FIVE ESTUARIES
OFFSHORE WIND FARM

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10.25 APPLICANT'S RESPONSES TO ACTION POINTS - ISH3, CAH2, ISH4

Application Reference:	EN010115
Document Number:	10.25
Revision:	A
Pursuant to:	Deadline 3
Eco-Doc Number:	005430911-01
Date:	November 24

In preparation of this document Five Estuaries Wind Farm Ltd has made reasonable efforts to ensure that the content is accurate, up to date and complete for purpose.

Revision	Date	Status/Reason for Issue	Originator	Checked	Approved
A	Nov 24	Deadline 3	VEOWF	VEOWF	VEOWF

CONTENTS

TABLES

DEFINITION OF ACRONYMS

Term	Definition
AONB	Area of Outstanding Natural Beauty
MMO	Marine Management Organisation
NGTS	National Grid Technical Specification
OLEMP	Outline Landscape Environmental Management Plan
SAC	Special Area of Conservation
SCI	Site of Community Importance
SLVIA	Seascape, Landscape and Visual Impact Assessment
VE OWF	Five Estuaries Offshore Wind Farm

1. ISSUE SPECIFIC HEARING 3 (ISH3) – ENVIRONMENTAL MATTERS

TABLE 1.1: ACTION POINTS ARISING FROM ISH3

No	Party	Action	Deadline	Applicant's Response
1	Brooks Leney	To submit a note explaining: a) who Brooks Leney's clients are for the Five Estuaries Application; b) when Brooks Leney received its instructions to act for each of its clients for the Five Estuaries Application; and c) the Land Plots for the Five Estuaries' Application to which Brooks Leney's instructions relate	**18:00 on Friday 1 November 2024** (Submitted on 29 October 2024)	Action not for the Applicant.
2	Applicant	In relation to land drainage, provide an update with respect to the discussions that the Applicant and the Environment Agency are expected to have shortly	**Deadline 4**	The Applicant will provide an update on ongoing discussions with the Environment Agency for Deadline 4
3	Applicant	Submit copies of the plans showing the location of drainage and irrigation infrastructure it has been provided with by T Fairley and Sons Limited, Robert Fairley Limited and T and R Fairley Farming Partnerships	**Deadline 3**	These have been included in Appendix 1.
4	Applicant	Submission of a Technical Note for the proposed haul road between Bentley Road and the onshore substation zone indicating: a) all haul road routes that it is proposed would be used during the construction works; b) the specification, including surfacing materials, for the haul road, including any variations in the specification to accommodate lighter construction vehicles or Abnormal Indivisible Load deliveries; and c) the parts of the haul road that would be retained for the Proposed Development's operational phase and the parts that would be removed following the completion of the construction works	**Deadline 4**	This is being produced by the Applicant for Deadline 4.
5	Applicant, Harwich Harbour Fishermen's Association and possibly other local fishing organisations	The submission of a final and signed Statement of Common Ground	**Deadline 5**	This is being produced by the Applicant for Deadline 5.
6	Applicant	Submission of a noise assessment for any nighttime construction works at the junction between the A120 and Bentley Road	**Deadline 4**	The Applicant notes that given the time taken and the possible need for discussion with National Highways it may not be able to submit this at Deadline 4, but will endeavour to.
7	Applicant	Submission of an agreed Noise Investigation Protocol for the Five Estuaries, North Falls and East Anglia Connection Node projects	**Deadline 5 or sooner**	This is being produced by the Applicant for Deadline 5, although it will provide it sooner if possible.
8	Applicant	Submission of the full citations and data sheets for the Special Areas of Conservation, Special Protection Areas and Ramsar sites referred to in the Summary of Designated sites [APP-044]	**Deadline 3**	The citations and data sheets have been included in Appendix 2. For the sites listed below the citations could not be found, however they do have associated data sheets. The Applicant believes the citations could not be found for the following reasons:

No	Party	Action	Deadline	Applicant's Response
				> The Ramsar sites do not always have associated citations. We have the provided data sheets were available. > For transboundary sites, such as the Dutch and Belgium sites, only data sheets could be found. > Similarly, for the Southern North Sea SAC and Margate and Longsands SAC only data sheets could be found. Sites with missing or unavailable citations: > Abberton Reservoir Ramsar > Alde Ore Estuary Ramsar > Banc des Flandres SCI > Blackwater Estuary (Mid-Essex Coast Phase 4) Ramsar > Colne Estuary Ramsar > Deben Estuary Ramsar > Doggersbank (Netherlands) SAC > Foulness (Mid-Essex COAST PHASE 5) Ramsar > Hamford Water Ramsar > Klaverbank SCI > Margate and Long Sands SAC > Minsmere-Walberwick Ramsar > Noordzeekustone SCI > SBZ 1 SCI > SBZ 2 SCI > SBZ 3 SCI > Southern North Sea SAC > Stour and Orwell Estuaries Ramsar > Vlaamse Banken SAC > Vlakte van de Raan SCI > Voordelta SCI > Waddenzee SCI > Westerschelde and Saeftinghe SCI
9	Applicant	Submission of any evidence relating to ability/inability of different bird species to adapt to the presence offshore wind farm arrays	**Deadline 3**	Habituation is flagged as a knowledge gap in many recent reviews on offshore wind effects on birds. For example, a recent review by Williams (2024) flagged the following: *"Little is known about habituation over time; a degree of habituation has been observed in some sea duck species after 2–5 years in Denmark, thought to be related to food resource availability, but no habituation has been observed in other species*" A 2018 MMO project prepared by Natural Power on displacement and habituation of seabirds in response to marine activities found little data is available regarding seabird habituation. They found existing evidence relates exclusively to seaducks and divers. It was concluded that seaducks have a low habituation response, with some evidence from Danish wind farms of Eider and Scoter showing habituation, but no habituation for long-tailed duck. Red-throated divers were found to have a very low habituation response. In the same MMO study it was

No	Party	Action	Deadline	Applicant's Response
				concluded for skua and gulls that "*a lack of information relating to habituation was considered unlikely to influence the overall sensitivity* [to energy generation activities] *assessment (the potential for habituation is very limited where there is a very low displacement impact)*". The lack of habituation information was flagged as a low priority information gap for cormorant and terns (as they show low displacement) and a moderate priority information gap for tubenoses, grebes and auks (as they show moderate displacement impacts). Regarding avoidance behaviour around turbines (and blades) more generally, recent evidence states that collision with turbines is likely less severe than currently estimated. Recent studies looking into collision rates at offshore wind farms have consistently demonstrated that seabird avoidance is higher than currently modelled (Lang *et al.,* 2024), illustrating that assessments are undertaken on a highly precautionary basis. An industry-funded study (ORJIP, 2018) at the Thanet Offshore Wind Farm in the outer Thames estuary identified that collision risks was less than half of that expected, following analysis of over 12,000 videos of bird activity in the wind farm. A 2023 study at the Aberdeen Offshore Wind Demonstrator Centre (Vattenfall 2023) using radar and video tracks to monitor bird interactions at a unprecedented level. Over the two-year survey period over 10,000 birds were recorded with zero collisions. This study further supported the conclusions of the ORJIP (2018) study that meso-avoidance rates for key species including kittiwake, gannet and large gull species (including Lesser Black Backed Gull) are greater than currently accounted for by existing modelling. In terms of migratory species, a robust assessment was submitted at application which uses the best available tools to estimate collision risk to migratory birds. Although there is uncertainty over avoidance rates, the parameters used in the tool are precautionary, particularly the assumption that 100% of birds are flying within the rotor swept area for the majority of species. See Woodward et al. (2024) for the latest review of migratory birds collision risk. **References** Lang (2024): https://data.jncc.gov.uk/data/de5903fe-81c5-4a37-a5bc-387cf704924d/jncc-report-732-annex-4-follow-on-analysis.pdf Williams (2024): https://www.frontiersin.org/journals/marine-science/articles/10.3389/fmars.2024.1274052/full Natural Power (2018) (MMO1139): Displacement_and_habituation_of_seabirds_in_response_to_marine_activities.pdf (publishing.service.gov.uk) ORJIP Bird Collision Avoidance Study (2018): ORJIP Bird Collision Avoidance Study (pnnl.gov) Woodward et al. (2024): strategic-study-collision-risk-birds-migration-further-development-stochastic-collision-risk-modelling-tool-work-package-1-strategic-review-birds-migration-scottish-waters.pdf (www.gov.scot) Vattenfall (2023): AOWFL-Aberdeen Seabird Study (vattenfall.com)

No	Party	Action	Deadline	Applicant's Response
10	Applicant	Submission of an additional viewpoint from within the Dedham Vale Area of Outstanding Natural Beauty for the proposed onshore works, the location for which is to be agreed with Babergh District Council	**Deadline 5 or sooner**	This is being produced by the Applicant for Deadline 5, although it will provide it sooner if possible.
11	Applicant	Submission of indicative details of the fencing for the proposed onshore substation, having regard to National Grid Electricity Transmission's fencing "installation rules"	**Deadline 3**	National Grid Technical Specification – Substations NGTS 2.1 [included in Appendix 5] provides requirements for substation security fencing in sections 3.1.19 and 3.2, noting that site security provisions are specific to the substation site. For sites requiring high security it is the preference to follow BS EN 61011 (Safety Requirements for Mains Operated Electric Fence Energizers). Section C3 provides design notes to keep effects to 'reasonably practicable minimum'. Detailed design of the substation site and associated fencing will occur at a later stage, and will follow adhere to any relevant requirements and standards.
12	Applicant	Submission of an assessment of the cumulative traffic generation impacts under construction Scenario 3	**Deadline 3**	In lieu of updating an entire document to address the point; the Applicant has provided an excerpt of an updated cumulative assessment section of the 6.3.8 Traffic and Transport chapter [AS-043] in Appendix 3, which covers this Action Point and Action Point 13. The full document will be revised and submitted at a later deadline.
13	Applicant	Submission of a note indicating which energy generation projects were scoped out of the Transport Assessment submitted with the Five Estuaries Application, including the reasoning for the scoping out decisions	**Deadline 3**	As above.
14	Applicant	Assessing, with the assistance of National Highways, and reporting on the structural condition of the A120 and routeing options, in the context of the A120's proposed use as a route for Abnormal Indivisible Loads	**Deadline 5 or sooner**	This is being produced by the Applicant for Deadline 5, although it will provide it sooner if possible.
15	Applicant	Submit a note identifying the roads for which Essex County Council is the highway authority that would be the subject of condition surveys	**Deadline 3**	The Applicant is discussing these with Essex County Council as part of the updates required to the Outline Construction Traffic Management Plan and will provide the detail as part of a future submission of that document at either Deadline 4 or 5.

2. COMPULSORY ACQUISITION HEARING (CAH2) – COMPULSORY ACQUISITION

TABLE 2.1: ACTION POINTS ARISING FROM CAH2

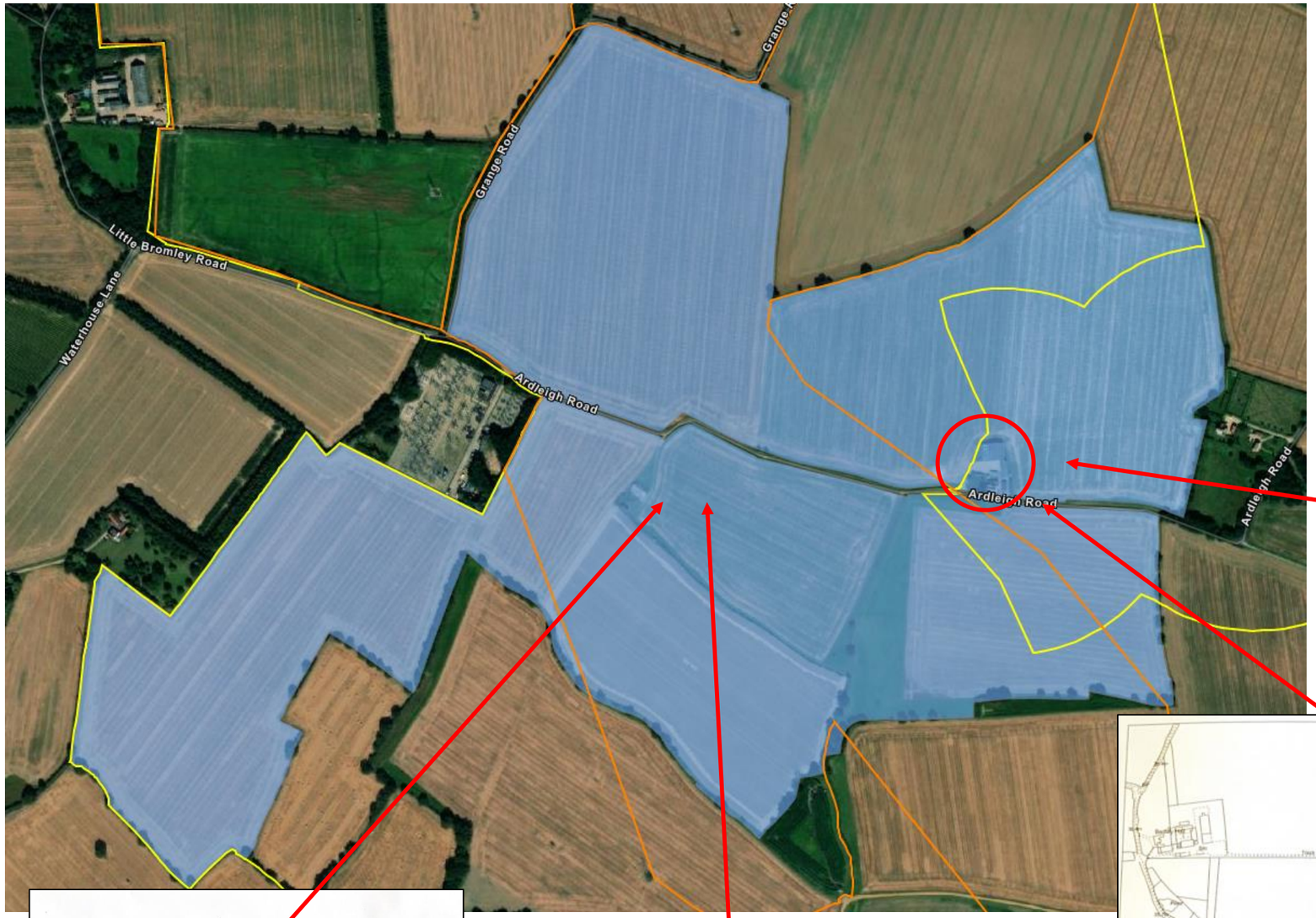
No.		Description	Deadline	Response
1	Applicant	Further to the submissions made on behalf of Strutt and Parker (Farms) Limited and the responses made to those submissions, submit a plan showing the location of the water main in the vicinity of the ponds in the vicinity of Land Plot 07-011 in [REP1-005].	**Deadline 3**	This has been included in Appendix 4.
2	Brooks Leney on behalf of its clients	To submit a plan/plans identifying any locations where Affected Persons consider the proposed onshore cable corridor's alignment might create *"pinch points"* affecting the ability of landowners or land occupiers to extend their businesses and/or bring forward alternative uses.	**Deadline 3**	Action not for the Applicant.
3	Applicant	Comment on any: a) implications the Court of Appeal's judgement (most particularly relating to Ground 1) in respect of FCC Environment UK Limited versus Secretary of State for Energy and Climate Change and Covanta Rookery South Limited ([2015 EWCA] Civ 55) might have for the Applicant's Compulsory Acquisition case; and b) other case law considered to be relevant to the Applicant's Compulsory Acquisition case.	**Deadline 4**	This is being produced by the Applicant for Deadline 4.
4	Applicant	To submit, on a without prejudice basis, a plan showing the revised screen planting for the perimeter of Land Plot 17-024 adjoining Norman's Farm house and yard under discussion with T Fairley and Sons Limited. That plan's submission should be accompanied by a description of the size, age and species of the trees and shrubs that would comprise the screen planting.	**Deadline 3**	The Applicant is not able to submit a plan for Deadline 3. As stated at the CAH2 the Applicant is looking at possible alternative screening options around the perimeter of Land Plot 17-024 and seeking to engage the landowner on these. The Applicant proposes to provide an update on these discussions, and if possible, a without prejudice plan (or mark up), including details on potential planting types which could be used at Deadline 4 (this is unlikely to be a full update to the OLEMP). Noting that these are indicative screening/planting plans, which would be revised following detailed design and additional engagement prior to construction.
5	Strutt and Parker (Farms) Limited and Liana Enterprises Limited	To submit a location plan and a summary description for the proposed development that is being promoted as part of Tendring District Council's development plan.	**Deadline 3**	Action not for the Applicant.
6	Applicant	To clarify National Highways ownership in relation to the A120's subsoil.	**Deadline 3**	In the post CAH1 hearing submission by National Highways [REP1-066], National Highways note that: *"the subsoil beneath the A120 is owned by National Highways and has not been included in the Book of Reference"* The subsoil of land plot 12-012, which is the land plot crossing the A120, has been recorded in the Book of Reference [REP1-012] by the Applicant with the freehold owner as John Harvey Jiggens of Bradfield Lodge, Clacton Road, Horsley Cross, Manningtree, Essex, CO11 2NS (in respect of subsoil beneath full width of public highway), with National Highways Limited recorded as highway authority. National Highways have previously advised the Applicant that the land plot is "*an unregistered piece of land, forming part of the operational estate and located on the A120 which is managed and maintainable at public expense by National Highways*". The

				Applicant's diligent enquiries have concluded that the freehold is owned by John Harvey Jiggens of Bradfield Lodge (as noted above) under the principle of ad medium filum. The *ad medium filum* rule is a legal principle that applies to the ownership of unregistered roads or watercourses. According to this rule, when land abuts a highway or road that is unregistered and does not have a clearly defined owner, each adjoining landowner is presumed to own up to the middle of the road (the *filum* or centreline) from their respective boundary. For other plots where National Highways owns the title it is assumed that they already have the subsoil interest therefore no qualifier is required "(in respect of subsoil beneath full width of public highway)". If National Highways are able to exhibit title then the Applicant will update the Book of Reference.
7	Any Affected Persons that attended CAH2 and the Applicant	Identify any sites you would wish the Examining Authority to inspect either on the basis of an Access Required Site Inspection (ie involving the Examining Authority's entry onto private land with the owner's and/or occupier's consent) or as part of an Unaccompanied Site Inspection to be conducted from publicly accessible land.	**Deadline 3**	The Applicant is aware the ExA has already conducted an unaccompanied site inspection, during which the landfall and onshore substation areas were seen. In order to assist in some of the discussion points raised at hearings and to demonstrate our position, the Applicant would like to suggest the following locations for inspection: > Barlon Road near Little Bromley viewpoint 5 [APP–188 and APP-180 figure 2.16] – to demonstrate the effectiveness of landscape proposals around the field southeast of the substations; > Essex Way Dedham Road viewpoint 9 [APP-194 and APP-180 figure 2.16] – to reiterate the distance and separation from the proposed substation and the Dedham Vale AONB; > Drive through Bentley Road from A120 junction – to inspect the junction and the current conditions of Bentley Road; > SLVIA viewpoint 6 Aldeburgh [APP-209 and APP-200 figure 10.6] – to reiterate the minimum change impact on seascape and to demonstrate the visibility of existing windfarms.

3. APPENDIX 1: ISH3, ACTION POINT 3 – DRAINAGE AND IRRIGATION PLANS

3.1.1 Plans showing the location of drainage and irrigation infrastructure it has been provided with as provided by T Fairley and Sons Limited, Robert Fairley Limited and T and R Fairley Farming Partnerships to the Applicant.

3.2 J FAIRLEY & SONS LIMITED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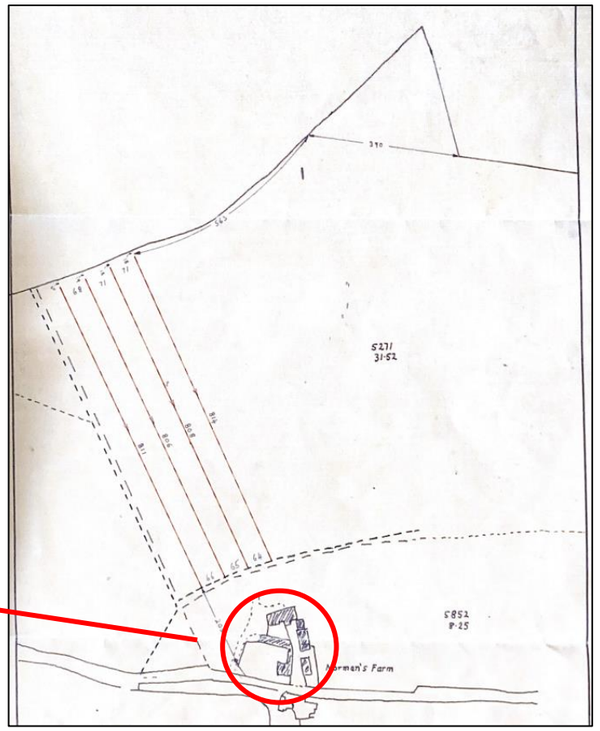
Waterhouse Lane
Ardleigh Road
Ardleigh Road
Ardleigh Road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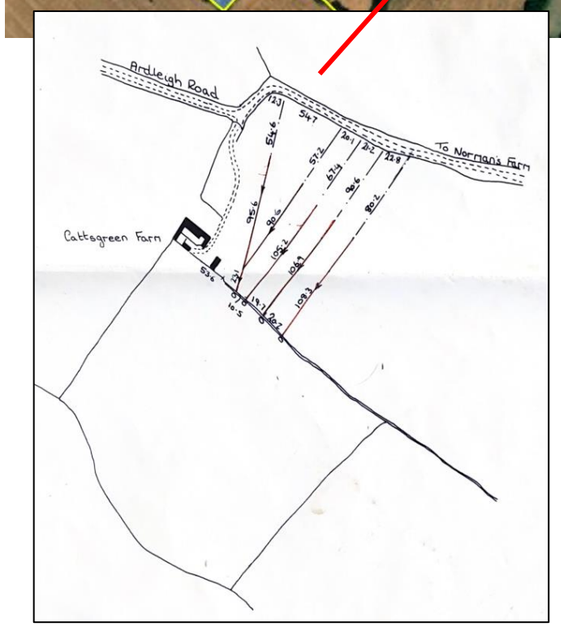
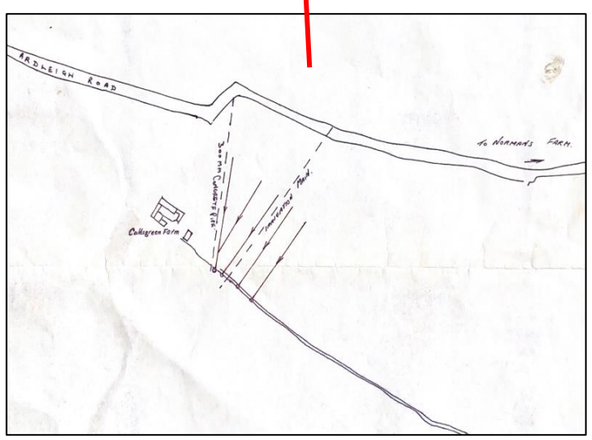
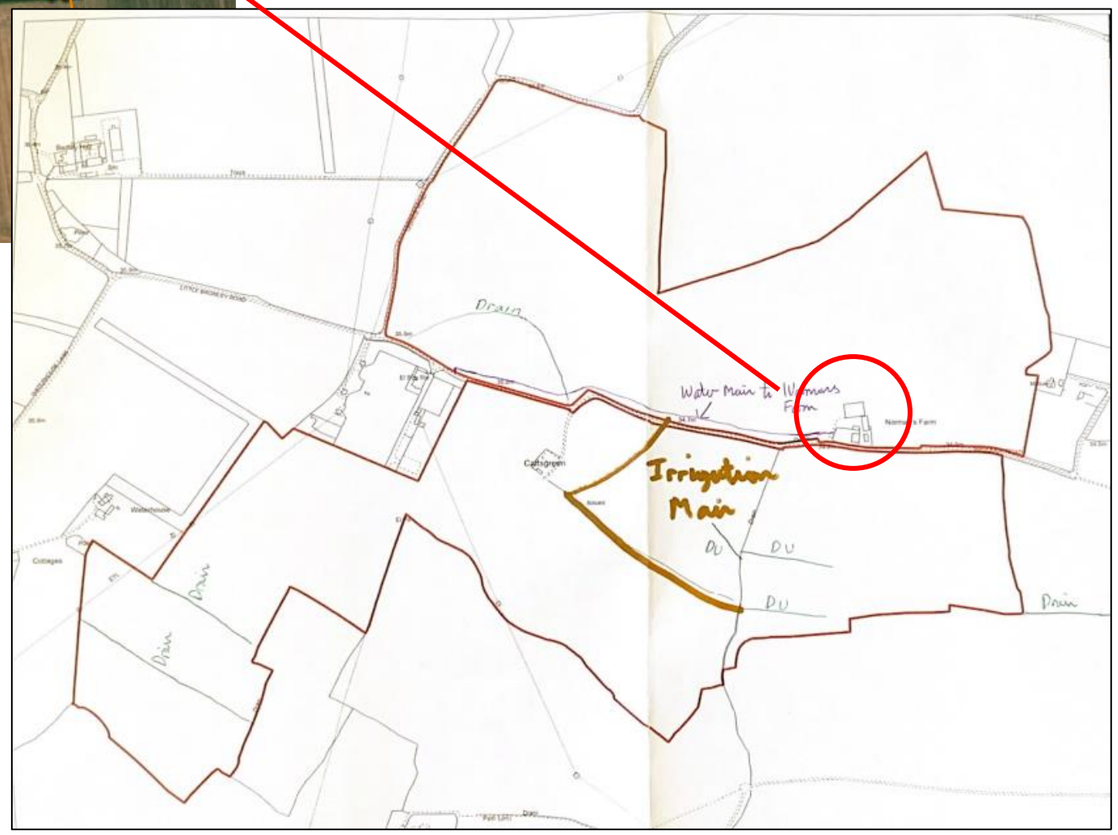
31-52
5852
P-25
Norman's Farm


Ardleigh Road
To Norman's Farm
Cattsgreen Farm


ARDLEIGH ROAD
to Normans Farm
Cattsgreen Farm

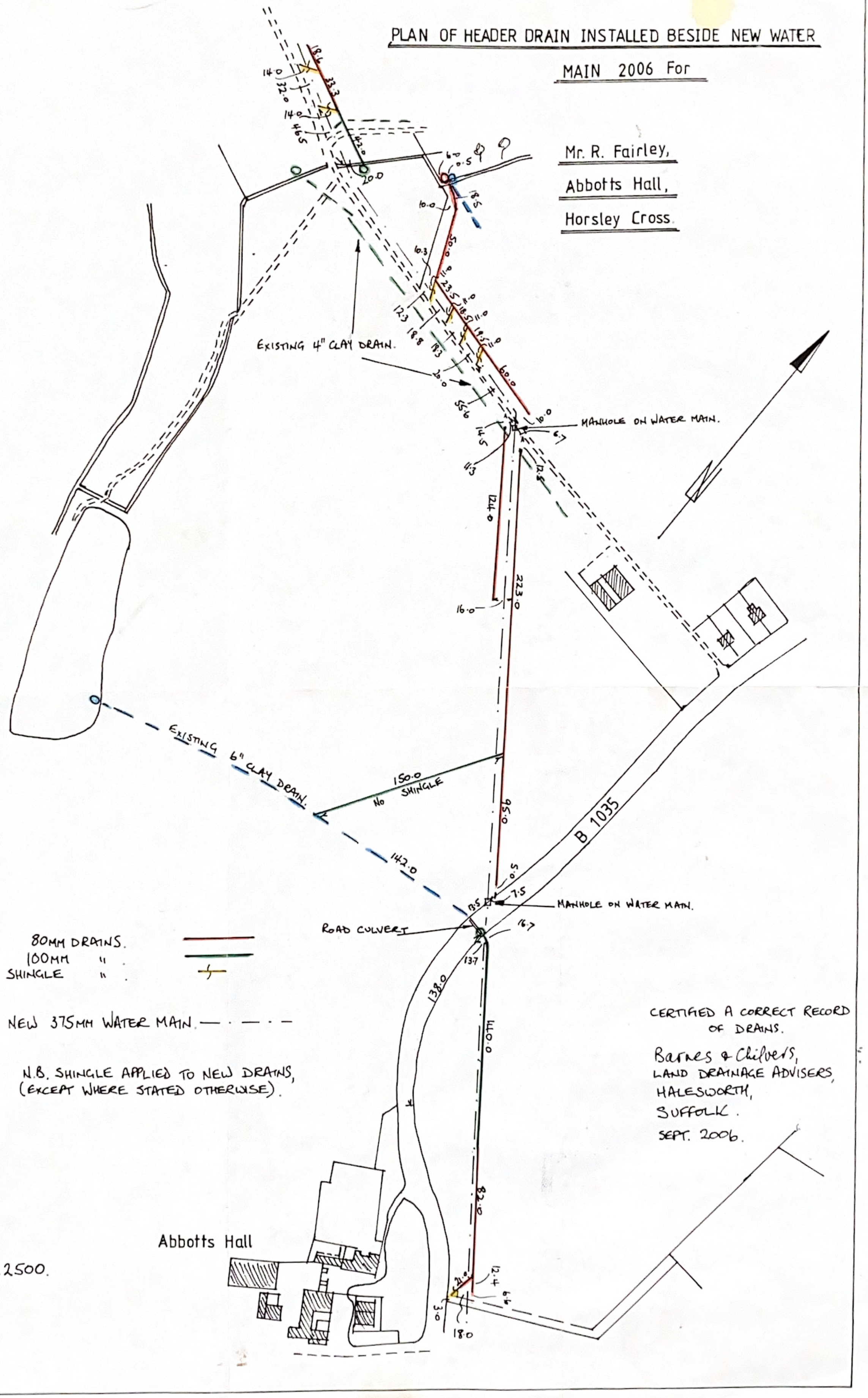

Drain
Water Main to Norman's Farm
Irrigation Main
DU
DU
DU
Drain
Drain
Drain


Grange Road
Ardleigh Road
Ardleigh Road
Ardleigh Road

3.3 ROBERT FAIRLEY LIMITED

PLAN OF HEADER DRAIN INSTALLED BESIDE NEW WATER MAIN 2006 For

Mr. R. Fairley,
Abbotts Hall,
Horsley Cross.



80MM DRAINS.
100MM " .
SHINGLE " .

NEW 375MM WATER MAIN. — · — · —

N.B. SHINGLE APPLIED TO NEW DRAINS, (EXCEPT WHERE STATED OTHERWISE).

SCALE 1:2500.

CERTIFIED A CORRECT RECORD OF DRAINS.

Barnes & Chilvers,
LAND DRAINAGE ADVISERS,
HALESWORTH,
SUFFOLK.
SEPT. 2006.

D U

30
22·2·32

as marked
61 yard
Hasele end

FAULT
116 yard
UP

9¼ ac
1919 - 20
2 rod opl
2 ft deep

Hollow

31
2·0·31

Abt 10 ac drd
2 rod apt
1915 - 16

22
21·0·2

Well

21
4·3·27

ABBOTT'S HALL

23
5·1·10

Pond

24
3·1·20

26
- 3·31

Drain cut 1929
Bank levelled

White Thorn Stubbs

Old drain. Derivation unknown but presumed to run as marked

29
20·0·33

Title
394

29
20·207

Title
349

16
18-0·37

Abt 11 ac drd
2 rod apt
1915 - 16

19
0·0·12

18
4·0·0

17
3·1·3

Title
402

Title
401

2 758

14
13·0·33

Title 404
" 405

CROSS INN

13
-2-14

9
26·652

9
26·2·24

Title
414

Abt 8 ac
2 rod apt
1915 - 16

8
2·3·1

DRAINAGE SCHEME FOR

FAIRLEY BROS

KING'S FARM, HORSLEY CROSS

REFERENCE				
DIAM	PROPOSED	EXISTING	DEPTH	METRES
60mm		—	810mm	1690.0
160mm		—	910mm	14.0
30mm		—	810mm	1934
STONE FROM G.L				
MOLING SUB SOILING				

DITCH SIZE BEFORE EXCAVATION 3.6m x 1.2m x 0.6m
AFTER " 4.0m x 1.6m x 1.0m

I hereby certify this to be a true and accurate record of the drains laid on the above scheme

Date 27/4/84

SCALE 1:2500

DRAWN BY

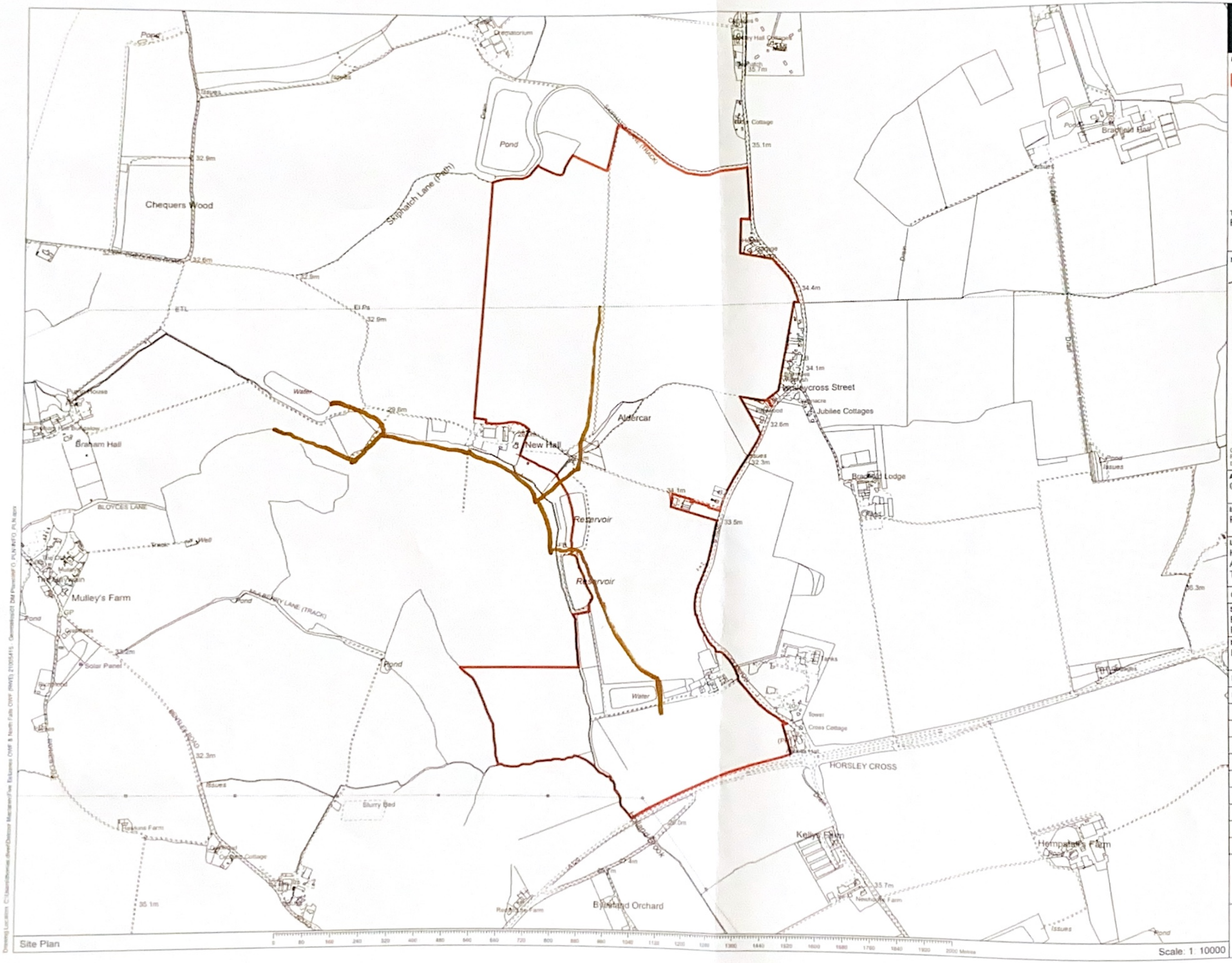
MINISTRY REF

SITE ABBOTT'S HALL

EDITION 1959

SHEET No TM 1127

ANGLIAN LAND DRAINAGE LTD.
WITHAM, ESSEX
TEL (0376) 519373



DALCOUR MACLAREN

Key:

Area of Ownership

Title Number(s):
EX611605

Notes:
Irrigation Main

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936

Agent Name:
Gwyn Church

Interest:
Robert Fairley Limited

Location:
Horsley Cross Car Boot Sale, Clacton Road, Abbotts Hall, Mistley, Horsley Cross, Tendring, Essex, CO11 2NX

Coords: 611849, 228235

Scheme Name:
Five Estuaries Offshore Windfarm / North Falls Offshore Windfarm

Drawing Name:
Information Plan

Drawing No: 21005415_PLN_INFO_1587.1

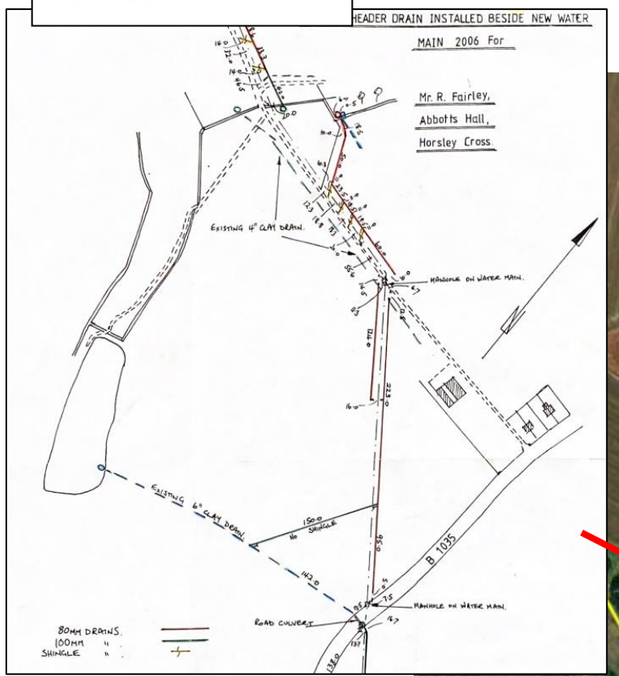
Rev	Date	Description
	29.03.2023	First Issue

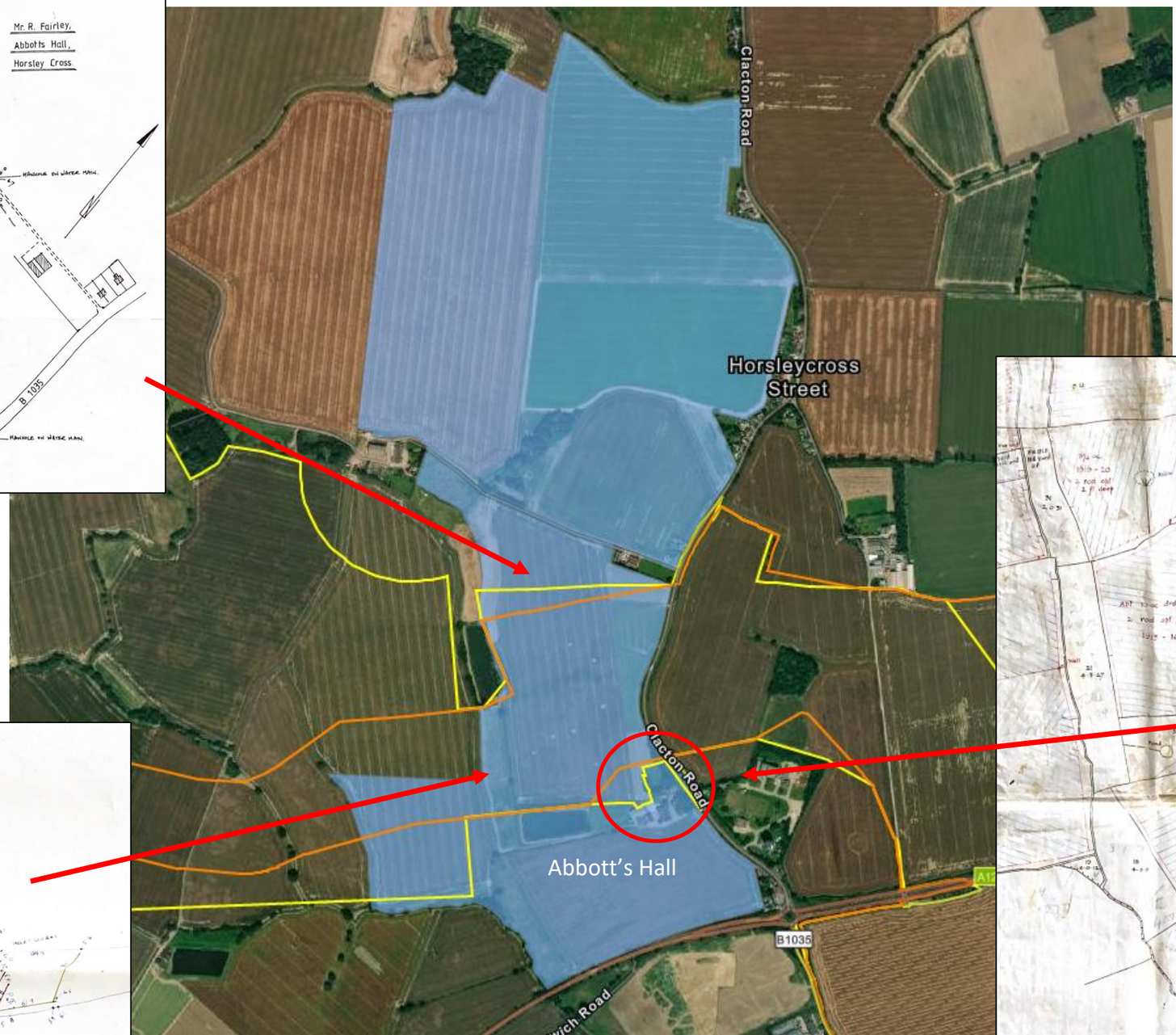
Drawn:	TD
Approved:	PF
Sheet No:	1 of 1
Sheet Size:	A3

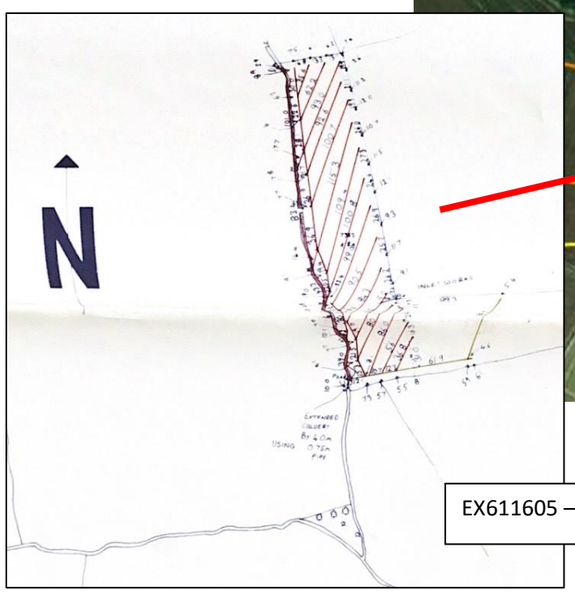
FIVE ESTUARIES

NORTH FALLS

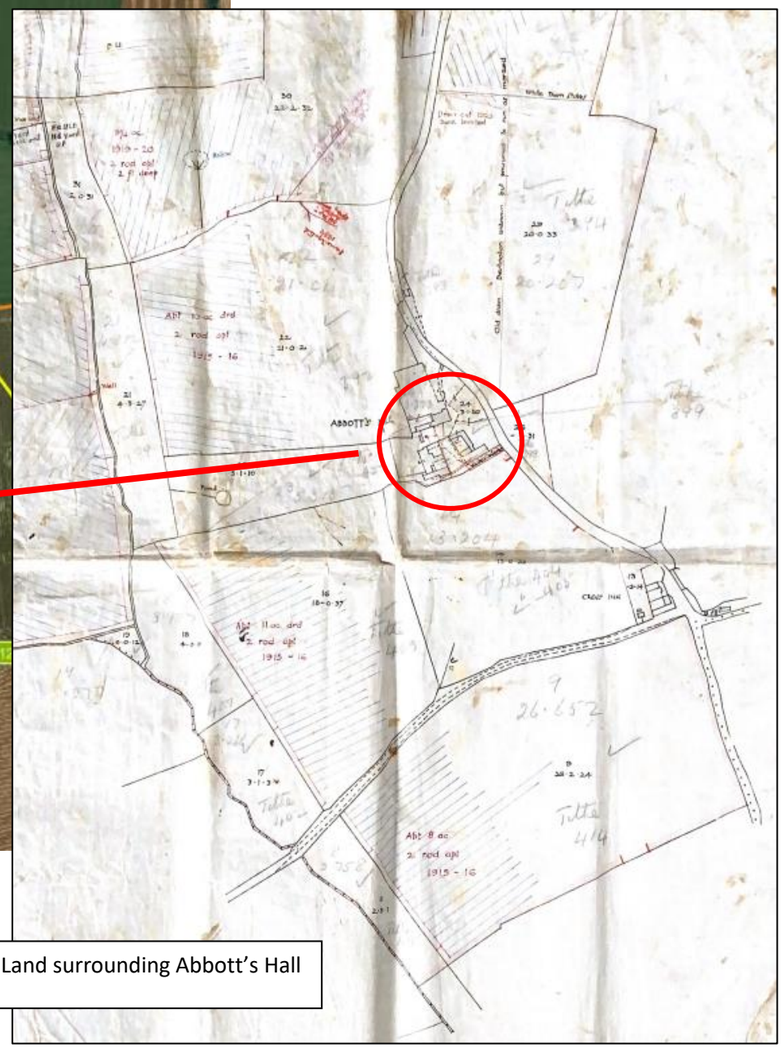
EX611605 – Northern area within field.







EX611605 – Whole field.



EX611605 – Land surrounding Abbott's Hall

DALCOUR MACLAREN

Key

Area of Ownership

Title Number(s):
EX611605

Notes:
Irrigation Main

Agent Name:
Gwyn Church

Interest:
Robert Fairley Limited

Location:
Horsley Cross Car Boot Sale, Clacton Road
Abbotts Hall, Mistley, Horsley Cross,
Tendring, Essex, CO11 2NX

Coords: 611849, 226235

Scheme Name:
Five Estuaries Offshore Windfarm / North Falls Offshore Windfarm

Drawing Name:
Information Plan

Drawing No: 21005413_PLN_INFO_1587 1

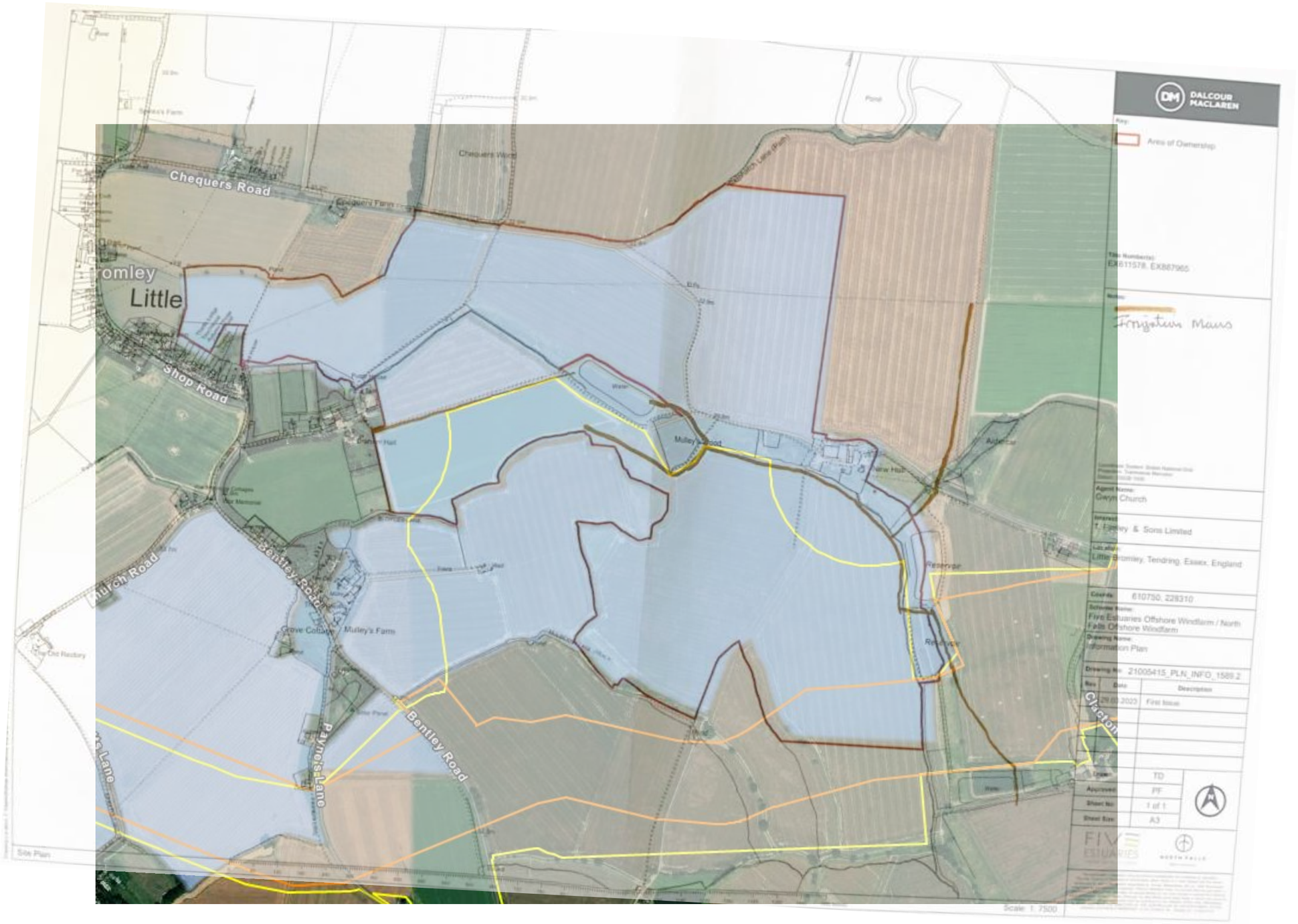
Rev	Date	Description
	29.03.2023	First Issue

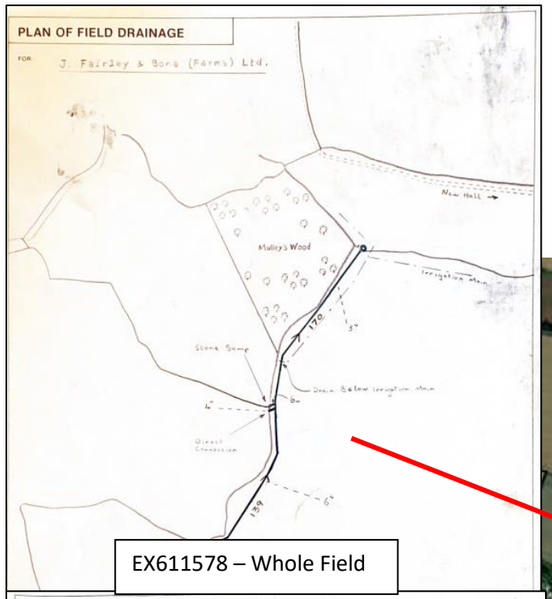
Drawn	TD
Approved	PF
Sheet No:	1 of 1
Sheet Size:	A3

FIVE ESTUARIES

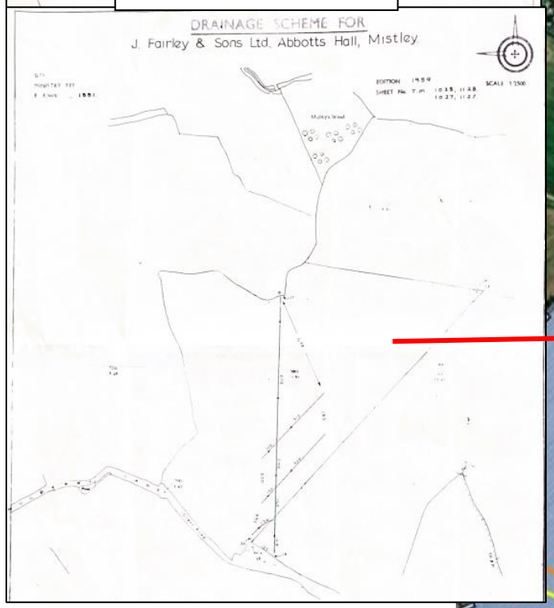
NORTH FALLS

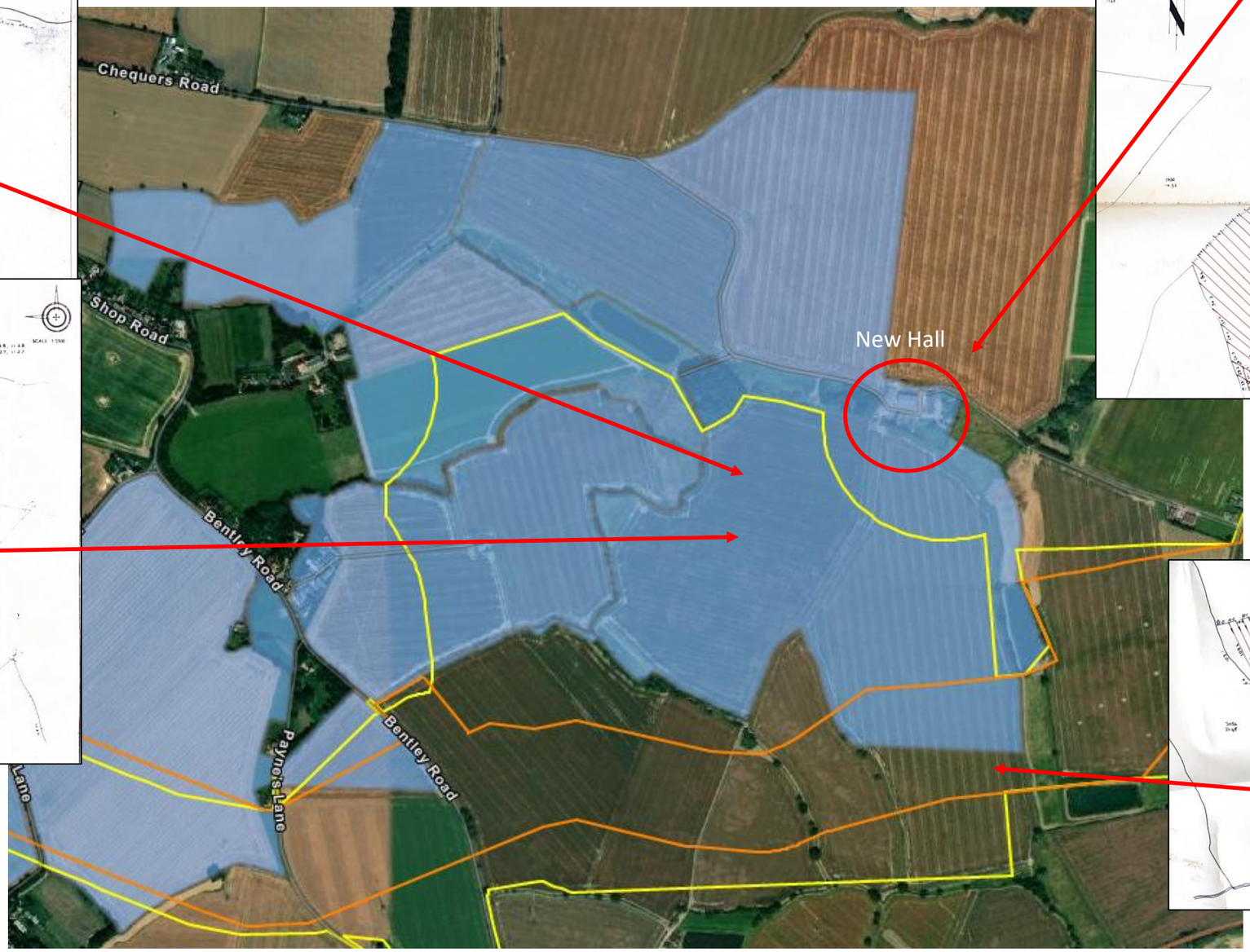
3.4 T. FAIRLEY & SONS LIMITED

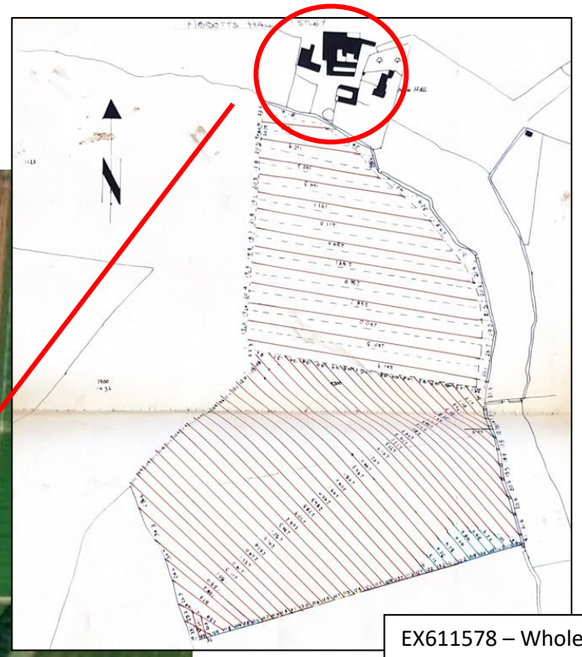

Chequers Road
Little
Shop Road
Church Road
Bentley Road
Payne's Lane
Grove Cottage
Muley's Farm
Reservoir
DALCOUR MACLAREN
Area of Ownership
Site Plan
Scale: 1: 7500



EX611578 – Whole Field





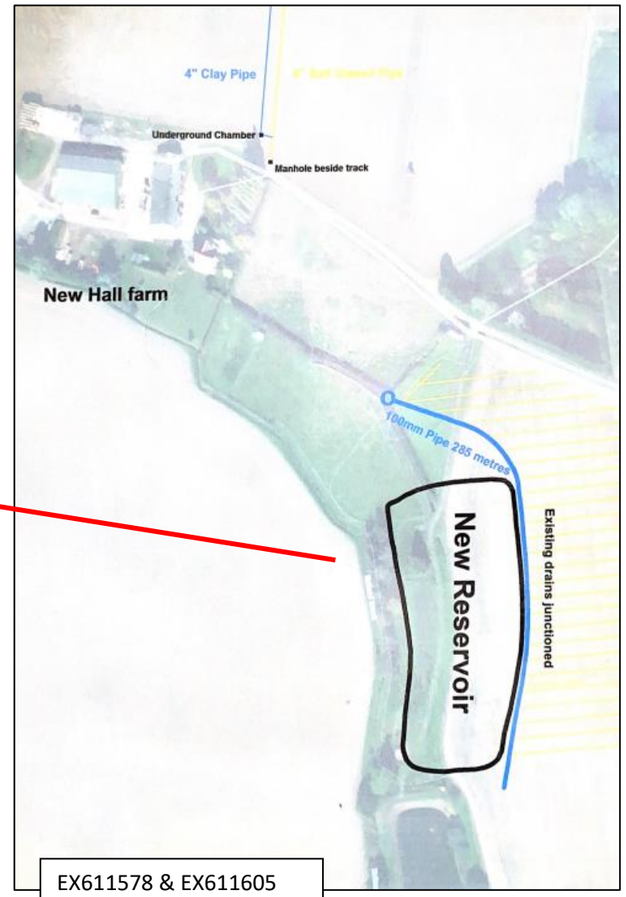


EX611578 – Whole Field

EX611578 & EX611605


New Hall
Clacton Road
Horsleycross Street
Bentley Road
Payne's Lane
Bentley Road


ABBOTT'S HALL & NEW HALL FARMS · MISTLEY.
PLAN OF LAND DRAINS.



EX611578 & EX611605

DALCOUR MACLAREN

Key:

Area of Ownership

Title Number(s):
EX611253

Notes:
Irrigation Mains
Water Main

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936

Agent Name:
Gwyn Church

Interest:
T. Fairley & Sons Limited

Location:
Ardleigh Road, Little Bromley, Tendring, Essex, CO11 2QA

Coords: 607983, 228491

Scheme Name:
Five Estuaries Offshore Windfarm / North Falls Offshore Windfarm

Drawing Name:
Information Plan

Drawing No: 21005415_PLN_INFO_1589.1

Rev	Date	Description
-	29.03.2023	First Issue

Drawn:	TD
Approved:	PF
Sheet No:	1 of 1
Sheet Size:	A3

FIVE ESTUARIES OFFSHORE WIND FARM

NORTH FALLS OFFSHORE WINDFARM

DRAINAGE SCHEME FOR

MESSRS J. FAIRLY & SONS.

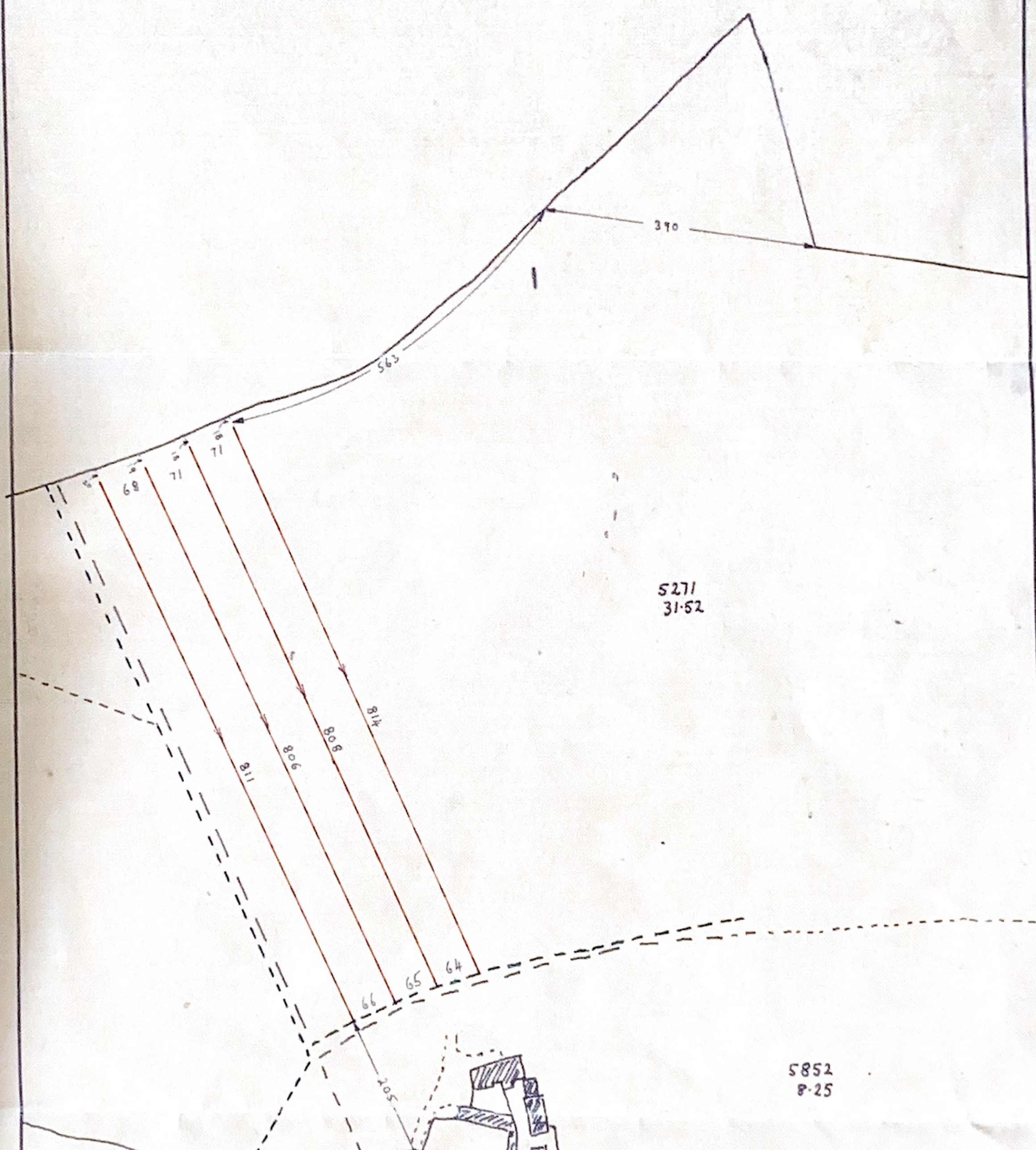
SITE NORMANS FARM ABBOTS HALL, MISTLEY

MINISTRY REF. 13/325/8/CG/3

SCALE 1/2500

EDITION 1959

SHEET No. T.M. 0728-0828



REFERENCE		FINAL CHAINAGE
	PROPOSED EXISTING	
3" DIAM. PIPES		3239 feet 49 chains
4" " "		" "
6" " "		" "
9" " "		" "
CATCHPITS		
MOLING		inches deep
BULLDOZING		

Reproduced from the ordnance survey by permission of H.M. Stationery Office.

Scheme subject to minor alterations during progress of work.

I hereby certify this to be a true and accurate record of the drains laid in the above scheme

Date 22/Sept/1971 .....

A L D

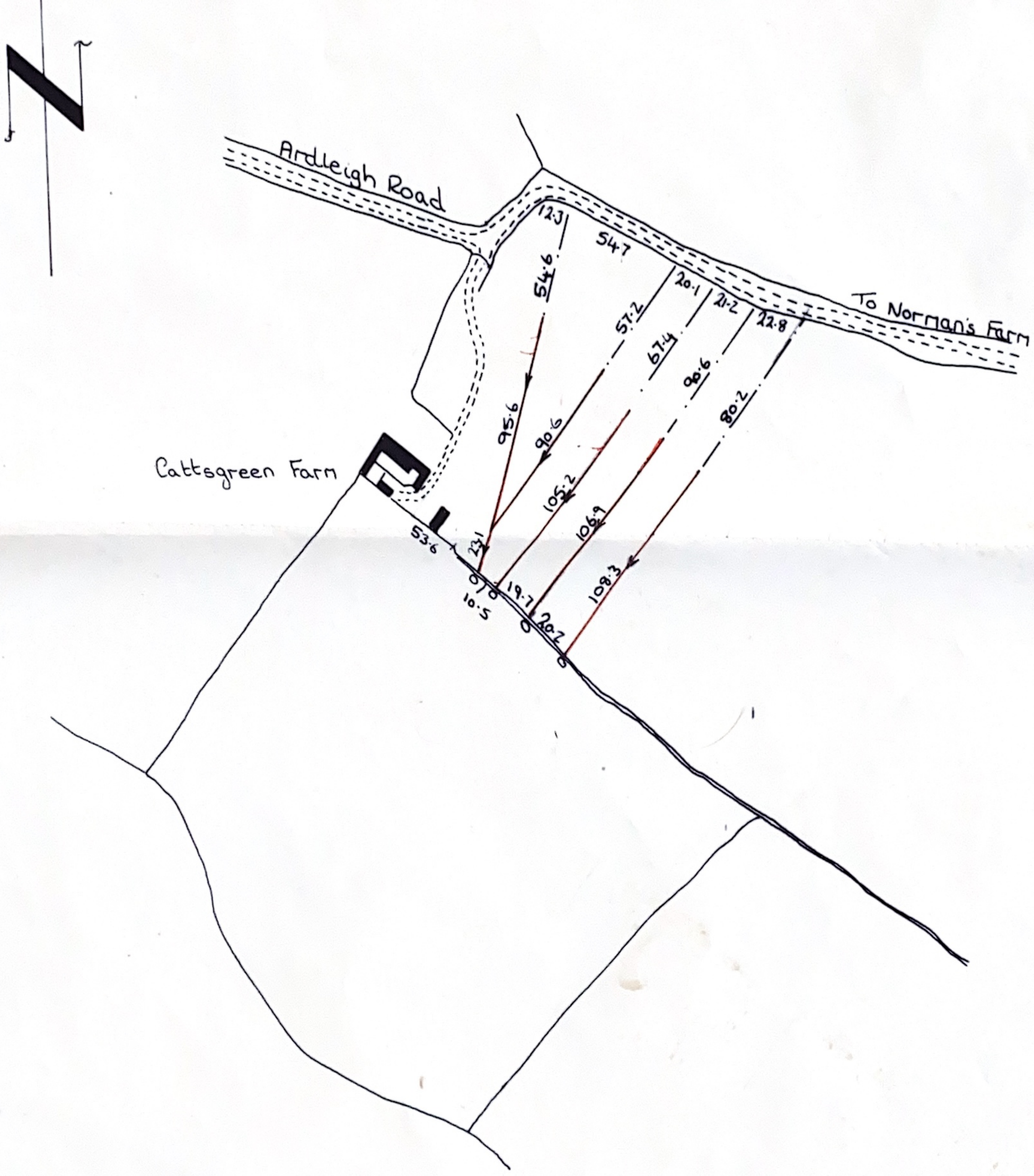
LAND DRAINAGE CONTRACTORS,

NM1792

DRAINAGE SCHEME FOR

J. Fairley & Sons

Abbotts Hall Farm



REFERENCE

60 mm DIAM. PIPES
mm " "
mm " "
mm " "
STONE FROM GROUND LEVEL
MOLING–SUBSOILING
DITCHING

	PROPOSED	EXISTING	DEPTH	
				529·7M

MINISTRY REF:-

SITE

EDITION 1960

SHEET No. TM 0728 TM 0928

ANGLIAN LAND DRAINAGE LTD.

WITHAM, ESSEX
TEL. 0621 892102

I hereby certify this to be a true and accurate record of the drains laid in the above scheme.

Date ..... W S Knight .....

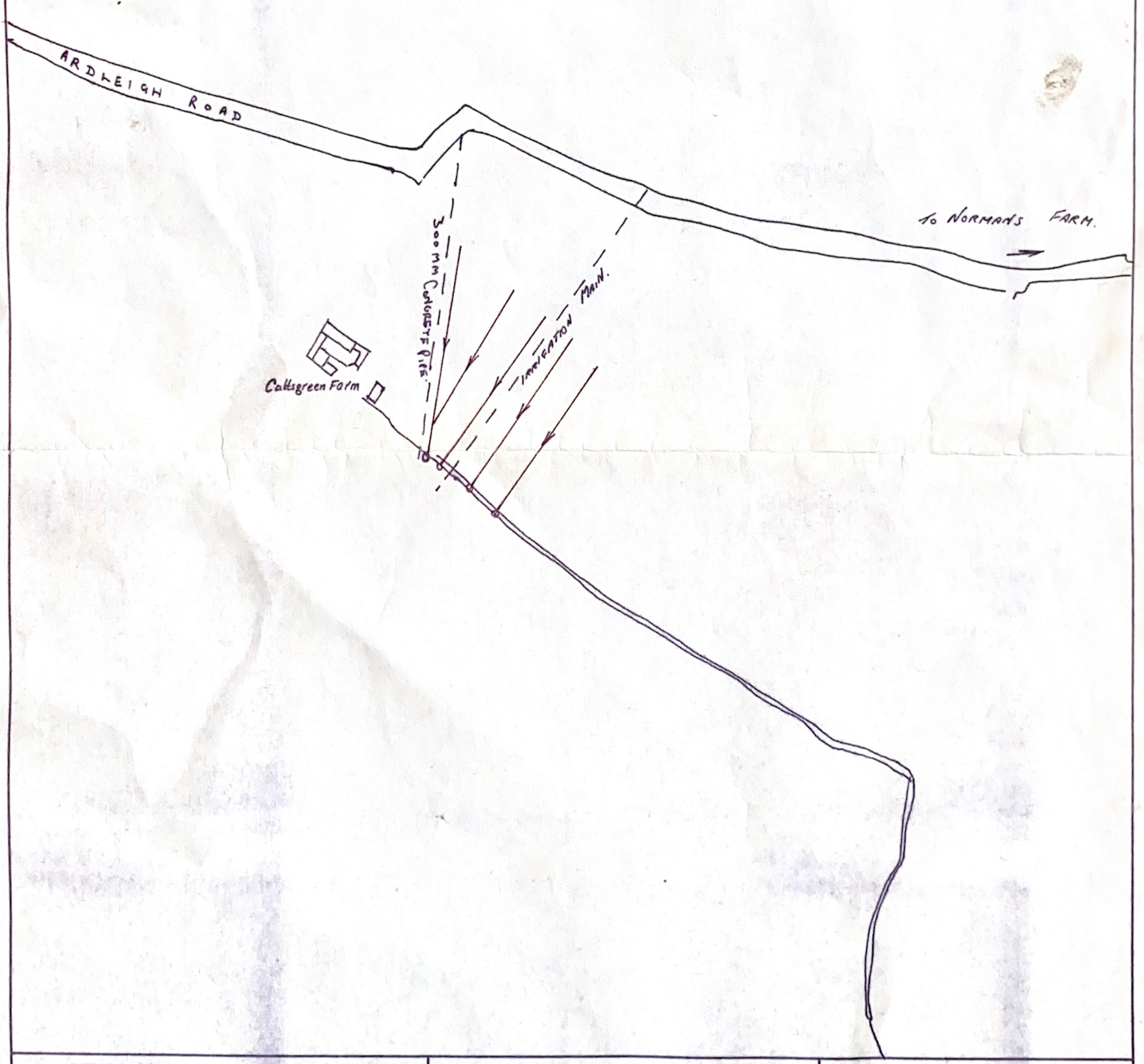
SCALE 1/2500

AF 21371177

DRAINAGE SCHEME FOR

MR. FAIRLEY

ABBOTTS HALL FARM G. BENTLEY.



