On section 8 of the application form, it is declared that the applicant is not the owner/occupied of the land and that the owner/ occupies permission to apply has not been received. Please ensure appropriate permissions are gained prior to submission.
- A protected sites check has also raised that the scheme is in close proximity to protected SSSI Mark's Tey Brickpit. Please note that it is an applicant's responsibility to source appropriate consent to operate on or adjacent to protected sites, and a protected species licence does not represent consent of any other form.

Survey

- Initial field signs surveys were undertaken December 2019- November 2020. Please note that a walkover survey must be undertaken within 3 months prior to the submission of the licence application to ensure the survey remains accurate. Natural England recommends surveying in early spring or late autumn when badgers are most active and there is less potential for vegetation to constrain the survey.

- Figures containing the results of these surveys in terms of sett classification and activity level are included, but a further figure containing updated survey results and badger field signs such as badger runs and latrines should be plotted on an updated survey map for the final submission.

- Some bait-marking has been undertaken, though is limited to a small number of setts, and with relatively low uptake. In particular, no bait-marking has been undertaken around the main setts to be lost and temporarily lost respectively. This must be undertaken prior to formal submission to establish the territory of the clan associated with main set 89, and main sett 73/74 (if this to be lost) at a minimum. This is so that every chance of artificial sett placement within territory of the main sett(s) to be lost- where badgers are mostly likely to find this- is maximised, and perturbation is minimised.

- Further bait marking could also highlight the risk of any fragmentation, as well as providing further evidence to support the appropriateness of connectivity measures proposed across the scheme.

Impacts

- The figures that have been provided appended to the method statement have a clear categorisation system, a repeat of which would be welcomed in the formal submission. However, there are inconsistencies. A number of setts are listed as subsidiary on the map but are described as outlier on the method statement- e.g. Setts 87, 88, 116 and 127. Please ensure the sett classifications remain consistent throughout figures and method statement in formal submission.

- A high number of possibly interlinking setts is to be permanently impacted in the area surrounding main sett 89. Special care should be given to placement and design of an artificial sett within the territory as above, ideally providing foraging and watering opportunities, and suitable habitat to avoid the higher risk of perturbation into the surrounding area.

- 10 setts are listed for “possible” destruction/damage, and in each case operations are occurring at varying distances from badger setts. In particular, there are areas where closure of these “possible” setts would likely result in significant perturbation, particularly for setts around main setts 73/74 and 89 respectively. In the formal submission, Natural England will require confirmation as to the specific actions to be licensed in each of these cases, and justification as to why each action chosen is the least impactful to badgers overall. This justification should take into account the current levels of disturbance that badgers in the area are accustomed to, and whether it is likely that scheme disturbance levels will differ significantly from this. It may also be possible to employ working methodologies which limit impacts to setts but do not require exclusion, such as clearly marking out or securely fencing areas with setts and an appropriate exclusion zone, in order to prevent accidental damage via machinery. If damage must occur, temporary or partial closure may also be considered as less impactful to badgers than full sett destruction, depending on the circumstances.

- It appears possible that some setts have the potential to become isolated as a result of the scheme (e.g. Sett 3). It is noted that connectivity measures such as tunnels and ledges are proposed, but their locations are unknown. Please provide a map of these connectivity measures, and any retained and artificial setts across the final scheme layout and in the formal licence application, appended to the method statement.

- Please also note that where badger tunnel are provided, these should be included as close as possible to existing commuting routes (this should be determined during the updated field survey)

Methodology

- Once an active sett is subject to one-way gating, the other available setts within the clan's territory will become more important to the excluded badgers. This may mean that a disused sett could become active. Natural England therefore recommends that any disused setts which are to be impacted by the development are proofed or destroyed prior to the exclusion of any active setts to ensure displaced badgers do not enter these disused setts. It is noted that wooden stakes are proposed in order to block disused entrances. The scheme may wish to consider using more robust materials such as metal mesh, given this change in importance.

Artificial Setts

- Artificial sett design is deemed broadly acceptable. However, the proposed locations and justifications for these that have been provided are not deemed acceptable substitutes for appropriate bait marking and artificial sett placement within an existing territory wherever possible.

- The method statement notes that "artificial setts should be constructed six months prior to exclusion phase to ensure badgers are familiar with the new setts"- please bear in mind that artificial setts should also be showing signs of use by badgers before the main sett is excluded. This can be achieved through monitoring signs of badger activity such as: uptake of an attractive food such as peanuts and syrup, sand traps for paw prints, hair traps around the entrance and camera traps.

Additional notes

- The aforementioned assessment has been made based on the materials provided with the badger method statement, appended figures, and application form provided. Unfortunately, the following documents were unavailable for review by the licensing service at the time of assessment.
  - Environmental Masterplan (National Highways, 2022b [TR010060/APP/6.2]), which is within the Environmental Statement (National Highways, 2022c [TR010060/APP/6.1])
  - Appendix 9.2 Badger Survey Report (National Highways, 2022a [TR0100/60/APP/6.3]).

Next Steps

Should the DCO be granted then the mitigation licence application must be formally submitted to Natural England. At this stage any modifications to the timings of the proposed works, e.g. due to ecological requirements of the species concerned, must be made and agreed with Natural England before a licence is granted. Please note that there will be no charge for the

formal licence application determination, should the DCO be granted, or the granting of any licence.

If other minor changes to the application are subsequently necessary, e.g. amendments to the work schedule/s then these should be outlined in a covering letter and must be reflected in the formal submission of the licence application. These changes must be agreed by Natural England before a licence can be granted. If changes are made to proposals or timings which do not enable us to meet reach a 'satisfied' decision, we will issue correspondence outlining why the proposals are not acceptable and what further information is required. These issues will need to be addressed before any licence can be granted.

Full details of Natural England's licensing process with regards to NSIP's can be found at the following link:

http://webarchive.nationalarchives.gov.uk/20140605090108/http:/www.naturalengland.org.uk/Images/wml-g36_tcm6-28566.pdf

As stated in the above guidance note, I should also be grateful if an open dialogue can be maintained with yourselves regarding the progression of the DCO application so that, should the Order be granted, we will be in a position to assess the final submission of the application in a timely fashion and avoid any unnecessary delay in issuing the licence.

I hope the above has been helpful. However, should you have any queries then please do not hesitate to contact me.

Yours sincerely

Amanda Fegan
Tel: 0208 7204 161
E-mail: [redacted]@naturalengland.org.uk

Annex - Guidance for providing further information or formally submitting the licence application.

Important note: when submitting your formal application please mark all correspondence 'FOR THE ATTENTION OF ((*insert name/s here*).

Submitting Documents.

Documents must be sent to the Customer Services Wildlife Licensing (postal and email address at the top of this letter).

Changes to Documents –Reasoned Statement/Method Statement.

Changes must be identified using one or more of the following methods:

- underline new text/strikeout deleted text;
- use different font colour;
- block-coloured text, or all the above.

Method Statement

When submitting a revised Method Statement please send us one copy on CD, or by e-mail if less than 5MB in size, or alternatively three paper copies. The method statement should be submitted in its entirety including all figures, appendices, supporting documents. Sections of this document form part of the licence; please do not send the amended sections in isolation.