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:

FOR OFFICE USE ONLY.

DD MM YY

Designation date | Site Reference Number

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

2. Date this sheet was completed/updated:

Designated: 29 June 1998

3. Country:

UK (England)

4. Name of the Ramsar site:

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

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 38 16 N 00 40 10 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: Southend-on-Sea

The River Crouch and the River Roach are between the Dengie Peninsula and Southend-on-Sea in Essex, south-east England.

Administrative region: Essex

10. Elevation (average and/or max. & min.) (metres): 11. Area (hectares): 1735.58

Min. No information available
Max. No information available
Mean No information available

12. General overview of the site:

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

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.

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

Supports an appreciable assemblage of rare, vulnerable or endangered species or subspecies of plant and animal including 13 nationally scarce plant species: slender hare's ear *Bupleurum tenuissimum*, divided sedge *Carex divisa*, sea barley *Hordeum marinum*, golden-samphire *Inula crithmoides*, lax-flowered sea-lavender *Limonium humile*, curved hard-grass *Parapholis incurva*, Borrer's saltmarsh grass *Puccinellia fasciculata*, stiff saltmarsh grass *Puccinellia rupestris*, spiral tasselweed *Ruppia cirrhosa*, one-flowered glasswort *Salicornia pusilla*, small cord-grass *Spartina maritima*, shrubby sea-blite *Suaeda vera* and sea clover *Trifolium squamosum*. Several important invertebrate species are also present on the site, including scarce emerald damselfly *Lestes dryas*, the shorefly *Parydroptera discomyzina*, the rare soldier fly *Stratiomys singularior*, the large horsefly *Hybomitra expollicata*, the beetles *Graptodytes bilineatus* and *Malachius vulneratus*, the ground lackey moth *Malacosoma castrensis* and *Eucosoma catoprana*.

Ramsar criterion 5

Assemblages of international importance:

Species with peak counts in winter:
16970 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 winter:

Dark-bellied brent goose, *Branta bernicla bernicla*,	2103 individuals, representing an average of 2.1% 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 occuring 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	acidic, neutral, mud, clay, alluvium, nutrient-rich, sedimentary, gravel, shingle
Geomorphology and landscape	lowland, island, coastal, valley, subtidal sediments (including sandbank/mudbank), intertidal sediments (including sandflat/mudflat), estuary, islands, lagoon, cliffs

Nutrient status	eutrophic
pH	acidic, circumneutral
Salinity	brackish / mixosaline, fresh, saline / euhaline
Soil	mainly mineral
Water permanence	usually permanent
Summary of main climatic features	Annual averages (Lowestoft, 1971–2000) (www.metoffice.com/climate/uk/averages/19712000/sites/lowestoft.html) Max. daily temperature: 13.0° C Min. daily temperature: 7.0° C Days of air frost: 27.8 Rainfall: 576.3 mm Hrs. of sunshine: 1535.5

General description of the Physical Features:

The 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 along both banks and the river channel. Unlike more extensive estuaries elsewhere in Essex, this leaves a relatively narrow strip of tidal mud.

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 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 along both banks and the river channel. Unlike more extensive estuaries elsewhere in Essex, this leaves a relatively narrow strip of tidal mud.

18. Hydrological values:

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

Maintenance of water quality (removal of nutrients)

19. Wetland types:

Inland wetland, Marine/coastal wetland

Code	Name	% Area
H	Salt marshes	35
G	Tidal flats	25
Other	Other	20
4	Seasonally flooded agricultural land	5
K	Coastal fresh lagoons	5
J	Coastal brackish / saline lagoons	5
Tp	Freshwater marshes / pools: permanent	2.5
Sp	Saline / brackish marshes: permanent	2.5

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.

Most of the tidal reaches of the Crouch and Roach were originally fringed with saltmarsh but since the middle ages they have been progressively embanked to provide safe grazing and, more recently, arable land. Only relatively small areas of saltmarsh have never been embanked, including Woodham Fen, White House Farm, and the upper sections of Paglesham pool. Two of these sites are notable in that the natural transition from saltmarsh to grassland is uninterrupted by a sea wall, an increasingly rare feature on the Essex coast. Other saltmarshes have formed where the sea defences have been breached, including Bridgemarsh Island, Brandy Hole and North Fambridge Marsh. These are three important and extensive stretches of saltmarsh which have developed during the course of the 20th century.

