

From: [Knowles, Elizabeth](#)
To: [A585 Windy Harbour to Skippool](#)
Subject: NSIP ref TR010035 - Natural England's Written Representations
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Attachments: [NE Written Representations Letter.pdf](#)
[NE Written Reps Executive Summary Letter.pdf](#)
[Annexes to accompany NE Written Reps.pdf](#)

NSIP Reference Code: TR010035

User Code: 20021773

Please find attached Natural England's full Written Representations, accompanying Annexes and an Executive Summary.

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Date: 17 May 2019
Our ref: 280870
Your ref: TR010035



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BY EMAIL ONLY

Dear Sir or Madam

NSIP Reference Code: TR010035
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Thank you for your consultation via the Rule 8 letter, on the above, dated and received by Natural England on 16 April 2019.

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

Written Representation

Summary of Natural England's advice.

There are matters that are yet to be resolved, see Part 3 for more details.

Content

- Part 1 – Introduction
- Part 2 – Conservation designations, features and interests that could be affected by the proposed project
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Annexes

- Annex A: Designated site maps
- Annex B: Designated site conservation objectives and citations
- Annex C: Glossary of Terms

PART 1 INTRODUCTION

1.1 Purpose and structure of these representations

- 1.1.1. These Written Representations are submitted in pursuance of rule 10(1) of the Infrastructure Planning (Examination Procedure) Rules 2010 ('ExPR') in relation to an application under the Planning Act 2008 for a Development Consent Order ('DCO') for A585 Windy Harbour to Skippool Improvement Scheme ('the Project') submitted by Highways England ('the Applicant') to the Secretary of State.
- 1.1.2. Natural England has already provided a summary of its principal concerns in its Relevant Representations, submitted to the Planning Inspectorate on 24 January 2019. This document comprises an updated detailed statement of Natural England's views, as they have developed in view of the common ground discussions that have taken place with the Applicant to date. These are structured as follows:
- Part 2 describes the conservation designations, features and interests that may be affected by the Project and need to be considered.
 - Part 3 comprises Natural England's submissions in respect of the issues that concern it. This submission cross-refers to, and is supported by, the evidence contained in the Annexes.
 - Part 4 is a dedicated section answering the Examining Authority's written questions which were asked on 16 April 2019, cross-referenced to the rest of this document.
 - Section 5 provides a summary of Natural England's case.
 - The Annexes contain evidence referred to in the main body of these Representations.
- 1.1.3. A number of abbreviations and acronyms will be used in these Representations. These will be introduced where they first appear in the text but for ease of reference, a glossary is provided in Annex C.

PART 2 CONSERVATION DESIGNATIONS, FEATURES AND INTERESTS THAT COULD BE AFFECTED BY THE PROPOSED PROJECT

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

2.1. International conservation designations potentially affected by the project

2.1.1. Morecambe Bay & Duddon Estuary Special Protection Area (SPA)

2.1.2. Morecambe Bay & Duddon Estuary SPA is one of the closest internationally designated sites to the project site being located approximately 0.3km to the north of the project site. The project site itself runs through land which is considered to be functionally linked to the SPA.

2.1.3. Functionally linked land is supporting habitat may be used by SPA populations or some individuals of the population for some or all of the time. These supporting habitats can play an essential role in maintaining SPA species populations, and proposals affecting them may therefore have the potential to affect the European site.

2.1.4. The SPA covers an area of 66,899 hectares and supports 1% or more of the GB populations of the following species;

- Whooper swan, *Cygnus cygnus* (non-breeding)
- Little egret, *Egretta garzetta* (non-breeding)
- European golden plover, *Pluvialis apricaria* (non-breeding)
- Bar-tailed godwit, *Limosa lapponica* (non-breeding)
- Ruff, *Calidris pugnax* (non-breeding)
- Mediterranean gull, *Larus melancephalus* (non-breeding)
- Pink-footed goose, *Anser brachyrhynchus* (non-breeding)
- Common shelduck, *Tadorna tadorna*, (non-breeding)
- Northern Pintail, *Anas acuta* (non-breeding)
- Eurasian oystercatcher, *Haematopus ostralegus* (non-breeding)
- Grey plover, *Pluvialis squatarola* (non-breeding)
- Common ringed plover, *Charadrius hiaticula* (non-breeding)
- Eurasian curlew, *Numenius arquata* (non-breeding)
- Black-tailed godwit, *Limosa limosa* (non-breeding)
- Ruddy turnstone, *Arenaria interpres* (non-breeding)
- Red knot, *Calidris canutus* (non-breeding)
- Sanderling, *Calidris alba* (non-breeding)
- Dunlin, *Calidris alpina alpina* (non-breeding)
- Common redshank, *Tringa tetanus* (non-breeding)
- Lesser black-backed gull, *Larus fuscus* (breeding and non-breeding)
- European herring gull, *Larus argentatus argenteus* (breeding)
- Little tern, *Sternula albifrons* (breeding)
- Sandwich tern, *Sterna sandvicensis* (breeding)
- Common tern, *Sterna hirundo* (breeding)

2.1.5. The protected site also regularly supports a breeding seabird assemblage of over 20,000 individuals including the qualifying breeding features and a waterbird assemblage of over 20,000 including all non-breeding qualifying features as well as 19 other species.

2.1.6. Morecambe Bay Ramsar site

2.1.7. The Ramsar site covers 37,405 hectares and similar to Morecambe Bay and Duddon Estuary SPA, is approximately 0.3km away from the project site. It is designated under;

- Ramsar criterion 4 – migratory wildfowl including internationally important passage numbers of common ringed plover, *Charadrius hiaticula*.
- Ramsar criterion 5 – internationally important wildfowl assemblage (greater than 20,000 birds).
- Ramsar criterion 6 – over winter the site regularly supports internationally important populations of;
 - Bar-tailed godwit, *Limosa lapponica*
 - Curlew, *Numenius arquata*,
 - Dunlin, *Calidris alpina alpina*,
 - Grey plover, *Pluvialis squatarola*,
 - Knot, *Calidris canutus*,
 - Oystercatcher, *Haematopus ostralegus*,
 - Pink-footed goose *Anser brachyrhynchus*,
 - Pintail, *Anas acuta*,
 - Redshank, *Tringa totanus*,
 - Shelduck, *Tadorna tadorna*,
 - Turnstone, *Arenaria interpres*.

2.1.8. Morecambe Bay Special Area of Conservation (SAC)

2.1.9. This SAC covers an area of 61,538 hectares and is designated for:

- Atlantic decalcified fixed dunes (*Calluno-Ulicetea*),
- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*),
- Coastal lagoons,
- Dunes with *Salix repens* Ssp. *argentea* (*Salicion arenariae*),
- Embryonic shifting dunes,
- Estuaries,
- Fixed dunes with herbaceous vegetation (“Grey dunes”),
- Great crested newt (*Triturus cristatus*),
- Humid dune slacks,
- Large shallow inlets and bays,
- Mudflats and sandflats not covered by seawater at low tide,
- Perennial vegetation of stony banks,
- Reefs,
- 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”).

2.1.10. Ribble and Alt Estuaries SPA

2.1.11. This SPA covers an area of 12,412 hectares. The site supports 1% or more of the GB populations of the following species;

- Ruff, *Philomachus pugnax* (breeding)

- Common tern, *Sterna hirundo* (breeding)
- Bewick's swan, *Cygnus columbianus bewickii* (wintering)
- Whooper swan, *Cygnus Cygnus* (wintering)
- Golden plover, *Pluvialis apricaria* (wintering)
- Bar-tailed godwit, *Limosa lapponica* (wintering)
- Lesser black-backed gull, *Larus fuscus graellsii* (breeding)
- Ringed plover, *Charadrius hiaticula* (passage)
- Sanderling, *Calidris alba* (passage)
- Redshank, *Tringa totanus* (passage)
- Pink-footed goose, *Anser brachyrhynchus* (wintering)
- Shelduck, *Tadorna tadorna* (wintering)
- Wigeon, *Anas Penelope* (wintering)
- Teal, *Anas crecca* (wintering)
- Pintail, *Anas acuta* (wintering)
- Oystercatcher, *Haematopus ostralegus* (wintering)
- Grey plover, *Pluvialis squatarola* (wintering)
- Knot, *Calidris canutus islandica* (wintering)
- Sanderling, *Calidris alba* (wintering)
- Dunlin, *Calidris alpina alpina* (wintering)
- Black-tailed godwit, *Limosa limosa islandica* (wintering)
- Redshank, *Tringa tetanus* (wintering)

2.1.12. The protected site also designated for its non-breeding waterbird assemblage, being regularly used by over 20,000 waterbirds.

2.1.13. Ribble and Alt Estuaries Ramsar site

2.1.14. The Ramsar site covers 37,405 hectares and is designated under;

- Ramsar criterion 2 – the site supports up to 40% of the GB population of natterjack toads, *Bufo calamita*. As well as plant species: *Petalophyllum ralfsii*.
- Ramsar criterion 4 – internationally important wetland (Secretariat comments that the full criterion is to be included in the next update)
- Ramsar criterion 5 – internationally importance wildfowl assemblage.
- Ramsar criterion 6 – internationally important population during breeding season and peak counts in spring/autumn:
 - Black-tailed godwit , *Limosa limosa islandica*,
 - Common redshank , *Tringa totanus totanus*,
 - Dunlin , *Calidris alpina alpina*,
 - Grey plover , *Pluvialis squatarola*,
 - Red knot , *Calidris canutus islandica*,
 - Ringed plover , *Charadrius hiaticula*,
 - Sanderling, *Calidris alba*.
 And species with peak counts in winter:
 - Bar-tailed godwit , *Limosa lapponica lapponica*,
 - Eurasian oystercatcher , *Haematopus ostralegus ostralegus*,
 - Eurasian teal , *Anas crecca*,
 - Eurasian wigeon , *Anas penelope*,
 - Northern pintail , *Anas acuta*,
 - Pink-footed goose , *Anser brachyrhynchus*,
 - Tundra swan , *Cygnus columbianus bewickii*,

- Whooper swan, *Cygnus Cygnus*.

2.1.15. Liverpool Bay SPA

2.1.16. This SPA covers an area of 252,758 hectares. The site supports 1% or more of the GB populations of the following species;

- Red-throated diver, *Gavia stellata* (non-breeding),
- Common scoter, *Melanitta nigra* (non-breeding),
- Little gull, *Hydrocoloeus minutus* (non-breeding),
- Common tern, *Sterna hirundo* (breeding),
- Little tern, *Sterna albifrons* (breeding).

2.1.17. In the non-breeding season, the SPA regularly supports a waterfowl assemblage of over 69,000 waterbirds. The assemblage includes the non-breeding qualifying features listed above as well as two additional species present in numbers exceeding 1% of the GB total; red-breasted merganser *Mergus serrator* and great cormorant *Phalacrocorax carbo*.

2.1.18. Shell Flat and Lune Deep SAC

2.1.19. This covers an area of 10,567 hectares and is designated for:

- Reefs,
- Sandbanks which are slightly covered by sea water all the time.

2.2. **International conservation designations where there is no likely significant effect.**

2.2.1. Natural England agrees with the conclusions of the Habitats Regulations Assessment (Volume 5, May 2019, Rev 2) submitted at Deadline 2, that the project would not have a likely significant effect on the following European sites:

- Morecambe Bay SAC,
- Ribble and Alt Estuaries SPA,
- Ribble and Alt Estuaries Ramsar site,
- Liverpool Bay SPA,
- Shell Flat & Lune Deep SAC.

2.3. **International conservation designations where there may be an adverse effect on integrity.**

2.3.1. Whilst we agree with the HRA conclusion of no adverse effect on integrity with mitigation in place, we have yet to see and agree with the final version of the bird mitigation strategy which forms a key part of the mitigation for SPA and Ramsar species.

2.3.2. Therefore, Natural England is not yet satisfied that it can be excluded beyond reasonable scientific doubt that the project would not have an adverse effect on the integrity of Morecambe Bay & Duddon Estuary SPA and Morecambe Bay Ramsar site.

2.4. **National conservation designations**

2.4.1. Wyre Estuary Site of Special Scientific Interest (SSSI)

2.4.2. The Wyre Estuary is an integral part of Morecambe Bay, covering similar areas as Morecambe Bay and Duddon Estuary SPA and Morecambe Bay Ramsar, is located only 0.3km away from the project site and covering 1,482 hectares.

2.4.3. The notified features are:

- Aggregations of non-breeding birds:
 - Black-tailed godwit, *Limosa limosa islandica*
 - Teal, *Anas crecca*
 - Turnstone, *Arenaria interpres*
- S21 - Scirpus maritimus swamp
- S28 - Phalaris arundinacea tall-herb fen
- S4 - Phragmites australis swamp and reed-beds
- SD2 - Honkenya peploides - Cakile maritima strandline community
- SD6 - Ammophila arenaria mobile dune community
- SM10 - Transitional low marsh vegetation with Puccinellia maritima, annual Salicornia species and Suaeda maritima
- SM12 - Rayed Aster tripolium on saltmarsh
- SM13a - Puccinellia maritima saltmarsh, Puccinellia maritima dominant sub-community
- SM13b - Puccinellia maritima saltmarsh, Glaux maritima sub-community
- SM13c - Puccinellia maritima saltmarsh, Limonium vulgare - Armeria maritima sub-community
- SM13f - Puccinellia maritima - Spartina maritima sub-community
- SM14 - Atriplex portulacoides saltmarsh
- SM15 - Juncus maritimus - Triglochin maritima saltmarsh
- SM16a - Festuca rubra saltmarsh Puccinellia maritima sub-community
- SM16b - Festuca rubra saltmarsh Juncus gerardii sub-community
- SM16c - Festuca rubra saltmarsh Festuca rubra - Glaux maritima sub-community
- SM16d - Festuca rubra saltmarsh tall Festuca rubra sub-community
- SM18 - Juncus maritimus saltmarsh
- SM24 - Elytrigia atherica saltmarsh
- SM28 - Elytrigia repens saltmarsh
- SM6 - Spartina anglica saltmarsh
- SM8 - Annual Salicornia saltmarsh
- SM9 - Suaeda maritima saltmarsh
- W23 - Ulex europaeus - Rubus fruticosus scrub

2.4.4. Wyre-Lune proposed Marine Conservation Zone (pMCZ)

2.4.5. This is a proposed MCZ which comprises an inshore site that covers an area of approximately 9,200 hectares and supports potential smelt (*Osmerus eperlanus*) spawning habitat.