REFERENCE

	PROPOSED	EXISTING	DEPTH	
600 mm DIAM. PIPES				570
mm " "				
mm " "				
mm " "				
STONE FROM GROUND LEVEL				
MOLING–SUBSOILING				
DITCHING				

MINISTRY REF:-

SITE NORMANS FARM.

EDITION

SHEET No. T.M 0728 0628

ANGLIAN LAND DRAINAGE LTD.

WITHAM, ESSEX

TEL. 0621 892102

I hereby certify this to be a true and accurate record of the drains laid in the above scheme.

Date .....

SCALE 1/2500

DAF 21371/77

DRAINAGE SCHEME FOR

MESSRS. J. FAIRLEY & SONS, LIMITED, ABBOTTS HALL, MISTLEY, ESSEX

SITE NORMANS FARM, ARDLEIGH.

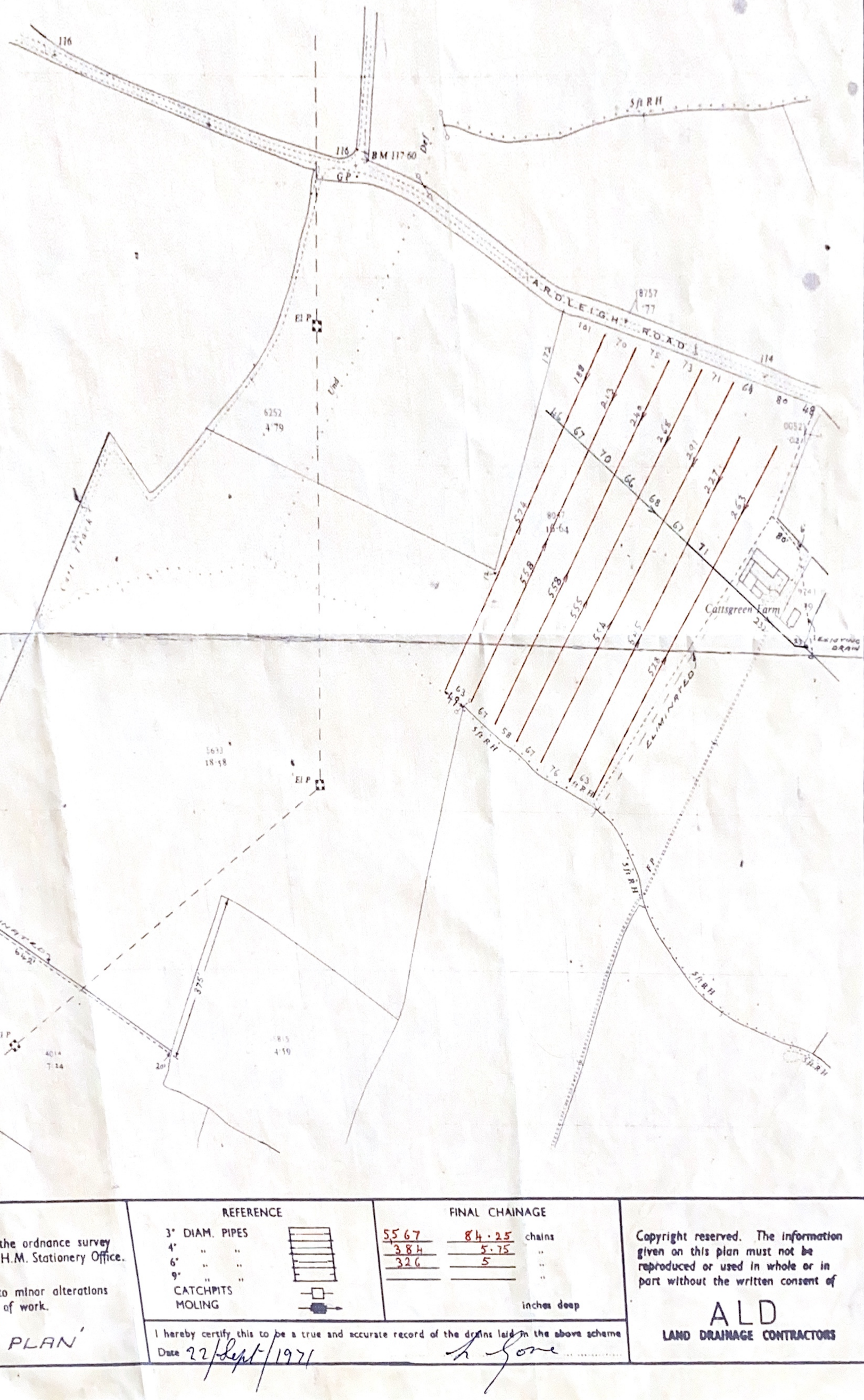
MINISTRY REF. 13/325/8/TD/40

F. F/WK "

EDITION 1959

SHEET No. TM 0728.

SCALE 1/2500



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Scheme subject to minor alterations during progress of work.

'FINAL PLAN'

REFERENCE

3" DIAM. PIPES
4" " "
6" " "
9" " "
CATCHPITS
MOLING

FINAL CHAINAGE

5567	84·25	chains
384	5·75	"
326	5	"
		"

inches deep

I hereby certify this to be a true and accurate record of the drains laid in the above scheme

Date 22/Sept/1971

DRAINAGE SCHEME FOR

Messrs J Fairley & Sons Abbotts Hall Mistley.

SITE

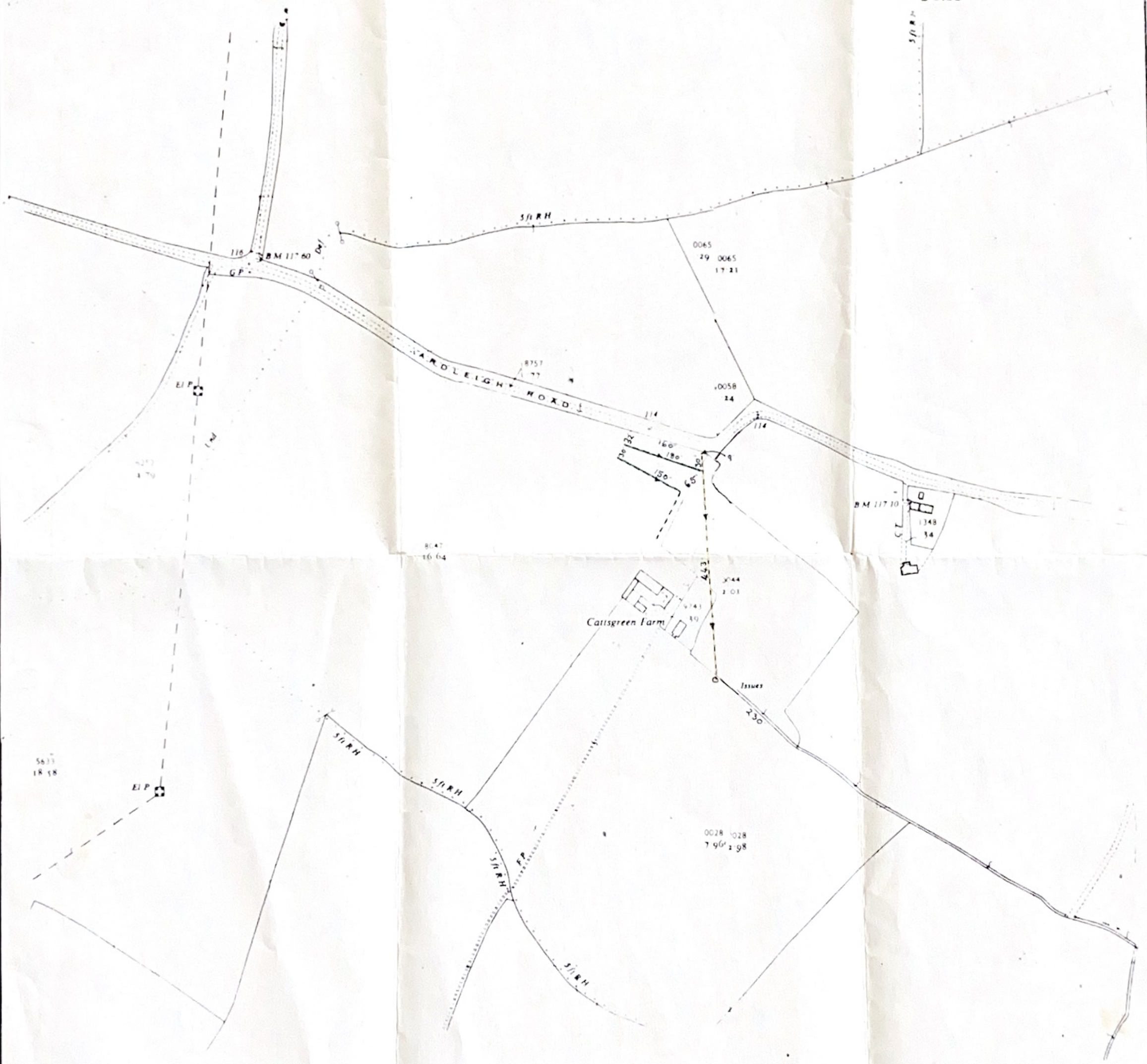
MINISTRY REF.

F F/WK .. 1674

EDITION 1959

SHEET No. T.M. 0728
0828

SCALE 1/2500



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Scheme subject to minor alterations during progress of work.

FINAL PLAN.

REFERENCE

3" DIAM. PIPES
4" .. ..
6" .. ..
9" .. ..
CATCHPITS
MOLING

FINAL CHAINAGE

330' = 5 chains
.. ..
473' = 7 ..

inches deep

I hereby certify this to be a true and accurate record of the drains laid in the above scheme

Date 14/NOV/67

DRAINAGE SCHEME FOR

MESSRS. J. FAIRLEY & SONS, LIMITED, ABBOTTS HALL, MISTLEY, ESSEX

SITE NORMANS FARM, ARDLEIGH.
MINISTRY REF. 13/325/B/TD.8.
F. F/WK . 1551

EDITION 1959
SHEET No. TM 0728.

SCALE 1/2500

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Scheme subject to minor alterations during progress of work.

'FINAL PLAN'

REFERENCE

3" DIAM. PIPES
4" .. ..
6" .. ..
9" .. ..
CATCHPITS
MOLING

FINAL CHAINAGE

31 CHNS. - 61 LKS. chains
.. ..
.. ..
.. ..
inches deep

I hereby certify this to be a true and accurate record of the drains laid in the above scheme

Date 4th February 1966 D. F. Collis

DRAINAGE SCHEME FOR

MESSRS. J. FAIRLEY & SONS, LIMITED, ABBOTTS HALL, MISTLEY, ESSEX.

SITE NORMANS FARM, ARDLEIGH.
MINISTRY REF. 13/325/8/TO. 8.
F. F/WK " 1551.

EDITION 1959
SHEET No. TM 0827.

SCALE 1/2500

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Scheme subject to minor alterations during progress of work.

'FINAL PLAN'

REFERENCE

3" DIAM. PIPES
4" " "
6" " "
9" " "
CATCHPITS
MOLING

FINAL CHAINAGE

chains
"
"
"
inches deep

I hereby certify this to be a true and accurate record of the drains laid in the above scheme

Date 14th February 1946 D. F. Fisons

DALCOUR MACLAREN

Key:

Area of Ownership

Title Number(s):
EX611578, EX887965

Notes:
Irrigation Mains

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936

Agent Name:
Gwyn Church

Interest:
T. Fairley & Sons Limited

Location:
Little Bromley, Tendring, Essex, England

Coords: 610750, 228310

Scheme Name:
Five Estuaries Offshore Windfarm / North Falls Offshore Windfarm

Drawing Name:
Information Plan

Drawing No: 21005415_PLN_INFO_1589.2

Rev	Date	Description
-	29.03.2023	First Issue

Drawn:	TD
Approved:	PF
Sheet No:	1 of 1
Sheet Size:	A3

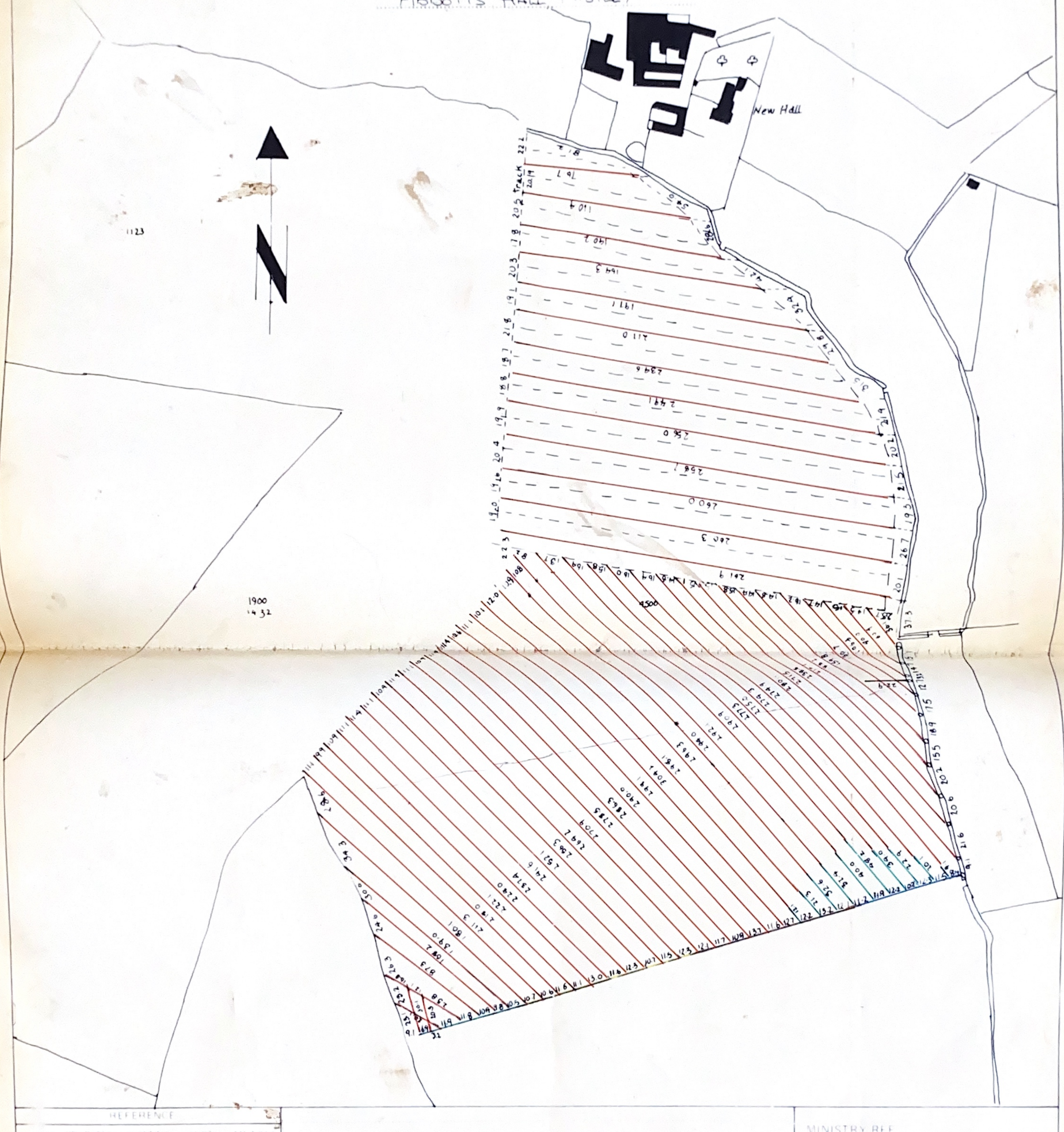
FIVE ESTUARIES OFFSHORE WIND FARM

NORTH FALLS OFFSHORE WIND FARM

DRAINAGE SCHEME FOR

J FAIRLEY AND SONS

ABBOTTS HALL, MISTLEY



REFERENCE				
M	PROPOSED	EXISTING	DEPTH	METRES
60	——		0 900	11,523.5
80	——		0 900	3385
100	——		1 000	115 4
125	——		1 000	1337
175	——		1 000	782
STONE FROM G L				
MOLING SUB SOILING				

I hereby certify that this is a true and accurate record of the lines of the above scheme

31st August 81. D. Clyde

SCALE 1 2500

DRAWN BY

MINISTRY REF

SITE NEW HALL

EDITION 1960

SHEET No TM 1127
1128

ANGLIAN LAND DRAINAGE LTD.

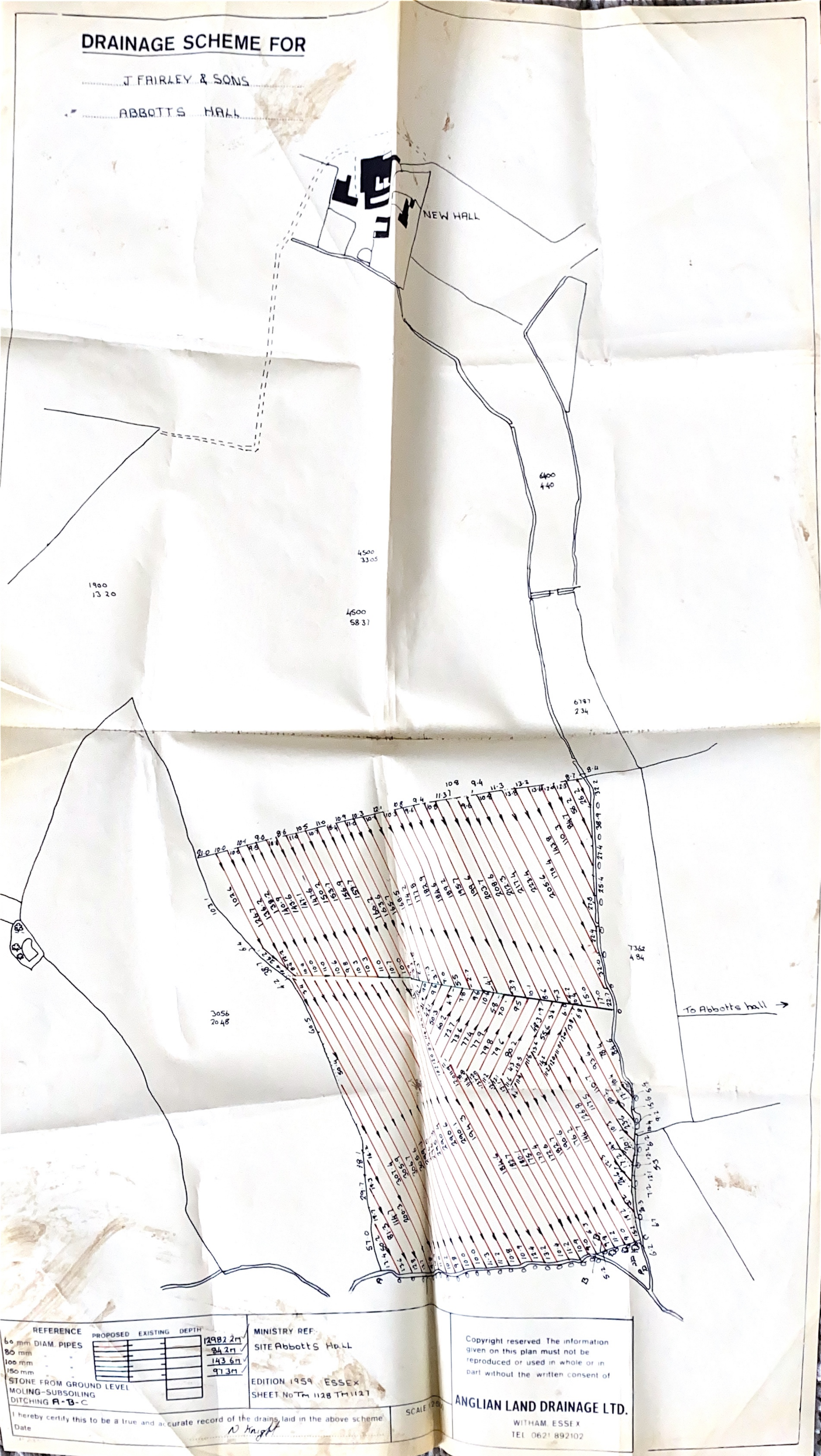
WITHAM ESSEX

TEL 0621 892102

DRAINAGE SCHEME FOR

J FAIRLEY & SONS

ABBOTTS HALL



REFERENCE	PROPOSED	EXISTING	DEPTH	
60 mm DIAM. PIPES				1298·2m
80 mm " "				84·2m
100 mm " "				143·6m
150 mm " "				97·3m

STONE FROM GROUND LEVEL
MOLING-SUBSOILING
DITCHING A-B-C

MINISTRY REF:

SITE Abbotts Hall

EDITION 1959 ESSEX

SHEET No TM 1128 TM1127

I hereby certify this to be a true and accurate record of the drains laid in the above scheme

Date ..... N Knight

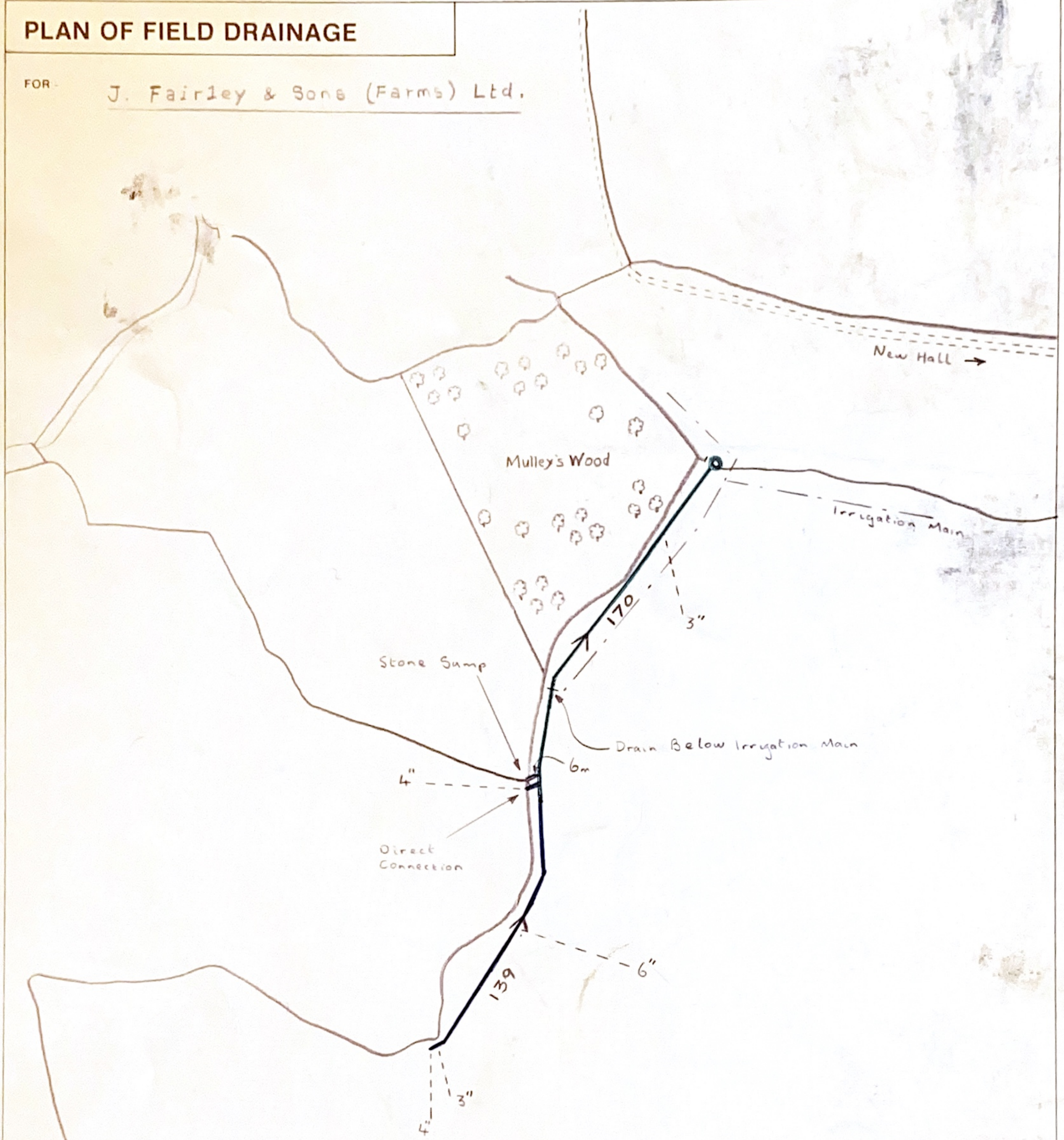
SCALE 1:250

ANGLIAN LAND DRAINAGE LTD.
WITHAM, ESSEX
TEL 0621 892102


Existing drains junctioned
100mm Pipe 285 metres
New Reservoir
4" Clay Pipe
Underground Chamber
Manhole beside track
New Hall farm

PLAN OF FIELD DRAINAGE

FOR - J. Fairley & Sons (Farms) Ltd.



BOND CONTRACTS, WARREN FARM ST. OSYTH, ESSEX.

LEGEND

DIAMETER OF PIPE (mm)	LENGTH (METRES)
200 ———	170
160 ———	151
— — — — EXISTING DRAINS	
—○ OUTLETS	

Reproduced from 1:2500 Ordnance Survey Sheet(s) No. TM 1128 Edition of 1959 by permission of H.M Stationery Office Crown Copyright reserved

Subsoiling — S —

Moling — M →

Permeable Fill - - - - -

Certified as a true record of the underdrainage system laid down in Fields Ordnance No.(s)

In the parish of

For Messrs Bond Contracts

P C Bond Date 10-12-96

For Ministry of Agriculture Fisheries and Food

Date

DRAINAGE SCHEME FOR

J. Fairley & Sons Ltd., Abbotts Hall, Mistley.

SITE

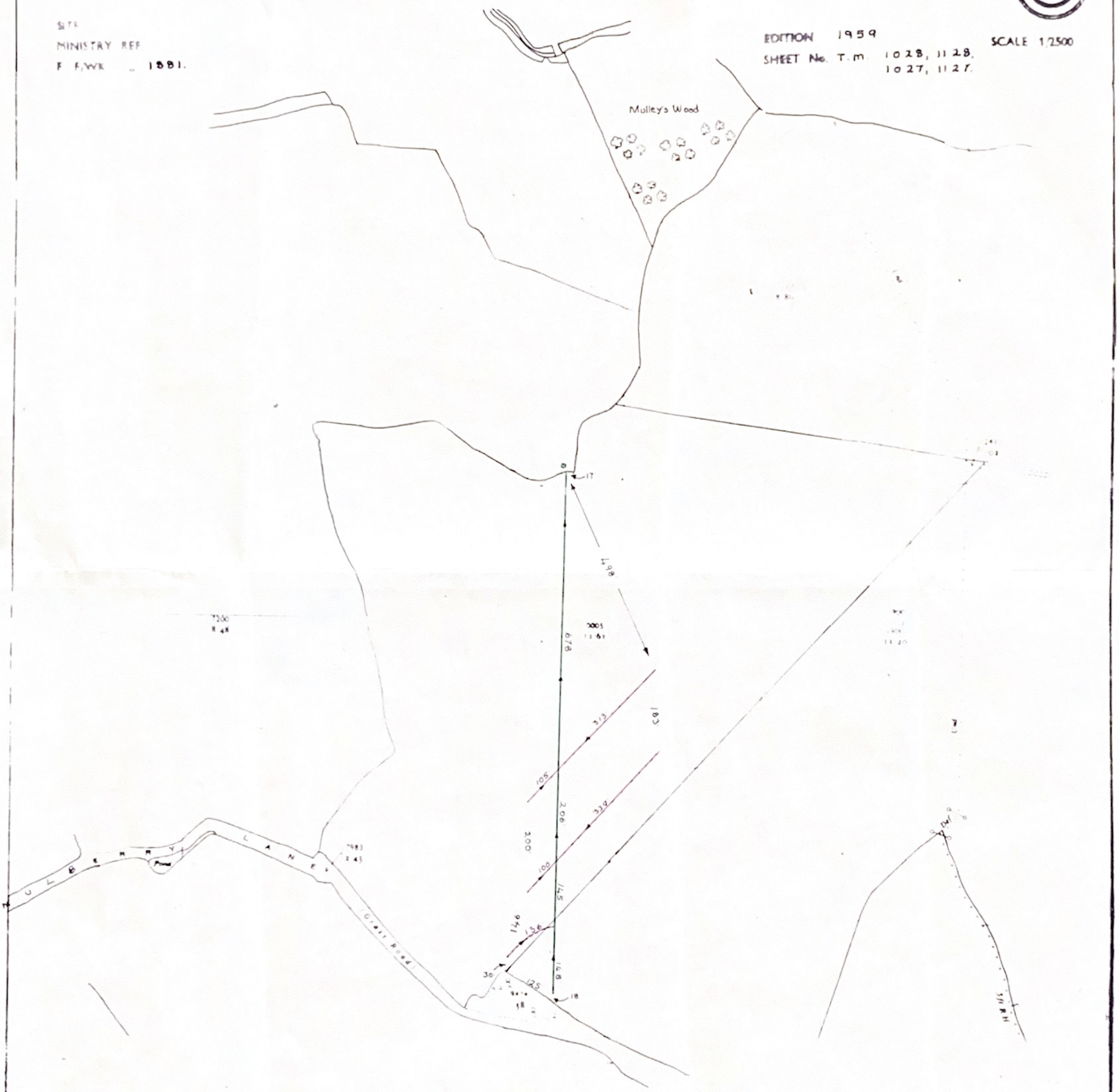
MINISTRY REF.

F. F.W.R. .. 1881.

EDITION 1959

SHEET No. T.M. 1028, 1128, 1027, 1127.

SCALE 1/2500



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Scheme subject to minor alterations during progress of work.

FINAL PLAN

REFERENCE

3" DIAM. PIPES
4" " "
6" " "
9" " "
CATCHPITS
HEDLING

FINAL CHAINAGE

993' = 15 chains
1177' = 18 "
" "
" "

inches deep

I hereby certify this to be a true and accurate record of the drains laid in the above scheme

Date 23.8.67 .....

D.U. = Destination Unknown.

ABBOTT'S HALL & NEW HALL FARMS · MISTLEY.

PLAN OF LAND DRAINS.

4. APPENDIX 2: ISH3, ACTION POINT 8 – CITATIONS AND DATA SHEETS

4.1.1 Full citations and data sheets for the Special Areas of Conservation, Special Protection Areas and Ramsar sites referred to in the Summary of Designated sites [APP-044].

18. Abberton Reservoir

Geographical Coordinates 51°49'N 0°52'E **Area** 716ha

Location About 7km south-south-west of the city of Colchester, in the county of Essex, south-east England.

Date of Ramsar Designation Original designation 24 July 1981; site reduced from 1,228ha on 20 September 1990.

Other International Designations Special Protection Area under EC Directive 79/409.

National Designations Site of Special Scientific Interest (SSSI); Statutory Bird Sanctuary.

Principal Features A large storage reservoir, with three separate basins, created between 1939 and 1941 by damming a small river and flooding a long, shallow valley. Most of the water contained in the reservoir is pumped from the River Stour, some 15km to the north. Abberton is less than 5km from the coast and is an important moulting, passage and wintering site for Anatidae. Peak counts of wintering water birds regularly exceed 20,000 individuals (34,732*), including internationally important numbers* of *Anas strepera* (482), *A. crecca* (4,569) and *A. clypeata* (636) and nationally important numbers of several other species, notably *Fulica atra* (11,329). Moulting concentrations of Anatidae in late summer include nationally important numbers of *Cygnus olor*, *Aythya ferina* and *A. fuligula*. The damp, unimproved pasture bordering parts of the reservoir support feeding waders in winter, whilst, in other areas, improved grassland is important for grazing *Anas penelope*. The site also supports the UK's only tree-nesting colony of *Phalacrocorax carbo* (360 pairs in 1990). (2c,3a,3b,3c)

*All figures are average peak counts for the five winters 1987/88 to 1991/92.

Conservation Issues The UK authorities reduced the Ramsar site by some 512ha in 1990, when Abberton Reservoir was re-notified as an SSSI under the 1981 Wildlife and Countryside Act. The (then) Nature Conservancy Council had determined that the original SSSI included agricultural land of no particular conservation value, which would be excluded from the re-notified SSSI. The Ramsar site was reduced at the same time, in line with the UK Government's stated policy that all territory included under Ramsar designations must have SSSI status.

EC Directive 79/409 on the conservation of wild birds: Special Protection Area

Abberton Reservoir (Essex)

Abberton Reservoir is a large water storage reservoir lying about four miles south of Colchester. In numerical terms, Abberton is the most important reservoir in Great Britain for wintering wildfowl. It owes this position to its proximity to the coast and to the strict protection given to the site. Most of the SSSI is statutorily protected by the Wild Birds (Abberton Reservoir Sanctuary) Order 1967.

Abberton reservoir qualifies under Article 4.2 by regularly supporting a nationally important breeding population of cormorant *Phalacrocorax carbo* (360 pairs, 5% of the British breeding population). This colony is unusual in Great Britain because the birds are nesting in trees inland, rather than on coastal cliff ledges or rocky islets.

The reservoir qualifies also under Article 4.2 as a Wetland of International Importance by regularly supporting, in winter, in excess of 20,000 waterfowl. In the five year period 1985/86 to 1989/90 the average peak count was 34,000, wildfowl. The site regularly supports internationally or nationally important wintering populations of the following ten species of migratory waterfowl (average peak counts for the 5 winter period 1985/86 to 1989/90): 8,400 wigeon *Anas penelope* (1% of North West European (NW) population, 3% of British wintering population); 480 gadwall *Anas strepera* (4% of NW European, 8% of British); 180 great crested grebe *Podiceps cristatus* (2% of British); 500 mute swan *Cygnus olor* (3% of British) ; 480 shoveler *Anas clypeata* (1% of NW European, 5% of British); 2,200 teal *Anas crecca* (2% of British); 2,400 pochard *Aythya ferina* (1% of British); 3,500 tufted duck *Aythya fuligula* (2% of British); 560 goldeneye *BucephaIa clangula* (3% of British); and 11,500 coot *Fulica atra* (10% of British).

In addition, the site qualifies under Article 4.2 by regularly supporting, in the late summer, substantial concentrations of five migratory wildfowl species (peak August counts for the five year period 1985-89): 450 mute swan (3% of British wintering population); 110 gadwall; 420 shoveler; 2,700 pochard; and 2,700 tufted duck. Many of these birds moult at the site.

SPA Citation (updated)
HTR
July 1991

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9009141**

SITENAME **Abberton Reservoir**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

Back to top

1.1 Type	1.2 Site code
A	UK9009141

1.3 Site name

Abberton Reservoir

1.4 First Compilation date	1.5 Update date
1991-12	2015-12

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	1991-12
National legal reference of SPA designation	Regulations 12A and 13-15 of the Conservation Habitats and Species Regulations 2010, (http://www.legislation.gov.uk/uksi/2010/490/contents/made) as amended by The Conservation of Habitats and Species (Amendment) Regulations 2011 (http://www.legislation.gov.uk/uksi/2011/625/contents/made).

2. SITE LOCATION

Back to top

2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
0.872777778	51.82694444

2.2 Area [ha]:

718.31

2.3 Marine area [%]

0.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH3	Essex

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

Back to top

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site					Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C	
						Min	Max				Pop.	Con.	Iso.
B	A056	Anas clypeata			w	654	654	i		G	B		C
B	A052	Anas crecca			w	3412	3412	i		G	B		C
B	A050	Anas penelope			w	2888	2888	i		G	C		C
B	A051	Anas strepera			w	415	415	cmales		G	B		C
B	A059	Aythya ferina			w	1901	1901	i		G	B		C
B	A061	Aythya fuligula			w	1864	1864	i		G	B		C
B	A067	Bucephala clangula			w	463	463	i		G	B		C
B	A036	Cygnus olor			w	496	496	i		G	C		C
B	A125	Fulica atra			w	12602	12602	i		G	B		C
B	A017	Phalacrocorax carbo			r	490	490	p		G	B		C
B	A005	Podiceps cristatus			w	132	132	i		G	C		C

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

3.3 Other important species of flora and fauna (optional)

Species					Population in the site				Motivation					
Group	CODE	Scientific Name	S	NP	Size		Unit	Cat.	Species Annex		Other categories			
					Min	Max		C|R|V|P	IV	V	A	B	C	D
B	WATR	Waterbird assemblage			39763	39763	i						X	

- **Group:** A = Amphibians, B = Birds, F = Fish, Fu = Fungi, I = Invertebrates, L = Lichens, M = Mammals, P = Plants, R = Reptiles
- **CODE:** for Birds, Annex IV and V species the code as provided in the reference portal should be used in addition to the scientific name
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Unit:** i = individuals, p = pairs or other units according to the standard list of population units and codes in accordance with Article 12 and 17 reporting, (see reference portal)
- **Cat.:** Abundance categories: C = common, R = rare, V = very rare, P = present
- **Motivation categories: IV, V:** Annex Species (Habitats Directive), **A:** National Red List data; **B:** Endemics; **C:** International Conventions; **D:** other reasons

4. SITE DESCRIPTION

Back to top

4.1 General site character

Habitat class	% Cover
N06	90.0
N14	10.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: clay,neutral 2 Terrestrial: Geomorphology and landscape: lowland,valley Hydrological info. (new category): Water supply Ramsar Wetland Types: Human-made wetlands

4.2 Quality and importance

ARTICLE 4.2 QUALIFICATION (79/409/EEC) During the breeding season the area regularly supports: Phalacrocorax carbo (North-western Europe) 7% of the population in Great Britain 5 year mean,

1993-1997 Over winter the area regularly supports: Anas clypeata (North-western/Central Europe) 1.6% of the population 5 year peak mean 1991/92-1995/96 Anas crecca (North-western Europe) 2.5% of the population in Great Britain 5 year peak mean 1991/92-1995/96 Anas penelope (Western Siberia/North-western/North-eastern Europe) 0.2% of the population 5 year peak mean 1991/92-1995/96 Anas strepera (North-western Europe) 1.7% of the population 5 year peak mean 1991/92-1995/96 Aythya ferina (North-western/North-eastern Europe) 4.4% of the population in Great Britain 5 year peak mean 1991/92-1995/96 Aythya fuligula (North-western Europe) 3.1% of the population in Great Britain 5 year peak mean 1991/92-1995/96 Bucephala clangula (North-western/Central Europe) 2.7% of the population in Great Britain 5 year peak mean 1991/92-1995/96 Cygnus olor (Britain) 1.9% of the population in Great Britain 5 year peak mean 1991/92-1995/96 Fulica atra (North-western Europe - wintering) 11% of the population in Great Britain 5 year peak mean 1991/92-1995/96 Podiceps cristatus (North-western Europe - wintering) 1.3% of the population in Great Britain 5 year peak mean 1991/92-1995/96 ARTICLE 4.2 QUALIFICATION (79/409/EEC): AN INTERNATIONALLY IMPORTANT ASSEMBLAGE OF BIRDS Over winter the area regularly supports: 39763 waterfowl (5 year peak mean 1991/92-1995/96) Including: Podiceps cristatus , Anas penelope , Anas strepera , Anas crecca , Anas clypeata , Aythya ferina , Aythya fuligula , Bucephala clangula , Fulica atra

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	G01		I
H	J02		B
H	M02		B
H	E06		B
H	E04		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0				

6. SITE MANAGEMENT

6.1 Body(ies) responsible for the site management:

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Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

☐	Yes
☐	No, but in preparation
☒	No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

RAMSAR INFORMATION SHEET

FOR WETLANDS OF INTERNATIONAL IMPORTANCE

Date of designation: 04/10/96

Site reference number 7UK103

1 Compilation date Feb 1999

2 Country UK (England)

3 Name of wetland Alde-Ore Estuary

4 Site centre location: Latitude: 52 04 58 N Longitude: 01 33 03 E

5 Altitude Not being submitted

6 Area (ha) 2546.99

7 Overview

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 semi-intensified grazing marsh. The Orfordness/Shingle Street land form 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.

8 Wetland type Inland wetland, Marine/coastal wetland

Code	Name	% Area
E	Sand / shingle shores (including dune systems)	33.4
G	Tidal flats	17.7
H	Salt marshes	23.6
J	Coastal brackish / saline lagoons	2
M	Rivers / streams / creeks: permanent	9.8
Sp	Saline / brackish marshes: permanent	5.9
Tp	Freshwater marshes / pools: permanent	3.9
U	Peatlands (including peat bogs swamps, fens)	3.8

9 Ramsar Criteria 2a, 3b, 3c

10 Map of the site √

11 Compiler Joint Nature Conservation Committee
Monkstone House
City Road
Peterborough
Cambridgeshire PE1 1JY
UK

Telephone/Fax : +44(0) 1733 562626 / +44(0) 1733 555948

12 Justification of criteria

Ramsar criterion 2a

The site supports a number of nationally-scarce plant species and British Red Data Book invertebrates.

Ramsar criterion 3b

The site supports a notable assemblage of breeding and wintering wetland birds.

Ramsar criterion 3c

During the Breeding Season the site regularly supports internationally important populations of: Lesser Black-backed Gull *Larus fuscus*

Over winter the site regularly supports internationally important populations of: Avocet *Recurvirostra avosetta*, Redshank *Tringa totanus*

13 General location

Nearest town/city: Woodbridge
Alde-Ore Estuary is located on the east coast of Suffolk, east of Woodbridge, stretching between Aldeburgh to the north and Bawdsey to the south.
Administrative Region: Suffolk

14 Physical Features

Soil & Geology	mud, nutrient-rich, sedimentary, shingle
Geomorphology and Landscape	coastal, estuary, intertidal sediments (including sandflat/mudflat), lagoon, lowland, shingle bar
Nutrient status	mesotrophic
pH	no information
Salinity	saline / euhaline
Soil	mainly mineral
Water permanence	usually permanent
Summary of main climatic features	Rainy, temperate climate with a mild winter and periodic frost. Mean minimum temperature approximately 7.8°C. Mean maximum temperature approximately 14.7°C. Mean annual precipitation approximately 548.7mm, with a winter maximum.

15 Hydrological values
Shoreline stabilisation and dissipation of erosive forces

16 Ecological features
The main habitat types of the Alde-Ore Estuary are: intertidal mudflats, saltmarsh, reedswamp, coastal freshwater, brackish lagoons, semi-improved grazing marsh, brackish ditches and vegetated shingle, the second largest and best-preserved example in Britain.
A unique feature for East Anglian beaches is the abundance on the ground of normally epiphytic lichens.
There is a zonation of shingle vegetation from shifting to more stable areas of grassland and lichen communities.
Areas of saltmarsh succeed to higher saltmarsh and neutral grassland with ditches.
There is a series of brackish lagoons and ditches; and borrow pits.

17 Noteworthy flora

Nationally important species occurring on the site.

Higher Plants.
Althaea officinalis, Frankenia laevis, Lathyrus japonicus, Lepidium latifolium, Medicago minima, Parapholis incurva, Puccinellia fasciculata, Ruppia cirrhosa, Sarcocornia perennis, Sonchus palustris, Trifolium suffocatum, Vicia lutea and *Zostera angustifolia.*

18 Noteworthy fauna

Birds

Species occurring at levels of international importance (as identified at designation):

During the breeding season the area regularly supports:

Lesser Black-backed Gull, *Larus fuscus* (Western Europe/Mediterranean/Western Africa)	14070 pairs, representing an average of 11.3% of the breeding population (5 year mean, 1994-1998)

Over winter the area regularly supports:

Avocet, *Recurvirostra avosetta*	766 individuals, representing an average of 1.1%

(Western Europe/Western Mediterranean (breeding))	of the population (5 year peak mean 1991/92-1995/96)
Redshank, *Tringa totanus* (Eastern Atlantic (wintering))	1919 individuals, representing an average of 1.1% of the population (5 year peak mean 1991/92-1995/96)

Species currently occurring at levels of national importance:

During the breeding season the area regularly supports:

Avocet, *Recurvirostra avosetta* (Western Europe/Western Mediterranean (breeding))	104 pairs, representing an average of 23.1% of the GB population (5 year mean 1990-1994)
Little Tern, *Sterna albifrons* (Eastern Atlantic (breeding))	48 pairs, representing an average of 2% of the GB population (5 count mean, 1993-4, 1996-8)
Marsh Harrier, *Circus aeruginosus*	3 pairs, representing an average of at least 1.9% of the GB population (5 year mean 1993-1997)
Sandwich Tern, *Sterna sandvicensis* (Western Europe/Western Africa)	169 pairs, representing an average of 1.2% of the GB population (5 year mean 1991-1995)

Over winter the area regularly supports:

Black-tailed Godwit, *Limosa limosa islandica* (Iceland (breeding))	268 individuals, representing an average of 3.6% of the GB population (5 year peak mean 1991/92-1995/96)
Shelduck, *Tadorna tadorna* (Northwestern Europe)	1059 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1991/92-1995/96)
Shoveler, *Anas clypeata* (Northwestern/Central Europe)	106 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1991/92-1995/96)
Spotted Redshank, *Tringa erythropus* (Europe/Western Africa)	3 individuals, representing an average of 2.5% of the GB population (5 year peak mean 1991/92-1995/96)
Teal, *Anas crecca* (Northwestern Europe)	1931 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1991/92-1995/96)
White-fronted Goose, *Anser albifrons albifrons* (Northwestern Siberia/Northeastern & Northwestern Europe)	97 individuals, representing an average of 1.6% of the GB population (5 year peak mean 1991/92-1995/96)
Wigeon, *Anas penelope* (Western Siberia/Northwestern/Northeastern Europe)	4366 individuals, representing an average of 1.6% of the GB population (5 year peak mean 1991/92-1995/96)

Nationally important species occurring on the site.

Invertebrates.

Malacosoma castrensis, Campsicnemus magius, Cheilosia velutina, Empis prodomus, Dixella attica, Hylaeus euryscapu, Pseudamnicola confusa, Nematostella vectensis, Gammarus insensibili, Euophrys browningi, Baryphyma duffeyi, Haplodrassus minor, Trichoncus affinis.

19 Social and Cultural Values

Aesthetic
Aquatic vegetation (e.g. reeds, willows, seaweed)
Archaeological/historical site
Conservation education
Current scientific research
Fisheries production
Livestock grazing
Non-consumptive recreation
Sport fishing
Sport hunting
Tourism
Transportation/navigation

20 Land tenure/ownership

Ownership category	On-Site	Off-Site
Non-governmental organisation	+	+
National/Crown estate	+	
Private	+	+
Public/communal	+	

21 Current land use

Activity	On-Site	Off-Site	Scale
Nature conservation	+	+	Large-Scale
Tourism	+	+	Small-Scale
Recreation	+	+	Small-Scale
Research	+		Small-Scale
Collection of non-timber natural products: commercial	+		Small-Scale
Fishing: recreational/sport	+		Small-Scale
Marine/saltwater aquaculture	+		Small-Scale
Gathering of shellfish	+		Small-Scale
Permanent arable agriculture		+	Large-Scale
Grazing (unspecified)	+	+	Small-Scale
Hunting: recreational/sport	+		Small-Scale
Harbour/port		+	Small-Scale
Flood control		+	Small-Scale
Irrigation (inc agricultural water supply)		+	Small-Scale
Non-urbanised settlements		+	Small-Scale

22 Adverse factors affecting the ecological character of the site

Activity	On-Site	Off-Site	Scale
Erosion	+		Large-Scale
Measures not linked to specific factors	+		Large-Scale

23 Conservation measures taken

Conservation measure	On-site	Off-site
SSSI	+	

NNR	+	
SPA	+	
Candidate SAC	+	
Land owned by a NGO for nature conservation	+	+
Site management statement/plan implemented	+	
Other	+	

24 Conservation measures proposed but not yet implemented
see below

Site vulnerability and management statement
The area is vulnerable to sea-level rise and coastal squeeze. These issues are being addressed through The Environment Agency Local Environment Action Plan, the estuary Management Plan and possibly managed retreat. Human disturbance from recreation is minimal as this is a reasonably robust system. Flood defence policy will need to take into account risks to the site from flooding and of flood control alleviation measures. Shooting is controlled through a management plan. A considerable part of the site is managed sympathetically by Suffolk Wildlife Trust, National Trust, Royal Society for the Protection of Birds and English Nature.

25 Current scientific research/survey/monitoring and facilities

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.

Environment.
Monitoring estuarine processes.
Saline lagoon survey.
Study on the effects of guanofication on shingle flora.

26 Current conservation education
None.

27 Current recreation and tourism

Activities.
The site is used informally for walking, boating and angling.
Facilities provided.
River moorings.
Seasonality.
Walking and boating activities are predominantly in spring and summer. Seasonal (winter) wildfowling occurs on the estuary.

28 Functional jurisdiction
Department of the Environment, Transport and the Regions

29 Management authority
English Nature

30 Bibliography

Anon. 1995. *Biodiversity: the UK Steering Group report. Volume 2: action plans.* London, HMSO.

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Reference should also be made to Country Agencies Management Plans for sites that are within National Nature Reserves.

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

Alde-Ore Estuary (Suffolk)

The Alde-Ore Estuary proposed Special Protection Area (pSPA) is situated on the east coast of Suffolk between Aldeburgh in the north and Bawdsey in the south. The site comprises the estuary complex of the rivers Alde, Butley and Ore, including Havergate Island and Orfordness. The variety of habitats important for breeding and wintering birds includes vegetated shingle, intertidal mudflats, semi-improved grazing marsh, saltmarsh and saline lagoons.

The site includes the entire Alde-Ore Estuary SSSI, notified in 1985 (revised in 1992 under the Wildlife and Countryside Act, 1981). The Alde-Ore Estuary SSSI includes the Orfordness-Havergate NNR, the English Nature owned part of which has already been designated as Orfordness-Havergate SPA.

The site qualifies under Article 4.1 of the EC Birds Directive by sustaining nationally important numbers of the following Annex 1 species, marsh harrier *Circus aeruginosus* (breeding), avocet *Recurvirostra avosetta* (wintering and breeding) ruff *Philomachus pugnax* (wintering), sandwich tern *Sterna sandvicensis* (breeding) and little tern *Sterna albifrons* (breeding). Further Annex 1 species winter on site, including, bittern *Botaurus stellaris*, Bewick's Swan *Cygnus columbianus*, hen harrier *Circus cyaneus*, golden plover *Pluvialis apricaria*, and short-eared owl *Asio flammeus*. Mediterranean gull *Larus melanocephalus*, common tern *Sterna hirundo* and Arctic tern *Sterna paradisaea* breed on Havergate Island.

The site qualifies under Article 4.2 of the Directive by regularly supporting internationally important numbers of two migratory species. The Orfordness colony of breeding lesser black-backed gull *Larus fuscus graellsii*, represented in 1995, 12% of the British population and 8% of the world population of the *graellsii* race. The five year wintering peak mean 1989/90 to 1993/94 for redshank *Tringa totanus*, was 1,662 birds, representing 1.5 % of the British population and 1.1% of the east Atlantic flyway population.

The site supports over 1% of the British wintering population of the following (calculated from five year winter peak means 1989/90 to 1993/94), shelduck *Tadorna tadorna*, wigeon *Anas penelope*, teal *Anas crecca*, black-tailed godwit *Limosa limosa*. In addition, the site supports over 1% of the British breeding population of, Gadwall *Anas strepera*, shoveler *Anas clypeata* and herring gull *Larus argentatus*.

The site also supports a notable assemblage of breeding and wintering wetland birds, in addition to the species mentioned above. Breeding species include, oystercatcher *Haematopus ostralegus*, ringed plover *Charadrius hiaticula*, lapwing *Vanellus vanellus* (also winter) black headed gull *Larus ridibundus* and barn owl *Tyto alba*. Wintering species include, cormorant *Phalacrocorax carbo*, European white-fronted goose *Anser abifrons albifrons*, brent goose *Branta bernicla*, pintail *Anas acuta*, grey plover *Pluvialis squatarola*, dunlin *Calidris alpina* and curlew *Numenius arquata*.

SPA Citation
January 1996

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9009112**

SITENAME **Alde-Ore Estuary**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

Back to top

1.1 Type	1.2 Site code
A	UK9009112

1.3 Site name

Alde-Ore Estuary

1.4 First Compilation date	1.5 Update date
1996-10	2015-12

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	1996-10
National legal reference of SPA designation	Regulations 12A and 13-15 of the Conservation Habitats and Species Regulations 2010, (http://www.legislation.gov.uk/uksi/2010/490/contents/made) as amended by The Conservation of Habitats and Species (Amendment) Regulations 2011 (http://www.legislation.gov.uk/uksi/2011/625/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
1.5508	52.0828

2.2 Area [ha]:

2403.5

2.3 Marine area [%]

48.6

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH1	East Anglia

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo
B	A081	Circus aeruginosus			r	3	3	p		G	C		B	
B	A183	Larus fuscus			r	14070	14070	p		G	A		C	
B	A151	Philomachus pugnax			w	3	3	i		G	C		C	
B	A132	Recurvirostra avosetta			w	766	766	i		G	A		B	
B	A132	Recurvirostra avosetta			r	104	104	p		G	A		B	
B	A195	Sterna albifrons			r	48	48	p		G	C		C	
B	A191	Sterna sandvicensis			r	170	170	p		G	C		C	
B	A162	Tringa totanus			w	1919	1919	i		G	C		C	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles

- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N05	25.0
N07	5.0
N03	20.0
N02	50.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: sedimentary,shingle,mud,nutrient-rich 2 Terrestrial: Geomorphology and landscape: coastal,lowland 4 Marine: Geomorphology: shingle bar,intertidal sediments (including sandflat/mudflat),lagoon,estuary

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC) During the breeding season the area regularly supports: Circus aeruginosus at least 1.9% of the GB breeding population 5 year mean, 1993-1997 Recurvirostra avosetta (Western Europe/Western Mediterranean - breeding) 23.1% of the GB breeding population 5 year mean, 1990-1994 Sterna albifrons (Eastern Atlantic - breeding) 2% of the GB breeding population 5 count mean, 1993-4,1996-8 Sterna sandvicensis (Western Europe/Western Africa) 1.2% of the GB breeding population 5 year mean, 1992-1996 Over winter the area regularly supports: Philomachus pugnax (Western Africa - wintering) 0.4% of the GB population 5 year peak mean 1991/92-1995/96 Recurvirostra avosetta (Western Europe/Western Mediterranean - breeding) 60.3% of the GB population 5 year peak mean 1991/92-1995/96 ARTICLE 4.2 QUALIFICATION (79/409/EEC) During the breeding season the area regularly supports: Larus fuscus (Western Europe/Mediterranean/Western Africa) 11.3% of the breeding population 5 year mean 1994-1998 Over winter the area regularly supports: Tringa totanus (Eastern Atlantic - wintering) 1.1% of the population 5 year peak mean 1991/92-1995/96

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	M02		B
H	G01		I
H	M01		B
H	J02		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	A02		I
H	A06		I
H	A04		I
H	D05		I
H	G03		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK01	4.5	UK04	100.0		

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

X	Yes	Name: Alde-Ore Estuary: The Orfordness-Havergate National Nature Reserve (NNR) Management Plan provides management infomation related to this site. This is available from Natural England. Link:
	No, but in preparation	
	No	

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

7. MAP OF THE SITES

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INSPIRE ID:

Map delivered as PDF in electronic format (optional)

[ ] Yes [X] No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

NATURA 2000 - FORMULAIRE STANDARD DE DONNEES
Pour les zones de protection spéciale (ZPS), les propositions de sites d'importance communautaire (pSIC), les sites d'importance communautaire (SIC) et les zones spéciales de conservation (ZSC)

FR3102002 - Bancs des Flandres

1. IDENTIFICATION DU SITE

1.1 Type

B (pSIC/SIC/ZSC)

1.2 Code du site

FR3102002

1.3 Appellation du site

Bancs des Flandres

1.4 Date de compilation

30/06/2008

1.5 Date d'actualisation

1.6 Responsables

Responsable national et européen	Responsable du site	Responsable technique et scientifique national
Ministère en charge de l'écologie	DREAL Nord-Pas-de-Calais	MNHN - Service du Patrimoine Naturel
www.developpement-durable.gouv.fr	www.nord-pas-de-calais.developpement-durable.gouv.fr	www.mnhn.fr www.spn.mnhn.fr
en3.en.deb.dgaln@developpement-durable.gouv.fr		natura2000@mnhn.fr

1.7 Dates de proposition et de désignation / classement du site

Date de transmission à la Commission Européenne : 31/01/2010
(Proposition de classement du site comme SIC)

Dernière date de parution au JO UE : 18/11/2011
(Confirmation de classement du site comme SIC)

ZSC : date de signature du dernier arrêté (JO RF) : 10/02/2016

Texte juridique national de référence pour la désignation comme ZSC : https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000032097263&dateTexte=

2. LOCALISATION DU SITE

2.1 Coordonnées du centre du site [en degrés décimaux]

Longitude : 2,15889°

Latitude : 51,17611°

2.2 Superficie totale

112919 ha

2.3 Pourcentage de superficie marine

100%

2.4 Code et dénomination de la région administrative

Code INSEE	Région
31	Nord-Pas-de-Calais

2.5 Code et dénomination des départements

Code INSEE	Département	Couverture (%)
62	Pas-de-Calais	0 %
59	Nord	0 %

2.6 Code et dénomination des communes

Code INSEE	Communes
Donnée(s) non disponible(s).	

2.7 Région(s) biogéographique(s)

Atlantique (100%)

3. INFORMATIONS ÉCOLOGIQUES

3.1 Types d'habitats présents sur le site et évaluations

Types d'habitats inscrits à l'annexe I					Évaluation du site			
					A|B|C|D	A|B|C		
Code	PF	Superficie (ha) (% de couverture)	Grottes [nombre]	Qualité des données	Représent -ativité	Superficie relative	Conservation	Évaluation globale
1110 *Bancs de sable à faible couverture permanente d'eau marine*		79320 *(70,25 %)*		G	B	B	C	B

- **PF :** Forme prioritaire de l'habitat.
- **Qualité des données :** G = «Bonne» (données reposant sur des enquêtes, par exemple); M = «Moyenne» (données partielles + extrapolations, par exemple); P = «Médiocre» (estimation approximative, par exemple).
- **Représentativité :** A = «Excellente» ; B = «Bonne» ; C = «Significative» ; D = «Présence non significative».
- **Superficie relative :** A = 100 $\geq$ p > 15 % ; B = 15 $\geq$ p > 2 % ; C = 2 $\geq$ p > 0 % .
- **Conservation :** A = «Excellente» ; B = «Bonne» ; C = «Moyenne / réduite».
- **Evaluation globale :** A = «Excellente» ; B = «Bonne» ; C = «Significative».

3.2 Espèces inscrites à l'annexe II de la directive 92/43/CEE et évaluation

Espèce			Population présente sur le site						Évaluation du site			
				Taille			Cat.		A|B|C|D	A|B|C		
Groupe	Code	Nom scientifique	Type	Min	Max	Unité	C|R|V|P	Qualité des données	Pop.	Cons.	Isol.	Glob.
M	1351	*Phocoena phocoena*	w			i	C	M	A	B	C	B
M	1351	*Phocoena phocoena*	r			i	P	DD	B	B	C	B
M	1351	*Phocoena phocoena*	c			i	C	M	B	B	C	B
M	1364	*Halichoerus grypus*	w			i	P	M	C	A	C	B
M	1364	*Halichoerus grypus*	c			i	P	M	C	A	C	B
M	1365	*Phoca vitulina*	w			i	P	M	C	B	C	B
M	1365	*Phoca vitulina*	c			i	P	M	C	B	C	B

- **Groupe :** A = Amphibiens, B = Oiseaux, F = Poissons, I = Invertébrés, M = Mammifères, P = Plantes, R = Reptiles.
- **Type :** p = espèce résidente (sédentaire), r = reproduction (migratrice), c = concentration (migratrice), w = hivernage (migratrice).

- **Unité :** i = individus, p = couples , adults = Adultes matures , area = Superficie en m2 , bfemales = Femelles reproductrices , cmales = Mâles chanteurs , colonies = Colonies , fstems = Tiges florales , grids1x1 = Grille 1x1 km , grids10x10 = Grille 10x10 km , grids5x5 = Grille 5x5 km , length = Longueur en km , localities = Stations , logs = Nombre de branches , males = Mâles , shoots = Pousses , stones = Cavités rocheuses , subadults = Sub-adultes , trees = Nombre de troncs , tufts = Touffes.
- **Catégories du point de vue de l'abondance (Cat.) :** C = espèce commune, R = espèce rare, V = espèce très rare, P: espèce présente.
- **Qualité des données :** G = «Bonne» (données reposant sur des enquêtes, par exemple); M =«Moyenne» (données partielles + extrapolations, par exemple); P = «Médiocre» (estimation approximative, par exemple); DD = Données insuffisantes.
- **Population :** A = 100 $\geq$ p > 15 % ; B = 15 $\geq$ p > 2 % ; C = 2 $\geq$ p > 0 % ; D = Non significative.
- **Conservation :** A = «Excellente» ; B = «Bonne» ; C = «Moyenne / réduite».
- **Isolement :** A = population (presque) isolée ; B = population non isolée, mais en marge de son aire de répartition ; C = population non isolée dans son aire de répartition élargie.
- **Evaluation globale :** A = «Excellente» ; B = «Bonne» ; C = «Significative».

3.3 Autres espèces importantes de faune et de flore

Espèce			Population présente sur le site				Motivation					
Groupe	Code	Nom scientifique	Taille		Unité	Cat.	Annexe Dir. Hab.		Autres catégories			
			Min	Max		C|R|V|P	IV	V	A	B	C	D
M		*Lagenorhynchus albirostris*			i	P			X		X	

- **Groupe :** A = Amphibiens, B = Oiseaux, F = Poissons, Fu = Champignons, I = Invertébrés, L = Lichens, M = Mammifères, P = Plantes, R = Reptiles.
- **Unité :** i = individus, p = couples , adults = Adultes matures , area = Superficie en m2 , bfemales = Femelles reproductrices , cmales = Mâles chanteurs , colonies = Colonies , fstems = Tiges florales , grids1x1 = Grille 1x1 km , grids10x10 = Grille 10x10 km , grids5x5 = Grille 5x5 km , length = Longueur en km , localities = Stations , logs = Nombre de branches , males = Mâles , shoots = Pousses , stones = Cavités rocheuses , subadults = Sub-adultes , trees = Nombre de troncs , tufts = Touffes.
- **Catégories du point de vue de l'abondance (Cat.) :** C = espèce commune, R = espèce rare, V = espèce très rare, P: espèce présente.
- **Motivation : IV, V :** annexe où est inscrite l'espèce (directive «Habitats») ; **A :** liste rouge nationale ; **B :** espèce endémique ; **C :** conventions internationales ; **D :** autres raisons.

4. DESCRIPTION DU SITE

4.1 Caractère général du site

Classe d'habitat	Pourcentage de couverture
N01 : Mer, Bras de Mer	100 %

Autres caractéristiques du site

Les fonds sont essentiellement sableux, parcourus par de nombreux bancs de sables s'élevant au-dessus des fonds. On observe dans les espaces inter-bancs des sédiments plus grossiers, avec certains cas d'envasement à proximité de la côte.

S'agissant d'un site proche de la côte, un certain nombre d'activités anthropiques s'y exercent (pêche professionnelle et de loisir, transport maritime, activités portuaires, conchyliculture, sports nautiques) qu'il conviendra d'identifier plus finement dès la phase de gestion. Leurs effets sur la conservation des habitats et des espèces d'intérêt communautaire restent à apprécier par l'amélioration des connaissances dans le cadre de l'élaboration puis de la mise en #uvre du document d'objectifs du site ou de l'évaluation des incidences des éventuels projets à venir.

la zone est caractérisée par un trafic maritime le plus dense du monde. La reconversion de certains pêcheurs amène le développement de la conchyliculture notamment sur les filets.
Le site des bancs des Flandres est situé au large du Port de Dunkerque et comprend 4 zones de clapage autorisées nécessaires à l'entretien courant (autorisation de draguer 4.2 Mm23 aujourd'hui qui pourront être revus à la hausse en fonction des développements portuaires), ces activités de dragage et de clapage faisant partie intégrante de l'état actuel justifiant la désignation du site. La forte hydrodynamique du site permet une dispersion très rapide des sédiments. Le port a des projets de développement ambitieux, notamment l'installation d'un terminal méthanier. De façon générale, les activités portuaires actuelles et à venir feront l'objet de mesures de gestion définies dans le DOCOB.

La construction de l'avant port Ouest a influé sur l'hydrodynamique locale, conduisant à la modification du milieu marin y compris dans l'enceinte de l'avant port, tant du point de vue hydraulique que sédimentologique et écologique.

L'existence des accès maritimes (chenaux Est et Ouest) impliquent par ailleurs une gestion spécifique par dragages et entretiens des ouvrages maritimes, afin de maintenir dans des conditions de navigation et de sécurité satisfaisantes (refoulements réguliers de matériaux sableux de manière à entretenir et conforter nos ouvrages structurels maritimes).

Le site proposé est donc en partie profondément artificialisé du fait de ces aménagements. La proposition de désignation de ce site a été décidée en connaissance de ces éléments, que ce sont les digues et leur entretien, chenaux de navigations, les dragages d'entretien, les clapages des sédiments et les zones de clapages associées, ainsi que l'ensemble des opérations liées directement ou indirectement à l'activité portuaire qui a vocation à se développer. Ces caractéristiques font partie de l'état actuel justifiant la désignation du site.

Vulnérabilité
: Les conditions de maintien sur le site des mammifères marins (alimentation, zones de mise bas, de mue et de repos) devront être spécialement étudiées.
L'habitat "dunes hydrauliques", qui a prévalu dans la proposition du site, est lié à des conditions hydrodynamiques particulières qu'il convient de préserver.

4.2 Qualité et importance

Habitats :
Le site "Bancs des Flandres" est principalement ciblé pour l'habitat d'intérêt communautaire "Bancs de sable à faible couverture permanente d'eau marine" (1110), notamment avec un habitat plus élémentaire "sables moyens dunaires".
Ces accumulations sous-marines de sables peuvent prendre l'aspect de véritables dunes, dites dunes hydrauliques, souvent composées de sables coquilliers, qui s'élèvent parfois jusqu'à 20 m au-dessus des fonds.
Bien que relativement pauvres sur le plan biologique en terme de diversité, ces bancs de sables, particulièrement représentés sur cette façade maritime et dans le détroit du Pas-de-Calais, hébergent des espèces typiquement inféodées à ce type de formation.

Espèce :

Les données montrent que cette zone est l'un des deux sites français fréquentés couramment par le Marsouin commun (Phocoena phocoena), notamment pour son alimentation. Ce petit cétacé farouche, plutôt solitaire, autrefois rare, est observé de plus en plus souvent sur ce littoral. Espèce ciblée par Natura 2000 et la convention OSPAR, la France a une responsabilité forte pour cette espèce, dans le maintien de son aire de répartition. Sa reproduction est suspectée sur la zone.

Le site se justifie également par la présence de certaines espèces de mammifères marins d'intérêt communautaire, et notamment les Phoques veau-marin (Phoca vitulina) et Phoques gris (Halichoerus grypus) qui fréquentent le secteur, de par la proximité de sites de repos abritant des populations de phoques près de Dunkerque et près de Calais. L'utilisation du site "Banc des Flandres" se fait pour des raisons alimentaires.

4.3 Menaces, pressions et activités ayant une incidence sur le site

Il s’agit des principales incidences et activités ayant des répercussions notables sur le site

Incidences négatives				
Importance	Menaces et pressions [code]	Menaces et pressions [libellé]	Pollution [code]	Intérieur / Extérieur [i|o|b]
Incidences positives				
Importance	Menaces et pressions [code]	Menaces et pressions [libellé]	Pollution [code]	Intérieur / Extérieur [i|o|b]

- **Importance** : H = grande, M = moyenne, L = faible.
- **Pollution** : N = apport d’azote, P = apport de phosphore/phosphate, A = apport d’acide/acidification, T = substances chimiques inorganiques toxiques, O = substances chimiques organiques toxiques, X = pollutions mixtes.
- **Intérieur / Extérieur** : I = à l’intérieur du site, O = à l’extérieur du site, B = les deux.

4.4 Régime de propriété

Type	Pourcentage de couverture
Eaux territoriales	100 %

4.5 Documentation

Augris C. et al., 1995. Le Domaine marin côtier du Nord-Pas-de-Calais. Carte des formations superfielles. Echelle 1/100 000. IFREMER, Région Nord-Pas-de-Calais, USTL.

CRMM, 1980-2005. Données d'échouage de Mammifères marins par commune entre 1980 et 2005. Centre de Recherche sur les Mammifères Marins (CRMM).

Dewarumez J.M., 2008. Université de Lille 1. Station marine de Wimereux. Dires d'expert.

Siblet J.-Ph. & Vaudin A.-C., 2007 : Justification des zonages Natura 2000 Mer. Rapport MNHN-SPN/MEDAD. 34 p.

Service Hydrographique et Océanographique de la Marine. Carte SHOM 6651 De Calais à Dunkerque au 1/43 139 - Publication 2002. Carte SHOM 6735 Pas de Calais - De Boulogne-sur-Mer à Zeebrugge- Estuaire de la Tamise (Thames) au 1/149 395. Edition 1991. Carte SHOM 7323G Carte de Sédimentologie (nature des fonds). Pas de Calais - De Boulogne-sur-Mer à Calais et de Dungeness à Dover au 1/74 300. Edition 2003.

Voisin P., 2007. Synthèse des connaissances sur la distribution des mammifères marins en région Nord-Pas-de-Calais.

Bensettiti F. & Gaudillat V. (coord.), 2002 : Habitats côtiers. Cahiers Habitats Natura 2000, T.2. La Documentation Française. 399 p.

Justification des zonages Natura 2000 Mer. Rapport MNHN-SPN/MEDAD. 34 p. Bensettiti F. & Gaudillat V. (coord.), 2002 : Espèces animales. Cahiers Habitats Natura 2000, T.7. La Documentation Française. 353 p.

Lien(s) :

5.1 Types de désignation aux niveaux national et régional

Code	Désignation	Pourcentage de couverture

5.2 Relation du site considéré avec d'autres sites

Désignés aux niveaux national et régional :

Code	Appellation du site	Type	Pourcentage de couverture

Désignés au niveau international :

Type	Appellation du site	Type	Pourcentage de couverture

5.3 Désignation du site

6. GESTION DU SITE

6.1 Organisme(s) responsable(s) de la gestion du site

Organisation : AFB

Adresse : 4 rue du Colonel Fabien 76600 Le Havre

Courriel :

6.2 Plan(s) de gestion

Existe-il un plan de gestion en cours de validité ?