The saltmarshes contain a range of characteristic plant species. The lower marshes, covered by most tides, are dominated by glasswort *Salicornia* spp., annual sea-blite *Suaeda maritima* and sea aster *Aster tripolium*, whilst on higher land, common saltmarsh-grass *Puccinellia maritima*, sea purslane *Atriplex portulacoides*, common sea-lavender *Limonium vulgare* and thrift *Armeria maritima* become progressively more frequent. Several uncommon plants can also be found, including lax-flowered sea-lavender *Limonium humile*, one-flowered glasswort *Salicornia pusilla*, and, locally on the drift line, shrubby sea-blite *Suaeda vera*. At the uppermost tidal levels and on the sea walls, sea couch *Elytrigia atherica* is dominant. This rough grassland supports dense populations of the nationally scarce Roesel's bush-cricket *Metrioptera roeselii*, whose persistent reeling song is a constant feature of mid to late summer.

The sea walls and their associated berms form important integral parts of the coastal habitat. There are a number of typically coastal species to be found, such as narrow-leaved birds-foot-trefoil *Lotus tenuis*, grass vetchling and *Lathyrus nissolia*. There is also a range of nationally scarce species such as, sea barley *Hordeum marinum*, sea clover *Trifolium squamosum*, curved hard-grass *Parapholis incurva*, slender hare's-ear *Bupleurum tenuissimum* and two scarce saltmarsh grasses *Puccinellia fasciculata* and *P. rupestris*. Furthermore, the species complement of this grassland habitat is a reflection of that within the old improved grazing marsh. The grassland of the sea wall will therefore act as a natural seed source in the event that arable land is converted back to grazing marsh.

There are also some areas of grazing marsh landward of the sea wall. This is a characteristic, but increasingly uncommon, habitat in the country. Other less common plants typical of grazing marsh are spiny rest-harrow *Ononis spinosa* and hairy buttercup *Ranunculus sardous*.

The brackish dykes and pools within the grazing marsh, together with the borrow dykes adjacent to the sea wall are fringed with dense stands of the sea club-rush *Bolboschoenus maritimus*, or more locally common reed *Phragmites australis*, and lesser reedmace *Typha angustifolia*. Fennel pondweed *Potamogeton pectinatus* and beaked tasselweed *Ruppia maritima* are the most common aquatic plant species. Soft hornwort *Ceratophyllum submersum*, brackish water-crowfoot *Ranunculus baudotii*, and spiral tasselweed *Ruppia cirrhosa* also occur. These three species are all fairly uncommon nationally, the latter species being nationally scarce.

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.

Bupleurum tenuissimum (nationally scarce), *Carex divisa* (nationally scarce), *Hordeum marinum* (nationally scarce), *Inula crithmoides* (nationally scarce), *Limonium humile* (nationally scarce), *Parapholis incurva* (nationally scarce), *Puccinellia fasciculata* (nationally scarce), *Puccinellia rupestris* (nationally scarce), *Ruppia cirrhosa* (nationally scarce), *Salicornia pusilla* (nationally scarce), *Spartina maritima* (nationally scarce), *Suaeda vera* (nationally scarce), *Trifolium squamosum* (nationally scarce).

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 egret , *Egretta garzetta*, West Mediterranean	17 individuals, representing an average of 1% of the GB population (5 year peak mean 1998/9-2002/3)
Ruff , *Philomachus pugnax*, Europe/W Africa	13 individuals, representing an average of 1.8% of the GB population (5 year peak mean 1998/9-2002/3)
Whimbrel , *Numenius phaeopus*, Europe/Western Africa	40 individuals, representing an average of 1.3% of the GB population (5 year peak mean 1998/9-2002/3 - spring peak)
Spotted redshank , *Tringa erythropus*, Europe/W Africa	5 individuals, representing an average of 3.6% of the GB population (5 year peak mean 1998/9-2002/3)
Common greenshank , *Tringa nebularia*, Europe/W Africa	23 individuals, representing an average of 3.8% of the GB population (5 year peak mean 1998/9-2002/3)

Species with peak counts in winter:

Hen harrier, *Circus cyaneus*, Europe	<19 individuals, representing an average of 2.5% of the GB population (5 year mean 1987-1991)
Black-tailed godwit , *Limosa limosa islandica*, Iceland/W Europe	163 individuals, representing an average of 1% of the GB population (5 year peak mean 1998/9-2002/3)

Species Information

Nationally important species occurring on the site.