2.4.6. In June 2018, Defra launched a consultation for the third tranche of MCZs. This tranche is an ambitious and comprehensive set of sites which will substantially complete our contribution to the international ecologically coherent network of MPAs.

2.4.7. Site designations will be announced and in place by 7 June 2019. At this time a full Government response to the consultation will also be published, outlining the evidence

received and explaining the decisions taken on each site. Therefore the factsheet included in the annex is the most up-to date document available regarding the pMCZ at this time.

2.5. **National conservation designations where there are no impacts.**

2.5.1. Natural England is satisfied that the project is not likely to damage features of interest of Wyre Estuary SSSI and Wyre-Lune pMCZ.

2.6. **European Protected Species**

2.7. Under Schedule 2 of The Conservation of Species and Habitats Regulations 2010, following European protected species may be affected by the project:

- Bats (various species) (are present on the project site),
- Great-crested newts (are present on the project site).

2.7.2. Natural England is not yet satisfied that there will be no impacts on bats or great crested newts as a result of the project.

2.7.3. As stated in our relevant representations, paragraph 4.2.2, Natural England is satisfied that the project will not harm otters.

2.8. **Nationally Protected Species**

2.8.1. Under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), and as stated in our relevant representations, paragraph 4.2.2, Natural England is satisfied that the project will not harm the following species:

- Water vole,
- Reptiles,
- Other amphibians (not great crested newts),
- Terrestrial invertebrates,
- Badger,
- Hedgehog,
- Brown hare.

2.9. **Landscape designations**

2.9.1. There are no nationally designated landscapes that will be impacted upon by this project.

2.10. **Non-designated interests and features of concern**

2.10.1. The following areas of non-statutory wildlife sites may be affected by the project but which have not been assessed by Natural England against the project:

- Skippool Marsh and Thornton Bank Biological Heritage Site (BHS),
- Shard Bridge Field Ditch BHS,
- River Wyre – Upper Tidal Section BHS.

2.10.2. UK priority habitats that may be affected by the project but which have not been assessed by Natural England against the project:

- Coastal saltmarsh and mudflats,
- Coastal and floodplain grazing marsh,
- Rivers – Skippool Creek, Main Dyke and other watercourses,
- Deciduous woodland.

PART 3 NATURAL ENGLAND'S CONCERNS AND ADVICE

3. Natural England identified the following main issues in our relevant representations

- General HRA minor amendments,
- Water quality and run off,
- Night time construction working,
- Noise disturbance,
- Vibration,
- Waterbird assemblage,
- Wyre-Lune pMCZ,
- Bird Mitigation Strategy,
- Soils, including Best and Most Versatile (BMV) land,
- Protected species – Great crested newts,
- Protected species – Bats.

3.1.1. Since our previous relevant representation response, we have continued to engage with Highways England and their consultants and have seen amended versions of the following documents which we understand will be submitted at Deadline 2:

- Habitats Regulations Assessment (HRA) (Volume 5, May 2019, Rev 2)
- Draft Pollution Control Plan (Volume 7, May 2019, Rev 1)
- Record of Environmental Actions and Commitments (Volume 7, May 2019, Rev 1)

3.1.2. These amended documents have alleviated most of our concerns previously raised in our relevant representations – further details below.

3.2. The principal issues which have now been resolved

3.3. General HRA minor amendments

3.3.1. In our relevant representation, we advised on minor amendments which needed to be made to the HRA to add, amend or clarify parts of the assessment which were unacceptable.

3.3.2. All additions, amendments and clarifications suggested have now been made to the amended HRA to Natural England's satisfaction.

3.4. Water Quality and Run Off

3.4.1. We advised previously (in our relevant representations, paragraph 5.2.1) that we agreed with the conclusion of the appropriate assessment - that mitigation measures are required for water run-off however, there were no details submitted of the proposed mitigation.

3.4.2. Highways England amended the Habitats Regulations Assessment (HRA) (Volume 5, May 2019, Rev 2), to include further details about what mitigation is being proposed to address any water quality issues which may arise.

3.4.3. A Draft Pollution Control Plan (Volume 7, May 2019, Rev 1) has also been submitted which includes all the proposed mitigation measures.

3.4.4. Natural England therefore agrees with the conclusion of the HRA that with mitigation in place, there will be no adverse effects on the integrity of European sites due to a change in water quality as a result of construction works and run off.

3.5. Night Time Construction Working

- 3.5.1. Natural England required more information and clarity on the proposed night time construction working arrangements to ensure that it will not have any negative impact on the proposed bird mitigation area.
- 3.5.2. Additional text clarifying the proposed arrangements, in both the HRA and the REAC have addressed our concerns.
- 3.5.3. We are therefore satisfied that the proposed night time construction working will have no adverse effects on the integrity of European sites.

3.6. Noise Disturbance

- 3.6.1. In our relevant representations (section 5.4) we noted that the HRA acknowledges that there is potential for noise impacts throughout the construction period but gives no information or summary of where the greatest risk may occur, and we considered that this part of the HRA needed to be re-assessed.
- 3.6.2. Highways England have revisited the HRA and have included additional reasoning around noise disturbance and the requirement for the proposed bird mitigation area (see Habitats Regulations Assessment (HRA) (Volume 5, May 2019, Rev 2)).
- 3.6.3. Natural England therefore agrees with the conclusion of the HRA, that in considering the 'worst case scenario', mitigation is required and with the bird mitigation area in place, there will be no adverse effects on the integrity of European sites due to a noise disturbance during construction.
- 3.6.4. However we have yet to see a final version of this strategy and therefore cannot yet be fully satisfied that the mitigation is appropriate. See paragraphs 3.12 onwards regarding the bird mitigation strategy.

3.7. Vibration

- 3.7.1. We stated in our relevant representations that impacts from vibration need to form part of the HRA.
- 3.7.2. An assessment has now been made and included within paragraphs 7.4.38-7.4.42 of the HRA (Volume 5, May 2019, Rev 2) and Natural England are satisfied with the assessment made and agree with the conclusion that, with the bird mitigation area in place, there will be no adverse effect on the integrity of European sites.

3.8. Waterbird Assemblage

- 3.8.1. We previously advised that full consideration had not been given of the impacts of the project on the waterbird assemblage associated with the European designated sites.
- 3.8.2. Highways England have amended their HRA (Volume 5, May 2019, Rev 2), to include reference to the waterbird assemblages and therefore Natural England is satisfied that full consideration has been given to the waterbird assemblages.

3.9. Impacts on Wyre-Lune pMCZ

- 3.9.1. We previously noted the inclusion of paragraph 8.5.7 in the Environmental Statement (Chapter 8 Biodiversity) identifying the Wyre-Lune recommended Marine Conservation Zone (rMCZ) as being partially within the draft order limits however, the MCZ is now a proposed MCZ (pMCZ) since 8 June 2018 and therefore must now be treated as a material consideration for all proposals.
- 3.9.2. Therefore, the Environmental Statement should now be updated to reflect the current position of the pMCZ
- 3.9.3. We also previously advised that, in accordance with Section 126 of the Marine and Coastal Access Act (MCAA) (2009), an MCZ assessment should also be completed to fully assess the impact of the project on the pMCZ and to allow the DCO to grant a Deemed Marine Licence.
- 3.9.4. The Environmental Statement Chapter 8 Biodiversity should also be updated with the conclusions from the MCZ assessment.
- 3.9.5. We have spoken with the Marine Management Organisation (MMO) and understand that a Marine Conservation Zone Screening assessment has now been submitted to them for comment. We also understand that the MMO have agreed with the conclusions of the MCZ assessment in principle.
- 3.9.6. The MMO sent us a copy of the Marine Conservation Zone Screening assessment (ref. HE548643-ARC-EGN-A585-RP-LE-4010, version V1.0, April 2019), and having read this, Natural England agrees with the conclusions of the assessment that with appropriate mitigation as identified in the assessment, there will be no significant adverse effects on smelt.

3.10. **Soils, including Best and Most Versatile (BMV) Land**

- 3.10.1. In our relevant representations, we stated that we were concerned that that project will result in a temporary loss of 46.81ha and a permanent loss of 44ha classified as 'best and most versatile' (Grades 1, 2 and 3a land in the Agricultural Land Classification (ALC) system) and that there was no direct mitigation proposed for this loss.
- 3.10.2. Highways England have clarified that a commitment to undertake soil surveys is included within the Record of Environmental Actions and Commitments (REAC) (document reference TR010035/APP/7.3) which is secured by Requirement 4 of the Draft DCO (document reference TR010035/APP/3.1).
- 3.10.3. Highways England also confirmed that a draft Soil Management Plan (SMP) has been written and appended to the Outline Construction Environmental Management Plan (document reference TR010035/APP/7.2) which outlines that a pre-construction soil survey would be undertaken to inform the final version of the SMP which will be developed by the contractor. This is also reflected in commitment 6G within the REAC.
- 3.10.4. Therefore, Natural England is satisfied with the measures proposed.

3.11. **The principal issues which are still outstanding**

- 3.11.1. We present below, the matters which are still outstanding and require attention, which are;
- Proposed bird mitigation strategy,

- Protected species – bats and great crested newts.

3.12. **Proposed bird mitigation strategy (Outline CEMP, Appendix B)**

- 3.12.1. As already explained in our relevant representation, part of the pre-application process, we have exchanged several emails regarding the detail of the strategy. Natural England has also previously seen and commented on one completed, previous version of the mitigation strategy (comments made 14.11.18).
- 3.12.2. There is still an agreed, outstanding matter to be resolved concerning Highways England obtaining the shooting rights around the mitigation area for the duration of the construction period.
- 3.12.3. After reviewing the submitted strategy we are concerned that the reference to removing the shooting rights from the foreshore as well as from the surrounding fields has been removed from the submission version.
- 3.12.4. The strategy should be amended to clarify that, in order for the mitigation site to be effective, all the shooting rights from the surrounding fields and the foreshore will be removed for the duration of the construction works to ensure that there is no adverse effect on integrity of the designated sites.
- 3.12.5. Natural England would also like to review the amended strategy once it becomes available to ensure that it fulfils the HRA mitigation requirement and we can then agree with the HRA conclusion, that with the mitigation in place, there will be no adverse effects on the integrity of Morecambe Bay and Duddon Estuary SPA and Morecambe Bay Ramsar site.

3.13. **Protected Species**

- 3.13.1. As part of the pre-application process, Natural England have been in discussions regarding protected species and licencing. We made a number of comments and suggestions where further information and analysis needed to be made.
- 3.13.2. Highways England have submitted information to our Pre-Screening Service (PSS) for a draft licence for great crested newts and bats (various species).
- 3.13.3. There are a number of issues connected with the potential impact of the proposed development on European Protected Species. Natural England is not yet satisfied with the level of information provided regarding protected species / licencing for bats (various species) and great crested newts. Work is currently ongoing with Highways England to rectify this.
- 3.13.4. Bats
- 3.13.5. Since our relevant representation response, we have been in further discussions with Highways England regarding the bat licence.
- 3.13.6. There is still an outstanding query regarding the survey results at Skippool Bridge in relation to the potential for the bridge which has been resolved at the meeting on 16 May 2019.
- 3.13.7. As a result of conversations at this meeting, we are recommending that a further, pre-demolition endoscope survey is undertaken for structure ref B5 Skippool Bridge, to ensure that there are no bats using the structure before it is demolished. We also recommend that a Requirement is added to the DCO to reflect this – see paragraph 3.14.7 below.

- 3.13.8. Following the meeting on 16 May 2019, and notwithstanding the additional mitigation measure required for structure B5 (Skipool Bridge), Natural England expects to be in a position to issue a letter of no impediment by 10 June 2019 for all structures. We will provide an update the Inspector once this matter has been resolved and the letter of no impediment for bats has been issued.
- 3.13.9. Great crested newts
- 3.13.10. Following our comments in our relevant representation response, the information which has been submitted as part of the draft licence remains inconsistent, un-clear and is in-adequate to assess what habitat is being lost and what habitat is being provided as compensation.
- 3.13.11. Natural England is still unable to confirm whether the compensation proposed is sufficient to offset the impacts (permanent and temporary losses) when used in conjunction with Licencing Policy 1.
- 3.13.12. Following a meeting between Natural England and Highways England's ecologists (Arcadis), it has been agreed that Arcadis will provide updated licensable figures, impact and compensation tables by 24 May 2019 to enable Natural England to fully assess the impacts and determine whether sufficient compensation has been provided to warrant the use of Licensing Policy 1.
- 3.13.13. It is anticipated that on receipt and assessment of the amended licensable figures and method statement tables that a letter of no impediment will be forthcoming. We will update the Inspector once this matter has been resolved and the letter of no impediment for GCN has been issued.
- 3.13.14. However, if following amended figures and tables, there are still outstanding concerns, we will continue to work with Highways England to resolve these.
- 3.13.15. As previously stated in our relevant representation response, this may also necessitate alterations to the Environmental Statement Chapter 8 Biodiversity
- 3.14. **Matters that must be secured by requirements in the Development Consent Order (DCO)**
- 3.14.1. Some of these issues were raised as part of our relevant representation response, and some have been recently included. All are repeated here for clarity.
- 3.14.2. The implementation of the Bird Mitigation Strategy should be secured via the DCO. This is a key mitigation measure to prevent an adverse impact on the integrity of the designated sites.
- 3.14.3. The writing, approval and implementation of all other strategies which form part of the Outline CEMP should also be secured through a Requirement in the DCO.
- 3.14.4. European Protected Species (namely bats and great crested newt): The relevant surveys and resulting licensed mitigation measures addressed through the license application process will need to be integrated into the scheme's wider habitat related measures and secured by a suitably worded requirement. Details of any mitigation and management measures will need to be captured in the scheme design drawing shown on the works plans and any management contracts agreed.

