

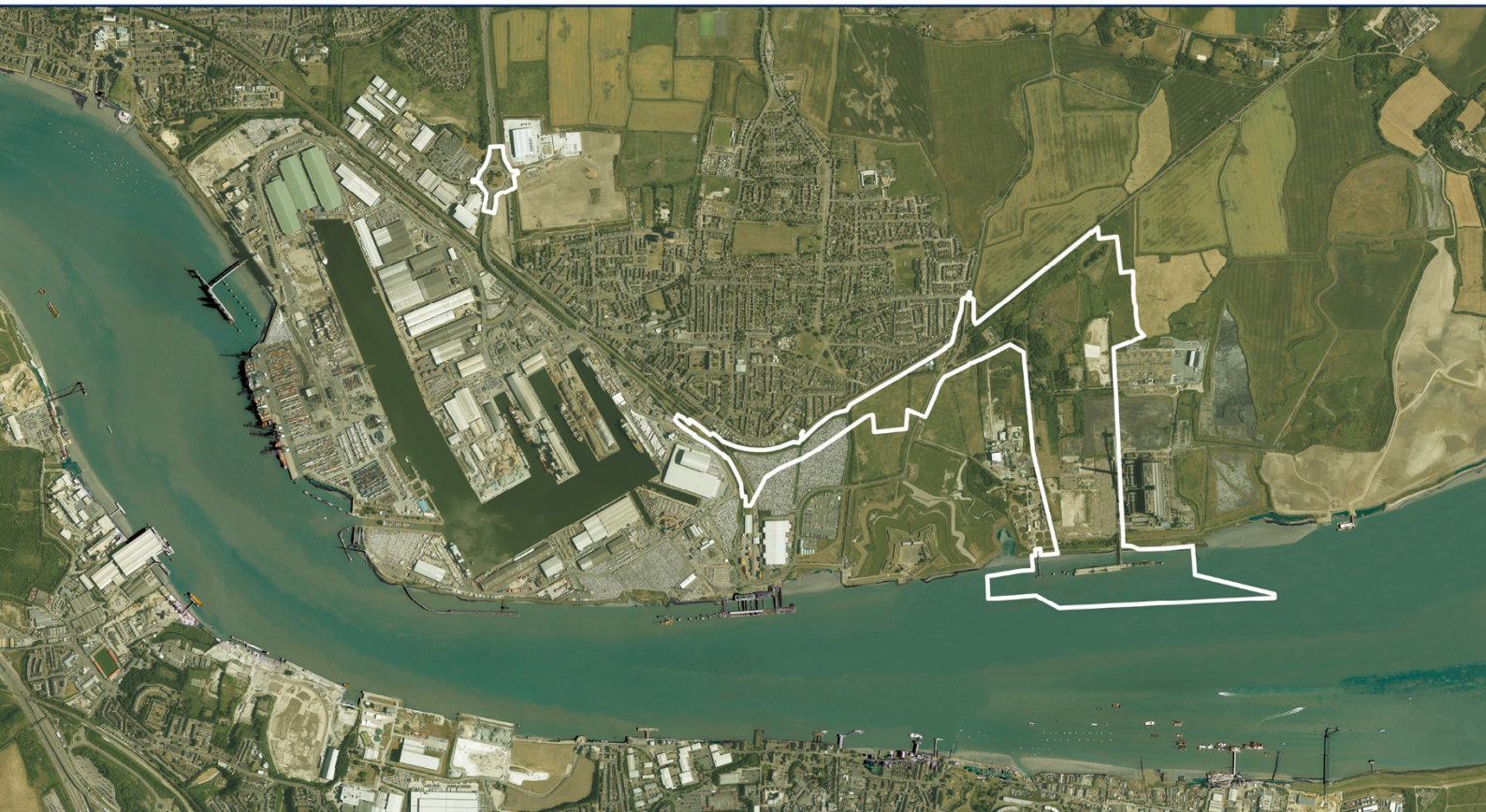
PLANNING ACT 2008

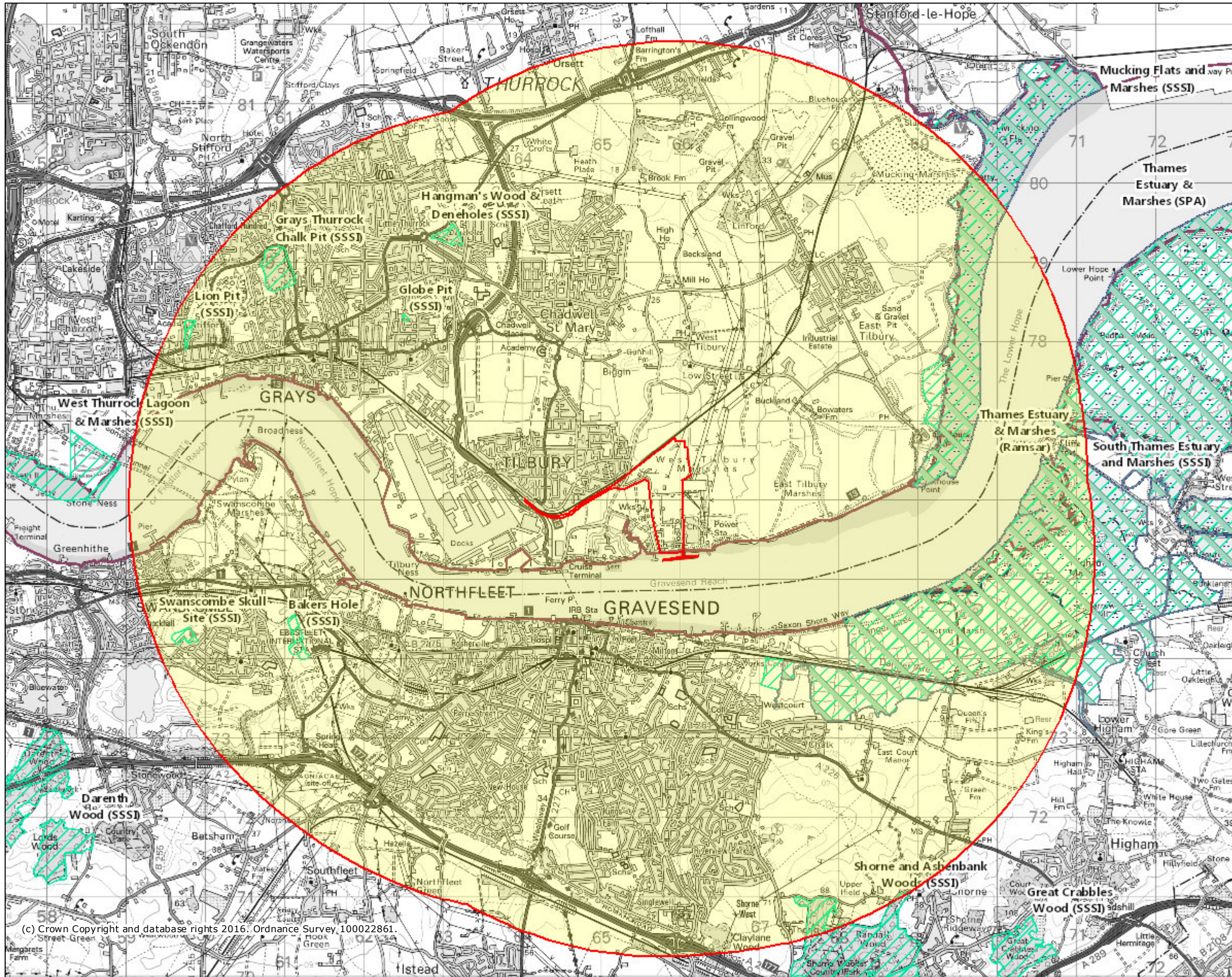
INFRASTRUCTURE PLANNING
(APPLICATIONS: PRESCRIBED FORMS AND PROCEDURE) REGULATIONS 2009