[ ] Oui Nom :
Lien :
http://bancsdesflandres.n2000.fr

[X] Non, mais un plan de gestion est en préparation.

[ ] Non

6.3 Mesures de conservation

Un comité de pilotage mis en place par le Préfet maritime de la Manche et de la mer du Nord réunira l'ensemble des acteurs concernés par le site dont les organisations socio-professionnelles et de loisirs nautiques. Ce comité aura pour rôle de participer à la préparation du document d'objectifs qui devra définir les préconisations de gestion nécessaires à la préservation durable des milieux et espèces marins d'intérêt communautaire concernés. Le Port Autonome de Dunkerque se proposera pour être l'opérateur du comité.
Après un diagnostic écologique du site et des différentes activités s'y exerçant, des mesures seront proposées au regard des enjeux de conservation durable des habitats et espèces d'intérêt

communautaire ayant justifié la proposition du site Natura 2000, tout en tenant compte des exigences économiques, sociales et culturelles, ainsi que des particularités régionales ou locales. Pour ce faire, le comité de pilotage et l'opérateur local en charge de la rédaction du document d'objectifs pourront utilement s'appuyer sur les références technico-économiques pour les mesures de gestion des sites Natura 2000 en milieu marin concernant les activités de pêche, d'aquaculture et de plaisance (commande passée auprès de l'Agence des aires marines protégées).

S'agissant des plans, programmes, travaux ou projets d'aménagement, ils pourront avoir lieu au sein ou à proximité du site pour autant qu'ils ne s'exonèrent pas des objectifs de conservation du site. S'ils sont susceptibles d'affecter le site de façon notable, individuellement ou en raison de leurs effets cumulés, ils devront faire l'objet d'une évaluation de leurs incidences sur les habitats et les espèces d'intérêt communautaire ayant justifié le site. Dès lors, les porteurs de projets pourront s'appuyer sur les guides méthodologiques élaborés à l'échelon national :
- guide pour l'évaluation des incidences des projets d'extraction de granulats marins sur les sites Natura 2000 (en cours) ;
- guide sur l'évaluation des incidences des dragages des chenaux de navigation et des immersions sur l'état de conservation des sites Natura - GEODE / BCEOM, août 2007 - (volet calapge en site Natura 2000 marin en cours de rédaction) ;
- guide sur l'étude d'impact des projets éoliens (volet mer en cours de rédaction) ;
- guide sur l'évaluation des incidences des projets de création et d'extension de ports de plaisance et de sites de mouillages organisés (en cours).

Au sein du site, les activités de défense exercées sont en particulier :
- des missions opérationnelles de surveillance, de police, de défense ou de service public (sauvetage, assistance, lutte antipollution, etc.) par navires ou embarcations de la Marine nationale et de la gendarmerie maritime;
- des missions de recherche et de neutralisation d'explosifs immergés en mer ou sur l'estran par navires, embarcations ou plongeurs de la Marine nationale;
- des missions opérationnelles et des patrouilles de surveillance, de police, de défense ou de service public par aéronefs militaires sans restriction d'altitude;
- des exercices et entraînements de navires de la Marine nationale ou de la gendarmerie maritime;
- des exercices et entraînements d'aéronefs militaires (hélicoptères sans restriction d'altitude, avions 100 pieds mer minimum);
- des exercices et entraînements de plongeurs et de commandos de la Marine nationale (entraînements nautiques, aériens et terrestres).
Plus généralement, les espaces marins inclus dans le périmètre du site sont mobilisés pour assurer la protection du territoire national, y compris à un niveau stratégique.
La pérennisation de l'ensemble des activités et des missions précitées (activités de défense, d'assistance et de sauvetage, de prévention et de lutte contre la pollution et de police en mer) ne devra pas être remise en cause par la désignation du site.

EC Directive 92/43 on the Conservation of Natural Habitats and of Wild Fauna and Flora

Citation for Special Area of Conservation (SAC)

Name:	Berwickshire and North Northumberland Coast
Unitary Authority/County:	Northumberland, Scottish Borders
SAC status:	English part designated on 1 April 2005 Scottish part designated on 17 March 2005
Grid reference:	NU206401
SAC EU code:	UK0017072
Area (ha):	65334.94
Component SSSI:	Bamburgh Coast and Hills SSSI, Burnmouth Coast SSSI, Castle Point to Cullernose Point SSSI, Howick to Seaton Point SSSI, Lindisfarne SSSI, Newton Links SSSI, Northumberland Shore SSSI, St Abb's Head to Fast Castle SSSI, The Farne Islands SSSI

Site description:

Whilst predominantly rocky, this extensive and diverse stretch of coastline has several characteristic, sediment-dominated embayments in north-east England, including Budle Bay, Beadnell Bay and Embleton Bay. Each of these areas is relatively exposed and uniform in nature and is characterised by crustacean /polychaete- and bivalve/polychaete-biotopes. In the subtidal zone, Beadnell and Embleton Bays form a sandy break in the otherwise continuous reef habitat in this site. These areas are characterised by extensive areas of clean sand with often dense populations of the heart urchin *Echinocardium cordatum*, and razor clams *Ensis siliqua* and *E. arcuatus*.

Stretches of the coast in England support a very extensive range of intertidal mudflats and sandflats, ranging from wave-exposed beaches to sheltered muddy flats with rich infaunal communities. Those in the Lindisfarne and Budle Bay area and on the adjacent open coast to the north are the most extensive in north-east England. They support the largest intertidal beds of narrow-leaved eelgrass *Zostera angustifolia* and dwarf eelgrass *Z. noltei* on the east coast of England, a diverse infauna, and some large beds of mussels *Mytilus edulis*. Some of the bays along the open coast have mobile sediments, with populations of sand-eels *Ammodytes* sp., small crustaceans and polychaete worms. More sheltered sediments have very stable lower shore communities of burrowing heart urchins and bivalve molluscs.

Moderately wave-exposed reef habitats occur throughout the site. The subtidal rocky reefs and their rich marine communities, together with the wide variety of associated intertidal reefs, are the most diverse known on the North Sea coast. Their remarkably varied nature is due to the wide range of physical conditions in the area, from wave-exposed locations on the open coast, through more sheltered reefs within bays, to those exposed to strong tidal streams in sounds and off headlands. There is also a diverse range of rock types, including soft limestones and hard volcanic rock. The Farne Islands are of special importance as they are among the very few rocky islands with extensive reefs in the enclosed North Sea. A large number of the species present are characteristic of cold water and several reach their southern or eastern limit of distribution within the area.

Caves occur throughout the site in both the intertidal and the subtidal zones in a range of different hard rock exposures. There are examples of partially submerged caves in the cliffs

north of Berwick and in the limestone at Howick (south of Craster), and there are submerged sea caves, tunnels and arches in the volcanic rock of the Farne Islands and around St Abb's Head. Caves occur in association with reefs, in both the intertidal and the subtidal zones. Depending on the depth of the cave and its morphology, the site supports a range of distinct biological communities.

The section of the site in north-east England is representative of grey seal *Halichoerus grypus* breeding colonies in the south-east of its breeding range in the UK. It supports around 2.5% of annual UK pup production.

Qualifying habitats: The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

- Large shallow inlets and bays.
- Mudflats and sandflats not covered by seawater at low tide. (Intertidal mudflats and sandflats)
- Reefs
- Submerged or partially submerged sea caves

Qualifying species: The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following species listed in Annex II:

- Grey seal *Halichoerus grypus*

This citation relates to a site entered in the Register of European Sites for Great Britain.
Register reference number: UK0017072
Date of registration: 14 June 2005

Signed: Trevor Salmon

On behalf of the Secretary of State for Environment, Food and Rural Affairs

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK0017072**

SITENAME **Berwickshire and North Northumberland Coast**

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1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
B	UK0017072

1.3 Site name

Berwickshire and North Northumberland Coast

1.4 First Compilation date	1.5 Update date
1996-10	2015-12

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee

Address: Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY

Email:

Date site proposed as SCI:	1996-10
Date site confirmed as SCI:	2004-12
Date site designated as SAC:	2005-04
National legal reference of SAC designation:	Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made), and Regulations 8 and 11-15 of The Conservation (Natural Habitats, &c) Regulations 1994 (http://www.legislation.gov.uk/uksi/1994/2716/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude
-1.672222222

Latitude
55.65388889

2.2 Area [ha]:

65226.12

2.3 Marine area [%]

99.6

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKZZ	Extra-Regio
UKC2	Northumberland and Tyne and Wear
UKM2	Eastern Scotland

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
1110			326.13	0	G	D			
1130			6522.61	0	M	D			
1140			5831.22	0	G	A	B	A	A
1160			4565.83	0	G	C	C	B	B
1170			37204.98	0	P	A	B	A	A
1330			130.45	0	G	D			
8330									

			1311.05	0	P	A	C	A	A

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
M	1364	Halichoerus grypus			p	501	1000	i		M	B	B	C	B
M	1355	Lutra lutra			p				P	DD	D			

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N01	73.2
N04	4.5
N05	6.7
N02	13.4
N23	0.4
N03	1.3
N14	0.5
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: sand,limestone,metamorphic,sandstone,mud,igneous 2 Terrestrial: Geomorphology and landscape: coastal 3 Marine: Geology: limestone/chalk,slate/shale,boulder,biogenic reef Marine: Geomorphology: subtidal sediments (including sandbank/mudbank),surge gullies,estuary,subtidal rock (including rocky reefs),open coast (including bay),intertidal sediments (including sandflat/mudflat),intertidal rock,cliffs,cave/tunnel,barrier beach,islands	4

4.2 Quality and importance

Mudflats and sandflats not covered by seawater at low tide for which this is considered to be one of the best areas in the United Kingdom. Large shallow inlets and bays for which this is considered to be one of the best areas in the United Kingdom. Reefs for which this is considered to be one of the best areas in the United Kingdom. Submerged or partially submerged sea caves for which this is considered to be one of the best areas in the United Kingdom. Halichoerus grypus for which this is considered to be one of the best areas in the United Kingdom.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	I01		B
H	J02		B
H	H01		B
H	G01		I
H	G05		I

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	D05		I
H	A02		I
H	A04		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. The Scottish Natural Heritage 'site link' below provides access to the Conservation Objectives for this site. See also the 'UK Approach' document for more information (link via the JNCC website).See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
https://sitelink.nature.scot/site/8207
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK00	99.7	UK01	0.1	UK04	0.3

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

Organisation:	Scottish Natural Heritage
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

☐	Yes
☐	No, but in preparation
☒	No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

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: 12 May 1995

3. Country:

UK (England)

4. Name of the Ramsar site:

Blackwater Estuary (Mid-Essex Coast Phase 4)

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 45 13 N 00 51 59 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: Colchester

The Blackwater Estuary is a large estuary between the Dengie peninsula and Mersea Island on the Essex coast. It stretches from immediately adjacent to Maldon and about 8 km south of Colchester.

Administrative region: Essex

10. Elevation (average and/or max. & min.) (metres): 11. Area (hectares): 4395.15

Min. -1
Max. 4
Mean 1

12. General overview of the site:

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

The Blackwater Estuary is the largest estuary in Essex north of the Thames and, is one of the largest estuarine complexes in East Anglia. Its mudflats, fringed by saltmarsh on the upper shores, support internationally and nationally important numbers of overwintering waterfowl. Shingle and shell banks and offshore islands are also a feature of the tidal flats. The surrounding terrestrial habitats; the sea wall, ancient grazing marsh and its associated fleet and ditch systems, plus semi-improved grassland are also of high conservation interest. This rich mosaic of habitats supports an outstanding assemblage of nationally scarce plants and a nationally important assemblage of rare invertebrates. There are 16 British Red Data Book species and 94 notable and local species.

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).

1, 2, 3, 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 1

Qualifies by virtue of the extent and diversity of saltmarsh habitat present. This site, and the four others in the Mid-Essex Coast complex, includes a total of 3,237 ha that represent 70% of the saltmarsh habitat in Essex and 7% of the total area of saltmarsh in Britain.

Ramsar criterion 2

The invertebrate fauna is well represented and includes at least 16 British Red Data Book species. In descending order of rarity these are: Endangered: a water beetle *Paracymus aeneus*; Vulnerable: a damselfly *Lestes dryas*, the flies *Aedes flavescens*, *Erioptera bivittata*, *Hybomitra expollicata* and the spiders *Heliophanus auratus* and *Trichopterna cito*; Rare: the beetles *Baris scolopacea*, *Philonthus punctus*, *Graptodytes bilineatus* and *Malachius vulneratus*, the flies *Campsicemus magius* and *Myopites eximia*, the moths *Idaea ochrata* and *Malacosoma castrensis* and the spider *Euophrys*.

Ramsar criterion 3

This site supports a full and representative sequences of saltmarsh plant communities covering the range of variation in Britain.

Ramsar criterion 5

Assemblages of international importance:

Species with peak counts in winter:
105061 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*,	8689 individuals, representing an average of 4% of the population (5 year peak mean 1998/9-2002/3)
Grey plover , *Pluvialis squatarola*, E Atlantic/W Africa -wintering	4215 individuals, representing an average of 1.7% of the population (5 year peak mean 1998/9-2002/3)
Dunlin , *Calidris alpina alpina*, W Siberia/W Europe	27655 individuals, representing an average of 2% of the population (5 year peak mean 1998/9-2002/3)
Black-tailed godwit , *Limosa limosa islandica*, Iceland/W Europe	2174 individuals, representing an average of 6.2% of the population (5 year peak mean 1998/9-2002/3)

Species/populations identified subsequent to designation for possible future consideration under criterion 6.
Species with peak counts in winter:

Common shelduck , *Tadorna tadorna*, NW Europe	3141 individuals, representing an average of 1% of the population (5 year peak mean 1998/9-2002/3)
European golden plover , *Pluvialis apricaria apricaria*, P. a. altifrons Iceland & Faroes/E Atlantic	16083 individuals, representing an average of 1.7% of the population (5 year peak mean 1998/9-2002/3)

Common redshank , *Tringa totanus totanus*, 4169 individuals, representing an average of 1.6% of the 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.

See Sections 21/22 for details of noteworthy species

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

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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

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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	neutral, shingle, mud, clay, nutrient-rich, sedimentary
Geomorphology and landscape	lowland, coastal, shingle bar, subtidal sediments (including sandbank/mudbank), intertidal sediments (including sandflat/mudflat), estuary, islands
Nutrient status	eutrophic
pH	circumneutral
Salinity	brackish / mixosaline, fresh, saline / euhaline
Soil	mainly organic
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 Blackwater Estuary is the largest estuary in Essex and is one of the largest estuarine complexes in East Anglia. Its mudflats are fringed by saltmarsh on the upper shores, with shingle, shell banks and offshore islands a feature of the tidal flats. The surrounding terrestrial habitats: the sea-wall, ancient grazing marsh and its associated fleet and ditch systems, plus semi-improved grassland, are of high conservation interest.

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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 Blackwater Estuary is the largest estuary in Essex and is one of the largest estuarine complexes in East Anglia. Its mudflats are fringed by saltmarsh on the upper shores, with shingle, shell banks and offshore islands a feature of the tidal flats. The surrounding terrestrial habitats: the sea-wall, ancient grazing marsh and its associated fleet and ditch systems, plus semi-improved grassland, are of high conservation interest.

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

19. Wetland types:

Marine/coastal wetland

Code	Name	% Area
G	Tidal flats	48
H	Salt marshes	37.5
4	Seasonally flooded agricultural land	5.1
Tp	Freshwater marshes / pools: permanent	4.1
J	Coastal brackish / saline lagoons	2.6
M	Rivers / streams / creeks: permanent	0.9
K	Coastal fresh lagoons	0.9
E	Sand / shingle shores (including dune systems)	0.9

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.

At low tide a vast expanse of intertidal mud is exposed from shore to shore. This enriched mud is a feeding ground for variety of molluscs, crustaceans and worms, and encourages the growth of the green algae *Enteromorpha*, and eelgrass *Zostera* spp. at the seaward edges of the saltings. Wildfowl and waders amass to exploit this rich food supply in numbers over twice the maximum required to confer international status to the site.

On arrival in October, brent geese feed in the estuary on *Enteromorpha* and *Zostera*. All three species, *Zostera marina, Z. angustifolia, Z. noltei*, once formed large beds in the estuary but are now scarce. This decline in eelgrasses combined with a recovery in brent geese numbers in the 1970s, prompted a change in feeding habits and the geese now spend more time landward of the sea wall grazing on arable crops and improved grassland. Areas of improved, reseeded grassland are managed for brent geese at Old Hall, Goldhanger, Steeple, and Osea and Northey Islands. The inclusion of these established grassland feeding areas within the SSSI will continue to help ease the pressure on arable land.

The Blackwater Estuary contains the largest area of saltmarsh in Essex (1,102.85 ha), representing the fifth-largest area in Great Britain; though, like other saltmarshes on this coastline, much of it is eroding at a rate of between 0.3-1 m each year. The saltings serve as important high tide wader roosts and support a specialised flora grazed by wigeon and brent geese. Large expanses of saltings exist at Tollesbury and Old Hall and along the northern shore of the Salcott Channel. At high tide, they accommodate large roosting populations of dunlin, grey plover and curlew. The inlet marshes of Gor

Saltings, Cooper's and Steeple Creeks, and the saltings associated with Northey and Osea Islands, also act as high tide refuges for dense populations of waders.

Ray Island, in the Strood Channel, is one of the few sites in Essex where the transition from saltmarsh to grassland has not been truncated by the imposition of a sea wall. However, elsewhere, the saltings fronting the sea wall also show distinct zones of vegetation. The lower marsh is comprised of the primary colonisers of mud - glassworts *Salicornia* spp., including the nationally scarce *S. perennis* and *S. pusilla* and the invasive common cord-grass *Spartina anglica*. The scarce native small cord-grass *Spartina maritima* can still be found in places, despite the incursions of the more vigorous hybrid form. Further up the marsh, where tidal immersions are less frequent, sea purslane *Atriplex portulacoides* and common saltmarsh-grass *Puccinellia maritima* predominate, with sea aster *Aster tripolium* and common sea lavender *Limonium vulgare*. The nationally scarce lax-flowered sea lavender *Limonium humile* is sometimes interspersed among the more common species, but the main site for this is at Old Hall. Scarce saltmarsh grasses usually associated with the higher zone of the marsh, such as stiff saltmarsh-grass *Puccinellia rupestris* and Borrer's saltmarsh grass *Puccinellia fasciculata*, are encountered growing behind the sea wall in wheel-ruts along the folding. Two Mediterranean plants at the northerly limit of their distributions, golden-samphire *Inula crithmoides* and shrubby sea blite *Suaeda vera*, in the absence of high marsh, having adapted to growing at the base and outer face of the sea wall. Shrubby sea-blite is also able to colonise unstable shingle along the drift line and large populations are present at West Mersea and Osea Island.

The higher wave energies at creek mouths and the upper reaches of the estuary promote the deposition of shingle and sand.

Where this has occurred on the foreshore at West Mersea the county rarity, sea spurge *Euphorbia paralias*, has been discovered along with sea mayweed *Tripleurospermum maritimum*, which has a limited distribution in Essex. The sandy parts of the beach have a typical plant community of sand couch *Elytrigia juncea*, marram *Ammophila arenaria* and the very local sea-holly *Eryngium maritimum*, while frosted orache *Atriplex laciniata* occurs on the drift line. This section of coastline shows a transition from saltmarsh to freshwater marsh backed by a sandy cliff face.

The clay sea wall surrounding the estuary, as well as harbouring many of the species which would otherwise have colonised the sheltered, high-level marsh, also contains plants more typically associated with grazing marsh. This type of community develops where the topography and management of the grassland mimic conditions of the grazing marshes beyond - well-drained, grazed slopes and/or areas of disturbed ground. The nationally scarce slender hare's-ear *Bupleurum tenuissimum* is frequent along the footpath edge, and the uncommon strawberry clover *Trifolium fragiferum* is present in the close-cropped sward. The brackish-water borrow dykes also contain a similar species complement to the ditches of the land-claimed estuarine marsh.

The extensive unmown stretches of the sea wall are dominated largely by sea couch *Elytrigia atherica*, common couch *E. repens*, with herbs such as wild carrot and the regionally notable grass vetchling and the nationally uncommon dittander *Lepidium latifolium*. The tall grasslands of the Essex coast are the British stronghold of the nationally uncommon Roesel's bush-cricket *Metrioptera roeselli*, whilst two other characteristic species, the short-winged conehead *Conocephalus dorsalis*, another bush-cricket, and the Essex skipper butterfly *Thymelicus lineola* are also abundant.

Landward of the sea wall, extensive areas of grazing marsh have survived at Old Hall and Tollesbury, while, elsewhere, only fragments remain among the arable land and patches of improved, levelled pasture. Grazing of these ancient marshes since their enclosure in the Middle Ages, have created a characteristic undulating landscape, with the channels of the old saltmarsh creeks still evident. The ant hills of the yellow meadow ant *Lasius flavus* give credence to the antiquity of the landscape, their dry mounds of spoil providing a micro-habitat for common whitlowgrass *Erophila verna* and the nationally scarce upright chickweed *Moenchia erecta*. The grassy sward is dominated by creeping bent *Agrostis stolonifera*, perennial rye-grass *Lolium perenne* and, red fescue *Festuca rubra*, with abundant meadow barley *Hordeum secalinum* and meadow foxtail *Alopecurus pratensis*. Crested dog's-tail *Cynosurus cristatus* and yellow oat-grass *Trisetum flavescens*, grasses indicative of relict grassland, have a frequent distribution while marsh foxtail *Alopecurus geniculatus* is locally abundant in the wetter low-ways. Traditional plants of estuarine grazing marsh occur within the turf including hairy buttercup *Ranunculus sardous* and the nationally scarce divided sedge *Carex divisa* and a variety of leguminous species: spiny rest-harrow *Ononis spinosa*, narrow-leaved bird's-foot-trefoil *Lotus tenuis* and common bird's-foot-trefoil *Lotus corniculatus*, plus the nationally scarce sea clover *Trifolium squamosum* and bird's-foot clover *T. ornithopodioides*. Two further nationally scarce species, mouse-tail *Myosurus minimus* and red goosefoot *Chenopodium botryoides* occur on disturbed ground, the former frequently colonising sheep tracks and gateways.

The ditch systems of the Blackwater's coastal marshes have a diverse range of plant species that mark the transition from saline to freshwater. A saline influence is indicated by stands of the saltmarsh rush *Juncus gerardii*, and the tasselweeds, beaked tasselweed *Ruppia maritima* and the nationally scarce spiral tasselweed *Ruppia cirrhosa*. Where the water is less saline, sea club-rush *Bolboschoenus maritimus* becomes the dominant emergent species, along with several aquatics including two nationally scarce species, brackish water-crowfoot *Ranunculus baudotii* and soft hornwort *Ceratophyllum submersum*, which occur among the more frequent fennel pondweed *Potamogeton pectinatus* and spiked water-millfoil *Myriophyllum spicatum*. The transition to freshwater is demarcated by stands of common reed *Phragmites australis* and reedmace *Typha* spp. Farther inland, species characteristic of the swamp-fed community are encountered, such as reed sweet-grass *Glyceria maxima* and branched bur-reed *Sparganium erectum*.

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), *Chenopodium chenopodiodes* (RDB Lower risk (not threatened)), *Limonium humile* (nationally scarce), *Hordeum marinum* (nationally scarce), *Zostera noltei* (nationally scarce), *Zostera marina* (nationally scarce), *Zostera angustifolia* (nationally scarce), *Sarcocornia perennis* (nationally scarce), *Salicornia pusilla* (nationally scarce), *Puccinellia rupestris* (nationally scarce), *Puccinellia fasciculata* (nationally scarce), *Inula crithmoides* (nationally scarce), *Trifolium squamosum* (nationally scarce) and *Ruppia cirrhosa* (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 regularly supported during the breeding season:

Mediterranean gull , *Larus melanocephalus*, Europe	4 apparently occupied nests, representing an average of 3.7% of the GB population (Seabird 2000 Census)
Common tern , *Sterna hirundo hirundo*, N & E Europe	121 apparently occupied nests, representing an average of 1.1% of the GB population (Seabird 2000 Census)
Little tern , *Sterna albifrons albifrons*, W Europe	99 apparently occupied nests, representing an average of 5% of the GB population (Seabird 2000 Census)

Species with peak counts in spring/autumn:

Ringed plover , *Charadrius hiaticula*, Europe/Northwest Africa	714 individuals, representing an average of 2.2% of the GB population (5 year peak mean 1998/9-2002/3)
Whimbrel , *Numenius phaeopus*, Europe/Western Africa	272 individuals, representing an average of 9% of the GB population (5 year peak mean 1998/9-2002/3 - spring peak)
Eurasian curlew , *Numenius arquata arquata*, N. a. arquata Europe (breeding)	1959 individuals, representing an average of 1.3% of the GB population (5 year peak mean 1998/9-2002/3)
Spotted redshank , *Tringa erythropus*, Europe/W Africa	36 individuals, representing an average of 26.4% of the GB population (5 year peak mean 1998/9-2002/3)
Common greenshank , *Tringa nebularia*, Europe/W Africa	149 individuals, representing an average of 24.9% of the GB population (5 year peak mean 1998/9-2002/3)
Ruddy turnstone , *Arenaria interpres interpres*, NE Canada, Greenland/W Europe & NW Africa	664 individuals, representing an average of 1.3% of the GB population (5 year peak mean 1998/9-2002/3 - spring peak)

Species with peak counts in winter:

Slavonian grebe , *Podiceps auritus*, Northwest Europe	11 individuals, representing an average of 1.5% of the GB population (5 year peak mean 1998/9-2002/3)
Great cormorant , *Phalacrocorax carbo carbo*, NW Europe	286 individuals, representing an average of 1.2% of the GB population (5 year peak mean 1998/9-2002/3)
Little egret , *Egretta garzetta*, West Mediterranean	33 individuals, representing an average of 2% of the GB population (5 year peak mean 1998/9-2002/3)
Eurasian wigeon , *Anas penelope*, NW Europe	5614 individuals, representing an average of 1.3% of the GB population (5 year peak mean 1998/9-2002/3)
Eurasian teal , *Anas crecca*, NW Europe	2932 individuals, representing an average of 1.5% of the GB population (5 year peak mean 1998/9-2002/3)

Northern pintail , *Anas acuta*, NW Europe	396 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1998/9-2002/3)
Common goldeneye , *Bucephala clangula clangula*, NW & C Europe	260 individuals, representing an average of 1% of the GB population (5 year peak mean 1998/9-2002/3)
Red-breasted merganser , *Mergus serrator*, NW & C Europe	129 individuals, representing an average of 1.3% of the GB population (5 year peak mean 1998/9-2002/3)
Hen harrier, *Circus cyaneus*, Europe	<19 individuals, representing an average of 2.5% of the GB population (5 year mean 1987/8-1991/2)
Water rail , *Rallus aquaticus*, Europe	9 individuals, representing an average of 2% of the GB population (5 year peak mean 1998/9-2002/3)
Pied avocet , *Recurvirostra avosetta*, Europe/Northwest Africa	424 individuals, representing an average of 12.4% of the GB population (5 year peak mean 1998/9-2002/3)
Northern lapwing , *Vanellus vanellus*, Europe - breeding	16944 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/9-2002/3)
Red knot , *Calidris canutus islandica*, W & Southern Africa (wintering)	3864 individuals, representing an average of 1.3% of the GB population (5 year peak mean 1998/9-2002/3)
Sanderling , *Calidris alba*, Eastern Atlantic	229 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/9-2002/3)
Ruff , *Philomachus pugnax*, Europe/W Africa	42 individuals, representing an average of 6% of the GB population (5 year peak mean 1998/9-2002/3)

Species Information

Nationally important species occurring on the site.

Invertebrates.

Paracymus aeneus (RDB1), *Lestes dryas* (RDB2), *Aedes flavescens* (RDB2), *Erioptera bivattata* (RDB2), *Hybomitra expollicata* (RDB1), *Heliophanus auratus* (RDB2), *Trichopterna cito* (RDB2), *Baris scolopacea* (RDB3), *Philonthus punctus* (RDB3), *Graptodytes bilineatus* (RDB3), *Malachius vulneratus* (RDB3), *Campsicemus magius* (RDB3), *Myopites eximia* (RDB3), *Idaea ochrata* (RDB3), *Malacosoma castrensis* (RDB3) and *Euophrys* sp. (*Euophrys browningi* is rare and endemic to Great Britain. A UKBAP species) .

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
Traditional cultural
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	+	+

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	+	+
Permanent arable agriculture	+	+
Grazing (unspecified)	+	+
Hunting: recreational/sport	+	
Industry		+
Sewage treatment/disposal	+	
Harbour/port	+	+
Flood control	+	
Transport route	+	
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		+		+
Pollution – agricultural fertilisers	2	Arable agriculture surrounds the coastal wetland and run-off from fields enters the site.		+	

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) (Anon. 2002) covers the site and it is expected to inform the shoreline management plan as well as local plan policies.
A Shoreline Management Plan has been prepared (but not yet implemented) for the Essex Coast which seems to provide a blueprint for managing the coastline sustainably.

Pollution – agricultural fertilisers - The Water Framework Directive, which will soon come into force, should manage water quality throughout the system.

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)	+	+
National Nature Reserve (NNR)	+	+
Special Protection Area (SPA)	+	
Land owned by a non-governmental organisation for nature conservation	+	+
Management agreement	+	

Site management statement/plan implemented	+	
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.

Contemporary.

Environment.
EN/Defra experimental managed retreat site adjacent to site.
Ongoing hydrodynamic surveys.

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.
Site Unit Recording.
Environment Agency low tide counts (five yearly).
Marine Nature Conservation Review: identification of intertidal biotopes (Hill *et al*. 1996)

Completed.
Saltmarsh survey 1988.

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.

As a result of the English Nature estuaries initiative there is a Blackwater Estuary Management Plan. The Blackwater Estuary Implementation Officer provides educational activities along with the Essex Wildlife Trust, RSPB and English Nature conservation officers.

31. Current recreation and tourism:

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

Activities, Facilities provided and Seasonality.
Caravan parks - March to November.
Dog walking - all year - no facilities.
Bird watching - all year - this can be done via local wildlife trust and the RSPB reserves.
Sailing - predominantly summer - there are marinas and moorings for boats.
Jet-skiing - summer only - there is a licensed area and access to open water provided at West Mersea.
Water-skiing - predominantly summer - there is a zoned area.
Power-boating - predominantly summer - access ramps, moorings and marinas.
Walking - all year - no facilities.

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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EC Directive 79/409 on the conservation of wild birds: Special Protection Area

Mid-Essex Coast

Blackwater Estuary

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 proposed Special Protection Area follows the boundaries of five SSSIs: the Colne Estuary, the Blackwater Estuary, Dengie, the River Crouch Marshes and Foulness.

The Blackwater Estuary qualifies under Article 4.1 of the Birds Directive by supporting, in summer, nationally important breeding populations of an Annex 1 species, the little tern *Sterna albifrons.* Between 1987 and 1991 a mean of 73 pairs (3% of British breeding population) bred in the Mid-Essex Coast area. The Blackwater Estuary is one of several sites within the proposed SPA where these birds nest.

The Blackwater Estuary also qualifies under Article 4.1 by regularly supporting nationally important wintering populations of an Annex 1 species, the hen harrier *Circus cyaneus.* During the period 1987/88 to 1991/92 a mean of 19 birds (2% of the British total) occurred in the Mid-Essex Coast area. The Blackwater Estuary is one of a number of sites used in the area.

The Blackwater Estuary qualifies under Article 4.2 by supporting, in summer, nationally important populations of two regularly occurring migratory species. Between 1987 and 1991 a mean of 15 pairs (7% of British) of pochard *Aythya ferina* and 135 pairs (1% of British) of ringed plover *Charadrius hiaticula* bred in the proposed SPA. The Blackwater Estuary is one of a number of sites used.

The estuary also qualifies under Article 4.2 as a wetland of international importance by regularly supporting, in winter over, 20,000 waterfowl. In the five year period 1987/88 to 1991/92 the average peak count was 46,552 birds, comprising 16,059 wildfowl and 30,493 waders. The Blackwater Estuary regularly supports in winter internationally important numbers of the following four species of migratory waterfowl (average peak counts for the period 1987/88 to 1991/92): 8,761 dark-bellied brent geese *Branta bernicla bernicla* (5.1% of total world population, 9.7% of British population), 2,172 grey plover *Pluvialis squatarola* (1.2% of East Atlantic Flyway (EAF) population, 10.2% of British), 17,743 dunlin *Calidris alpina* (1.2% EAF, 4% of British) and 755 black-tailed godwit *Limosa limosa* (1.1% EAF, 15.8% of British).

The Blackwater Estuary also supports nationally important wintering populations of a further eight species: 243 cormorant *Phalacrocorax carbo* (1.2% of British), 2,425 shelduck *Tadorna tadorna* (3.2% of British), 69 gadwall *Anas strepera* (1.1% of British), 2,190 teal *Anas crecca* (2.1% of British), 315 goldeneye *Bucephala clangula* (2.1% of British), 338 ringed plover *Charadrius hiaticula* (1.4% of British), 1,847 curlew *Numenius arquata* (2% of British), 1,079 redshank *Tringa totanus* (1.4% of British).

During severe winter weather the Blackwater Estuary (and the whole Mid-Essex Coast) can assume even greater national and international importance as wildfowl and waders from many other areas arrive, attracted by the relatively mild climate and the abundant food resources available in this Special Protection Area.

SPA Citation
CAR September 1993

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9009245**

SITENAME **Blackwater Estuary (Mid-Essex Coast Phase 4)**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
A	UK9009245

1.3 Site name

Blackwater Estuary (Mid-Essex Coast Phase 4)

1.4 First Compilation date	1.5 Update date
1995-05	2015-12

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	1995-05
National legal reference of SPA designation	Regulations 12A and 13-15 of the Conservation Habitats and Species Regulations 2010, (http://www.legislation.gov.uk/uksi/2010/490/contents/made) as amended by The Conservation of Habitats and Species (Amendment) Regulations 2011 (http://www.legislation.gov.uk/uksi/2011/625/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
0.866388889	51.75361111

2.2 Area [ha]:

4403.38

2.3 Marine area [%]

60.5

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH3	Essex

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A059	Aythya ferina			r	1	15	p		G	B		C	
B	A675	Branta bernicla bernicla			w	15392	15392	i		G	B		C	
B	A672	Calidris alpina alpina			w	33267	33267	i		G	B		C	
B	A137	Charadrius hiaticula			w	347	347	i		G	C		C	
B	A137	Charadrius hiaticula			r	1	135	p		G	C		C	
B	A082	Circus cyaneus			w	1	19	i		G	B		C	
B	A616	Limosa limosa islandica			w	1280	1280	i		G	A		C	
		Pluvialis												

B	A141	squatarola			w	5090	5090	i		G	B		C	
B	A195	Sterna albifrons			r	21	21	p		G	C		C	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

3.3 Other important species of flora and fauna (optional)

Species					Population in the site				Motivation					
Group	CODE	Scientific Name	S	NP	Size		Unit	Cat.	Species Annex		Other categories			
					Min	Max		C|R|V|P	IV	V	A	B	C	D
B	WATR	Waterbird assemblage			109964	109964	i						X	

- **Group:** A = Amphibians, B = Birds, F = Fish, Fu = Fungi, I = Invertebrates, L = Lichens, M = Mammals, P = Plants, R = Reptiles
- **CODE:** for Birds, Annex IV and V species the code as provided in the reference portal should be used in addition to the scientific name
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Unit:** i = individuals, p = pairs or other units according to the standard list of population units and codes in accordance with Article 12 and 17 reporting, (see reference portal)
- **Cat.:** Abundance categories: C = common, R = rare, V = very rare, P = present
- **Motivation categories: IV, V:** Annex Species (Habitats Directive), **A:** National Red List data; **B:** Endemics; **C:** International Conventions; **D:** other reasons

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N10	12.0
N03	33.0
N02	50.0
N07	5.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: nutrient-rich,mud,shingle,sedimentary,clay,neutral 2 Terrestrial: Geomorphology

and landscape: coastal,lowland 3 Marine: Geology: shingle,mud,clay,sedimentary 4 Marine: Geomorphology: subtidal sediments (including sandbank/mudbank),intertidal sediments (including sandflat/mudflat),islands,shingle bar,estuary

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC) During the breeding season the area regularly supports: Sterna albifrons (Eastern Atlantic - breeding) at least 0.9% of the GB breeding population 5 year mean, 1992-1996 Over winter the area regularly supports: Circus cyaneus up to 2.5% of the GB population 5 year mean, 1987/8-1991/2 ARTICLE 4.2 QUALIFICATION (79/409/EEC) During the breeding season the area regularly supports: Aythya ferina (North-western/North-eastern Europe) up to 6% of the population in Great Britain 5 year mean, 1987-1991 Charadrius hiaticula (Europe/Northern Africa - wintering) up to 1.6% of the population in Great Britain 5 year mean, 1987-1991 Over winter the area regularly supports: Branta bernicla bernicla (Western Siberia/Western Europe) 5.1% of the population 5 year peak mean 1991/92-1995/96 Calidris alpina alpina (Northern Siberia/Europe/Western Africa) 2.4% of the population 5 year peak mean 1991/92-1995/96 Charadrius hiaticula (Europe/Northern Africa - wintering) 0.7% of the population 5 year peak mean 1991/92-1995/96 Limosa limosa islandica (Iceland - breeding) 2% of the population 5 year peak mean 1991/92-1995/96 Pluvialis squatarola (Eastern Atlantic - wintering) 3% of the population 5 year peak mean 1991/92-1995/96 ARTICLE 4.2 QUALIFICATION (79/409/EEC): AN INTERNATIONALLY IMPORTANT ASSEMBLAGE OF BIRDS Over winter the area regularly supports: 109964 waterfowl (5 year peak mean 1991/92-1995/96) Including: Branta bernicla bernicla , Charadrius hiaticula , Pluvialis squatarola , Calidris alpina alpina , Limosa limosa islandica

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	E06		B
H	G01		I
H	M02		B
H	F02		I
H	M01		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	A02		I
H	D05		I
H	A06		I
H	D05		I
H	A04		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]

UK04	100.0	UK01	14.8

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

- [ ] Yes
- [ ] No, but in preparation
- [X] No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
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UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9009243**

SITENAME **Colne Estuary (Mid-Essex Coast Phase 2)**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
A	UK9009243

1.3 Site name

Colne Estuary (Mid-Essex Coast Phase 2)

1.4 First Compilation date	1.5 Update date
1994-07	2015-12

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	1994-07
National legal reference of SPA designation	Regulations 12A and 13-15 of the Conservation Habitats and Species Regulations 2010, (http://www.legislation.gov.uk/uksi/2010/490/contents/made) as amended by The Conservation of Habitats and Species (Amendment) Regulations 2011 (http://www.legislation.gov.uk/uksi/2011/625/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
0.96	51.81583333

2.2 Area [ha]:

2719.93

2.3 Marine area [%]

45.9

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH3	Essex

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A059	Aythya ferina			r	1	15	p		G	B		C	
B	A675	Branta bernicla bernicla			w	4907	4907	i		G	B		C	
B	A137	Charadrius hiaticula			r	1	135	p		G	C		C	
B	A082	Circus cyaneus			w	1	19	i		G	C		C	
B	A195	Sterna albifrons			r	38	38	p		G	C		C	
B	A162	Tringa totanus			w	2077	2077	i		G	C		C	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)

- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

3.3 Other important species of flora and fauna (optional)

Species					Population in the site				Motivation					
Group	CODE	Scientific Name	S	NP	Size		Unit	Cat.	Species Annex		Other categories			
					Min	Max		C|R|V|P	IV	V	A	B	C	D
B	WATR	Waterbird assemblage			38600	38600	i						X	

- **Group:** A = Amphibians, B = Birds, F = Fish, Fu = Fungi, I = Invertebrates, L = Lichens, M = Mammals, P = Plants, R = Reptiles
- **CODE:** for Birds, Annex IV and V species the code as provided in the reference portal should be used in addition to the scientific name
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Unit:** i = individuals, p = pairs or other units according to the standard list of population units and codes in accordance with Article 12 and 17 reporting, (see reference portal)
- **Cat.:** Abundance categories: C = common, R = rare, V = very rare, P = present
- **Motivation categories: IV, V:** Annex Species (Habitats Directive), **A:** National Red List data; **B:** Endemics; **C:** International Conventions; **D:** other reasons

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N14	5.0
N02	52.0
N04	1.0
N03	25.0
N05	2.0
N10	15.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: sand,clay,neutral,alluvium,shingle,mud 2 Terrestrial: Geomorphology and landscape: coastal,lowland,valley 3 Marine: Geology: shingle,clay,gravel,sand,mud 4 Marine: Geomorphology: lagoon,intertidal sediments (including sandflat/mudflat),islands,shingle bar,open coast (including bay),estuary,subtidal sediments (including sandbank/mudbank)

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC) During the breeding season the area regularly supports: Sterna albifrons (Eastern Atlantic - breeding) at least 1.6% of the GB breeding population 5 year mean, 1992-1996 Over winter the area regularly supports: Circus cyaneus up to 2.5% of the GB population No count period specified. ARTICLE 4.2 QUALIFICATION (79/409/EEC) During the breeding season the area regularly supports: Aythya ferina (North-western/North-eastern Europe) up to 6% of the population in Great Britain 5 year mean, 1987-1991 Charadrius hiaticula (Europe/Northern Africa - wintering) up to 1.6% of the population in Great Britain 5 year mean, 1987-1991 Over winter the area regularly supports: Branta bernicla bernicla (Western Siberia/Western Europe) 1.6% of the population 5 year peak mean 1991/92-1995/96 Tringa totanus (Eastern Atlantic - wintering) 1.2% of the population 5 year peak mean 1991/92-1995/96 ARTICLE 4.2 QUALIFICATION (79/409/EEC): AN INTERNATIONALLY IMPORTANT ASSEMBLAGE OF BIRDS Over winter the area regularly supports: 38600 waterfowl (5 year peak mean 1991/92-1995/96) Including: Branta bernicla bernicla , Tringa totanus

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	M01		B
H	M02		B
H	E06		B
H	F02		I
H	G01		I

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	A04		I
H	A02		I
H	B02		I
H	D05		I
H	A06		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK01	25.8	UK04	100.0		

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England

Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

☐	Yes
☐	No, but in preparation
☒	No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
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D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
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H05	Soil pollution and solid waste (excluding discharges)	65
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U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

79. Colne Estuary (Mid-Essex Coast, phase 2)

Geographical Coordinates:	51°48'N 1°01'E	**Area:**	2,701ha

Location: About 10km south-east of the city of Colchester, in the county of Essex, south-east England. This site is a few kilometres east of the previously designated Ramsar sites, Abberton Reservoir and Blackwater Estuary (site number 87).

Date of Ramsar Designation: 28 July 1994

Other International Designations: European Union Special Protection Area

National Designations: Sites of special scientific interest; Essex Coast Eutrophic Sensitive Area[P]; Colne National Nature Reserve[P] (NNR); Essex Wildlife Trust reserve[P].

Principal Features: The Mid-Essex Coast comprises an extensive complex of estuaries and intertidal sand and siltflats, including several islands, shingle and shell beaches and extensive areas of saltmarsh.
The Colne Estuary site supports a number of rare plants and animals. Twelve species of nationally scarce plants are present: *Bupleurum tenuissimim, Carex divisa, Frankenia laevis, Hordeum marinum, Inula crithmoides, Limonium binervosum, Salicornia perennis, S. pusilla, Spartina maritima, Suaeda vera, Zostera marina* and *Z. noltii*. The invertebrate fauna is particularly rich, reflecting the diversity of wetlands habitats, and includes at least 38 national Red Data Book species. The rarest of these include the endangered *Dyschirius extensus, Cloeophora fuscicornis* and *Ethmia terminella*. The site regularly supports over 20,000 waterfowl in winter. In the five-year period 1987/88 to 1991/92
the average peak count was 22,012 waders and 8,675 wildfowl. The Colne Estuary regularly supports, in winter, internationally important populations of two waterfowl species. During the same five-year period the following average peak counts were recorded: 5,315 *Branta bernicla bernicla* (3.1% of total world population) and 1,252 *Tringa totanus* (1.1% of the east Atlantic flyway pop.). Notable also are nationally important breeding populations of *Aythya ferina, Charadrius hiaticula* and *Sterna albifrons*; and nationally important wintering populations of *Phalacrocorax carbo, Cygnus olor, Tadorna tadorna, Bucephala clangula, Charadrius hiaticula, Pluvialis squatarola, Calidris alba, Calidris alpina, Limosa limosa* and *Numenius arquata*. (Criteria 2a,3a,3c).

Conservation Issues: The Mid-Essex Coast composite site is composed of five SSSIs: Colne Estuary, Blackwater Estuary, Dengie, Crouch Marshes and Foulness. Land tenure at the site is complex with national, local government, private, commercial and NGO interests. A range of land uses are recorded at the Colne Estuary site including shellfish gathering and bait collection, recreational and commercial fishing, pastoral agriculture, harbour facilities, transport route, sewage treatment and disposal, industry, tourism, recreational hunting, birdwatching and other recreation, and conservation. Preparation of an Estuary Management Plan for the Colne Estuary was scheduled to begin in the 1995/96 period. A Colne

NNR management plan is being implemented by English Nature. Parts of the site have been identified as part of a proposed European Union Special Area of Conservation.

EC Directive 79/409 on the conservation of wild birds: Special Protection Area

Mid-Essex Coast

Colne Estuary

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 proposed Special Protection Area follows the boundaries of five SSSIs: the Colne Estuary, the Blackwater Estuary, Dengie, River Crouch Marshes and Foulness.

The Colne Estuary qualifies under Article 4.1 of the Birds Directive by supporting nationally important breeding populations of an Annexe 1 species: the average peak count of little tern *Sterna albifrons* over the period 1987-1991 was 73 pairs (3% of British breeding population). The Colne Estuary is one of several sites within the proposed SPA where these birds breed.

The Colne Estuary also qualifies under Article 4.1 by regularly supporting a nationally important wintering population of an Annexe 1 species, the hen harrier *Circus cyaneus.* During the period 1987/88 to 1991/92 a mean of 19 birds (2% of the British total) occurred in the Mid-Essex Coast area. The Colne Estuary is one of a number of sites used in the area.

The Colne Estuary qualifies under Article 4.2 by supporting, in summer, nationally important populations of two regularly occurring migratory species. Between 1987 and 1991 an average peak mean of 15 pairs (7% of British breeding population) of pochard *Aythya ferina* and 135 pairs (1% of British) of ringed plover *Chararius hiaticula* bred in the proposed SPA.

The Colne Estuary also qualifies under Article 4.2 as a wetland of international importance by regularly supporting, in winter, over 20,000 waterfowl. In the five year period 1987/88 to 1991/92 the average peak count was 30,687 birds, comprising 8,675 wildfowl and 22,012 waders. It regularly supports, in winter, internationally important numbers of the following two species of migratory waterfowl (average peak counts for the period 1987/88 to 1991/92): 5,315 dark-bellied brent geese *Branta bernicla bernicla* (3.1 % of the total world population, 5.9% of the British wintering population) and 1,252 redshank *Tringa totanus* (1.1% of the East Atlantic Flyway (EAF) population, 1.6% of British).

The Colne Estuary also supports nationally important wintering populations of a further 10 species: 243 cormorant *Phalacrocorax carbo* (1.2% of British), 354 mute swan *Cygnus olor* (1.9% of British), 1,237 shelduck *Tadorna tadorna* 1.6% of British), 262 Goldeneye *Bucephala clangula* (1.7% of British), 355 ringed plover *Charadrius hiaticula* (1.5% of British), 1,168 grey plover *Pluvialis squatarola* (5.5% of British), 219 sanderling *Calidris alba* (1.5% of British), 11,272 dunlin *Calidris alpina* (2.6% of British), 606 black-tailed godwit *Limosa limosa* (12.7% of British) and 938 curlew *Numenius arquata* (1% of British).

During severe winter weather the Mid-Essex Coast (including the Colne Estuary) can assume even greater national and international importance as wildfowl and waders from many other areas arrive, attracted by the relatively mild climate and the abundant food resources available in this Special Protection Area.

SPA Citation, CAR September 1993

Ramsar Site Description: 3UK097

The Deben Estuary (Suffolk)

The Deben Estuary proposed Ramsar site extends for about 18km from the mouth of the estuary at Felixtowe, on the east coast of Suffolk to near the tidal limit above Wilford Bridge. It is a relatively narrow and sheltered estuary with a limited amount of freshwater input and intertidal areas constrained by sea walls. Saltmarsh and intertidal mudflats occupy the majority of the site but there are also areas of reedswamp, unimproved neutral grassland and scrub. The estuary is largely surrounded by agricultural land.

The boundary of the site is coincident with the Deben Estuary SSSI, notified in 1991, and overlaps with the Ferry Cliff, and Sutton and Ramsholt Cliff geological SSSIs. The site includes all land above mean low water mark up to an inland boundary that follows variable features such as the upper limit of wetland habitat or the sea wall.

The site qualifies under Criterion 2a of the Ramsar Convention by supporting a population of the Endangered Red Data Book mollusc *Vertigo augustior*. Martlesham Creek within the proposed Ramsar site is one of only fourteen sites in Britain where this species survives.

The site qualifies under Criterion 3c by regularly supporting internationally important wintering numbers of dark-bellied brent geese *Branta bernicula bernicula*. The five year peak mean for the period 1988/89 to 1992/93 was 1,889 birds, representing 2.1% of the British and 1.1% of the north-west European population. Notable also are nationally important numbers of the following migratory waterfowl (figures are five year winter peak means for the period 1988/89 to 1992/93): 1,046 shelduck *Tadorna tadorna* (1.4% of the British population); 57 avocet *Recurvirostra avosetta* (11.4% of British); 252 grey plover *Pluvialis squatarola* (1.2% of British); 143 black-tailed godwit *Limosa limosa* (2.9% of British); and 1,454 redshank *Tringa totanus* (1.9% of British).

The site also supports a notable assemblage of breeding and wintering wetland birds in addition to the species mentioned above. Breeding species include shelduck, gadwall *Anas strepera*, teal *A. crecca*, shoveler *A. clypeata*, redshank, oystercatcher *Haematopus ostralegus*, ringed plover *Charadrius hiaticula* and snipe *Gallinago gallinago*. Wintering species include cormorant *Phalacrocorax carbo,* teal, pintail *Anas acuta*, wigeon *A. penelope*, goldeneye *Bucephala clangula,* hen harrier *Circus cyaneus*, coot *Fulica atra*, oystercatcher, ringed plover, golden plover *Pluvialis apricaria*, dunlin *Calidris alpina,* snipe, curlew *Numenius arquata,* turnstone *neria interpres*, short-eared owl *Asio flammeus* and twite *Carduelis flavirostris*. The estuary is more important for many species of waterfowl in years when severe weather reduces food resources available on the continent.

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

The Deben Estuary (Suffolk)

The Deben Estuary Special Protection Area (SP A) extends for about 18km from the mouth of the estuary at Felixstowe, on the east coast of Suffolk to near the tidal limit above Wilford Bridge. It is a relatively narrow and sheltered estuary with a limited amount of freshwater input and intertidal areas constrained by sea walls. Saltmarsh and intertidal mud flats occupy the majority of the site but there are also areas of reedswamp, unimproved neutral grassland and scrub. The estuary is largely surrounded by agricultural land.

The boundary of the SPA is coincident with the Deben Estuary SSSI, notified in 1991, and overlaps with the Ferry Cliff, and Sutton and Ramsholt Cliff geological SSSIs. The site includes all land above mean low water mark up to an inland boundary that follows variable features such as the upper limit of wetland habitat or the sea wall.

The site qualifies under Article 4.1 of the EC Birds Directive by regularly supporting nationally important numbers of avocet *Recurvirostra avosetta,* an Annex 1 species. The five year winter peak mean for the period 1988/89 to 1992/93 was 57 birds, representing 11.4% of the British population. Further Annex 1 species wintering on the site include golden plover *Pluvialis apricaria,* hen harrier *Circus cyaneus* and short-eared owl *Asio flammeus.*

The site qualifies under Article 4.2 of the Directive by regularly supporting internationally important numbers of dark-bellied geese, *Branta bernicula bernicula,* a regularly occurring migratory species. The five year winter peak mean for the period 1988/89 to 1992/93 was 1,889 birds, representing 2.1% of the British and 1.1% of the north-west European population. In addition the site supports nationally important numbers of the following migratory waterfowl (figures are five year winter peak means for the period 1988/89 to 1992/93): 1,046 shelduck *Tadorna tadorna* (1.4% of the British population); 252 grey plover *Pluvialis squatarola* (1.2% of British); 143 black-tailed godwit *Limosa limosa* (2.9% of British); and 1,454 redshank *Tringa totanus* (1.9% of British).

The site also supports a notable assemblage of breeding and wintering wetland birds in addition to the species mentioned above. Breeding species include shelduck, gadwall *Anas strepera,* teal *A. crecca,* shoveler *A. clypeata,* redshank, oystercatcher *Haematopus ostralegus,* ringed plover *Charadrius hiaticula* and snipe *Gallinago gallinago.* Wintering species include cormorant *Phalacrocorax carbo,* teal, pintail *Anas acuta,* wigeon *A. penelope,* goldeneye *Bucephala clangula,* coot *Fulica atra,* oystercatcher, ringed plover, dunlin *Calidris alpina,* snipe, curlew *Numenuis arquata,* turnstone *Areneria interpres* and twite *Carduelis flavirostris.* The estuary is more important for many species of waterfowl in years when severe weather reduces food resources available on the continent.

SPA Citation
March 1996

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9009261**

SITENAME **Deben Estuary**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
A	UK9009261

1.3 Site name

Deben Estuary

1.4 First Compilation date	1.5 Update date
1996-03	2015-12

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	1996-03
National legal reference of SPA designation	Regulations 12A and 13-15 of the Conservation Habitats and Species Regulations 2010, (http://www.legislation.gov.uk/uksi/2010/490/contents/made) as amended by The Conservation of Habitats and Species (Amendment) Regulations 2011 (http://www.legislation.gov.uk/uksi/2011/625/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
1.345555556	52.04194444

2.2 Area [ha]:

981.08

2.3 Marine area [%]

78.4

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH1	East Anglia

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A675	Branta bernicla bernicla			w	2516	2516	i		G	B		C	
B	A132	Recurvirostra avosetta			w	95	95	i		G	B		B	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N07	1.0
N03	18.0
N05	1.0
N02	80.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: mud,sedimentary 2 Terrestrial: Geomorphology and landscape: lowland,coastal,valley 4 Marine: Geomorphology: intertidal sediments (including sandflat/mudflat),estuary

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC) Over winter the area regularly supports: Recurvirostra avosetta (Western Europe/Western Mediterranean - breeding) 7.5% of the GB population 5 year peak mean 1991/92-1995/96 ARTICLE 4.2 QUALIFICATION (79/409/EEC) Over winter the area regularly supports: Branta bernicla bernicla (Western Siberia/Western Europe) 0.8% of the population 5 year peak mean 1991/92-1995/96

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	G01		I
H	M02		B
H	H02		B
H	M01		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	A02		I
H	A06		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification, T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0				

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

- [ ] Yes
- [ ] No, but in preparation
- [X] No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

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

MID-ESSEX COAST

DENGIE

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 proposed Special Protection Area follows the boundaries of five SSSIs: the Colne Estuary, the Blackwater Estuary, Dengie, the River Crouch Marshes and Foulness.

The Dengie qualifies under article 4.1 by regularly supporting a nationally important population of an Annex 1 species, the hen harrier (*Circus Cyaneus*) in winter. During the period 1987-1991 a mean of 19 birds (2% of the British total) occurred in the Mid-Essex Coast area. The Dengie is one of a number of sites used in the area.

The Dengie qualifies under Article 4.2 as a wetland of international importance by regularly supporting, in winter, over 20,000 waterfowl. The Dengie had, in the five year period 1987/88 to 1991/92, an average peak count of 27,947 birds, comprising 3,146 wildfowl and 24,801 waders. The estuary regularly supports internationally important numbers of the following three species of migratory waterfowl in winter (average peak counts for the five year period 1987/88 to 1991/92): 2,250 dark-bellied brent geese *Branta bernicla bernicla* (1.3% of the total world population, 2.5% of the British wintering population); 1,752 grey plover *Pluvialis squatarola* (1% of East Atlantic Flyway (EAF) population, 8.2% of British); 7,763 knot *Calidris canutus* (2.2% of EAF, 3.4% of British).

Dengie also supports nationally important wintering populations of a further three species. Average peak counts over the five year period 1987/88 to 1991/92 were: 8,470 dunlin *Calidris alpina* (1.9% of British), 63 black-tailed godwit *Limosa limosa* (1.3% of British), 835 bar-tailed godwit *Limosa lapponica* (1.3% of British).

During severe winter weather the Dengie (and the whole Mid-Essex Coast) can assume even greater national and international importance as wildfowl and waders from many other areas arrive, attracted by the relatively mild climate and the abundant food resources available in this SPA.

SPA Citation
September 1993

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9009242**

SITENAME **Dengie (Mid-Essex Coast Phase 1)**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
A	UK9009242

1.3 Site name

Dengie (Mid-Essex Coast Phase 1)

1.4 First Compilation date	1.5 Update date
1994-03	2015-12

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	1994-03
National legal reference of SPA designation	Regulations 12A and 13-15 of the Conservation Habitats and Species Regulations 2010, (http://www.legislation.gov.uk/uksi/2010/490/contents/made) as amended by The Conservation of Habitats and Species (Amendment) Regulations 2011 (http://www.legislation.gov.uk/uksi/2011/625/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
0.959444444	51.69055556

2.2 Area [ha]:

3133.94

2.3 Marine area [%]

81.6

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH3	Essex

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A675	Branta bernicla bernicla			w	2308	2308	i		G	B		C	
B	A143	Calidris canutus			w	8393	8393	i		G	B		C	
B	A082	Circus cyaneus			w	1	19	i		G	B		C	
B	A141	Pluvialis squatarola			w	2411	2411	i		G	B		C	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information

- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

3.3 Other important species of flora and fauna (optional)

Species					Population in the site				Motivation					
Group	CODE	Scientific Name	S	NP	Size		Unit	Cat.	Species Annex		Other categories			
					Min	Max		C|R|V|P	IV	V	A	B	C	D
B	WATR	Waterbird assemblage			31454	31454	i						X	

- **Group:** A = Amphibians, B = Birds, F = Fish, Fu = Fungi, I = Invertebrates, L = Lichens, M = Mammals, P = Plants, R = Reptiles
- **CODE:** for Birds, Annex IV and V species the code as provided in the reference portal should be used in addition to the scientific name
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Unit:** i = individuals, p = pairs or other units according to the standard list of population units and codes in accordance with Article 12 and 17 reporting, (see reference portal)
- **Cat.:** Abundance categories: C = common, R = rare, V = very rare, P = present
- **Motivation categories: IV, V:** Annex Species (Habitats Directive), **A:** National Red List data; **B:** Endemics; **C:** International Conventions; **D:** other reasons

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N06	2.0
N03	5.0
N04	1.0
N14	2.0
N02	90.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: mud,clay,nutrient-rich,neutral,sedimentary,sand,alluvium,shingle 2 Terrestrial: Geomorphology and landscape: lowland,coastal 3 Marine: Geology: gravel,sand,mud,clay,shingle,sedimentary 4 Marine: Geomorphology: intertidal sediments (including sandflat/mudflat),shingle bar,open coast (including bay),subtidal sediments (including sandbank/mudbank)

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC) Over winter the area regularly supports: Circus cyaneus up to 2.5% of the GB population 5 year mean, 1987-1991 ARTICLE 4.2 QUALIFICATION (79/409/EEC) Over winter the area regularly supports: Branta bernicla bernicla (Western Siberia/Western Europe) 0.8% of the population 5 year peak mean 1991/92-1995/96 Calidris canutus (North-eastern Canada/Greenland/Iceland/North-western Europe) 2.4% of the population 5 year peak mean 1991/92-1995/96 Pluvialis squatarola (Eastern Atlantic - wintering) 1.4% of the population 5 year peak mean

1991/92-1995/96 ARTICLE 4.2 QUALIFICATION (79/409/EEC): AN INTERNATIONALLY IMPORTANT ASSEMBLAGE OF BIRDS Over winter the area regularly supports: 31454 waterfowl (5 year peak mean 1991/92-1995/96) Including: Branta bernicla bernicla , Pluvialis squatarola , Calidris canutus

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	M02		B
H	F02		I
H	G01		I
H	M01		B
H	E06		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK01	81.1	UK04	100.0		

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

☐ Yes

[ ]	No, but in preparation
[X]	No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
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I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

Database release: End2022 - 12/03/2024

NATURA 2000 - STANDARD DATA FORM

**For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)**

SITE	**NL2008001**
SITENAME	**Doggersbank**

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Print Standard Data Form

1. SITE IDENTIFICATION

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1.1 Type

B

1.2 Site code

NL2008001

1.3 Site name

Doggersbank

1.4 First Compilation date

2008-12

1.5 Update date

2018-12

1.6 Respondent:

Name/Organisation:	Ministry of Agriculture, Nature and Food Quality - Department Nature & Biodiversity
Address:	
Email:	

1.7 Site indication and designation / classification dates

Date site proposed as SCI:	2008-12
Date site confirmed as SCI:	2009-12
Date site designated as SAC:	2016-06
National legal reference of SAC designation:	http://www.synbiosys.alterra.nl/natura2000/documenten/gebieden/164/PUBLICATIEVERSIE_N2K164_definitief%20besluit%20Doggersbank

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude:	3.478200
Latitude:	55.139200

2.2 Area [ha]

473500.0000

2.3 Marine area [%]

100.0000

2.4 Sitelength [km] (optional):

No information provided

2.5 Administrative region code and name

NUTS level 2 code	Region Name
NLZZ	Extra-Regio NUTS 2

2.6 Biogeographical Region(s)

Marine Atlantic	(100 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	**PF**	**NP**	**Cover [ha]**	**Cave [number]**	**Data quality**	**A|B|C|D**	**A|B|C**		
						Representativity	**Relative Surface**	**Conservation**	**Global**
1110			394613	0	M	B	A	B	A

PF: for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
NP: in case that a habitat type no longer exists in the site enter: x (optional)
Cover: decimal values can be entered
Caves: for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	**Code**	**Scientific Name**	**S**	**NP**	**T**	**Size**		**Unit**	**Cat.**	**D.qual.**	**A|B|C|D**	**A|B|C**		
						Min	**Max**				**Pop.**	**Con.**	**Iso.**	**Glo.**
M	1364	Halichoerus grypus			p	0	0	i	C	M	C	B	C	C
M	1365	Phoca vitulina			p	0	0	i	R	M	C	B	C	C
M	1351	Phocoena phocoena			p	0	0	i	C	M	B	B	C	B

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
NP: in case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance categories (Cat.): C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information

Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

3.3 Other important species of flora and fauna (optional)

No information provided

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N01	100.00
Total Habitat Cover	100

Other Site Characteristics

De Doggersbank is 100% marien gebied. De Doggersbank als geheel, dus inclusief het Engelse en Duitse deel, vormt een zandbank in de definitie van de HR. De top (op het Engelse deel) ligt op 15 m beneden laaglaagwaterspring en is dus ondieper dan 20 m; aan alle zijden loopt de bank af. Op de gehele bank wordt zand aangetroffen. Het gedeelte van de bank op het NCP heeft aan de westzijde een verhoogde macrobenthos-diversiteit, waarbij belangrijke natuurwaarden op de hellingen voorkomen, met een zwaartepunt tussen de 30 en 40 m dieptelijn. Langs de zuidgrens van de bank worden in de zomer regelmatig fronten aangetroffen, die aanleiding kunnen zijn tot verhoogde concentraties vissen en vogels (Lindeboom et al. 2005). Door zijn geringe diepte, zijn oriëntatie en enorme afmetingen heeft de bank een groot effect op processen in de Noordzee.De Doggersbank is ontstaan in het Pleistoceen. Aangetroffen stenen lijken uit Scandinavië afkomstig en meegenomen te zijn door ijsmassa's uit het Salien, die de Noordzee vanit Scandinavië bedekten. De sedimenten in het zuidwestelijk deel van de Doggersbank lijken vooral van Engelse herkomst te zijn (Rob Witbaard, pers. comm.)

4.2 Quality and importance

Belangrijke waarden in het gebied zijn alle karakteristieken van een zandbank (1110_D); biodiversiteit en biomassa van het macrobenthos; de Stekelrog. (Raja clavata)Verdere kenmerkende vissoorten die vooral bij de Doggersbank voorkomen en in minder mate in andere te beschermen delen van de Noordzee zijn: Ansjovis (Engraulis encrasicolus), kleine pieterman (Echiichthys vipera), Schurftvis (Arnoglossus laterna).

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
L	D02.09		b
L	A07		o
H	F02		b
M	C02		o
L	E03		o
L	D03		b

Positive Impacts

Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
M	U		b

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.4 Ownership (optional)

No information provided

4.5 Documentation (optional)

- Anonymus (2005) Integraal Beheerplan Noordzee 2015. Interdepartementale Directeurenoverleg Noordzee (IDON)- Arts FA, Berrevoets CM (2005) Monitoring van zeevogels en zeezoogdieren op het Nederlands Continentaal Plat 1991 - 2005: Verspreiding, seizoenspatroon en trend van zeven soorten zeevogels en de Bruinvis. Rapport RIKZ/2005.032, Rijksinstituut voor Kust en Zee/RIKZ, Middelburg- Brasseur SMJM, Tulp I, Reijnders PJH, Smit CJ, Dijkman EM, Cremer JSM, Kotterman MJJ, Meesters HWG (2004) Voedselecologie van de Gewone en Grijze zeehond in de Nederlandse kustwateren. Rapport 905, Alterra, Wageningen- Daan N, Heessen HJL, Hofstede Rt (2005) North Sea Elasmobranchs: distribution, abundance and biodiversity. ICES, Copenhagen- Degraer S, Wittoeck J, Appeltans W, Cooreman K, Deprez T, Hillewaert H, Hostens K, Mees J, Vanden Berghe W, Vincx M (2006) De macrobenthosatlas van het Belgisch deel van de Noordzee. Federaal Wetenschapsbeleid D/2005/1191/5- Hammond PS, Berggren P, Benke H, Borchers DL, Collet A, Heide Jorgensen MP, Heimlich S, Hiby AR, Leopold MF, Oien N (2002) Abundance of harbour porpoise and other cetaceans in the North Sea and adjacent waters. Journal-of-Applied-Ecology [print] April, 2002; 39 (2): 361-376 URLJ: http://wwwblackwell-sciencecom/~cgilib/jnlpageasp?Journal=jappl&File=jappl- Lindeboom HJ, Dijkman EM, Bos OG, Meesters EH, Cremer JSM, De Raad I, Bosma A (2008) Ecologische Atlas Noordzee ten behoeve van gebiedsbescherming. Wageningen IMARES vestiging Texel- Lindeboom HJ, Geurts van Kessel AJM, Berkenbosch A (2005) Gebieden met bijzondere ecologische waarden op het Nederlands Continentaal Plat. Rapport RIKZ/2005008, Den Haag / Alterra rapport 1109, Wageningen:103 p.-Patberg W, De Leeuw JJ, Winter HV (2005) Verspreiding van rivierprik, zeeprik, fint en elft in Nederland na 1970. Rapport C004/05, RIVO, IJmuiden, The Netherlands- Ter Hofstede R, Heessen HJL, Daan N (2005) Systeembeschrijving Noordzee: Natuurwaardenkaarten vis. Rapport C090/05, RIVO, IJmuiden- Ter Hofstede R, Quirijns FJ, Daan N, Dekker W, Verver SW, Heessen HJL, Asjes

J, Star B (2004) Beschermde Gebieden Noordzee: Begrenzing en ecologische waardering t.a.v. visgemeenschappen; visserij-activiteiten. Rapport C057/04, RIVO Biologie en Ecologie

Link(s):http://www.noordzeeloket.nl/beleid/noordzee-natura-2000/

5. SITE PROTECTION STATUS

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5.1 Designation types at national and regional level (optional):

Code	Cover [%]
NL01	100.00

5.2 Relation of the described site with other sites (optional):

No information provided

5.3 Site designation (optional)

The same designation as under OSPAR under consideration.Site adjacent to site DE1003301 Doggerbank and to site in consideration in UK Dogger Bank.

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Rijkswaterstaat Dienst Noordzee
Address:	
Email:	peter.heslenfeld@rws.nl

6.2 Management Plan(s):

An actual management plan does exist:

☐	Yes	
☐	No, but in preparation	
☒	No	

6.3 Conservation measures (optional)

Integraal Beheerplan Noordzee 2015 (2005)

7. MAP OF THE SITE

No information provided

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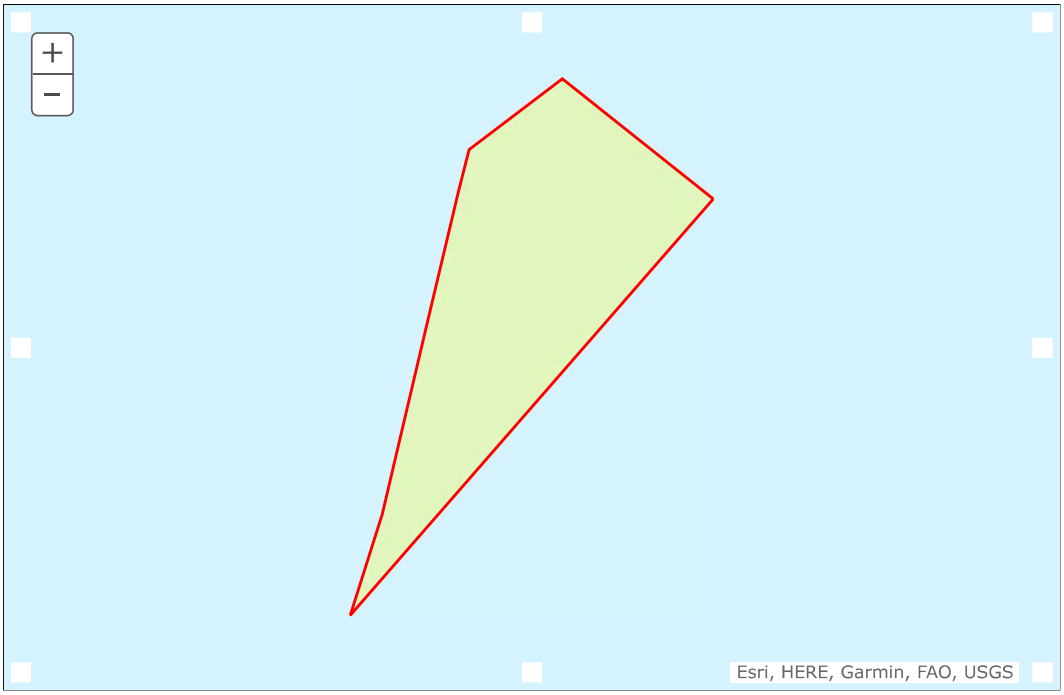
SITE DISPLAY



EC Directive 92/43 on the Conservation of Natural Habitats and of Wild Fauna and Flora

Citation for Special Area of Conservation (SAC)

Name:	Essex Estuaries
Unitary Authority/County:	Essex
SAC status:	Designated on 1 April 2005
Grid reference:	TM103048
SAC EU code:	UK0012720
Area (ha):	46140.82
Component SSSI:	Blackwater Estuary SSSI, Colne Estuary SSSI, Crouch and Roach Estuaries SSSI, Dengie SSSI, Foulness SSSI

Site description:

This is a typical, undeveloped, coastal plain estuarine system with associated open coast mudflats and sandbanks. The site comprises the major estuaries of the Colne, Blackwater, Crouch and Roach rivers. Essex Estuaries contains a very wide range of characteristic marine and estuarine sediment communities and some diverse and unusual marine communities in the lower reaches, including rich sponge communities on mixed, tide-swept substrates. Subtidal areas have a very rich invertebrate fauna, including the reef-building worm *Sabellaria spinulosa*, the brittlestar *Ophiothrix fragilis*, crustaceans and ascidians.