- 3.14.5. As mentioned in section 5.9 of our relevant representations letter, a Requirement should be added under Schedule 2, for an ALC survey to be undertaken prior to construction works commencing and that survey should be submitted to Natural England for comment before the Requirement is discharged.
- 3.14.6. An additional Requirement should be added under Schedule 2 for the creation of a soil mitigation plan (as per the National Policy Statement for National Networks paragraph 5.179). This should be produced following the completion of the ALC and soil surveys and submitted to Natural England for comment before the Requirement is discharged. If found acceptable, the project should proceed in accordance with the approved mitigation.
- 3.14.7. An additional Requirement should be added to require an endoscope survey of Skippool Bridge (B5) prior to demolition (when bats are likely to be active). This survey would comprise (as a minimum), an endoscope survey of all the features having some potential to be used by bats, more likely in an opportunistic manner. If the results of the survey show bats are present and a protected species licence is required, mitigation and compensation measures will also be required.
- 3.14.8. Night time working – A Requirement should be added to clarify the currently agreed arrangements for night time working and should any additional night time working be required throughout the winter period (1 October to 31 March inclusive), this should only be carried out with full, prior agreement with the LPA and Natural England.

3.15. **General comments on the draft DCO.**

- 3.15.1. We note that under Schedule 1, Authorised Development there is no Work No. for the creation of the Bird Mitigation Area.
- 3.15.2. Under Schedule 2, Part 1, 4.(2)(c), perhaps the (agreed) restrictions for night time working could also be included here.
- 3.15.3. Under Schedule 2, Part 1, 4.(2)(d), we consider that more detail is needed, in particular, for the plans which haven't yet been written eg:
- When each plan should be finalised, and agreed before,
 - Details around what the plan should contain (could include some of the detail included in the REAC),
 - Details of any additional requirements as a result of the plan ie. consultation with Natural England to agree management strategy.
- 3.15.4. We note the commitment to producing a Soil Resource Plan as part of the Outline CEMP, which is already included in the Draft DCO under Schedule 2, Part 1, 4.(2)(d), however as already mentioned above in section 5.9 of this letter, more detail should be included within the Requirement to say that the Plan should be written prior to construction and submitted to Natural England for comment before the Requirement is discharged.
- 3.15.5. Requirement 7 Protected species:
Natural England is satisfied with the content of Requirement 7. Reflecting the discretionary nature of the consultation by the Secretary of State, we advise that the wording of Requirement 7(4) is amended to read:

The relevant works under sub-paragraph (2) must be carried out in accordance with the approved scheme, unless otherwise agreed by the Secretary of State who may consult with Natural England, and under any necessary licences.

PART 4 EXAMINING AUTHORITY'S WRITTEN QUESTIONS

In its Rule 8 letter dated 16 April 2019, the Examining Authority asked Natural England a number of questions. These are set out, along with the answers, in the table provided below. The table cross-refers to passages in these Written Representations and their Annexes.

EXQ1	Question to:	Question:	Answer:
1.3	Biodiversity		
1.3.2	The applicant, Natural England	<p>Baseline information for European Protected Species Licence</p> <p>Can the Applicant provide any update on the baseline information relating to bats and great crested newts, and confirm that the level of information is sufficient and acceptable to Natural England?</p>	<p><u>Bats</u></p> <p>The baseline information is sufficient and acceptable to Natural England. An endoscope survey has been provided for the features on the B5 (Skipool Bridge) structure that showed potential for bat roosts. Whilst a negligible categorisation of the roosting features was provided in the updated survey report provided to Natural England on 8 May 2019, it was agreed in the meeting of 16 May 2019 that the categorisation of the structure be classified as a low potential rather than negligible, which would result in further survey immediately prior to demolition (when bats are likely to be active). This additional survey would comprise (as a minimum) an endoscope survey of all the features having some potential to be used by bats more likely in an opportunistic manner.</p> <p>The additional mitigation measure of endoscopic survey immediately prior to demolition should be included as a requirement in the DCO – see paragraph 3.14.7 above.</p> <p><u>Great crested newts (GCN)</u></p> <p>There is still some baseline info missing. Approximately 34 ponds have no survey information (following the conventional survey method). All these ponds have been classified as having no GCN, but without seeing survey data, it is not possible for Natural England to comment further. This information is to be provided to Natural England by the 24 May for review.</p>
1.3.3	The applicant, Natural England	<p>European Protected Species Mitigation</p> <p>Can the Applicant provide any update on mitigation relating to bats and great crested newts, and confirm that this is acceptable to Natural England?</p>	<p><u>Bats</u></p> <p>The proposed mitigation is acceptable in respect of building refs. B2, B3 and B4. Further Survey work is required on B5 (Skipool Bridge) immediately prior to demolition. This requirement should be added to the DCO. Notwithstanding the addition mitigation measure required for B5, a Letter of No Impediment (LONI) will be issued by 10 June 2019 for all structures.</p>

			<p><u>Great crested newts (GCN)</u> Natural England is unable to confirm whether the mitigation and compensation proposed is sufficient to offset the impacts (permanent and temporary losses) and when used in conjunction with Licencing Policy 1. Following a meeting between Natural England and Arcadis, it has been agreed that Arcadis will provide updated licensable figures, impact and compensation tables by 24th May to enable Natural England to fully assess the impacts and determine whether sufficient compensation has been provided to warrant the use of Licensing Policy 1. It is anticipated that on receipt and assessment of the amended licensable figures and method statement tables that a letter of no impediment will be forthcoming alongside the letter of no impediment for bats.</p> <p>However, if following amended figures and tables, there are still outstanding concerns, we will continue to work with Highways England to resolve these.</p> <p>Natural England and Highways Agency are involved in ongoing discussions and are working together to resolve these outstanding issues. This is discussed under paragraphs 3.15 onwards of these Written Representations. We hope to be able to update the Inspector once these issues have been fully resolved and the letters of no impediment for both bats and GCN have been issued.</p>
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Natural England
17 May 2019

For further information please contact:

Elizabeth Knowles
Land Use Lead Adviser
0208 225 7506
elizabeth.knowles@naturalengland.org.uk

Date: 17 May 2019
Our ref: 280870
Your ref: TR010035



The Planning Inspectorate
Major Applications & Plans
3D
Temple Quay House
Temple Quay
Bristol
BS1 6PN

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

T 0300 060 3900

BY EMAIL ONLY

Dear Sir or Madam

NSIP Reference Code: TR010035
User Code: 20021773

EXECUTIVE SUMMARY OF WRITTEN REPRESENTATIONS

1. International conservation designations where there is no likely significant effect.

1.1. Natural England is satisfied that the project would not have a likely significant effect on the following European sites:

- Morecambe Bay SAC,
- Ribble and Alt Estuaries SPA,
- Ribble and Alt Estuaries Ramsar site,
- Liverpool Bay SPA,
- Shell Flat & Lune Deep SAC.

2. International conservation designations where there may be an adverse effect on integrity.

2.1. Natural England is not yet satisfied that it can be excluded beyond reasonable scientific doubt that the project would not have an adverse effect on the integrity of Morecambe Bay & Duddon Estuary SPA and Morecambe Bay Ramsar site.

3. National conservation designations where there are no impacts.

3.1. Natural England is satisfied that the project is not likely to damage features of interest of Wyre Estuary SSSI and Wyre-Lune pMCZ.

4. European Protected Species

4.1. Natural England is not yet satisfied that there will be no impacts on bats or great crested newts as a result of the project.

4.2. Natural England is satisfied that the project will not harm otters.

5. Nationally Protected Species

5.1. Natural England is satisfied that the project will not harm the following species:

- Water vole,
- Reptiles,
- Other amphibians (not great crested newts),
- Terrestrial invertebrates,
- Badger,
- Hedgehog,
- Brown hare.

6. Landscape designations

6.1. There are no nationally designated landscapes that will be impacted upon by this project.

7. The principal issues which are still outstanding

7.1. The matters which are still outstanding and require attention;

- Proposed bird mitigation strategy,
- Protected species – bats,
- Protected species - great crested newts.

8. Proposed bird mitigation strategy (Outline CEMP, Appendix B)

8.1. We have made various comments regarding this strategy and are awaiting confirmation that all shooting rights have been obtained and therefore the mitigation has been secured before we can be satisfied with this being proposed mitigation.

8.2. Natural England would also like to review the amended strategy once it becomes available to ensure that it fulfils the HRA mitigation requirement and we can then agree with the HRA conclusion, that with the mitigation in place, there will be no adverse effects on the integrity of Morecambe Bay and Duddon Estuary SPA and Morecambe Bay Ramsar site.

9. Protected species – Bats

9.1. We recommend that a further, pre-demolition endoscope survey is undertaken for structure ref B5 Skippool Bridge, to ensure that no bats are using the structure before it is demolished.

9.2. Notwithstanding the additional mitigation measure required for structure B5, we expect to be in a position to issue a letter of no impediment by 10 June 2019 for all structures. We will update the Inspector once this matter has been resolved and the letter of no impediment for bats has been issued.

10. Protected species - Great crested newts (GCN)

10.1. Natural England is still unable to confirm whether the compensation proposed is sufficient to offset the impacts (permanent and temporary losses) and when used in conjunction with Licencing Policy 1.

10.2. It has been agreed that Highways England will provide more information to enable Natural England to fully assess the impacts.

- 10.3. It is anticipated that on receipt and assessment of the additional information, a letter of no impediment will be forthcoming. We will update the Inspector once this matter has been resolved and the letter of no impediment for GCN has been issued.
- 10.4. However, if there are still outstanding concerns, we will continue to work with Highways England to resolve these.
- 11. Draft DCO**
- 11.1. We have made a number of recommendations and suggested additions to the DCO as part of our written representations.

Natural England
17 May 2019

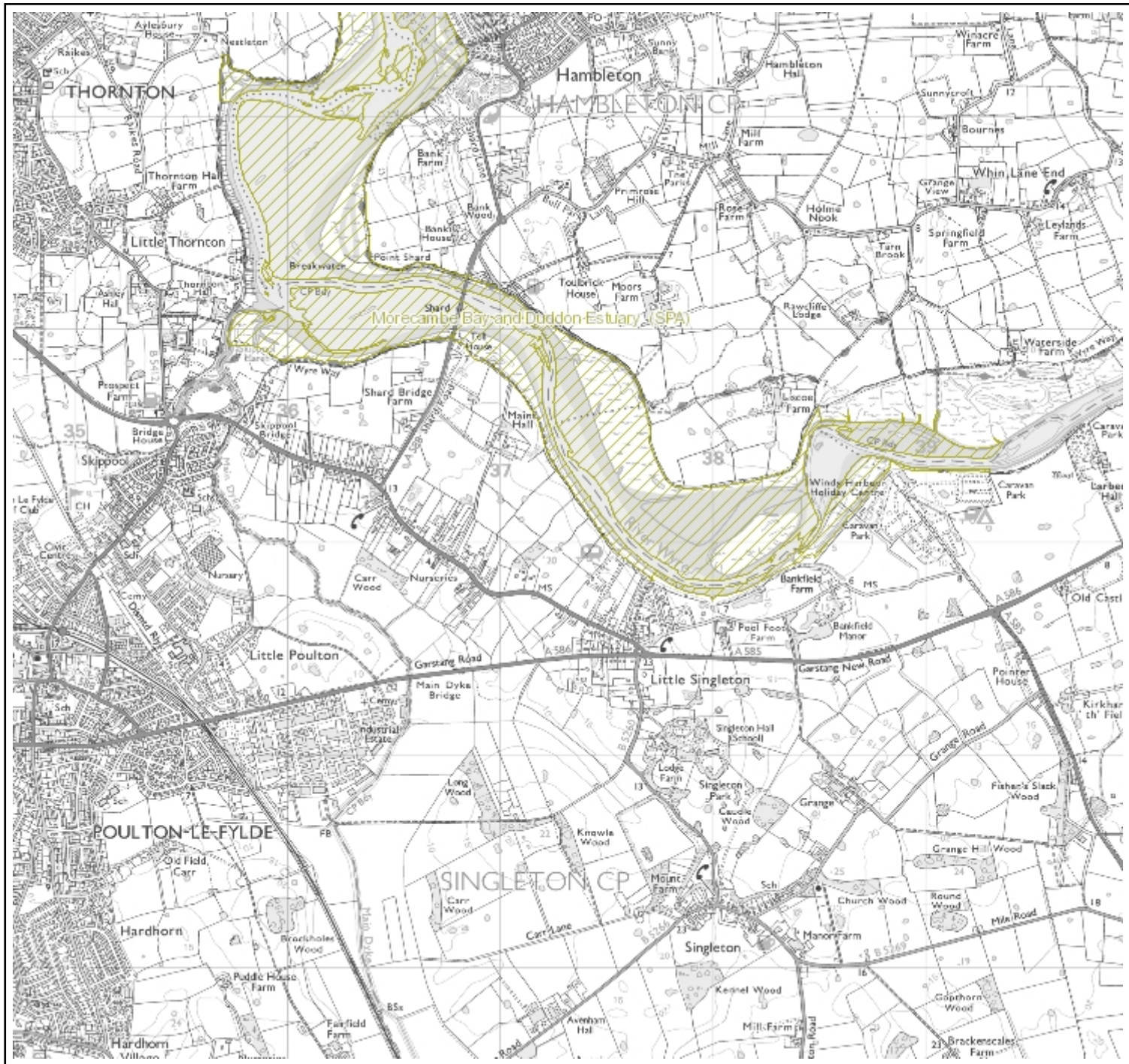
For further information please contact:

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Land Use Lead Adviser
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Natural England Written Representation for NSIP Reference Code: TR010035



ANNEX A: Designated site maps

- Morecambe Bay & Duddon Estuary SPA – relevant section only.
- Morecambe Bay Ramsar – relevant section only.
- Combined map of SPAs – Liverpool Bay SPA, Ribble & Alt Estuaries SPA and Morecambe Bay & Duddon Estuary SPA.
- Combined map showing relevant sections of Morecambe Bay & Duddon Estuary SPA, Morecambe Bay Ramsar and Wyre Estuary SSSI.
- Combined map of Ramsar sites - showing Morecambe Bay Ramsar and Ribble & Alt Estuaries Ramsar.
- Combined map of SACs – showing Shell Flat & Lune Deep SAC and Morecambe Bay SAC.
- Wyre-Lune pMCZ – relevant section only.