PROPOSED PORT TERMINAL AT
FORMER TILBURY POWER STATION

TILBURY2
STATUTORY NATURE CONSERVATION DESIGNATION
INFORMATION

DOCUMENT REF: APPENDIX 10.C





Legend

-  Ramsar Sites (England)
-  Sites of Special Scientific Interest (England)
-  Special Areas of Conservation (England)
-  Special Protection Areas (England)

Projection = OSGB36
 xmin = 556100
 ymin = 170000
 xmax = 574500
 ymax = 182200

Map produced by MAGiC on 21 December, 2016.
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Site Check Report Report generated on Wed Dec 21 2016
You selected the location: Centroid Grid Ref: TQ651760
 The following features have been found in your search area:

Ramsar Sites (England)

Name THAMES ESTUARY & MARSHES
Reference UK11069
Hectares 5553.59

Sites of Special Scientific Interest (England) - points

Name Baker's Hole SSSI
Reference 1000259
Natural England Contact GODFREY - ROSEMARY
Natural England Phone Number 0845 600 3078
Hectares 6.89
Citation 1001611
Hyperlink <http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1001611>

Name Lion Pit SSSI
Reference 1001703
Natural England Contact KEELING - CHRIS
Natural England Phone Number 0845 600 3078
Hectares 2.42
Citation 1004015
Hyperlink <http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1004015>

Name Hangman's Wood & Deneholes SSSI
Reference 1002016
Natural England Contact KEELING - CHRIS
Natural England Phone Number 0845 600 3078
Hectares 5.19
Citation 1006455
Hyperlink <http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1006455>

Name Globe Pit SSSI
Reference 1001695
Natural England Contact KEELING - CHRIS
Natural England Phone Number 0845 600 3078
Hectares 0.44
Citation 1003076
Hyperlink <http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003076>

Name Grays Thurrock Chalk Pit SSSI
Reference 1001648
Natural England Contact WILLIAMS - CHARLIE
Natural England Phone Number 0845 600 3078
Hectares 17.25
Citation 1003111
Hyperlink <http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003111>

Name Swanscombe Skull Site SSSI
Reference 1000325
Natural England Contact GODFREY - ROSEMARY
Natural England Phone Number 0845 600 3078
Hectares 3.88
Citation 1003665
Hyperlink <http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003665>

Sites of Special Scientific Interest (England)

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Name Lion Pit SSSI
Reference 1001703
Natural England Contact KEELING - CHRIS
Natural England Phone Number 0845 600 3078
Hectares 2.42

12/21/2016

Citation 1004015
Hyperlink <http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1004015>

Name South Thames Estuary and Marshes SSSI
Reference 1000286
Natural England Contact HYDE - PAUL
Natural England Phone Number 0845 600 3078
Hectares 5288.98
Citation 1003874
Hyperlink <http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003874>

Name Hangman's Wood & Deneholes SSSI
Reference 1002016
Natural England Contact KEELING - CHRIS
Natural England Phone Number 0845 600 3078
Hectares 5.19
Citation 1006455
Hyperlink <http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1006455>

Name Mucking Flats and Marshes SSSI
Reference 1002013
Natural England Contact FULLER - NEIL
Natural England Phone Number 0845 600 3078
Hectares 312.71
Citation 1006131
Hyperlink <http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1006131>

Name Globe Pit SSSI
Reference 1001695
Natural England Contact KEELING - CHRIS
Natural England Phone Number 0845 600 3078
Hectares 0.44
Citation 1003076
Hyperlink <http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003076>

Name Grays Thurrock Chalk Pit SSSI
Reference 1001648
Natural England Contact WILLIAMS - CHARLIE
Natural England Phone Number 0845 600 3078
Hectares 17.25
Citation 1003111
Hyperlink <http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003111>

Name Shorne and Ashenbank Woods SSSI
Reference 1000322
Natural England Contact GODFREY - ROSEMARY
Natural England Phone Number 0845 600 3078
Hectares 197.44
Citation 1001250
Hyperlink <http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1001250>

Name Swanscombe Skull Site SSSI
Reference 1000325
Natural England Contact GODFREY - ROSEMARY
Natural England Phone Number 0845 600 3078
Hectares 3.88
Citation 1003665
Hyperlink <http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003665>

Special Protection Areas (England)

Name THAMES ESTUARY & MARSHES
Reference UK9012021
Hectares 4802.47

Ramsar Sites (England) - points
No Features found

Special Areas of Conservation (England) - points
No Features found

Special Areas of Conservation (England)
No Features found

Special Protection Areas (England) - points

EC Directive 79/409 on the Conservation of Wild Birds: Special Protection Area

Name: Thames Estuary and Marshes

Unitary Authority/County: Essex County Council, Gravesham Borough Council, Kent County Council, Medway Council, and Thurrock Borough Council.