There are extensive intertidal mudflats and sandflats in estuaries and at Dengie Flats and Maplin Sands. The area includes a wide range of sediment flat communities, from estuarine muds, sands and muddy sands to fully saline, sandy mudflats with extensive growths of eelgrass *Zostera* spp. on the open coast. Glasswort *Salicornia* spp. saltmarsh forms an integral part of the transition from the extensive and varied intertidal mud and sandflats through to upper salt meadows. The area of pioneer marsh includes gradation into extensive cord-grass *Spartina* spp. swards, including the most extensive remaining stand of the native small cord-grass *Spartina maritima* in the UK and possibly in Europe at Foulness Point. Other smaller stands are found elsewhere in the estuary complex, notably in the Colne estuary, where it forms a major component of the upper marsh areas.

Extensive upper saltmarshes remain, including Atlantic salt meadows with floristic features typical of this part of the UK. Golden samphire *Inula crithmoides* is a characteristic species of these marshes, occurring both on the lower marsh and on the drift-line. Mediterranean saltmarsh scrub occurs principally as a strandline community or at the foot of sea-walls. The local variant of this vegetation, which features sea-lavenders *Limonium* spp. and sea-heath *Frankenia laevis*, occurs at one location, Colne Point.

Qualifying habitats: The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)
- Estuaries
- Mediterranean and thermo-Atlantic halophilous scrubs (*Sarcocornetea fruticosi*). (Mediterranean saltmarsh scrub)
- Mudflats and sandflats not covered by seawater at low tide. (Intertidal mudflats and sandflats)
- *Salicornia* and other annuals colonising mud and sand. (Glasswort and other annuals colonising mud and sand)
- Sandbanks which are slightly covered by sea water all the time. (Subtidal sandbanks)
- *Spartina* swards (*Spartinion maritimae*). (Cord-grass swards)

This citation relates to a site entered in the Register of European Sites for Great Britain.
Register reference number: UK0012720
Date of registration: 14 June 2005

Signed: Trevor Salmon

On behalf of the Secretary of State for Environment, Food and Rural Affairs

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK0013690**

SITENAME **Essex Estuaries**

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1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
B	UK0013690

1.3 Site name

Essex Estuaries

1.4 First Compilation date	1.5 Update date
1996-10	2015-12

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee

Address: Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY

Email:

Date site proposed as SCI:	1996-10
Date site confirmed as SCI:	2004-12
Date site designated as SAC:	2005-04
National legal reference of SAC designation:	Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
1.043611111	51.70166667

2.2 Area [ha]:

46109.95

2.3 Marine area [%]

92.1

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH3	Essex
UKZZ	Extra-Regio

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
1110			1793.68	0	P	B	C	C	C
1130			18872.8	0	M	A	B	B	B
1140			23589.85	0	G	A	B	B	B
1220				0		D			
1310			331.99	0	P	A	B	A	A
1320			18.44	0	G	A	A	A	A
1330			3398.3	0	G	B	B	A	B
1420			23.05	0	G	B	A	A	A

2120				0		D			

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
F	1102	Alosa alosa			p				R	DD	D			
F	1103	Alosa fallax			p				V	DD	D			
M	1365	Phoca vitulina			p				P	DD	D			

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N02	56.5
N03	11.0
N01	30.0
N05	0.5
N14	2.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: clay,neutral,sand,mud,shingle,nutrient-rich 2 Terrestrial: Geomorphology and

landscape: floodplain,lowland,coastal 3 Marine: Geology: pebble,clay,sand,sedimentary,mud,cobble 4 Marine: Geomorphology: open coast (including bay),subtidal sediments (including sandbank/mudbank),islands,estuary,intertidal sediments (including sandflat/mudflat)

4.2 Quality and importance

Sandbanks which are slightly covered by sea water all the time for which the area is considered to support a significant presence. Estuaries for which this is considered to be one of the best areas in the United Kingdom. Mudflats and sandflats not covered by seawater at low tide for which this is considered to be one of the best areas in the United Kingdom. Salicornia and other annuals colonising mud and sand for which this is considered to be one of the best areas in the United Kingdom. Spartina swards (Spartinion maritimae) for which this is one of only two known outstanding localities in the United Kingdom. which is considered to be rare as its total extent in the United Kingdom is estimated to be less than 100 hectares. Atlantic salt meadows (Glauco-Puccinellietalia maritimae) for which this is considered to be one of the best areas in the United Kingdom. Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi) for which this is one of only four known outstanding localities in the United Kingdom. which is considered to be rare as its total extent in the United Kingdom is estimated to be less than 1000 hectares.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	E06		B
H	M02		B
H	M01		B
H	F02		I
H	G01		I

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	A02		I
H	A04		I
H	A06		I
H	D05		I
H	D05		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK00	55.2	UK01	8.3	UK04	44.8

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

☐	Yes
☐	No, but in preparation
X	No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
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21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
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CODE	DESCRIPTION	PAGE NO
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5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
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6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
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7110	Active raised bogs	57
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7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
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8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
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8210	Calcareous rocky slopes with chasmophytic vegetation	57
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8310	Caves not open to the public	57
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9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
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9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

Annex 2 Special Protection Area (SPA) Citation

EC Directive 2009/147/EC9/409 on the Conservation of Wild Birds

potential Special Protection Area (SPA)

Name: Farne Islands

Counties/Unitary Authorities: Northumberland, North Tyneside

Boundary of the SPA:

The boundary is defined by the Mean Low Water Mark.

Size of SPA: The SPA covers an area of 101.86 ha.

Site description:

The Farne Islands are a group of low-lying islands 2-6 km off the coast of Northumberland in north-east England. They form the easternmost outcroppings of the Great Whin Sill of quartz dolerite, and although some islands retain cappings of boulder clay or peaty deposits, vegetation is limited to pioneer communities. Vegetation is further affected by the maritime conditions and large numbers of seabirds. The islands are important as nesting areas for these birds, especially terns, gulls and auks. The seabirds feed outside the SPA in nearby waters, as well as more distantly in the North Sea.

Qualifying species:

The site qualifies under **Article 4** of the Birds Directive (2009/147/EC) for the following reasons (summarised in Table 1):

- The site regularly supports more than 1% of the GB populations of four species listed in Annex I of the EC Birds Directive. Therefore, the site qualifies for SPA classification in accordance with the UK SPA selection guidelines (stage 1.1).
- The site regularly supports more than 1% of the biogeographical population of one regularly occurring migratory species not listed in Annex I of the EC Birds Directive. Therefore, the site qualifies for SPA designation in accordance with the UK SPA selection guidelines (stage 1.2).

Table 1 Summary of qualifying ornithological interest in the Farne Islands SPA

Feature	Count (period)	% of subspecies or population	Interest type
Common tern *Sterna hirundo*	183 pairs 366 individuals (Farne Islands SPA citation 1985)[1]	1.69% of GB population (1985)[4]	Annex 1
Arctic tern *Sterna paradisaea*	2,003 pairs 4,006 individuals (2010-2014)[2]	3.78% of GB population[5]	Annex 1
Roseate tern *Sterna dougallii*	13 pairs 26 individuals	1.88% of GB population	Annex 1

Feature	Count (period)	% of subspecies or population	Interest type
	(Farne Islands SPA citation 1985)[1]	(1985)[6]	
Sandwich tern *Sterna sandvicensis*	862 pairs 1,724 individuals (2010-2014)[2]	7.84% of GB population[5]	Annex 1
Common guillemot *Uria aalge*	32,875 pairs 65,751 individuals (2010-2014)[2,3]	1.72% of *aalge* biogeographic population[7]	Regularly occurring migrant

[1] Data from: Farne Islands SPA citation (Available from: http://publications.naturalengland.org.uk/publication/4521874151178240?category=4698884316069888) as recent data contemporary data (2010-2014) reveal that these species are no longer present at the site in qualifying numbers. It is not clear whether anthropogenic influences have affected the populations at the site. Defra policy indicates that in these circumstances the feature should be retained until such time as the reasons for the reduction in population can be established.

[2] Data from: Seabird Monitoring Programme (SMP) and colony managers (pairs multiplied by 2 to arrive at breeding adults; this rule applies to all species listed within the table, with the exception of common guillemot).

[3] Common guillemots are counted as "individuals on land"; this is multiplied by a correction factor of 0.67 (Harris 1989) to translate to breeding pairs and multiplied by 2 to yield an estimate of the number of breeding adult individuals.

[4] GB breeding population (10,800 pairs) derived from data Operation Seafarer (Cramp *et al.* 1974). This is assumed to be the relevant GB breeding population at the time of classification of the existing Farne Islands SPA in 1985. Current five year peak mean (2010-2014) = 97 pairs (0.97% GB breeding population of 10,000 pairs (Musgrove *et al.* 2013)).

[5] GB breeding populations derived from Musgrove *et al*. (2013)

[6] GB breeding population (691 pairs) derived from data Operation Seafarer (Cramp *et al.* 1974). This is assumed to be the relevant GB breeding population at the time of classification of the existing Farne Islands SPA in 1985. Current five year peak mean (2010-2014) = 0 pairs.

[7] Birds breeding at the Farne Islands are assumed to belong to the nominate race of *Uria aalge aalge* in line with UK SPA and Ramsar Scientific Working Group (2014) paper*: International Population Estimates for some seabird species* in which a population midpoint estimate of 1,909,417 pairs (rounded to 3,820,000 individuals) is given.

Assemblage qualification:

The site qualifies under **Article 4.2** of the Directive (2009/147/EC) as it used regularly by over 20,000 seabirds in any season:

During the breeding season (2010-2014)[1], the area supports 163,819 individual seabirds including the 5 qualifying species listed above plus: Atlantic puffin (76,798 breeding adults), great cormorant (230 breeding adults), European shag (1,677 breeding adults) and black-legged kittiwake (8,241 breeding adults) all of which are present in nationally important numbers (6.62%, 1.37%, 3.11% and 1.11% of the GB breeding populations respectively) and therefore are named as key assemblage components.

[1] With exception of Atlantic Puffin for which censuses in 2008 and 2013 have been used. Due to the complexity and costs of Atlantic puffin burrow surveys these are not carried out yearly by all colony managers, but are surveyed as a minimum on a 5-yearly basis as part of a UK-wide puffin census. Given this constraint to the availability of population estimates for puffins, the most recent of these censuses at the Farne Islands in 2008 and 2013 have been used in our assessment.

Principal bird data sources

Colony counts from JNCC Seabird Monitoring Programme contributed by colony managers: National Trust, supplemented by most up to date counts in some instances from those colony managers.

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9006021**

SITENAME **Farne Islands**

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1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
A	UK9006021

1.3 Site name

Farne Islands

1.4 First Compilation date	1.5 Update date
1985-07	2018-09

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	1985-07
National legal reference of SPA designation	Regulations 15 and 17-19 of The Conservation of Habitats and Species Regulations 2017 (https://www.legislation.gov.uk/uksi/2017/1012/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude
-1.6486

Latitude
55.6203

2.2 Area [ha]:

101.23

2.3 Marine area [%]

66.2

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKC2	Northumberland and Tyne and Wear

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A192	Sterna dougallii			r	13	13	p		G	C		C	
B	A193	Sterna hirundo			r	183	183	p		G	C		C	
B	A194	Sterna paradisaea			r	2003	2003	p		G	B		C	
B	A191	Sterna sandvicensis			r	862	862	p		G	B		C	
B	A199	Uria aalge			r	32875	32875	p		G	B		B	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not

even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

3.3 Other important species of flora and fauna (optional)

Species					Population in the site				Motivation					
Group	CODE	Scientific Name	S	NP	Size		Unit	Cat.	Species Annex		Other categories			
					Min	Max		C|R|V|P	IV	V	A	B	C	D
B	SBA	Seabird assemblage			163819	163819	i							X

- **Group:** A = Amphibians, B = Birds, F = Fish, Fu = Fungi, I = Invertebrates, L = Lichens, M = Mammals, P = Plants, R = Reptiles
- **CODE:** for Birds, Annex IV and V species the code as provided in the reference portal should be used in addition to the scientific name
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Unit:** i = individuals, p = pairs or other units according to the standard list of population units and codes in accordance with Article 12 and 17 reporting, (see reference portal)
- **Cat.:** Abundance categories: C = common, R = rare, V = very rare, P = present
- **Motivation categories: IV, V:** Annex Species (Habitats Directive), **A:** National Red List data; **B:** Endemics; **C:** International Conventions; **D:** other reasons

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N14	16.0
N01	66.0
N04	1.0
N05	17.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: clay,shingle,sand,metamorphic,peat 2 Terrestrial: Geomorphology and landscape: crags/ledges,coastal 3 Marine: Geology: metamorphic,boulder,sand,shingle,cobble 4 Marine: Geomorphology: intertidal rock,intertidal sediments (including sandflat/mudflat),islands,surge gullies,cave/tunnel,cliffs,pools,subtidal rock (including rocky reefs),geos (rocky inlets).

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (2009/147/EC): During the breeding season the area regularly supports: Sterna dougallii (Europe - breeding) 1.88% of the GB breeding population in (1985); Sterna hirundo (Northern/Eastern Europe - breeding) 1.69 % of the GB breeding population in (1985); Sterna paradisaea (Arctic - breeding/Southern Oceans - wintering) 3.78% of the GB breeding population over a 5 year peak mean (2010-2014); Sterna sandvicensis (Western Europe/Western Africa) 7.84% of the GB breeding population 5 year peak mean (2010-2014). ARTICLE 4.2 QUALIFICATION (2009/147/EC): An internationally important assemblage of seabirds. In the breeding season the area regularly supports 163,819 individuals (5 year peak mean 2010-2014) including the 5 species listed above plus: Fratercula arctica, Phalacrocorax carbo, Phalacrocorax aristotelis and Rissa tridactyla. Site regularly supports Uria aalge 1.72% of the aalge biogeographic population over a 5 year peak mean (2010-2014).

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	G01		I
H	M02		B
H	G05		I
H	I01		B
H	K03		I

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0	UK01	95.2		

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England, Marine Management Organisation, Local Councils, National Trust, Northumberland Inshore Fisheries Conservation Authority, Environment Agency, Crown Estate, Trinity House, RNLI, Northumbria Water.
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

- ☐ Yes
- ☐ No, but in preparation
- ☐

[X] No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

7. MAP OF THE SITES

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INSPIRE ID:

Map delivered as PDF in electronic format (optional)

[ ] Yes [X] No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
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3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

EC Directive 2009/147/EC on the Conservation of Wild Birds Special Protection Area (SPA)

Name: Flamborough and Filey Coast

Counties/Unitary Authorities: The coastal section of the SPA covers a slender strip of cliffs and hinterland along the coastline of the counties of North Yorkshire and the East Riding of Yorkshire between Bridlington and Scarborough. The marine portion of the site lies entirely in UK territorial waters adjacent to the aforementioned coastal strip.

Boundary of the SPA: The SPA is in two sections: the southern section extends north from South Landing around Flamborough Head to Speeton; the northern section covers the peninsula of Filey Brigg before extending north west to Cunstone Nab. The seaward boundary extends 2km throughout the two sections of the site into the marine environment, running parallel to the landward boundaries to include the adjacent coastal waters.

Size of SPA: The SPA covers an area of 7857.99 hectares.

Site description:

Flamborough and Filey Coast SPA is located on the Yorkshire coast between Bridlington and Scarborough. It includes the RSPB reserve at Bempton Cliffs, the Yorkshire Wildlife Trust Flamborough Cliffs nature reserve and the East Riding of Yorkshire Council Flamborough Head Local Nature Reserve. The cliffs of Flamborough Head rise to 135 metres and are composed of chalk and other sedimentary rocks. These soft cliffs have been eroded into a series of bays, arches, pinnacles and gullies with an extensive system of caves at sea-level. The cliffs from Filey Brigg to Cunstone Nab comprise a range of sedimentary rocks including shales and sandstones. The cliff top vegetation comprises maritime grassland vegetation growing alongside species more typical of chalk grassland. The intertidal area below the cliffs is predominantly rocky and part of a series of reefs that extend into the subtidal area. The adjacent sea out to 2 km off Flamborough Head as well as Filey Brigg to Cunstone Nab is characterised by reefs supporting kelp forest communities in the shallow subtidal and faunal turf communities below 2 metre water depths. The southern side of Filey Brigg shelves off gently from the rocks to the sandy bottom of Filey Bay.

Qualifying species: The site qualifies under article 4.2 of the Directive (2009/147/EC) by supporting over 1% of the biogeographical populations of four regularly occurring migratory species and a breeding seabird assemblage of European importance.

Species	Count (period)	% of subspecies or population (pairs)
Black-legged kittiwake *Rissa tridactyla*	44,520 pairs[1] 89,040 breeding adults[2] (2008-2011)	2% North Atlantic[3]

[1] Data from: Seabird Monitoring Programme (SMP) for original SPA (2008); RSPB counts for terrestrial extension (2009-2011), unpublished; black-legged kittiwakes are counted as “apparently occupied nests” (AONs); 1 AON equates to 1 breeding pair.
[2] Pairs multiplied by 2 to arrive at breeding adults; this rule applies to all species listed within the table.
[3] Data from: AEWA (2012); 6,600,000 Ind. translated to pairs by dividing by 3 and compared to pairs reported for the revised SPA to derive % population.

Northern gannet *Morus bassanus*	8,469 pairs[4] 16,938 breeding adults (2008-2012)	2.6% North Atlantic[5]
Common guillemot *Uria aalge*	41,607 pairs[6] 83,214 breeding adults (2008-2011)	15.6% (*Uria aalge albionis*)[7]
Razorbill *Alca torda*	10,570 pairs[8] 21,140 breeding adults (2008-2011)	2.3% *(Alca torda islandica)*[9]

	Count period	**Average number of individuals**
Seabird Assemblage	2008-2012	216,730

References:

AEWA – African-Eurasian Waterbird Agreement (2012): Report on the Conservation Status of Migratory Waterbirds in the Agreement Area. Fifth Edition. AEWA, Bonn.
Available here: http://www.unep-aewa.org/meetings/en/stc_meetings/stc7docs/info_docs_pdf/stc_inf_7_4_csr5.pdf

Aitken, D., Clarkson, K., Kendall, I., Wightman, S. (2012): Flamborough Head and Bempton Cliffs SPA Seabird Monitoring Programme. 2012 Report, Bempton.

Harris, M.P. (1989): Variation in the correction factor used for converting counts of individual Guillemots Uria aalge into breeding pairs. IBIS 131, pp. 85-93.
Available at: http://onlinelibrary.wiley.com/doi/10.1111/j.1474-919X.1989.tb02747.x/abstract

Status of the SPA:

1. Flamborough Head and Bempton Cliffs was classified as an SPA on 5 March 1993.

2. The site was extended and renamed Flamborough and Filey Coast SPA on 23rd August 2018

[4] Data from: SMP for original SPA (2008, 2009); RSPB counts for original SPA (2012), (Aitken et al. 2012); northern gannets are counted as AONs; 1 AON equates to 1 breeding pair.
[5] Data from: AEWA (2012); 967,000 Ind. translated to pairs by dividing by 3 and compared to pairs reported for the revised SPA to derive % population.
[6] Data from: SMP for original SPA (2008); RSPB counts for terrestrial extension (2009-2011), unpublished; common guillemots are counted as "individuals on land" (62,100 individuals on land (mean of counts 2008-2011)); individuals on land are multiplied by a correction factor of 0.67 (Harris 1989) to translate to breeding pairs.
[7] Data from: AEWA (2012); 800,000 Ind. translated to pairs by dividing by 3 and compared to pairs reported for the revised SPA to derive % population.
[8] Data from: SMP for original SPA (2008); RSPB counts for terrestrial extension (2009-2011), unpublished; razorbills are counted as "individuals on land" (15,776 individuals on land (mean of counts 2008-2011)); individuals on land are multiplied by a correction factor of 0.67 (Harris 1989) to translate to breeding pairs.
[9] Data from: AEWA (2012); 1,380,000 Ind. translated to pairs by dividing by 3 and compared to pairs reported for the revised SPA to derive % population.

This citation relates to a site entered in the Register of European Sites for Great Britain.
Register reference number: UK000610
Date of registration: 25 August 1998
Date amended: 23 August 2018

Signed: 

On behalf of the Secretary of State for Environment, Food and Rural Affairs

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9006101**

SITENAME **Flamborough and Filey Coast**

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1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
A	UK9006101

1.3 Site name

Flamborough and Filey Coast

1.4 First Compilation date	1.5 Update date
1993-03	2018-09

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	1993-03
National legal reference of SPA designation	Regulations 15 and 17-19 of The Conservation of Habitats and Species Regulations 2017 (https://www.legislation.gov.uk/uksi/2017/1012/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude
-0.1792

Latitude
54.1658

2.2 Area [ha]:

7857.99

2.3 Marine area [%]

97.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKE1	East Yorkshire and Northern Lincolnshire
UKE2	North Yorkshire
UKZZ	Extra-Regio

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A200	Alca torda			r	10570	10570	p	P	G	B		A	
B	A016	Morus bassanus			r	8469	8469	p	P	G	B		A	
B	A188	Rissa tridactyla			r	44520	44520	p	P	G	B		A	
B	A199	Uria aalge			r	41607	41607	p	P	G	A		A	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not

even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

3.3 Other important species of flora and fauna (optional)

Species					Population in the site				Motivation					
Group	CODE	Scientific Name	S	NP	Size		Unit	Cat.	Species Annex		Other categories			
					Min	Max		C|R|V|P	IV	V	A	B	C	D
B	SBA	Seabird assemblage			216730	216730	i							X

- **Group:** A = Amphibians, B = Birds, F = Fish, Fu = Fungi, I = Invertebrates, L = Lichens, M = Mammals, P = Plants, R = Reptiles
- **CODE:** for Birds, Annex IV and V species the code as provided in the reference portal should be used in addition to the scientific name
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Unit:** i = individuals, p = pairs or other units according to the standard list of population units and codes in accordance with Article 12 and 17 reporting, (see reference portal)
- **Cat.:** Abundance categories: C = common, R = rare, V = very rare, P = present
- **Motivation categories: IV, V:** Annex Species (Habitats Directive), **A:** National Red List data; **B:** Endemics; **C:** International Conventions; **D:** other reasons

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N05	2.0
N01	96.0
N14	1.0
N15	1.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil and Geology: basic, sedimentary 2 Terrestrial: Geomorphology and landscape: caves, crags/ledges,coastal 2 Marine: Geology: limestone/chalk, biogenic reef, sedimentary, cobble 4 Marine: Geomorpohology: cliffs, intertidal rock, cave/tunnel

4.2 Quality and importance

ARTICLE 4.2 QUALIFICATION (2009/147/EC): The site regularly supports more than 1% of the biogeographical population of four regularly occurring migratory species; black-legged kittiwake Rissa tridactyla (89,040 breeding adults, 2008-2011, 2% North Atlantic), northern gannet Morus bassanus (16,938 breeding adults, 2008-2012, 2.6% North Atlantic), common guillemot Uria aalge albionis (83,214 breeding adults 2008-2011, 15.6%) and razorbill Alca torda islandica (21,140 breeding adults, 2008-2011, 2.3%). The site regularly supports an assemblage of more than 20,000 individual breeding seabirds (average number of individuals: 216,730, 2008-2012), including over 2,000 individual northern fulmar Fulmarus glacialis.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	K05		I
M	F02		b
M	D05		b
L	A02		i
H	G01		b
L	D03		b
L	A01		i
L	I01		b
L	E03		b
L	E04		i
H	C03		o
L	G05		b
M	L05		i

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
L	G03		b
L	D05		b
L	A04		i

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Proposed extension to Flamborough Head and Bempton Cliffs Special Protection Area and renaming as FLAMBOROUGH AND FILEY COAST potential Special Protection Area (pSPA) (SPA EU code: UK9006101): Natural England, 2014. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://webarchive.nationalarchives.gov.uk/20140605090108/http://www.naturalengland.org.uk/Images/Flamborough-depar

http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

Organisation:	Yorkshire Water
Address:	
Email:	

Organisation:	Marine Management Organisation
Address:	
Email:	

Organisation:	Environment Agency
Address:	
Email:	

Organisation:	North Eastern Inshore Fisheries and Conservation Authority
Address:	
Email:	

Organisation:	Royal National Lifeboat Institution
Address:	
Email:	

Organisation:	Crown Estate
Address:	
Email:	

Organisation:	Trinity House
Address:	
Email:	

Organisation:	Royal Society for the Protection of Birds
Address:	
Email:	

Organisation:	Local Authorities
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

[X] Yes Name: 2016-2021 Flamborough Head European Marine Site Management Plan
Link:
http://www.flamboroughheadsac.org.uk/documents/17-03-15%202016-2021%20Management%20Plan%20Final_2017%

[ ] No, but in preparation

[ ] No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

7. MAP OF THE SITES

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INSPIRE ID:

Map delivered as PDF in electronic format (optional)

[ ] Yes [X] No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

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: 04 October 1996

3. Country:

UK (England)

4. Name of the Ramsar site:

Foulness (Mid-Essex Coast Phase 5)

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 34 25 N 00 55 17 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

Foulness is an open coast system at the wide northern mouth of the Thames estuary.

Administrative region: Essex

10. Elevation (average and/or max. & min.) (metres): 11. Area (hectares): 10932.95

Min. -1
Max. 3
Mean 0

12. General overview of the site:

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

Foulness is part of an open coast estuarine system comprising grazing marsh, saltmarsh, intertidal mudflats and sandflats which support nationally rare and nationally scarce plants, and nationally and internationally important populations of breeding, migratory and wintering waterfowl.

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).

1, 2, 3, 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 1

This site qualifies by virtue of the extent and diversity of saltmarsh habitat present. This and four other sites in the Mid-Essex Coast Ramsar site complex, include a total of 3,237 ha, that represent 70% of the saltmarsh habitat in Essex and 7% of the total area of saltmarsh in Britain.

Ramsar criterion 2

The site supports a number of nationally-rare and nationally-scarce plant species, and British Red Data Book invertebrates.

Ramsar criterion 3

The site contains extensive saltmarsh habitat, with areas supporting full and representative sequences of saltmarsh plant communities covering the range of variation in Britain.

Ramsar criterion 5

Assemblages of international importance:

Species with peak counts in winter:
82148 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:

Common redshank , *Tringa totanus totanus*,	2586 individuals, representing an average of 1% of the population (5 year peak mean 1998/9-2002/3)

Species with peak counts in winter:

Dark-bellied brent goose, *Branta bernicla bernicla*,	6475 individuals, representing an average of 3% of the population (5 year peak mean 1998/9-2002/3)
Eurasian oystercatcher , *Haematopus ostralegus ostralegus*, Europe & NW Africa -wintering	14674 individuals, representing an average of 1.4% of the population (5 year peak mean 1998/9-2002/3)
Grey plover , *Pluvialis squatarola*, E Atlantic/W Africa -wintering	4343 individuals, representing an average of 1.7% of the population (5 year peak mean 1998/9-2002/3)
Red knot , *Calidris canutus islandica*, W & Southern Africa (wintering)	22439 individuals, representing an average of 4.9% of the population (5 year peak mean 1998/9-2002/3)
Bar-tailed godwit , *Limosa lapponica lapponica*, W Palearctic	4095 individuals, representing an average of 3.4% of the 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.
See Sections 21/22 for details of noteworthy species
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	shingle, sand, mud, clay, nutrient-rich, sedimentary, gravel
Geomorphology and landscape	lowland, coastal, floodplain, subtidal sediments (including sandbank/mudbank), intertidal sediments (including sandflat/mudflat), open coast (including bay), estuary
Nutrient status	eutrophic
pH	circumneutral
Salinity	brackish / mixosaline, fresh, saline / euhaline
Soil	mainly organic
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:

Foulness is part of an open coast estuarine system comprising grazing marsh, saltmarsh, intertidal mudflats, cockle-shell banks and sandflats. It includes one of the three largest continuous sand-silt flats in the UK.

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).

Foulness is part of an open coast estuarine system comprising grazing marsh, saltmarsh, intertidal mudflats, cockle-shell banks and sandflats. It includes one of the three largest continuous sand-silt flats in the UK.

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

19. Wetland types:

Human-made wetland, Marine/coastal wetland

Code	Name	% Area
G	Tidal flats	89.5

Ts	Freshwater marshes / pools: seasonal / intermittent	3.7
B	Marine beds (e.g. sea grass beds)	2.7
H	Salt marshes	2.1
Other	Other	1.4
Q	Saline / brackish lakes: permanent	0.5
E	Sand / shingle shores (including dune systems)	0.1

20. General ecological features:

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

The main habitat types of this site are:

mudflats, sandflats, saltmarsh, brackish-water lagoon, freshwater, grazing marsh.

Pioneer saltmarsh communities with *Spartina maritima, Sarcocornia perennis* and *Suaeda vera*; mature saltmarsh communities with *Atriplex pedunculata*. Species-rich perennial saltmarsh and drift-like communities with *Suaeda vera*, eelgrass *Zostera* beds. Brackish-water vegetation dominated by *Bolboschoenus maritimus*. Grazing marsh with *Alopecurus geniculatus, Hordeum secalinum* and fescues *Festuca* spp.

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.

Atriplex pedunculata, Cynodon dactylon, Bupleurum tenuissimum, Carex divisa, Hordeum marinum, Inula crithmoides, Limonium humile, Parapholis incurva, Poa bulbosa, Polypogon monspeliensis, Puccinellia fasciculata, Puccinellia rupestris, Ruppia cirrhosa, Salicornia pusilla, Spartina maritima, Suaeda vera, Trifolium squamosum, Trifolium suffocatum, Vulpia fasciculata, Zostera angustifolia, Zostera 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 regularly supported during the breeding season:

Sandwich tern , *Sterna (Thalasseus) sandvicensis sandvicensis*, W Europe	320 pairs, representing an average of 3% of the GB population (5 year mean 1992-1996)
Common tern , *Sterna hirundo hirundo*, N & E Europe	134 apparently occupied nests, representing an average of 1.3% of the GB population (Seabird 2000 Census)
Little tern , *Sterna albifrons albifrons*, W Europe	24 pairs, representing an average of 1.2% of the GB population (5 year mean 1992-1996)

Species with peak counts in spring/autumn:

Little egret , *Egretta garzetta*, West Mediterranean	55 individuals, representing an average of 3.3% of the GB population (5 year peak mean 1998/9-2002/3)
Ringed plover , *Charadrius hiaticula*, Europe/Northwest Africa	547 individuals, representing an average of 1.6% of the GB population (5 year peak mean 1998/9-2002/3)
Sanderling , *Calidris alba*, Eastern Atlantic	432 individuals, representing an average of 2.1% of the GB population (5 year peak mean 1998/9-2002/3)
Ruff , *Philomachus pugnax*, Europe/W Africa	20 individuals, representing an average of 2.8% of the GB population (5 year peak mean 1998/9-2002/3)
Whimbrel , *Numenius phaeopus*, Europe/Western Africa	34 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/9-2002/3)
Eurasian curlew , *Numenius arquata arquata*, N. a. arquata Europe (breeding)	2948 individuals, representing an average of 2% of the GB population (5 year peak mean 1998/9-2002/3)
Common greenshank , *Tringa nebularia*, Europe/W Africa	139 individuals, representing an average of 23.2% of the GB population (5 year peak mean 1998/9-2002/3)
Species with peak counts in winter:	
Little grebe , *Tachybaptus ruficollis ruficollis*, Europe to E Urals, NW Africa	97 individuals, representing an average of 1.2% of the GB population (5 year peak mean 1998/9-2002/3)
Common shelduck , *Tadorna tadorna*, NW Europe	1305 individuals, representing an average of 1.6% of the GB population (5 year peak mean 1998/9-2002/3)
Hen harrier, *Circus cyaneus*, Europe	<19 individuals, representing an average of 2.5% of the GB population (5 year mean 1987/8-1991/2)
Pied avocet , *Recurvirostra avosetta*, Europe/Northwest Africa	255 individuals, representing an average of 7.5% of the GB population (5 year peak mean 1998/9-2002/3)
European golden plover , *Pluvialis apricaria apricaria*, P. a. altifrons Iceland & Faroes/E Atlantic	4066 individuals, representing an average of 1.6% of the GB population (5 year peak mean 1998/9-2002/3)
Dunlin , *Calidris alpina alpina*, W Siberia/W Europe	9905 individuals, representing an average of 1.7% of the GB population (5 year peak mean 1998/9-2002/3)
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)

Species Information

Nationally important species occurring on the site.

Invertebrates.

Lestes dryas, Aethes margarotana, Malacosoma castrensis, Hybomitra expollicata, Lejops vittata, Poecilobothrus ducalis, Stratiomys longicornis, Parydroptera discomyzina, Paragus albifrons, Tachys scutellaris, Berosus spinosus, Gammarus insensibilis

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
Fisheries production
Livestock grazing
Sport hunting

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	+	

25. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	+
Tourism		+
Recreation		+
Current scientific research		+
Fishing: commercial	+	+
Fishing: recreational/sport		+
Bait collection		+
Arable agriculture (unspecified)	+	+
Grazing (unspecified)	+	+
Hunting: recreational/sport	+	+
Flood control	+	+
Mineral exploration (excl. hydrocarbons)		+

Transport route	+	+
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		+		+

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) (Anon. 2002) covers the site and it is expected to inform the shoreline management plan as well as local plan policies. The MoD are responsible for the site and there are discussions underway as to the possibility of managed realignment.

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)	+	+
National Nature Reserve (NNR)		+
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)	+	+
Special Area of Conservation (SAC)	+	

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.

Flora.
Reintroduction of *Atriplex pedunculata* as part of the English Nature Species Recovery Programme.

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

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

None reported

31. Current recreation and tourism:

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

Activities, Facilities provided and Seasonality.
There is no significant regular use of the site for recreation or tourism.

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

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

Buck, AL (ed.) (1993) *An inventory of UK estuaries. Volume 5. Eastern England*. Joint Nature Conservation Committee, Peterborough

Burd, F (1989) *The saltmarsh survey of Great Britain. An inventory of British saltmarshes*. Nature Conservancy Council, Peterborough (Research & Survey in Nature Conservation, No. 17)

Cottle, R, Pethick, J & Dalton, H (2002) *Essex Estuaries Coastal Habitat Management Plan: final report*. English Nature, Peterborough (Living with the Sea LIFE Project)

Covey, R (1998) Chapter 6. Eastern England (Bridlington to Folkestone) (MNCR Sector 6). In: *Benthic marine ecosystems of Great Britain and the north-east Atlantic*, ed. by K. Hiscock, 179-198. Joint Nature Conservation Committee, Peterborough. (Coasts and Seas of the United Kingdom. MNCR series)

Davidson, NC, Laffoley, D d'A, Doody, JP, Way, LS, Gordon, J, Key, R, Pienkowski, MW, Mitchell, R & Duff, KL (1991) *Nature conservation and estuaries in Great Britain*. Nature Conservancy Council, Peterborough

Doody, JP, Johnston, C & Smith, B (1993) *Directory of the North Sea coastal margin*. Joint Nature Conservation Committee, Peterborough

Hill, TO, Emblow, CS & Northen, KO (1996) *Marine Nature Conservation Review Sector 6. Inlets in eastern England: area summaries*. Joint Nature Conservation Committee, Peterborough (Coasts and seas of the United Kingdom. MNCR series)

May, VJ & Hansom, JD (eds.) (2003) *Coastal geomorphology of Great Britain*. Joint Nature Conservation Committee, Peterborough (Geological Conservation Review Series, No. 28)

McLeod, CR, Yeo, M, Brown, AE, Burn, AJ, Hopkins, JJ & Way, SF (eds.) (2004) *The Habitats Directive: selection of Special Areas of Conservation in the UK*. 2nd edn. Joint Nature Conservation Committee, Peterborough. www.jncc.gov.uk/SACselection

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

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

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

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

Shirt, DB (ed.) (1987) *British Red Data Books: 2. Insects*. Nature Conservancy Council, Peterborough

Stroud, DA, Chambers, D, Cook, S, Buxton, N, Fraser, B, Clement, P, Lewis, P, McLean, I, Baker, H & Whitehead, S (eds.) (2001) *The UK SPA network: its scope and content*. Joint Nature Conservation Committee, Peterborough (3 vols.) www.jncc.gov.uk/UKSPA/default.htm

Thames Estuary Conservation Group (n.d.) *The Thames estuary*. Thames Estuary Conservation Group

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**

Please return to: **Ramsar Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**

Telephone**: +41 22 999 0170** • Fax: **+41 22 999 0169** • email: **ramsar@ramsar.org**

Directive 2009/147/EC on the Conservation of Wild Birds
Special Protection Area (SPA)

Name: Greater Wash SPA

Counties/Unitary Authorities: East Riding of Yorkshire, Lincolnshire, Norfolk, Suffolk

Boundary of the SPA:

The landward boundary of the SPA covers the coastline from Bridlington Bay in the north (at the village of Barmston), to the existing boundary of the Outer Thames Estuary SPA in the south. Along this stretch of coast, the boundary will come to Mean High Water (MHW). Across the mouth of the Humber Estuary, the boundary abuts the boundary of the Humber Estuary SPA, except where neither the little tern foraging zone or the red-throated diver Maximum Curvature Analysis (MCA) density threshold reaches the SPA. The landward boundary abuts the seaward boundary of The Wash SPA except where the former overlaps the latter to encompass the foraging area of Sandwich tern.

The seaward boundary lies approximately 14 nautical miles (nm) from the shore at its furthest extent and is driven by the distribution of red-throated diver along the length of the SPA, with a small length off the north Norfolk Coast driven by the area used by foraging Sandwich tern.

Size of SPA: The SPA covers an area of 353,578 ha or 3,536 km^2.

Site description:

The Greater Wash SPA is located in the mid-southern North Sea between Bridlington Bay in the north and the Outer Thames Estuary SPA in the south. To the north, off the Holderness coast in Yorkshire, seabed habitats primarily comprise coarse sediments, with occasional areas of sand, mud and mixed sediments. Subtidal sandbanks occur at the mouth of the Humber Estuary, primarily comprising sand and coarse sediments. Offshore, soft sediments dominate, with extensive areas of subtidal sandbanks off The Wash as well as north and east Norfolk coasts. Closer inshore at The Wash and north Norfolk coast, sediments comprise a mosaic of sand, muddy sand, mixed sediments and coarse sediments, as well as occasional Annex I reefs. The area off the Suffolk coast continues the mosaic habitats mostly dominated by soft sediment.

Qualifying species:

The site qualifies under **Article 4.1** of the Directive 2009/147/EC by regularly supporting populations of national importance of the Annex I species:

Species	Count (period)	% of subspecies or population	SPA selection guideline
Red-throated diver *Gavia stellata*	1,407 individuals (MoP 2002/03 - 2005/06)	8.3% GB non-breeding population	1.1
Little gull *Hydrocoloeus minutus*	1,255 individuals (MoP 2004/05 –2005/06)	No current GB population estimate	1.4
Sandwich tern *Sterna sandvicensis*	3,852 pairs (5 year MoP 2010-14)	35.0% of GB breeding population	1.1
Common tern *Sterna hirundo*	510 breeding pairs (5 year MoP 2010-2014)	5.1% of GB breeding	1.1
Little tern *Sternula albifrons*	798 pairs (5 year MoP 2009-2013)	42.0% of GB breeding population	1.1

In addition, the site qualifies under **Article 4.2** of the Directive 2009/147/EC by regularly supporting a population of international importance of the migratory species:

Species	Count (period)	% of subspecies or population	SPA selection guideline
Common scoter *Melanitta nigra*	3,449 individuals (MoP 2002/03, - 2007/08)	0.6% biogeographic population [1]	1.4

Mean of Peak (MoP) for non-breeding populations[2], breeding populations taken from various sources and are summed across the relevant site-specific population estimates. GB populations derived from Musgrove *et al*. (2013)[3] unless otherwise stated.

Principal bird data sources:

Populations on non-breeding waterbirds from:
MoP non-breeding populations for red-throated diver, common scoter and little gull were calculated by Natural England using Area of Search (AoS) data reported by Lawson *et al.* 2015a (Appendix 4).
Colony counts for Sandwich and common tern from:
JNCC Seabird Monitoring Programme contributed by colony managers from: National Trust, Natural England (North Norfolk Coast SPA) and RSPB (Breydon Water SPA).
Colony counts for little tern from:
RSPB for EU LIFE+ Little Tern Recovery Project contributed by site managers from: Easington Little Tern Protection Scheme (Humber Estuary SPA); Lincolnshire Wildlife Trust (Gibraltar Point SPA); RSPB, National Trust, Norfolk Wildlife Trust, Natural England (North Norfolk Coast SPA); and RSPB (Great Yarmouth North Denes SPA).

Status of SPA:
Greater Wash SPA was classified under Directive 2009/147/EC on 28th March 2018

This citation relates to a site entered in the Register of European Sites for Great Britain.
Register reference number: UK9020329
Date of registration: 28 March 2018

Signed:

On behalf of the Secretary of State for Environment, Food and Rural Affairs

[1] Common scoter biogeographic population from Waterbird Population Estimates online database (http://wpe.wetlands.org/) accessed 26/01/2016)
[2] MoP (Mean of Peaks) non-breeding populations for red-throated diver, common scoter and little gull were calculated by Natural England using AoS data reported by Lawson *et al.* 2015 (http://jncc.defra.gov.uk/page-7104).
[3] Musgrove *et al.* (2013) collates population estimates of birds in Great Britain and the UK, by extrapolation of previous estimates using recognised trend measures, new surveys and novel analytical approaches (https://www.britishbirds.co.uk/wp-content/uploads/2010/12/APEP3.pdf).

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9020329**

SITENAME **Greater Wash**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
A	UK9020329

1.3 Site name

Greater Wash

1.4 First Compilation date	1.5 Update date
2018-03	-

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	2018-03
National legal reference of SPA designation	Regulations 15 and 17-19 of The Conservation of Habitats and Species Regulations 2017 (https://www.legislation.gov.uk/uksi/2017/1012/contents/made), and Regulations 12, 19 and 20 of The Conservation of Offshore Marine Habitats and Species Regulations 2017 (http://www.legislation.gov.uk/uksi/2017/1013/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
0.7264	53.2356

2.2 Area [ha]:

353577.86

2.3 Marine area [%]

100.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH1	East Anglia
UKF3	Lincolnshire
UKZZ	Extra-Regio
UKE1	East Yorkshire and Northern Lincolnshire

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A001	Gavia stellata			w	1407	1407	i		G	B		C	
B	A177	Larus minutus			w	1255	1255	i		M			C	
B	A065	Melanitta nigra			w	3449	3449	i		G	A		C	
B	A195	Sterna albifrons			r	798	798	p		G	A		C	
B	A193	Sterna hirundo			r	510	510	p		G	B		C	
B	A191	Sterna sandvicensis			r	3852	3852	p		G	A		C	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)

- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N01	99.0
N02	1.0
Total Habitat Cover	100

Other Site Characteristics

3 Marine: Geology: a mixture of coarse sediments, sand, mud, muddy sand and mixed sediments. 4 Marine: Geomorphology: intertidal mudflats and sandflats, subtidal sandbanks and biogenic reef, including Sabellaria reefs and mussel beds.

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC): During the breeding season the area supports Annex I populations of little tern (Sternula albifrons) (798 pairs, 5-year peak mean 2009-2013, 42% of GB breeding population), common tern (Sterna hirundo) (510 pairs, 5-year peak mean 2010-2014, 5.1% of GB breeding population) and Sandwich tern (Sterna sandvicensis) (3,852 pairs, 5-year peak mean 2010-2014, 35% of GB breeding population) (stage 1.1). During the winter, the site also supports populations of overwintering Annex I species: little gull (Hydrocoloeus minutus) (1,255 peak mean 2004/05-2005/06, no current GB population estimate) (stage 1.4) and red-throated diver (Gavia stellata) (1,407 individuals, 5-year peak mean 2002/03-2005/06, 8.3% of GB non-breeding population) (stage 1.1). ARTICLE 4.2 QUALIFICATION (2009/147/EC): Site regularly supports 3,449 Common scoter (Melanitta nigra) (5-year peak mean 2002/03-2007/08, 0.6% of biogeographic population), a regularly occurring migratory species not listed in Annex I of the EC Birds Directive is also supported within the site (stage 1.4).

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
M	G01		b
M	D03		b
H	C03		b
L	H03		b
L	F02		i

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

The weblink 'http://jncc.defra.gov.uk/page-6895' allows access to site specific information for all marine MPAs in UK offshore waters.

Link(s): http://consult.defra.gov.uk/natural-england-marine/greater-wash-potential-special-protection-area-com/supporting_docur

http://publications.naturalengland.org.uk/publication/4597871528116224

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

Organisation:	For information about relevant management offshore please contact JNCC
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

- [ ] Yes
- [ ] No, but in preparation
- [X] No

6.3 Conservation measures (optional)

For available information on relevant conservation measures of the site, including the Conservation Objectives, see section 4.5.

7. MAP OF THE SITES

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INSPIRE ID:

Map delivered as PDF in electronic format (optional)

- [ ] Yes
- [X] No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
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8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

63. Hamford Water

Geographical Coordinates:	51°53'N 1°15'E	**Area:**	2,179ha
Location:	On the North Sea coast, approximately 20km east of the city of Colchester, in the county of Essex, southeast England.		
Date of Ramsar Designation:	8 June 1993		
Other International Designations:	European Union Special Protection Area		
National Designations:	Hamford Water National Nature Reserve[P]; Site of special scientific interest; Two Essex wildlife trusts; Environmentally sensitive area.		

Principal Features: A wide, shallow, estuarine basin containing an extensive network of tidal creeks and scattered islands. The site includes substantial areas of intertidal sand-flats, mud-flats (supporting beds of *Zostera* spp.) and associated saltmarsh. One of the rarest coastal plants in Britain, *Peucedanum officinale*, has its centre of distribution at Hamford Water, while other notable plants include *Limonium binervosum* and *L. humile*. Two separate areas of dune-topped shingle spits support a well-developed flora characteristic of the lime-rich sand. Wintering water birds include internationally important numbers[1] of *Branta bernicla bernicla* (4,647), *Charadrius hiaticula* (694), and *Limosa limosa* (1,501). Several other species occur in nationally important numbers[1], notably *Recurvirostra avosetta* (166), *Pluvialis squatarola* (1,373) and *Tringa totanus* (1,139). Nesting birds include nationally important numbers of *Sterna albifrons*. (Criteria 3c).

[1]Figures refer to average peak counts during the five winters 1987/88 to 1991/92.

Conservation Issues: The site contains a harbour and is used for commercial and subsistence fishing, bait fishing, mariculture, recreational hunting, industry, hay growing and grazing as well as conservation. The site continues to suffer from long-term erosion due to relative sea-level rise. This has resulted in a loss of saltmarsh vegetation and a decline in breeding success of waders such as *Tringa totanus* (UK 1996 Ramsar National Report).

Reasons for recommendation as a candidate Special Area of Conservation

Area name: Hamford Water

Administrative area: Essex

Component SSSI: Hamford Water

This area has been recommended as a candidate Special Area of Conservation (cSAC) because it contains species which are rare or threatened within a European context. The SSSI citation describes the special interests for which the site was notified in the British context. The interests for which the site was selected as SSSI may differ from the interests selected in a European context.

The species for which the area has been recommended as a candidate SAC is listed below. The reasons for their selection are listed, together with a brief description of the habitats and species as they typically occur across the UK. This area contains the interests described although it may not contain all the typical features.

The area is considered to have a high diversity of habitats/species of European importance.

Interest(s) submitted to the European Commission

European priority interest(s):

1. Fisher's estuarine moth *Gortyna borelii lunata*

- **for which this is considered to be one of the best areas in the United Kingdom.**

Gortyna borelii lunata has a localised population distribution in the UK, due to its specific habitat requirements and is only found in two areas, the north Essex coast and the north Kent Coast.

Hamford Water supports the majority of the Essex population and is the most important UK site for this species, supporting approximately 70% of the population.

Hamford Water is a large, shallow estuarine basin comprising tidal creeks, islands, intertidal mud, sand flats and saltmarshes. Above the saltmarsh there is unimproved and improved grassland (including grazing marsh), scrub, woodland, hedges, ditches, ponds and reedbeds. The site encompasses those areas where the moth's food plant hog's fennel (*Peucedanum officinale*) grows and where there is an abundance of the grasses required by the species for egg laying.

For agency use only:	
Date issued:	_____
Reference number or date of map:	_____

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK0030377**

SITENAME **Hamford Water**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
B	UK0030377

1.3 Site name

Hamford Water

1.4 First Compilation date	1.5 Update date
2013-09	2016-05

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee
Address: City Road, Peterborough, Cambs, UK, PE14JY
Email:

Date site proposed as SCI:	2013-09
Date site confirmed as SCI:	2014-12
Date site designated as SAC:	2016-02
National legal reference of SAC designation:	Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
1.2236	51.9025

2.2 Area [ha]:

50.34

2.3 Marine area [%]

0.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH3	Essex

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
I	4035	Gortyna borelii lunata			p	2000	4000	i		G	A	A	A	A

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N26	8.0
N25	85.0
N06	7.0
Total Habitat Cover	100

Other Site Characteristics

Hamford Water is a large, shallow estuarine basin comprising tidal creeks, islands, intertidal mud, sand flats and saltmarshes. Above the saltmarsh there is unimproved and improved grassland (including grazing marsh), scrub, woodland, hedges, ditches, ponds and reedbeds. The underlying geology consists of Tertiary, Palaeogene clays overlain by Neogene and early Pleistocene crag deposits and fluvial deposits of mud, sand and shingle.

4.2 Quality and importance

Fisher's Estuarine Moth - Gortyna borelii lunata - for which this is one of only two known outstanding localities in the United Kingdom.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	K02		I
H	M01		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	A02		I
H	D05		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0	UK01	33.2		

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

- [ ] Yes
- [ ] No, but in preparation
- [X] No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

7. MAP OF THE SITES

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INSPIRE ID:

Map delivered as PDF in electronic format (optional)

- [ ] Yes
- [X] No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
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A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

Directive 2009/147/EC on the Conservation of Wild Birds

Special Protection Area (SPA)

Name: Hamford Water

Counties/Unitary Authorities: Essex County Council

Size of SPA: The area of the SPA is 3,532.56 ha.

Site description: Hamford Water SPA is located on the north Essex coast, between the towns of Walton-on-the-Naze and Dovercourt. The site is a large shallow estuarine basin comprising tidal creeks, intertidal mud, sand flats and saltmarshes, as well as areas of scrub and unimproved grassland to the landward side of the sea walls.

Several islands are located within the basin, including Horsey Island, Skipper's Island, Hedge-End Island and Garnham's Island. All of these islands have substantial areas of saltmarsh on their margins and within their seawalls, where the seawall has breached, providing important feeding and roosting areas for many of the site's qualifying waterbirds.

Little terns nest on sand and shingle to the north eastern corner of Horsey Island. The grass fields within the sea wall at Horsey Island are utilised by both wintering and breeding waders and wildfowl. The rough grassland habitat at Skipper's Island supports the largest UK population of the rare Fisher's Estuarine Moth (*Gortyna borelii lunata*) and large stands of its larval food plant, Hog's Fennel (*Peucedanum officinale*). This moth is also found in localised areas along the sea wall on the mainland and on several other islands, including Horsey and Hedge-End.

Extensive intertidal mudflats provide an abundant food resource for wintering waterbirds and areas of seagrass are exploited by large flocks of brent geese on their autumn arrival. Ducks, grebes and cormorants feed within the sub-tidal waters and little terns are frequently recorded foraging in the shallower water, along the edges and mouths of creeks and channels. There are shingle spits along the coastline between Pewit Island and Dovercourt and between Walton-on-the-Naze and Stone Point. Ringed plover use these areas for nesting. The shingle habitat is topped in places by low, retreating sand dunes and supports several uncommon plants including Sea-holly (*Eryngium maritimum*), Sea-kale (*Crambe maritima*) and Sea Sandwort (*Honkenya peploides*).

The marine area includes all sub-tidal habitats out to 1,776 m, as well as areas of inter-tidal sandbank (Pye Sands) in the Pennyhole Bay area and an area of intertidal beach below the cliffs at The Naze.

Qualifying species:

The site qualifies under **Article 4.1** and **4.2** of the Birds Directive (2009/147/EC) for the following reasons:

Species	Count (period)	% of subspecies or population	Interest type
Qualifying features with revised counts			
Little tern *Sternula albifrons*	39 pairs – breeding (78 breeding adults) 2010 – 2014	2.1% of GB population	Annex 1
Qualifying features with counts remaining as at 1993 classification			
Avocet	99 individuals – wintering	7% of GB population	Annex 1

Species	Count (period)	% of subspecies or population	Interest type
Recurvirostra avosetta	1986/87 – 1990/91		
Dark bellied brent goose *Branta bernicla bernicla*	5,650 individuals – wintering 1986/87 – 1990/91	2% of biogeographic population	Migratory
Shelduck *Tadorna tadorna*	840 individuals – wintering 1986/87 – 1990/91	1% of GB population[1]	Migratory
Teal *Anas crecca*	3,630 individuals – wintering 1986/87 – 1990/91	2% of GB population[1]	Migratory
Ringed plover *Charadrius hiaticula*	620 individuals – wintering 1986/87 – 1990/91	1% of biogeographic population	Migratory
Grey plover *Pluvialis squatarola*	1,080 individuals – wintering 1986/87 – 1990/91	2% of GB population[1]	Migratory
Black-tailed godwit *Limosa limosa*	1,580 individuals – wintering 1986/87 – 1990/91	2% of biogeographic population	Migratory
Redshank *Tringa totanus*	1,240 individuals – wintering 1986/87 – 1990/91	1% of biogeographic population	Migratory

[1] Data from: Hamford Water 1993 SPA citation. In those cases in which % values are expressed in terms of %GB for non-Annex 1 species, no figure, expressed in terms of % of biogeographical population, was given in the original citation.

Principal bird data sources:

Breeding bird features:

- 2010-2013 data: Hamford Water little tern colony counts from JNCC Seabird Monitoring Programme contributed by colony managers.
- 2014 data: consultant surveyor, results of which are presented in Gibson, M. (2014): Breeding little tern and ringed plover – Hamford Water SSSI 2014. Unpublished report produced for Natural England: September 2014.

Non-breeding bird features:

- Original Hamford Water SPA citation for historical figures i.e. WeBS data 1986/87 – 1990/91. Available from: http://publications.naturalengland.org.uk/publication/6658670226046976

GB population estimates:

- From: Musgrove, M., Aebischer, N., Eaton, M., Hearn, R., Newson, S., Noble, D., Parsons M., Risely K., & Stroud, D. 2013 Population estimates of birds in Great Britain and the United Kingdom. British Birds 106: 64–100

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9009131**

SITENAME **Hamford Water**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
A	UK9009131

1.3 Site name

Hamford Water

1.4 First Compilation date	1.5 Update date
1993-06	2017-02

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	1993-06
National legal reference of SPA designation	Regulations 12A and 13-15 of the Conservation Habitats and Species Regulations 2010, (http://www.legislation.gov.uk/uksi/2010/490/contents/made) as amended by The Conservation of Habitats and Species (Amendment) Regulations 2011 (http://www.legislation.gov.uk/uksi/2011/625/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
1.2877	51.8794

2.2 Area [ha]:

3532.55

2.3 Marine area [%]

74.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH3	Essex
UKZZ	Extra-Regio

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A052	Anas crecca			w	3631	3631	i		G	B		C	
B	A675	Branta bernicla bernicla			w	6892	6892	i		G	B		C	
B	A137	Charadrius hiaticula			w	520	520	i		G	C		C	
B	A616	Limosa limosa islandica			w	1121	1121	i		G	A		C	
B	A141	Pluvialis squatarola			w	3251	3251	i		G	B		C	
B	A132	Recurvirostra avosetta			w	317	317	i		G	A		B	
B	A195	Sterna albifrons			r	30	40	p	R	G	B		C	
		Tadorna												

B	A048	tadorna			w	1629	1629	i		G	B		C	
B	A162	Tringa totanus			w	1461	1461	i		G	C		C	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N02	43.4
N06	0.6
N14	0.6
N01	38.1
N07	1.2
N04	0.6
N03	15.5
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: alluvium,sand,neutral,mud,clay 2 Terrestrial: Geomorphology and landscape: floodplain,coastal,lowland 3 Marine: Geology: clay,sand,mud 4 Marine: Geomorphology: enclosed coast (including embayment),estuary,subtidal sediments (including sandbank/mudbank),barrier beach,open coast (including bay),islands,intertidal sediments (including sandflat/mudflat),lagoon.

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC) During the breeding season the area regularly supports: Sterna albifrons (Eastern Atlantic - breeding) 2.1% of the GB breeding population (5 year mean 2010-2014) Over winter the area regularly supports: Recurvirostra avosetta (Western Europe/Western Mediterranean - breeding) 25% of the GB population 5 year peak mean 1991/92-1995/96 ARTICLE 4.2 QUALIFICATION (79/409/EEC) Over winter the area regularly supports: Anas crecca (North-western Europe) 2.7% of the population in Great Britain 5 year peak mean 1991/92-1995/96 Branta bernicla bernicla (Western Siberia/Western Europe) 2.3% of the population 5 year peak mean 1991/92-1995/96 Charadrius hiaticula (Europe/Northern Africa - wintering) 1.1% of the population 5 year peak mean 1991/92-1995/96 Limosa limosa islandica (Iceland - breeding) 1.7% of the population 5 year peak mean 1991/92-1995/96 Pluvialis squatarola (Eastern Atlantic - wintering) 7.5% of the population in Great Britain 5 year peak mean 1991/92-1995/96 Tadorna tadorna (North-western Europe) 2.2% of the population in Great Britain 5 year peak mean 1991/92-1995/96 Tringa totanus (Eastern Atlantic - wintering) 0.8% of the population 5 year peak mean 1991/92-1995/96.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	M02		B
L	F02		b
L	H03	X	o
L	D03		o

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	A02		I
H	A04		I
H	D05		I
H	B02		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	62.4	UK01	40.4		

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England, Crown Estate, Tendring District Council, Marine Management Organisation, Kent & Essex Inshore Fisheries Conservation Authority, Harwich Haven Authority
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

[ ]	Yes
[ ]	No, but in preparation
[X]	No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

7. MAP OF THE SITES

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INSPIRE ID:

Map delivered as PDF in electronic format (optional)

☐ Yes ☒ No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

EC Directive 92/43 on the Conservation of Natural Habitats and of Wild Fauna and Flora

Citation for Special Area of Conservation (SAC)

Name:	Humber Estuary
Unitary Authority/County:	City of Kingston upon Hull, East Riding of Yorkshire, Lincolnshire, North East Lincolnshire, North Lincolnshire
SAC status:	Designated on 10 December 2009
Grid reference:	TA345110
SAC EU code:	UK0030170
Area (ha):	36657.15
Component SSSI:	Humber Estuary

Site description:
The Humber is the second largest coastal plain **Estuary** in the UK, and the largest coastal plain estuary on the east coast of Britain. The estuary supports a full range of saline conditions from the open coast to the limit of saline intrusion on the tidal rivers of the Ouse and Trent. The range of salinity, substrate and exposure to wave action influences the estuarine habitats and the range of species that utilise them; these include a breeding bird assemblage, winter and passage waterfowl, river and sea lamprey, grey seals, vascular plants and invertebrates.

The Humber is a muddy, macro-tidal estuary, fed by a number of rivers including the Rivers Ouse, Trent and Hull. Suspended sediment concentrations are high, and are derived from a variety of sources, including marine sediments and eroding boulder clay along the Holderness coast. This is the northernmost of the English east coast estuaries whose structure and function is intimately linked with soft eroding shorelines. The extensive mud and sand flats support a range of benthic communities, which in turn are an important feeding resource for birds and fish. Wave exposed sandy shores are found in the outer/open coast areas of the estuary. These change to the more moderately exposed sandy shores and then to sheltered muddy shores within the main body of the estuary and up into the tidal rivers.

Habitats within the Humber Estuary include **Atlantic salt meadows** and a range of sand dune types in the outer estuary, together with **Sandbanks which are slightly covered by sea water all the time**, extensive intertidal mudflats, ***Salicornia* and other annuals colonising mud and sand**, and **Coastal lagoons**. As salinity declines upstream, reedbeds and brackish saltmarsh communities fringe the estuary. These are best-represented at the confluence of the Rivers Ouse and Trent at Blacktoft Sands.

Upstream from the Humber Bridge, the navigation channel undergoes major shifts from north to south banks, for reasons that have yet to be fully explained. This section of the estuary is also noteworthy for extensive mud and sand bars, which in places form semi-permanent islands. The sand dunes are features of the outer estuary on both the north and south banks particularly on Spurn peninsula and along the Lincolnshire coast south of Cleethorpes. Examples of both **Fixed dunes with herbaceous vegetation (`grey dunes`)** and **Shifting dunes along the shoreline with *Ammophila arenaria* (`white dunes)** occur on both banks of the estuary and along the coast. Native sea buckthorn **Dunes with *Hippophae rhamnoides*** also occurs on both sides of the estuary.

Significant fish species include **river lamprey** *Lampetra fluviatilis* and **sea lamprey** *Petromyzon marinus* which breed in the River Derwent, a tributary of the River Ouse. **Grey seals** *Halichoerus grypus* come ashore in autumn to form breeding colonies on the sandy shores of the south bank at Donna Nook.

Qualifying habitats: The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)
- Coastal lagoons*
- Dunes with *Hippophae rhamnoides*
- Embryonic shifting dunes
- Estuaries
- Mudflats and sandflats not covered by seawater at low tide
- Fixed dunes with herbaceous vegetation (`grey dunes`)*
- *Salicornia* and other annuals colonising mud and sand
- Sandbanks which are slightly covered by sea water all the time
- Shifting dunes along the shoreline with *Ammophila arenaria* (`white dunes')

Qualifying species: The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following species listed in Annex II:

- Grey seal *Halichoerus grypus*
- River lamprey *Lampetra fluviatilis*
- Sea lamprey *Petromyzon marinus*

Annex I priority habitats are denoted by an asterisk (*)

This citation relates to a site entered in the Register of European Sites for Great Britain.
Register reference number: UK0030170
Date of registration:10 December 2009

Signed: S G Hopkinson

On behalf of the Secretary of State for Environment, Food and Rural Affairs

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK0030170**

SITENAME **Humber Estuary**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
B	UK0030170

1.3 Site name

Humber Estuary

1.4 First Compilation date	1.5 Update date
2007-08	2015-12

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee

Address: Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY

Email:

Date site proposed as SCI:	2007-08
Date site confirmed as SCI:	2008-12
Date site designated as SAC:	2009-12
National legal reference of SAC designation:	Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
-0.734722222	53.58916667

2.2 Area [ha]:

36657.15

2.3 Marine area [%]

91.6

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKE1	East Yorkshire and Northern Lincolnshire
UKF3	Lincolnshire
UKZZ	Extra-Regio

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
1110			1656.9	0	P	C	A	C	C
1130			36657.15	0	G	B	B	B	B
1140			9384.23	0	G	B	B	B	B
1150	X		7.33	0	G	C	C	B	C
1210				0		D			
1310			47.65	0	P	C	C	B	C
1320			135.63	0	G	D			
1330									

			784.46	0	G	C	B	C	C
2110			18.33	0	G	C	A	C	C
2120			14.66	0	G	C	B	C	C
2130	X		14.66	0	G	C	C	C	C
2160			65.98	0	G	C	B	C	C

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
F	1102	Alosa alosa			p				P	DD	D			
F	1103	Alosa fallax			p				P	DD	D			
M	1364	Halichoerus grypus			p	1800	1800	i		G	C	B	B	C
F	1099	Lampetra fluviatilis			p				P	DD	A	B	C	C
F	1095	Petromyzon marinus			p	251	500	i		M	B	C	C	C
M	1365	Phoca vitulina			p				P	DD	D			

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N03	4.4
N07	0.4
N04	0.4
N02	94.9
Total Habitat Cover	100.10000000000002

Other Site Characteristics

1 Terrestrial: Soil & Geology: shingle,sedimentary,sandstone,neutral,mud,sand,alluvium,clay 2 Terrestrial: Geomorphology and landscape: coastal,floodplain,lowland 3 Marine: Geology: gravel,mud,sedimentary,sand,sandstone/mudstone,clay,shingle,limestone/chalk 4 Marine: Geomorphology: shingle bar,lagoon,islands,estuary,subtidal sediments (including sandbank/mudbank),intertidal sediments (including sandflat/mudflat),cliffs

4.2 Quality and importance

Sandbanks which are slightly covered by sea water all the time for which the area is considered to support a significant presence. Estuaries for which this is considered to be one of the best areas in the United Kingdom. Mudflats and sandflats not covered by seawater at low tide for which this is considered to be one of the best areas in the United Kingdom. Coastal lagoons for which the area is considered to support a significant presence. Salicornia and other annuals colonising mud and sand for which the area is considered to support a significant presence. Atlantic salt meadows (Glauco-Puccinellietalia maritimae) for which the area is considered to support a significant presence. Embryonic shifting dunes for which the area is considered to support a significant presence. which is considered to be rare as its total extent in the United Kingdom is estimated to be less than 1000 hectares. Shifting dunes along the shoreline with Ammophila arenaria (?white dunes?) for which the area is considered to support a significant presence. Dunes with Hippophae rhamnoides for which the area is considered to support a significant presence. which is considered to be rare as its total extent in the United Kingdom is estimated to be less than 1000 hectares. Fixed dunes with herbaceous vegetation (?grey dunes?) for which the area is considered to support a significant presence. Petromyzon marinus for which the area is considered to support a significant presence. Lampetra fluviatilis for which the area is considered to support a significant presence. Halichoerus grypus for which the area is considered to support a significant presence.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	M01		B
H	E02		O
H	J02		B
H	H02		B
H	K01		I

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	D05		I
H	A02		I
H	B02		I
H	A04		I

Rank: H = high, M = medium, L = low

Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification, T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions

i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation

advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK01	1.8	UK04	100.0		

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

☐	Yes
☐	No, but in preparation
☒	No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

Database release: End2022 - 12/03/2024

NATURA 2000 - STANDARD DATA FORM

**For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)**

SITE	**NL2008002**
SITENAME	**Klaverbank**

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Print Standard Data Form

1. SITE IDENTIFICATION

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1.1 Type

B

1.2 Site code

NL2008002

1.3 Site name

Klaverbank

1.4 First Compilation date

2008-12

1.5 Update date

2016-11

1.6 Respondent:

Name/Organisation:	Ministry of Agriculture, Nature and Food Quality - Department Nature & Biodiversity
Address:	
Email:	

1.7 Site indication and designation / classification dates

Date site proposed as SCI:	2008-12
Date site confirmed as SCI:	2009-12
Date site designated as SAC:	2016-06
National legal reference of SAC designation:	http://www.synbiosys.alterra.nl/natura2000/documenten/gebieden/165/PUBLICATIEVERSIE_N2K165_definitief%20besluit%20Klaverbank%

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude:	3.084400
Latitude:	54.023300

2.2 Area [ha]

153900.0000

2.3 Marine area [%]

100.0000

2.4 Sitelength [km] (optional):

No information provided

2.5 Administrative region code and name

NUTS level 2 code	Region Name
NLZZ	Extra-Regio NUTS 2

2.6 Biogeographical Region(s)

Marine Atlantic	(100 %)	Atlantic	(100 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	**PF**	**NP**	**Cover [ha]**	**Cave [number]**	**Data quality**	**A|B|C|D**	**A|B|C**		
						Representativity	**Relative Surface**	**Conservation**	**Global**
1170			76934	0.00	M	C	A	C	A

PF: for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
NP: in case that a habitat type no longer exists in the site enter: x (optional)
Cover: decimal values can be entered
Caves: for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	**Code**	**Scientific Name**	**S**	**NP**	**T**	**Size**		**Unit**	**Cat.**	**D.qual.**	**A|B|C|D**	**A|B|C**		
						Min	**Max**				**Pop.**	**Con.**	**Iso.**	**Glo.**
M	1364	Halichoerus grypus			p	0	0	i	C	M	C	B	C	C
M	1365	Phoca vitulina			p	0	0	i	R	M	C	B	C	C
M	1351	Phocoena phocoena			p	0	0	i	C	M	B	B	C	B

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
NP: in case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance categories (Cat.): C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information

Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

3.3 Other important species of flora and fauna (optional)

No information provided

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N01	100.00
Total Habitat Cover	100

Other Site Characteristics

De Klaverbank is het enige gebied op het NCP waar significante hoeveelheden grind aan het oppervlak liggen en waar ook grotere stenen met een specifieke begroeiing van o.a. kalkroodwieren voorkomen. Het is het gebied met de hoogste bodemfauna-diversiteit van het NCP. De Klaverbank wordt van noordwest tot zuidoost in twee delen opgesplitst door een 60 meter diepe geul, de Botney Cut. Ook op het Engelse Plat bevinden zich grote grind- en steenconcentraties. Het gebied is ontstaan als eindmorene van een gletsjer uit de laatste ijstijd (Weichselien) (Lindenboom et al., 2005).

4.2 Quality and importance

Potentieel is het gebied ook belangrijk voor de voortplanting van vissen als roggen en Haring, die harde substraten nodig hebben. Er zijn aanwijzingen dat dit in het verleden het geval is geweest, de huidige situatie is onbekend. Ook zijn er aanwijzingen dat vogels en Bruinvissen soms in grotere concentraties in dit gebied voorkomen; of dit echter structureel is, is niet bekend (Lindeboom et al., 2005).Alle ecologische waarden van het gebied met grof grind zijn van belang, met name aan het oppervlak liggende stenen met hun specifieke begroeiing. Ook het ertussen liggende benthos heeft een hoge natuurwaarde met een specifieke (voor Nederland unieke) langlevende soorten (Lindeboom et al., 2005). Op de Klaverbank is een levensgemeenschap aanwezig die voor zover bekend niet op andere delen van het NCP wordt aangetroffen (Van Moorsel, 2003).Kenmerkende vissoorten voor de Klaverbank zijn verder: Ansjovis (Engraulis encrasicolus), gevlekte rog (Raja montagui), Kabeljauw (Gadus morhua), Kleine pieterman (Echiichthys vipera), Schurftvis (Arnoglossus laterna).Kenmerkende benthossoorten voor de Klaverbank met dichtheden van ongeveer 1 tot 100 individuen per vierkante meter zijn Harpinia antennaria, Hippomedon denticulatus, Urothoe elegans, Dosinia lupinus, Mactra coralline, Phaxas pellucidus, Glycera lapidum, Glycera rouxi, Lumbrineris latreilli, Pectinaria koreni, Poecilochaetus serpens en Synelmis klatti.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
L	E02		o
L	D03		b
L	C03.03		o
L	H01		o
L	C02		o
H	F02		b
L	A07		o
L	D02.09		o
L	E03		o

Positive Impacts

Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
M	U		b

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.4 Ownership (optional)

No information provided

4.5 Documentation (optional)

- Anonymus (2005) Integraal Beheerplan Noordzee 2015. Interdepartementale Directeurenoverleg Noordzee (IDON)- Arts FA, Berrevoets CM (2005) Monitoring van zeevogels en zeezoogdieren op het Nederlands Continentaal Plat 1991 - 2005: Verspreiding, seizoenspatroon en trend van zeven soorten zeevogels en de Bruinvis. Rapport RIKZ/2005.032, Rijksinstituut voor Kust en Zee/RIKZ, Middelburg- Brasseur SMJM, Tulp I, Reijnders PJH, Smit CJ, Dijkman EM, Cremer JSM, Kotterman MJJ, Meesters HWG (2004) Voedselecologie van de Gewone en Grijze zeehond in de Nederlandse kustwateren. Rapport 905, Alterra, Wageningen- Daan N, Heessen HJL, Hofstede Rt (2005) North Sea Elasmobranchs: distribution, abundance and biodiversity. ICES, Copenhagen- De Groot SJ (2002) A review of the past and present status of anadromous fish species in the Netherlands: is restocking the Rhine feasible? Hydrobiologia 478:205-218- Degraer S, Wittoeck J, Appeltans W, Cooreman K, Deprez T, Hillewaert H, Hostens K, Mees J, Vanden Berghe W, Vincx M (2006) De macrobenthosatlas van het Belgisch deel van de Noordzee. Federaal Wetenschapsbeleid D/2005/1191/5- Hammond PS, Berggren P, Benke H, Borchers DL, Collet A, Heide Jorgensen MP, Heimlich S,

Hiby AR, Leopold MF, Oien N (2002) Abundance of harbour porpoise and other cetaceans in the North Sea and adjacent waters. Journal-of-Applied-Ecology [print] April, 2002; 39 (2): 361-376 URLJ: http://wwwblackwell-sciencecom/~cgilib/jnlpageasp?Journal=jappl&File=jappl-Lindeboom HJ, Dijkman EM, Bos OG, Meesters EH, Cremer JSM, De Raad I, Bosma A (2008) Ecologische Atlas Noordzee ten behoeve van gebiedsbescherming. Wageningen IMARES vestiging Texel- Lindeboom HJ, Geurts van Kessel AJM, Berkenbosch A (2005) Gebieden met bijzondere ecologische waarden op het Nederlands Continentaal Plat. Rapport RIKZ/2005008, Den Haag / Alterra rapport 1109, Wageningen:103 p.-Patberg W, De Leeuw JJ, Winter HV (2005) Verspreiding van rivierprik, zeeprik, fint en elft in Nederland na 1970. Rapport C004/05, RIVO, IJmuiden, The Netherlands- Ter Hofstede R, Heessen HJL, Daan N (2005) Systeembeschrijving Noordzee: Natuurwaardenkaarten vis. Rapport C090/05, RIVO, IJmuiden- Ter Hofstede R, Quirijns FJ, Daan N, Dekker W, Verver SW, Heessen HJL, Asjes J, Star B (2004) Beschermde Gebieden Noordzee: Begrenzing en ecologische waardering t.a.v. visgemeenschappen; visserij-activiteiten. Rapport C057/04, RIVO Biologie en Ecologie- Van Moorsel GWNM (2003) Ecologie van de Klaverbank, Biotasurvey 2002. Ecosub, Doorn

Link(s):**http://www.noordzeeloket.nl/beleid/noordzee-natura-2000/**

5. SITE PROTECTION STATUS

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5.1 Designation types at national and regional level (optional):

Code	Cover [%]
NL01	100.00

5.2 Relation of the described site with other sites (optional):

No information provided

5.3 Site designation (optional)

The same designation as under OSPAR under consideration.