Map showing relevant section of Morecambe Bay & Duddon Estuary SPA.

Key

-  Special Protection Areas England © Natural England
-  Ordnance Survey (Greyscale) © Ordnance Survey

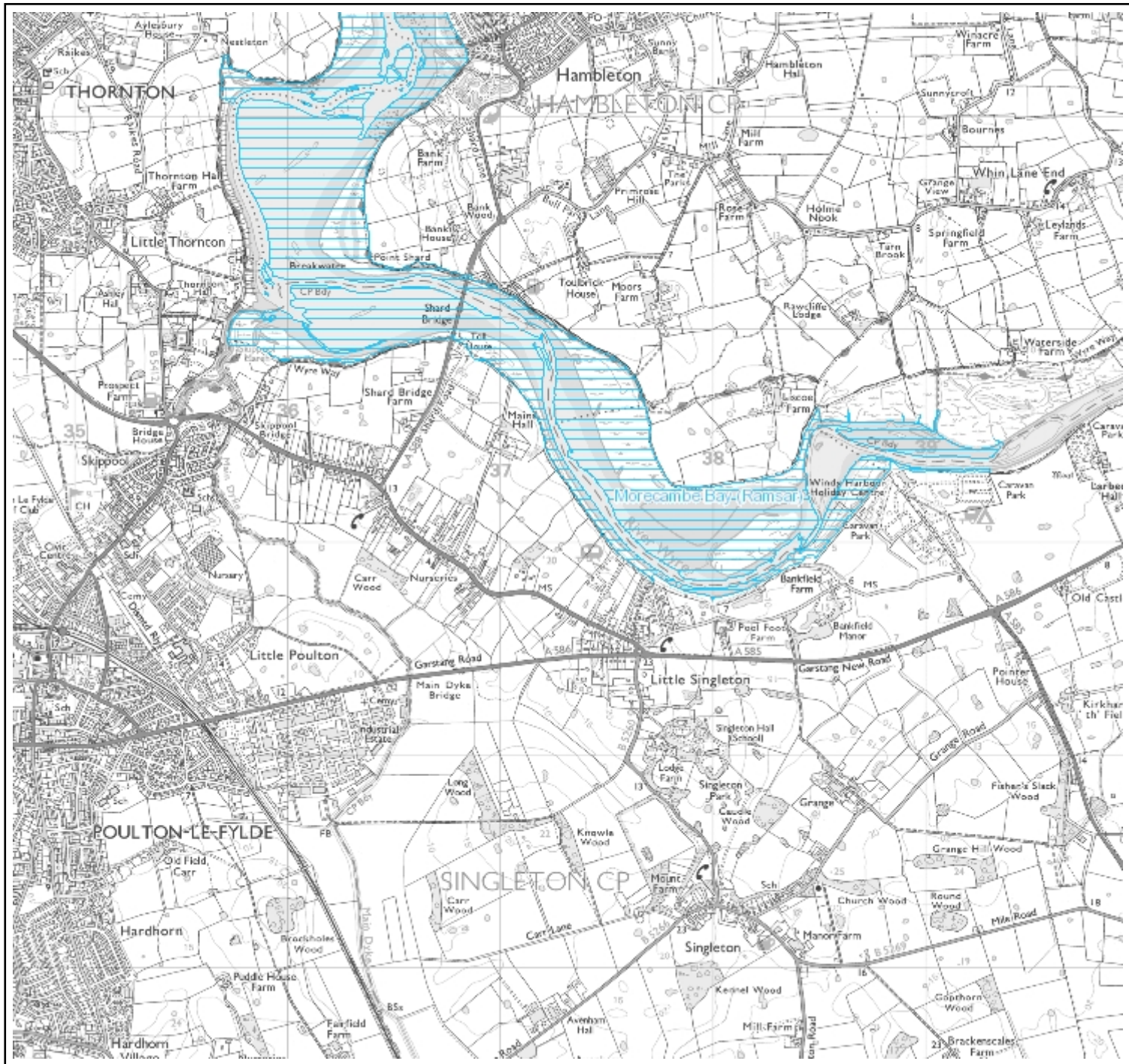
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Map Produced from WebMap2 on 02/05/19


Map Projection: British National Grid

Map Scale at A4: 1:26,736



Map showing relevant sections of Morecambe Bay Ramsar site.

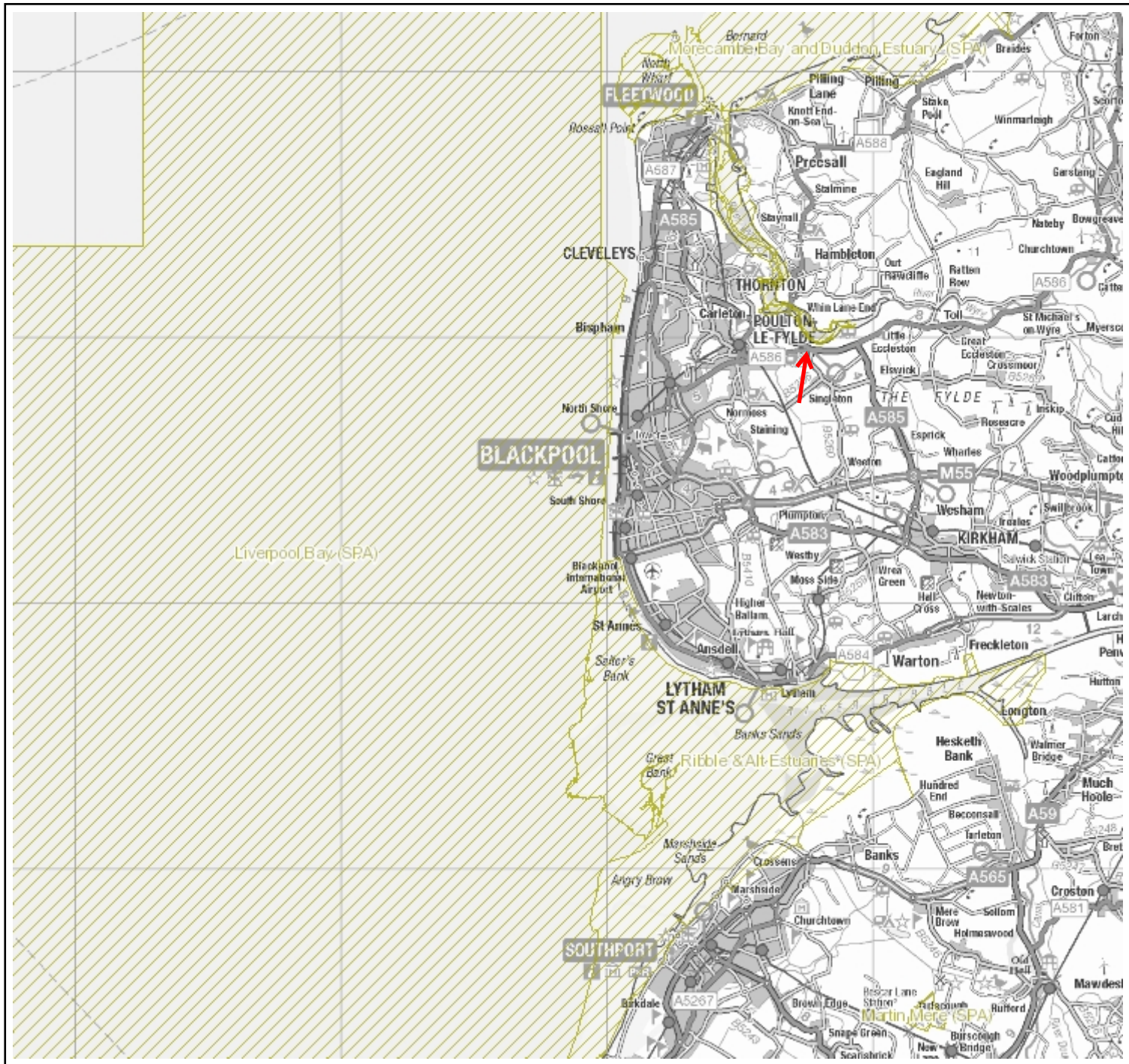
Key

-  Ramsar sites England © Natural England
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 Map Projection: British National Grid
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Combined map showing relevant sections of Liverpool Bay SPA, Morecambe Bay & Duddon Estuary SPA and Ribble & Alt Estuaries SPA.

Key

-  Special Protection Areas England © Natural England
-  Ordnance Survey (Greyscale) © Ordnance Survey

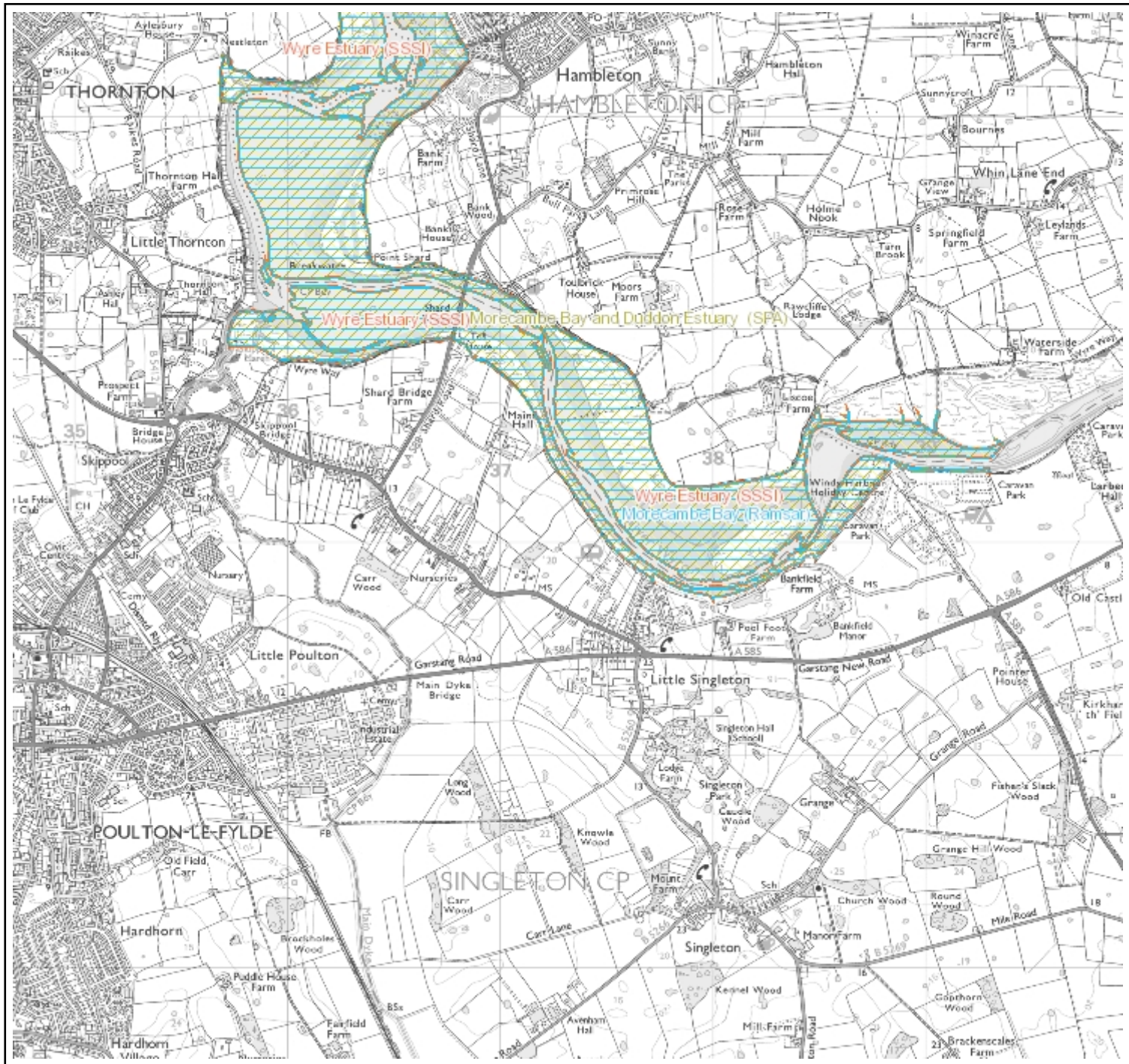
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Map Produced from WebMap2 on 02/05/19

Map Projection: British National Grid

Map Scale at A4: 1:213,886



Combined map showing relevant sections of Morecambe Bay & Duddon Estuary SPA, Morecambe Bay Ramsar site and Wyre Estuary SSSI.