Consultation proposal: Mucking Flats and Marshes SSSI and South Thames Estuary and Marshes SSSIs have been recommended as a Special Protection Area because of the site's European ornithological interest.

The Thames Estuary and Marshes Special Protection Area is a wetland of European importance comprising a mosaic of intertidal habitats, saltmarsh, coastal grazing marshes, saline lagoons and chalk pits. The site provides wintering and breeding habitats for important assemblages of wetland bird species, particularly wildfowl and waders as well as supporting migratory birds on passage. The site forms part of the wider Thames Estuary together with other classified SPAs in both Essex and Kent.

Boundary of SPA: The SPA boundary is within or coincident with the above SSSI boundaries. See SPA map for further detail.

Size of SPA: The SPA covers an area of 4,838.94 ha.

European ornithological importance of the SPA: Thames Estuary and Marshes SPA is of European importance because:

- a) the site qualifies under **article 4.1** of the Directive (79/409/EEC) as it is used regularly by 1% or more of the GB populations of the following species listed on Annex I, in any season:

Annex I species	5 year peak mean 1993/94 - 1997/98	% GB population
Avocet <i>Recurvirostra avosetta</i>	283 individuals - wintering	28.3% GB
Hen Harrier <i>Circus cyaneus</i>	7 individuals - wintering	1.0% GB

- b) the site qualifies under **article 4.2** of the Directive (79/409/EEC) as it is used regularly by 1% or more of the biogeographical populations of the following regularly occurring migratory species (other than those listed on Annex I), in any season:

Species	5 year peak mean 1993/94 - 1997/98	% of population
Ringed Plover <i>Charadrius hiaticula</i>	1,324 individuals - passage	2.6% Europe/ Northern Africa (win)
Grey Plover <i>Pluvialis squatarola</i>	2,593 individuals - wintering	1.7% Eastern Atlantic (wintering)
Dunlin <i>Calidris alpina alpina</i>	29,646 individuals - wintering	2.1% N Siberia/Europe/ W Africa
Knot <i>Calidris canutus islandica</i>	4,848 individuals - wintering	1.4% NE Can/Grl/ Iceland/NW Eur
Black-tailed Godwit <i>Limosa limosa islandica</i>	1,699 individuals - wintering	2.4% Iceland (breeding)
Redshank <i>Tringa totanus totanus</i>	3,251 individuals - wintering	2.2% Eastern Atlantic (wintering)

c) the site qualifies under **article 4.2** of the Directive (79/409/EEC) as it is used regularly by over 20,000 waterfowl in any season:

Period	Season	Population
1993/94 - 1997/98	Wintering	75,019

Non-qualifying species of interest

Other Annex 1 species which regularly occur on the site in non-qualifying numbers are breeding Common Tern *Sterna hirundo*, and passage and wintering Bewick's Swan *Cygnus columbianus bewickii*, Golden Plover *Pluvialis apricaria*, Ruff *Philomachus pugnax*, Short-eared Owl *Asio flammeus* and Kingfisher *Alcedo atthis*.

The site also supports nationally important populations of Shelduck *Tadorna tadorna*, Teal *Anas crecca*, Pintail *Anas acuta*, Gadwall *Anas strepera*, Shoveler *Anas clypeata*, Tufted Duck *Aythya fuligula* and Pochard *Aythya ferina*.

Status of SPA

The Thames Estuary and Marshes SPA was classified on 31 March 2000.



European Site Conservation Objectives for Thames Estuary and Marshes Special Protection Area Site Code: UK9012021

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:

- A082 *Circus cyaneus*; Hen harrier (Non-breeding)
 - A132 *Recurvirostra avosetta*; Pied avocet (Non-breeding)
 - A137 *Charadrius hiaticula*; Ringed plover (Non-breeding)
 - A141 *Pluvialis squatarola*; Grey plover (Non-breeding)
 - A143 *Calidris canutus*; Red knot (Non-breeding)
 - A149 *Calidris alpina alpina*; Dunlin (Non-breeding)
 - A156 *Limosa limosa islandica*; Black-tailed godwit (Non-breeding)
 - A162 *Tringa totanus*; Common redshank (Non-breeding)
- Waterbird assemblage

This is a European Marine Site

This SPA is a part of the Thames Estuary and Marshes 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.

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

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Designation date

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

Site Reference Number

2. Date this sheet was completed/updated:

Designated: 31 March 2000

3. Country:

UK (England)

4. Name of the Ramsar site:

Thames Estuary and Marshes

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):

51 29 08 N 00 35 47 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: Gravesend

Contains part of the north coast of Kent and part of the southern coast of Essex, straddling the Thames estuary.

Administrative region: Essex; Kent; Medway; Thurrock

10. Elevation (average and/or max. & min.) (metres): **11. Area** (hectares): 5588.59

Min.	-2
Max.	20
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.

A complex of brackish, floodplain grazing marsh ditches, saline lagoons and intertidal saltmarsh and mudflat. These habitats together support internationally important numbers of wintering waterfowl. The saltmarsh and grazing marsh are of international importance for their diverse assemblages of wetland plants and invertebrates.

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, 5, 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

The site supports one endangered plant species and at least 14 nationally scarce plants of wetland habitats. The site also supports more than 20 British Red Data Book invertebrates.

Ramsar criterion 5

Assemblages of international importance:

Species with peak counts in winter:

45118 waterfowl (5 year peak mean 1998/99-2002/2003)

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

Qualifying Species/populations (as identified at designation):

Species with peak counts in spring/autumn:

Ringed plover , <i>Charadrius hiaticula</i> , Europe/Northwest Africa	595 individuals, representing an average of 1.8% of the GB population (5 year peak mean 1998/9-2002/3)
--------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------

Black-tailed godwit , <i>Limosa limosa islandica</i> , Iceland/W Europe	1640 individuals, representing an average of 4.6% of the population (5 year peak mean 1998/9-2002/3)
----------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------

Species with peak counts in winter:

Grey plover , <i>Pluvialis squatarola</i> , E Atlantic/W Africa -wintering	1643 individuals, representing an average of 3.1% of the GB population (5 year peak mean 1998/9-2002/3)
-------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------

Red knot , <i>Calidris canutus islandica</i> , W & Southern Africa (wintering)	7279 individuals, representing an average of 1.6% of the population (5 year peak mean 1998/9-2002/3)
--------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------

Dunlin , <i>Calidris alpina alpina</i> , W Siberia/W Europe	15171 individuals, representing an average of 1.1% of the population (5 year peak mean 1998/9-2002/3)
----------------------------------------------------------------	-------------------------------------------------------------------------------------------------------

Common redshank , <i>Tringa totanus totanus</i> ,	1178 individuals, representing an average of 1% 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.