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Rijkswaterstaat Dienst Noordzee
Address:	
Email:	peter.heslenfeld@rws.nl

6.2 Management Plan(s):

An actual management plan does exist:

☐	Yes	
☐	No, but in preparation	
☒	No	

6.3 Conservation measures (optional)

Integraal Beheerplan Noordzee 2015 (2005)

7. MAP OF THE SITE

No information provided

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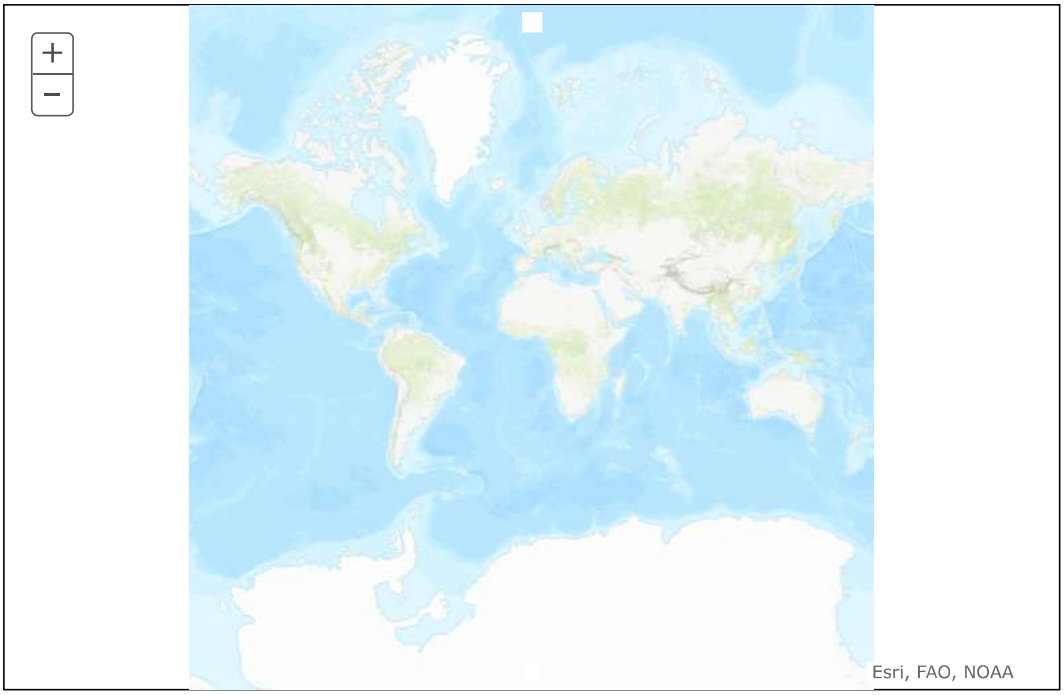
SITE DISPLAY



STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK0030371**

SITENAME **Margate and Long Sands**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
B	UK0030371

1.3 Site name

Margate and Long Sands

1.4 First Compilation date	1.5 Update date
2010-08	2017-10

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee

Address: Joint Nature Conservation Committee, Monkstone House, City Road, Peterborough, PE1 1JY

Email:

Date site proposed as SCI:	2010-08
Date site confirmed as SCI:	2011-11
Date site designated as SAC:	2017-09
National legal reference of SAC designation:	Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
1.37	51.565

2.2 Area [ha]:

64876.85

2.3 Marine area [%]

100.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKZZ	Extra-Regio

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
1110			40995.68		G	A	B	C	B
1140			3211.4		G	D			

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N01	100.0
Total Habitat Cover	100

Other Site Characteristics

General site characteristics: The different sites represent different sub-types of sandbank habitat, each has a slightly different range of sediment types, salinity and exposure to tides and wave action which results in different ranges of associated biological communities. Long Sands is influenced by tidal currents from the North Sea, and is highly dynamic tidally-influenced estuary mouth sandbank.

4.2 Quality and importance

Sandbanks which are slightly covered by sea water all the time for which this is considered to be one of the best areas in the United Kingdom.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	F02		I

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

For further information on this site, including its features, conservation objectives, advice on operations and management, please see Natural England and JNCC's Conservation Advice on the Designated Sites System via the link below.

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK0030371&SiteName=margate&c

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

- ☐ Yes
- ☐ No, but in preparation
- ☐

[X] No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

7. MAP OF THE SITES

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INSPIRE ID:

Map delivered as PDF in electronic format (optional)

[ ] Yes [X] No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

10. Minsmere - Walberswick

Geographical Coordinates 52°17'N 1°37'E **Area** 2,004ha

Location On the coast, approximately 20km south of the town of Lowestoft, in the county of Suffolk, eastern England.

Date of Ramsar Designation Original designation 5 January 1976; site extended from 1,697ha on 19 May 1992.

Other International Designations Special Protection Area under EC Directive 79/409.

National Designations National Nature Reserve[P] (NNR); Site of Special Scientific Interest (SSSI); Environmentally Sensitive Area[P] (ESA); Area of Outstanding Natural Beauty (AONB); Heritage Coast[P].

Principal Features A composite site, encompassing two discrete areas of a mosaic of coastal habitats, including shingle beaches, dunes, estuarine mudflats, grazing marshes, lagoons, reedbeds and heathland. The northern area, around Walberswick, incorporates marshes in the valley of the River Blyth, whilst Minsmere, to the south, features a mosaic of lagoons, islands and extensive reedbeds which originally developed on grazing land flooded as a war-time defence measure in 1940. Westwood Marshes, part of the Walberswick complex, support the largest continuous stand of reedbed in England and Wales, and are managed as a National Nature Reserve by English Nature. Minsmere is now a flagship reserve of the Royal Society for the Protection of Birds (RSPB) with a well-developed system of trails and hides. The National Trust owns and manages another area. The site supports an outstanding diversity of breeding birds, including a number of nationally rare species. Especially notable are[*] *Botaurus stellaris* (5 "booming" males), *Circus aeruginosus* (15 breeding females), *Recurvirostra avosetta* (47 pairs), *Sterna albifrons* (32 pairs), *Caprimulgus europaeus* (24 pairs) and *Panurus biarmicus* (c.50 pairs). The site is of national importance for a range of wintering water birds. Other features of interest include rare species of marshland flora and insect fauna. (1a,2a,2c,3b)

[*]All figures refer to 1990.

Conservation Issues The Countryside Stewardship scheme (see UK introductory section) is active in the area. English Nature has management agreements and leases with a number of landowners. The site requires and receives intensive management in order to maintain its values (this is particularly true of the heathland and reedbed areas). However, it remains very vulnerable to damage from external forces, including ground water abstraction, coastal erosion and salt water incursion due to sea-level rise, pollution from sewage treatment works and increasingly high numbers of visitors to the area.

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

MINSMERE-WALBERSWICK (SUFFOLK)

The Minsmere-Walberswick proposed SPA contains areas of grazing marsh, extensive reedbeds, the estuary of the River Blyth, and areas of lowland heath and woodland. The boundaries of the site follows those of the Minsmere-Walberswick Heath and Marshes.SSSI.

Minsmere-Walberswick qualifies under Article 4.1, by supporting, in summer, nationally important breeding populations of the following Annex 1 species: 5 booming male bitterns *Botauris stellaris* (presumed to represent 5 breeding pairs; 22% of the British breeding population) ; 15 breeding female marsh harriers *Circus aeruginosus* (20% of British) ; 47 pairs of avocet *Recurvirostra avosetta* (12% of British) ; 32 pairs of little tern *Sterna albifrons* (1% of British): and 24 pairs of nightjar *Caprimulgus europaeus* (1% of British).

The site qualifies also under Article 4.1 by regularly supporting, in winter, a nationally important wintering population of hen harrier *Circus cyaneus* (15 individuals, 2% of the British wintering population).

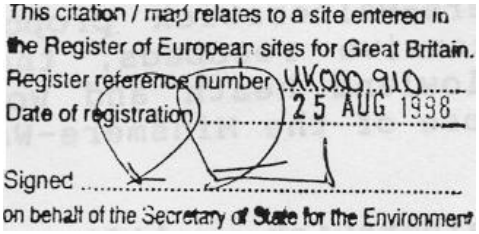
Minsmere-Walberswick qualifies under article 4.2 by supporting, in summer, in recent years, nationally important breeding populations of three regularly occurring migratory species: 24 pairs of gadwall *Anas strepera* (4% of British); 73 pairs of teal *A. crecca* (1% of British): and 23 pairs of shoveler *A. clvpeata* (2% of British) . Also notable is a nationally important breeding population of bearded tit *Panurus biarmicus* (50 pairs, 8% of British).

The site qualifies also under Article 4.2 by supporting nationally important wintering populations of three migratory waterfowl. (average peak counts for the five year period 1985/86 to 1989/90): 100 European white-fronted geese *Anser albifrons albifrons* (2% of the British wintering population); 90 gadwall *Anas strepera* (1% of British) , and 100 shoveler *Anas clypeata* (1% of British).

Minsmere-Walberswick is also of importance for an outstandingly diverse assemblage of breeding birds of marshland and reedbed habitats, including bittern, garganey *Anas querquedula*, marsh harrier, water rail *Rallus aquaticus*, Cetti's warbler *Cettia cetti* and Savi's warbler *Locustella lusciniodes*. Also notable is an assemblage of wintering waterfowl including, in addition to species listed above, Bewick's swan *Cygnus columbianus*, wigeon *Anas penelope*, teal *Anas crecca*, avocet; spotted redshank *Tringa erythropus*; and redshank *Tringa totanus*.

During severe winter weather Minsmere-Walberswick can assume even greater national and international importance as wildfowl and waders from many other areas arrive, attracted by relatively mild climate, compared with continental areas, and the abundant food resources available.

SPA Citation
HTR December 1991



STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9009101**

SITENAME **Minsmere-Walberswick**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
A	UK9009101

1.3 Site name

Minsmere-Walberswick

1.4 First Compilation date	1.5 Update date
1992-05	2022-09

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	1992-05
National legal reference of SPA designation	Regulations 15 and 17-19 of The Conservation Habitats and Species Regulations 2017 (http://www.legislation.gov.uk/uksi/2017/1012/contents/made) (as amended).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude
1.6339

Latitude
52.3153

2.2 Area [ha]:

1997.67

2.3 Marine area [%]

14.4

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH1	East Anglia

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A056	Anas clypeata			r	23	23	p		G	C		C	
B	A056	Anas clypeata			w	98	98	i		G	C		C	
B	A052	Anas crecca			r	73	73	p		G	B		C	
B	A051	Anas strepera			w	93	93	i		G	C		C	
B	A051	Anas strepera			r	24	24	p		G	C		C	
B	A394	Anser albifrons albifrons			w	67	67	i		G	C		B	
B	A021	Botaurus stellaris			r	7	7	i		G	A		B	
B	A224	Caprimulgus europaeus			r	24	24	p		G	C		C	
B	A081	Circus aeruginosus			r	16	16	p		G	B		B	

B	A082	Circus cyaneus			w	15	15	i		G	C		C	
B	A132	Recurvirostra avosetta			r	47	47	p		G	B		B	
B	A195	Sterna albifrons			r	28	28	p		G	C		C	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N17	5.0
N06	4.0
N04	3.0
N08	23.0
N16	16.0
N03	8.0
N14	7.0
N05	3.0
N15	2.0
N07	15.0
N02	14.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: acidic,shingle,sand,peat,nutrient-poor 2 Terrestrial: Geomorphology and landscape: lowland,coastal,floodplain 3 Marine: Geology: shingle,mud,sand 4 Marine: Geomorphology: shingle bar,intertidal sediments (including sandflat/mudflat),open coast (including bay),estuary,lagoon

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (2009/147/EC) During the breeding season the area regularly supports: Botaurus stellaris (Europe - breeding) 35% of the GB breeding population 5 year mean, 1993-1997 Caprimulgus europaeus 0.7% of the GB breeding population Count, as at 1990 Circus aeruginosus 10.2% of the GB breeding population 5 year mean, 1993-1997 Recurvirostra avosetta (Western Europe/Western Mediterranean - breeding) 10.4% of the GB breeding population Count, as at early 1990s Sterna albifrons (Eastern Atlantic - breeding) 1.2% of the GB breeding population 5 year mean, 1992-1996 Over winter the area regularly supports: Circus cyaneus 2% of the GB population 5 year peak mean

1985/6-1989/90 ARTICLE 4.2 QUALIFICATION (2009/147/EC) During the breeding season the area regularly supports: Anas clypeata (North-western/Central Europe) 2.3% of the population in Great Britain Count, as at 1990 Anas crecca (North-western Europe) 4.9% of the population in Great Britain Count, as at 1990 Anas strepera (North-western Europe) 3.1% of the population in Great Britain Count, as at 1990 Over winter the area regularly supports: Anas clypeata (North-western/Central Europe) 1% of the population in Great Britain 5 year peak mean 1991/92-1995/96 Anas strepera (North-western Europe) 1.1% of the population in Great Britain 5 year peak mean 1991/92-1995/96 Anser albifrons albifrons (North-western Siberia/North-eastern & North-western Europe) 1.1% of the population in Great Britain 5 year peak mean 1991/92-1995/96

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	H02		B
H	M01		B
H	F02		I
H	G01		I
H	K03		I

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	D05		I
H	A04		I
H	A02		I
H	B02		I
H	G03		I
H	D05		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK01	27.6	UK04	100.0		

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

☐	Yes
☐	No, but in preparation
☒	No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

7. MAP OF THE SITES

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INSPIRE ID:

Map delivered as PDF in electronic format (optional)

☐ Yes ☒ No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
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CODE	DESCRIPTION	PAGE NO
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7130	Blanket bogs (* if active bog)	57
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7150	Depressions on peat substrates of the Rhynchosporion	57
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9180	Tilio-Acerion forests of slopes, screes and ravines	57
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91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

~~3.3~~3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code

SBA	Breeding seabird assemblage	UK specific code
BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

Database release: End2022 - 12/03/2024

NATURA 2000 - STANDARD DATA FORM

**For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)**

SITE	**NL9802001**
SITENAME	**Noordzeekustzone**

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Print Standard Data Form

1. SITE IDENTIFICATION

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1.1 Type

C

1.2 Site code

NL9802001

1.3 Site name

Noordzeekustzone

1.4 First Compilation date

2000-03

1.5 Update date

2018-12

1.6 Respondent:

Name/Organisation:	Ministry of Agriculture, Nature and Food Quality - Department Nature & Biodiversity
Address:	
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	2000-03

National legal reference of SPA designation	http://www.synbiosys.alterra.nl/natura2000/documenten/gebieden/007/n2k_007_db_hvn_noordzeekustzone.pdf

Date site proposed as SCI:	2002-08
Date site confirmed as SCI:	2004-12
Date site designated as SAC:	2009-02
National legal reference of SAC designation:	http://www.synbiosys.alterra.nl/natura2000/documenten/gebieden/007/n2k_007_db_hvn_noordzeekustzone.pdf

Explanation(s):	Merge of SPA NL9802001 Noordzeekustzone, SCI NL2003062 Noordzeekustzone and SCI NL2008004 Noordzeekustzone II (proposed 2008-12, confirmed 2009-##)Formerly known as SPA NL9802001 Waddeneilanden, Noordzeekustzone, Breebaart.Site was separated in 2007 into NL9802001 Noordzeekustzone and 5 Islands (NL3009005 - NL3009009)

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude:	5.026800
Latitude:	53.345300

2.2 Area [ha]

144475.0000

2.3 Marine area [%]

99.7000

2.4 Sitelength [km] (optional):

No information provided

2.5 Administrative region code and name

NUTS level 2 code	Region Name
NL12	Friesland
NL32	Noord-Holland
NLZZ	Extra-Regio NUTS 2

2.6 Biogeographical Region(s)

Marine Atlantic	(99.7 %)	Atlantic	(0.3 %)

3. ECOLOGICAL INFORMATION

3.1 Habitat types present on the site and assessment for them

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Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
1110			138174	0.00	G	C	B	B	B
1140			3310	0.00	G	A	C	A	A
1310			78.3	0.00	M	A	B	C	B
1330			114	0.00	M	C	C	B	C
2110			200	0.00	P	A	A	A	A
2190			2	0.00	M	C	C	A	C

PF: for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.

NP: in case that a habitat type no longer exists in the site enter: x (optional)

Cover: decimal values can be entered

Caves: for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.

Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
F	1103	Alosa fallax			p	0	0	i	P	P	C	C	C	C
B	A169	Arenaria interpres			w	173	173	i		G	B	B	B	B
B	A062	Aythya marila			w	1	1	i	C	DD	C	C	B	C
B	A144	Calidris alba			w	1972	1972	i		G	A	A	B	A
B	A149	Calidris alpina			w	15268	15268	i		G	C	A	B	C
B	A143	Calidris canutus			w	7100	7100	i		G	B	B	B	C
B	A138	Charadrius alexandrinus			r	10	10	p		G	B	C	B	B
B	A137	Charadrius hiaticula			r	15	15	p		G	B	C	B	B
B	A137	Charadrius hiaticula			w	499	499	i		G	B	B	B	B
B	A002	Gavia arctica			w	30	200	i	C	P	A	A	B	A
B	A001	Gavia stellata			w	3000	7000	i	C	P	A	A	B	A
B	A130	Haematopus ostralegus			w	2874	2874	i		G	C	C	B	C
M	1364	Halichoerus grypus			p	2040	2040	i		G	A	A	C	A
F	1099	Lampetra fluviatilis			p	0	0	i	P	M	B	A	C	B
B	A177	Larus minutus			c	0	0		C	DD	A	A	B	A
B	A157	Limosa lapponica			w	3429	3429	i		G	C	A	B	C
P	1903	Liparis loeselii			p	25	50	i		P	C	A	C	C
B	A065	Melanitta nigra			w	31837	31837	i		M	A	B	B	A
B	A160	Numenius arquata			w	985	985	i		G	C	B	C	C

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
F	1095	Petromyzon marinus			p	0	0	i	P	M	B	B	C	C
B	A017	Phalacrocorax carbo			w	973	973	i		G	B	B	C	B
M	1365	Phoca vitulina			p	6340	6340	i		G	A	A	C	A
M	1351	Phocoena phocoena			p	0	0	i	V	M	B	B	C	C
B	A141	Pluvialis squatarola			w	2637	2637	i		G	B	B	B	B
B	A132	Recurvirostra avosetta			w	90	90	i		G	C	C	B	C
B	A063	Somateria mollissima			w	12782	12782	i		M	A	C	B	A
B	A195	Sterna albifrons			r	15	15	p		G	B	C	B	C
B	A048	Tadorna tadorna			w	235	235	i		G	C	B	C	C

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
NP: in case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance categories (Cat.): C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

3.3 Other important species of flora and fauna (optional)

No information provided

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N04	3.00
N01	97.00
Total Habitat Cover	100

Other Site Characteristics

Coastal zone of the Northsea, from the moderate high tide line to the -20m depth line. Site stretches from Bergen to north of Schiermonnikoog. Adjacent to the dune areas of the Wadden Islands and Wadden sea. It consists of sandbanks permanently covered by seawater (1110).

4.2 Quality and importance

Very important site for sandbanks covered by seawater and sea-mammals: Phocoena phocoena, Halichoerus grypus and Phoca vitulina.De begrenzing van de Noordzeekustzone wordt vooral bepaald door het gebied met hoge natuurwaarden voor vogels en vissen. Deze grens valt voor vogels aan de zeezijde samen met de doorgaande NAP 20 m dieptelijn. De Noordzeekustzone wordt gekenmerkt door hoge natuur- en belevingswaarden. Bij Schiermonnikoog wordt een hoge benthos-diversiteit gevonden. De visfauna in de Kustzee onderscheidt zich van de rest van het NCP

door een hoge soortenrijkdom. En potentiëel kunnen hier een aantal Habitatrichtlijnsoorten als, Fint, Elft en Zeeprik, voorkomen. In de Noordzeekustzone kunnen kunnen grote aantallen (tot > 100.000) Zwarte zee-eenden verblijven. Ook grote groepen Eidereenden worden regelmatig in dit gebied gezien. In voorjaar en zomer (de broedperiode) is de hele Noordzeekustzone zeer belangrijk als foerageergebied voor Kleine Mantel- en Zilvermeeuwen, Grote sterns en Visdieven. In de trektijd (najaar en voorjaar) verblijven bovendien zeer grote aantallen zeevogels tijdelijk in het gebied, die er "onderweg naar elders" ook kunnen foerageren. De al onder de Vogelrichtlijn aangewezen gebieden zijn ook van belang voor Roodkeelduikers. In de winter en het voorjaar kunnen tot enige duizenden exemplaren in de Noordzeekustzone voorkomen. Voorts fungeert de Noordzeekustzone tijdens strenge winters soms ook als uitwijkgebied voor grote aantallen Futen en andere watervogels. De belangrijkste locatie in het afgelopen decennium was een groot complex van Spisula-banken tussen Bergen aan Zee en Callantsoog. Gezien het voorkomen van ondiep water met her en der (op wisselende plaatsen en eveneens wisselend in de tijd) rijke voorkomens van schelpdieren (Spisula of andere soorten) kunnen zeer grote groepen eenden overal in de Hollandse Noordzeekustzone opduiken. De Noordzeekustzone voor de Waddeneilanden is van belang voor de in de HR genoemde Gewone en Grijze zeehonden en de Bruinvis.Kenmerkende vissoorten die vooral in de Kustzone voorkomen, vergeleken met de rest van het Nederlandse deel van de Noordzee zijn: Adderzeenaald (Entelurus aequoraeus), Botervis (Pholis gunnulus), Diklipharder (Chelon labrosus), Geep (Belone belone), Gevlekte gladde haai (Mustelus asterias), Grote koornaarvis (Atherina presbyter), Puitaal (Zoarces viviparus), Ruwe haai (Galeorhinus galeus), Schol (Pleuronectes platessa), Slakdolf (Liparis liparis), Spiering (Osmerus eperlanus), Tong (Solea vulgaris). Vijfdradige meun (Ciliata mustela).Kenmerkende benthossoorten van de Noordzeekustzone zijn: Synchelidium maculatum, Vlokreeftje (Urothoe brevicornis), Buldozerkreeftje (Urothoe poseidonis), Zaagje (Donax vittatus), Amerikaanse zwaardschede (Ensis americanus), Nonnetje (Macoma balthica), Halfgeknotte strandschelp (Spisula subtruncata), Ovale zeeklit7schelp/7mosseltje (Tellimya ferruginosa), Rechtgestreepte strandschelp (Tellina fabula), Slangpier (Capitella capitata), Eumida sanguinea, Schelpkokerworm (Lanice conchilega), Magelona johnstoni, Magelona mirabilis, Malmgreniella lunulata, Mediomastus fragilis, Nephtys caeca, Zandzager (Nephtys hombergii), Wapenworm (Scoloplos armiger).

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	G01		i
M	M01		b
L	M01.07		o
H	F02		b
M	C03.03		o
L	E02		o
M	J03.01		i
H	D03		b
M	J02.12.01		i
M	H01		b
L	A07		o
L	C01.01		o
L	F02.01		i
L	H03.01		b
L	A08		o
L	C02		i
L	G04		b
M	C01		i
L	D03		b

Positive Impacts

Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
M	U		b

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.4 Ownership (optional)

No information provided

4.5 Documentation (optional)

- Anonymus (2005) Integraal Beheerplan Noordzee 2015. Interdepartementale Directeurenoverleg Noordzee (IDON)- Arts FA, Berrevoets CM (2005) Monitoring van zeevogels en zeezoogdieren op het Nederlands Continentaal Plat 1991 - 2005: Verspreiding, seizoenspatroon en trend van zeven soorten zeevogels en de Bruinvis. Rapport RIKZ/2005.032, Rijksinstituut voor Kust en Zee/RIKZ, Middelburg- Beintema A.J. & Schekkerman H. 2001., Nadere toetsing van aanwijzing en begrenzing van negen, Vogelrichtlijngebieden., Alterra Rapport 328, Alterra, Wageningen - Berrevoets CM Arts AA. 2003., Midwintertelling van zee-eenden in de Waddenzee en de Nederlandse, kustwateren, januari 2003., RIKZ Rapport 2003.008, RIKZ, Middelburg.- Brasseur SMJM, Tulp I, Reijnders PJH, Smit CJ, Dijkman EM, Cremer JSM, Kotterman MJJ, Meesters HWG (2004) Voedselecologie van de Gewone en Grijze zeehond in de Nederlandse kustwateren. Rapport 905, Alterra, Wageningen- Daan N, Heessen HJL, Hofstede Rt (2005) North Sea Elasmobranchs: distribution, abundance and biodiversity. ICES, Copenhagen- De Groot SJ (2002) A review of the past and present status of anadromous fish species in the Netherlands: is restocking the Rhine feasible? Hydrobiologia 478:205-218- Degraer S, Wittoeck J, Appeltans W, Cooreman K, Deprez T, Hillewaert H, Hostens K, Mees J, Vanden Berghe W, Vincx M (2006) De macrobenthosatlas van het Belgisch deel van de Noordzee. Federaal Wetenschapsbeleid D/2005/1191/5- Hammond PS, Berggren P, Benke H, Borchers DL, Collet A, Heide Jorgensen MP, Heimlich S, Hiby AR, Leopold MF, Oien N (2002) Abundance of harbour porpoise and other cetaceans in the North Sea and adjacent waters. Journal-of-Applied-Ecology [print] April, 2002; 39 (2): 361-376 URLJ: http://wwwblackwell-sciencecom/~cgilib/jnlpageasp?Journal=jappl&File=jappl- Lindeboom HJ, Dijkman EM, Bos OG, Meesters EH, Cremer JSM, De Raad I, Bosma A (2008) Ecologische Atlas Noordzee ten behoeve van gebiedsbescherming. Wageningen IMARES vestiging Texel- Lindeboom HJ, Geurts van Kessel AJM, Berkenbosch A (2005) Gebieden met bijzondere ecologische waarden op het Nederlands Continentaal Plat. Rapport RIKZ/2005008, Den Haag / Alterra rapport 1109, Wageningen:103 p.- Patberg W, De Leeuw JJ, Winter HV (2005) Verspreiding van rivierprik, zeeprik, fint en elft in Nederland na 1970. Rapport C004/05, RIVO, IJmuiden, The Netherlands.- Roomen M. van, Boele A., Weide M. van der, Winden E. van ea. 2000., Belangrijke vogelgebieden in Nederland 1993-97. Actueel overzicht van, Europese vogelwaarden in aangewezen en aan te wijzen speciale, beschermingszones en andere belangrijke gebieden., SOVON Informatierapport 2000/01 SOVON, Beek-Ubbergen - SOVON & CBS (2006) Trends van vogels in het Nederlandse Natura 2000 netwerk. SOVON Vogelonderzoek Nederland, Beek-Ubbergen.- Tempel R. van den, Osieck E.R. 1994., Areas important for birds in the Netherlands., Techn Rapport Vogelbescherming 13E, Vogelbescherming Nederland, Zeist - Ter Hofstede R, Heessen HJL, Daan N (2005) Systeembeschrijving Noordzee: Natuurwaardenkaarten vis. Rapport C090/05, RIVO, IJmuiden- Ter Hofstede R, Quirijns FJ, Daan N, Dekker W, Verver SW, Heessen HJL, Asjes J, Star B (2004) Beschermde Gebieden Noordzee: Begrenzing en ecologische waardering t.a.v. visgemeenschappen; visserij-activiteiten. Rapport C057/04, RIVO Biologie en Ecologie

5. SITE PROTECTION STATUS

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5.1 Designation types at national and regional level (optional):

Code	Cover [%]
NL22	4.00
NL01	100.00

5.2 Relation of the described site with other sites (optional):

No information provided

5.3 Site designation (optional)

Small part National Park.The same designation as under OSPAR under consideration.

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Rijkswaterstaat Zee en Delta
Address:	

Email:	hans.lammers@rws.nl

6.2 Management Plan(s):

An actual management plan does exist:

X	Yes	Name: Natura 2000 beheerplan Noordzeekustzone - periode 2016-2022 Link: https://www.bij12.nl/assets/Noordzeekustzone-beheerplan.pdf
	No, but in preparation	
	No	

6.3 Conservation measures (optional)

No information provided

7. MAP OF THE SITE

No information provided

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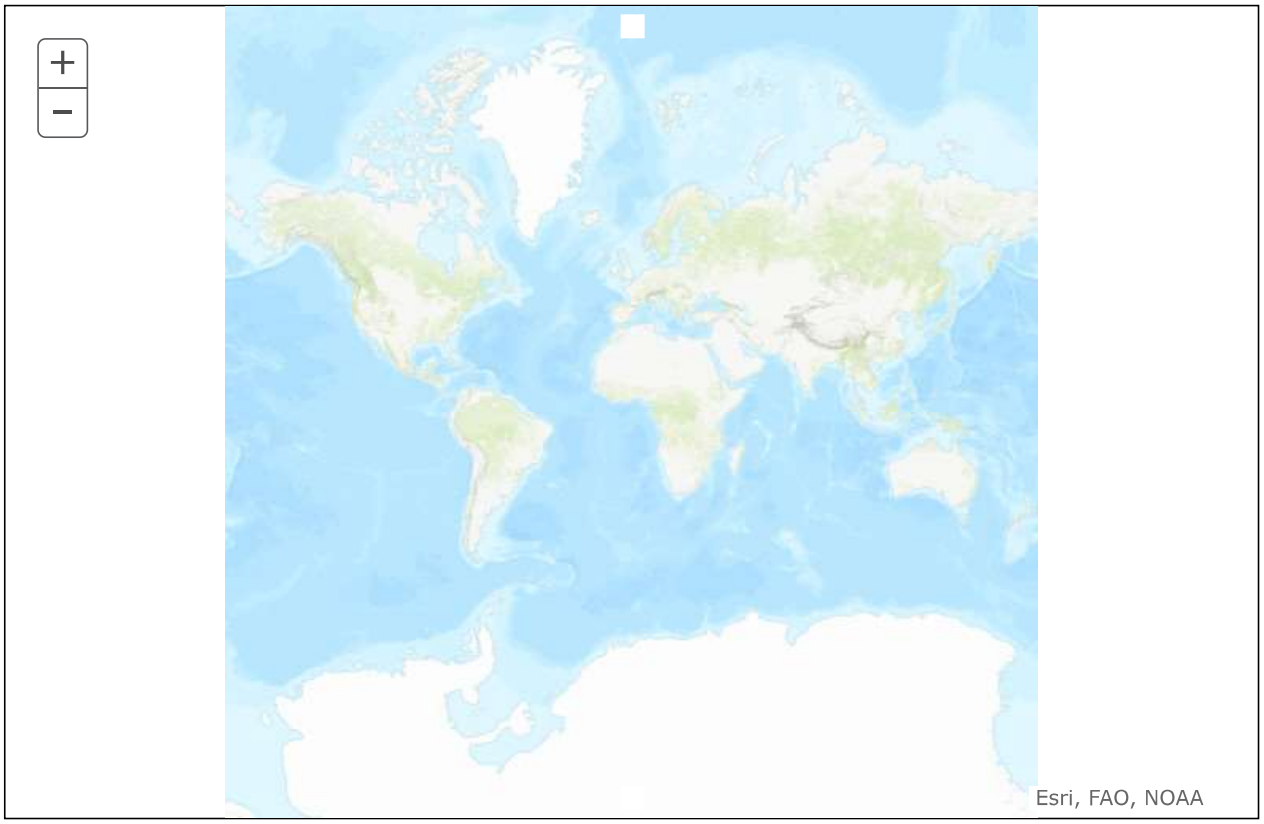
SITE DISPLAY



EC Directive 2009/147/EC on the Conservation of Wild Birds

Special Protection Area (SPA)

Name: *Outer Thames Estuary SPA*

Counties/Unitary Authorities: Norfolk, Suffolk, Essex, Kent

Boundary of the SPA:

The seaward and alongshore extent of the Outer Thames Estuary SPA is defined according to the distribution of non-breeding red-throated divers (O'Brien *et al*. 2012). The site includes coastal areas up to Mean High Water up the coast (to Caister-on-Sea) to provide coverage for little terns from Great Yarmouth North Denes foraging from this SPA, and common terns foraging from Breydon Water SPA. The inclusion of the River Yare channel, to abut the eastern boundary of the existing Breydon Water SPA, and the lower River Bure (to approximately Runham village south of Filby), to provide continuous SPA coverage for common terns foraging from this SPA. The inclusion of coastal areas up to Mean High Water down the coast (to just south of Corton), providing coverage for common terns from Breydon Water foraging from this SPA. The inclusion of the River Blyth to encompass Blythburgh Water, a tidal lagoon directly adjacent to the northern parts of Minsmere-Walberswick SPA in addition to the inclusion of Mean High Water areas up the coast (to Southwold) and down the coast (to Leiston) to provide continuous coverage for little terns foraging from this SPA. The inclusion of the estuarine areas up to Mean High Water within the Crouch and Roach Estuaries, overlapping the existing Crouch and Roach Estuaries SPA in the intertidal area and the inclusion of a small marine area along the south Essex coast and overlapping part of the Foulness SPA for foraging common terns.

Size of SPA: The SPA covers an area of 392,451.66 ha.

Site description:

The Outer Thames Estuary SPA is located on the east coast of England between the counties of Norfolk (on the north side) and Kent (on the south side) and extends into the North Sea. The site comprises areas of shallow and deeper water, high tidal current streams and a range of mobile mud, sand, silt and gravely sediments extending into the marine environment, incorporating areas of sand banks often exposed at low tide. Intertidal mud and sand flats are found further towards the coast and within creeks and inlets inland down the Blyth estuary and the Crouch and Roach estuaries. The diversity of marine habitats and associated species is reflected in existing statutory protected area designations, some of which overlap or abut the SPA.

Qualifying species:

SPA site selection guidelines have been applied to the most up to date information for the site.

The site qualifies under **article 4.1** of the Directive (2009/147/EC) as it is used regularly by 1% or more of the Great Britain populations of the following species listed in Annex I in any season:

Species	Season	Count (Period)	% of population
Red-throated diver *Gavia stellata*	Non-breeding	6,466 individuals (1989 – 2006/07)[1]	38.0% of GB population
Little tern *Sternula albifrons*	Breeding	746 individuals (2011 – 2015)	19.64% of GB population
Common tern *Sterna hirundo*	Breeding	532 individuals (2011 – 2015)	2.66% of GB population

Assemblage qualification:

The site does not qualify under SPA selection stage 1.3.

Principal bird data sources:

Colony counts from JNCC Seabird Monitoring Programme, Norfolk Bird & Mammal Reports, Foulness Area Bird Survey Group and contributed by colony managers from RSPB.

Data on ringed common terns from national bird ringing scheme.

Red-throated diver data from aerial surveys 1989 - 2006/07: Natural England (2010): Departmental Brief: Outer Thames Estuary Special Protection Area. *Available at*: http://publications.naturalengland.org.uk/publication/3233957

Red-throated diver data from aerial surveys 1989 - 2006/07: O'Brien, S.H., Webb, A., Brewer, M. J. & Reid, J. B. (2012). Use of kernel density estimation and maximum curvature to set Marine Protected Area boundaries: Identifying a Special Protection Area for wintering red-throated divers in the UK. *Biological Conservation,* 156, 15–21.

[1] Value retained from original Outer Thames Estuary SPA standard data form (http://publications.naturalengland.org.uk/publication/3233957)

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9020309**

SITENAME **Outer Thames Estuary**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
A	UK9020309

1.3 Site name

Outer Thames Estuary

1.4 First Compilation date	1.5 Update date
2010-08	2017-11

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	2010-08
National legal reference of SPA designation	Regulations 12A and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made) as amended by The Conservation of Habitats and Species (Amendment) Regulations 2011 (http://www.legislation.gov.uk/uksi/2011/625/contents/made), and Regulations 12, 16 and 17 of the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (http://www.legislation.gov.uk/uksi/2007/1842/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
1.545	51.916

2.2 Area [ha]:

392451.66

2.3 Marine area [%]

100.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKZZ	Extra-Regio

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A001	Gavia stellata			w	6466	6466	i		G	A		C	
B	A195	Sterna albifrons			r	746	746	i		G	A		C	
B	A193	Sterna hirundo			r	532	532	i		G	B		C	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information

- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N01	98.45
N03	0.05
N02	1.5
Total Habitat Cover	100

Other Site Characteristics

3 Marine: Geology: mud,sand,gravel 4 Marine: Geomorphology: range of mobile sediments,tidal current stream

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC) Over winter the area regularly supports: Gavia stellata (North-western Europe - wintering) - 38% of the population in Great Britain peak mean over the period 1989-2006/07 The area supports breeding populations of: Sternula albifrons (in breeding season) - 19.64% of GB population (2011 - 2015) Sterna hirundo (in breeding season) - 2.66% of GB population (2011 - 2015)

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
M	D03		B
L	G04		b
H	C03		B
L	F02		I
L	H03		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

JNCC's weblink 'http://jncc.defra.gov.uk/page-1414' provides general information on marine SPAs. The weblink 'http://jncc.defra.gov.uk/page-6895' allows access to site specific information for all marine MPAs in UK offshore waters. See the UK Approach document for more information (link via the JNCC website).

Link(s): http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

http://jncc.defra.gov.uk/page-1414
http://jncc.defra.gov.uk/page-6895

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	3.0	UK00	93.0	UK05	4.0

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Maldon Local/District Unitary Authority, Rochford Local/District Unitary Authority, Southend on Sea Local/District Unitary Authority, Swale Local/District Unitary Authority, Canterbury Local/District Unitary Authority
Address:	
Email:	

Organisation:	Crouch Harbour Authority, Port of London Authority, Peel Ports London Medway, Great Yarmouth Local/District Unitary Authority, Waveney Local/District Unitary Authority, Suffolk Coastal Local/District Unitary Authority
Address:	
Email:	

Organisation:	Southwold Harbour Authority – Waveney District Council, Ipswich Port Authority, Felixstowe Dock & Railway Company, Harwich Haven Authority, Brightlingsea Harbour Commissioners, Maldon Harbour Improvement Commissioners
Address:	
Email:	

Organisation:	For information about relevant management offshore please contact JNCC
Address:	
Email:	

Organisation:	Natural England, Marine Management Organisation, Kent and Essex Inshore Fisheries & Conservation Authority, Crown Estate, Great Yarmouth Port Authority, Lowestoft – Associated British Ports (ABP)
Address:	
Email:	

Organisation:	Thanet Local/District Unitary Authority
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

- [ ] Yes
- [ ] No, but in preparation
- [X] No

6.3 Conservation measures (optional)

For available information on relevant conservation measures of the site, including the Conservation Objectives, see section 4.5.

7. MAP OF THE SITES

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INSPIRE ID:

Map delivered as PDF in electronic format (optional)

☐ Yes ☒ No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

Database release: End2022 - 12/03/2024

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE	**BEMNZ0002**
SITENAME	**SBZ 1 / ZPS 1**

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1. SITE IDENTIFICATION

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1.1 Type

A

1.2 Site code

BEMNZ0002

1.3 Site name

SBZ 1 / ZPS 1

1.4 First Compilation date

1995-12

1.5 Update date

2014-09

1.6 Respondent:

Name/Organisation:	Marine Environment Unit, FPS Public Health, Food Chain Safety and Environment; DG Environment
Address:	

Email:	marien.milieu.marin@environment.belgium.be

1.7 Site indication and designation / classification dates

Date site classified as SPA:	2005-10
National legal reference of SPA designation	No information provided

Date site proposed as SCI:	1900-01
Date site confirmed as SCI:	No information provided
Date site designated as SAC:	1900-01
National legal reference of SAC designation:	Royal Decree of 14 October 2005 concerning the designation of the SPA's

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude:	2.606700
Latitude:	51.168100

2.2 Area [ha]

6315.6000

2.3 Marine area [%]

0.0000

2.4 Sitelength [km] (optional):

No information provided

2.5 Administrative region code and name

NUTS level 2 code	Region Name
BEZZ	Extra-Regio NUTS 2

2.6 Biogeographical Region(s)

Marine Atlantic	(100 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
1110			0	0.00	G	A	B	C	C
1170			0	0.00	G	C	B	C	C

PF: for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.

NP: in case that a habitat type no longer exists in the site enter: x (optional)

Cover: decimal values can be entered

Caves: for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.

Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
F	1103	Alosa fallax			p	0	0	localities	P	P	D			
B	A001	Gavia stellata			w	0	0	localities	R	M	B	C	C	B
M	1364	Halichoerus grypus			p	0	0	localities	R	P	D			
F	1099	Lampetra fluviatilis			p	0	0	localities	P	P	D			
B	A640	Larus fuscus fuscus			c	0	0	localities	C	M	C	C	C	B
B	A187	Larus marinus			c	0	0	localities	C	M	C	C	C	B
B	A177	Larus minutus			c	0	0	localities	C	M	D			
B	A065	Melanitta nigra			w	0	0	localities	R	M	A	C	C	B
F	1095	Petromyzon marinus			p	0	0	localities	P	P	D			
M	1365	Phoca vitulina			p	0	0	localities	R	P	C	C	C	C
M	1351	Phocoena phocoena			c	0	0	i	C	M	D			
B	A005	Podiceps cristatus			w	0	0	i	C	M	A	C	C	A
B	A195	Sterna albifrons			c	0	0	localities	R	M	D			
B	A193	Sterna hirundo			c	0	0	localities	R	M	D			

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A191	Sterna sandvicensis			c	0	0	localities	R	M	C	C	C	B

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
NP: in case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance categories (Cat.): C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

3.3 Other important species of flora and fauna (optional)

No information provided

4. SITE DESCRIPTION

Back to top

4.1 General site character

Habitat class	% Cover
N01	100.00
Total Habitat Cover	100

4.2 Quality and importance

No information provided

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
L	J02.02		i
M	C03.03		o
M	F01.02		i
L	D02.02		i
M	G01.01.02		i

L	G04.01		i
L	M01		o
M	D03.02		i
L	D03.01		i
M	K02.03		o
H	F02.02.02		i
M	F02.03		i
H	F02.02.01		i
L	H03.01		o
L	J02.12.01		i
L	H03.03		o
L	I01		o
M	G01.01.01		i

Positive Impacts			
Rank	**Activities, management [code]**	**Pollution (optional) [code]**	**inside/outside [i|o|b]**
M	D03.02		i

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification, T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.4 Ownership (optional)

Type		**[%]**
Public	National/Federal	100
	State/Province	0
	Local/Municipal	0
	Any Public	0
Joint or Co-Ownership		0
Private		0
Unknown		0
sum		100

4.5 Documentation (optional)

Delaney, S. & Scott, D., 2002. Waterbird population estimates, third edition. Wetlands International Global Series no. 12, Wageningen, Nederland, 226p.Haelters, J., Vigin, L., Stienen, E.W.M., Scory, S., Kuijken, E. & Jacques, T.G., 2004. Ornithologisch belang van de Belgische zeegebieden - Importance ornithologique des espaces marins de la Belgique. Bulletin van het Koninklijk Belgisch Instituut voor Natuurwetenschappen, Biologie, Vol.74, suppl., 91p.Kuijken, E., 1972. Belgian wetlands of international importance for waterfowl. Proceedings of the international conference on the conservation of wetlands and waterfowl, Ramsar (Iran), 1971: 179-188.Offringa, H., Seys J., Van den Bossche W. & Meire , P., 1996. Seabirds on the Channel doormat. De Giervalk 86: 3-71.Offringa, H., Seys, J., Van Waeyenberghe, J. & Meire, P., 2001. The Belgian marine avifauna. In: Cattrijsse, A. & Vincx, M. (Eds.), 2001. Biodiversity of the benthos and the avifauna of the Belgian coastal waters; summary of data collected between 1970 and 1998. OSTC (Federal Office for Scientific, Technical and Cultural Affairs), Brussel: 27-30.Rose, P.M. & Scott, D.A., 1997. Waterfowl population estimates - second edition. Wetlands International Publication 44, Wageningen, The Netherlands.Seys, J., 2001. Sea- and coastal bird data as tools in the policy and management of Belgian marine waters. Doctoraal proefschrift, niet gepubliceeerd. Universiteit Gent, oktober 2001, 133p., 10

bijlagen.Seys, J., 2002. Estimates of the number of seabirds residing in and migrating through the southern North Sea. Report IN.D.2002.2. Institute of Nature Conservation, Brussel.Seys, J., Offringa, H., van Waeyenberge J., Meire P. & Kuijken E. (1999). Ornithologisch belang van de Belgische maritieme wateren: naar een aanduiding van kensoorten en sleutelgebieden. Nota In A74. Instituut voor Natuurbehoud, Brussel., 17p., 10 bijlagen.Seys, J. & Stienen, E.W.M., 2002. Toelichtingsnota mbt. ornithologische waarde van de Belgische mariene wateren, meer in het bijzonder van het meest kustwaartse gedeelte (Vlaamse Banken, Kustbanken). Nota Instituut voor Natuurbehoud, Brussel, 9p.Skov, H., Durinck, J., Leopold, M.F. & Tasker, M.L., 1995. Important bird areas in the North Sea, including the Channel and the Kattegat. BirdLife International, Cambridge, 156p.Van den Bossche, W., Meire, P., Anselin, A., Kuijken, E., De Putter, G., Orbie, G. & Willemijns, F., 1995. Ontwikkeling en toekomst van sternenkolonies aan de Belgische kust. Rapport Instituut voor Natuurbehoud 95.03, 50p.Van Steen, E., 1978. Het macrobenthos van een overwinteringsgebied van Melanitta nigra (Linné, 1758) voor de Belgische kust. Rijksuniversiteit Gent, Fakulteit der Wetenschappen, licentiaatsverhandeling (niet gepubliceerd), 49p.Van Waeyenberge, J.,. Stienen, E.W.M. & Offringa, H., 2001a. Overwinterende zee-eenden voor de Belgische kust. Vogelnieuws, ornithologische nieuwsbrief van het Instituut voor Natuurbehoud, nr. 2, oktober 2001: 20-23. Van Waeyenberge, J.,. Stienen, E.W.M. & Seys, J., 2001b. Broedbiologisch onderzoek bij sternen en meeuwen in de Zeebrugse voorhaven: waarom, wat en hoe? Vogelnieuws, ornithologische nieuwsbrief van het Instituut voor Natuurbehoud, nr. 1, juni 2001: 15-20.

5. SITE PROTECTION STATUS

No information provided

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6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	FOD Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu, DG Leefmilieu, Dienst Marien Milieu
Address:	
Email:	marien.milieu.marin@environment.belgium.be

6.2 Management Plan(s):

An actual management plan does exist:

[X]	Yes	Name: Belgische Staat, 2009. BELEIDSPLANNEN BESCHERMDE MARIENE GEBIEDEN IN HET BELGISCHE DEEL VAN DE NOORDZEE. Minister bevoegd inzake het mariene milieu. 69p. Link: http://
[ ]	No, but in preparation	
[ ]	No	

6.3 Conservation measures (optional)

- Prohibition to cross the Natura2000 area with high-speed vessels, except exeptional circumstances between 1 December an 15 March (Royal Decree of 14 October 2005, art.17)- Prohitition to make helicopter flights below 500 ft between 1 December and 15 March (Royal Decree of 14 October 2005, art.17);- Industrial activities are prohibited (Marine Environment Law of 20 January 1999, art.25, §1,(v) Royal Decree of 14 October 2005, art.5 and 10) - this includes mariculture;- Activities of PR and commercial companies are prohibited (MMM art.25, §1(vi), Royal Decree of 14 October 2005 art.5 and 10);- Watersport competitions prohibited in SBZ1 and SBZ2 (Royal Decree of 14 October 2005, art.7);- Disposal of dredged material is prohibited in N2K areas (Royal Decree of 14 October 2005, art.10);- Activities of civil engineering are prohibited (MMM art.25 §1(i);The following rules apply in the entire Belgian part of the North sea, including Natura2000 area:- Fishery-prohibition to catch and hold Cetacea (whales, dolphins, incl. Harbour porpoise) an Pinnipeds (seals); (MMM art.13 and 14);- Recreational fishery using trammel nets, gill nets, floating nets, electrical fishing, explosives (Royal Decree of 21 December 2001) are forbidden;- Fishery on "sedentary species" is prohibited in SBZ (= part of the territorial sea), (Royal Decree of 14/08/1989);- Hunting is prohibited (Marine Environment Law of 20 January 1999);- Deliberate introduction of non-native species is forbidden, except when conditionally

permitted (MMM art.11 §1);- Deliberate introduction of non-native species via ballast water is forbidden (MMM art.11 §2);- Deliberate introduction of genetically modified species is forbidden (MMM art.11 §4);- Waste disposal, burning at sea are prohibited; disposal of dredged material is forbidden- To protect the sea bottom, fishery within 4,5 nautical miles, measured from the baseline is forbidden for vessels above a 70 Bruto Tonnage.

7. MAP OF THE SITE

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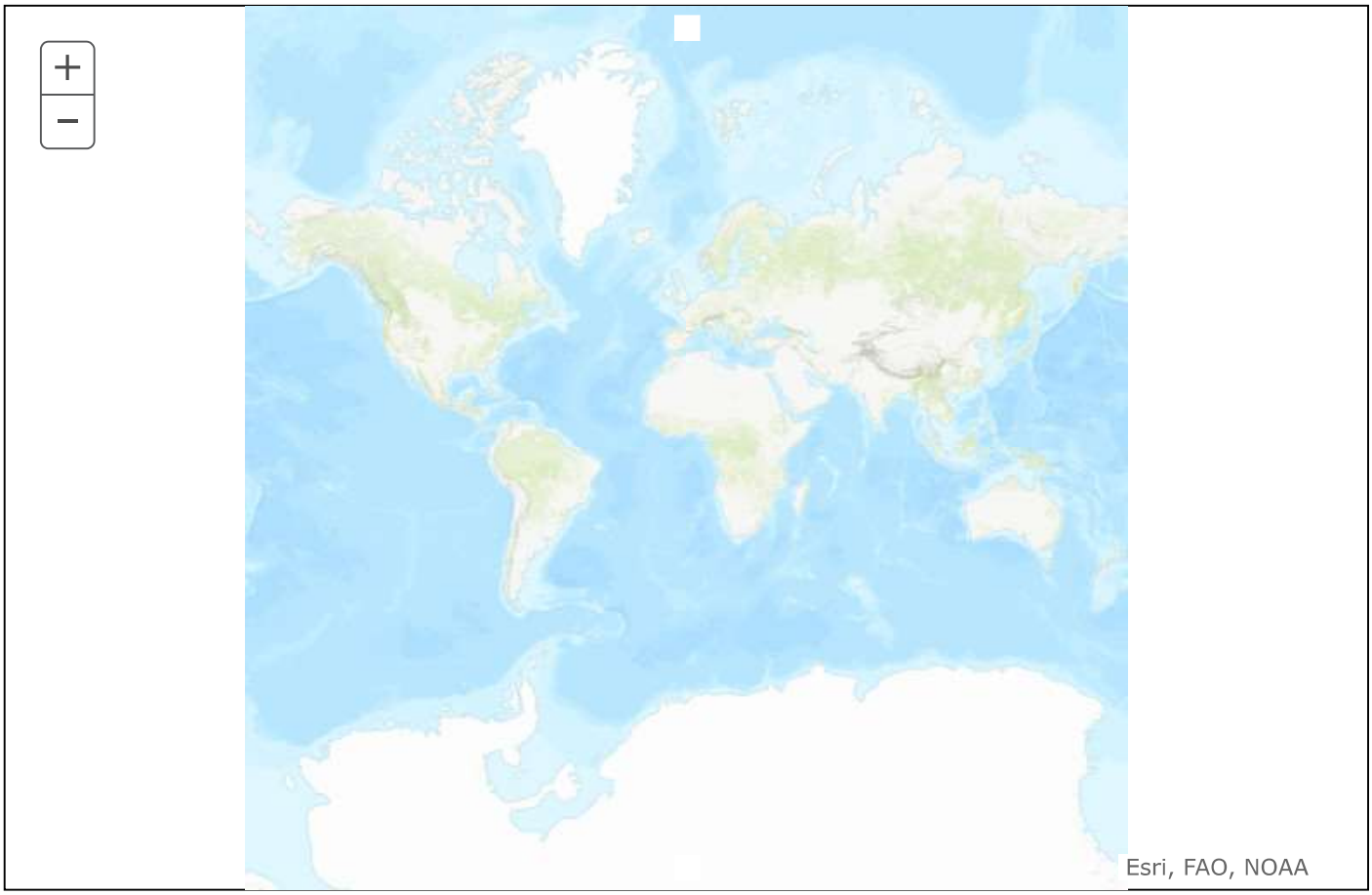
INSPIRE ID:	-

SITE DISPLAY



Database release: End2022 - 12/03/2024

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE	**BEMNZ0003**
SITENAME	**SBZ 2 / ZPS 2**

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1. SITE IDENTIFICATION

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1.1 Type

A

1.2 Site code

BEMNZ0003

1.3 Site name

SBZ 2 / ZPS 2

1.4 First Compilation date

1995-12

1.5 Update date

2014-09

1.6 Respondent:

Name/Organisation:	Marine Environment Unit, FPS Public Health, Food Chain Safety and Environment; DG Environment
Address:	

Email:	marien.milieu.marin@environment.belgium.be

1.7 Site indication and designation / classification dates

Date site classified as SPA:	2005-10
National legal reference of SPA designation	No information provided

Date site proposed as SCI:	1900-01
Date site confirmed as SCI:	No information provided
Date site designated as SAC:	1900-01
National legal reference of SAC designation:	Royal Decree of 14 October 2005 concerning the desingnation of the QPZs

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude:	2.872200
Latitude:	51.282800

2.2 Area [ha]

8139.7000

2.3 Marine area [%]

0.0000

2.4 Sitelength [km] (optional):

No information provided

2.5 Administrative region code and name

NUTS level 2 code	Region Name
BEZZ	Extra-Regio NUTS 2

2.6 Biogeographical Region(s)

Marine Atlantic	(100 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
1110			0	0.00	G	A	B	C	C
1170			0	0.00	G	C	B	C	C

PF: for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.

NP: in case that a habitat type no longer exists in the site enter: x (optional)

Cover: decimal values can be entered

Caves: for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.

Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
F	1103	Alosa fallax			p	0	0	localities	P	P	D			
B	A001	Gavia stellata			w	0	0	localities	R	M	B	C	C	B
M	1364	Halichoerus grypus			p	0	0	localities	R	P	D			
F	1099	Lampetra fluviatilis			p	0	0	localities	P	P	D			
B	A640	Larus fuscus fuscus			c	0	0	localities	C	M	B	C	C	B
B	A187	Larus marinus			c	0	0	localities	C	M	C	C	C	B
B	A177	Larus minutus			c	0	0	localities	C	M	C	C	C	A
B	A065	Melanitta nigra			w	0	0	localities	R	M	B	C	C	B
F	1095	Petromyzon marinus			p	0	0	localities	P	P	D			
M	1365	Phoca vitulina			p	0	0	localities	R	P	D			
M	1351	Phocoena phocoena			c	0	0	i	C	M	D			
B	A005	Podiceps cristatus			w	0	0	i	C	M	A	C	C	A
B	A195	Sterna albifrons			c	0	0	localities	V	M	B	C	C	B
B	A193	Sterna hirundo			c	0	0	localities	R	M	B	C	C	A

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A191	Sterna sandvicensis			c	0	0	localities	R	M	C	C	C	A

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
NP: in case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance categories (Cat.): C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

3.3 Other important species of flora and fauna (optional)

No information provided

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N01	100.00
Total Habitat Cover	100

4.2 Quality and importance

No information provided

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
M	J02.12.01		i
M	I02		i
M	F01		o
H	C03.03		o
L	F01.02		o

M	G01.01.01		i
M	F02.02.01		i
H	D03.01		i
L	I01		i
M	J02.02		i
L	G02.09		i
L	G01.01.02		i
L	K02.03		o
L	M01		o
L	G04.01		i
L	D03.02		o
L	H03.01		i

Positive Impacts			
Rank	**Activities, management [code]**	**Pollution (optional) [code]**	**inside/outside [i|o|b]**
M	D03.02		i

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification, T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.4 Ownership (optional)

Type		**[%]**
Public	National/Federal	100
	State/Province	0
	Local/Municipal	0
	Any Public	0
Joint or Co-Ownership		0
Private		0
Unknown		0
sum		100

4.5 Documentation (optional)

Delaney, S. & Scott, D., 2002. Waterbird population estimates, third edition. Wetlands International Global Series no. 12, Wageningen, Nederland, 226p.Haelters, J., Vigin, L., Stienen, E.W.M., Scory, S., Kuijken, E. & Jacques, T.G., 2004. Ornithologisch belang van de Belgische zeegebieden - Importance ornithologique des espaces marins de la Belgique. Bulletin van het Koninklijk Belgisch Instituut voor Natuurwetenschappen, Biologie, Vol.74, suppl., 91p.Kuijken, E., 1972. Belgian wetlands of international importance for waterfowl. Proceedings of the international conference on the conservation of wetlands and waterfowl, Ramsar (Iran), 1971: 179-188.Offringa, H., Seys J., Van den Bossche W. & Meire , P., 1996. Seabirds on the Channel doormat. De Giervalk 86: 3-71.Offringa, H., Seys, J., Van Waeyenberghe, J. & Meire, P., 2001. The Belgian marine avifauna. In: Cattrijsse, A. & Vincx, M. (Eds.), 2001. Biodiversity of the benthos and the avifauna of the Belgian coastal waters; summary of data collected between 1970 and 1998. OSTC (Federal Office for Scientific, Technical and Cultural Affairs), Brussel: 27-30.Rose, P.M. & Scott, D.A., 1997. Waterfowl population estimates - second edition. Wetlands International Publication 44, Wageningen, The Netherlands.Seys, J., 2001. Sea- and coastal bird data as tools in the policy and management of Belgian marine waters. Doctoraal proefschrift, niet gepubliceeerd. Universiteit Gent, oktober 2001, 133p., 10 bijlagen.Seys, J., 2002. Estimates of the number of seabirds residing in and migrating through the southern North Sea. Report IN.D.2002.2. Institute of Nature Conservation, Brussel.Seys, J., Offringa, H.,

van Waeyenberge J., Meire P. & Kuijken E. (1999). Ornithologisch belang van de Belgische maritieme wateren: naar een aanduiding van kensoorten en sleutelgebieden. Nota In A74. Instituut voor Natuurbehoud, Brussel., 17p., 10 bijlagen.Seys, J. & Stienen, E.W.M., 2002. Toelichtingsnota mbt. ornithologische waarde van de Belgische mariene wateren, meer in het bijzonder van het meest kustwaartse gedeelte (Vlaamse Banken, Kustbanken). Nota Instituut voor Natuurbehoud, Brussel, 9p.Skov, H., Durinck, J., Leopold, M.F. & Tasker, M.L., 1995. Important bird areas in the North Sea, including the Channel and the Kattegat. BirdLife International, Cambridge, 156p.Van den Bossche, W., Meire, P., Anselin, A., Kuijken, E., De Putter, G., Orbie, G. & Willemijns, F., 1995. Ontwikkeling en toekomst van sternenkolonies aan de Belgische kust. Rapport Instituut voor Natuurbehoud 95.03, 50p.Van Steen, E., 1978. Het macrobenthos van een overwinteringsgebied van Melanitta nigra (Linné, 1758) voor de Belgische kust. Rijksuniversiteit Gent, Fakulteit der Wetenschappen, licentiaatsverhandeling (niet gepubliceerd), 49p.Van Waeyenberge, J.,. Stienen, E.W.M. & Offringa, H., 2001a. Overwinterende zee-eenden voor de Belgische kust. Vogelnieuws, ornithologische nieuwsbrief van het Instituut voor Natuurbehoud, nr. 2, oktober 2001: 20-23. Van Waeyenberge, J.,. Stienen, E.W.M. & Seys, J., 2001b. Broedbiologisch onderzoek bij sternen en meeuwen in de Zeebrugse voorhaven: waarom, wat en hoe? Vogelnieuws, ornithologische nieuwsbrief van het Instituut voor Natuurbehoud, nr. 1, juni 2001: 15-20.

5. SITE PROTECTION STATUS

No information provided

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6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	FOD Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu, DG Leefmilieu, Dienst Marien Milieu
Address:	
Email:	marien.milieu.marin@environment.belgium.be

6.2 Management Plan(s):

An actual management plan does exist:

[X]	Yes	Name: Belgische Staat, 2009. BELEIDSPLANNEN BESCHERMDE MARIENE GEBIEDEN IN HET BELGISCHE DEEL VAN DE NOORDZEE. Minister bevoegd inzake het marien milieu. 69 p. Link: http://
[ ]	No, but in preparation	
[ ]	No	

6.3 Conservation measures (optional)

- Prohibition to cross Natura2000 area with high-speed vessels, except exceptional circumstances between 1 December and 15 March (Royal Decree of 14 October 2005, Art.7);- Prohibition to make helicopter flights below 500 ft between 1 December and 15 March (Royal Decree of October 2005, art.7);- Industrial activities are prohibited (Marine Environment Law of 20 January 1999, art.25, §1(v) KB of 14 October 2005, art.5 and 10) - this includes mariculture;- Activities of PR and commerical companies are prohibited (MMM art.25, §1 (vi), Royal Decree of 14 October 2005, art.5 and 10);- Water sport competitions are prohibited in SBZ1 and SBZ2 (Royal Decree of 14 October 2005, art.7);- Disposal of dredged material is prohibited in N2K areas (Royal Decree of 14 October 2005, art.10);- Activities of civil engineering are prohibited (MMM art.25, §1(i);The following rules apply in the entire Belgian part of the North sea, including Natura2000 area:- Fishery on "sedentary species" is prohibited in SBZ (= part of the territorial sea) (Royal Decree of 14/08/1989);- Fishery-prohibition to catch and hold Cetacea (whales, dolphins, inc. Harbour porpoise) and Pinnipeds (seals); (MMM art.13 and 14);- Recreational fishery using trammel nets, gill nets, floating nets, electrical fishing, explosives is forbidden (Royal Decree of 21 December 2001);- Hunting is prohibited (Marine Environment Law of 20 January 1999);- Deliberate introduction of non-native species is forbidden, except when conditionally permitted (MMM art.11,§1);- Deliberate introduction of non-native species via ballast water is forbidden (MMM art.11, §2);- Deliberate introduction of genetically modified species is forbidden (MMM art.11, §4);- To protect the sea bottom,

fishery within 4,5 nautical miles, measured from the baseline, is forbidden for vessels above a 70 Bruto Tonnage.

7. MAP OF THE SITE

No information provided

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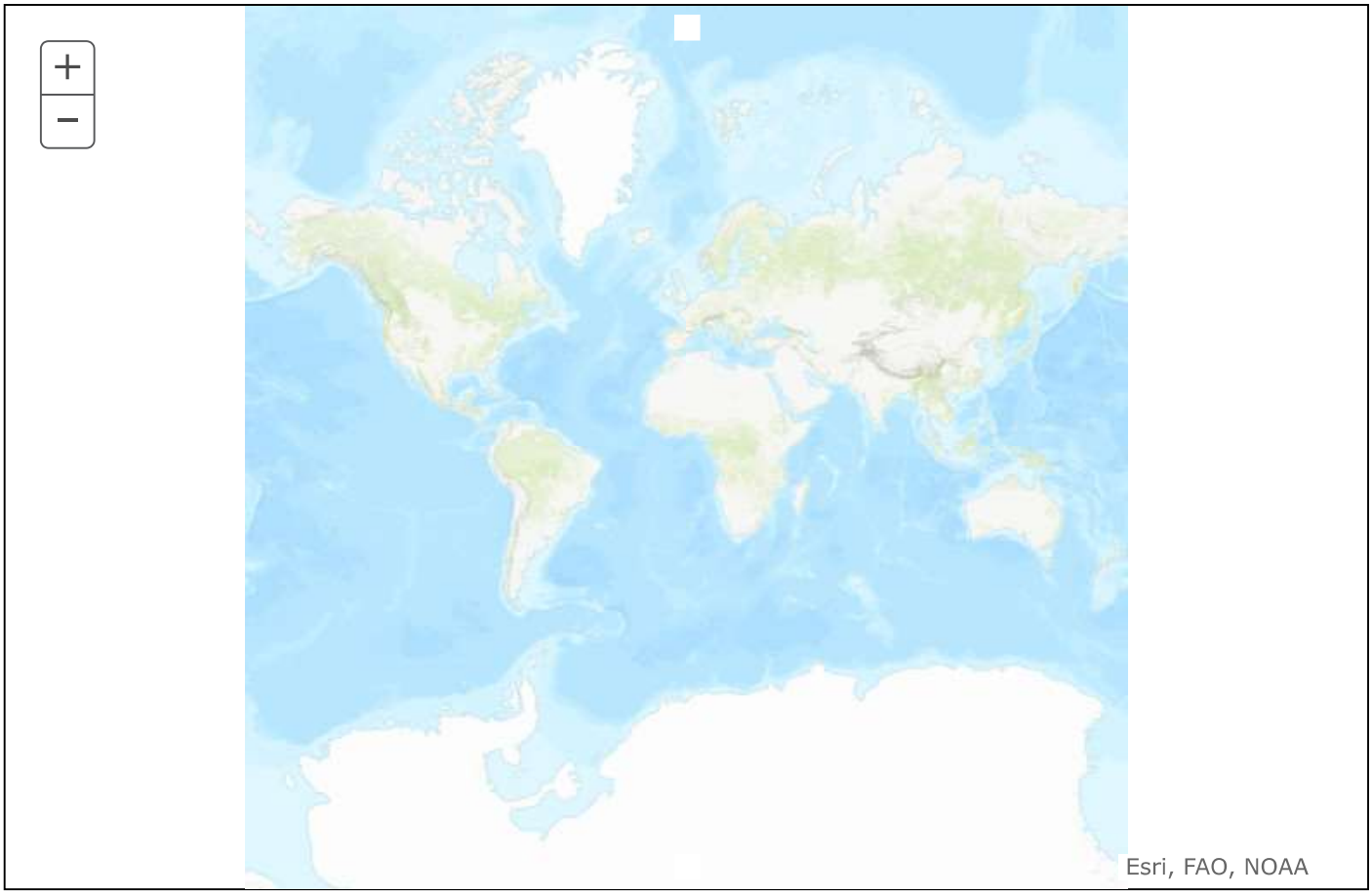
SITE DISPLAY



Database release: End2022 - 12/03/2024

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE	**BEMNZ0004**
SITENAME	**SBZ 3 / ZPS 3**

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Print Standard Data Form

1. SITE IDENTIFICATION

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1.1 Type

A

1.2 Site code

BEMNZ0004

1.3 Site name

SBZ 3 / ZPS 3

1.4 First Compilation date

1995-12

1.5 Update date

2014-09

1.6 Respondent:

Name/Organisation:	Marine Environment Unit, FPS Public Health, Food Chain Safety and Environment; DG Environment
Address:	

Email:	marien.milieu.marin@environment.belgium.be

1.7 Site indication and designation / classification dates

Date site classified as SPA:	2005-10
National legal reference of SPA designation	No information provided

Date site proposed as SCI:	1900-01
Date site confirmed as SCI:	No information provided
Date site designated as SAC:	1900-01
National legal reference of SAC designation:	Royal Decree of 14 October 2005 concerning the desingnation of the SPAs

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude:	3.169400
Latitude:	51.360600

2.2 Area [ha]

5675.6000

2.3 Marine area [%]

0.0000

2.4 Sitelength [km] (optional):

No information provided

2.5 Administrative region code and name

NUTS level 2 code	Region Name
BEZZ	Extra-Regio NUTS 2

2.6 Biogeographical Region(s)

Marine Atlantic	(100 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
1110			0	0.00	G	A	B	C	C
1170			0	0.00	G	C	B	C	C

PF: for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.

NP: in case that a habitat type no longer exists in the site enter: x (optional)

Cover: decimal values can be entered

Caves: for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.

Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
F	1103	Alosa fallax			p	0	0	localities	P	P	D			
B	A001	Gavia stellata			w	0	0	localities	R	M	B	C	C	C
M	1364	Halichoerus grypus			p	0	0	localities	R	P	D			
F	1099	Lampetra fluviatilis			p	0	0	localities	P	P	D			
B	A183	Larus fuscus			c	0	0	localities	C	M	B	C	C	B
B	A187	Larus marinus			c	0	0	localities	C	M	C	C	C	C
B	A177	Larus minutus			c	0	0	localities	C	M	C	C	C	B
B	A065	Melanitta nigra			w	0	0	localities	R	M	C	C	C	C
F	1095	Petromyzon marinus			p	0	0	localities	P	P	D			
M	1365	Phoca vitulina			p	0	0	localities	R	P	D			
M	1351	Phocoena phocoena			c	0	0	i	C	M	D			
B	A005	Podiceps cristatus			w	0	0	i	C	M	A	C	C	B
B	A195	Sterna albifrons			c	0	0	localities	V	M	A	C	C	A
B	A193	Sterna hirundo			c	0	0	localities	R	M	A	C	C	A

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A191	Sterna sandvicensis			c	0	0	localities	R	M	A	C	C	A

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
NP: in case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance categories (Cat.): C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

3.3 Other important species of flora and fauna (optional)

No information provided

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N01	100.00
Total Habitat Cover	100

4.2 Quality and importance

No information provided

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
L	F01.02		o
M	F01		o
M	F02.03		i
L	G01.01.02		i
M	G01.01.01		i

L	D03.02		o
M	F02.02.01		i
L	G02.09		i
M	J02.12.01		i
M	J02.02		i
L	H03.01		i
H	D03.01		i
H	C03.03		o
L	M01		o
M	I02		i
L	G04.01		i
L	K02.03		o

Positive Impacts			
Rank	**Activities, management [code]**	**Pollution (optional) [code]**	**inside/outside [i|o|b]**
M	D03.02		i

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification, T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.4 Ownership (optional)

Type		**[%]**
Public	National/Federal	100
	State/Province	0
	Local/Municipal	0
	Any Public	0
Joint or Co-Ownership		0
Private		0
Unknown		0
sum		100

4.5 Documentation (optional)

Delaney, S. & Scott, D., 2002. Waterbird population estimates, third edition. Wetlands International Global Series no. 12, Wageningen, Nederland, 226p.Haelters, J., Vigin, L., Stienen, E.W.M., Scory, S., Kuijken, E. & Jacques, T.G., 2004. Ornithologisch belang van de Belgische zeegebieden - Importance ornithologique des espaces marins de la Belgique. Bulletin van het Koninklijk Belgisch Instituut voor Natuurwetenschappen, Biologie, Vol.74, suppl., 91p.Kuijken, E., 1972. Belgian wetlands of international importance for waterfowl. Proceedings of the international conference on the conservation of wetlands and waterfowl, Ramsar (Iran), 1971: 179-188.Offringa, H., Seys J., Van den Bossche W. & Meire , P., 1996. Seabirds on the Channel doormat. De Giervalk 86: 3-71.Offringa, H., Seys, J., Van Waeyenberghe, J. & Meire, P., 2001. The Belgian marine avifauna. In: Cattrijsse, A. & Vincx, M. (Eds.), 2001. Biodiversity of the benthos and the avifauna of the Belgian coastal waters; summary of data collected between 1970 and 1998. OSTC (Federal Office for Scientific, Technical and Cultural Affairs), Brussel: 27-30.Rose, P.M. & Scott, D.A., 1997. Waterfowl population estimates - second edition. Wetlands International Publication 44, Wageningen, The Netherlands.Seys, J., 2001. Sea- and coastal bird data as tools in the policy and management of Belgian marine waters. Doctoraal proefschrift, niet gepubliceeerd. Universiteit Gent, oktober 2001, 133p., 10 bijlagen.Seys, J., 2002. Estimates of the number of seabirds residing in and migrating through the southern North Sea. Report IN.D.2002.2. Institute of Nature Conservation, Brussel.Seys, J., Offringa, H.,

van Waeyenberge J., Meire P. & Kuijken E. (1999). Ornithologisch belang van de Belgische maritieme wateren: naar een aanduiding van kensoorten en sleutelgebieden. Nota In A74. Instituut voor Natuurbehoud, Brussel., 17p., 10 bijlagen.Seys, J. & Stienen, E.W.M., 2002. Toelichtingsnota mbt. ornithologische waarde van de Belgische mariene wateren, meer in het bijzonder van het meest kustwaartse gedeelte (Vlaamse Banken, Kustbanken). Nota Instituut voor Natuurbehoud, Brussel, 9p.Skov, H., Durinck, J., Leopold, M.F. & Tasker, M.L., 1995. Important bird areas in the North Sea, including the Channel and the Kattegat. BirdLife International, Cambridge, 156p.Van den Bossche, W., Meire, P., Anselin, A., Kuijken, E., De Putter, G., Orbie, G. & Willemijns, F., 1995. Ontwikkeling en toekomst van sternenkolonies aan de Belgische kust. Rapport Instituut voor Natuurbehoud 95.03, 50p.Van Steen, E., 1978. Het macrobenthos van een overwinteringsgebied van Melanitta nigra (Linné, 1758) voor de Belgische kust. Rijksuniversiteit Gent, Fakulteit der Wetenschappen, licentiaatsverhandeling (niet gepubliceerd), 49p.Van Waeyenberge, J.,. Stienen, E.W.M. & Offringa, H., 2001a. Overwinterende zee-eenden voor de Belgische kust. Vogelnieuws, ornithologische nieuwsbrief van het Instituut voor Natuurbehoud, nr. 2, oktober 2001: 20-23. Van Waeyenberge, J.,. Stienen, E.W.M. & Seys, J., 2001b. Broedbiologisch onderzoek bij sternen en meeuwen in de Zeebrugse voorhaven: waarom, wat en hoe? Vogelnieuws, ornithologische nieuwsbrief van het Instituut voor Natuurbehoud, nr. 1, juni 2001: 15-20.

5. SITE PROTECTION STATUS

No information provided

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6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	FOD Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu, DG Leefmilieu, Dienst Marien Milieu
Address:	
Email:	marien.milieu.marin@environment.belgium.be

6.2 Management Plan(s):

An actual management plan does exist:

[X]	Yes	Name: Belgische Staat, 2009. BELEIDSPLANNEN BESCHERMDE MARIENE GEBIEDEN IN HET BELGISCHE DEEL VAN DE NOORDZEE. Minister bevoegd inzake het mariene milieu. 69p. Link: http://
[ ]	No, but in preparation	
[ ]	No	

6.3 Conservation measures (optional)

- Industrial activities are prohibited (Marine Environment Law of 20 Januari 1999, art.25, §1(v), Royal Decree of 14 October 2005, art.5 and 10) - this includes mariculture;- Activities of PR an commercial companies are prohibited (MMM art.25, §1(vii), Royal Decree of 14 October 2005, art.5 and 10);- Disposal of dredged material is prohibited in N2K areas (Royal Decree of 14 October 2005, art.10);- Activities of civil engineering are prohibited (MMM art.25, §1(i).The following rules apply in the entire Belgian part of the North sea, including Natura2000 area:- Fishery on "sedentary species" is prohibited in SBZ (= part of the territorial sea), (Royal Decree of 14/08/1989);- Fishery-prohibition to catch and hold Cetacea (whales, dolphins, incl. Harbour porpoise) and Pinnipeds (seals); (MMM art.13 and 14);- Recreational fishery using trammel nets, gill nets, floating nets, electrical fishing, explosives is forbidden (Royal Decree of 21 December 2001);- Hunting is prohibited (Marine Environment Law of 20 Januari 1999);- Deliberate introduction of non-native species is forbidden, exept when conditionally permitted (MMM art.11, §1);- Deliberate introduction of non-native species via ballast water is forbidden (MMM art.11, §2);- Deliberate introduction of genetically modified species is forbidden (MMM art.11, §4);- To protect the sea bottom, fishery within 4,5 nautical miles, measured from the baseline, is forbidden for vessels above a 70 Bruto Tonnage.

7. MAP OF THE SITE

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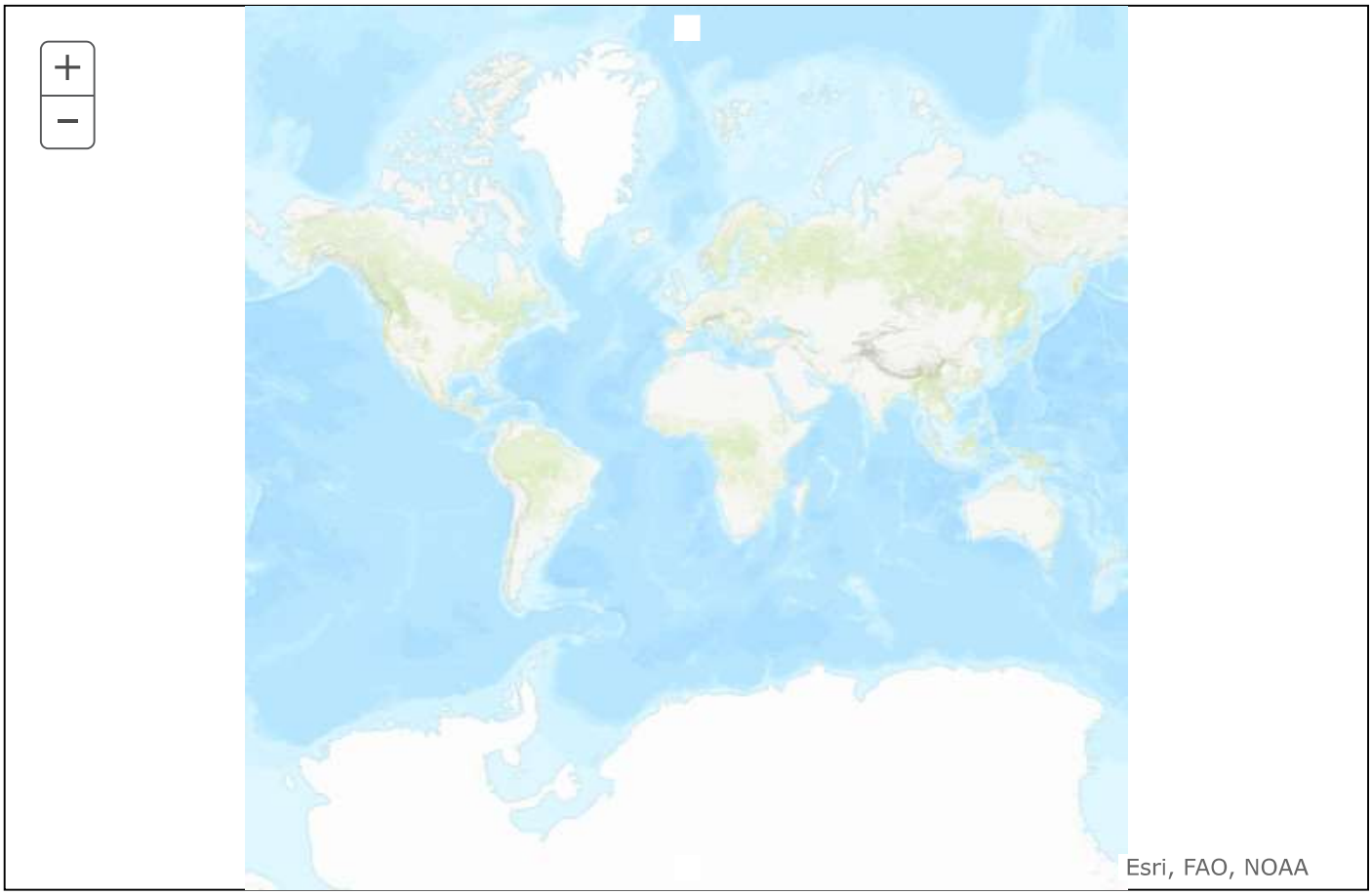
INSPIRE ID:	-

SITE DISPLAY



STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK0030395**

SITENAME **Southern North Sea**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

1.1 Type	1.2 Site code Back to top
B	UK0030395

1.3 Site name

Southern North Sea

1.4 First Compilation date	1.5 Update date
2017-01	2019-03

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Monkstone House, City Road, Peterborough, PE1 1JY
Email:	

Date site proposed as SCI:	2017-01
Date site confirmed as SCI:	2017-12
Date site designated as SAC:	2019-02
National legal reference of SAC designation:	Regulations 13 and 17-19 of The Conservation of Habitats and Species Regulations 2017 (https://www.legislation.gov.uk/uksi/2017/1012/contents/made), and Regulations 11, 19 and 20 of The Conservation of Offshore Marine Habitats and Species Regulations 2017 (http://www.legislation.gov.uk/uksi/2017/1013/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
1.7999	53.551

2.2 Area [ha]:

3695054.0

2.3 Marine area [%]

100.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKZZ	Extra-Regio

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
M	1351	Phocoena phocoena			p	11864	28889	i	C	M	A	A	C	A

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N01	100.0
Total Habitat Cover	100

Other Site Characteristics

General site characteristics: Sand and coarse sediments. Non-vegetated. Full salinity. Water depths between 10m and 75m.

4.2 Quality and importance

Harbour porpoise (Phocoena phocoena) "For which this is considered to be one of the best areas in the United Kingdom".

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	C02		b
L	J03		b
L	G04		b
H	F02		b
M	H03	O	b
H	C03		b
L	D03		b

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

For information on this site, including the Selection Assessment Document, Conservation Objectives and Advice on Activities document, as well as information about the identification process of the UK network of harbour porpoise SACs, see the Site Information Centre (see link) for this site. The population size estimate in Section 3.2, provided at the time the site was proposed as an SCI, is based on data from a survey conducted in 2005 (Hammond et al. 2013). Revised “population in the site” estimates based on the 2016 survey (Hammond et al. 2017) are a minimum of 20237 (lower 95% CI) and maximum of 41538 (higher 95% CI). All these estimates are derived from one-month summer surveys and should not be considered as specific population sizes for the site. Hammond, P. Macleod, K. Berggren, P. Borchers, D. Burt, L. Canadas, A. Desportes, G. Donovan, G. Gilles, A. Gillespie, D. Gordon, J. Hiby, L. Kuklik, I. Leaper, R. Lehnert, K. Leopold, M. Lovell, P. Øien, N. Paxton, C. Ridoux, V. Rogan, E. Samarra, F. Scheidat, M. Sequeira, M. Siebert, U. Skov, H. Swift, R. Tasker, M. Teilmann, J. van Canneyt, O. Vazques, J. (2013). Cetacean abundance and distribution in European Atlantic shelf waters to inform conservation and management. Biological Conservation. 164. 107 - 122. Hammond, P. Lacey, C. Gilles, A. Viquerat, S. Börjesson, P. Herr, H. Macleod, K. Ridoux, V. Santos, M. Scheidat, M. Teilmann, J. Vingada, J. Øien, N. (2017). Estimates of cetacean abundance in European Atlantic waters in summer 2016 from the SCANS-III aerial and shipboard surveys. Available: https://synergy.st-andrews.ac.uk/scans3/files/2017/05/SCANS-III-design-based-estimates-2017-05-12-final-revis

Link(s): http://jncc.defra.gov.uk/page-7243

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Joint Nature Conservation Committee
Address:	
Email:	

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

- [ ] Yes
- [ ] No, but in preparation
- [X] No

7. MAP OF THE SITES

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INSPIRE ID:

Map delivered as PDF in electronic format (optional)

[ ] Yes [X] No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

Information Sheet on Ramsar Wetlands (RIS)

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: 13 July 1994 / Updated: May 2005

3. Country:
UK (England)

4. Name of the Ramsar site:
Stour and Orwell Estuaries

5. Map of site included:

a) hard copy (required for inclusion of site in the Ramsar List): *yes* -or- *no*

b) digital (electronic) format (optional): YES

6. Geographical coordinates (latitude/longitude)**:**
51º 57’ 15’’ N 01º 09’ 26’’ E

7. General location:
Nearest town/city: Felixstowe

The Stour Estuary forms the south-eastern part of Essex/Suffolk boundary.

The Orwell Estuary is a relatively long and narrow estuary with extensive mudflats and some saltmarsh, running from Ipswich in the north, southwards towards Felixstowe.

Administrative region: Essex; Suffolk

8. Elevation (average and/or max. & min.) (metres)**:**
Min. 0
Max. No information available
Mean No information available

9. Area (hectares)**:** 3,323.62

10. Overview:
The Stour and Orwell site is a wetland of international importance, comprising extensive mudflats, low cliffs, saltmarsh and small areas of vegetated shingle on the lower reaches. It provides wintering habitats for important assemblages of wetland birds and supports internationally and nationally important numbers of wintering wildfowl and waders, and holds several nationally scarce plants and British Red Data Book invertebrates.

11. Ramsar Criteria:
2, 5, 6

Secretariat Comment: The RIS provides information requiring the application of Criterion 4. This need to be included in the next update.

12. Justification for the application of each Criterion listed in 11. above:

Ramsar criterion 2

Contains nationally scarce plants and British Red Data Book invertebrates.

The vascular plants *Zostera noltei* and *Spartina maritima* are considered vulnerable and endangered, respectively, in the GB Red Book.

Secretariat Comment: Criterion 2 requires to specify the scientific names of those species considered vulnerable, endangered or critically endangered. This need to be included in the next update.

Ramsar criterion 5

Assemblages of international importance:

Species with peak counts in winter:
51,285 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:

Species with peak counts in winter:

Black-tailed godwit , *Limosa limosa islandica*, Iceland/W Europe	2,157 individuals, representing an average of 4.6% of the population (5 year peak mean 1998/9-2002/3)
Common redshank , *Tringa totanus totanus*,	2,657 individuals, representing an average of 1% of the population (5 year peak mean 1998/9-2002/3)
Dark-bellied brent goose, *Branta bernicla bernicla*,	2,133 individuals, representing an average of 1% of the GB population (5 year peak mean 1998/9-2002/3)
Dunlin , *Calidris alpina alpina*, W Siberia/W Europe	14,626 individuals, representing an average of 1% of the population (5 year peak mean 1998/9-2002/3)
Grey plover , *Pluvialis squatarola*, E Atlantic/W Africa -wintering	3,204 individuals, representing an average of 1.2% of the population (5 year peak mean 1998/9-2002/3)

Species/populations identified subsequent to designation for possible future consideration under criterion 6.

Species with peak counts in winter:

Red knot , *Calidris canutus islandica*, W & Southern Africa (wintering)	5863 individuals, representing an average of 1.3% of the population (5 year peak mean 1998/9-2002/3)

More 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 Alerts report, which is updated annually. See http://www.bto.org/survey/webs/webs-alerts-index.htm.

13. Biogeography:

a) biogeographic region:
Atlantic

b) biogeographic regionalisation scheme (include reference citation):
Council Directive 92/43/EEC

14. Physical features of the site:

Soil & geology	shingle, sand, mud
Geomorphology and landscape	lowland, coastal, valley, subtidal sediments (including sandbank/mudbank), intertidal sediments (including sandflat/mudflat), estuary
Nutrient status	
pH	
Salinity	brackish / mixosaline, fresh, saline / euhaline
Soil	no information
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:
No information available

15. Physical features of the catchment area:
No information available

16. Hydrological values:
Sediment trapping

17. Wetland types
Inland wetland, Marine/coastal wetland

Code	Name	% Area
E	Sand / shingle shores (including dune systems)	0.3
F	Estuarine waters	19.8
G	Tidal flats	44.2
H	Salt marshes	35
4	Seasonally flooded agricultural land	0.7

18. General ecological features:
Orwell is a relatively long and narrow estuary with extensive mudflats bordering the channel that support large patches of eelgrass *Zostera* sp. The saltmarsh tends to be sandy and fairly calcareous with a wide range of communities. There are small areas of vegetated shingle on the foreshore of the lower reaches. Grazing marshes adjoin the estuary at Shotley. The Stour estuary is a relatively simply structured estuary with a sandy outer area and a muddier inner section. The mud is rich in invertebrates and there are areas of higher saltmarsh. The shoreline vegetation varies from oak-dominated wooded cliffs, through scrub-covered banks to coarse grasses over seawalls, with reed-filled borrow dykes behind.

19. Noteworthy flora:

Nationally important species occurring on the site.

Higher Plants.

Puccinellia rupestris, Spartina maritima, Sarcocornia perennis, Limonium humile, Zostera angustifolia, Zostera noltei.

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20. Noteworthy fauna:

Birds

Species currently occurring at levels of national importance:

Species regularly supported during the breeding season:

Little tern , *Sterna albifrons albifrons*, W Europe	46 apparently occupied nests, representing an average of 2.3% of the GB population (Seabird 2000 Census)

Species with peak counts in spring/autumn:

Common greenshank , *Tringa nebularia*, Europe/W Africa	68 individuals, representing an average of 11.3% of the GB population (5 year peak mean 1998/9-2002/3)
Great crested grebe , *Podiceps cristatus cristatus*, NW Europe	165 individuals, representing an average of 1% of the GB population (5 year peak mean 1998/9-2002/3)
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)

Species with peak counts in winter:

Common goldeneye , *Bucephala clangula clangula*, NW & C Europe	328 individuals, representing an average of 1.3% of the GB population (5 year peak mean 1998/9-2002/3)
Eurasian curlew , *Numenius arquata arquata*, N. a. arquata Europe (breeding)	1784 individuals, representing an average of 1.2% of the GB population (5 year peak mean 1998/9-2002/3)
Northern pintail , *Anas acuta*, NW Europe	510 individuals, representing an average of 1.8% of the GB population (5 year peak mean 1998/9-2002/3)
Spotted redshank , *Tringa erythropus*, Europe/W Africa	4 individuals, representing an average of 2.9% of the GB population (5 year peak mean 1998/9-2002/3)

Species Information

Nationally important species occurring on the site.

Invertebrates.

Phaonia fusca, Haematopota grandis (Meigen), Arctosa fulvolineata, Baryphyma duffeya.

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21. Social and cultural values:

Aesthetic
Archaeological/historical site
Livestock grazing
Non-consumptive recreation
Sport hunting
Tourism
Transportation/navigation

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22. Land tenure/ownership:

Ownership category	On-site	Off-site
Non-governmental organisation	+	
Local authority, municipality etc.	+	
National/Crown estate	+	
Private	+	+

23. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	
Tourism	+	+
Recreation	+	+
Cutting of vegetation (small scale/subsistence)	+	
Bait collection	+	
Permanent arable agriculture		+
Grazing (unspecified)	+	
Hunting: recreational/sport	+	
Sewage treatment/disposal	+	
Harbour/port	+	
Flood control	+	
Transport route	+	+
Urban development		+
Non-urbanised settlements	+	+

24. Factors 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?
No factors reported	NA	Potential: harbour/port, transport route, settlements			

For category 2 factors only. What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors?
Is the site subject to adverse ecological change? NO

25. Conservation measures taken:

Conservation measure	On-site	Off-site
SSSI / ASSI	+	
SPA	+	
Land owned by a NGO for nature conservation	+	
Management agreement	+	
Site management statement/plan implemented	+	
AONB	+	+

26. Conservation measures proposed but not yet implemented:
No information available

27. Current scientific research and facilities:

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.
High tide bird counts.

Environment, Flora and Fauna.
Vegetation, bird and invertebrate surveys/monitoring carried out on NGO reserves.

28. Current conservation education:
None reported

29. Current recreation and tourism:
Activities, Facilities provided and Seasonality.
A popular area for tourists as it is within an AONB. There are more visitors in the summer. However it is well used throughout the year by walkers, bird watches and for sailing.

30. Jurisdiction:
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

31. Management authority:
Site Designations Manager, English Nature, Sites and Surveillance Team, Northminster House, Northminster Road, Peterborough, PE1 1UA, UK

32. Bibliographical references:

Site-relevant references

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

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

EC Directive 79/409 on the Conservation of Wild Birds
Special Protection Area (SPA)

Name: Stour and Orwell Estuaries

Unitary Authority/County: Essex, Suffolk.

Site description: The Stour and Orwell estuaries straddle the eastern part of the Essex/Suffolk border in eastern England. The SPA is coincident with Cattawade Marshes Site of Special Scientific Interest (SSSI), Orwell Estuary SSSI and Stour Estuary SSSI. The estuaries include extensive mud-flats, low cliffs, saltmarsh and small areas of vegetated shingle on the lower reaches. The mud-flats hold *Enteromorpha*, *Zostera* and *Salicornia* spp. The site also includes areas of low-lying grazing marsh at Shotley Marshes on the south side of the Orwell and at Cattawade Marshes at the head of the Stour. Trimley Marshes on the north side of the Orwell includes several shallow freshwater pools, as well as areas of grazing marsh, and is managed as a nature reserve by the Suffolk Wildlife Trust. In summer, the site supports important numbers of breeding avocet *Recurvirostra avosetta*, while in winter it holds major concentrations of waterbirds, especially geese, ducks and waders. The geese also feed, and some waders roost, in surrounding areas of agricultural land outside the SPA. The site has close ecological links with the Hamford Water and Mid-Essex Coast SPAs, lying to the south on the same coast.

Size of SPA: The SPA covers an area of 3,676.92 ha.

Qualifying species:
The site qualifies under **article 4.1** of the Directive (79/409/EEC) as it is used regularly by 1% or more of the Great Britain populations of the following species listed in Annex I in any season:

Annex 1 species	Count and season	Period	% of GB population
Avocet *Recurvirostra avosetta*	21 pairs - breeding	5 year peak mean 1996 – 2000	3.6%

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 in Annex I) in any season:

Migratory species	Count and season	Period	% of subspecies/population
Redshank *Tringa totanus*	2,588 individuals – autumn passage	5 year peak mean 1995/96 – 1999/2000	2.0% *brittanica*
Dark-bellied brent goose *Branta bernicla bernicla*	2,627 individuals - wintering	5 year peak mean 1995/96 – 1999/2000	1.2% *bernicla*, Western Siberia (breeding)
Pintail *Anas acuta*	741 individuals - wintering	5 year peak mean 1995/96 – 1999/2000	1.2% Northwestern Europe (non-breeding)
Grey plover *Pluvialis squatarola*	3,261 individuals - wintering	5 year peak mean 1995/96 – 1999/2000	1.3% Eastern Atlantic (non-breeding)
Knot *Calidris canutus islandica*	5,970 individuals - wintering	5 year peak mean 1995/96 – 1999/2000	1.3% *islandica*
Dunlin *Calidris alpina alpina*	19,114 individuals - wintering	5 year peak mean 1995/96 – 1999/2000	1.4% *alpina*, Western Europe (non-breeding)
Black-tailed godwit *Limosa limosa islandica*	2,559 individuals - wintering	5 year peak mean 1995/96 – 1999/2000	7.3% *islandica*
Redshank *Tringa totanus*	3,687 individuals - wintering	5 year peak mean 1995/96 – 1999/2000	2.8% *brittanica*

Bird counts from: Wetland Bird Survey (WeBS) database.

Assemblage qualification:
The site qualifies under **article 4.2** of the Directive (79/409/EEC) as it is used regularly by over 20,000 waterbirds (waterbirds as defined by the Ramsar Convention) in any season:

In the non-breeding season, the area regularly supports 63,017 individual waterbirds (5 year peak mean 1993/94 - 1997/98), including great crested grebe *Podiceps cristatus*, cormorant *Phalacrocorax carbo*, dark-bellied brent goose *Branta bernicla bernicla*, shelduck *Tadorna tadorna*, wigeon *Anas penelope*, gadwall *Anas strepera*, pintail *Anas acuta*, goldeneye *Bucephala clangula*, ringed plover *Charadrius hiaticula*, grey plover *Pluvialis squatarola*, lapwing *Vanellus vanellus*, knot *Calidris canutus islandica*, dunlin *Calidris alpina alpina*, black-tailed godwit *Limosa limosa islandica*, curlew *Numenius arquata*, redshank *Tringa totanus* and turnstone *Arenaria interpres*.

Non-qualifying species of interest: The SPA/Ramsar site as a whole, including the proposed extensions, is used by non-breeding marsh harrier *Circus aeruginosus*, hen harrier *Circus cyaneus*, merlin *Falco columbarius*, peregrine *Falco peregrinus*, short-eared owl *Asio flammeus* and kingfisher *Alcedo atthis* (all species listed in Annex I of the EC Birds Directive) in numbers of less than European importance (less than 1% GB population). It also supports breeding common tern *Sterna hirundo*, little tern *Sterna albifrons* and kingfisher (all listed in Annex I) in numbers of less than European importance.

Status of SPA:
1) Stour and Orwell Estuaries was classified as a Special Protection Area on 13 July 1994.
2) Extensions to the Stour and Orwell Estuaries SPA were classified on 19 May 2005.

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9009121**

SITENAME **Stour and Orwell Estuaries**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
A	UK9009121

1.3 Site name

Stour and Orwell Estuaries

1.4 First Compilation date	1.5 Update date
1994-07	2015-12

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	1994-07
National legal reference of SPA designation	Regulations 12A and 13-15 of the Conservation Habitats and Species Regulations 2010, (http://www.legislation.gov.uk/uksi/2010/490/contents/made) as amended by The Conservation of Habitats and Species (Amendment) Regulations 2011 (http://www.legislation.gov.uk/uksi/2011/625/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
1.160555556	51.95444444

2.2 Area [ha]:

3667.37

2.3 Marine area [%]

85.6

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH1	East Anglia
UKH3	Essex

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo
B	A054	Anas acuta			w	741	741	i		G	B		C	
B	A050	Anas penelope			w	3979	3979	i		G	C		C	
B	A051	Anas strepera			w	97	97	i		G	C		C	
B	A169	Arenaria interpres			w	690	690	i		G	C		C	
B	A062	Aythya marila			w	28	28	i		G	C		C	
B	A675	Branta bernicla bernicla			w	2627	2627	i		G	B		C	
B	A067	Bucephala clangula			w	213	213	i		G	C		C	
B	A672	Calidris alpina alpina			w	19114	19114	i		G	B		C	
B	A143	Calidris canutus			w	5970	5970	i		G	C		C	

B	A137	Charadrius hiaticula			w	372	372	i		G	B		C	
B	A137	Charadrius hiaticula			c	638	638	i		G	B		C	
B	A036	Cygnus olor			w	239	239	i		G	C		C	
B	A616	Limosa limosa islandica			w	2559	2559	i		G	A		C	
B	A160	Numenius arquata			w	2153	2153	i		G	C		C	
B	A017	Phalacrocorax carbo			w	232	232	i		G	C		C	
B	A140	Pluvialis apricaria			w	773	773	i		G	C		C	
B	A141	Pluvialis squatarola			w	3261	3261	i		G	B		C	
B	A005	Podiceps cristatus			w	245	245	i		G	C		C	
B	A132	Recurvirostra avosetta			r	21	21	p		G	B		C	
B	A048	Tadorna tadorna			w	2955	2955	i		G	B		C	
B	A162	Tringa totanus			c	2588	2588	i		G	B		C	
B	A162	Tringa totanus			w	3687	3687	i		G	B		C	
B	A142	Vanellus vanellus			w	6242	6242	i		G	C		C	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

3.3 Other important species of flora and fauna (optional)

Species					Population in the site				Motivation					
Group	CODE	Scientific Name	S	NP	Size		Unit	Cat.	Species Annex		Other categories			
					Min	Max		C|R|V|P	IV	V	A	B	C	D
B	WATR	Waterbird assemblage			63017	63017	i						X	

- **Group:** A = Amphibians, B = Birds, F = Fish, Fu = Fungi, I = Invertebrates, L = Lichens, M = Mammals, P = Plants, R = Reptiles
- **CODE:** for Birds, Annex IV and V species the code as provided in the reference portal should be used in addition to the scientific name
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Unit:** i = individuals, p = pairs or other units according to the standard list of population units and codes in accordance with Article 12 and 17 reporting, (see reference portal)
- **Cat.:** Abundance categories: C = common, R = rare, V = very rare, P = present
- **Motivation categories: IV, V:** Annex Species (Habitats Directive), **A:** National Red List data; **B:** Endemics; **C:** International Conventions; **D:** other reasons

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N16	0.2
N06	0.8
N07	5.5
N02	88.0
N05	0.5
N03	5.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: sand,shingle,clay,alluvium,neutral,mud 2 Terrestrial: Geomorphology and landscape: coastal,lowland 3 Marine: Geology: mud,clay,shingle,sand 4 Marine: Geomorphology: intertidal sediments (including sandflat/mudflat),estuary,lagoon,subtidal sediments (including sandbank/mudbank) Ramsar Wetland Types: Marine and coastal wetlands

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC) During the breeding season the area regularly supports: Recurvirostra avosetta (Western Europe/Western Mediterranean - breeding) 3.6% of the population in Great Britain 5-year peak mean 1996-2000 ARTICLE 4.2 QUALIFICATION (79/409/EEC) Over winter the area regularly supports: Anas acuta (North-western Europe) 1.2% of the population 5-year peak mean 1995/96-1999/2000 Branta bernicla bernicla (Western Siberia/Western Europe) 1.2% of the population 5-year peak mean 1995/96-1999/2000 Calidris alpina alpina (Northern Siberia/Europe/Western Africa) 1.4% of the population 5-year peak mean 1995/96-1999/2000 Calidris canutus (North-eastern Canada/Greenland/Iceland/North-western Europe) 1.3% of the population 5-year peak mean 1995/96-1999/2000 Limosa limosa islandica (Iceland - breeding) 7.3% of the population 5-year peak mean 1995/96-1999/2000 Pluvialis squatarola (Eastern Atlantic - wintering) 1.3% of the population 5-year peak mean 1995/96-1999/2000 Tringa totanus (Eastern Atlantic - wintering) 2.8% of the population 5-year peak mean 1995/96-1999/2000 On passage the area regularly supports: Tringa totanus (Eastern Atlantic - wintering) 2% of the population 5-year peak mean 1995/96-1999/2000 ARTICLE 4.2 QUALIFICATION (79/409/EEC): AN INTERNATIONALLY IMPORTANT ASSEMBLAGE OF BIRDS Over winter the area regularly supports: 63017 waterfowl (5 year peak mean 1991/92-1995/96) Including: Podiceps cristatus , Phalacrocorax carbo , Branta bernicla bernicla , Tadorna tadorna , Anas penelope , Anas strepera , Anas acuta , Bucephala clangula , Charadrius hiaticula , Pluvialis squatarola , Vanellus vanellus , Calidris canutus , Calidris alpina alpina , Limosa limosa islandica , Numenius arquata , Tringa totanus , Arenaria interpres

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts	Positive Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	M02		B
H	E06		B
H	F02		I
H	G01		I
H	M01		B

Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	A02		I
H	A04		I
H	B02		I
H	D05		I
H	G03		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification, T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	90.4				

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

- [ ] Yes
- [ ] No, but in preparation
- [X] No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
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3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
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6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
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7150	Depressions on peat substrates of the Rhynchosporion	57
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9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

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

Thanet Coast (Kent)

The Thanet Coast proposed Special Protection Area includes a wide variety of coastal habitats including areas of chalk cliff, rocky shore, shingle, sand and mudflats, saltmarsh and sand dunes. As well as its value for breeding and wintering birds, the site supports outstanding communities of terrestrial and marine plant species, a significant number of rare invertebrate species, and is of considerable geological importance.

The Thanet Coast qualifies under Article 4.1 by supporting, in summer, a nationally important breeding population of little tern *Sterna albifrons* (30 pairs - over 1% of the British population).

The site also qualifies under Article 4.1 by supporting a nationally important wintering population of golden plover *Pluvialis apricaria.* During the five year period 1985/86 - 1989/90, an average peak count of 1,980 golden plover was recorded, representing 1% of the British wintering population.

The site qualifies under Article 4.2 by regularly supporting an internationally important wintering population of turnstone *Arenaria interpres.* In the five year period 1986/87 - 1990/91, an average peak count of 1,340 turnstone was recorded, representing 2% of the East Atlantic Flyway population and 3% of the British wintering population. The site also supports nationally important wintering populations of a further four species (average peak counts over the five year period 1986/7 - 1990/91): 370 ringed plover *Charadrius hiaticula* (over 1% of the British wintering population), 530 grey plover *Pluvialis squatarola* (over 2% of British), 700 sanderling *Calidris alba* (over 5% of British), and 40 Lapland bunting *Calcarius lapponicus* (about 11% of British). In addition large numbers of migratory passerine birds pass through the site during the spring and autumn migration periods. These migratory birds have been monitored since 1952 by the Sandwich Bay Bird Observatory.

This citation / map relates to a site entered in the Register of European sites for Great Britain.
Register reference number UK 00 1207
Date of registration 30 JAN 1996
Signed
on behalf of the Secretary of State for the Environment

SPA Citation
HTR/DAS June 1992

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9012071**

SITENAME **Thanet Coast and Sandwich Bay**

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1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
A	UK9012071

1.3 Site name

Thanet Coast and Sandwich Bay

1.4 First Compilation date	1.5 Update date
1994-07	2015-12

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	1994-07
National legal reference of SPA designation	Regulations 12A and 13-15 of the Conservation Habitats and Species Regulations 2010, (http://www.legislation.gov.uk/uksi/2010/490/contents/made) as amended by The Conservation of Habitats and Species (Amendment) Regulations 2011 (http://www.legislation.gov.uk/uksi/2011/625/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
1.379722222	51.305

2.2 Area [ha]:

1880.85

2.3 Marine area [%]

70.7

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKJ4	Kent

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A169	Arenaria interpres			w	940	940	i	P	G	C		C	
B	A140	Pluvialis apricaria			w	411	411	i		G	C		C	
B	A195	Sterna albifrons			r	6	6	p		G	C		C	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size

can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N05	1.0
N15	3.0
N10	2.0
N02	83.0
N04	1.0
N14	10.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: basic,shingle,sedimentary,neutral,nutrient-rich,clay,limestone,sand,alluvium 2 Terrestrial: Geomorphology and landscape: caves,floodplain,lowland,coastal 3 Marine: Geology: sand,shingle,clay,mud,sedimentary,cobble,gravel 4 Marine: Geomorphology: pools,subtidal rock (including rocky reefs),lagoon,estuary,intertidal rock,intertidal sediments (including sandflat/mudflat),open coast (including bay),cave/tunnel,cliffs

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC) During the breeding season the area regularly supports: Sterna albifrons (Eastern Atlantic - breeding) 0.3% of the GB breeding population 5 year mean, 1992-1996 Over winter the area regularly supports: Pluvialis apricaria [North-western Europe - breeding] 0.2% of the GB population 5 year peak mean 1991/92-1995/96 ARTICLE 4.2 QUALIFICATION (79/409/EEC) Over winter the area regularly supports: Arenaria interpres (Western Palearctic - wintering) 1.4% of the population 5 year peak mean 1991/92-1995/96

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	G01		I
H	I01		B
H	M02		B
H	H02		B
H	J02		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	A04		I
H	D05		I
H	A02		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for

cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0				

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

- [ ] Yes
- [ ] No, but in preparation
- [X] No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
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2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
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3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
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6150	Siliceous alpine and boreal grasslands	57
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6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
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7220	Petrifying springs with tufa formation (Cratoneurion)	57
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8330	Submerged or partially submerged sea caves	57
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9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

EC Directive 92/43 on the Conservation of Natural Habitats and of Wild Fauna and Flora

Citation for Special Area of Conservation (SAC)

Name:	The Wash and North Norfolk Coast
Unitary Authority/County:	Lincolnshire, Norfolk
SAC status:	Designated on 1 April 2005
Grid reference:	TF558403
SAC EU code:	UK0017075
Area (ha):	107761.28
Component SSSI:	Gibraltar Point SSSI, North Norfolk Coast SSSI, The Wash SSSI

Site description:

The Wash is the largest embayment in the UK. It is connected via sediment transfer systems to the north Norfolk coast. Together, the Wash and North Norfolk Coast form one of the most important marine areas in the UK and European North Sea coast, and include extensive areas of varying, but predominantly sandy, sediments subject to a range of conditions. Communities in the intertidal include those characterised by large numbers of polychaetes, bivalve and crustaceans. Subtidal communities cover a diverse range from the shallow to the deeper parts of the embayments and include dense brittlestar beds and areas of an abundant reef-building worm ('ross worm') *Sabellaria spinulosa*. The embayment supports a variety of mobile species, including a range of fish, otter *Lutra lutra* and common seal *Phoca vitulina*. The extensive intertidal flats provide ideal conditions for common seal breeding and hauling-out.

Sandy sediments occupy most of the subtidal area, resulting in one of the largest expanses of subtidal sandbanks in the UK. The subtidal sandbanks vary in composition and include coarse sand through to mixed sediment at the mouth of the embayment. Communities present include large dense beds of brittlestars *Ophiothrix fragilis*. Species include the sand-mason worm *Lanice conchilega* and the tellin *Angulus tenuis*. Benthic communities on sandflats in the deeper, central part of the Wash are particularly diverse. The subtidal sandbanks provide important nursery grounds for young commercial fish species, including plaice *Pleuronectes platessa*, cod *Gadus morhua* and sole *Solea solea*.

In the tide-swept approaches to the Wash, with a high loading of suspended sand, the relatively common tube-dwelling polychaete worm *Sabellaria spinulosa* forms areas of biogenic reef. These structures are varied in nature, and include reefs which stand up to 30 cm proud of the seabed and which extend for hundreds of metres. The reefs extend into The Wash where super-abundant *S. spinulosa* occurs and where reef-like structures such as concretions and crusts have been recorded. The reefs are diverse and productive habitats which support many associated species that would not otherwise be found in predominantly sedimentary areas. Associated motile species include large numbers of polychaetes, mysid shrimps, the pink shrimp *Pandalus montagui*, and crabs.

Sandy flats predominate in the intertidal zone with some soft mudflats in the areas sheltered by barrier beaches and islands along the north Norfolk coast. The biota includes especially large numbers of polychaetes, mysid shrimps, the pink shrimp and crabs. Salinity ranges from that of the open coast in most of the area (supporting rich invertebrate communities) to estuarine close to the rivers. Smaller, sheltered and diverse areas of intertidal sediment, with a

rich variety of communities, including some eelgrass *Zostera* spp. beds and large shallow pools, are protected by the north Norfolk barrier islands and sand spits.

The site contains the largest single area of saltmarsh in the UK and is one of the few areas in the UK where saltmarshes are generally accreting. The proportion of the total saltmarsh vegetation represented by glasswort *Salicornia* and other colonising annuals is high because of the extensive enclosure of marsh in this site and is also unusual in that it forms a pioneer community with common cord-grass *Spartina anglica*. There are large ungrazed saltmarshes on the North Norfolk Coast and traditionally grazed saltmarshes around the Wash. Saltmarsh swards dominated by sea-lavenders *Limonium* spp. are particularly well-represented. In North Norfolk, in addition to typical lower and middle saltmarsh communities, there are transitions from upper marsh to tidal reedswamp, sand dunes (which are largely within the adjacent North Norfolk Coast SAC), shingle beaches and mud/sandflats. Mediterranean saltmarsh scrub vegetation is dominated by a shrubby cover up to 1 metre high of bushes of shrubby sea-blite *Suaeda vera* and sea-purslane *Atriplex portulacoides*, with a patchy cover of herbaceous plants and bryophytes. This scrub vegetation often forms an important feature of the upper saltmarshes, and extensive examples occur where the drift-line slopes gradually and provides a transition to dune, shingle or reclaimed sections of the coast. At a number of locations on this coast perennial glasswort *Sarcocornia perennis* forms an open mosaic with other species at the lower limit of the sea-purslane community.

Qualifying habitats: The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)
- Coastal lagoons*
- Large shallow inlets and bays
- Mediterranean and thermo-Atlantic halophilous scrubs (*Sarcocornetea fruticosi*). (Mediterranean saltmarsh scrub)
- Mudflats and sandflats not covered by seawater at low tide. (Intertidal mudflats and sandflats)
- Reefs
- *Salicornia* and other annuals colonising mud and sand. (Glasswort and other annuals colonising mud and sand)
- Sandbanks which are slightly covered by sea water all the time. (Subtidal sandbanks)

Qualifying species: The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following species listed in Annex II:

- Common seal *Phoca vitulina*
- Otter *Lutra lutra*

Annex I priority habitats are denoted by an asterisk (*).

This citation relates to a site entered in the Register of European Sites for Great Britain.
Register reference number: UK0017075
Date of registration: 14 June 2005
Signed: Trevor Salmon
On behalf of the Secretary of State for Environment, Food and Rural Affairs

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK0017075**

SITENAME **The Wash and North Norfolk Coast**

TABLE OF CONTENTS

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
B	UK0017075

1.3 Site name

The Wash and North Norfolk Coast

1.4 First Compilation date	1.5 Update date
1996-10	2015-12

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

Date site proposed as SCI:	1996-10
Date site confirmed as SCI:	2004-12
Date site designated as SAC:	2005-04
National legal reference of SAC designation:	Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
0.318055556	52.93694444

2.2 Area [ha]:

107718.0

2.3 Marine area [%]

94.3

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH1	East Anglia
UKF3	Lincolnshire

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
1110			44164.38	0	M	A	B	B	A
1140			18312.06	0	M	A	B	A	A
1150	X		21.54	0	G	C	C	B	C
1160			42010.02	0	M	A	B	B	A
1170				0		A	C	A	A
1310			430.87	0	P	A	A	A	A
1320				0		D			
1330			2800.67	0	P	A	B	A	A

1420			107.72	0	P	A	A	A	A

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
M	1364	Halichoerus grypus			p				P	DD	D			
M	1355	Lutra lutra			p				V	DD	C	C	C	C
M	1365	Phoca vitulina			p	1001	10000	i		M	B	B	C	A

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N01	51.0
N02	46.0
N03	3.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: sandstone,sand,nutrient-rich,alluvium,mud,clay,shingle 2 Terrestrial: Geomorphology and landscape: coastal 3 Marine: Geology: limestone/chalk,gravel,sand,chert/flint,mud,biogenic reef,peat,shingle 4 Marine:

Geomorphology: barrier beach,enclosed coast (including embayment),estuary,subtidal sediments (including sandbank/mudbank),lagoon,intertidal sediments (including sandflat/mudflat),open coast (including bay),shingle bar

4.2 Quality and importance

Sandbanks which are slightly covered by sea water all the time for which this is considered to be one of the best areas in the United Kingdom. Mudflats and sandflats not covered by seawater at low tide for which this is considered to be one of the best areas in the United Kingdom. Coastal lagoons for which the area is considered to support a significant presence. Large shallow inlets and bays for which this is considered to be one of the best areas in the United Kingdom. Reefs for which this is considered to be one of the best areas in the United Kingdom. Salicornia and other annuals colonising mud and sand for which this is considered to be one of the best areas in the United Kingdom. Atlantic salt meadows (Glauco-Puccinellietalia maritimae) for which this is considered to be one of the best areas in the United Kingdom. Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi) for which this is one of only four known outstanding localities in the United Kingdom. which is considered to be rare as its total extent in the United Kingdom is estimated to be less than 1000 hectares. Lutra lutra for which the area is considered to support a significant presence. Phoca vitulina for which this is considered to be one of the best areas in the United Kingdom.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	M01		B
H	F02		I
H	G01		I
H	A02		I
H	J02		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	A04		I
H	A02		I
H	D05		I
H	D05		I
H	G03		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	61.4	UK01	2.8	UK00	38.7

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

☐	Yes
☐	No, but in preparation
☒	No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

Database release: End2022 - 12/03/2024

NATURA 2000 - STANDARD DATA FORM

**For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)**

SITE	**BEMNZ0001**
SITENAME	**Vlaamse Banken**

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1. SITE IDENTIFICATION

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1.1 Type

B

1.2 Site code

BEMNZ0001

1.3 Site name

Vlaamse Banken

1.4 First Compilation date

1995-12

1.5 Update date

2014-09

1.6 Respondent:

Name/Organisation:	Marine Environment Unit,FPS Public Health,Food Chain Safety and Environment;DG EnvinronmentFOD Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu, DG Leefmilieu, Dienst Marien Milieu (Marine environment and marine spatial planning unit)
Address:	

Email:	marien.milieu.marin@environment.belgium.be

1.7 Site indication and designation / classification dates

Date site classified as SPA:	1900-01
National legal reference of SPA designation	No information provided

Date site proposed as SCI:	2010-06
Date site confirmed as SCI:	2011-09
Date site designated as SAC:	2012-10
National legal reference of SAC designation:	Royal Decree of 16 October 2012 conserning the designation of the SAC

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude:	2.548900
Latitude:	51.333900

2.2 Area [ha]

109939.9000

2.3 Marine area [%]

100.0000

2.4 Sitelength [km] (optional):

No information provided

2.5 Administrative region code and name

NUTS level 2 code	Region Name
BEZZ	Extra-Regio NUTS 2

2.6 Biogeographical Region(s)

Marine Atlantic	(100 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
1110			110700	0.00	G	A	A	C	B
1170			50600	0.00	G	B	A	C	B

PF: for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.

NP: in case that a habitat type no longer exists in the site enter: x (optional)

Cover: decimal values can be entered

Caves: for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.

Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
F	1103	Alosa fallax			p	0	0	localities	P	P	D			
B	A001	Gavia stellata			w	0	0	localities	R	M	A	C	C	C
M	1364	Halichoerus grypus			p	0	0	localities	R	P	A	C	C	C
F	1099	Lampetra fluviatilis			p	0	0	localities	P	P	D			
B	A183	Larus fuscus			c	0	0	localities	C	M	A	C	C	B
B	A187	Larus marinus			c	0	0	localities	C	M	A	C	C	B
B	A177	Larus minutus			c	0	0	localities	C	M	A	C	C	B
B	A065	Melanitta nigra			w	0	0	localities	R	M	A	C	C	C
F	1095	Petromyzon marinus			p	0	0	localities	P	P	D			
M	1365	Phoca vitulina			p	0	0	localities	R	P	A	C	C	C
M	1351	Phocoena phocoena			c	0	0	i	C	M	A	C	C	A
B	A005	Podiceps cristatus			w	0	0	i	C	M	A	C	C	B
B	A195	Sterna albifrons			c	0	0	localities	V	M	D			
B	A193	Sterna hirundo			c	0	0	localities	R	M	B	C	C	C

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A191	Sterna sandvicensis			c	0	0	localities	R	M	B	C	C	C

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
NP: in case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance categories (Cat.): C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

3.3 Other important species of flora and fauna (optional)

No information provided

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N01	100.00
Total Habitat Cover	100

4.2 Quality and importance

No information provided

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	J02.02		i
L	F02.03		i
M	D03.02		i
L	H03.01		o
H	F02.02.02		i

M	K02.03		o
L	C01.01		i
M	G01.01.01		i
L	G04.01		i
L	D03.01		i
L	F01		i
L	G01.01.02		i
L	D02.02		i
H	F02.02.01		i
L	H03.03		o
L	J02.12.01		i

Positive Impacts			
Rank	**Activities, management [code]**	**Pollution (optional) [code]**	**inside/outside [i|o|b]**
L	F02.03		i

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification, T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.4 Ownership (optional)

Type		**[%]**
Public	National/Federal	100
	State/Province	0
	Local/Municipal	0
	Any Public	0
Joint or Co-Ownership		0
Private		0
Unknown		0
sum		100

4.5 Documentation (optional)

No information provided

5. SITE PROTECTION STATUS

No information provided

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6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	FOD Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu,DG Leefmilieu, Dienst Marien Milieu
Address:	
Email:	marien.milieu.marin@environment.belgium.be

6.2 Management Plan(s):

An actual management plan does exist:

X	Yes	Name: Belgische Staat. 2009. BELEIDSPLANNEN BESCHERMDE GEBIEDEN IN HET BELGISCHE DEEL VAN DE NOORDZEE. Minister bevoegd inzake het mariene milieu. 69 p Link: http://
	No, but in preparation	
	No	

6.3 Conservation measures (optional)

. Industrial activities are prohibited (Marine Environment Law of 20 January 1999, art. 25, §1, (v) Royal Decree of 14 October 2005,art. 5 and 10)- this includes mariclture;. Activities of PR and commercial companies are prohibited (MMM art 25, $1 (vi), Royal Decree of 14 October 2005 art 5 and 10);. fishery on "sedentary species" is prohibited in territorial partof the Vlaamse Banken (Royal Decree of 14/08/1989);. Proposed fishery measures in 4 zones of the Vlaamse Banken (Royal Decree conserning the Marine Spatial Plan in the Belgian part of the Nort Sea of xxx April 2014) to protect and restore the benthic habitat of sand banks (1110) and reefs and gravel beds (1170); fishery measures to be approved through the CFP (art. 11 and 18 procedures). Sand extraction is reduced and gravel extraction forbidden in the "sand extraction zones" (destignated by the Royal Decree of 1 September 2004); (Royal Decree concerning the Marine Spatial Plan in the Belgian part of the Nort Sea of xxx April 2014);. Disposal of dredged material is prohibited in N2K areas (Royal Decree of 14 October 2005, art.10);. Activities of civil engineering are prohibited (MMM art.25 §1 (i));The following rules apply in the entire Belgian part of the North sea, including Natura2000 areas:. Fishery-prohibition to catch and hold Cetacea (whales, dolhpins, incl. Harbour porpoise) and Pinnipeds (seals); (MMM art. 13 and 14);. Recreational fishery using trammel nets, gill nets, floating nets, electrical fishing, explosives are forbidden (Royal Decree of 21 December 2001);. Hunting is prohibited (Marine Environment Law of 20 January 1999);. Deliberate introduction of non-native species is forbidden, exept when conditionally permitted (MMM art. 11 § 1);. Deliberate introduction of non-native species via ballast water is forbidden(MMM art.11 § 2);. Deliberate introduction of genetically modified species is forbidden (MMM art. 11 § 4);. Waste disposal, burning at sea are prohibited; disposal of dredged material is forbidden;. To protect and restore the benthic habitat of sand banks (1110) and reefs and gravel beds (1170), fishery within 4,5 nautical miles, measured from the baseline, is forbidden for vessels above a 70 Bruto Tonnage.

7. MAP OF THE SITE

No information provided

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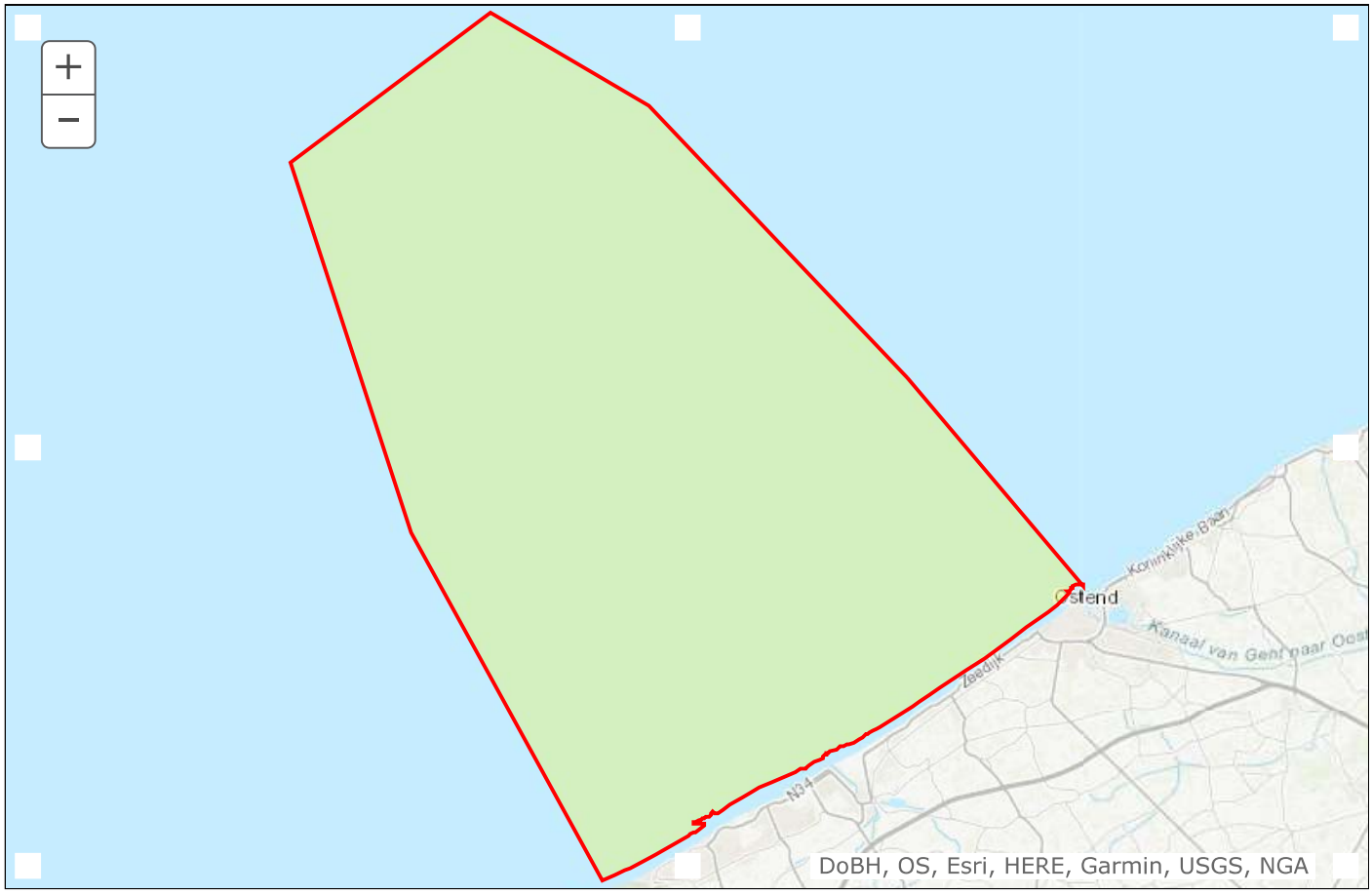
SITE DISPLAY



Database release: End2022 - 12/03/2024

NATURA 2000 - STANDARD DATA FORM

**For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)**

SITE	**BEMNZ0005**
SITENAME	**Vlakte van de Raan**

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1. SITE IDENTIFICATION

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1.1 Type

B

1.2 Site code

BEMNZ0005

1.3 Site name

Vlakte van de Raan

1.4 First Compilation date

2006-04

1.5 Update date

2010-09

1.6 Respondent:

Name/Organisation:	FOD Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu Directoraat - Generaal Leefmilieu Dienst Marien Milieu
Address:	

Email:	marien.milieu.marin@environment.belgium.be

1.7 Site indication and designation / classification dates

Date site classified as SPA:	1900-01
National legal reference of SPA designation	No information provided

Date site proposed as SCI:	2005-10
Date site confirmed as SCI:	2010-06
Date site designated as SAC:	2020-03
National legal reference of SAC designation:	Koninklijk besluit van 22 mei 2019 tot de vastelling van het marien ruimtelijk plan voor de periode 2020 tot 2026 in de Belgische Zeegebieden / Arrêté royal du 22 mai 2019 relatif à l'établissement du plan d'aménagement des espaces marins pour la période de 2020 à 2026 dans les espaces marins belges.

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude:	3.201400
Latitude:	51.470000

2.2 Area [ha]

6492.2000

2.3 Marine area [%]

100.0000

2.4 Sitelength [km] (optional):

No information provided

2.5 Administrative region code and name

NUTS level 2 code	Region Name
BEZZ	Extra-Regio NUTS 2

2.6 Biogeographical Region(s)

Atlantic	(0 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
1110			1925	0.00	M	B	A	B	B

PF: for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.

NP: in case that a habitat type no longer exists in the site enter: x (optional)

Cover: decimal values can be entered

Caves: for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.

Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
F	1103	Alosa fallax			c	0	0		C	M	B	B	C	B
B	A002	Gavia arctica			w	0	0		P	M	C	B	C	C
B	A001	Gavia stellata			w	0	0		P	M	B	B	C	C
M	1364	Halichoerus grypus			c	0	0		R	M	C	B	C	C
B	A177	Larus minutus			c	0	0		C	M	C	B	C	C
F	1095	Petromyzon marinus			c	0	0		R	M	C	B	C	C
M	1365	Phoca vitulina			c	0	0		R	M	B	B	C	C
M	1351	Phocoena phocoena			c	0	0		C	M	C	B	C	C
B	A005	Podiceps cristatus			w	0	0		C	M	B	B	C	B
B	A193	Sterna hirundo			c	0	0		C	M	B	B	C	C
B	A191	Sterna sandvicensis			c	0	0		C	M	C	B	C	C
B	A191	Sterna sandvicensis			r	0	0		C	M	C	B	C	C

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles

S: in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes

NP: in case that a species is no longer present in the site enter: x (optional)

Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)

Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)

Abundance categories (Cat.): C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information

Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

3.3 Other important species of flora and fauna (optional)

Species					Population in the site				Motivation					
Group	CODE	Scientific Name	S	NP	Size		Unit	Cat.	Species Annex		Other categories			
					Min	Max		C|R|V|P	IV	V	A	B	C	D
I		Abra alba			0	0		C						X
I		Crangon crangon			0	0		C						X
I		Ensis directus			0	0		C						X
I		Macropipus holsatus			0	0		C						X
F	5790	Pleuronectes platessa			0	0		C						X
F	5849	Solea solea			0	0		C						X
I		Spisula subtruncata			0	0		C						X

Group: A = Amphibians, B = Birds, F = Fish, Fu = Fungi, I = Invertebrates, L = Lichens, M = Mammals, P = Plants, R = Reptiles

CODE: for Birds, Annex IV and V species the code as provided in the reference portal should be used in addition to the scientific name

S: in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes

NP: in case that a species is no longer present in the site enter: x (optional)

Unit: i = individuals, p = pairs or other units according to the standard list of population units and codes in accordance with Article 12 and 17 reporting, (see reference portal)

Cat.: Abundance categories: C = common, R = rare, V = very rare, P = present

Motivation categories: IV, V: Annex Species (Habitats Directive), **A:** National Red List data; **B:** Endemics; **C:** International Conventions; **D:** other reasons

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N01	100.00
Total Habitat Cover	100

Other Site Characteristics

Very shallow area representative for habitat type 1110 in the eastern Belgian coastal waters

4.2 Quality and importance

The shallow area is important as spawning and nursery for some flatfish and gray shrimp

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	**Threats and pressures [code]**	**Pollution (optional) [code]**	**inside/outside [i|o|b]**
H	F02.02.02		i
H	D03.01		o
M	K02.03		o
M	F02.03		i
L	G01.01		i
L	D03.02		i
H	J02.02		o

Positive Impacts			
Rank	**Activities, management [code]**	**Pollution (optional) [code]**	**inside/outside [i|o|b]**
L	U		b

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification, T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.4 Ownership (optional)

No information provided

4.5 Documentation (optional)

Departement Zeevisserij, 2002. Beoordeling van het MER van het project Seanergy (Electrabel Jan de Nul), februari 2002. Departement Zeevisserij, CLO, studie uitgevoerd in opdracht van het KBIN (BMM).Departement voor Zeevisserij (CLO), 2002. Analyse van macro- en epibenthos en visbestanden in en rond het geplande windmolenpark Fina Eolia op de Vlakte van de Raan. Studie uitgevoerd in opdracht van Ecolas.Haelters, J., Vigin, L., Stienen, E.W.M., Scory, S., Kuijken, E. & Jacques, T.G., 2004. Ornithologisch belang van de Belgische zeegebieden - Importance ornithologique des espaces marins de la Belgique. Bulletin van het Koninklijk Belgisch Instituut voor Natuurwetenschappen, Biologie, Vol.74, suppl., 91p.Offringa, H., Seys J., Van den Bossche W. & Meire , P., 1996. Seabirds on the Channel doormat. De Giervalk 86: 3-71.Offringa, H., Seys, J., Van Waeyenberghe, J. & Meire, P., 2001. The Belgian marine avifauna. In: Cattrijsse, A. & Vincx, M. (Eds.), 2001. Biodiversity of the benthos and the avifauna of the Belgian coastal waters; summary of data collected between 1970 and 1998. OSTC (Federal Office for Scientific, Technical and Cultural Affairs), Brussel: 27-30.Cattrijsse, A. & Vincx, M. (Eds.), 2001. Biodiversity of the benthos and the avifauna of the Belgian coastal waters; summary of data collected between 1970 and 1998. Sustainable Management of the North Sea. Brussel, Belgium: Federal Office for Scientific, Technical and Cultural Affairs, 48p.Heip, C., Herman, R., Bisschop, G., Govare, J.C.R., Holvoet, M., Van Damme, D., Vansosael, C., Willems, K.R. & De Coninck, L.A.P, 1979. Benthic studies of the Southern Bight of the Nort Sea and its adjacent contintental estuaries, Verslag van de studiedagen, Geconcerteerde onderzoeksacties, Interuniversitaire Actie, Oceanologie. Brussel, Belgie, Diensten van de Eerste Minister, Programmatie van het Wetenschapsbeleid, 133-164.Seys, J., 2001. Sea- and coastal bird data as tools in the policy and management of Belgian marine waters. Doctoraal proefschrift, niet gepubliceeerd. Universiteit Gent, oktober 2001, 133p., 10 bijlagen.Seys, J., 2002. Estimates of the number of seabirds residing in and migrating through the

southern North Sea. Report IN.D.2002.2. Institute of Nature Conservation, Brussel.Seys, J., Offringa, H., van Waeyenberge J., Meire P. & Kuijken E. (1999). Ornithologisch belang van de Belgische maritieme wateren: naar een aanduiding van kensoorten en sleutelgebieden. Nota In A74. Instituut voor Natuurbehoud, Brussel., 17p., 10 bijlagen.Skov, H., Durinck, J., Leopold, M.F. & Tasker, M.L., 1995. Important bird areas in the North Sea, including the Channel and the Kattegat. BirdLife International, Cambridge, 156p.Van den Bossche, W., Meire, P., Anselin, A., Kuijken, E., De Putter, G., Orbie, G. & Willemijns, F., 1995. Ontwikkeling en toekomst van sternenkolonies aan de Belgische kust. Rapport Instituut voor Natuurbehoud 95.03, 50p.Van Waeyenberge, J.,. Stienen, E.W.M. & Seys, J., 2001b. Broedbiologisch onderzoek bij sternen en meeuwen in de Zeebrugse voorhaven: waarom, wat en hoe? Vogelnieuws, ornithologische nieuwsbrief van het Instituut voor Natuurbehoud, nr. 1, juni 2001: 15-20.

5. SITE PROTECTION STATUS

No information provided

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6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	DG Leefm. FOD Volksgezondheid, Veiligheid van de Voedselketen en Leefm.FOD Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu, DG Leefmilieu, Dienst Marien Milieu (Marine environment and marine spatial planning unit)
Address:	
Email:	marien.milieu.marin@environment.belgium.be

6.2 Management Plan(s):

An actual management plan does exist:

☐	Yes	
☐	No, but in preparation	
☒	No	

6.3 Conservation measures (optional)

Op 5 maart 2006 werd een Koninklijk Besluit uitgevaardigd tot instelling van een gericht marien reservaat in de zeegebieden onder de rechtsbevoegdheid van België en tot wijziging van het koninklijk besluit van 14 oktober 2005 tot instelling van speciale beschermingszones en speciale zones voor natuurbehoud in de zeegebieden onder de rechtsbevoegdheid van België (Belgisch Staatsblad van 27 maart 2006). In de speciale beschermingszones voor de vogels zijn bepaalde activiteiten verboden en voor andere activiteiten is er een algemeen systeem voor machtigingen en vergunningen volgens de procedure, ingesteld bij het KB van 9 september 2003 houdende de regels betreffende de milieu-effectenbeoordeling in toepassing van de wet van 20 januari 1999 ter bescherming van het mariene milieu in de zeegebieden onder de rechtsbevoegdheden van België. De Beheerseenheid van het Mathematisch Model van de Noordzee (BMM)is belast met de voortdurende algemene milieumonitoring van het mariene milieu en in het bijzonder van de hydrodynamica en de samenstelling van de zeebodem, het benthos en de vis - en vogelstand in het gebied BEMNZ0004. Voor de tussenkomst van de overheid bij scheepsongevallen bestaan rampenplannen.

7. MAP OF THE SITE

No information provided

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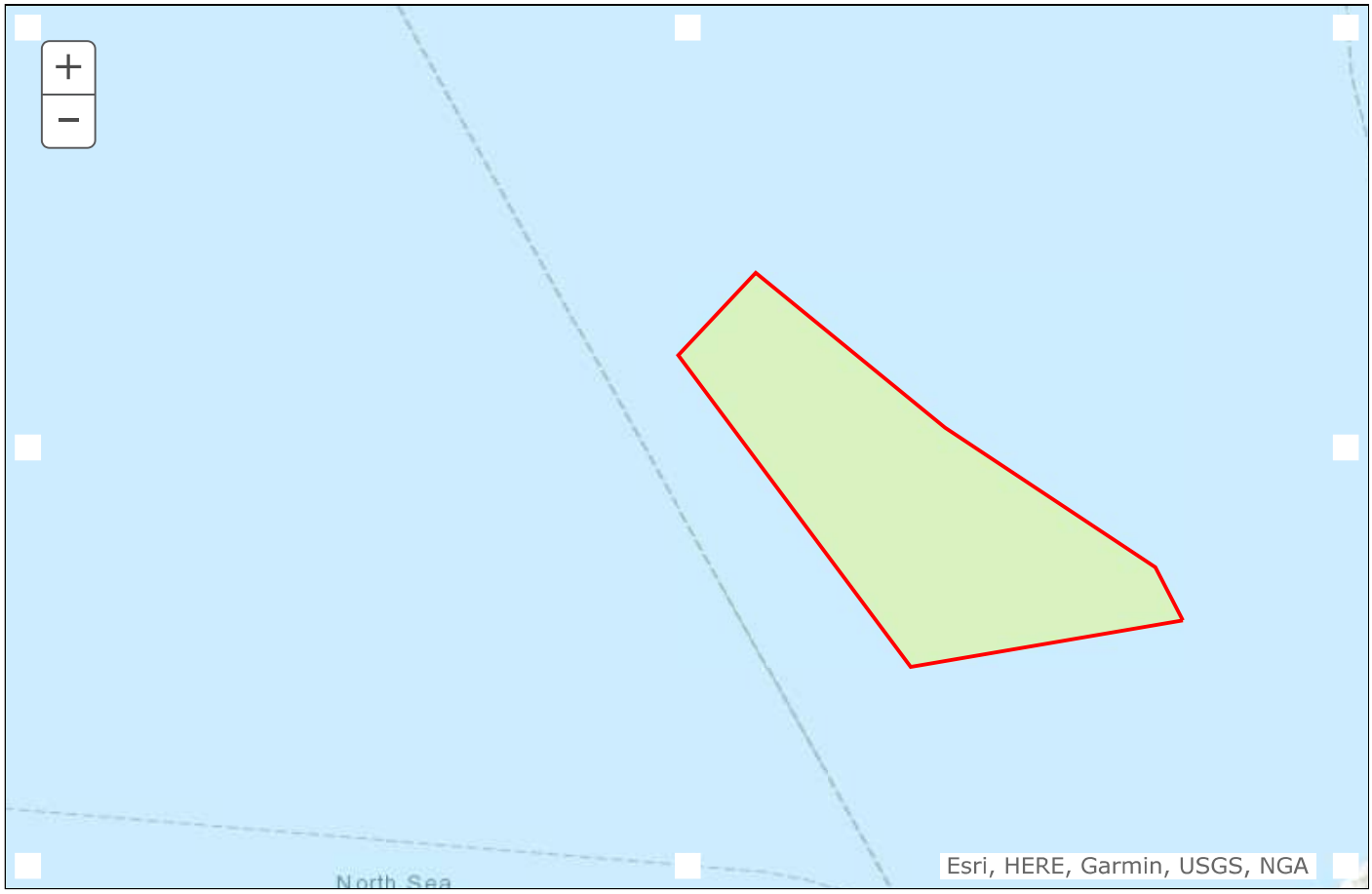
SITE DISPLAY



Database release: End2022 - 12/03/2024

NATURA 2000 - STANDARD DATA FORM

**For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)**

SITE	**NL4000017**
SITENAME	**Voordelta**

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Print Standard Data Form

1. SITE IDENTIFICATION

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1.1 Type

C

1.2 Site code

NL4000017

1.3 Site name

Voordelta

1.4 First Compilation date

1998-10

1.5 Update date

2018-12

1.6 Respondent:

Name/Organisation:	Ministry of Agriculture, Nature and Food Quality - Department Nature & Biodiversity
Address:	

Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	2000-03
National legal reference of SPA designation	http://www.synbiosys.alterra.nl/natura2000/documenten/gebieden/113/Besluit%20Voordelta.pdf

Date site proposed as SCI:	1998-07
Date site confirmed as SCI:	2004-12
Date site designated as SAC:	2008-03
National legal reference of SAC designation:	http://www.synbiosys.alterra.nl/natura2000/documenten/gebieden/113/Besluit%20Voordelta.pdf

Explanation(s):	Merge of SPA NL9802017 Voordelta and SCI NL4000017 Voordelta

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude:	3.677500
Latitude:	51.745200

2.2 Area [ha]

83534.0000

2.3 Marine area [%]

99.0000

2.4 Sitelength [km] (optional):

No information provided

2.5 Administrative region code and name

NUTS level 2 code	Region Name

NL33	Zuid-Holland
NLZZ	Extra-Regio NUTS 2

2.6 Biogeographical Region(s)

Marine Atlantic	(100 %)	Atlantic	(100 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
1110			81381	0.00	M	A	B	B	B
1140			2017	0.00	M	A	B	B	A
1310			7.12	0.00	M	B	C	A	B
1320			1.49	0.00	M	C	C	A	C
1330			30.8	0.00	M	B	C	A	B
2110			10.4	0.00	M	B	C	A	B
2120			10.2	0	M	B	C	B	B

PF: for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.

NP: in case that a habitat type no longer exists in the site enter: x (optional)

Cover: decimal values can be entered

Caves: for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.

Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
F	1102	Alosa alosa			p	0	0	i	P	P	D			
F	1103	Alosa fallax			p	0	0	i	P	P	C	C	C	C
B	A054	Anas acuta			w	247	247	i		G	B	A	C	B
B	A056	Anas clypeata			w	59	59	i		G	C	A	C	C
B	A052	Anas crecca			w	178	178	i		G	C	B	C	C
B	A050	Anas penelope			w	260	260	i		G	C	B	C	C

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A051	Anas strepera			w	91	91	i		G	C	A	C	C
B	A043	Anser anser			w	173	173	i		G	C	A	C	C
B	A169	Arenaria interpres			w	59	59	i		G	B	B	B	B
B	A062	Aythya marila			w	9	9	i		G	C	C	B	C
B	A067	Bucephala clangula			w	131	131	i		G	B	C	C	B
B	A144	Calidris alba			w	702	702	i		G	B	A	B	B
B	A149	Calidris alpina			w	864	864	i		G	C	A	B	C
B	A137	Charadrius hiaticula			w	99	99	i		G	B	A	B	B
B	A001	Gavia stellata			w	500	4000	i	C	P	B	A	B	B
B	A130	Haematopus ostralegus			w	2271	2271	i		G	C	A	B	C
M	1364	Halichoerus grypus			p	50	200	i		P	B	B	C	B
F	1099	Lampetra fluviatilis			p	0	0	i	P	M	B	B	C	B
B	A177	Larus minutus			c	0	0		C	DD	B	A	B	B
B	A157	Limosa lapponica			w	156	156	i		G	C	B	B	C
B	A065	Melanitta nigra			w	1117	1117	i		M	A	C	B	A
B	A069	Mergus serrator			w	114	114	i		G	B	C	B	B
B	A160	Numenius arquata			w	1283	1283	i		G	C	A	C	C
F	1095	Petromyzon marinus			p	0	0	i	P	M	C	B	C	C
B	A017	Phalacrocorax carbo			w	542	542	i		G	C	A	C	C
M	1365	Phoca vitulina			p	100	1000	i		P	B	B	C	B
M	1351	Phocoena phocoena			p	0	0	i	C	G	C	B	C	C
B	A034	Platalea leucorodia			c	31	31	i		G	C	C	B	C
B	A141	Pluvialis squatarola			w	181	181	i		G	C	A	B	C
B	A007	Podiceps auritus			w	18	18	i		G	B	A	C	B
B	A005	Podiceps cristatus			w	94	94	i		G	C	C	C	C
B	A132	Recurvirostra avosetta			w	98	98	i		G	C	C	B	C
B	A063	Somateria mollissima			w	1124	1124	i		M	B	C	B	B
B	A193	Sterna hirundo			c	0	0		C	DD	B	B	C	B
B	A191	Sterna sandvicensis			c	0	0		C	DD	A	B	B	A

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A048	Tadorna tadorna			w	575	575	i		G	C	A	C	C
B	A162	Tringa totanus			w	240	240	i		G	B	C	C	B

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
NP: in case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance categories (Cat.): C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

3.3 Other important species of flora and fauna (optional)

No information provided

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N03	3.00
N01	86.00
N02	10.00
N04	1.00
Total Habitat Cover	100

Other Site Characteristics

An extensive area of coastal waters of the North Sea, extending from Rotterdam in the north up to the Westerschelde estuary in the south. The site also adjoins the closed-off delta area of the Rhine/Maas river system including six other Natura 2000-sites, and is close to Vlaamse Banken in Belgium. It contains shoals, mud and sand flats, beaches, sand-dunes and raised saltmarshes. Important habitats include shallowly submerged sandbanks and intertidal mud- and sandflats.

4.2 Quality and importance

The following data refer to the period 1993-1997 (data in paragraph 3.2a-b refer te period 1999-2003). In winter this area holds fluctuating numbers of Aythya marila (max. 5,550, 1992/93), Somateria mollissima (max. 9,968, 1992/93) and Melanitta nigra (max. 20,000, 1986/87).Species meeting the 1% threshold

(non-breeding): Eurasian Spoonbill Platalea leucorodia (3,3%), Greater Scaup Aythya marila (1,8%), Grey Plover Pluvialis squatarola (1,0%), Common Redshank Tringa totanus totanus (1,7%).The site regularly supports more than 20,000 wintering waterbirds: average peak number 39,000+ (1992/93-1996/97, not all species included).One of the five most important sites for (non-breeding): Red-throated Diver Gavia stellata, Horned Grebe Podiceps auritus.Site largely overlaps with IBA 020-21 (IBA2000).

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	**Threats and pressures [code]**	**Pollution (optional) [code]**	**inside/outside [i|o|b]**
H	J03.01		i
H	F02		b
L	K02		i
M	D03		i
L	D03		i
L	H03.01		b
H	G01		i
L	C03.03		o
M	F02.01		i
M	F02		i
L	J02.14		i
M	M01.07		b
L	F01		o
L	J02.05		i
M	E02		i
M	E02		b
L	C01		i

Positive Impacts			
Rank	**Activities, management [code]**	**Pollution (optional) [code]**	**inside/outside [i|o|b]**
M	U		b

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification, T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.4 Ownership (optional)

No information provided

4.5 Documentation (optional)

*Berchum A.M. & Smit T. 1998., ZeeZicht op de Voordelta. Resultaten van fysische, chemische en biologische monitoring. RIKZ Rapport 98.027, RIKZ, Middelburg *Berrevoets CM Strucker RCW Arts FA Meininger PL. 2003. Watervogels in de Zoute Delta 2001/2002. RIKZ Rapport 2003.001, RIKZ, Middelburg. *Dijkstra, 1997. Belangrijke zoogdiergebieden in Nederland. VZZ. *Kuijpers, J. (1990). Kust

in beweging. In: Kuijpers, J. et al. De veranderende Delta. Wetenschappelijke Mededelingen KNNV 198, 88 pp. *Osieck E.R. 1996., Veranderingen van vogelaantallen in belangrijke wetlands. Techn Rapport Vogelbescherming 17, Vogelbescherming Nederland, Zeist. *Roomen M. van, Boele A., Weide M. van der, Winden E. van ea. 2000. Belangrijke vogelgebieden in Nederland 1993-97. Actueel overzicht van Europese vogelwaarden in aangewezen en aan te wijzen speciale beschermingszones en andere belangrijke gebieden. Sovon Informatierapport 2000/01, Beek-Ubbergen. *SOVON & CBS (2006) Trends van vogels in het Nederlandse Natura 2000 netwerk. SOVON Vogelonderzoek Nederland, Beek-Ubbergen. *Tempel R. van den & Osieck E.R. 1994. Areas important for birds in the Netherlands. Techn Rapport Vogelbescherming 13E, Vogelbescherming Nederland, Zeist. *Voslamber et al, 1998. Monitoring van vogels in belangrijke vogelgebieden: broedvogels 1995, niet-broedvogels seizoen 1994/95. Sovon, Beek-Ubbergen.

5. SITE PROTECTION STATUS

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5.1 Designation types at national and regional level (optional):

Code	Cover [%]
NL01	100.00

5.2 Relation of the described site with other sites (optional):

No information provided

5.3 Site designation (optional)

No information provided

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Rijkswaterstaat
Address:	
Email:	hans.lammers@rws.nl

6.2 Management Plan(s):

An actual management plan does exist:

[X]	Yes	Name: Beheerplan Voordelta - Spelregels voor natuurbescherming Link: https://www.bij12.nl/wp-content/uploads/2020/09/Natura-2000-Beheerplan-113-Voordelta.pdf Name: Beheerplan Voordelta 2015-2021 - Spelregels voor natuurbescherming Link: https://www.bij12.nl/wp-content/uploads/2020/09/Natura-2000-Beheerplan-113-Voordelta.pdf
[ ]	No, but in preparation	
[ ]	No	

6.3 Conservation measures (optional)

No information provided

7. MAP OF THE SITE

No information provided

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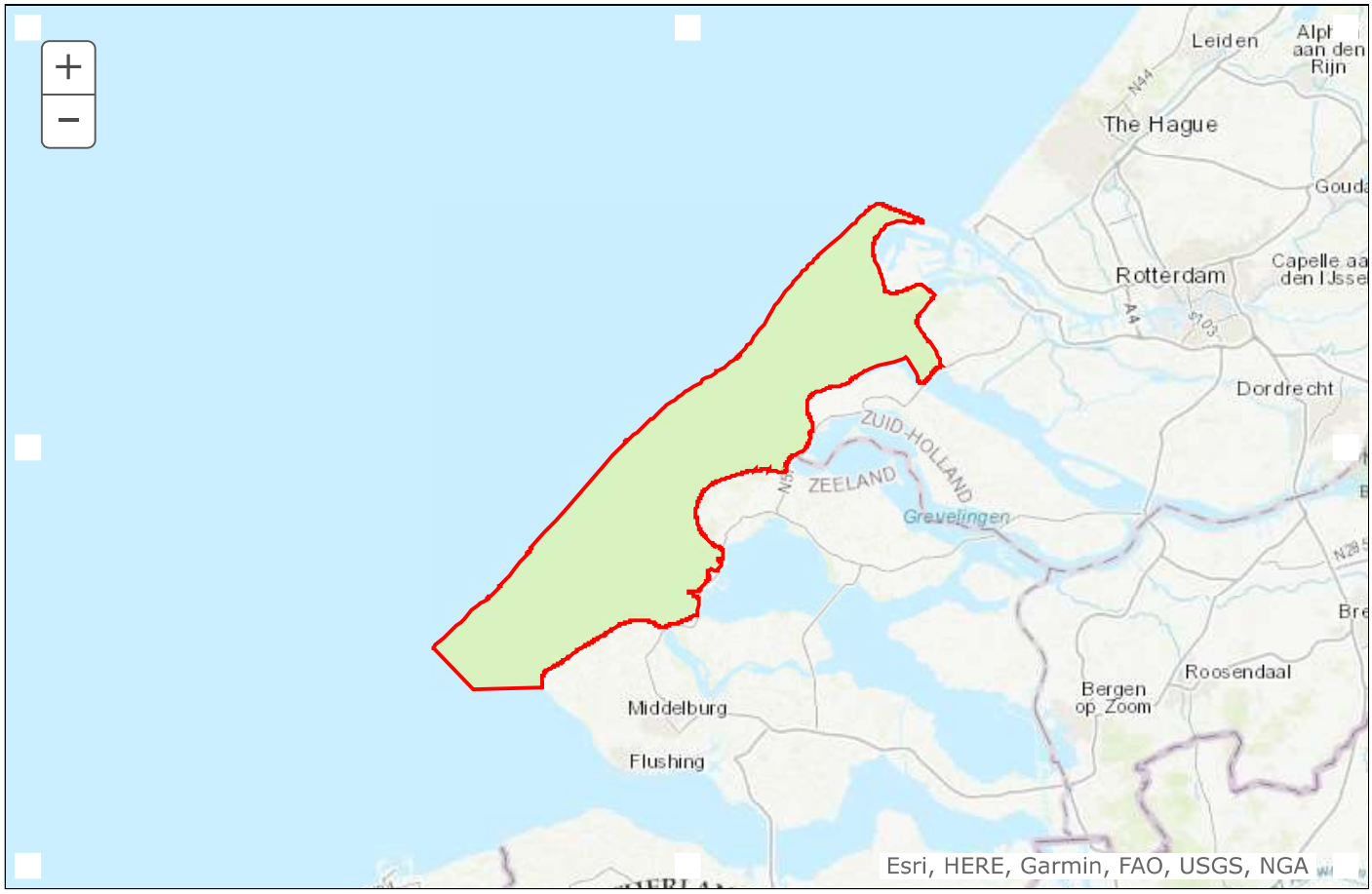
SITE DISPLAY



Database release: End2022 - 12/03/2024

NATURA 2000 - STANDARD DATA FORM

**For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)**

SITE	**NL1000001**
SITENAME	**Waddenzee**

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Print Standard Data Form

1. SITE IDENTIFICATION

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1.1 Type

B

1.2 Site code

NL1000001

1.3 Site name

Waddenzee

1.4 First Compilation date

1996-09

1.5 Update date

2018-12

1.6 Respondent:

Name/Organisation:	Ministry of Agriculture, Nature and Food Quality - Department Nature & Biodiversity
Address:	
Email:	

1.7 Site indication and designation / classification dates

Date site proposed as SCI:	1996-12
Date site confirmed as SCI:	2004-12
Date site designated as SAC:	2009-02
National legal reference of SAC designation:	http://www.synbiosys.alterra.nl/natura2000/documenten/gebieden/001/n2k_001_db_hvn_waddenzee.pdfhttp://www.synbiosys.alterra.nl/nDollard%20definitief%20met%20kaarten.pdf

Explanation(s):	SCI NL2007001 Eems-Dollard merged into this site and designated as SAC

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude:	5.248800
Latitude:	53.271100

2.2 Area [ha]

264858.0000

2.3 Marine area [%]

99.0000

2.4 Sitelength [km] (optional):

No information provided

2.5 Administrative region code and name

NUTS level 2 code	Region Name
NL11	Groningen
NL12	Friesland
NLZZ	Extra-Regio NUTS 2

2.6 Biogeographical Region(s)

Marine Atlantic	(99 %)	Atlantic	(1 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	**PF**	**NP**	**Cover [ha]**	**Cave [number]**	**Data quality**	**A|B|C|D**	**A|B|C**		
						Representativity	**Relative Surface**	**Conservation**	**Global**
1110			108854	0.00	G	B	B	B	B
1130			14898	0	G	A	A	C	A
1140			134478	0.00	G	A	A	B	A
1310			1926	0.00	M	A	A	A	A
1320			474	0.00	M	C	A	A	A
1330			5167	0.00	M	A	A	B	A
2110			147	0.00	P	A	A	A	A
2120			12.8	0.00	P	A	B	A	A
2130			1.76	0.00	P	C	C	C	C
2160			0.83	0.00	P	C	C	C	C
2170			18	0	P	C	C	B	B
2190			1.19	0.00	M	B	C	B	B

PF: for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
NP: in case that a habitat type no longer exists in the site enter: x (optional)
Cover: decimal values can be entered
Caves: for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.

Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
F	1103	Alosa fallax			r	0	0	i	P	P	A	C	C	A
M	1364	Halichoerus grypus			p	2036	2036	i		G	A	A	C	A
F	1099	Lampetra fluviatilis			c	0	0	i	P	P	B	C	C	B
P	1903	Liparis loeselii			p	500	5000	i		M	C	A	C	C
M	1340	Microtus oeconomus arenicola			p	0	0	i	P	P	C	B	A	C
F	1095	Petromyzon marinus			c	0	0	i	P	P	C	C	C	C
M	1365	Phoca vitulina			p	6339	6339	i		G	A	A	C	A
M	1351	Phocoena phocoena			p	0	0	i	R	P	C	B	C	C
I	1014	Vertigo angustior			p	0	0	i	R	M	C	B	A	C

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
NP: in case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance categories (Cat.): C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

3.3 Other important species of flora and fauna (optional)

No information provided

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N01	55.00
N02	38.00
N03	4.00
N04	3.00
Total Habitat Cover	100

Other Site Characteristics

Coastal and intertidal area, barrier islands with dunes and saltmarshes. The site include consists of the permanent water and mudflats of the Wadden Sea, the adjacent saltmarshes of Texel, Vlieland, Terschelling, Ameland, and Schiermonnikoog (of which the main dune areas are included in NL2003057-060) and a number of small uninhabited isles and sand flats. Site adjacent to the Dollart (Germany) and it belongs to an ecosystem that continues into Germany (Niedersächsisches Wattenmeer).

4.2 Quality and importance

Extremely important for coastal habitats and as passage and wintering area for wader birds and waterfowl breeding in the Arctic. It is estimated that between six and twelve million birds pass through the area each year and the area plays a vital role for about 50 bird species. Part of new IBA 001-00 (van den Tempel & Osieck, 1994). Most important (reproduction) site for the seals Phoca vitulina and Halichoerus grypus. Important spawning site for sea fish. One of the three most important sites of Alosa fallax in the Netherlands (related to spawning site in German Ems).

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and	Pollution (optional)	inside/outside [i|o|b]

Positive Impacts			
Rank	Activities, management	Pollution (optional)	inside/outside [i|o|b]

	pressures [code]	[code]	
M	J02.05		i
L	K01.01		i
M	D03		i
L	A04.03		i
M	E02		o
L	H04		b
M	F02		o
H	K02		i
L	H01		b
L	J03.01		b
M	J02.12		i
M	C01		b
L	A05		o
L	G01		i
L	I01		i
M	K03		i

	[code]	[code]	
M	U		b

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.4 Ownership (optional)

No information provided

4.5 Documentation (optional)

Abrahamse, J., W. Joenje & N. van Leeuwen-Seelt (Eds.) 1976. Waddenzee. Natuurgebied van Nederland, Duitsland en Denemarken. Landelijke Vereniging tot Behoud van de Waddenzee, Harlingen. 361 p.Belangrijke zoogdiergebieden in Nederland (Dijkstra et al., 1997; VZZ)P. Esselink: Nature Management of Coastal Salth Marshes, 2000.Dijkema K. e.a. Van Landaanwinning naar kwelderwerken 2001

5. SITE PROTECTION STATUS

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5.1 Designation types at national and regional level (optional):

Code	Cover [%]
NL01	100.00
NL22	1.00

5.2 Relation of the described site with other sites (optional):

No information provided

5.3 Site designation (optional)

Partly nature reserves of NGOs ('t Oerd 760 ha, Schorren 6711 ha, Griend 100 ha, Dollard 4400 ha). Partly nature reserve of State Forestry Service (Engelsmanplaat 350 ha, Rottumeroog 350 ha, Rottumerplaat 400 ha and small parts of Terschelling and Ameland). Small part National Park (Schiermonnikoog 1889 ha). Part qualifies for EU-Bird-directive and Ramsar. Adjoins German part of Waddenzee (DE 2608-301)

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Rijkswaterstaat Noord-Nederland
Address:	
Email:	marieke.van.woensel@rws.nl

6.2 Management Plan(s):

An actual management plan does exist:

[X]	Yes	Name: Natura 2000 beheerplan Waddenzee - periode 2016-2022 Link: https://www.bij12.nl/assets/Waddenzee-beheerplan.pdf
[ ]	No, but in preparation	

☐	No

6.3 Conservation measures (optional)

No information provided

7. MAP OF THE SITE

No information provided

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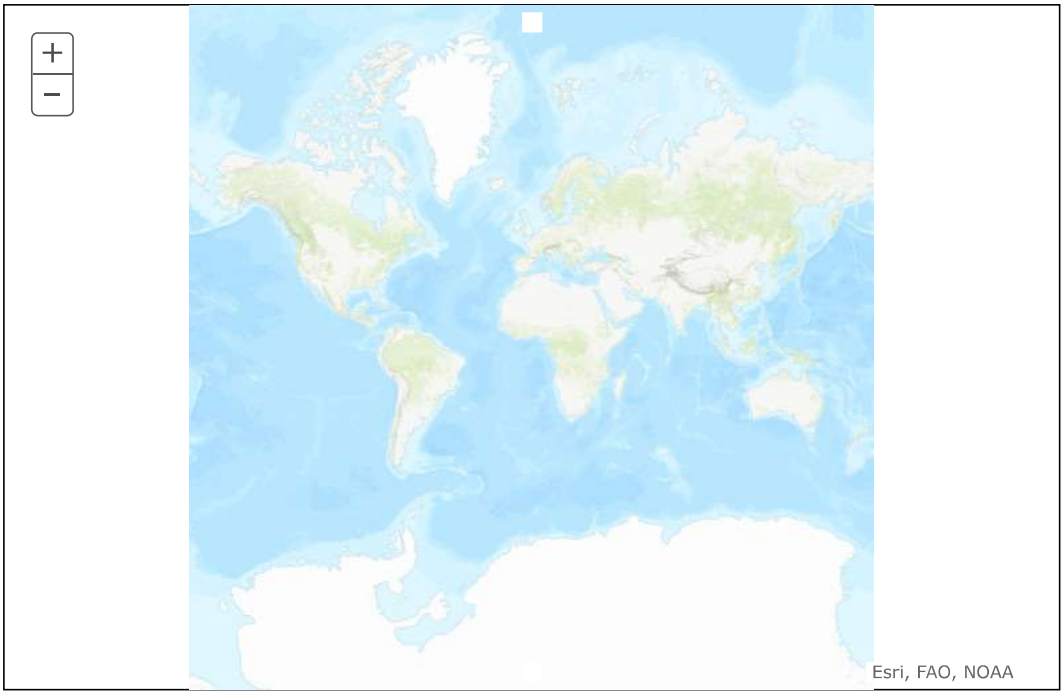
SITE DISPLAY



Database release: End2022 - 12/03/2024

NATURA 2000 - STANDARD DATA FORM

**For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)**

SITE	**NL9803061**
SITENAME	**Westerschelde & Saeftinghe**

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Print Standard Data Form

1. SITE IDENTIFICATION

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1.1 Type

B

1.2 Site code

NL9803061

1.3 Site name

Westerschelde & Saeftinghe

1.4 First Compilation date

1998-10

1.5 Update date

2018-12

1.6 Respondent:

Name/Organisation:	Ministry of Agriculture, Nature and Food Quality - Department Nature & Biodiversity
Address:	
Email:	

1.7 Site indication and designation / classification dates

Date site proposed as SCI:	1998-07
Date site confirmed as SCI:	2004-12
Date site designated	2010-02

as SAC:	
National legal reference of SAC designation:	http://www.synbiosys.alterra.nl/natura2000/documenten/gebieden/122/n2k122_db_hvnw_westerschelde_en_saeftinghe.pdf

Explanation(s):	Formerly known as SCI NL9803061 Westerschelde (2000-2012)Merged with SPA Westerschelde under sitecode NL9803061 (2012-2014)Diveded from SPA Westerschelde & Saeftinghe in 2014 because of change in border of SAC

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude:	3.782500
Latitude:	51.381200

2.2 Area [ha]

44052.0000

2.3 Marine area [%]

25.0000

2.4 Sitelength [km] (optional):

No information provided

2.5 Administrative region code and name

NUTS level 2 code	Region Name
NL34	Zeeland
NLZZ	Extra-Regio NUTS 2

2.6 Biogeographical Region(s)

Marine Atlantic	(25 %)	Atlantic	(75 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	**PF**	**NP**	**Cover [ha]**	**Cave [number]**	**Data quality**	**A|B|C|D**	**A|B|C**		
						Representativity	**Relative Surface**	**Conservation**	**Global**
1110			11878	0.00	G	C	C	B	C
1130			27906	0.00	G	A	A	C	A
1140			92.6	0	M	A	C	A	A
1310			442	0.00	G	B	B	C	B
1320			136	0.00	G	C	A	A	A
1330			2278	0.00	G	B	A	B	A
2110			1.13	0.00	G	B	C	A	B
2120			12.7	0.00	G	B	C	B	B

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
2130			0.87	0	M	C	C	C	C
2160			14.2	0.00	G	C	C	C	C
2190			1.02	0.00	G	C	C	C	C

PF: for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
NP: in case that a habitat type no longer exists in the site enter: x (optional)
Cover: decimal values can be entered
Caves: for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
F	1103	Alosa fallax			r	0	0	i	P	P	B	B	C	A
M	1364	Halichoerus grypus			p	1	20	i		G	C	B	C	C
F	1099	Lampetra fluviatilis			c	0	0	i	P	M	C	A	C	C
P	1903	Liparis loeselii			p	26	50	i		M	C	C	C	C
F	1095	Petromyzon marinus			p	0	0	i	P	M	C	A	C	C
M	1365	Phoca vitulina			p	51	100	i		G	C	B	C	C
M	1351	Phocoena phocoena			p	1	10	i		M	C	C	C	C
I	1014	Vertigo angustior			p	0	0	i	P	M	B	A	A	B

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
NP: in case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance categories (Cat.): C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

3.3 Other important species of flora and fauna (optional)

No information provided

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N04	3.00
N02	90.00
N03	7.00

Total Habitat Cover	100

Other Site Characteristics

A tidal estuary of the River Schelde with mudflats and sandbanks and the only estuary in south-west Netherlands which will be allowed to remain open to the sea. The estuary is 60 km long from the Belgian border up to the North Sea, and is adjacent to the Voordelta (NL9802017) in the west and "Schelde- en Durmeëstuarium van de Nederlandse grens tot Gent" (BE2300006) in Vlaanderen (BE) in the south. Saeftinge is one of the largest, contiguous salt marshes in Western Europe, which is an important breeding site for various Annex I species and wintering/ staging site for geese and dabbling ducks. The SPA includes the shallow parts of the estuary (depth less than 10 m) and the raised saltmarsh Verdronken Land van Saeftinghe; deeper parts including the shipping lane have been excluded.

4.2 Quality and importance

The following data refer to the period 1993-1997 (data in paragraph 3.2a-b refer te period 1999-2003). For Westerschelde: Species meeting the 1% threshold (breeding): Sandwich Tern Sterna sandvicensis (4,2%), Common Tern Sterna hirundo (1,6%), (non-breeding): Greylag Goose Anser anser (5,8%), Common Shelduck Tadorna tadorna (1,7%), Eurasian Oystercatcher Haematopus ostralegus (2,2%), Avocet Recurvirostra avosetta (1,1%), Common Ringed Plover Charadrius hiaticula (1,2%), Grey Plover Pluvialis squatarola (2,5%), Knot Calidris canutus islandica (1,0%), Sanderling Calidris alba (1,3%), Calidris alpina alpina (2,1%), Bar-tailed Godwit Limosa lapponica (1,3%), Eurasian Curlew Numenius arquata (1,1%), Common Redshank Tringa totanus totanus (1,3%). One of the five most important sites for (breeding): Sandwich Tern Sterna sandvicensis, Common Tern Sterna hirundo, Little Tern Sterna albifrons. For Verdronkenland van Saeftinghe: Species meeting the 1% threshold (breeding): Herring Gull Larus argentatus (2,0%), (non-breeding): Eurasian Spoonbill Platalea leucorodia (3,1%), Greylag Goose Anser anser (18,5%), Common Shelduck Tadorna tadorna (1,1%), Eurasian Wigeon Anas [Mareca] penelope.One of the five most important sites for (non-breeding): Little Egret Egretta garzetta, Peregrine Falcon Falco peregrinus. (3,0%), Northern Pintail Anas acuta (10,6%). The site is an important roost for tens of thousands of geese Anser from Zeeuws-Vlaanderen, but numbers of Anser albifrons in particular have been poorly covered by counts. The site regularly supports more than 20,000 wintering waterbirds: average peak 131,283 (1991/92-1996/97). Site largely overlaps with IBA 029 (IBA2000).Large estuary with sandflats and salt marshes. Extensive estuarine system (type 1130) and one of the largest continuous salt marshes of NW. Europe (habitat type 1330 in particular).

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	**Threats and pressures [code]**	**Pollution (optional) [code]**	**inside/outside [i|o|b]**
L	F01		i
L	J02.03		i
M	H01		o
M	H04.02		o
L	J02.14		i
M	F02		i
H	J03.01		i
H	J03.02		b
H	K02.01		i
L	J02.07		i
H	K02		i
M	D03		b
L	K02.04		i
M	F02.01		i
L	E02		b

Positive Impacts			
Rank	**Activities, management [code]**	**Pollution (optional) [code]**	**inside/outside [i|o|b]**
M	U		b

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.4 Ownership (optional)

No information provided

4.5 Documentation (optional)

Antrop, M. & P. van der Reest (2001). Het Landschap van de Schelde. De Levende Natuur 102 (2): 42-48.Asmuth, J. von (1996). De schorren van de Westerschelde 1990/1993. Rapport MDGAT 9623, Rijkswaterstaat Meetkundige Dienst, Delft.Baeyens, W., B. van Eck, C. Lambert, R. Wollast & L. Goeyens (1998). General description of the Scheldt estuary. Hydrologia 366: 1-14.Beeftink, W.G. (1957). De buitendijkse terreinen van de Westerschelde en de Zeeschelde. -Natuurwetenschappelijke betekenis, bedreiging door het Deltaplan en behoud voor de toekomst. Natuur en Landschap 11 (2): 1-19. Bergh, E. van den, A. Huiskes, B. Criel, M. Hoffmann & P. Meire (2001). Biodiversiteit op de Scheldeschorren. De Levende Natuur 102 (2): 62-66.Berrevoets C.M., Strucker R.C.W., Arts F.A., Meininger P.L. 2003., Watervogels in de Zoute Delta 2001/2002., RIKZ Rapport 2003.001, RIKZ, Middelburg; Bruyndoncx, L., K. Jordaens & P. Meire (2001). De weekdieren van de schorren van het Schelde-estuarium. De Levende Natuur 102 (2): 70.Buise, M. & G. Sponselee (1996). Saeftinghe, Verdronken land. Duerinck, Kloosterzande, 287 pp.Castelijns H., Maebe J., Kerkhoven W. van. 1998., De Grauwe ganzen A.a. van het Verdronken Land van Saeftinghe: aantallen, trends en voedsel. Oriolus 64 :90-102 Damme, S. van, B. de Winder, T. Ysebaert & P. Meire (2001). Het 'bijzondere' van de Schelde: de abiotiek van het Schelde-estuarium. De Levende Natuur 102 (2): 37-39.Dijk A.J.van ,Weide M.van der, Deuzeman S. ea. 2002., Kolonievogels en zeldzame broedvogels in Nederland in 2000 en 2001., SOVON Monitoringrapport 2002/03, SOVON, Beek-Ubbergen Dijkstra, 1997, Belangrijke zoogdiergebieden in Nederland. VZZ.Haan, W. de, E. van den Bergh & C. Jacobusse (2001). Bescherming en beheer van het Schelde-estuarium. De Levende Natuur 102 (2): 88-92.Handboek NatuurmonumentenHaperen, A. van (2000??). De Oost-Zeeuws-Vlaamse grensstreek. In: A. van Haperen et al. Aan de monding van Maas en Schelde. Natuurgebieden in Zuidwest-Nederland. Staatsbosbeheer, Middelburg, pp 291-311.Hendrickx, F., K. Desender & J-P. Maelfait (2001). Verspreidingspatronen en bedreigingen van de arthropodenfauna van het Schelde-estuarium. De Levende Natuur 102 (2): 68-69.Houtekamer, N.L. (1994). Het Verdronken Land van Saeftinghe: schor onder druk? Nota AX 94.018/RIKZ 94.033, Rijkswaterstaat Directie Zeeland/RIKZ, Middelburg.Huiskes, A.H.L. (1988). The salt marshes of the Westerschelde and their role in theNoordwest Duitsland, het Dortmund-Ems-Seitenkanal, kortweg DESK. Hydrobiological Bulletin 22: 57-63. Jacobusse C. ea. 1993., Themanummer Saeftinghe., Zeeuws Landschap 9.2: hele nr. Jansen, P. & J.G. Sloff (1938). Spartina in Zeeland. De Levende Natuur 42: 348-358. Langendonck, H.J. van (1931). De Vegetatie en Oecologie der Schorrenplanten van Saaftingen. Botanisch Jaarboek XXIII: 1-128. Leemans, J. & B. Verspaandonck (1972). Vegetatiekaart 1971, schorren verdronken land van Saeftinghe 1: 10.000. Leemans, J. & B. Verspaandonk (1975). Het verdronken land van Saeftinghe - Een vegetatiekundige studie met behulp van luchtfoto's. Rapport Botanisch Laboratorium, KU Nijmegen 165 pp.. Lensink R., Meijer M., Buth G.J. 1997., Nieuw beheersplan gereed. Het beheer van het Verdronken Land van Saeftinghe. Zeeuws Landschap 13.4: 10-13 Maes, J. (2001). Stijgende aantallen Finten in de Zeeschelde. De Levende Natuur 102 (2): 87.Osieck E.R. 1996., Veranderingen van vogelaantallen in belangrijke wetlands., Techn Rapport Vogelbescherming 17, Vogelbescherming Nederland, Zeist Roomen M.van, Boele A., Weide M. van der, Winden E. van, ea. 2000., Belangrijke vogelgebieden in Nederland 1993-97. Actueel overzicht van Europese vogelwaarden in aangewezen en aan te wijzen speciale, beschermingszones en andere belangrijke gebieden., SOVON Informatierapport 2000/01 SOVON, Beek-Ubbergen Santbergen, L. (2001). Gebruik en misbruik van de Schelde. De Levende Natuur 102 (2): 40-42.Schaik, A.W.J. van, D.J. de Jong & A.M. van der Pluijm (1988). Vegetatie buitendijkse gebieden Westerschelde. Nota GWAO 88.1003, Rijkswaterstaat Dienst Getijdewateren, Middelburg.Smulders B.J. ea. 1982., Westerschelde themanummer., Zeeuws Nieuws 8.2: hele nr. SOVON & CBS (2006) Trends van vogels in het Nederlandse Natura 2000 netwerk. SOVON Vogelonderzoek Nederland, Beek-UbbergenStenfert-Steehouwer, E.R. (1993). Toelichting bij de vegetatiekaart 'Verdronken Land van Saeftinghe'. Rapport MDLKM-R-9328, Rijkswaterstaat Meetkundige Dienst, Delft.Tempel R. van den, Osieck E.R. 1994., Areas important for birds in the Netherlands., Techn Rapport Vogelbescherming 13E, Vogelbescherming Nederland, Zeist Vroon J Storm c Coosen J. 1997., Westerschelde, stram of struis?., RIKZ Rapport 97.023, Min.VW / RIKZ, Middelburg Werkgroep Natuurontwikkeling (1999). Natuurontwikkeling inlaag Hoofdplaat. Rapport WNO99-06, Werkgroep Natuurontwikkeling, Provincie Zeeland, 30 pp.Westhoff, V. & W.G.Beeftink (1950). De vegetatie van duinen, slikken en schorren op de Kaloot en in het Noord-Sloe. I. Inleiding - De Kaloot. De Levende Natuur 50 (7): 124-133. Wieland A. 1999., Vogelonderzoek in het Verdronken Land van Saeftinghe., Zeeuws Landschap 15.3: 20-21 Witte, R. (2001). De betekenis van de Westerschelde voor de Gewone zeehond. De Levende Natuur 102 (2): 82-83.

5. SITE PROTECTION STATUS

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5.1 Designation types at national and regional level (optional):

Code	Cover [%]
NL01	100.00

5.2 Relation of the described site with other sites (optional):

No information provided

5.3 Site designation (optional)

No information provided

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Rijkswaterstaat Zee en Delta
Address:	
Email:	ruud.cuperus@rws.nl

6.2 Management Plan(s):

An actual management plan does exist:

X	Yes	Name: Beheerplan Natura 2000 Deltawateren Link: https://www.bij12.nl/wp-content/uploads/2021/01/Natura-2000-Beheerplan-122-Westerschelde-en-Saeftinghe.pdf Name: Beheerplan Westerschelde en Saeftinghe Natura 2000 Deltawateren Beheerplan 2016-2022 Link: https://www.bij12.nl/wp-content/uploads/2021/01/Natura-2000-Beheerplan-122-Westerschelde-en-Saeftinghe.pdf
	No, but in preparation	
	No	

6.3 Conservation measures (optional)

No information provided

7. MAP OF THE SITE

No information provided

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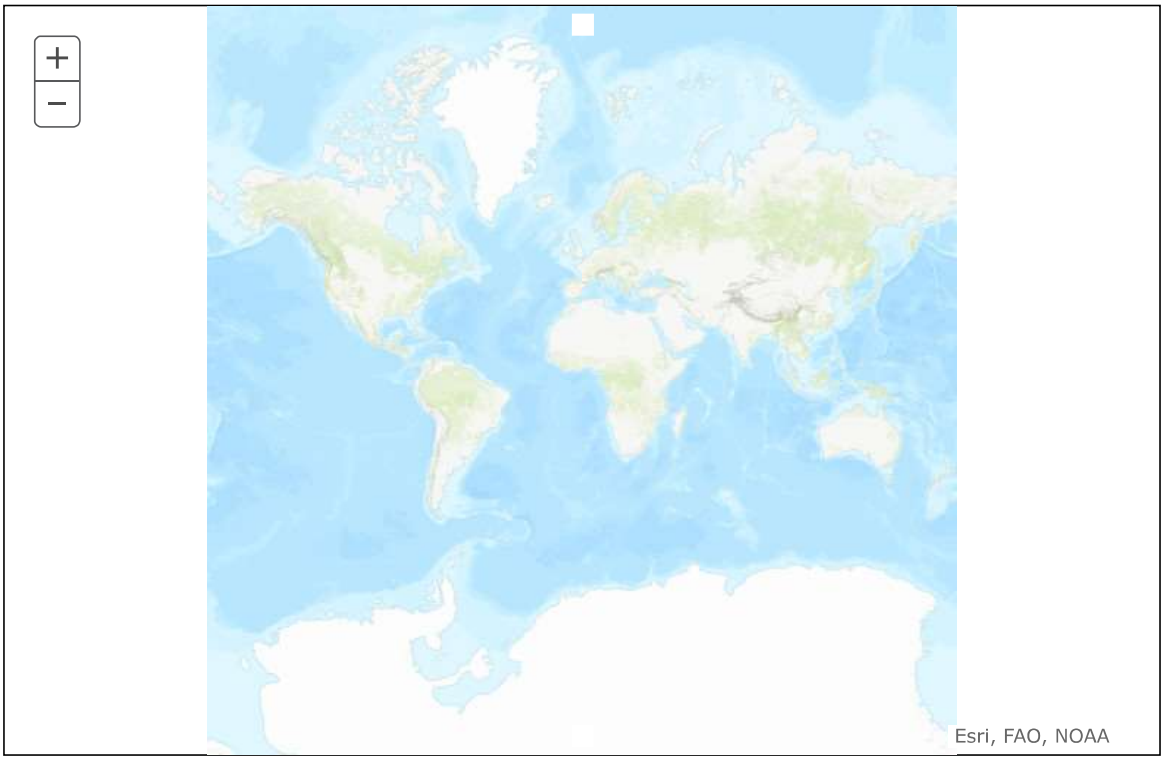
SITE DISPLAY



5. APPENDIX 3: ISH3, ACTION POINTS 12 AND 13 – EXCERPT FROM TRAFFIC AND TRANSPORT CHAPTER

5.1.1 This excerpt is part of a future revision of the 6.3.8 Traffic and Transport chapter [AS-043] showing an assessment of the cumulative traffic generation impacts under construction Scenario 3 and an indication of which energy generation projects were scoped out of the Transport Assessment.

8.11.3 The decommissioning methodology would be finalised nearer to the end of the lifetime of VE, to be in line with current guidance, policy and legislation. Any such methodology would be agreed with the relevant authorities and statutory consultees.

8.12 ENVIRONMENTAL ASSESSMENT: CUMULATIVE EFFECTS

SCOPE AND APPROACH OF ASSESSMENT

8.12.1 The cumulative effects assessment (CEA) as set out in this chapter has been undertaken in accordance with the methodology provided in Volume 1, Annex 3.1: Cumulative Effects Assessment Methodology.

8.12.2 The forecast VE vehicle movements (minimum, maximum and average) to and from each Onshore ECC Route Section, OnSS and 400kV connection for Scenario 2 are summarised in Table 8-43~~Table 8.43~~.

8.12.3 The forecast VE vehicle movements on each highway link used in the assessment have been derived from the maximum figures in Table 8-43~~Table 8.43~~.

Table 8-43~~8.43~~ Minimum, maximum and average daily traffic generation (two way movements) estimates (Scenario 2)

Route Section	Total vehicles			HGVs			Employee vehicles (car occupancy 1.5)		
	Min	Max	Av.	Min	Max	Av.	Min	Max	Av.
Section 1 (incl. Landfall HDD compound)	67	150	117	28	69	50	35	101	67
Section 2	0	80	47	0	33	15	0	56	33
Section 3	63	151	98	25	65	43	34	97	56
Section 4a	0	92	43	0	41	14	0	59	28
Section 4b	44	131	83	10	59	35	34	90	48
Section 5	0	114	66	0	58	26	0	71	40
Section 6/7	37	141	91	3	90	41	24	78	50
OnSS and unlicensed works	37	334	166	9	133	58	27	201	108
400kV works	0	74	18	0	18	5	0	56	13

Route Section	Total vehicles			HGVs			Employee vehicles (car occupancy 1.5)		
	Min	Max	Av.	Min	Max	Av.	Min	Max	Av.
Beach access to support landfall works	0	92	12	0	39	5	0	53	9

8.12.4 The projects and plans selected as relevant to the assessment of impacts to onshore Traffic and Transport are based upon an initial screening exercise undertaken on a long list. Each project, plan or activity has been considered and scoped in or out on the basis of effect–receptor pathway, data confidence and the temporal and spatial scales involved. For the purposes of assessing the impact of the VE on onshore Traffic and Transport in the region, the cumulative effect assessment technical note submitted through the EIA Evidence Plan and forming Technical Annex 1.3.1 of this ES screened in a number of projects and plans.

8.12.5 In assessing the potential cumulative impacts for VE, it is important to bear in mind that projects, predominantly currently 'proposed' may or may not be, ultimately taken forward for development. To build in some consideration of certainty (or uncertainty) the projects and plans were allocated into 'Tiers' reflecting their current status within the planning and development process. They are outlined here in Table 8-45~~Table 8.45~~.

8.12.0 Projects and plans were scoped in based on the following criteria:

- Distance from the Traffic and Transport study area, with those projects not forecast to generate any vehicle movements on the highway links assessed within this chapter; and
- Any development that was not required to prepare a Transport Statement or Transport Assessment to support the planning application.

Table 8-448.44: Description of Tiers of other developments considered for cumulative effect assessment.

Tiers	Development Stage
Tier 1	Projects under construction.
	Permitted applications, whether under the Planning Act 2008 or other regimes, but not yet implemented.
	Submitted applications, whether under the Planning Act 2008 or other regimes, but not yet determined.
Tier 2	Projects on the Planning Inspectorate's Programme of Projects where a Scoping Report has been submitted.
	Projects under the Planning Act 2008 where a PEIR has been submitted for consultation.
Tier 3	Projects on the Planning Inspectorate's Programme of Projects where a Scoping Report has not been submitted.
	Identified in the relevant Development Plan (and emerging Development Plans with appropriate weight being given as they move closer to adoption) recognising that much information on any relevant proposals will be limited.
	Identified in other plans and programmes (as appropriate) which set the framework for future development consents/approvals, where such development is reasonably likely to come forward.

Table 8-458.45: Projects considered within the Onshore Traffic and Transport cumulative effect assessment.

Development type	Project	Status	Data confidence assessment/phase	Tier
Offshore Wind Farm	NF OWF	Pre-consent	High- application to be submitted in 2024	Tier 2
Nuclear Power	EN010012 Sizewell C	Approved	High	Tier 1
Offshore Wind Farm	EN010077 East Anglia One North (EA ONE North) Offshore Wind Farm	Approved	High	Tier 1
Offshore Wind Farm	EN010078 East Anglia Two (EA TWO) Offshore Wind Farm	Approved	High	Tier 1
Electricity Transmission	Norwich to Tilbury Reinforcement Project and EACN Substation	Pre-consent	Medium- application to be submitted in 2025	Tier 2
Mixed use development	19/00524/OUT Mixed development including 280 dwellings, a two form of entry primary school, 56 place early years nursery, up to 3,000 sqm of office (B1) buildings on Land to The South of Thorpe Road Weeley Essex CO16 9AJ;	Approved	High	Tier 1

Development type	Project	Status	Data confidence assessment/phase	Tier
Battery Energy Storage	21/02070/FUL 50MW battery energy storage system on land adjacent to Lawford Grid Substation, Ardleigh Road Little Bromley Essex CO11 2QB	Approved	High	Tier 1
Residential	20/00179/FUL Residential development to provide 50 dwellings at land at Oakwood Park;	Approved	High	Tier 1
Residential	20/01130/FUL Residential development to provide 122 dwellings on land South of Centenary Way and west of Thorpe Road, Clacton on Sea Essex CO15 4QD; and	Approved	High	Tier 1
Container Port	23/01594/FUL Reclamation of Bathside Bay and development to provide an operational container port, Bathside	Submitted	High	Tier 1

Development type	Project	Status	Data confidence assessment/phase	Tier
	Bay Stour Road Harwich Essex CO12 3HF.			

VE AND NF OWF COORDINATED APPROACH

8.12.1 In accordance with the provisions of NPS EN-5 to seek to develop co-ordination solutions for onshore grid connections, VE has been working with North Falls on a co-ordinated solution to reduce the overall environmental and community impacts of the proposals. The project includes almost fully overlapping or combined Onshore ECCs and a co-located site for the OnSS to the west of Little Bromley. It is proposed the two projects' ducts will be installed adjacent to each other within the corridor. The level of co-ordination between the two projects has led to a higher degree of understanding and interactions with the North Falls proposals which can be used within the CEA than would be normal for other developments at a similar stage in the planning process.

8.12.2 Due to the independent timescales for each project, three delivery scenarios have been developed (details of each scenario can be found within Volume 3, Chapter 1: Onshore Project Description). For the purposes of the cumulative assessment of VE and North Falls, the worst-case delivery scenario (Scenario 1 with NF OWF installing its cables at the same time as VE) has been assumed.

8.12.3 Delivery Scenario 2, as described in Paragraph 8.5.5~~8.5.5~~ would result in overlapping VE and NF OWF construction vehicle movements, with the impact on the highway network in terms of maximum daily construction vehicle movements no greater than when both projects install cables at the same time, as set out in paragraph 8.12.2~~8.12.2~~.

8.12.4 A set of construction vehicle movements has been derived on the basis of VE and NF OWF being constructed at the same under the coordinated approach i.e. Scenario 1, as provided in Volume 6, Part 6, Annex 8.2: Transport Assessment – Part 5 (Appendix T). The data has been broken down for VE as the first project and NF OWF as the second project, based on the assessment parameters used for the assessment of VE construction traffic.

8.12.5 It should be noted there are some slight differences between the VE and NF OWF assessment approaches, such as vehicle assignment, and therefore the forecast cumulative traffic flows and the cumulative assessment may differ from the assessment in the NF OWF ES Chapter.

TREATMENT OF EACH DEVELOPMENT

NORWICH TO TILBURY REINFORCEMENT PROJECT

~~8.12.5~~8.12.6 In order for VE to connect to the National Grid, the proposed National Grid Norwich to Tilbury Reinforcement Project and the associated EACN substation must be operational. National Grid has defined a construction and operational zone within which their EACN substation will be situated. This is adjacent to the VE OnSS zone.

~~8.12.6~~8.12.7 Despite its stage in the planning process, due to VE's reliance on this project for its connection to the National Grid, it has been given detailed consideration and treated with more certainty than other projects at similar stage in the planning process in the CEA. To assist with the assessment, it has been necessary to make assumptions as to the siting, scale, form and construction of the project, particularly the EACN substation. These assumptions have been checked and agreed to be appropriate and reasonable by National Grid. For the purposes of the cumulative assessment of VE and National Grid Norwich to Tilbury Project, the worst-case delivery scenario, with limited co-ordination has been assessed for the direct and indirect impacts.

~~8.12.7~~8.12.8 National Grid is currently preparing a DCO application for the proposed EACN Substation and therefore confirmed construction vehicle movement information is not yet available.

~~8.12.8~~8.12.9 The Applicant has been liaising with National Grid (in collaboration with NF OWF) throughout the preparation of the VE DCO application as the EACN Substation proposal develops, since there is the potential for significant Traffic and Transport effects on the construction access routes that would be shared with VE (and NF OWF) should there be any overlap with the respective construction programmes of each project.

~~8.12.9~~8.12.10 These are assumed to be:

- A12 J29;
- A120 between J29 and the B1035 Horsley Cross roundabout;
- Bentley Road.

~~8.12.10~~8.12.11 To inform the cumulative Traffic and Transport assessment, National Grid has provided some indicative HGV and construction workforce vehicle movements (typical vehicle movements across the construction programme, as it is unlikely that peak periods of construction activity for VE and the proposed EACN Substation would occur at the same time.

OTHER NSIPS

8.12.12 The ~~F~~forecast vehicle movements associated with the construction of Sizewell C and the onshore elements of EA ONE North~~TWO~~ and EA TWO Offshore Wind Farms d~~t~~o not extend to the A12 south of Ipswich, which is the extent of the VE study area.

~~8.12.11~~8.12.13 For the purpose~~s~~d of the cumulative impact assessment, ~~-~~100% of the construction vehicle movements for Sizewell C and one of the EA projects (which EA projects have the same forecast construction vehicle movements) at the extent of the respective study areas have been assigned to the ~~have been added to the~~ A12 ~~only~~ within the VE traffic and transport study area and have~~s~~ been derived from the Transport Assessments prepared by ~~Battery Energy Storage~~ EDF Energy and ~~RHDHV~~EA ONE North/ EA TWO, respectively~~)~~. The inclusion of two of the three projects and 100% of vehicle movements on the A12 in the VE traffic and transport study area is considered to be a ~~robust~~precautionary assessment, particularly given it is likely a large proportion of these vehicle movements would arrive from or depart to the A14 east, Ipswich and the A14 north.

BATTERY ENERGY STORAGE SCHEME

~~8.12.12~~8.12.14 Forecast vehicle movements associated with the Battery energy Storage Scheme (BESS) have been derived from the CTMP prepared by Ethical Power Connections Ltd, which was submitted with the planning application and assigned to the highway network based on the proposed routeing arrangements.

GREEN ENERGY HUB, BATHSIDE BAY

~~8.12.13~~8.12.15 Forecast daily vehicle movements associated with the proposed Green Energy Hub at Bathside Bay Container Port have been taken from the Transport Assessment prepared by RHDHV that has been submitted with the planning application. For a robust assessment on the SRN, 100% of the forecast vehicle movements have been assigned to the A120.

OTHER COMMITTED DEVELOPMENTS – RESIDENTIAL/OFFICE

~~8.12.14~~8.12.16 The forecast traffic flows associated with the consented developments identified in Table 8-45~~Table 8.45~~ have been derived using the morning and evening peak hour vehicle movements set out in the Transport Assessment prepared for each of the planning applications and factored for 24-hour flows, using factors derived from the TRICS database (used to quantify the trip generation of new developments), as follows:

- Residential use – 4.85; and
- Office use - 3.75.

~~8.12.15~~8.12.17 Where the assignment of the forecast vehicle movements does not extend to the edge of the VE Traffic and Transport study area, reasonable assumptions have been made to assign the vehicle movements to the study area extents, which results in a robust analysis of cumulative vehicle movements on the A133, A120 and A12.

NOTABLE SCHEMES SCOPED OUT OF THE ASSESSMENT

CENTURION PARK, HORSLEY CROSS

~~8.12.16~~8.12.18 The exception to the project that will generate vehicle movements on the A120 and B1035 (north and south of the A120) that has been scoped out, is the Centurion Park, Horsley Cross (19/01706/OUT) as whilst the Transport Assessment provides forecast vehicle movements in the morning and peak hours, due to the various elements of the project, shift times and types of vehicle movement, it would be difficult to reasonably estimate the daily trip generation for use in the CEA..

~~8.12.17~~8.12.19 Also, due to the 100% assignment of VE construction HGVs sensitivity test on the A120 east of and at the B1035 Horsley Cross Roundabout and other robust assignment assumptions on the A120, including potentially inaccurate daily trip generation for 19/01706/OUT on the A120 with the likely over inflated cumulative vehicle movements would not be appropriate and unrealistic.

~~8.12.18~~8.12.20 Finally, on the B1035 Clacton Road, the cumulative impact for total vehicles is 1.1%, which is significantly below the 30% threshold for formal assessment, which would not change with the likely daily workforce vehicles associated with 19/01706/OUT that would use this highway link.

TENDRING COLCHESTER BORDERS GARDEN COMMUNITY (TCBGC)

~~8.12.19~~8.12.21 Changes in traffic flows associated with the Tendring Borders Garden Community (TCBGC) would be captured within TEMPRO growth factors that have been applied to the baseline traffic flows on the highway network within the Traffic and Transport study area and therefore no consideration of this proposal has been considered in the Traffic and Transport CEA.

A120 HORSLEY CROSS TO WIX CONCRETE ROAD RECONSTRUCTION

~~8.12.20~~8.12.22 At a Traffic and Transport ETG on the 16th January 2024, NH identified a reconstruction scheme on the A12 between Horsley Cross and Wix, which could be undertaken during the anticipated construction period for VE. This scheme has not been considered in the CEA, since there are no dates on the NH website setting out high level details of the scheme.

8.12.23 Further discussions between the Applicant and NH would be required should there be any overlap of the reconstruction scheme and the construction of VE. This would be particularly related to the timing of the delivery of the AILs, which would be the main vehicle movements associated with the construction of VE that would use the A120 between Horsley Cross and Wix.

BRAMFORD TO TWINSTEAD REINFORCEMENT

8.12.24 The traffic and transport chapter prepared for the Bradmford to Twinstead Reinforcement project (April 2023) does not include the A12 Junction 29, which is the extent of the VE traffic and transport study area, within the study area for the consideration of potential traffic and transport effects associated with the construction of the Bradmford to Twinstead Reinforcement project. Whilst, in theory, there may be some construction vehicle movements associated with the Bradmford to Twinstead Reinforcement project that would travel on the A12 past Junction 29, given the very robust assignment of construction vehicle movements associated with the Sizewell C and EA ONE North or EA ONE TWO projects, the inclusion of this project in the cumulative impact assessment has been discounted.

8.12.25 There could also be some VE construction workforce vehicle movements that would share some routes on the local highway network within Suffolk that could also be used by construction vehicles associated with the Bradmford to Twinstead Reinforcement project. This could include workers already living or staying in accommodation within Babergh District (6%) and Colchester MSOAs 001, 003 and 010 (4%). Given the geographical extent of these areas and the route choices on the local highway network, the potential cumulative impacts are ~~considered to be limited~~not likely to be significant.

SEA LINK

8.12.26 At the time of preparing the VE DCO application, no traffic data was available for National Grid's Sea Link project, and the proposed study area set out in the Scoping Report (October 2022) does not extend to the VE traffic and transport study area. Therefore, the inclusion of this project in the cumulative impact assessment has been discounted.

LION LINK

8.12.27 At the time of preparing the VE DCO application, no traffic data was available for National Grid's Lion Link project, and the proposed study area set out in the Scoping Report (March 2024) does not extend to the VE traffic and transport study area. Therefore, the inclusion of this project in the cumulative impact assessment has been discounted.

NAUTILUS

8.12.28 At the time of preparing the VE DCO application, no traffic data was available for National Grid's Nautilus project and a Scoping Report has not yet been submitted to PINS. Therefore, the inclusion of this project in the cumulative impact assessment has been discounted.

EAST ANGLIA THREE

8.12.29 Construction of EA THREE is forecast to be completed in 2026 and therefore there would be no overlap with the construction of VE. Therefore, the inclusion of this project in the cumulative impact assessment has been discounted.

~~8.12.21~~

CUMULATIVE VEHICLE MOVEMENTS

~~8.12.22~~8.12.30 The vehicle movements associated with each of the NSIPs for the cumulative Traffic and Transport assessment are shown in Table 8-46~~Table 8.46~~.

~~8.12.23~~8.12.31 The vehicle movements associated with each of the other developments for the cumulative Traffic and Transport assessment are shown in Table 8-47~~Table 8.47~~.

~~8.12.24~~8.12.32 The cumulative impact assessment showing the forecast percentage impacts on 2027 baseline traffic flow is provided in Table 8-48~~Table 8.48~~.

Table 8-46488.46: Cumulative daily two-way vehicle movements – NSIPs

Link ID	Highway link	NF OWF		EACN[xiv]		Sizewell[xiv]		EA ONE North or EA TWOTWO[xiv]		Total	
		Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
1	A12 (N)	173	109	90	64	675	500	357	210	1,295	883
2	A12 (S)	171	109	90	64	675	500	357	210	1,295	883
6	A12 (N) off slip at J29 Roundabout	55	22	45	32					100	54
7	A12 (N) on slip at J29 Roundabout	55	22	45	32					100	54
8	A120 (E) off slip at J29 Roundabout	94	31	45	32					139	63
9	A120 (E) on slip at J29 Roundabout	95	31	45	32					139	63
10	A120 between J29 and A133	408	284	179	128					587	412
11	A120 (A133 to Harwich Road)	338	219	179	128					517	347
12	A120 (Harwich Road to Bentley Road)	514	219	179	128					693	347
13	A120 (Bentley Road to B1035)	494	219	179	128					673	347
14	A120 (East of B1035)	286	219							286	219
15	A120 at Harwich	285	219							285	219

[xiv] Extrapolated from the A14/A12 junction and therefore likely to be an overestimation on the A12.

Link ID	Highway link	NF OWF		EACN[xiv]		Sizewell[xiv]		EA ONE North or EA TWO~~TWO~~[xiv]		Total	
		Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
16	A133 (A120 to A133 Main Road)	102	65							102	65
17	A133 (A133 Main Road to B1033)	167	65							167	65
18	A133 (B1033 to B1027)	123	39							123	39
19	A133 Clacton Road (Elmstead Market)	83								83	0
20	A133 Main Road	69								69	0
21	B1027 St John's Road (west of Clacton)	39								39	0
22	B1027 Colchester Road (St Osyth Park)	6								6	0
23	B1027 Valley Road (Clacton)	125	40							125	40
24	B1032 Frinton Road	142	40							142	40
25	B1032 Clacton Road	132	40							132	40
26	B1033 Colchester Road (west of B1441)	78	20							78	20
27	B1441 Clacton Road	48	11							48	11

Link ID	Highway link	NF OWF		EACN[xiv]		Sizewell[xiv]		EA ONE North or EA TWO~~TWO~~[xiv]		Total	
		Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
28	B1414 Harwich Road	49	11							49	11
29	B1033 Frinton Road	78	11							78	11
30	B1033 Colchester Road (east of B1441)	36	9							36	9
31	B1035 Tendring Road	89	9							89	9
32	B1035 Thorpe Road	65	2							65	2
33	B1035 south of A120	86	13							86	13
34	B1035 Clacton Road	22	1							22	1
35	Bentley Road	402	137	179	128					581	265
44	B1029 (north of Harwich Road)	158								158	
45	Waterhouse Lane	158								158	
	Little Bromley Road/ Ardleigh Road	158	27	179	128					337	155

Table 8-47498.47: Cumulative daily two-way vehicle movements - other developments

Link ID	Highway link	Bathside Bay 23/01594/FUL		21/02070/FUL		19/00524/OUT		20/00179/FUL	20/01330/FUL	Total	
		Total	HGVs	Total	HGVs	Total	HGVs	Total	Total	Total	HGVs
1	A12 (N)	121	54	15	10	386		78	121	721	64
2	A12 (S)	121	54	15	10	386		78		600	64
6	A12 (N) off slip at J29 Roundabout	60	27							60	27
7	A12 (N) on slip at J29 Roundabout	60	27							60	27
8	A120 (E) off slip at J29 Roundabout	60	27							60	27
9	A120 (E) on slip at J29 Roundabout	60	27							60	27
10	A120 (J29 to A133)	241	108	30	20		155		243	514	283
11	A120 (A133 to Harwich Road)	241	108	30	20					271	128
12	A120 (Harwich Road to Bentley Road)	241	108							241	108
13	A120 (Bentley Road to B1035)	241	108							241	108
14	A120 (East of B1035)	241	108							241	108
15	A120 at Harwich	302	108							302	108

Link ID	Highway link	Bathside Bay 23/01594/FUL		21/02070/FUL		19/00524/OUT		20/00179/FUL	20/01330/FUL	Total	
		Total	HGVs	Total	HGVs	Total	HGVs	Total	Total	Total	HGVs
16	A133 (A120 to A133 Main Road)							155	243	398	
17	A133 (A133 Main Road to B1033)					772		155	243	1,170	
18	A133 (B1033 to B1027)					786				786	
26	B1033 Colchester Road (west of B1441)					2,163				2,163	
27	B1441 Clacton Road					400				400	
30	B1033 Colchester Road (east of B1441)					400				400	

Table 8-48~~508.48~~: Cumulative assessment

Link ID	Location	2027		VE		NSIPs + other developments		2027 + VE NSIPs + other developments		Percentage Impact (%)	
		Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
1	A12 (N)	66,979	6,347	332	198	2,016	947	69,327	7,492	3.5	18.0
2	A12 (S)	77,966	6,490	327	198	2,013	947	80,306	7,635	3.0	17.6
6	A12 (N) off slip at J29 Roundabout	13,305	1,304	127	58	160	81	13,592	1,443	2.2	10.7
7	A12 (N) on slip at J29 Roundabout	9,812	1,190	127	58	160	81	10,099	1,329	2.9	11.7
8	A120 (E) off slip at J29 Roundabout	7,735	734	281	146	199	90	8,215	970	6.2	32.2
9	A120 (E) on slip at J29 Roundabout	9,061	895	278	146	199	90	9,538	1,131	5.3	26.4
10	A120 (J29 to A133)	49,273	2,988	816	558	1,101	695	51,190	4,241	3.9	41.9
11	A120 (A133 to Harwich Road)	13,630	1,560	590	396	788	475	15,008	2,431	10.1	55.8
12	A120 (Harwich Road to Bentley Road)	13,804	1,665	844	396	934	455	15,582	2,516	12.9	51.1
13	A120 (Bentley Road to B1035)	13,978	1,770	822	396	673	437	15,473	2,603	10.7	47.1
14	A120 (East of B1035)	16,426	1,955	539	396	527	327	17,492	2,678	6.5	37.0
15	A120 at Harwich	11,230	1,784	534	396	527	327	12,291	2,507	9.4	40.5

Link ID	Location	2027		VE		NSIPs + other developments		2027 + VE NSIPs + other developments		Percentage Impact (%)	
		Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
16	A133 (A120 to A133 Main Road)	23,952	757	291	162	404	173	24,647	1,092	2.9	44.3
17	A133 (A133 Main Road to B1033)	33,772	1,246	441	162	565	65	34,778	1,473	3.0	18.2
18	A133 (B1033 to B1027)	22,589	599	274	71	1,293	39	24,156	709	6.9	18.4
19	A133 Clacton Road (Elmstead Market)	10,351	246	173	0	83	0	10,607	246	2.5	0.0
20	A133 Main Road	12,984	649	167	0	69	0	13,220	649	1.8	0.0
21	B1027 St John's Road (west of Clacton)	16,707	149	64		39	0	16,810	149	0.6	0.0
22	B1027 Colchester Road (St Osyth Park)	12,049	170	11	0	6	0	12,066	170	0.1	0.0
23	B1027 Valley Road (Clacton)	14,523	226	263	108	125	40	14,911	374	2.7	65.5
24	B1032 Frinton Road	7,550	146	289	108	142	40	7,981	294	5.7	101.4
25	B1032 Clacton Road	7,251	127	288	108	132	40	7,671	275	5.8	116.5
26	B1033 Colchester Road (west of B1441)	14,980	309	294	139	2,240	20	17,514	468	16.9	51.5

Link ID	Location	2027		VE		NSIPs + other developments		2027 + VE NSIPs + other developments		Percentage Impact (%)	
		Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGVs
27	B1441 Clacton Road	5,955	153	141	66	448	11	6,544	230	9.9	50.3
28	B1414 Harwich Road	5,561	120	142	66	49	11	5,752	197	3.4	64.2
29	B1033 Frinton Road	12,277	225	187	66	78	11	12,542	302	2.2	34.2
30	B1033 Colchester Road (east of B1441)	10,041	245	171	74	436	9	10,648	328	6.0	33.9
31	B1035 Tendring Road	1,576	43	259	74	89	9	1,924	126	22.1	193.0
32	B1035 Thorpe Road	2,275	52	191	41	65	2	2,531	95	11.3	82.7
33	B1035 south of A120	5,594	138	228	59	86	13	5,908	210	5.6	52.2
34	B1035 Clacton Road	8,393	206	53	29	22	1	8,468	236	0.9	14.6
35	Bentley Road	946	30	532	175	581	265	2,059	470	117.7	1466.7
44	B1029 (north of Harwich Road)	2,240	50	158		158	0	2,556	50	14.1	0.0
	Waterhouse Lane	428	13	158		158	0	744	13	73.8	0.0
45	Little Bromley Road/ Ardleigh Road	428	13	158	15			586	28	36.9	115.4

Table 8-49~~518.49~~: Maximum cumulative trip generation percentage impacts

Link ID	Highway link	Percentage impact		Sensitivity	Threshold (%)		Formal assessment?
		Total	HGV		Total	HGV	
1	A12 (N)	3.5	18.0	Negligible	30	30	No
2	A12 (S)	3.0	17.6	Negligible	30	30	No
6	A12 (N) off-slip at J29 Roundabout	2.2	10.7	Negligible	30	30	No
7	A12 (N) on-slip at J29 Roundabout	2.9	11.7	Negligible	30	30	No
8	A120 (E) off-slip at J29 Roundabout	6.2	32.2	Negligible	30	30	Yes
9	A120 (E) on-slip at J29 Roundabout	5.3	26.4	Negligible	30	30	No
10	A120 (J29 to A133)	3.9	41.9	Negligible	30	30	Yes
11	A120 (A133 to Harwich Road)	10.1	55.8	Negligible	30	30	Yes
12	A120 (Harwich Road to Bentley Road)	12.9	51.1	Negligible	30	30	Yes
13	A120 (Bentley Road to B1035)	10.7	47.1	Negligible	30	30	Yes
14	A120 (East of B1035)	6.5	37.0	Negligible	30	30	Yes
15	A120 at Harwich	9.4	40.5	Negligible	30	30	Yes
16	A133 (A120 to A133 Main Road)	2.9	44.3	Low	30	30	Yes
17	A133 (A133 Main Road to B1033)	3.0	18.2	Low	30	30	No
18	A133 (B1033 to B1027)	6.9	18.4	Low	30	30	No
19	A133 Clacton Road (Elmstead Market)	2.5	0.0	Low	30	30	No
20	A133 Main Road	1.8	0.0	Low	30	30	No

Link ID	Highway link	Percentage impact		Sensitivity	Threshold (%)		Formal assessment?
		Total	HGV		Total	HGV	
21	B1027 St John's Road (west of Clacton)	0.6	0.0	Low	30	30	No
22	B1027 Colchester Road (St Osyth Park)	0.1	0.0	Low	30	30	No
23	B1027 Valley Road (Clacton)	2.7	65.5	High	10	30	Yes
24	B1032 Frinton Road	5.7	101.4	High	10	30	Yes
25	B1032 Clacton Road	5.8	116.5	Low	30	30	Yes
26	B1033 Colchester Road (west of B1441)	16.9	51.5	Medium	10	30	Yes
27	B1441 Clacton Road	9.9	50.3	High	10	30	Yes
28	B1414 Harwich Road	3.4	64.2	Medium	10	30	Yes
29	B1033 Frinton Road	2.2	34.2	High	10	30	Yes
30	B1033 Colchester Road (east of B1441)	6.0	33.9	High	10	30	Yes
31	B1035 Tendring Road	22.1	193.0	Medium	10	30	Yes
32	B1035 Thorpe Road	11.3	82.7	Low	30	30	Yes
33	B1035 south of A120	5.6	52.2	Negligible	30	30	Yes
34	B1035 Clacton Road	0.9	14.6	Low	30	30	No
35	Bentley Road	117.7	1,466.7	Low	30	30	Yes
44	B1029 (north of Harwich Road)	14.1	0.0	Medium	10	30	Yes
	Waterhouse Lane	73.8	0.0	High	10	30	Yes
45	Little Bromley Road / Ardleigh Road	36.9	115.4	Low	30	30	Yes

~~8.12.25~~8.12.33 Based on Table 8-49~~Table 8.49~~, the highway links taken forward for the cumulative assessment are shown in Table 8-50~~Table 8.50~~.

Table 8-50~~528.50~~: Highway links taken forward for the cumulative assessment

Link ID	Highway link	Percentage impact		Sensitivity
		Total	HGV	
11	A120 (A133 to Harwich Road)	10.1	55.8	Negligible
12	A120 (Harwich Road to Bentley Road)	16.6	64.2	Negligible
13	A120 (Bentley Road to B1035)	16.0	60.4	Negligible
14	A120 (East of B1035)	8.2	48.1	Negligible
15	A120 at Harwich	12.5	52.7	Negligible
16	A133 (A120 to A133 Main Road)	3.7	38.7	Low
23	B1027 Valley Road (Clacton)	3.5	83.3	High
24	B1032 Frinton Road	7.6	129.1	High
25	B1032 Clacton Road	7.6	148.4	Low
26	B1033 Colchester Road (west of B1441)	17.4	58.0	Medium
27	B1441 Clacton Road	10.7	57.3	High
28	B1414 Harwich Road	4.3	75.2	Medium
29	B1033 Frinton Road	2.8	38.9	High
30	B1033 Colchester Road (east of B1441)	6.4	37.3	High
31	B1035 Tendring Road	27.7	211.1	Medium
32	B1035 Thorpe Road	14.1	70.9	Low
33	B1035 south of A120	7.2	61.8	Negligible
35	Bentley Road	160.3	1,928.7	Low
44	B1029 (north of Harwich Road)	14.1	0.0	Medium
45	Waterhouse Lane	73.8	0.0	High

COMMUNITY SEVERANCE

~~8.12.26~~8.12.34 In Table 8-5~~Table 8.5~~ less than a 10% increase in total traffic is considered a negligible magnitude of impact of the potential effect of community severance. Table 8-51~~Table 8.51~~ summarises the level of effects on these links with a negligible magnitude of impact:

Table 8-51~~538.51~~: Highway links - negligible magnitude of impact (community severance) – cumulative assessment

Link ID	Highway link	Sensitivity	Level of effect
8	A120 (E) off-slip at J29 Roundabout	Negligible	Negligible
10	A120 (J29 to A133)	Negligible	Negligible
14	A120 (East of B1035)	Negligible	Negligible
16	A133 (A120 to A133 Main Road)	Low	Negligible
18	A133 (B1033 to B1027)	Low	Negligible
23	B1027 Valley Road (Clacton)	High	Minor
24	B1032 Frinton Road	High	Minor
25	B1032 Clacton Road	Low	Negligible
28	B1414 Harwich Road	Medium	Minor
29	B1033 Frinton Road	High	Minor
30	B1033 Colchester Road (east of B1441)	High	Minor
33	B1035 south of A120	Negligible	Negligible

~~8.12.27~~8.12.35 In summary, with the addition of the cumulative projects, there would be a negligible or minor adverse effect on community severance on all the highway links in Table 8-51~~Table 8.51~~, which is not significant in terms of the EIA Regulations.

~~8.12.28~~8.12.36 Table 8-52~~Table 8.52~~ summarises the level of effects on these links with a low magnitude of impact (10% to 30%).

Table 8-52~~548.52~~: Highway links – low magnitude of impact (community severance) – cumulative assessment

Link ID	Highway link	Sensitivity	Level of effect
11	A120 (J29 to A133)	Negligible	Negligible
12	A120 (A133 to Harwich Road)	Negligible	Negligible
13	A120 (Harwich Road to Bentley Road)	Negligible	Negligible
15	A120 at Harwich	Negligible	Negligible
26	B1033 Colchester Road (west of B1441)	Medium	Minor

Link ID	Highway link	Sensitivity	Level of effect
27	B1441 Clacton Road	High	Moderate
31	B1035 Tendring Road	Medium	Minor
32	B1035 Thorpe Road	Low	Minor
44	B1029 (north of Harwich Road)	Medium	Minor

~~8.12.29~~8.12.37 In summary, with the addition of the cumulative projects, there would be a **negligible** or **minor** adverse effect on community severance on the A120 (highway links 11, 12, 13 and 15), the B1033 (west of the B1441), the B1035 Tendring Road and B1035 Thorpe Road, as shown in Table 8-52~~Table 8.52~~, which is **not significant** in terms of the EIA Regulations.

~~8.12.30~~8.12.38 For the B1441 Clacton Road, a **moderate** adverse level of effect on community severance is forecast with the addition of the cumulative projects, which is **significant** in terms of the EIA Regulations. However, given the 10% threshold is marginally breached (10.6%) and taking into account the potential alterative routeing of NF OWF construction vehicle movements between the A133 and Route Section 3 (which would avoid the B1441 Clacton Road), the magnitude of impact can be reduced to **negligible** adverse and therefore resulting in level of effect that is minor and **not significant** in terms of the EIA Regulations.