Key

-  Ramsar sites England © Natural England
-  Special Protection Areas England © Natural England
-  SSSI England Detailed © Natural England
- Ordnance Survey (Greyscale) © Ordnance Survey


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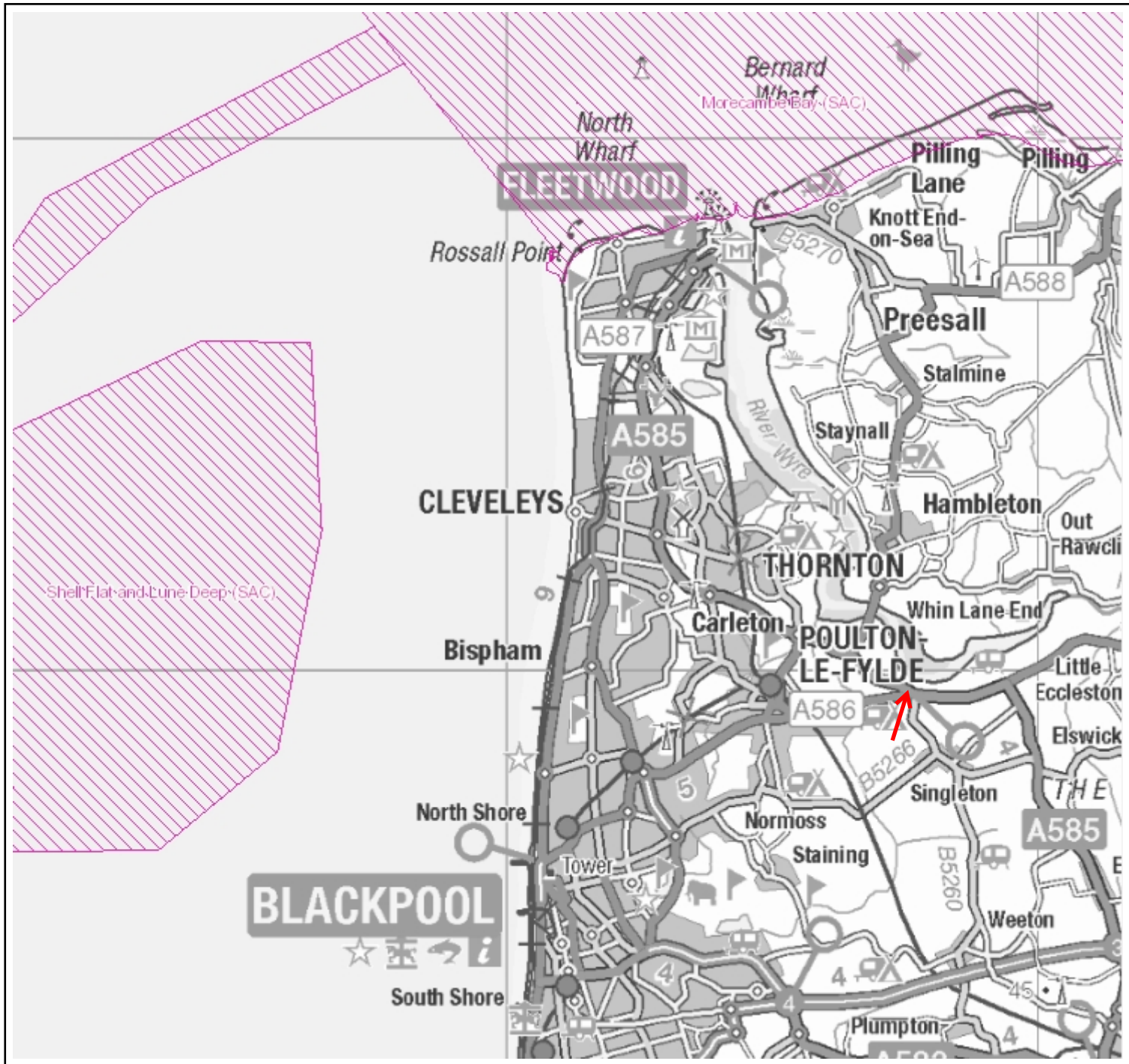


Combined map showing relevant sections of Morecambe Bay Ramsar site and Ribble & Alt Estuaries Ramsar site.


Key
 Ramsar sites England © Natural England
 Ordnance Survey (Greyscale) © Ordnance Survey

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 Map Produced from WebMap2 on 02/05/19
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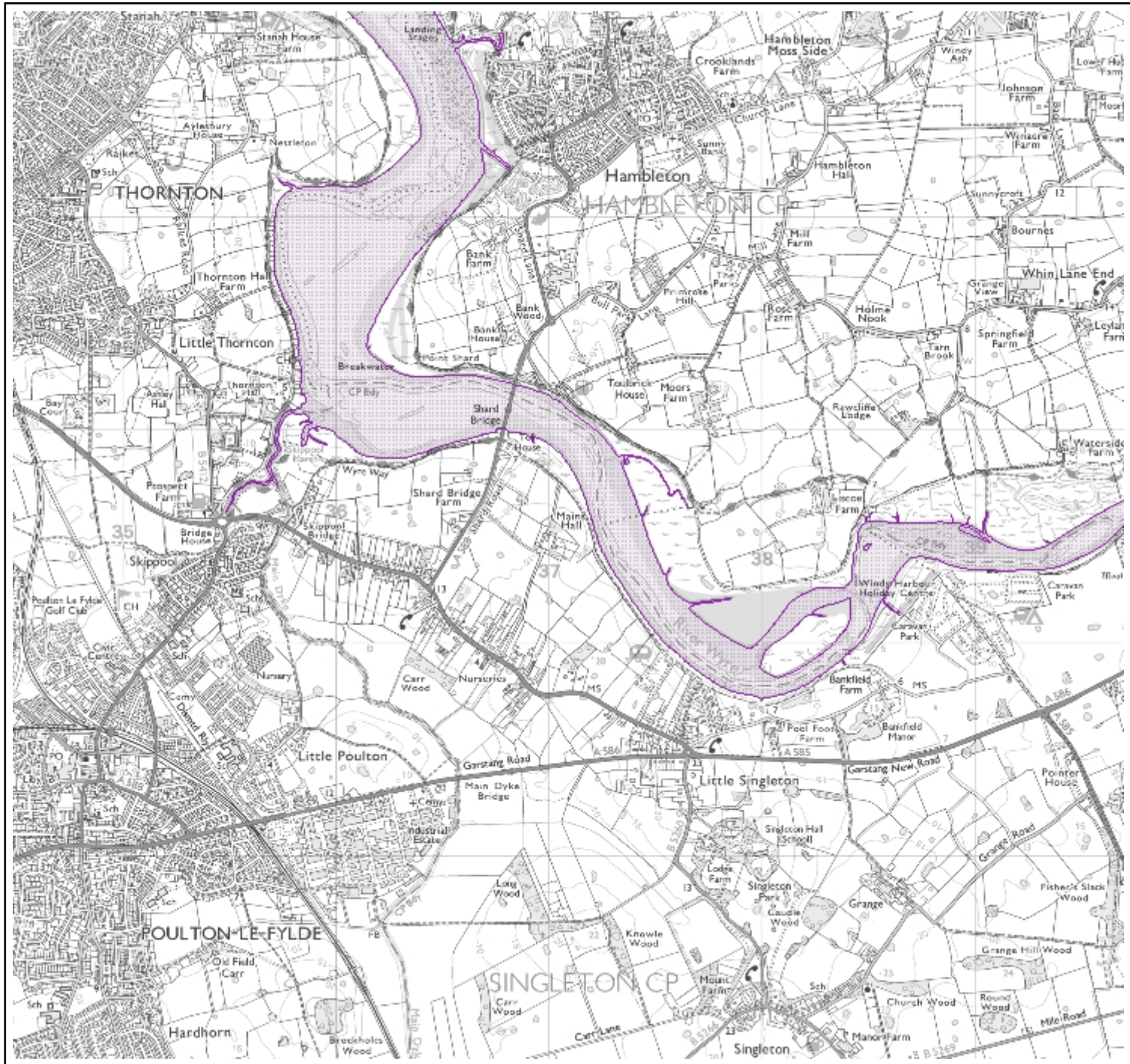
Combined map showing relevant sections of Shell Flat & Lune Deep SAC and Morecambe Bay SAC.

Key
 Special Areas of Conservation England © Natural England
 Ordnance Survey (Greyscale) © Ordnance Survey

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Wyre-Lune proposed Marine Conservation Zone (pMCZ)

Key

Marine Conservation Zones © Natural England, JNCC

Designated

Proposed

Recommended

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Map Projection: British National Grid

Map Scale at A4: 1:26,736

Natural England Written Representation for NSIP Reference Code: TR010035

ANNEX B: Designated site citations and conservation objectives (where relevant).

- Morecambe Bay & Duddon Estuary SPA
 - Citation
 - Conservation Objectives
- Morecambe Bay Ramsar
 - Ramsar Information Sheet
- Morecambe Bay SAC
 - Citation
 - Conservation Objectives
- Ribble & Alt Estuaries SPA
 - Citation
 - Conservation Objectives
- Ribble & Alt Estuaries Ramsar
 - Ramsar Information Sheet
- Liverpool Bay SPA
 - Citation
 - Conservation Objectives
- Shell Flat & Lune Deep SAC
 - Citation/Standard Data Form
 - Conservation Objectives
- Wyre Estuary SSSI
 - Citation
- Wyre-Lune pMCZ
 - Fact Sheet

Morecambe Bay and Duddon Estuary Site Citation

EC Directive 79/409 on the Conservation of Wild Birds

Special Protection Area (SPA)

Name: *Morecambe Bay and Duddon Estuary Special Protection Area*

Counties/Unitary Authorities: *Cumbria, Lancashire*

Boundary of the SPA:

The landward boundary of the SPA includes all of the intertidal and terrestrial areas covered by the former Morecambe Bay SPA and Duddon Estuary SPA. It includes areas of adjoining terrestrial coastal habitat at North and South Walney and at Haverigg Point on the Duddon Estuary and the lagoons at South Walney; Cavendish Dock, Barrow and Hodbarrow, Haverigg.

Where the landward boundary extends from Kirksanton Haws to Drigg Dunes, including the Ravenglass Estuary and the west side of Walney Island, it follows Mean High Water.

From Rossall Point to a defined point in central Morecambe Bay (54° 5.732' N 3° 1.325' W) the seaward boundary follows Mean Low Water. From central Morecambe Bay the seaward boundary runs offshore around Walney Island and along the south west Cumbria Coast, reaching a maximum of 8 km offshore opposite Kirksanton Haws, meeting the coast again at Drigg Dunes.

Morecambe Bay and Duddon Estuary SPA supersedes the original Morecambe Bay SPA and Duddon Estuary SPA.

Size of SPA: The SPA covers an area of 66,899.97 ha.

Site description:

The SPA extends between Rossall Point in Lancashire and Drigg Dunes in Cumbria. The site includes the former Morecambe Bay SPA and Duddon Estuary SPA and an extension to include the Ravenglass Estuary and intervening coast and the shallow offshore area off south west Cumbria coast.

Morecambe Bay is the second largest embayment in Britain after The Wash, at over 310 km², and has four estuaries – the Wyre, Lune, Kent and Leven. It contains the largest continuous area of intertidal mudflats and sandflats in the UK which supports a variety of infaunal communities including cockle beds. Morecambe Bay supports a wide range of other habitats including large areas of saltmarsh and transitional habitats as well as sand dune systems and coastal lagoons. Within the Bay there are areas of stony reef (known locally as scars or skears) which also support blue mussel beds and honeycomb worm *Sabellaria alveolata* reefs. Extensive eelgrass beds are present around Foulney Island and in the south Walney Channel, the only examples in the North West of England.

The Duddon and Ravenglass Estuaries support saltmarsh, intertidal mud and sand communities and sand dune systems with small areas of stony reef. The intermediate coast comprises extensive shingle and sand beaches.

The parts of the SPA away from the coast are sandy and shallow, mostly less than 15 metres deep.

Qualifying species:

SPA site selection guidelines have been applied to the most up to date information for the site. However, this contemporary data reveals that some species are no longer present in qualifying

numbers (either through declines or because the relevant threshold has increased). 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. Natural England therefore considers that these species should be retained on the citation, and the level of ambition set out in the conservation objectives for these species maintained, until such time as we have evidence to support the conclusion that declines are a result of natural processes and that the SPA is no longer suitable for these species.