Details of bird species occurring at levels of National importance are given in Section 22

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	alluvium, mud, shingle
Geomorphology and landscape	coastal, floodplain, intertidal sediments (including sandflat/mudflat), estuary
Nutrient status	eutrophic
pH	no information
Salinity	brackish / mixosaline, fresh, saline / euhaline
Soil	no information
Water permanence	usually permanent, usually seasonal / intermittent
Summary of main climatic features	Annual averages (Greenwich, 1971–2000) (www.metoffice.com/climate/uk/averages/19712000/sites/greenwich.html) Max. daily temperature: 14.8° C Min. daily temperature: 7.2° C Days of air frost: 29.1 Rainfall: 583.6 mm Hrs. of sunshine: 1461.0

General description of the Physical Features:

The marshes extend for about 15 km along the south side of the Thames estuary and also include intertidal areas on the north side of the estuary. To the south of the river, much of the area is brackish grazing marsh, although some of this has been converted to arable use. At Cliffe, there are flooded clay and chalk pits, some of which have been infilled with dredgings. Outside the sea-wall, there is a small extent of saltmarsh and broad intertidal mudflats.

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 marshes extend for about 15 km along the south side of the Thames estuary and also include intertidal areas on the north side of the estuary. To the south of the river, much of the area is brackish grazing marsh, although some of this has been converted to arable use. At Cliffe, there are flooded clay and chalk pits, some of which have been infilled with dredgings. Outside the sea-wall, there is a small extent of saltmarsh and broad intertidal mudflats.

18. Hydrological values:

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

Shoreline stabilisation and dissipation of erosive forces, Sediment trapping, Flood water storage / desynchronisation of flood peaks, Maintenance of water quality (removal of nutrients)

19. Wetland types:

Marine/coastal wetland

Code	Name	% Area
G	Tidal flats	49.6
4	Seasonally flooded agricultural land	38.6
Q	Saline / brackish lakes: permanent	4.2
Ss	Saline / brackish marshes: seasonal / intermittent	3.2
Other	Other	1.6
H	Salt marshes	1.3
E	Sand / shingle shores (including dune systems)	0.8
O	Freshwater lakes: permanent	0.7

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 intertidal flats are mostly fine, silty sediment, though in parts they are sandy. The saltmarsh shows a transition from pioneer communities containing *Zostera* to saltmarsh dominated by, for example, *Atriplex portulacoides*. The grazing marsh grassland is mesotrophic and generally species-poor. It does, however, contain scattered rarities, mostly annuals characteristic of bare ground. Where the grassland is seasonally inundated and the marshes are brackish the plant communities are intermediate between those of mesotrophic grassland and those of saltmarsh. The grazing marsh ditches contain a range of flora of brackish and fresh water. The aquatic flora is a mosaic of successional stages resulting from periodic clearance of drainage channels. The dominant emergent plants are *Phragmites communis* and *Bolboschoenus maritimus*. The saline lagoons have a diverse molluscan and crustacean fauna. Dominant plants in the lagoons include *Ulva* and *Chaetomorpha*.

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:

The site supports a population of the endangered least lettuce *Lactuca saligna*, and also supports several nationally scarce plants, including bulbous foxtail *Alopecurus bulbosus*, slender hare's-ear *Bupleurum tenuissimum*, divided sedge *Carex divisa*, saltmarsh goosefoot *Chenopodium chenopodioides*, sea barley *Hordeum marinum*, golden samphire *Inula crithmoides*, annual beard grass *Polypogon monspeliensis*, Borrer's saltmarsh-grass *Puccinellia fasciculata*, stiff saltmarsh-grass *P. rupestris*, one-flowered glasswort *Salicornia pusilla*, clustered clover *Trifolium glomeratum*, sea clover *T. squamosum*, narrow-leaved eelgrass *Zostera angustifolia* and dwarf eelgrass *Z. noltei*.

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:**

Little grebe , <i>Tachybaptus ruficollis ruficollis</i> , Europe to E Urals, NW Africa	251 individuals, representing an average of 3.2% of the GB population (5 year peak mean 1998/9- 2002/3)
Little egret , <i>Egretta garzetta</i> , West Mediterranean	54 individuals, representing an average of 3.2% of the GB population (5 year peak mean 1998/9- 2002/3)
Ruff , <i>Philomachus pugnax</i> , Europe/W Africa	23 individuals, representing an average of 3.2% of the GB population (5 year peak mean 1998/9- 2002/3)
Common greenshank , <i>Tringa nebularia</i> , Europe/W Africa	38 individuals, representing an average of 6.3% of the GB population (5 year peak mean 1998/9- 2002/3)

Species with peak counts in winter:

Common shelduck , <i>Tadorna tadorna</i> , NW Europe	1238 individuals, representing an average of 1.5% of the GB population (5 year peak mean 1998/9-2002/3)
Gadwall , <i>Anas strepera strepera</i> , NW Europe	359 individuals, representing an average of 2% of the GB population (5 year peak mean 1998/9-2002/3)
Northern shoveler , <i>Anas clypeata</i> , NW & C Europe	288 individuals, representing an average of 1.9% of the GB population (5 year peak mean 1998/9-2002/3)
Water rail , <i>Rallus aquaticus</i> , Europe	6 individuals, representing an average of 1.3% of the GB population (5 year peak mean 1998/9-2002/3)
Pied avocet , <i>Recurvirostra avosetta</i> , Europe/Northwest Africa	607 individuals, representing an average of 17.8% of the GB population (5 year peak mean 1998/9-2002/3)
Spotted redshank , <i>Tringa erythropus</i> , Europe/W Africa	6 individuals, representing an average of 4.4% of the GB population (5 year peak mean 1998/9-2002/3)

Species Information

Nationally important species occurring on the site:

Invertebrates:

The endangered species *Bagous longitarsis* occurs on the site.