Invertebrates.

Graptodytes bilineatus (RDB3), *Hybomitra expollicata* (RDB1), *Lestes dryas* (RDB2), *Malachius vulneratus* (RDB3), *Malacosoma castrensis* (RDB3), *Parydroptera discomyzina* (RDB2), *Stratiomys longicornis* (RDB2), *Eucosma catoptrana* (potential RDB3 species – not currently listed)

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.	+	+
National/Crown Estate	+	+
Private	+	+
Other	+	+

25. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	+
Tourism	+	+
Recreation	+	+
Current scientific research	+	+
Fishing: commercial	+	+
Fishing: recreational/sport	+	+
Marine/saltwater aquaculture	+	+
Gathering of shellfish	+	+
Bait collection	+	+
Shifting arable agriculture	+	
Permanent arable agriculture	+	+
Rough or shifting grazing	+	+
Permanent pastoral agriculture	+	+
Hay meadows		+
Hunting: recreational/sport	+	+
Sewage treatment/disposal	+	+

Harbour/port	+	
Flood control	+	+
Irrigation (incl. agricultural water supply)	+	+
Urban development		+
Non-urbanised settlements	+	
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?
Erosion	2	Sea defences are amplifying erosion in undefended areas	+		+
Persistent drought	1	Lack of freshwater flowing into site, particularly as the region is the driest part of the country.	+	+	+

For category 2 factors only.
What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors?
Erosion - The Essex Coast and Estuaries Coastal Habitat Management Plan (CHaMP) covers the site and it is expected to inform the shoreline management plan as well as local plan policies.

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	+	+
Environmentally Sensitive Area (ESA)	+	+

Special Area of Conservation (SAC)	+	
Management plan in preparation	+	

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

28. Conservation measures proposed but not yet implemented:

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

No information available

29. Current scientific research and facilities:

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

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

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

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

A farm, Marsh Farm, within the Ramsar site is owned and maintained by Essex County Council. The farm is an education facility which, through farm tours, provides information about wildlife and the countryside.
The local wildlife trust has two reserves on site, Blue House Farm and Lower Raypits, at which they conduct conservation education.

31. Current recreation and tourism:

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

Activities.
Dog walking, wildfowling, boating, birdwatching, waterskiing.

Facilities provided.
Some hides for wildfowling are provided, moorings and marina areas, hides for birdwatching, allocated waterskiing areas and landing stages along the shore to allow access.

Seasonality.
Wildfowling during shooting season (winter).

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) *Essex Coast and Estuaries Coastal Habitat Management Plan: Executive summary*. English Nature, Peterborough (Living with the Sea LIFE Project). www.english-nature.org.uk/livingwiththesea/champs/pdf/ESSEX.FINALEXEC.SUMMARY.pdf

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Musgrove, AJ, Langston, RHW, Baker, H & Ward, RM (eds.) (2003) *Estuarine waterbirds at low tide. The WeBS Low Tide Counts 1992–93 to 1998–99*. WSG/BTO/WWT/RSPB/JNCC, Thetford (International Wader Studies, No. 16)

Musgrove, AJ, Pollitt, MS, Hall, C, Hearn, RD, Holloway, SJ, Marshall, PE, Robinson, JA & Cranswick, PA (2001) *The Wetland Bird Survey 1999–2000: wildfowl and wader counts*. British Trust for Ornithology, Wildfowl and Wetlands Trust, Royal Society for the Protection of Birds & Joint Nature Conservation Committee, Slimbridge. www.wwt.org.uk/publications/default.asp?PubID=14

Pritchard, DE, Housden, SD, Mudge, GP, Galbraith, CA & Pienkowski, MW (eds.) (1992) *Important Bird Areas in the United Kingdom including the Channel Islands and the Isle of Man*. Royal Society for the Protection of Birds, Sandy

Ratcliffe, DA (ed.) (1977) *A Nature Conservation Review. The selection of biological sites of national importance to nature conservation in Britain*. Cambridge University Press (for the Natural Environment Research Council and the Nature Conservancy Council), Cambridge (2 vols.)

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Worley, A & Simpson, M (1998) Littoral and sublittoral biotope mapping and data capture exercise for the Essex estuaries candidate Marine Special Area of Conservation. *English Nature Research Reports*, No. **305**

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