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
Whooper swan <i>Cygnus Cygnus</i>	Non-breeding	113 individuals (2009/10 – 2013/14) ¹	1.0% of GB population
Little egret <i>Egretta garzetta</i>	Non-breeding	134 individuals (2009/10 – 2013/14) ¹	3.0% of GB population
European golden plover <i>Pluvialis apricaria</i>	Non-breeding	1,900 individuals (Morecambe Bay SPA citation value 1991) ²	1.0% of GB population (1991)
Bar-tailed Godwit <i>Limosa lapponica</i>	Non-breeding	3,046 individuals (2009/10 – 2013/14) ¹	8.0% of GB population
Ruff <i>Calidris pugnax</i>	Non-breeding	8 individuals (2009/10 – 2013/14) ¹	1.0% of GB population
Mediterranean gull <i>Larus melancephalus</i>	Non-breeding	18 individuals (2009/10 – 2013/14) ¹	1.0% of GB population
Little tern <i>Sternula albifrons</i>	Breeding	84 individuals (2010 – 2014) ³	2.2% of GB population
Sandwich tern <i>Sterna sandvicensis</i>	Breeding	1,608 individuals (1988 - 1992) ⁴	5.7% of GB population (1992)
Common tern <i>Sterna hirundo</i>	Breeding	570 individuals (Morecambe Bay SPA citation value 1991) ⁵	2.0% of GB population (1991)

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:

Species	Season	Count (Period)	% of population
Pink-footed goose <i>Anser brachyrhynchus</i>	Non-breeding	15,648 individuals (2009/10 – 2013/14) ⁶	4.5% of biogeographic population
Common shelduck <i>Tadorna tadorna</i>	Non-breeding	5,878 individuals (2009/10 – 2013/14) ¹	2.0% of biogeographic population
Northern Pintail <i>Anas acuta</i>	Non-breeding	2,498 individuals (2009/10 – 2013/14) ¹	4.2% of biogeographic population
Eurasian oystercatcher <i>Haematopus ostralegus</i>	Non-breeding	55,888 individuals (2009/10 – 2013/14) ¹	6.8% of biogeographic population
Grey plover <i>Pluvialis squatarola</i>	Non-breeding	2,000 individuals (Morecambe Bay SPA citation value 1991) ⁷	1.0% of biogeographic population (1991)

¹ Data from Wetland Bird Survey

² Current five year peak mean (2009/10 – 2013/14) = 3,494 (0.9% GB population)

³ Data from RSPB

⁴ Summed data from SMP relating to period of original classification for Morecambe Bay SPA and Duddon Estuary SPA (1988 – 1992). Current five year peak mean (2010-2014) = 40 pairs (0.4% GB population).

⁵ Current five year peak mean (2010-2014) = 47 pairs (0.5% GB population).

⁶ Data from Wetland Bird Survey and Icelandic-breeding Goose Census.

⁷ Current five year peak mean (2009/10 – 2013/14) = 1,013 (0.4% biogeographic population).

Species	Season	Count (Period)	% of population
Common ringed plover <i>Charadrius hiaticula</i>	Non-breeding	1,049 individuals (2009/10 – 2013/14) ¹	1.4% of biogeographic population
Eurasian curlew <i>Numenius arquata</i>	Non-breeding	12,209 individuals (2009/10 – 2013/14) ¹	1.5% of biogeographic population
Black-tailed godwit <i>Limosa limosa</i>	Non-breeding	2,413 individuals (2009/10 – 2013/14) ¹	4.0% of biogeographic population
Ruddy turnstone <i>Arenaria interpres</i>	Non-breeding	1,359 individuals (2009/10 – 2013/14) ¹	1.0% of biogeographic population
Red knot <i>Calidris canutus</i>	Non-breeding	32,739 individuals (2009/10 – 2013/14) ¹	7.3% of biogeographic population
Sanderling <i>Calidris alba</i>	Non-breeding	3,600 individuals (Morecambe Bay SPA citation value 1991) ⁸	3.0% of biogeographic population (1991)
Dunlin <i>Calidris alpina alpina</i>	Non-breeding	26,982 individuals (2009/10 – 2013/14) ¹	2.0% of biogeographic population
Common redshank <i>Tringa totanus</i>	Non-breeding	11,133 individuals (2009/10 – 2013/14) ¹	4.6% of biogeographic population
Lesser black-backed gull <i>Larus fuscus</i>	Non-breeding	9,450 individuals (2009/10 – 2013/14) ¹	1.7% of biogeographic population
Lesser black-backed gull <i>Larus fuscus graellsii</i>	Breeding	9,720 individuals (2011-2015) ⁹	2.7% of biogeographic population
European herring gull <i>Larus argentatus argenteus</i>	Breeding	20,000 individuals (Morecambe Bay SPA citation value 1991) ¹⁰	1.0% of biogeographic population (1991)

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:

At time of the 1997 citation of Morecambe Bay SPA, the area supported 40,672 individual seabirds including: herring gulls, lesser black-backed gulls, sandwich terns, common terns, and little terns.

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

During the period 2009/10 – 2013/14, the site held a five year peak mean value of 266,751 individual birds. The main components of the assemblage include all of the qualifying features listed above, as well as an additional 19 species present in numbers exceeding 1% of the GB total and / or exceeding 2,000 individuals: great white egret, Eurasian spoonbill, light-bellied brent goose (Nearctic origin), Eurasian wigeon, Eurasian teal, green-winged teal, mallard, ring-necked duck, common eider (non-breeding), common goldeneye, red-breasted merganser, great cormorant, northern lapwing, little stint, spotted redshank, common greenshank, black-headed gull, common (mew) gull and European herring gull (non-breeding).

Principal bird data sources:

Colony counts from JNCC Seabird Monitoring Programme and contributed by colony managers: RSPB (Hodbarrow) and Cumbria Wildlife Trust (Morecambe Bay). Non-breeding bird data from Wetland Bird Survey (WeBS) and WWT's Icelandic-breeding Goose Census (¹¹Mitchell 2014).

⁸ Current five year peak mean (2009/10 – 2013/14) = 849 (0.7% biogeographic population).

⁹ Data from Seabird Monitoring Programme database, RSPB and Cumbria Wildlife Trust

¹⁰ Current five year peak mean (2011-2015) = 3,192 individuals (0.5% biogeographic population).

¹¹ Mitchell, C. (2014). Status and distribution of Icelandic-breeding geese: results of the 2013 international census. Wildfowl & Wetlands Trust Report, Slimbridge. 20pp.

European Site Conservation Objectives for Morecambe Bay & Duddon Estuary Special Protection Area

Site Code: UK9020326



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

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

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

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

Qualifying Features

- A026 *Egretta garzetta*; Little egret (Non-breeding)
- A038 *Cygnus cygnus*; Whooper swan (Non-breeding)
- A040 *Anser brachyrhynchus*; Pink-footed goose (Non-breeding)
- A048 *Tadorna tadorna*; Common shelduck (Non-breeding)
- A054 *Anas acuta*; Northern pintail (Non-breeding)
- A130 *Haematopus ostralegus*; Eurasian oystercatcher (Non-breeding)
- A137 *Charadrius hiaticula*; Ringed plover (Non-breeding)
- A140 *Pluvialis apricaria*; European golden plover (Non-breeding)
- A141 *Pluvialis squatarola*; Grey plover (Non-breeding)
- A143 *Calidris canutus*; Red knot (Non-breeding)
- A144 *Calidris alba*; Sanderling (Non-breeding)
- A149 *Calidris alpina alpina*; Dunlin (Non-breeding)

Contd/

A151 *Philomachus pugnax*; Ruff (Non-breeding)
A156 *Limosa limosa islandica*; Black-tailed godwit (Non-breeding)
A157 *Limosa lapponica*; Bar-tailed godwit (Non-breeding)
A160 *Numenius arquata*; Eurasian curlew (Non-breeding)
A162 *Tringa totanus*; Common redshank (Non-breeding)
A169 *Arenaria interpres*; Ruddy turnstone (Non-breeding)
A176 *Larus melanocephalus*; Mediterranean gull (Non-breeding)
A183 *Larus fuscus*; Lesser black-backed gull (Non-breeding)
A183 *Larus fuscus*; Lesser black-backed gull (Breeding)
A184 *Larus argentatus*; Herring gull (Breeding)
A191 *Sterna sandvicensis*; Sandwich tern (Breeding)
A193 *Sterna hirundo*; Common tern (Breeding)
A195 *Sterna albifrons*; Little tern (Breeding)
Waterbird assemblage
Seabird assemblage

This is a European Marine Site

This SPA is a part of the Morecambe Bay European Marine Site ('EMS'). These Conservation Objectives should be used in conjunction with the Conservation Advice document for the EMS. Natural England's formal Conservation Advice for European Marine Sites can be found via [GOV.UK](https://www.gov.uk).

This is a new combined site

This SPA replaces two individual sites – Morecambe Bay SPA (UK9005081) and Duddon Estuary SPA (UK9005031).

Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2017 (as amended) ('the Habitats Regulations'). They must be considered when a competent authority is required to make a 'Habitats Regulations Assessment' including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives, and the accompanying Supplementary Advice (where this is available), will also provide a framework to inform the management of the European Site and the prevention of deterioration of habitats and significant disturbance of its qualifying features

These Conservation Objectives are set for each bird feature for a [Special Protection Area \(SPA\)](#).

Where these objectives are being met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving the aims of the Wild Birds Directive.

Publication date: 21 February 2019 (version 6). This document updates and replaces an earlier version dated 7 December 2017 to reflect the consolidation of the Habitats Regulations in 2017.

RAMSAR INFORMATION SHEET

FOR WETLANDS OF INTERNATIONAL IMPORTANCE

Site reference number 7UK104
1 **Compilation date** Sept 1999
2 **Country** UK (England)
3 **Name of wetland** Morecambe Bay
4 **Site centre location:** Latitude: 54 07 19 N Longitude: 02 57 21 W
5 **Altitude** Not being submitted 0 (coast)
6 **Area (ha)** 37404.6

7 Overview

Morecambe Bay lies between the coasts of South Cumbria and Lancashire, and represents the largest continuous intertidal area in Britain. Morecambe Bay comprises the estuaries of five rivers and the accretion of mudflats behind Walney Island. The area is of intertidal mud and sandflats, with associated saltmarshes, shingle beaches and other coastal habitats. It is a component in the chain of west coast estuaries of outstanding importance for passage and overwintering waterfowl (supporting the third largest number of wintering waterfowl in Britain), and breeding waterfowl, gulls and terns.

8 **Wetland type** Man-made wetland , Marine/coastal wetland

Code	Name	% Area
B	Marine beds (eg. sea grass beds)	0.4
E	Sand / shingle shores (including dune systems)	0.3
F	Estuarine waters	13
G	Tidal flats	77.7
H	Salt marshes	8.4
6	Reservoirs / barrages / dams	0.2

9 **Ramsar Criteria** 4, 5, 6
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 4

The site is a staging area for migratory waterfowl including internationally important numbers of passage *Charadrius hiaticula*.

Ramsar criterion 5

Internationally important waterfowl assemblage (greater than 20,000 birds)

Ramsar criterion 6

Over winter the site regularly supports internationally important populations of: Bar-tailed Godwit *Limosa lapponica*, Curlew *Numenius arquata*, Dunlin *Calidris alpina alpina*, Grey Plover *Pluvialis squatarola*, Knot *Calidris canutus*, Oystercatcher *Haematopus ostralegus*, Pink-footed Goose *Anser brachyrhynchus*, Pintail *Anas acuta*, Redshank *Tringa totanus*, Shelduck *Tadorna tadorna*, Turnstone *Arenaria interpres*

13 General location

Nearest town/city: Morecambe

Morecambe Bay is located within the counties of Cumbria and Lancashire in northwest England

Administrative Region: Cumbria, Lancashire

14 Physical Features

Soil & Geology	boulder, clay, cobble, gravel, limestone, limestone/chalk, mud, neutral, pebble, sand, sedimentary, shingle
Geomorphology and Landscape	coastal, enclosed coast (including embayment), estuary, floodplain, intertidal rock, intertidal sediments (including sandflat/mudflat), islands, lagoon, lowland, open coast (including bay), pools, shingle bar, sound/strait, subtidal rock (including rocky reefs), subtidal sediments (including sandbank/mudbank)
Nutrient status	mesotrophic
pH	circumneutral
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 7.4°C. Mean maximum temperature approximately 14.4°C. Mean annual precipitation approximately 6222.4mm, with a winter maximum.

15 Hydrological values

Shoreline stabilisation and dissipation of erosive forces

16 Ecological features

The main habitat types of the Morecambe Bay Ramsar site are: Intertidal mudflats and sandflats, saltmarsh, shingle, rocky scars, sand dunes.

A large shallow estuary, with extensive intertidal mudflats, saltmarshes, subtidal sediments and rocky shorelines.

There are small areas of eelgrass *Zostera* beds and vegetated shingle.

The saltmarshes are traditionally heavily grazed and provide important wildfowl habitat.

17 Noteworthy flora

None.