The following vulnerable species occur on the site: a groundbug *Henestaris halophilus*, a weevil *Bagous cylindrus*, a ground beetle *Polystichus connexus*, a crane fly *Erioptera bivittata*, a crane fly *Limnophila pictipennis*, a horse fly *Hybomitra expollicata*, a hoverfly *Lejops vittata*, a dancefly *Poecilobothrus ducalis*, a snail-killing fly *Pteromicra leucopeza*, a solitary wasp *Philanthus triangulum* and a damselfly *Lestes dryas*.

The following rare species occur on the site: a ground beetle *Anisodactylus poeciloides*, the water beetles *Aulacochthebius exaratus*, *Berosus fulvus*, *Cercyon bifenestratus*, *Hydrochus elongatus*, *H. ignicollis*, *Ochthebius exaratus* and *Hydrophilus piceus*, a beetle *Malachius vulneratus*, a rove beetle *Philonthus punctus*, a fungus beetle *Telmatophilus brevicollis*, a fly *Campsicnemus magius*, a horsefly *Haematopota bigoti*, a soldier fly *Stratiomys longicornis* and a spider *Baryphyma duffeyi*.

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
- Archaeological/historical site
- Environmental education/ interpretation
- Fisheries production
- Livestock grazing
- Non-consumptive recreation
- Scientific research
- 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)	+	+
Local authority, municipality etc.	+	+
Private	+	+
Public/communal	+	

25. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	+
Tourism	+	+
Recreation	+	+
Current scientific research	+	+
Fishing: commercial	+	
Fishing: recreational/sport	+	
Gathering of shellfish	+	
Bait collection	+	
Arable agriculture (unspecified)		+
Permanent arable agriculture		+
Livestock watering hole/pond	+	+
Grazing (unspecified)	+	+
Permanent pastoral agriculture	+	+
Hunting: recreational/sport	+	
Industrial water supply		+
Industry		+
Sewage treatment/disposal	+	+
Harbour/port	+	+
Flood control	+	
Transport route	+	+
Urban development		+
Military activities	+	

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?
Dredging	1		+	+	+
Erosion	2		+		+
Eutrophication	2	Studies by the Environment Agency indicate that the waters in the Thames estuary are hyper-nutriented for nitrogen and phosphorus.	+	+	+
General disturbance from human activities	1		+		+

For category 2 factors only.

What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors?

Erosion - The North Kent Coastal Habitat Management Plan (CHaMP) has been produced. The Environment Agency is producing a Flood Defence Strategy for the Thames (Thames 2100) and decisions on future flood risk management will need to take into account the effects on features within the designated sites.

Studies of sediment transport and hydrodynamics within Thames estuary. Investigation of beneficial use of dredgings for mudflat recharge and creation of compensatory habitat.

Eutrophication - Water quality and sources of nutrient inputs are subject to further investigation by the Environment Agency as part of the Agency’s review of consents under the Habitats Regulations. Stage 3 of the Review of Consents (appropriate assessment) is scheduled for completion by March 2006, at which point any consented discharges having an adverse effect on site integrity will be identified.

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	+	+
Management agreement	+	
Site management statement/plan implemented	+	
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.

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 and Wetlands Trust, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee.

Numbers of breeding waders have been monitored through the BTO/RSPB/English Nature/Defra survey Breeding Waders of Wet Meadows (2002).

Botanical surveys of vegetation of sea wall embankments and grazing marsh ditches have been carried out.

The distribution and extent of saltmarsh habitat has been mapped - North Kent Marshes Saltmarsh Survey (2002) (Blair-Myres 2003)

The RSPB monitors various species groups on its reserves within the site

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.

The RSPB manages a network of reserves within and adjacent to the site, which are promoted locally through existing community initiatives, and more widely through publications and via the internet.

The site forms part of proposals for a north Kent 'Regional Park', being promoted to balance development in Kent Thameside (part of the Thames Gateway growth area). The Management Guidance for the Thames Estuary aims to increase awareness of conservation and is promoted by the Thames Estuary Partnership. The Thames Estuary Partnership has also produced the Tidal Thames Habitat Action Plan to raise awareness of and address biodiversity issues.

31. Current recreation and tourism:

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

Yachting, angling, wildfowling, jet-skiing, water-skiing and birdwatching. Bird watching occurs throughout the year and wildfowling is restricted to the period September to February. The remaining activities occur year-round but are more prevalent in the summer months. Disturbance from these activities is a current issue but is being addressed through further research, negotiation and information dissemination.

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) *North Kent 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/NorthKent/NorthKentCHaMP.pdf
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numbers when feeding on the mudflats. These counts also indicate that avocet *Recurvirostra avosetta* and ringed plover *Charadrius hiaticula* regularly exceed nationally important numbers.

During the high tide period, waterfowl disperse to roosts in marshes in north Kent and Essex. Nevertheless, high tide counts for this site clearly reveal species regularly reaching nationally important numbers in winter including European white-fronted goose *Anser albifrons* spp *albifrons*, shelduck *Tadorna tadorna*, gadwall *Anas strepera*, teal *Anas crecca*, pintail *Anas acuta*, shoveler *Anas clypeata*, grey plover *Pluvialis squatarola*, curlew *Numenius arquata* and black-tailed godwit *Limosa limosa*. In addition, nationally important numbers of grey plover, curlew, black-tailed godwit, redshank and greenshank *Tringa nebularia* occur during autumn passage with redshank maintaining their nationally important numbers on spring passage.

During the breeding season the south Thames marshes support an outstanding assemblage of breeding birds including rare⁵ species such as garganey *Anas querquedula*, pintail, avocet and bearded tit *Panurus biarmicus*.

Specially protected birds⁶ found within the site include hen harrier *Circus cyaneus*, short-eared owl *Asio flammeus*, ruff *Philomachus pugnax*, common tern *Sterna hirundo*, avocet and golden plover *Pluvialis apricaria*.

Vegetation

The saltmarshes support characteristic vegetation dominated by the saltmarsh grasses *Puccinellia*, the glassworts *Salicornia*, sea aster *Aster tripolium*, sea lavender *Limonium vulgare* and sea purslane *Halimione portulacoides*, with nationally scarce plants such as golden samphire *Inula crithmoides*⁴ and *Puccinellia fasciculata*⁴.