~~8.12.31~~8.12.39 For Bentley Road, whilst the additional total daily vehicle movements in the cumulative assessment (with NF OWF and EACN) are forecast to approximately increase by a factor of 1.7 from Scenario 1, the construction of VE (including NF OWF ducts) forecast vehicle movements, the analysis of community severance set out in paragraphs 8.10.35~~8.10.35~~ and 8.10.36~~8.10.36~~ would still be relevant, particularly with the potential segregated WCH path on Bentley Road, the requirement for which would be discussed and agreed with Essex County Council.

~~8.12.32~~8.12.40 Notwithstanding the above, it is acknowledged that, given the current vehicle movements on Bentley Road (particularly the very low number of HGVs), the changes in traffic movements will be discernible for the residents of the properties along this section of Bentley Road and consequently the DCO Application will be supported by a Construction Traffic Management Plan (CTMP) and a Workforce Travel Plan (WTP), that will include measures to further reduce peak in construction vehicle movements, such as:

- Coordination between projects to reduce the maximum daily construction vehicle movements, wherever practicable; and
- Use of satellite car parks (either at a remote location or TCCs that do not require using Bentley Road and a shuttle bus service for the construction workforce.

~~8.12.33~~8.12.41 The Principal Contractor will therefore be required to implement additional measures as part of the final CTMP and final WTP reduce the forecast numbers of peak construction traffic movements along Bentley Road.

~~8.12.34~~8.12.42 Based on the above, there would be a **minor** adverse effect, which is **not significant** in terms of the EIA Regulations.

~~8.12.35~~8.12.43 Whilst the forecast cumulative vehicle movements (workforce vehicle movements to the VE and NF OWF OnSS TCCs) on Waterhouse Lane (including Little Bromley Road/ Ardleigh Road)) would be double the Scenario 1 vehicle movements, given the very low baseline traffic flows, the magnitude of impact can still be considered low. With the medium sensitivity (as set out in paragraph 8.10.34~~8.10.34~~), the adverse effect would be **minor significance,** which is not **significant** in terms of the EIA Regulations.

VULNERABLE ROAD USERS AND ROAD SAFETY

~~8.12.36~~8.12.44 In Table 8-5~~Table 8.5~~ less than a 10% increase in total traffic is considered a negligible magnitude of impact of the potential effects on vulnerable road users and road safety. The level of effects on these links is the same as for community severance set out in Table 8-51~~Table 8.51~~. In summary, there would be **a negligible or minor** adverse effect on vulnerable road users and road safety on all the highway links in Table 8-51~~Table 8.51~~., which is **not significant** in terms of the EIA Regulations.

8.12.45 The highway links forecast to increase by greater than 10% with the addition of the cumulative projects are shown in Table 8-53~~Table 8.53~~, with a qualitative assessment of the accident records, as required by Table 8-5~~Table 8.5~~.

Table 8-53~~558.53~~: Assessment of cumulative effects on vulnerable road users and road safety

Link ID	Highway link	Percentage impact	Sensitivity	Assessment
11	A120 (J29 to A133)	12.6	Negligible	As the A120 is part of the SRN carrying high volumes of vehicles including a high proportion of HGVs, there are unlikely to be many cyclists. Additionally, there are unlikely to be many pedestrian movements across the A120, with the exception of at the B1352 roundabout in the vicinity of the settlement of Ramsey, where there are informal crossings. There are also informal crossings at the junction with Bentley Road and at the Harwich Road Roundabout, where pedestrian movements are likely to be limited. These crossings are also shared paths for cyclists. There have been five PIAs in the assessment period that involved a cyclist, two slight and three serious in severity and all occurred at different locations; however, three occurred at an approach to or on the circulating carriageway of the Parkeston Roundabout. Given the very robust assessment with the sensitivity of 100% HGVs arriving from and departing to Harwich, given the cumulative increase in total traffic is only marginally above the 10% threshold, the magnitude of impact can be considered low adverse and with the mitigation including Volume 9, Report 24: Outline CTMP, which would result in a **negligible** adverse effect which is **not significant** in terms of the EIA Regulations.
12	A120 (A133 to Harwich Road)	16.6	Negligible	
13	A120 (Harwich Road to Bentley Road)	16.0	Negligible	
15	A120 at Harwich	12.5	Negligible	

Link ID	Highway link	Percentage impact	Sensitivity	Assessment
26	B1033 Colchester Road (west of B1441)	17.4	Medium	An analysis of the B1033 (west of the B1441) includes the A133/B1033 and B1033/B1441 roundabouts. Five of the PIAs occurred at the A133/B1033 roundabout, four slight and one serious in severity. Two occurred in a similar location, but with different causation factors (one due to a wheel coming off a motorcycle and one rear end shunt). The other PIAs were due to > a vehicle cutting across another; > a collision between a car and a cycle; and > a rear end shunt. Two of the PIAs occurred on the link between the two roundabouts at different locations, both serious in severity and with different causation factors (one a shunt and one a collision due to a rider (cycle or motorcycle not specified) pulling on front of a car. Three of the PIAs occurred on the westbound section of the circulating carriageway at the B1441 Weeley Bypass roundabout, all slight in severity and were due to loss of control; two through driver error and one due to a fault with the vehicle. Two occurred on the eastbound approach to the B1441 Weeley Bypass roundabout, one shunt and one involving a car and a cycle where the driver of the car did not give the cyclist enough space, both were slight in severity. Whilst there are no clusters of PIAs (defined as three or more) with the same causation factor, given there have been two (or three) involving cyclists, Volume 9, Report 24: Outline CTMP highlights this location for

Link ID	Highway link	Percentage impact	Sensitivity	Assessment
				specific warning signage of the VE construction traffic, noting this only equates to around 15% of the total cumulative vehicle movements on this highway link. Given the above, the magnitude of impact can be considered to be low adverse, and with medium sensitivity, would result in an effect that is **minor adverse**, which is **not significant** in terms of the EIA Regulations.
27	B1441 Clacton Road	10.7	High	There have been six PIAs in the assessment period on the B1441 Clacton Road, all at different locations, five slight and one serious in severity, with the following causation factors: > A head on collision when a vehicle turned into railway station car park; > A child cycled into the road form the footway; > A collision with a car and cycle with the cyclist not noticing a car turning into a drive; > A vehicle reversing out of a drive colliding with a passing vehicle; > A car colliding with horse rider; and > A car pulled out and collided with a cyclist Whilst two of the PIAs involving cyclists were due the cyclist error, given there have been three PIAs involving a cyclist and one involving a horse rider, Volume 9, Report 24: Outline CTMP highlights this location for specific warning signage of the VE construction traffic.

Link ID	Highway link	Percentage impact	Sensitivity	Assessment
				Given the above, and since the 10% threshold for the further assessment is only marginally breached, the magnitude of impact can be considered to be negligible adverse, and with high sensitivity, would result in an effect that is **minor adverse**, which is **not significant** in terms of the EIA Regulations
31	B1035 Tendring Road	27.7	Medium	There have been no PIAs on the B1035 Tendring Road within the assessment period. The B1035 Tendring Road is considered a highway link with medium sensitivity and taking the accident rate into account and with the mitigation including the Volume 9, Report 24: Outline CTMP, the magnitude of impact of vulnerable road users and road safety is considered to be negligible, which would result in a **minor** adverse effect which is **not significant** in terms of the EIA Regulations.
32	B1035 Thorpe Road	14.1	Low	There have been no PIAs on the section of the B1035 Thorpe Road that triggers the assessment (to the west of AC-05) within the assessment period. The B1035 Thorpe Road is considered a highway link with low sensitivity and taking the accident rate into account, the borderline magnitude of impact at 11.5% and with the mitigation including the Volume 9, Report 24: Outline CTMP, the magnitude of impact of vulnerable road users and road safety is considered to be negligible, which would result in a **negligible** adverse effect, which is **not significant** in terms of the EIA Regulations.
44	Bentley Road	160.3	Low	There have been two PIA on Bentley Road in the assessment period, one slight and one serious in severity, at different locations. The PIAs were due to driver error and did not involve a WCH.

Link ID	Highway link	Percentage impact	Sensitivity	Assessment
				Bentley Road is considered a highway link with low sensitivity; however, for the effect on vulnerable road users and road safety, given the very low number of HGVs that use it and the width constraints for some sections, the sensitivity can be considered high. However, with the mitigation of widening on Bentley Road, to facilitate two HGVs passing safely and the potential segregated WCH path (a cumulative mitigation option for VE, NF OWF and EACN), the sensitivity can be reduced back to medium. With the very low accident rate and account and with the mitigation including Volume 9, Report 24: Outline CTMP the magnitude of impact on vulnerable road users and road safety is considered to be low, which would result in a **minor** adverse effect, which is **not significant** in terms of the EIA Regulations.
44	B1029 (north of Harwich Road)	14.1	Medium	There have been six PIAs at the B1209 Harwich Road junction (four slight and two serious in severity); all of which involved cars or motorcycles, with one of the vehicles undertaking a right turn. Visibility for vehicle turning from the B1029 (north of Harwich Road) (northern or southern approach) onto Harwich Road is good and forward visibility along Harwich Road for vehicle turning right onto the B1029 (north of Harwich Road) (northern or southern approach) and therefore the PIAs were likely due to driver error. There have been seven PIAs on the B1029 (north of Harwich Road) between Harwich Road and Waterhouse Lane (five slight and two serious in severity), all at different locations and none involving a pedestrian or cyclist.

Link ID	Highway link	Percentage impact	Sensitivity	Assessment
				The B1029 (north of Harwich Road) is considered a highway link with medium sensitivity and taking the accident rate into account, the borderline magnitude of impact or assessment at 14.1% and with the mitigation including the Volume 9, Report 24: Outline CTMP, the magnitude of impact of vulnerable road users and road safety is considered to be negligible, which would result in a **minor** adverse effect, which is **not significant** in terms of the EIA Regulations.
45	Waterhouse Lane/ Little Bromley Road/ Ardleigh Road	73.8	High	There have been no PIAs on Waterhouse Lane (including Little Bromley Road/ Ardleigh Road). Waterhouse Lane is considered a highway link with high sensitivity; however, as the VE construction vehicles that could use this route would be cars/LGVs, the sensitivity can be reduced to medium. For the HGVs from VE, NF OWF and NGET EACN that would use Little Bromley Road/ Ardleigh Road, specific measures should be considered in the final CTMPs to manage these vehicle movements. Taking the existing highway safety record into account and the mitigation including Volume 9, Report 24: Outline CTMP, the magnitude of impact on vulnerable road users and road safety is considered to be low, which would result in a **minor** adverse effect, which is **not significant** in terms of the EIA Regulations.

PEDESTRIAN AMENITY

~~8.12.37~~8.12.46 In Table 8-5~~Table 8.5~~, less than a 100% increase in total or HGV traffic is considered a negligible magnitude of impact on the potential effect on pedestrian amenity. Table 8-54~~Table 8.54~~ summarises the level of effects on these links:

Table 8-54~~568.54~~: Highway links - negligible magnitude of impact (pedestrian amenity)

Link ID	Highway link	Sensitivity	Level of effect
8	A120 (E) off-slip at J29 Roundabout	Negligible	Negligible
10	A120 (J29 to A133)	Negligible	Negligible
11	A120 between A133 and Harwich Road	Negligible	Negligible
12	A120 between Harwich Road and Bentley Road	Negligible	Negligible
13	A120 between Bentley Road and B1035	Negligible	Negligible
14	A120 (East of B1035)	Negligible	Negligible
15	A120 at Harwich	Negligible	Negligible
16	A133 (A120 to A133 Main Road)	Low	Negligible
18	A133 (B1033 to B1027)	Low	Negligible
23	B1027 Valley Road (Clacton)	High	Minor
26	B1033 Colchester Road (west of B1441)	Medium	Minor
27	B1441 Clacton Road	High	Minor
28	B1414 Harwich Road	Medium	Minor
29	B1033 Frinton Road	High	Minor
30	B1033 Colchester Road (east of B1441)	High	Minor
32	B1035 Thorpe Road	Low	Negligible
33	B1035 south of A120	Negligible	Negligible
44	B1029 (north of Harwich Road)	Medium	Minor
45	Waterhouse Lane	High	Minor

~~8.12.38~~8.12.47 In summary, with the addition of the cumulative projects, there would be a **negligible** or **minor** adverse effect on pedestrian amenity on the highway links in Table 8-54~~Table 8.54~~, which is **not significant** in terms of the EIA Regulations.

~~8.12.39~~8.12.48 For the highway links with a change in HGV traffic flow greater than 100%,Table 8-5~~Table 8.5~~ requires a review based upon the quantum of vehicles, vehicle speed and pedestrian footfall is required to identify the adverse magnitude of impact, which is provided Table 8-55~~Table 8.55~~.

Table 8-55~~578.55~~: Assessment of cumulative effects on pedestrian amenity

Link ID	Highway link	Percentage impact	Sensitivity	Assessment
24	B1032 Frinton Road	129.1	High	As the 129.1% increase in the number of HGVs is marginally over the threshold for assessment, the magnitude of impact can be considered to be low. However, with the mitigation including Volume 9, Report 24: Outline CTMP the magnitude of impact can be reduced to negligible. This would result in an adverse effect that is **minor** in significance which is **not significant** in terms of the EIA Regulations.
25	B1032 Clacton Road	148.4	Low	On the B1032 Clacton Road, as there are unlikely to be many pedestrian movements, the sensitivity can be reduced to negligible. The 148.4% increase in the number of HGVs is considered to be low magnitude of impact, given the unlikely pedestrian movements. This would result in an adverse effect that is **negligible** in significance which is **not significant** in terms of the EIA Regulations

Link ID	Highway link	Percentage impact	Sensitivity	Assessment
31	B1035 Tendring Road	211.1	Medium	For the B1035 Tendring Road, which has medium sensitivity, a 211.1% increase in the number of HGVs is considered to be low magnitude of impact as per the assessment of VE construction traffic alone (an increase of 190.0%), given the very low number of daily HGVs on this highway link in the baseline (40), there is a footway adjacent to the six dwellings and there have been no PIAs in this location during the assessment period (also in the total 23 years of data using Crashmap). This would result in an adverse effect that is **minor** in significance which is **not significant** in terms of the EIA Regulations.
35	Bentley Road	1,928.7	Low	Whilst the additional daily total vehicle and HGV movements in the cumulative assessment (with NF OWF and EACN) are forecast to increase by a factor of 1.7 and 2.8 respectively from Scenario 1, the construction of VE (including NF OWF ducts) and the analysis of pedestrian amenity set out in paragraph 8.10.498.10.49, particularly with the potential segregated WCH path on Bentley Road, the requirement for which would be discussed and agreed with Essex County Council. Notwithstanding, the above, it is acknowledged that, given the current vehicle movements on Bentley Road (particularly the very low number of HGVs), the changes in traffic movements will be discernible for the residents of the properties along this section of Bentley Road and consequently the DCO Application will be supported by a Construction Traffic Management Plan (CTMP) and a Workforce Travel Plan (WTP), that will

Link ID	Highway link	Percentage impact	Sensitivity	Assessment
				include measures to further reduce peak in construction vehicle movements, such as: > Coordination between projects to reduce the maximum daily construction vehicle movements, wherever practicable; and > Use of satellite car parks (either at TCCs that do not require using Bentley Road and a shuttle bus service for the construction workforce. The Principal Contractor will therefore be required to implement additional measures as part of the final CTMP and final WTP reduce the forecast numbers of peak construction traffic movements along Bentley Road. Based on the above, there would be a **minor** adverse effect, which is **not significant** in terms of the EIA Regulations
45	Little Bromley Road/ Ardleigh Road	115.4	Low	For the HGVs from VE, NF OWF and NGET EACN that would use Little Bromley Road/ Ardleigh Road from AC12/12A, specific measures should be considered in the final CTMPs to manage these vehicle movements. Taking the likely very low number of pedestrians that would be walking on these links and the mitigation including Volume 9, Report 24: Outline CTMP, the magnitude of impact on pedestrian amenity is considered to be low, which would result in a **negligible** adverse effect, which is **not significant** in terms of the EIA Regulations

FEAR AND INTIMIDATION

~~8.12.40~~8.12.49 As there are limited or no pedestrian movements on the A12, A120 and A133, these highway links have been screened out of the cumulative assessment of fear and intimidation.

~~8.12.41~~8.12.50 Table 8-56~~Table 8.56~~ sets out the cumulative assessment of fear and intimidation in 2027 with the addition of VE construction vehicle movements, NSIPs and other developments.

~~8.12.42~~8.12.51 The criteria in Table 8-3~~Table 8.3~~ and Table 8-4~~Table 8.4~~ have been used to derive the degree of hazard.

~~8.12.43~~8.12.52 As shown in Table 8-56~~Table 8.56~~ there is no change in the level of fear and intimidation between the baseline assessment and the 2027 cumulative assessment and therefore, using the criteria in Table 8-7~~Table 8.7~~, the magnitude of impact is negligible for all assessed highway links. Therefore, the highway links with negligible or low sensitivity (links 25 and 32 to 35 and 45 (Little Bromley Road/ Ardleigh Road)) would result in a **negligible** adverse effect, which is **not significant** in terms of EIA Regulations.

~~8.12.44~~8.12.53 For the highway links with medium or high sensitivity (links 23, 24, 26 to 31 and 45 (Waterhouse Lane)) would result in a **minor** adverse effect, which is **not significant** in terms of EIA Regulations.

Table 8-56~~588.56~~: Fear and Intimidation – 2027 with VE, NSIPs and other developments cumulative assessment

Link ID	Highway link	Degree of hazard							
		Average traffic flow over 18-hour day – all vehicles/hour 2-way flow	Total 18-hour heavy vehicle flow	Average vehicle speed	Average traffic flow over 18-hour day – all vehicles/hour 2-way flow	Total 18-hour heavy vehicle flow	Average vehicle speed	Total score	Level of fear and intimidation
23	B1027 Valley Road (Clacton)	866	384	26	10	0	10	20	Small
24	B1032 Frinton Road	459	299	27	0	0	10	10	Small
25	B1032 Clacton Road	445	281	40	0	0	30	30	Moderate
26	B1033 Colchester Road (west of B1441)	957	462	39	10	0	20	30	Moderate
27	B1441 Clacton Road	380	237	34	0	0	20	20	Small
28	B1414 Harwich Road	361	208	36	0	0	20	20	Small
29	B1033 Frinton Road	700	303	37	10	0	20	30	Moderate
30	B1033 Colchester Road (east of B1441)	583	324	47	0	0	30	30	Moderate
31	B1035 Tendring Road	113	129	40	0	0	30	30	Moderate
32	B1035 Thorpe Road	151	95	44	0	0	30	30	Moderate
33	B1035 south of A120	353	221	43	0	0	30	30	Moderate
34	B1035 Clacton Road	499	247	43	0	0	30	30	Moderate
35	Bentley Road	119	472	40	0	0	30	30	Moderate
45	Waterhouse Lane	34	13	40	0	0	30	30	Small

	Little Bromley Road/ Ardleigh Road	50	183	40	0	0	30	30	Small

USERS OF PUBLIC RIGHTS OF WAY

~~8.12.45~~8.12.54 The CEA of the potential impacts of users of PRoW is only directly relevant to the addition of vehicle movements associated with NF OWF, which would share the same temporary haul roads and intersect the same PRoW. Therefore, whilst the number of construction vehicle movements crossing a PRoW would increase as a result of NF OWF being constructed at the same time as VE, the assessment presented in Table 8-38~~Table 8.38~~ to Table 8-42:~~Table 8.42:~~ is applicable to the CEA.

~~8.12.46~~8.12.55 Whilst not formally assessed, in the scenario when the temporary haul road between Bentley Road and Ardleigh Road is used by VE and NF OWF construction vehicles simultaneously, there would be an increase in the number of vehicles crossing FP16 172 and FP17 172 and therefore a greater likelihood of users being delayed whilst a construction vehicle passes; however, any delays would be short. In the event the construction of VE and NF OWF are staggered, there would be a greater duration in which users of these footpaths would be affected.

~~8.12.47~~8.12.56 There also may be some indirect cumulative impacts to users of PRoW should the EACN Substation be constructed at the same time at VE in that this may involve the temporary closure of and diversion of PRoW whilst there may be PRoW temporarily closures and diversions associated with the construction of VE. However, as the details of this are not known, no further consideration has been provided in the CEA.

ABNORMAL INDIVISIBLE LOADS

8.12.57 For the delivery of AILs, the CEA is only relevant to NF OWF and the EACN Substation, which would also require AIL deliveries. As the AIL deliveries for each project would not occur at the same time and taking the measures described in paragraphs 8.10.72~~8.10.72~~ to 8.10.74~~8.10.74~~ into account, there would be **no significant** effects in terms of the EIA Regulations.

~~S~~SCENARIO 3

VE AND NF OWF

8.12.58 In Scenario 3 (as described in paragraph 8.5.5~~8.5.5~~) , there would be no overlap between the construction of VE and NF OWF with an unknown number of years (greater than three) between the construction programmes for each project. Whilst this would result in a longer period for the potential traffic and transport effects compared to Scenario 1 or Scenario 2, it should be noted that the PINS Advice Note 17, 'Cumulative effects assessment relevant to nationally significant infrastructure projects' states:

"The relative construction, operation and decommissioning programmes of the other existing and, or approved developments identified in the ZOI together with the NSIP programme, to establish whether there is overlap and any potential for interaction."

8.12.59 Scenario 3 would not meet this criterion as there would be no overlap; however, it is acknowledged that as the proposed construction vehicle access routes for NF OWF are the same as for VE (except for one different local access route), receptors on these routes would experience a similar level of effect for each project and therefore a high-level assessment of the potential cumulative effects under Scenario 3 has been undertaken.

8.12.60 Table 8-57~~Table 8-46~~ sets out the differences in the maximum daily HGV, workforce and total vehicle[xv] movements, between Scenario 1 and Scenario 3.

Table 8-57~~46~~ Scenario 1 and 3 maximum daily traffic generation (two way movements) comparison

Route Section	Total vehicles			HGVs			Employee vehicles (car occupancy 1.5)		
	S1	S3	Diff.	S1	S3	Diff.	S1	S3	Diff.
Section 1 (incl. Landfall HDD compound)	242	150	92	106	69	37	145	101	44
Section 2	103	80	23	33	33	0	77	56	21
Section 3	175	151	24	87	65	22	109	97	12
Section 4a	92	92	0	41	41	0	59	59	0
Section 4b	146	131	15	72	59	13	84	84	0
Section 5	128	114	14	57	57	0	83	71	12
Section 6/7	160	141	19	91	90	1	81	78	3
OnSS and unlicensed works	334	334	0	133	133	0	201	201	0
400kV works	86	74	12	42	18	24	56	56	0
Beach access to support landfall works	92	92	0	39	39	0	53	53	0
Total	**1,558~~3~~**	**1,359**	**199~~4~~**	**701**	**604**	**97**	**948**	**856**	**92**

[xv] Peak month calculated from the sum of HGV and workforce vehicle movements and therefore the numbers for HGVs and workforce vehicle movements in Table 8-46 will not equal the total numbers shown with the exception of the OnSS.

8.12.61 Table 8-58~~Table 8-47~~ sets out the differences in the average daily HGV, workforce and total vehicle[xvi] movements, between Scenario 1 and Scenario 3.

Table 8-58~~47~~ Scenario 1 and 3 average daily traffic generation (two way movements) comparison

Route Section	Total vehicles			HGVs			Employee vehicles (car occupancy 1.5)		
	S1	S3	Diff.	S1	S3	Diff.	S1	S3	Diff.
Section 1 (incl. Landfall HDD compound)	153	117	36	71	50	21	82	67	15
Section 2	61	47	14	22	15	7	38	33	5
Section 3	134	98	36	62	43	19	72	56	16
Section 4a	57	43	14	21	14	7	36	28	8
Section 4b	112	83	29	50	35	15	61	48	13
Section 5	88	66	22	38	26	12	49	40	9
Section 6/7	107	91	16	50	41	9	57	50	7
OnSS and unlicensed works	166	166	0	58	58	0	108	108	0
400kV works	23	18	5	9	5	4	14	13	1
Beach access to support landfall works	12	12	0	5	5	0	9	9	0
Total	**913**	**741**	**172**	**386**	**292**	**94**	**526**	**452**	**74**

8.12.62 Table 8-57~~Table 8-46~~ shows there would be approximately 13% fewer vehicles on the highway network per day at the peak of construction for VE and NF OWF under Scenario 3, compared to Scenario 1.

8.12.63 Table 8-58~~Table 8-47~~ shows there would be approximately 19% fewer vehicles on the highway network per day as an average across the construction programmes for VE and NF OWF under Scenario 3, compared to Scenario 1.

[xvi] Peak month calculated from the sum of HGV and workforce vehicle movements and therefore the numbers for HGVs and workforce vehicle movements in Table 8-46 will not equal the total numbers shown with the exception of the OnSS.

8.12.64 Given the above, whilst construction vehicles associated with VE and NF OWF would be on the highway network for a longer period overall, the level of effect at any point in time would be reduced and since no significant effects have been identified under Scenario 1, with the implementation of measures within the final CTMPs and WTPs, there would be no significant effects for the construction of VE and NF OWF under Scenario 3.

8.12.65 In terms of the potential for a greater length of time with construction traffic on the highway network for VE and NF OWF, the following should be noted:

- The period between the construction of the two projects in Scenario 3 would be greater than three years, which is a significant period of time between the potential traffic and transport effects of each project;
- Given differences in the HGV routes for the two projects, the potential traffic and transport effects experienced in the settlements of Weeley Heath, Little Clacton and part of Weeley would only be for of the construction of VE the potential traffic and transport effects experienced through the centre of Thorpe-le-Soken would only be for the construction of NF OWF; and
- The proposed improvement works undertaken at the A120/ Bentley Road junction and along Bentley Road would already be in place when the second project is constructed and therefore there would be no additional temporary disruption associated with this.

VE, NF OWF AND NORWICH TO TILBURY EACN SUBSTATION

8.12.66 In Scenario 3, whilst there would be no overlap between the construction of VE and NF OWF, the construction of the Norwich to Tilbury EACN Substation (anticipated construction programme of four years) could overlap with either, or potentially both, marginally, at the end of the first project's (VE or NF OWF) construction programme and at the start of the second.

8.12.67 Given the potential overlaps in Scenario 3, the level of cumulative traffic and transport effects at one point in time would be less than the potential cumulative traffic and transport effects in Scenario 1, given Norwich to Tilbury EACN Substation could only overlap with VE or NF OWF at different times.

8.12.68 The most sensitive link to changes in traffic associated with the construction of VE, NF OWF and the Norwich to Tilbury EACN Substation for a longer period would be Bentley Road.

8.12.69 It is acknowledged that, given the current vehicle movements on Bentley Road (particularly the very low number of HGVs), the changes in traffic movements will be discernible for the residents of the properties along this section of Bentley Road. However, with the proposed highway improvement works and segregated non-motorised user path in place, the proposed temporary speed limit reduction to 40mph and the implementation of traffic management and vehicle number reduction measures through a final CTMP and WTP, the potential longer term temporary traffic and transport effects would be minimised as far as practicable.

8.12.70 Taking the above into consideration, it is concluded there would be no significant effects for the construction of VE, NF OWF and Norwich to Tilbury EACN Substation under Scenario 3 on Bentley Road.

6. APPENDIX 4: CAH2, ACTION POINT 1 – PLAN OF WATER MAIN

6.1.1 Plan showing the location of the water main in the vicinity of the ponds in the vicinity of Land Plot 07-011 in [REP1-005].

618000 618500 619000 619500

223500 223000 222500

N

GOLDEN LANE

Lowaby

WALTON ROAD

WALTON ROAD

EOX-44

EOX-42

RX-07

EOX-108

EOX-108B

RX-07A

EOX-41

PAT-20

EOX-41B

EOX-40

EOX-39

EOX-39A

EOX-39C

EOX-39B

EOX-37

WX-09A

EOX-36

EOX-35

WX-09

Path (um)

Track

NEW TOWN ROAD

ARGYLE ROAD

NEW TOWN AVENUE

SPENCER ROAD

FARMERS ROAD

THE SPINNEYS

CHAUCER DRIVE

CROSSWAY

HENDERSON ROAD

RONSON DRIVE

ABBEY CRESCENT

ABBEY CRESCENT

Path (um)

Track

618000 618500 619000 619500

LEGEND

- Order Limits
- Onshore Export Cable Corridor

Obstacle Crossing Register - Five Estuaries Circuits (Excluding Utilities Crossings)

- Committed Trenchless
- Haul Road Obstacles
- Trenched, Trenchless or Other (To be Determined at a Later Date)

Obstacle Crossing Register - North Falls Ducts (Excluding Utilities Crossings)

- Committed Trenchless
- Haul Road Obstacles
- Trenched, Trenchless or Other (To be Determined at a Later Date)
- Trenchless Crossing Indicative Alignment
- Trenchless Crossing Indicative Alignment - Non Comitted
- Access and Crossing Zone
- Off Route Haul Road
- Affinity Water Utilities Data

Utilities Search Results (extent of utilities shown is limited to the search area defined)

- High Voltage Electric Overhead Cable

UKPN Overhead Lines

- 11kV

PROJECT TITLE:

FIVE ESTUARIES OFFSHORE WINDFARM

DRAWING TITLE: **Action point No1 From CAH2 [EV6-016] Utilities in the vicinity of the ponds in proximity to Land Plot 07-011 in [REP1-005]**

VER	DATE	REMARKS	Drawn	Checked
1	08/11/2024	For Information	JB	AM

SCALE:	PLOT SIZE:	DATUM:	PROJECTION:
1:5,000	A3	OSGB 1936	British National Grid

FIVE ESTUARIES
OFFSHORE WIND FARM

7. APPENDIX 5: ISH3, ACTION POINT 11 - NATIONAL GRID ENGINEERING SPECIFICATION EE SPEC: 20/4

The Electrical Standards for SHE Transmission's area are non-maintained versions of National Grid Technical Specifications that are applicable to the SHE Transmission System only. These specific versions are not subject to National Grid change control and all queries about their applicability and content should be directed to SHE Transmission in the first instance. (Should Users require the change controlled versions of the GB Transmission System National Grid Technical Specifications please see the National Grid Extranet or Livelink system where applicable).

National Grid
Technical
Specification

NGTS 2.1
Issue 2
May 1995

Substations

CONTENTS Page

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SUBSTATIONS

FOREWORD

This Document defines the technical requirements for substations connected to The National Grid Company plc (NGC) system and with equipment rated at 145, 300 or 420 kV. It is supported by the more specific NGTS documents at Level 3.

This Specification is applicable to new construction and extensions to existing installations. It should however be noted that where a 'Central Electricity Generating Board (CEGB) Standard' substation is to be extended the Contract may refer to obsolete Transmission Plant Specifications.

1 SCOPE

This functional Specification covers all types of substation with equipment installed for use on 132, 275 and 400 kV 50 Hz systems. It is applicable to both open-terminal air-insulated (AIS) and metal-enclosed gas-insulated (GIS) substation constructions and covers equipment operated at lower voltages on the same substation site.

All NGC plant and apparatus wholly within the substation and not covered more specifically by other NGTS's is within the scope of this document.

2 REFERENCES

The Health and Safety at Work Act 1974.

The Factories Act 1961.

The Electricity at Work Regulations 1989.

IEC 694 (BS 6581) Common Clauses for High-Voltage Switchgear and Controlgear Standards.

IEC 865 Calculation of the Effects of Short-Circuit Currents.

EN 50-052 High-Voltage Switchgear and Controlgear for Industrial Use. Cast Aluminium Alloy Enclosures for Gas-Filled High-Voltage Switchgear and Controlgear.

EN 50-064 Wrought Aluminium and Aluminium Alloy Enclosures for Gas-Filled High-Voltage Switchgear and Controlgear.

BS EN 50-068 Wrought Steel Enclosures for Gas-Filled High-Voltage Switchgear and Controlgear.

BS EN 50-069 Welded Composite Enclosures of Cast and Wrought Aluminium Alloys for Gas-Filled High-Voltage Switchgear and Controlgear.

BS EN 50-089 Cast Resin Partitions for Metal Enclosed Gas-Filled High-Voltage Switchgear and Controlgear.

BS EN 60-529 Classification of Degrees of Protection Provided by Enclosures.

BS EN 61011 Safety Requirements for Mains Operated Electric Fence Energizers.

BS 1710 Specification for Identification of Pipelines and Services.

BS 5395: Part 3 Code of Practice for the Design of Industrial Type Stairs, Permanent Ladders and Walkways.

BS 7354 Code of Practice for Design of High-Voltage Open-Terminal Substations.

NGTS 1 Overview, National Grid System.

NGTS 2.2 Switchgear for the National Grid System.

NGTS 2.13 Electronic Equipment.

NGTS 2.19 Ancillary Light Current Equipment .

NGTS 3.1.1 Substation Interlocking Schemes.

NGTS 3.1.2 Substation Earthing.

NGTS 3.1.3 Substation Auxiliary Supplies (Publication Mid 1995).

NGTS 3.2.2 Disconnectors and Earthing Switches.

3 GENERAL REQUIREMENTS

3.1 Requirements for all Substations

3.1.1 Statutory Requirements

In addition to the requirement specified in Clause 4.1 of NGTS 1, the manner in which plant and equipment is installed as a system shall allow that system and its components to be operated and maintained within the requirements of principally The Health and Safety at Work etc Act 1974, The Factories Act 1961, The Electricity at Work Regulations 1989, The Provision and Use of Work Equipment Regulations 1992 and The Electricity Supply Regulations 1988 as amended 1990 and 1994. Particular attention shall be paid to safe access/egress from places of work and provision of a safe place of work.

3.1.2 Design Life of Installation

Unless otherwise specified by NGC, the substation installation including busbars, connections, insulators and structures shall be designed for a life of 40 years subject to periodic preventive maintenance being carried out in accordance with manufacturers or suppliers instructions.

Where part of the installation would require replacement or mid-life refurbishment to achieve the specified design life then this shall be stated at the time of tendering. Tenderers shall declare the life cycle costs of equipment on request.

3.1.3 Outage Constraints

Unless otherwise specified or agreed by NGC the design of the substation shall permit installation, extension, operation and maintenance (preventive and corrective) with a maximum of one circuit and one busbar section out of service simultaneously. A busbar section is taken to be a part of either the main or reserve busbars. Associated busbar section and busbar coupler circuits may be considered to be part of the busbar section.

NGC shall be advised at the Tender stage of any areas in which the requirements of this clause cannot be met.

The line conductors of different outgoing circuits shall not be crossed unless otherwise agreed by NGC.

3.1.4 Switchgear Local Control

The installation of switchgear shall comply with the requirements of Clause 3.3 of NGTS 2.2.

3.1.5 Operational Access

Reasonable access shall be provided to the isolation facilities of each disconnector and earthing switch, including the locking device, where fitted. Access shall comply with Clause 3.1.1 and shall be suitable for use by an unaccompanied person.

Unless otherwise agreed with NGC the isolation facilities or locking devices shall be between 1 m and 1.8 m above the floor level or platform provided for access and shall not be further than 750 mm horizontally from the edge of a platform.

Access above ground level shall be from mobile or fixed platforms (though the latter may be accessed by ladder). Where movement of equipment within the substation would be restricted by the presence of ladders it is acceptable that these should be removable. Removable ladders and mobile platforms shall be easily handled and used on the finished substation surface by one person.

Ladders and permanent platforms shall, where applicable, comply with BS 5395: Part 3. Other Standards may be acceptable by agreement with NGC.

3.1.6 Requirements for Maintenance

The substation layout shall make allowance for preventive or corrective maintenance within the outage constraints specified in Clause 3.1.3 and using procedures compliant with Clause 3.1.1.

Access for maintenance shall be provided as follows:

(i) The substation layout and surfaces shall be adequate to allow the access and use of powered access equipment, cranes and similar equipment required for any normal maintenance operation (circuit-breaker interrupter change, disconnector contact change, insulator cleaning etc). Suitable sealed surface roads shall be provided to substation main buildings and heavy items of plant (eg transformers), other surfaces should be finished in accordance with NGTS 2.10.

(ii) Fixed platforms need not be provided for preventive or corrective maintenance requirements so long as access can be gained by the use of pre-formed scaffolding, portable ladders or, in outdoor substations, powered access equipment.

Arrangements of any fixed platforms provided shall be to the approval of NGC and shall meet the requirements of BS 5395: Part 3. Other Standards may be acceptable by agreement with NGC.

Maintenance shall be taken to include the replacement of any component or sub-component within the substation including GIS enclosures.

Suppliers shall, on request, provide a written procedure for carrying out any proposed maintenance procedure in accordance with these requirements.

3.1.7 Interlocking

Substations shall be provided with a full interlocking scheme as specified in NGTS 3.1.1.

Requirements of electronic interlocking schemes provided as part of substation control systems are specified in NGTS 3.7.11.

3.1.8 Cranes & Lifting Equipment

Fixed cranes should not be provided in indoor AIS substations except where specifically required for maintenance or repair purposes. Fixed cranes shall be provided in indoor GIS substations except where the supplier can demonstrate specifically that they are not required for dismantling or removing any part of the substation for maintenance or repair purposes.

Lifting beams or overhead cranes of adequate capacity shall be provided, where necessary, to assist in dismantling switchgear. Provision shall be made to inspect beams or cranes for insurance purposes and fit lifting tackle within the outage constraints specified in Clause 3.1.3.

3.1.9 Facilities

The following facilities shall be provided at all new 400 kV and 275 kV substations.

(i) Adequate toilet and washing facilities for NGC operation and maintenance staff.

(ii) A standby control room, this shall have provision to be equipped as a permit office and to be used for on-site drawing/record storage. At indoor GIS substations access to the control room shall not be through the switchgear hall and the room shall be designed to prevent ingress of SF_6/arc products in the event of a switchgear fault.

(iii) At sites where SF_6 gas-filled equipment is installed, a standing area and suitable water and drainage connections for a mobile changing/shower facility. Such facilities are required to comply with NGC safety codes of practice for work on SF_6-filled equipment that has been exposed to power arcing.

(iv) A small mess room with sink.

(v) An equipment store/small workshop.

(vi) Vehicle parking.

The size of the mobile changing/shower facility and workshop will be specified by NGC.

The extent to which this Clause shall apply to 132 kV and lower voltage substations and extensions to existing installations shall be specified by NGC.

3.1.10 Plant and Equipment Identification

Labels shall be provided to allow identification of all plant and equipment and associated operating facilities and points of isolation. The following are normally required:

(i) Each circuit-breaker, disconnector and earthing switch mechanism box shall carry a label giving the NGC operational reference (to be specified by NGC) of the device.

(ii) For GIS equipment each partition between gas zones shall carry labels giving the identifier of the gas zone at each side of the partition.

(iii) Each pressure gauge or pressure readout device shall carry a label identifying the parameter it is monitoring.

(iv) Each valve (including self-sealing gas filling valves) shall carry a label identifying its function.

(v) Each control handle or switch for plant operation shall carry a label identifying its function.

(vi) Each point of LV isolation associated with plant shall carry a label identifying its function.

(vii) Each cabinet, cubicle or kiosk shall carry a label identifying the equipment contained within it.

The detailed wording of labels shall be to the approval of NGC. The labels shall be sufficiently durable for the application and environment in which they are to be used. Stencilling of items which may require repainting during the life of the substation shall not be acceptable.

3.1.11 Current Transformers

Unless otherwise agreed with NGC, the accommodation of current transformers shall be as specified in Appendix A and their location shall be as specified in Appendix B.

3.1.12 Voltage Transformer Secondary Isolation

Voltage transformer secondary isolation links, or other means of positive isolation to the approval of NGC, shall be provided in a separate isolation box mounted between 1 m and 1.8 m above substation floor or access platform level. The door of the isolation box shall be padlockable by means of NGC's standard padlock type.

3.1.13 Compressed Air Storage Systems

Where required, a central compressed air storage system shall be provided, the technical requirements will be specified in the Contract.

3.1.14 Substation Auxiliary Cable Routing

Cable trenches shall be used between main substation buildings and dispersed relay rooms or, in the case of a central relay room, between the relay room and the common marshalling point for each primary circuit. Cables between dispersed relay rooms or circuit marshalling points and local plant may be buried direct where armoured cables are used; in all other circumstances cable ducts may be used. In relay rooms and control rooms cables shall be run in overhead racks and computer floors shall not be provided. The location of all buried cables and ducts shall be adequately recorded.

3.1.15 Light Current Equipment

Electronic equipment shall be located in accommodation commensurate with its environmental performance which is classified in NGTS 2.13 and NGTS 2.6 as appropriate. Where reasonably practicable, co-location of protection, control and measurement systems in a common room is preferred.

Heaters and/or dehumidifiers shall be provided in light current accommodation in order to meet the requirements of NGTS 2.13 Class C (minimum ambient temperature -10°C, relative humidity 10-100%) under all ambient conditions. Where fixed heating is provided it shall be thermostatically controlled.

Where no fixed heating is provided, provision shall be made for raising the air temperature in the vicinity of all equipment associated with any one circuit to 15°C without causing condensation on the equipment.

All panels housing secondary equipment sited in equipment rooms shall have provision to be padlocked.

3.1.16 Substation Earthing

Substation earthing systems shall be designed and installed in accordance with NGTS 3.1.2.

3.1.17 Substation Auxiliary Supplies

Substation auxiliary supplies shall be designed and installed in accordance with NGTS 3.1.3.

3.1.18 Environmental

The guidelines for substation siting and design given in Appendix C shall be followed, with particular attention paid to Clause C2.2 and Sections C3 and C4.

3.1.19 NGC will specify requirements for site security provisions and equipment on a site by site basis. The use of electric pulse security fences to BS EN 61011 is the preferred option for sites requiring high security. Perimeter fences meeting statutory 2.4 m height requirements, incorporating electric pulse security systems on lower security sites, will be considered if it can be demonstrated that there is a cost benefit over the use of NGC standard fencing over the life of the substation.

3.2 Requirements for AIS Substations

The layout of AIS shall be arranged to ensure the integrity of the air space between live parts and other conductors (whether earthed or at different potential) for the rated voltage conditions for which the

substation is designed. Safety to persons shall be maintained by the provision of adequate clearance to live parts for maintenance, vehicular and pedestrian access. Where adequate safety clearances cannot be maintained, barriers or fences shall be provided to limit access, these barriers or fences shall be to the approval of NGC. The need to extend substations with the minimum of disruption to normal operation shall be considered in the design and layout of the equipment. The extent of possible future extension will be defined in the Contract.

3.2.1 Electrical Clearances

Where equipment configurations have not been subject to type or routine tests in accordance with IEC 694 the electrical clearances listed in Table 1 shall be applied.

Table 1 Substation Electrical Clearances

Nominal System Voltage	BIL/SIL	Basic Electrical Clearance (phase to earth)	Phase-to-Phase Clearance
kV (rms)	kV (p)	m (Notes 2,3)	m
11	(Note 1)	0.5	0.25
22	(Note 1)	0.5	0.33
33	170	0.5	0.43
66	325	0.7	0.78
132	550/650	1.1	1.4
275	1050/850	2.1	2.4
400	1425/1050	2.8	3.6

Note 1 To be specified by NGC in the Contract.

Note 2 Minimum clearance of 500 mm specified to cover vermin and bird interference.

Note 3 Under some circumstances temporary infringement of phase to earth clearances during earth switch operation may be permitted. Refer to NGTS 3.2.2.

It should be noted that Table 1 lists MINIMUM clearances and an appropriate additional allowance shall be made by the Supplier for constructional tolerances, effects of short-circuit, wind effects etc.

3.2.2 Safety Clearances/Distances

The safety clearances to be maintained in all AIS installations are listed in Table 2.

Table 2 Substation Safety Clearances/Distances

Nominal System Voltage	Safety Distance (From NGC Safety Rules)	Design Clearance for Safety (vertical)	Design Clearance for Safety (horizontal)	Insulation Height (pedestrian access)
kV	m (Note 1)	m (Note 2)	m (Note 3)	m (Note 4)
11/22/33	0.8	3.2	2.3	2.4

Nominal System Voltage	Safety Distance (From NGC Safety Rules)	Design Clearance for Safety (vertical)	Design Clearance for Safety (horizontal)	Insulation Height (pedestrian access)
66	1.0	3.4	2.5	2.4
132	1.4	3.8	2.9	2.4
275	2.4	4.8	3.9	2.4
400	3.1	5.5	4.6	2.4

It should be noted that Table 2 lists MINIMUM clearances and an appropriate additional allowance shall be made by the Supplier for constructional tolerances.

Note 1 Persons shall not allow any part of their body or any object to infringe this distance to exposed conductors operated at high voltage.

Note 2 The minimum clearance from a live conductor to a point to which pedestrian access is permitted.

These figures are derived by adding the 'personal reach' (the vertical reach of a person with upstretched hand), which is taken to be 2.4 m, to the appropriate Safety Clearance.

These figures should be taken as the 'section clearance' when this dimension is considered in the substation design.

Note 3 These figures may be used by agreement with NGC. In general the vertical design clearance should be applied in all directions.

Note 4 The minimum clearance from the lowest insulation part of a support insulator to a point to which pedestrian access is permitted.

3.2.3 Clearance to Roadways

The clearances to roadways to which vehicular access is required shall, unless otherwise agreed by NGC, allow unrestricted movement of a 2.4 m high vehicle. To comply with NGC safety codes of practice and obviate the need to use temporary earthing the clearances from live conductors to a 2.4 m high vehicle spanning the full width of the roadway shall be as listed in Table 2, Design Clearance for Safety (vertical).

Height barriers shall be provided at entrances to the substation and/or within the substation to restrict access for vehicles exceeding the maximum height for which unrestricted access is allowable. These barriers shall be designed to be opened and shall have a facility to apply a padlock to secure them in the closed position.

3.2.4 Substation Profile

To limit the environmental impact of the substation the height of the highest component of outdoor substations should be kept to a practical minimum to achieve a low substation profile. Unless otherwise agreed by NGC, on new sites maximum heights of equipment shall not exceed the values listed in Table 3. At existing sites the height of existing equipment shall not be exceeded.

Table 3 Maximum Equipment Heights in Substations

Nominal System Voltage	Maximum Equipment Height
kV	m
132	7.5
275	10
400	12.5

3.2.5 Substation Area

Unless otherwise specified, the substation shall be designed to minimise the land area required.

3.2.6 Earthing Devices

The required locations of earthing devices will be specified by NGC.

Earthing switches in accordance with NGTS 2.2 shall be provided at circuit entries ('line' earth switches) and at one position on each section of busbar.

At remaining locations, other types of interlocked earthing device which meet the specified rating may be used (for example, Fixed Earthing Devices in accordance with NGC Transmission Plant Specification (Application) TPS 3/4).

3.2.7 Portable Earthing

Provision shall be made to employ NGC's standard portable earthing equipment. This equipment is designed for use with tubular conductors with diameters in the range 10-90 mm, or with diameters of 127 mm, 140 mm or 190/200 mm. Further details are available, on request, from NGC. Where flexible conductors are used as substation conductors or where tube sizes are incompatible with the earthing equipment then earthing stubs shall be provided. The number and location of earthing stubs shall be to the approval of NGC.

Points for attachment of the earth end of portable earthing leads shall be provided at each switchgear structure. This may be by 'D' loops or by other means approved by NGC. Each attachment point shall be connected to the substation earthing mat by a fully rated conductor/conductors. Allowance shall be made for the attachment of sufficient leads at each point to match the switchgear rating.

3.2.8 Relay Rooms

Central or dispersed relay rooms may be provided to meet the protection performance requirements stated in NGTS 2.6. If a central relay room is to be supplied at 400 kV double busbar substations, the supplier shall demonstrate to NGC that the protection performance requirements can be achieved. Dispersed relay rooms shall be transportable with facilities for ease of site connection, eg heavy duty plug and socket connectors and the protection and control equipment shall be pre-wired, factory assembled and factory tested.

3.3 Requirements for GIS Substations

The following requirements apply to phase-segregated GIS designs with a rated voltage of 300 or 420 kV. They shall also apply, where appropriate, to lower voltage designs, however in this case the extent of compliance required shall be subject to agreement with NGC.

3.3.1 Buildings

GIS installations comprising two or more circuit breakers shall be housed in a building so as to minimise erection and life cycle maintenance costs. The building shall be of minimum cost construction consistent with environmental and planning requirements.

3.3.2 AIS Connections

Where AIS connections are associated with a GIS substation then the requirements listed under 3.2 shall apply to those connections.

3.3.3 Segregation of Gas Zones

The equipment shall be segregated into sufficient independent gas zones to allow the requirements of Clause 3.1.6 to be met. Unless otherwise agreed with NGC, circuit-breakers shall be accommodated in separate gas zones from other equipment.

3.3.4 Gas Zone Barriers

Gas zone barriers (partitions) shall be designed to withstand the differential pressures to which they may be subjected during preventive or corrective maintenance. A reduction of the dielectric properties of adjacent gas zones containing live high-voltage conductors by lowering gas pressures will not be acceptable.

3.3.5 Portable Maintenance Earthing Devices

Provision shall be made for fitting Portable Maintenance Earthing Devices (PMED's) where these are required to permit maintenance/testing. The principal applications of PMED's are to allow an earthing switch that would normally be the point of earthing, to be itself maintained and to earth cable sealing ends with the isolation link removed.

The PMED's shall be rated in accordance with the requirements of NGTS 2.2.

Proposals for the location of PMED positions shall be submitted to NGC for approval before the substation design is finalised.

Positions at which PMED's may be fitted shall be identified by painting the access covers green. The PMED's shall be identified by painting in a red/white striped pattern externally so that they can be clearly seen when in position. Other alternative means of identification may be employed to the approval of NGC.

Two three-phase sets of PMED's shall be supplied for each substation or, if the PMED's are of more than one type, two three-phase sets of each type shall be supplied.

3.3.6 Disconnector Lock-Out

If the GIS disconnectors supplied cannot be demonstrated to perform their rated duties when filled with SF_6 gas at atmospheric pressure then arrangements shall be made to prevent operation when gas density is lower than the 'low' alarm setting.

3.3.7 SF_6 Gas Service Connections

The gas service connection for each gas zone shall be readily accessible without the use of special access equipment. Proposed access arrangements shall be to the approval of NGC.

A schematic diagram shall be provided showing the gas zones within a bay and their relationship to the

primary plant of that circuit or busbar section. Where gas service connections are grouped together the diagram shall be displayed adjacent to this point, otherwise it shall be displayed at the Local Control Cabinet (LCC).

Filling points shall be fitted with self-sealing valves of a design to the approval of NGC. Gas service valves, lockable by means of NGC's standard padlock type, shall also be provided at each filling point. Alternatively, where self-sealing valves are fitted directly to the enclosures, a lockable cover to prevent unauthorised access to the valve shall be provided. This cover shall be lockable by means of NGC's standard padlock.

Provision shall be made for the use of an in-line dust filter at each filling point, either by permanently installing a filter at each point or providing a separate filter that can be fitted between the gas service hose and the self-sealing valve.

3.3.8 Pressure/Density Indication

Facilities for indicating the gas pressure or density in each gas zone shall be provided. Systems offering facilities for remote indication are preferred. Where the indication is of density this shall be displayed as an equivalent pressure at a reference temperature. The equipment shall be permanently installed and all displays shall be readable from the substation floor level or from access walkways.

3.3.9 SF_6 Gas Alarm Scheme

Each gas zone shall be fitted with a density monitor with two falling alarm settings. These shall be set to the switchgear manufacturers recommended 'falling' and 'low' alarm densities and shall be connected to the substation alarm scheme. The grouping of 'low' alarms at the normal substation control point shall be such that the section of equipment which requires isolation from the system can be readily identified.

Where leakage of gas from a high pressure gas zone to an adjacent lower pressure gas zone may result in the rupture of the pressure relief device of the lower pressure zone before a falling pressure alarm is received from the high pressure zone then the lower pressure zone shall be fitted with a high density alarm.

For indoor substations, an audible alarm scheme shall be provided in the substation building to warn operators of a major loss of SF_6 gas. This shall be connected to operate at the low pressure alarm setting of each gas zone. Controls shall be provided at the substation control point to reset and isolate the audible alarm. Visual indications shall be provided in the switchhouse, to show that the audible alarm is in service and outside the main entrances to the switchhouse, to indicate that the alarm has operated. Provision shall be made to isolate the alarm contact of each gas zone independently so that individual alarms can be disabled during maintenance, such isolation shall not prevent the receipt of a 'low' pressure alarm at the control points.

Each density monitor shall be provided with a means of checking initiation of the 'falling' and 'low' density alarms without reducing the pressure in the main compartment. The method of providing this facility shall be to the approval of NGC.

3.3.10 Bursting Discs & Explosion Vents

Bursting discs and explosion vents shall be installed so as to eject debris away from normally accessible areas. They shall be set to minimise danger to personnel.

3.3.11 Identification of Pipework

Fixed gas and hydraulic pipework shall be identified in accordance with BS 1710.

3.3.12 Identification of Gas Zone Barriers

The position of each non-breathing gas zone partition shall be clearly identified by painting the flange of the GIS enclosure where the partition is fitted in a distinctive colour.

Labels shall be fixed to the enclosure at each non-breathing gas zone partition showing the identifier of the gas zones at each side of that partition.

3.3.13 Cable Testing

Where high voltage cables are terminated directly in GIS enclosures then provision must be made for D.C. cable testing.

The point of disconnection for cable testing and the connections between it and the cable shall be demonstrated to meet the requirements of NGTS 2.2 for D.C. withstand voltage.

In all cases a fixed or temporary earthing device shall be provided for applying an earth between the point of isolation and the cable sealing end. It shall be possible to apply this earthing device using an insulated tool to the approval of NGC and leave it in place while making or breaking the point of isolation.

Where specified, provision shall be made for installing a D.C. test bushing to allow cables to be tested from the substation end. Where a test bushing is not supplied as part of the Contract then the installation shall be designed to permit the use of one of NGC's existing bushings. Details of available bushings will be supplied on request.

Suppliers shall provide details of proposed cable testing arrangements with Tenders.

3.3.14 Primary Injection Testing of CT's

Provision shall be made for carrying out primary injection tests on all current transformers without requiring internal access to any chamber.

3.3.15 Partial Discharge Measurement

Capacitive couplers for diagnostic monitoring of the GIS equipment and transient voltage measurements are required to be located in all phases at the sealing ends of each cable connected circuit, at the SF_6 side of each transformer bushing and adjacent to the SF_6/air bushings of each circuit connected to AIS equipment. In addition couplers shall be located in all phases at approximately 20 m intervals between these points such that all parts of the GIS equipment are between two couplers and no more than 20 m from either of these couplers. Proposals shall be to the approval of NGC.

To facilitate the use of couplers for in-service monitoring, coupler signal connections shall be cabled to ground level and suitable test boxes provided at locations agreed with NGC. Signal connections in the test box shall be N series 50 ohm sockets. To limit interference, cables between the couplers and test boxes shall be double screened co-axial.

3.3.16 Desiccant

All gas zones shall have desiccant material provided in each phase to assist in the absorption of water vapour and gaseous acidic products.

3.3.17 Location of Light Current Equipment

Equipment panels may be located in the switchgear building either adjacent to the switchgear, generally conforming to bay widths, or in an annexe. Such equipment, together with its accommodation, shall meet the requirements of Class IP 54 of BS EN 60 529.

3.4 Requirements for Earthing Systems and Earthing of Plant

The requirements for earthing systems and earthing of plant are defined in NGTS 3.1.2.

4 PERFORMANCE REQUIREMENTS

4.1 Requirements for all Switchgear

4.1.1 Jointing of Current Carrying Conductors

The method of jointing site-assembled current carrying conductors (except those internal to GIS equipment) shall be such as to avoid electrochemical reactions or the effects of corrosion. Such joints shall be expected to have a service life of at least 40 years. Jointing methods shall be to the approval of NGC.

4.2 Requirements for AIS

4.2.1 Mechanical Design

Equipment shall be designed to withstand the maximum force to which it may be subjected in its lifetime. In order to establish the total mechanical forces acting on equipment and supporting structures it is necessary that consideration be given to forces resulting from:

(a) Short-circuit current

(b) Wind loading

(c) Deadweight

(d) Ice covering

(e) Conductor tension

These forces shall be calculated in accordance with Section 3.2 of BS 7354:1990 and factors of safety applied in accordance with Section 3.3.

Other internationally recognised Specifications or Standards may be acceptable as an alternative to BS 7354 subject to the agreement of NGC.

Where the design of equipment imposes additional forces to those listed above, then the Supplier shall take account of these forces in his design.

4.2.2 Busbars, Connections & Connectors

These shall be rated for normal current, short time withstand current and maximum radio interference voltage in accordance with NGTS 2.2 and IEC 694.

Table 6 of IEC 865: Recommended Highest Temperatures for Mechanically Stressed Conductors during a Short Circuit

Type of conductor	Maximum recommended conductor temperature during a short circuit
Bare conductors, solid or stranded: Cu, Al or Al alloy	200°C
Bare conductors, solid or stranded: steel	300°C

Table 4 Recommended Highest Temperatures for Non-Mechanically Stressed Conductors During a Short Circuit

Type of conductor	Maximum recommended conductor temperature during a short circuit
Bare conductors, solid or stranded: Cu	405°C
Bare conductors, solid or stranded: Al or Al alloy	325°C
Bare conductors, solid or stranded: steel	300°C

The maximum conductor temperature after passage of rated short time current shall not exceed the recommended values given in table 6 of IEC 865 for mechanically stressed conductors and Table 4 above for non mechanically stressed conductors. The initial conductor temperature shall be taken to be the rated maximum ambient temperature for the equipment. Table 6 of IEC 865 is reproduced on the preceding page for clarity.

4.3 Requirements for GIS

4.3.1 Pressurised Gas-Filled Enclosures

These shall be designed and manufactured in accordance with the following CENELEC Standards:

EN 50-052
EN 50-064
BS EN 50-068
BS EN 50-069

4.3.2 Cast Resin Partitions

Cast resin partitions (barriers) shall be designed and manufactured in accordance with CENELEC Standard EN 50-089.

4.3.3 Internal Arcing

In principle, the gas zones, when at design pressure, shall show no external effect resulting from an internal arc of rated short-time current for a duration not less than the maximum main protection fault clearance time. On small gas zones, operation of the safety device may occur within main protection fault clearance time. When gas zones are subjected to an internal arc of rated short-time current for a duration not less than the back-up or breaker-fail protection fault clearance time, the resulting effect shall be restricted to operation of the safety pressure relief device(s) or the appearance of a hole, provided there is no ejection of fragmented parts.

The fault clearance times to be used in assessing this performance are as follows:

Rated Voltage (kV)	Main Protection (ms)	Back-Up or Breaker Fail Protection (ms)
420	140	300
300	160	500
145	180	1000

Compliance with this requirement shall be demonstrated by means of calculations or tests. On equipment having three phases in a common enclosure, or gas zone, allowance shall be made for the possibility of

faults evolving to include two or more phases.

4.3.4 Couplers for Partial Discharge Measurement

Partial discharge couplers (the requirement for which is specified in Clause 3.3.15) shall be sensitive to all frequencies in the range 0.1 - 1.5 GHz and shall give an output signal suitable for a spectrum analyser.

Couplers shall have a linear response in the frequency range 50 Hz - 300 MHZ and a capability to make D.C. 'trapped charge' measurements.

5 TEST REQUIREMENTS

5.1 Type Tests

5.1.1 Busbars, Connections & Connectors

Electrical type tests shall be performed in accordance with IEC 694.

Tests of mechanical performance shall be subject to agreement between the Supplier and NGC dependant on the application.

5.1.2 Pressurised Gas-Filled Enclosures

These shall be tested, where applicable, in accordance with the following CENELEC Standards:

EN 50-052
EN 50-064
BS EN 50-068
BS EN 50-069

5.1.3 Cast Resin Partitions

Cast resin partitions (barriers) shall be tested in accordance with CENELEC Standard EN 50-089.

5.2 Routine Tests at Manufacturers Works

5.2.1 Pressurised Gas-Filled Enclosures

These shall be tested in accordance with the following CENELEC Standards:

EN 50-052
EN 50-064
BS EN 50-068
BS EN 50-069

5.2.2 Cast Resin Partitions

Cast resin partitions (barriers) shall be tested in accordance with CENELEC Standard EN 50-089.

5.3 Routine Tests at Site

5.3.1 Current Carrying Conductors

Where joints between current carrying conductors are made on site then the joint electrical resistance shall be measured and recorded.

5.3.2 Partial Discharge Tests (GIS)

Partial discharge activity shall be monitored throughout the site power-frequency high voltage tests of GIS equipment.

Suppliers shall state the maximum acceptable partial discharge level during the site test at 1.1 U/√3. This measurement shall be made on reducing voltage following the power frequency withstand test. The partial discharge level at nominal voltage shall also be recorded.

APPENDIX A

CURRENT TRANSFORMER ACCOMMODATION

A1 CURRENT TRANSFORMER MOUNTING AND POLARITY MARKINGS

The following conventions shall be adopted for the physical mounting of current transformers with respect to their terminal markings:

(i) In circuit-breakers, all P1 markings shall be electrically nearer to the circuit-breaker than the corresponding P2 markings.

(ii) In transformers, reactors or generators, the P1 markings shall be electrically nearer to the windings than the corresponding P2 markings.

(iii) For separately mounted current transformers, if they are associated with the circuit-breaker, they shall be considered as though they were an integral part of the circuit-breaker. If separately mounted current transformers are not associated with the circuit-breakers, the P1 markings shall be electrically nearer to the junction of the primary connections or busbars than the corresponding P2 markings.

(iv) In the run of busbars, and not associated with a circuit-breaker, the current transformers will usually be in the same housing or chamber. In this case the P1 marking should be electrically nearer the section of busbars with the higher number. If there are two housings or chambers (per phase), the P1 markings of each shall be electrically nearer the adjacent housing or chamber.

The current transformer accommodation normally available for use is as detailed in A2 to A7 below. In each case the current transformer cores are listed in the preferred order with the housing, Core 1 being positioned nearest to the P1 terminal.

A2 POST TYPE CURRENT TRANSFORMERS AND THROUGH WALL AIR/AIR BUSHINGS

All 420, 300 and 145 kV post type measurement/protection CTs and through wall air/air bushings shall have accommodation for a minimum of four current transformer cores using one of the arrangements listed below. Accommodation for CTs for high accuracy metering purposes shall be as detailed in NGTS 3.2.6.

The following 'standard' configurations of CT cores are commonly used by NGC. Alternative configurations may be accepted or specified on a contract basis:

A2.1 Five Core Arrangement

A full complement of five secondary windings as follows:

Core 1 Protection Type A
Core 2 Protection Type A
Core 3 Measurement/Protection
Core 4 Protection Type B
Core 5 Protection Type B

This arrangement will be required where older types of high-burden protection/instrumentation are installed.

A2.2 Four Core Arrangement

A complement of four secondary windings as follows:

Core 1 Protection Type A
Core 2 Protection Type A
Core 3 Protection Type B
Core 4 Protection Type B

This is the preferred arrangement for circuit CT's in new substations with digital protection/instrumentation systems.

A3 AIS DEAD-TANK AND GIS CIRCUIT-BREAKERS

Circuit-breaker bushings, bushing turrets or CT enclosures on the line side of the circuit-breaker shall be capable of accommodating four or five secondary windings in arrangements A2.1 or A2.2, as required by the application. For busbar coupler and section applications CT accommodation shall be provided on each side of the circuit-breaker.

A4 GIS BACK PARTS

In switchgear making up a mesh, or single switch substation additional accommodation is required for four or five current transformers in each feeder circuit connection, the arrangement being as A2.1 or A2.2.

A5 TRANSFORMER AND SHUNT REACTOR BUSHING TURRETS

The accommodation available in the turrets of bushings shall allow for a maximum of four current transformer windings, excluding those which may be required for winding temperature indicators, as follows:

Core 1 Protection Type B
Core 2 Measurement/Protection
Core 3 Protection Type A
Core 4 Protection Type A

The allocation of current transformer cores to particular transformers will depend upon the protection requirements of the local primary systems to which the transformer is connected.

A6 SLIP-OVER, NEUTRAL AND OTHER SEPARATELY MOUNTED CURRENT TRANSFORMERS

Accommodation requirements for such applications are to be examined individually to establish that sufficient accommodation exists for the current transformer types required.

A7 THE NEUTRAL AND NEUTRAL END CONNECTIONS OF TRANSFORMER AND SHUNT REACTORS

For neutral current transformers associated with double-wound grid transformers and supergrid auto-transformers, and neutral end current transformers associated with supergrid auto-transformers, accommodation shall be provided as follows:

(i) Neutral current transformer housings shall provide accommodation for at least three current transformer windings as follows:

Core 1 Protection Type B
Core 2 Measurement/Protection
Core 3 Measurement/Protection

(ii) Neutral end current transformer housings shall provide accommodation for one Protection Type B current transformer winding per phase.

(iii) Combined neutral and neutral-end current transformer housings shall provide accommodation for at least two neutral current transformer windings as follows:

Core 1 Protection Type B (one current transformer per phase)
Core 2 Measurement/Protection (one only - on neutral conductor)
Core 3 Measurement/Protection (one only - on neutral conductor)

For neutral and neutral end current transformers associated with supergrid shunt reactors, accommodation shall be provided as follows:

(i) Neutral end current transformer housings shall provide accommodation for one Protection Type B current transformer per phase.

(ii) Neutral current transformer housings shall provide accommodation for one Measurement/Protection current transformer.

APPENDIX B

LOCATION OF CURRENT TRANSFORMERS ASSOCIATED WITH 420, 300 AND 145 kV CIRCUIT BREAKERS

B1 GENERAL

In all installations where current transformer housings are associated with circuit-breakers such housings shall be mounted as close as possible to the circuit-breaker concerned.

B2 BUSBAR STATIONS

B2.1 Circuits Other than Bus Section or Bus Coupler

All current transformers associated with a given circuit-breaker shall be installed on the circuit side of the circuit-breaker.

B2.2 Bus Section and Bus Coupler Circuits

Current transformers for busbar protection shall be installed on both sides of the circuit-breaker; the current transformer for a particular zone of protection being located on the side of the circuit-breaker remote from the zone.

Current transformers for commissioning overcurrent and back up earth fault protection shall be installed on the reserve busbar side of the bus coupler circuit-breaker and on the lower numbered main or reserve busbar side (as appropriate) of the bus section circuit-breaker.

Current transformers for system back-up protection shall be installed in the bushings or housings on the reserve busbar side of the bus-coupler circuit-breaker and on the lower numbered main or reserve busbar side (as appropriate) of the bus-section circuit-breaker. The current transformers shall preferably be of the Measurement/Protection type but, where there is only one set of such current transformers in the correct location, Type A current transformers shall be used instead; this will normally only apply where post-type current transformers are employed.

Current transformers for instrumentation purposes and circuit-breaker fail protection shall be installed on the main busbar side of the bus-coupler circuit-breaker and on the higher numbered main or reserve busbar side (as appropriate) of the bus-section circuit-breaker.

B3 MESH TYPE STATIONS

Current transformers for feeder protection, feeder instrumentation purposes and for system back-up protection shall be installed in the line current transformer housing.

Current transformers for bus section instrumentation purposes and circuit-breaker fail protection shall be installed in the bushings or housings on the side of the circuit-breaker which connects to the mesh corner having the corresponding number eg mesh corner four side of S40 etc.

Current transformers for mesh-corner protection shall be installed in the line current transformer housing, in the HV bushing turrets of the associated transformer(s) and on both sides of the circuit-breakers, the current transformer for a particular zone of protection being located on the side of the circuit-breaker remote from that zone.

B4 SINGLE SWITCH STATIONS

Current transformers for feeder protection and for feeder instrumentation purposes shall be installed in the line current transformer housings.

Current transformers for system back-up protection shall be installed in the line current transformer housings and in the bushings or housings on the higher numbered side of the bus section circuit-breaker; the current transformer for system back-up protection shall also be used for circuit-breaker fail protection.

Current transformers for bus section instrumentation purposes shall be installed in the bushing or housings on the lower numbered zone side of the bus section circuit-breaker.

Current transformers for mesh corner protection shall be installed in the line current transformer housings, the HV bushing turrets of the associated transformer(s) and in the bushings or housings on both sides of the bus section circuit-breaker, the current transformer for a particular zone or protection being located on the side of the circuit-breaker remote from that zone.

APPENDIX C

NGC SUBSTATIONS AND THE ENVIRONMENT: EXTRACT FROM GUIDELINES ON SITING AND DESIGN

C1 OVERALL SYSTEM OPTIONS AND SITE SELECTION

In the development of system options including new substations, consideration must be given to environmental issues from the earliest stage to balance the technical benefits and capital cost requirements for new developments against the consequential environmental effects in order to keep their adverse impact to a reasonably practicable minimum.

C2 LOCAL CONTEXT, LAND USE AND SITE PLANNING

C2.1 The siting of substations, extensions and associated proposals should take advantage of the screening provided by land form and existing features and the potential use of site layout and levels to keep intrusion into surrounding areas to a reasonably practicable minimum.

Notes:

1 A preliminary study should be undertaken to identify the extent of land required to meet both operational and environmental needs.

2 In some instances it may be possible to site a substation partially or fully enclosed by existing woodlands.

3 Topographical information should be obtained at an early stage. In some cases a geotechnical survey may be required.

C2.2 The proposals should keep the visual, noise and other environmental effects to a reasonably practicable minimum.

Notes:

1 Allow sufficient space for screening of views by mounding or planting.

2 Consider appropriate noise attention measures where necessary.

3 Use security measures which minimise visual intrusion from lighting.

4 Consider appropriate on site water pollution prevention measures.

5 Consider adjoining uses and the amenity of local inhabitants.

C2.3 The land use effects of the proposal should be considered when planning the siting of substations or extensions.

Notes:

1 Issues for consideration include potential sterilisation of nationally important land, eg Grade 1 agricultural land and sites of nationally scarce minerals.

2 Effects on land drainage.

C3 DESIGN

C3.1 In the design of new substations or line entries, early consideration should be given to the options available for terminal towers, equipment, buildings and ancillary development appropriate to individual locations, seeking to keep effects to a reasonably practicable minimum.

Notes:

1 With outdoor equipment, a preference should be given normally to a low profile design with low height structures and silhouettes appropriate to the background.

2 Use lightweight narrow section materials for taller structures especially for gantries over 6 metres in height.

3 Commission exterior design and colours appropriate to the surroundings.

4 Materials and colours for buildings, equipment and fencing should be chosen to harmonise with local surroundings.

5 Where possible, avoid the use of prominent insulators by consideration of available colours appropriate to the background.

6 Where possible site buildings to act as visual screens for switchgear.

7 Ensure that the design of high voltage and low voltage substations is coordinated by early consultation between NGC and its customers.

8 Where there are particular technical or environmental constraints, it may be appropriate to consider the use of Gas Insulated Switchgear (GIS) equipment which occupies less space and is usually enclosed within the building.

9 Early consideration should be given to the routing of utility service connections.

C3.2 Space should be used effectively to limit the area required for development consistent with appropriate mitigation measures and to minimise the adverse effects on existing land use and rights of way, whilst also having regard to the future extension of the substation.

Notes:

1 Assess the benefit of removing redundant substation equipment from existing sites where this would improve their appearance.

C3.3 The design of access roads, perimeter fencing, earthshaping, planting and ancillary development should from an integral part of the site layout and design to fit in with the surroundings.

C4 LINE ENTRIES

C4.1 In open landscape especially, high voltage line entries should be kept, as far as possible, visually separate from low voltage lines and other overhead lines so as to avoid a confusing appearance.

C4.2 The inter-relationship between towers and substation structures and background and foreground features should be studied to reduce the prominence of structures from main viewpoint. Where practicable the exposure of terminal towers on prominent ridges should be minimised by siting towers against a background of trees rather than open skylines.

RECORD OF REVISION

NGTS 2.1

This issue (Issue 2) has been revised and amended as follows:

REV	DATE	DETAILS OF REVISION	AUTHORISATION
	May 1995	Numerous Revisions (Identified in document Margin) as a result of major review	

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