The grazing marsh complexes, including seawalls, counterwalls, fleets, dykes, runnels and seasonally wet depressions provide suitable conditions for a wide range of plants and animals. The grassland habitats range from the damp muddy areas near the dykes, where characteristic plants include divided sedge *Carex divisa*⁴, small goosefoot *Chenopodium botryodes*⁴ and golden dock *Rumex maritimus*⁴, to the dry seawalls and counterwalls which support scarce species in addition to many widespread plants. These scarce plants include slender hare's ear *Bupleurum tenuissimum*⁴, sea clover *Trifolium squamosum*⁴ and sea barley *Hordeum marinum*⁴, all of which are more abundant in the Thames estuary than elsewhere in Britain. Some seasonally damp depressions in the grassland contain the bulbous foxtail grass *Alopecurus bulbosus*⁴ whilst the more level turf is dominated by a variety of grasses including other foxtails *Alopecurus*, bents *Agrostis*, rye-grass *Lolium perenne* and fescues *Festuca*, with various herbs such as clovers *Trifolium* and buttercups *Ranunculus* also present. The rare and specially protected least lettuce *Lactuca saligna*⁷ which was previously recorded on seawalls in this site may still survive.

The dykes and fleets which are an integral part of the grazing marsh have a range of salinities and consequently support an interesting range of plants. Those nearest the sea tend to be the most brackish, and generally have sea club-rush *Scirpus maritimus*, common reed *Phragmites australis* and fennel pondweed *Potamogeton pectinatus* as the most abundant species; some also include nationally scarce species such as brackish water-crowfoot *Ranunculus baudotii*⁴. In the freshwater dykes further inland there is a greater variety of species, plants such as branched bur-reed *Sparganium erectum* and reed-maces *Typha* spp. may become dominant. Nationally scarce plants associated with the dykes include soft hornwort *Ceratophyllum submersum*⁴ with water soldier *Stratiotes aloides*⁴ present in dykes near Higham.

The mudflats have beds of eelgrass including *Zostera angustifolia*⁴ and *Z. noltii*⁴ and the Allhallows region of the site has areas of vegetated shingle with the nationally scarce sea kale *Crambe maritima*⁴ present.

Invertebrates

This site supports a diverse invertebrate fauna and includes nationally rare³ beetles, flies and true bugs. The ‘scarce emerald damselfly’ *Lestes dryas*, listed in the British Red Data Book*, in the Cliffe area of the site. In addition, 100 nationally scarce species of invertebrate have been recorded including *Lejops vittata* (a hoverfly), *Saldula opacula* (a shorebug) and the dotted fan-foot moth *Macrochilo cribrumalis*, all of which are restricted to wetland, estuarine or grazing marsh habitats. The water beetle fauna is of particular interest and includes four species of *Bagous* (aquatic weevils), three species of *Berosus* and the great silver water beetle *Hydrophilus piceus*.

Notes

¹ Nationally important numbers corresponds to more than 1% of the British population.

² Internationally important numbers corresponds to more than 1% of the northwest European population.

³ Species regarded as nationally rare are recorded from 1–15 of the 10 × 10km squares in Britain.

⁴ Species regarded as nationally scarce are recorded from 16–100 of the 10 × 10km squares in Britain.

⁵ Listed in ‘Red Data Birds in Britain’, NCC/RSPB 1990.

⁶ Species listed on Annex 1 of the EEC Birds Directive (79/409/EEC).

⁷ Plants listed on Schedule 8 of the Wildlife and Countryside Act 1981.

COUNTY: ESSEX

SITE NAME: MUCKING FLATS & MARSHES

DISTRICT: THURROCK

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

Local Planning Authority: Thurrock Borough Council

National Grid Reference: TQ 696785

Area: 311.56 (ha.) 769.86 (ac.)

Ordnance Survey Sheet 1:500,000: 178

1:10,000: TQ 67 NE
TQ 68 SE
TQ 77 NW
TQ 78 SW

Date Notified (Under 1949 Act): –

Date of Last Revision: –

Date Notified (Under 1981 Act): 1991

Date of Last Revision: –

Other Information:

This is a new site.

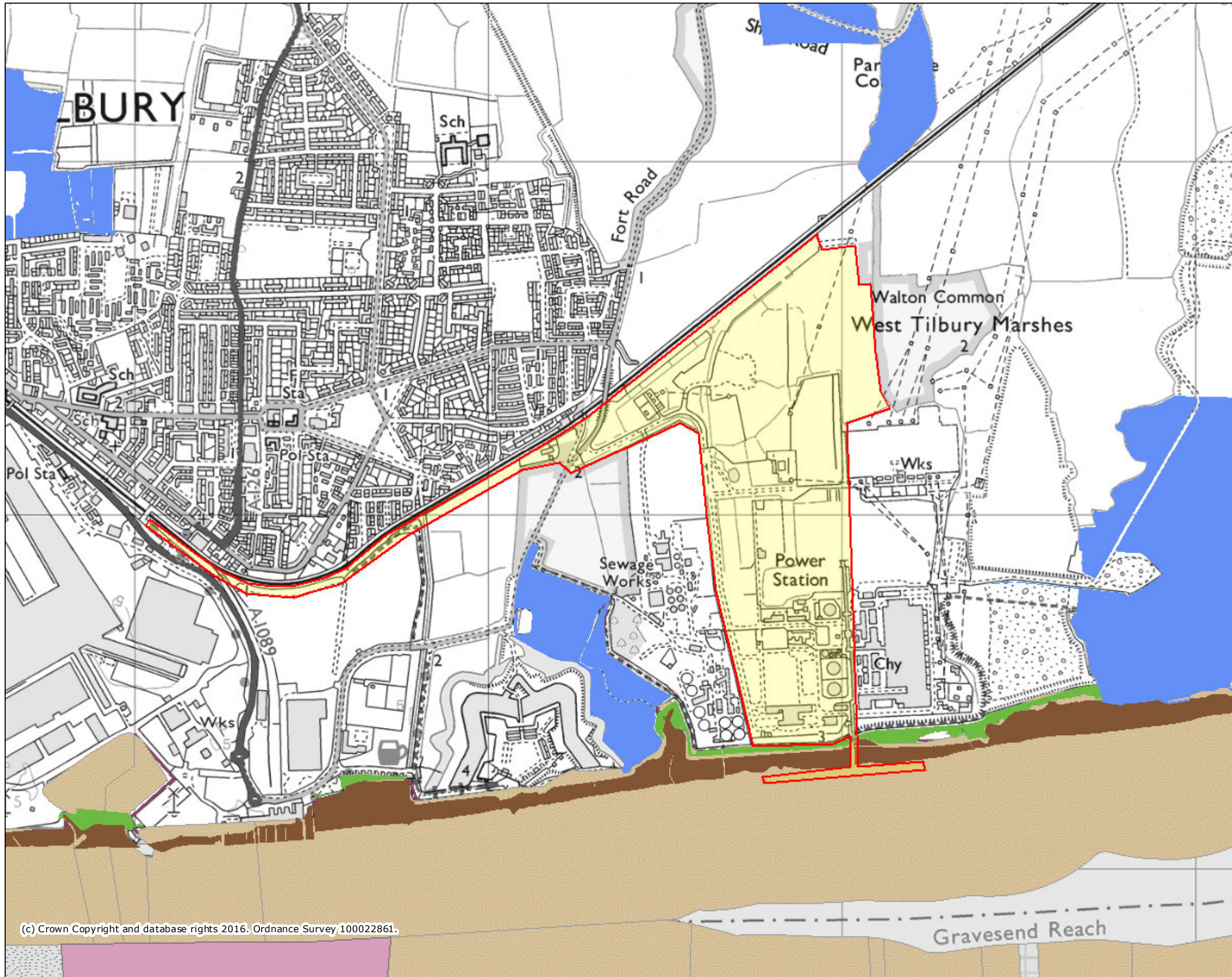
Description and Reasons for Notification:

Mucking Flats and Marshes comprise an extensive stretch of Thames mudflats and saltmarsh, together with sea wall grassland.

Wintering wildfowl and waders reach both nationally and internationally important numbers on the mudflats, roosting and feeding on adjacent saltmarsh and disused silt lagoons.

The mudflats form the largest intertidal feeding area for wintering wildfowl and waders west of Canvey Island on the north bank of the Thames. Ringed Plover occur in internationally important numbers, with nationally important populations of Shelduck, Grey Plover, Dunlin, Black-tailed Godwit and Redshank. Other species occur in good numbers, with Avocet regularly present, sometimes in nationally important numbers. The mudflats and saltmarsh are also an important staging post for passage migrants, with significant numbers of waders such as Curlew sandpiper and an important late summer flock of yellow-legged herring gulls. The saltmarshes provide important high tide roosts, as do the disused silt lagoons at Coalhouse Fort. The value of the site is enhanced by its proximity to Cliffs and Cooling Marshes SSSI and Higham Marshes SSSI across the Thames in Kent, with which there is an interchange of roosting and feeding birds.

Between the sea wall and mean high water line lie areas of high level saltmarsh of a type uncommon in Essex. The vegetation is dominated by sea couch *Elymus pycnanthus* and sea purslane *Halimione portulacoides*, with sea aster *Aster tripolium*, common sea-lavender *Limonium vulgare* and common saltmarsh-grass *Puccinellia maritima*. Fragments of lower saltmarsh include glasswort *Salicornia spp.*, common cordgrass *Spartina anglica* and lesser sea-spurrey *Spergularia marina*, together with the nationally scarce golden samphire *Inula crithmoides*. The saltmarshes are truncated to their landward edge by sea walls, which in places are vegetated with a sward dominated by sea couch *Elymus pycnanthus*. The saltmarsh has a high invertebrate interest, which includes the rare spider *Baryphyma duffeyi*, as well as many notable and local species.



Legend

- Priority Habitat Inventory - Coastal Saltmarsh (England)
- Priority Habitat Inventory - Mudflats (England)
- Priority Habitat Inventory - Saline Lagoons (England)
- Priority Habitat Inventory - Coastal and Floodplain Grazing Marsh (England)

Intertidal Substrate Foreshore (England and Scotland)

- Boulders/Loose Rock
- Gravel
- Made Ground (Man Made)
- Mud
- Mud and Gravel
- Not Present
- Rock Platform
- Rock Platform with Bank of Gravel
- Rock Platform with Boulders/Loose Rock
- Sand
- Sand and Gravel
- Sand and Mud
- Unspecified

Ancient Woodland (England)

- Ancient and Semi-Natural Woodland
- Ancient Replanted Woodland

Projection = OSGB36
 xmin = 563300
 ymin = 174700
 xmax = 567400
 ymax = 177400

Map produced by MAGIC on 21 December, 2016.
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Site Check Report Report generated on Wed Dec 21 2016
 You selected the location: Centroid Grid Ref: TQ651760
 The following features have been found in your search area:

Priority Habitat Inventory - Coastal Saltmarsh (England)

Main Habitat Present	Coastal saltmarsh
Confidence in Main Habitat Classification	Medium
Name of 1st Data Source	Environment Agency Saltmarsh Extents
Date of 1st Data Source	01/07/2011
Habitat Class of 1st Data Source	Priority Habitat
Habitat Type of 1st Data Source	Coastal Saltmarsh
Name of 2nd Data Source	Null
Date of 2nd Data Source	Null
Habitat Class of 2nd Data Source	Null
Habitat Type of 2nd Data Source	Null
Name of 3rd Data Source	Null
Date of 3rd Data Source	Null
Habitat Class of 3rd Data Source	Null
Habitat Type of 3rd Data Source	Null
Habitats Directive Annex 1	Null
Other Priority Habitats Present	Null
Identified Candidate Habitats	Main habitat: SALTM (INV > 50%)
Decision Made By Rulesets	Null
Determination Comment for Main Habitat	Null
Area (Hectares)	0.874433
Unique Parcel Reference Number (OS Grid Reference of centre point)	TQ6618775380

Main Habitat Present	Coastal saltmarsh
Confidence in Main Habitat Classification	Medium
Name of 1st Data Source	Environment Agency Saltmarsh Extents
Date of 1st Data Source	01/07/2011
Habitat Class of 1st Data Source	Priority Habitat
Habitat Type of 1st Data Source	Coastal Saltmarsh
Name of 2nd Data Source	Null
Date of 2nd Data Source	Null
Habitat Class of 2nd Data Source	Null
Habitat Type of 2nd Data Source	Null
Name of 3rd Data Source	Null
Date of 3rd Data Source	Null
Habitat Class of 3rd Data Source	Null
Habitat Type of 3rd Data Source	Null
Habitats Directive Annex 1	Null
Other Priority Habitats Present	Null
Identified Candidate Habitats	Main habitat: SALTM (INV > 50%)
Decision Made By Rulesets	Null
Determination Comment for Main Habitat	Null
Area (Hectares)	0.488127
Unique Parcel Reference Number (OS Grid Reference of centre point)	TQ6582075340

Main Habitat Present	Coastal saltmarsh
Confidence in Main Habitat Classification	Medium
Name of 1st Data Source	Environment Agency Saltmarsh Extents
Date of 1st Data Source	01/07/2011
Habitat Class of 1st Data Source	Priority Habitat
Habitat Type of 1st Data Source	Coastal Saltmarsh
Name of 2nd Data Source	Null
Date of 2nd Data Source	Null
Habitat Class of 2nd Data Source	Null
Habitat Type of 2nd Data Source	Null
Name of 3rd Data Source	Null
Date of 3rd Data Source	Null
Habitat Class of 3rd Data Source	Null
Habitat Type of 3rd Data Source	Null
Habitats Directive Annex 1	Null
Other Priority Habitats Present	Null
Identified Candidate Habitats	Main habitat: SALTM (INV > 50%)
Decision Made By Rulesets	Null
Determination Comment for Main Habitat	Null
Area (Hectares)	0.003545
Unique Parcel Reference Number (OS Grid Reference of centre point)	TQ6603575371

Main Habitat Present	Coastal saltmarsh
Confidence in Main Habitat Classification	Medium

12/21/2016

Name of 1st Data Source	Environment Agency Saltmarsh Extents
Date of 1st Data Source	01/07/2011
Habitat Class of 1st Data Source	Priority Habitat
Habitat Type of 1st Data Source	Coastal Saltmarsh
Name of 2nd Data Source	Null
Date of 2nd Data Source	Null
Habitat Class of 2nd Data Source	Null
Habitat Type of 2nd Data Source	Null
Name of 3rd Data Source	Null
Date of 3rd Data Source	Null
Habitat Class of 3rd Data Source	Null
Habitat Type of 3rd Data Source	Null
Habitats Directive Annex 1	Null
Other Priority Habitats Present	Null
Identified Candidate Habitats	Main habitat: SALTM (INV > 50%)
Decision Made By Rulesets	Null
Determination Comment for Main Habitat	Null
Area (Hectares)	0.016734
Unique Parcel Reference Number (OS Grid Reference of centre point)	TQ6601475367

Priority Habitat Inventory - Mudflats (England)

Main Habitat Present	Mudflats
Confidence in Main Habitat Classification	Low
Name of 1st Data Source	Biodiversity Key Resources Inventory - (Environment Agency R&D Technical Report E2A)
Date of 1st Data Source	01/01/2002
Habitat Class of 1st Data Source	N/A
Habitat Type of 1st Data Source	N/A
Name of 2nd Data Source	OS 10K raster
Date of 2nd Data Source	24/05/2002
Habitat Class of 2nd Data Source	N/A
Habitat Type of 2nd Data Source	N/A
Name of 3rd Data Source	Null
Date of 3rd Data Source	Null
Habitat Class of 3rd Data Source	Null
Habitat Type of 3rd Data Source	Null
Habitats Directive Annex 1	Null
Other Priority Habitats Present	Null
Identified Candidate Habitats	Main habitat: MUDFL (INV > 50%)
Decision Made By Rulesets	Null
Determination Comment for Main Habitat	OS10k mud
Area (Hectares)	1.253597
Unique Parcel Reference Number (OS Grid Reference of centre point)	TQ6618075326

Main Habitat Present	Mudflats
Confidence in Main Habitat Classification	Low
Name of 1st Data Source	Biodiversity Key Resources Inventory - (Environment Agency R&D Technical Report E2A)
Date of 1st Data Source	01/01/2002
Habitat Class of 1st Data Source	N/A
Habitat Type of 1st Data Source	N/A
Name of 2nd Data Source	OS 10K raster
Date of 2nd Data Source	24/05/2002
Habitat Class of 2nd Data Source	N/A
Habitat Type of 2nd Data Source	N/A
Name of 3rd Data Source	Null
Date of 3rd Data Source	Null
Habitat Class of 3rd Data Source	Null
Habitat Type of 3rd Data Source	Null
Habitats Directive Annex 1	Null
Other Priority Habitats Present	Null
Identified Candidate Habitats	Main habitat: MUDFL (INV > 50%)
Decision Made By Rulesets	Null
Determination Comment for Main Habitat	OS10k mud
Area (Hectares)	1.641465
Unique Parcel Reference Number (OS Grid Reference of centre point)	TQ6585275303

Main Habitat Present	Mudflats
Confidence in Main Habitat Classification	Low
Name of 1st Data Source	OS 10K raster
Date of 1st Data Source	24/05/2002
Habitat Class of 1st Data Source	N/A
Habitat Type of 1st Data Source	N/A
Name of 2nd Data Source	Null
Date of 2nd Data Source	Null

12/21/2016

Habitat Class of 2nd Data Source	Null
Habitat Type of 2nd Data Source	Null
Name of 3rd Data Source	Null
Date of 3rd Data Source	Null
Habitat Class of 3rd Data Source	Null
Habitat Type of 3rd Data Source	Null
Habitats Directive Annex 1	Null
Other Priority Habitats Present	Null
Identified Candidate Habitats	Main habitat: MUDFL (INV > 50%)
Decision Made By Rulesets	Null
Determination Comment for Main Habitat	OS10k mud
Area (Hectares)	0.088246
Unique Parcel Reference Number (OS Grid Reference of centre point)	TQ6606575354

Intertidal Substrate Foreshore (England and Scotland)

Source	BASED ON BGS EXPERT KNOWLEDGE AND ORDNANCE SURVEY DATA
Foreshore	MUD
Backshore	Null

Priority Habitat Inventory - Saline Lagoons (England)

No Features found

Priority Habitat Inventory - Coastal and Floodplain Grazing Marsh (England)

No Features found

Ancient Woodland (England)

No Features found