18 Noteworthy fauna

Birds

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

On passage the area regularly supports:

Ringed Plover (*Charadrius hiaticula*)
(Europe/Northern Africa (wintering))

693 individuals, representing an average of 1.5% of the population (5 year peak mean for 1991/92 to 1995/96)

Over winter the area regularly supports:

Bar-tailed Godwit, *Limosa lapponica*
(Western Palearctic (wintering))

2611 individuals, representing an average of 2.6% of the population (5 year peak mean for 1991/92 to 1995/96)

Curlew, <i>Numenius arquata</i> (Europe (breeding))	13620 individuals, representing an average of 3.9% of the population (5 year peak mean for 1991/92 to 1995/96)
Dunlin, <i>Calidris alpina alpina</i> (Northern Siberia/Europe/Western Africa)	52671 individuals, representing an average of 3.8% of the population (5 year peak mean for 1991/92 to 1995/96)
Grey Plover, <i>Pluvialis squatarola</i> (Eastern Atlantic (wintering))	1813 individuals, representing an average of 1.1% of the population (5 year peak mean for 1991/92 to 1995/96)
Knot, <i>Calidris canutus</i> (Northeastern Canada/Greenland/Iceland/Northwestern Europe)	29426 individuals, representing an average of 8.5% of the population (5 year peak mean for 1991/92 to 1995/96)
Oystercatcher, <i>Haematopus ostralegus</i> (Europe & Northern/Western Africa)	47572 individuals, representing an average of 5.4% of the population (5 year peak mean for 1991/92 to 1995/96)
Pink-footed Goose, <i>Anser brachyrhynchus</i> (Eastern Greenland/Iceland/UK)	2475 individuals, representing an average of 1.1% of the population (5 year peak mean for 1991/92 to 1995/96)
Pintail, <i>Anas acuta</i> (Northwestern Europe)	2804 individuals, representing an average of 4.7% of the population (5 year peak mean for 1991/92 to 1995/96)
Redshank, <i>Tringa totanus</i> (Eastern Atlantic (wintering))	6336 individuals, representing an average of 3.6% of the population (5 year peak mean for 1991/92 to 1995/96)
Shelduck, <i>Tadorna tadorna</i> (Northwestern Europe)	6372 individuals, representing an average of 2.1% of the population (5 year peak mean for 1991/92 to 1995/96)
Turnstone, <i>Arenaria interpres</i> (Western Palearctic (wintering))	1583 individuals, representing an average of 2.4% of the population (5 year peak mean for 1991/92 to 1995/96)

Assemblages of international importance:

Over winter the area regularly supports:

210668 waterfowl (5 year peak mean for 1991/92 to 1995/96)

Species occurring at levels of national importance:

During the breeding season the area regularly supports:

Herring Gull, <i>Larus argentatus</i> (Northwestern Europe (breeding) and Iceland/Western Europe (breeding))	11000 pairs, representing an average of 6.9% of the GB population (5 year mean for 1992 to 1996)
Lesser Black-backed Gull, <i>Larus fuscus</i> (Western Europe/Mediterranean/Western Africa)	22000 pairs, representing an average of 26.5% of the GB population (5 year mean for 1992 to 1996)

Sandwich Tern, *Sterna sandvicensis*
(Western Europe/Western Africa)

290 pairs, representing an average of 2.1% of the GB population (5 year mean for 1992 to 1996)

On passage the area regularly supports:

Sanderling, *Calidris alba*
(Eastern Atlantic/Western & Southern Africa
(wintering))

2466 individuals, representing an average of 10.6% of the GB population (5 year peak mean for 1991/92 to 1995/96)

Over winter the area regularly supports:

Cormorant, *Phalacrocorax carbo*
(Northwestern Europe)

879 individuals, representing an average of 6.7% of the GB population (5 year peak mean for 1991/92 to 1995/96)

Eider, *Somateria mollissima*
(Britain/Ireland)

6400 individuals, representing an average of 8.3% of the GB population (5 year peak mean for 1991/92 to 1995/96)

Goldeneye, *Bucephala clangula*
(Northwestern/Central Europe)

445 individuals, representing an average of 2.6% of the GB population (5 year peak mean for 1991/92 to 1995/96)

Goldern Plover, *Pluvialis apricaria*
(Northwestern Europe (breeding))

4097 individuals, representing an average of 1.6% of the GB population (5 year peak mean for 1991/92 to 1995/96)

Great Crested Grebe, *Podiceps cristatus*
(Northwestern Europe (wintering))

318 individuals, representing an average of 3.2% of the GB population (5 year peak mean for 1991/92 to 1995/96)

Lapwing, *Vanellus vanellus*
(Europe (breeding))

17669 individuals, representing an average of 1.2% of the GB population (5 year peak mean for 1991/92 to 1995/96)

Red-breasted Merganser, *Mergus serrator*
(Northwestern/Central Europe)

292 individuals, representing an average of 2.9% of the GB population (5 year peak mean for 1991/92 to 1995/96)

Wigeon, *Anas penelope*
(Western Siberia/Northwestern/Northeastern Europe)

5838 individuals, representing an average of 2.1% of the GB population (5 year peak mean for 1991/92 to 1995/96)

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

Subsistence fishing

Tourism

Traditional cultural

Transportation/navigation

20 Land tenure/ownership

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

21 Current land use

Activity	On-Site	Off-Site	Scale
Nature conservation	+	+	Large-Scale
Tourism	+	+	Large-Scale
Recreation	+	+	Large-Scale
Research	+	+	Small-Scale
Collection of non-timber natural products: commercial	+		Small-Scale
Commercial forestry		+	Small-Scale
Fishing: commercial	+	+	Small-Scale
Fishing: recreational/sport	+		Small-Scale
Marine/saltwater aquaculture	+		Small-Scale
Gathering of shellfish	+		Small-Scale
Bait collection	+		Small-Scale
Grazing (unspecified)	+	+	Large-Scale
Permanent pastoral agriculture	+	+	Large-Scale
Hunting: recreational/sport	+	+	Small-Scale
Industrial water supply	+		Large-Scale
Industry	+	+	Large-Scale
Sewage treatment/disposal	+	+	Large-Scale
Harbour/port	+	+	Small-Scale
Mineral exploration		+	Small-Scale
Oil/gas production		+	Large-Scale
Transport route	+	+	Large-Scale
Urban development		+	Large-Scale
Non-urbanised settlements		+	Large-Scale

22 Adverse factors affecting the ecological character of the site

Activity	On-Site	Off-Site	Scale
Overgrazing by domestic livestock	+		Small-Scale
Drainage/reclamation for agriculture		+	Large-Scale
Dredging	+		Small-Scale
Over fishing	+		Small-Scale
Pollution - unspecified	+		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	+	+

24 Conservation measures proposed but not yet implemented

see below

Site vulnerability and management statement

The site is subjected to a wide range of pressures such as reclamation for agriculture, over-grazing, dredging, over-fishing, industrial uses and unspecified pollution. However, overall the site is relatively robust and many of those pressures have only slight to local effects and are being addressed through Management Plans. The breeding tern interest is very vulnerable and the colony has recently moved to the adjacent Duddon Estuary. Positive management is being secured through management plans for non-governmental organisation reserves, English Nature Site Management Statements, European Marine Site Management Scheme, and the Morecambe Bay Partnership.

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.

Habitat.

Baseline habitat review/survey being completed by English Nature for European Marine Site Management Scheme.

26 Current conservation education

None

27 Current recreation and tourism

Activities.

Angling, wildfowling, bait collection, walking sailing, windsurfing and birdwatching.

Facilities provided.

There are interpretative facilities at South Walney, Foulney and Leighton Moss reserves, and in the nearby town of Morecambe.

Seasonality.

Wildfowling occurs from 1 September to 20 February.

28 Functional jurisdiction

Department of the Environment, Transport and the Regions

28. *Jurisdiction* - territorial jurisdiction - England

29 Management authority

English Nature

English Nature

Northminster House

Telephone +44 1733 455000

30 Bibliography

Peterborough PE1 1UA

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

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

Citation for Special Area of Conservation (SAC)

Name:	Morecambe Bay
Unitary Authority/County:	Cumbria, Lancashire
SAC status:	Designated on 1 April 2005
Grid reference:	SD371697
SAC EU code:	UK0013027
Area (ha):	61506.22
Component SSSI:	Duddon Estuary SSSI, Lune Estuary SSSI, Morecambe Bay SSSI, Roudsea Wood and Mosses SSSI, South Walney and Piel Channel Flats SSSI, Wyre Estuary SSSI

Site description:

Morecambe Bay is a large, very shallow, predominantly sandy bay at the confluence of four principal estuaries, the Leven, Kent, Lune and Wyre. The Duddon Estuary is within the SAC but north of the bay itself, although directly connected to it by Walney Channel. At low tide vast areas of intertidal sandflats are exposed, with small areas of mudflat, particularly in the upper reaches of the associated estuaries. The sediments of the bay are mobile and support a range of community types, from those typical of open coasts (mobile, well-sorted fine sands), grading through sheltered sandy sediments to low-salinity sands and muds in the upper reaches. Apart from the areas of intertidal flats and subtidal sandbanks, Morecambe Bay supports exceptionally large beds of mussels *Mytilus edulis* on exposed 'scars' of boulder and cobble, and small areas of reefs with fucoid algal communities. Of particular note is the rich community of sponges and other associated fauna on tide-swept pebbles and cobbles at the southern end of Walney Channel.

Extensive saltmarshes and glasswort *Salicornia* spp. beds are present in the Lune estuary, contrasting with the fringing saltmarshes and more open intertidal flats of the Leven and Kent estuaries. Most of the saltmarshes are grazed, a characteristic feature of north-west England. In the upper levels of the saltmarshes there are still important transitions from saltmarsh to freshwater and grassland vegetation.

Walney Island is a barrier island fringed by shingle with a partial sand covering. Two areas of exposed vegetated shingle occur at the extremes of the barrier. The southern area has been highly modified by eutrophication from a large gull colony, resulting in communities that are unusually species-rich for pioneer shingle vegetation. Perennial rye-grass *Lolium perenne*, common chickweed *Stellaria media* and biting stonecrop *Sedum acre* are constant elements, with dove's-foot crane's-bill *Geranium molle* an unusual and important feature.

Shifting dune vegetation forms a major component of the active sand dune systems at the entrance to Morecambe Bay on Walney Island and the Duddon Estuary at Sandscale Haws. Sandscale supports a mosaic of shifting communities, which form a continuous block around the seaward edge of this site. There are transitions to embryonic shifting dunes. The shingle spits at either end of Walney Island support dune systems at South End and North End Haws. Species associated with these shifting dunes include sea holly *Eryngium maritimum*, sea spurge *Euphorbia paralias*, Portland spurge *Euphorbia portlandica* and sea bindweed *Calystegia soldanella*. Sandscale supports the largest area of calcareous fixed dunes in Cumbria, which contrast with the acidic dunes at the adjacent North End Haws. South End

Haws supports a smaller area of fixed dunes. The fixed dunes support a rich plant diversity including wild pansy *Viola tricolor*, lady's bedstraw *Galium verum*, common restharrow *Ononis repens* and the uncommon dune fescue *Vulpia membranacea* and dune helleborine *Epipactis dunensis*. Dune slacks are particularly well-represented at Sandscale, where they support several uncommon species including marsh helleborine *Epipactis palustris*, dune helleborine and coralroot orchid *Corallorhiza trifida* occur. Sandscale contains both permanent and ephemeral waterbodies and man-made scrapes supporting breeding colonies of great-crested newts *Triturus cristatus*. The newts forage widely over the foreshore, dunes, dune-heath and scrub.

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 decalcified fixed dunes (*Calluno-Ulicetea*). (Coastal dune heathland)*
- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)
- Coastal lagoons*
- Dunes with *Salix repens* ssp. *argentea* (*Salicion arenariae*). (Dunes with creeping willow)
- Embryonic shifting dunes
- Estuaries
- Fixed dunes with herbaceous vegetation ("grey dunes"). (Dune grassland)*
- Humid dune slacks
- Large shallow inlets and bays
- Mudflats and sandflats not covered by seawater at low tide. (Intertidal mudflats and sandflats)
- Perennial vegetation of stony banks. (Coastal shingle vegetation outside the reach of waves)
- 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)
- 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:

- Great crested newt *Triturus cristatus*

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: UK0013027
Date of registration: 14 June 2005
Signed: [REDACTED]
On behalf of the Secretary of State for Environment,
Food and Rural Affairs

European Site Conservation Objectives for Morecambe Bay Special Area of Conservation Site Code: UK0013027



With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- **The extent and distribution of qualifying natural habitats and habitats of qualifying species**
- **The structure and function (including typical species) of qualifying natural habitats**
- **The structure and function of the habitats of qualifying species**
- **The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely**
- **The populations of qualifying species, and,**
- **The distribution of qualifying species within the site.**

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

Qualifying Features:

H1110. Sandbanks which are slightly covered by sea water all the time; Subtidal sandbanks

H1130. Estuaries

H1140. Mudflats and sandflats not covered by seawater at low tide; Intertidal mudflats and sandflats

H1150. Coastal lagoons*

H1160. Large shallow inlets and bays

H1170. Reefs

H1220. Perennial vegetation of stony banks; Coastal shingle vegetation outside the reach of waves

H1310. *Salicornia* and other annuals colonising mud and sand; Glasswort and other annuals colonising mud and sand

H1330. Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)

H2110. Embryonic shifting dunes

H2120. Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes"); Shifting dunes with marram

H2130. Fixed dunes with herbaceous vegetation ("grey dunes"); Dune grassland*

H2150. Atlantic decalcified fixed dunes (*Calluno-Uliceteta*); Coastal dune heathland*

H2170. Dunes with *Salix repens* ssp. *argentea* (*Salicion arenariae*); Dunes with creeping willow

H2190. Humid dune slacks

S1166. *Triturus cristatus*; Great crested newt

* denotes a priority natural habitat or species

This is a European Marine Site

This site is a part of the Morecambe Bay European Marine Site. These Conservation Objectives should be used in conjunction with the Conservation Advice document for the EMS. Natural England's formal Conservation Advice for European Marine Sites can be found via [GOV.UK](https://www.gov.uk).

* Priority natural habitats or species

Some of the natural habitats and species for which UK SACs have been selected are considered to be particular priorities for conservation at a European scale and are subject to special provisions in the Habitats Regulations. These priority natural habitats and species are denoted by an asterisk (*) in Annex I and II of the Habitats Directive. The term 'priority' is also used in other contexts, for example with reference to particular habitats or species that are prioritised in UK Biodiversity Action Plans. It is important to note however that these are not necessarily the priority natural habitats or species within the meaning of the Habitats Regulations.

Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2017 as amended from time to time (the "Habitats Regulations"). They must be considered when a competent authority is required to make a 'Habitats Regulations Assessment', including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives and the accompanying Supplementary Advice (where available) will also provide a framework to inform the measures needed to conserve or restore the European Site and the prevention of deterioration or significant disturbance of its qualifying features.

These Conservation Objectives are set for each habitat or species of a [Special Area of Conservation \(SAC\)](#). Where the objectives are met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving Favourable Conservation Status for that species or habitat type at a UK level. The term 'favourable conservation status' is defined in regulation 3 of the Habitats Regulations.

Publication date: 27 November 2018 (version 3). This document updates and replaces an earlier version dated 30 June 2014 to reflect the consolidation of the Habitats Regulations in 2017.

EC Directive 79/409 on the Conservation of Wild Birds: Citation for Special Protection Area (SPA)

Name: Ribble & Alt Estuaries

Unitary Authority/County: Lancashire; Sefton.

Site description: The Ribble and Alt Estuaries SPA lies on the coast of Lancashire and Sefton in northwest England. The SPA encompasses all or parts of Ribble Estuary SSSI and Sefton Coast SSSI. It comprises two estuaries, of which the Ribble is by far the larger, together with an extensive area of sandy foreshore along the Sefton Coast, and forms part of the chain of west coast SPAs that fringe the Irish Sea. Indeed, there is considerable interchange in the movements of birds between this site and Morecambe Bay, Mersey Estuary, Dee Estuary and Martin Mere. A large proportion of the SPA is within the Ribble Estuary National Nature Reserve. The site consists of extensive areas of sand and mudflats and, particularly in the Ribble, large areas of saltmarsh. There are also areas of coastal grazing marsh. The intertidal flats are rich in invertebrates on which waders and some wildfowl feed. The highest densities of feeding birds are on the muddier substrates of the Ribble, though sandy shores throughout are also used. Saltmarshes and coastal grazing marshes support high densities of wildfowl and these, together with intertidal sand and mudflats throughout, are used as high tide roosts. The site supports internationally important populations of waterbirds in winter, including swans, geese, ducks and waders. It is also of major importance during migration periods, especially for wader populations moving along the west coast of Britain. The larger expanses of saltmarsh and areas of coastal grazing marsh support breeding birds, including large concentrations of gulls and terns. These seabirds feed both offshore and inland, outside the SPA. Several species of waterfowl (notably Pink-footed Goose *Anser brachyrhynchus*) utilise feeding areas on agricultural land outside the SPA boundary.

Size of SPA: The SPA covers an area of 12,412.31 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	% GB population
Ruff <i>Philomachus pugnax</i>	1 nest - breeding	Late 1980s count	9.1%
Common Tern <i>Sterna hirundo</i>	182 pairs - breeding	Count as at 1996	1.5%
Bewick's Swan <i>Cygnus columbianus bewickii</i>	276 individuals - wintering	5 year peak mean 1993/94 - 1997/98	3.9%
Whooper Swan <i>Cygnus cygnus</i>	182 individuals - wintering	5 year peak mean 1993/94 - 1997/98	3.3%
Golden Plover <i>Pluvialis apricaria</i>	3,598 individuals - wintering	5 year peak mean 1993/94 - 1997/98	1.4%
Bar-tailed Godwit <i>Limosa lapponica</i>	20,086 individuals - wintering	5 year peak mean 1993/94 - 1997/98	37.9%

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 population
Lesser Black-backed Gull <i>Larus fuscus graellsii</i>	1,800 pairs - breeding	Count as at 1993	1.5% Western Europe/ Med/W Africa
Ringed Plover <i>Charadrius hiaticula</i>	1,657 individuals - passage	5 year peak mean 1993 - 1997	3.3% Europe/ Northern Africa (win)
Sanderling <i>Calidris alba</i>	6,535 individuals - passage	5 year peak mean 1993 - 1997	6.5% E Atlantic/W&S Africa (win)
Redshank <i>Tringa totanus</i>	3,247 individuals - passage	5 year peak mean 1993 - 1997	2.2% Eastern Atlantic (wintering)
Pink-footed Goose <i>Anser brachyrhynchus</i>	11,764 individuals - wintering	5 year peak mean 1993/94 - 1997/98	5.2% E Greenland/ Iceland/UK
Shelduck <i>Tadorna tadorna</i>	4,925 individuals - wintering	5 year peak mean 1993/94 - 1997/98	1.6% Northwestern Europe
Wigeon <i>Anas penelope</i>	85,259 individuals - wintering	5 year peak mean 1993/94 - 1997/98	6.8% W Siberia & NW/NE Europe
Teal <i>Anas crecca</i>	7,157 individuals - wintering	5 year peak mean 1993/94 - 1997/98	1.8% Northwestern Europe
Pintail <i>Anas acuta</i>	2,731 individuals - wintering	5 year peak mean 1993/94 - 1997/98	4.6% Northwestern Europe
Oystercatcher <i>Haematopus ostralegus</i>	18,535 individuals - wintering	5 year peak mean 1993/94 - 1997/98	2.1% Europe & N/W Africa (win)
Grey Plover <i>Pluvialis squatarola</i>	9,355 individuals - wintering	5 year peak mean 1993/94 - 1997/98	6.2% Eastern Atlantic (wintering)
Knot <i>Calidris canutus islandica</i>	68,922 individuals - wintering	5 year peak mean 1993/94 - 1997/98	19.7% NE Can/Grl/ Iceland/NW Eur
Sanderling <i>Calidris alba</i>	2,882 individuals - wintering	5 year peak mean 1993/94 - 1997/98	2.9% E Atlantic/W&S Africa (win)
Dunlin <i>Calidris alpina alpina</i>	39,376 individuals - wintering	5 year peak mean 1993/94 - 1997/98	2.8% N Siberia/Europe/ W Africa
Black-tailed Godwit <i>Limosa limosa islandica</i>	1,273 individuals - wintering	5 year peak mean 1993/94 - 1997/98	1.8% Iceland (breeding)
Redshank <i>Tringa totanus</i>	2,505 individuals - wintering	5 year peak mean 1993/94 - 1997/98	1.7% Eastern Atlantic (wintering)

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 323,861 individual waterbirds (5 year peak mean 1993/94 - 1997/98), including Cormorant *Phalacrocorax carbo*, Bewick's Swan *Cygnus columbianus bewickii*, Whooper Swan *Cygnus cygnus*, Pink-footed Goose *Anser brachyrhynchus*, Shelduck *Tadorna tadorna*, Wigeon *Anas penelope*, Teal *Anas crecca*, Pintail *Anas acuta*, Scaup *Aythya marila*, Common Scoter *Melanitta nigra*, Oystercatcher *Haematopus ostralegus*, Ringed Plover *Charadrius dubius*, Golden Plover *Pluvialis apricaria*, Grey Plover *Pluvialis squatarola*, Lapwing *Vanellus vanellus*, Knot *Calidris canutus islandica*, Sanderling *Calidris alba*, Dunlin *Calidris alpina alpina*, Black-tailed Godwit *Limosa limosa islandica*, Bar-tailed Godwit *Limosa lapponica*, Whimbrel *Numenius phaeopus*, Curlew *Numenius arquata* and Redshank *Tringa totanus*.

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

In the breeding season, the area regularly supports 29,236 individual seabirds (count period ongoing), including Black-headed Gull *Larus ridibundus*, Lesser Black-backed Gull *Larus fuscus graellsii* and Common Tern *Sterna hirundo*.

Non-qualifying species of interest:

The following Annex 1 species occur in non-breeding numbers of less than European importance (less than 1% of the Great Britain population): Hen Harrier *Circus cyaneus*, Merlin *Falco columbarius*, Peregrine *Falco peregrinus* and Short-eared Owl *Asio flammeus*.

Status of SPA:

- 1) The Ribble Estuary SPA was classified on 31 August 1982.
- 2) The Alt Estuary SPA was classified on 28 November 1985.
- 3) The Ribble & Alt Estuaries SPA was classified on 16 February 1995, subsuming the Alt Estuary SPA and the Ribble Estuary SPA.
- 4) An extension to the Ribble & Alt Estuaries SPA, at the southern end of the Sefton Coast SSSI, was classified on 28 November 2002.

European Site Conservation Objectives for Ribble and Alt Estuaries Special Protection Area Site Code: UK9005103



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

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

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

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

Qualifying Features:

- A037 *Cygnus columbianus bewickii*; Bewick's swan (Non-breeding)
- A038 *Cygnus cygnus*; Whooper swan (Non-breeding)
- A040 *Anser brachyrhynchus*; Pink-footed goose (Non-breeding)
- A048 *Tadorna tadorna*; Common shelduck (Non-breeding)
- A050 *Anas penelope*; Eurasian wigeon (Non-breeding)
- A052 *Anas crecca*; Eurasian teal (Non-breeding)
- A054 *Anas acuta*; Northern pintail (Non-breeding)
- A130 *Haematopus ostralegus*; Eurasian oystercatcher (Non-breeding)
- A137 *Charadrius hiaticula*; Ringed plover (Non-breeding)
- A140 *Pluvialis apricaria*; European golden plover (Non-breeding)
- A141 *Pluvialis squatarola*; Grey plover (Non-breeding)
- A143 *Calidris canutus*; Red knot (Non-breeding)

Contd/

A144 *Calidris alba*; Sanderling (Non-breeding)
A149 *Calidris alpina alpina*; Dunlin (Non-breeding)
A151 *Philomachus pugnax*; Ruff (Breeding)
A156 *Limosa limosa islandica*; Black-tailed godwit (Non-breeding)
A157 *Limosa lapponica*; Bar-tailed godwit (Non-breeding)
A162 *Tringa totanus*; Common redshank (Non-breeding)
A183 *Larus fuscus*; Lesser black-backed gull (Breeding)
A193 *Sterna hirundo*; Common tern (Breeding)
Waterbird assemblage
Seabird assemblage

This is a European Marine Site

This SPA is a part of the Ribble and Alt Estuaries European Marine Site (EMS). These Conservation Objectives should be used in conjunction with the Conservation Advice document for the EMS. Natural England's formal Conservation Advice for European Marine Sites can be found via [GOV.UK](https://www.gov.uk).

Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2017 (as amended) ('the Habitats Regulations'). They must be considered when a competent authority is required to make a 'Habitats Regulations Assessment' including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives, and the accompanying Supplementary Advice (where this is available), will also provide a framework to inform the management of the European Site and the prevention of deterioration of habitats and significant disturbance of its qualifying features

These Conservation Objectives are set for each bird feature for a [Special Protection Area \(SPA\)](#).

Where these objectives are being met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving the aims of the Wild Birds Directive.

Publication date: 21 February 2019 (version 4). This document updates and replaces an earlier version dated 30 June 2014 to reflect the consolidation of the Habitats Regulations in 2017.

Information Sheet on Ramsar Wetlands (RIS)

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

Joint Nature Conservation Committee

Monkstone House

City Road

Peterborough

Cambridgeshire PE1 1JY

UK

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

Email: RIS@JNCC.gov.uk

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DD MM YY

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Designation date

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Site Reference Number

2. Date this sheet was completed/updated:

Designated: 16 February 1995 / Updated: May 2005

3. Country:

UK (England)

4. Name of the Ramsar site:

Ribble and Alt 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):

53° 42' 41'' N

02° 58' 44'' W

7. General location:

Nearest town/city: Preston

The site occupies a stretch of coastline between Liverpool and Preston on the north-west coast of England. It lies between the Mersey estuary and Morecambe Bay.

Administrative region: Lancashire; Merseyside; Sefton

8. Elevation (average and/or max. & min.) (metres): **9. Area** (hectares): 13,464

Min. 0

Max. 25

Mean No information available

10. Overview:

A large area including two estuaries which form part of the chain of west coast sites which fringe the Irish Sea. The site is formed by extensive sand and mudflats backed, in the north, by the saltmarsh of the Ribble Estuary and, to the south, the sand dunes of the Sefton Coast. The tidal flats and saltmarsh support internationally important populations of waterfowl in winter and the sand dunes support vegetation communities and amphibian populations of international importance.

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

This site supports up to 40% of the Great Britain population of natterjack toads *Bufo calamita*. As plant species: *Petalophyllum ralfsii* (Conservation status: European Red List: Vulnerable; EC Habitats Directive: Annex II)

Ramsar criterion 5

Assemblages of international importance:

Species with peak counts in winter:

222,038 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 regularly supported during the breeding season:

Species with peak counts in spring/autumn:

Black-tailed godwit , <i>Limosa limosa islandica</i> , Iceland/W Europe	3323 individuals, representing an average of 7% of the population (5 year peak mean 1998/9-2002/3)
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Common redshank , <i>Tringa totanus totanus</i> ,	4465 individuals, representing an average of 1.7% of the population (5 year peak mean 1998/9-2002/3)
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Dunlin , <i>Calidris alpina alpina</i> , W Siberia/W Europe	38,196 individuals, representing an average of 2.8% of the population (5 year peak mean 1998/9-2002/3 - spring peak)
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Grey plover , <i>Pluvialis squatarola</i> , E Atlantic/W Africa -wintering	11,021 individuals, representing an average of 4.4% of the population (5 year peak mean 1998/9-2002/3 - spring peak)
--	--

Red knot , <i>Calidris canutus islandica</i> , W & Southern Africa (wintering)	42,692 individuals, representing an average of 9.4% of the population (5 year peak mean 1998/9-2002/3)
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Ringed plover , <i>Charadrius hiaticula</i> , Europe/Northwest Africa	3761 individuals, representing an average of 5.1% of the population (5 year peak mean 1998/9-2002/3 - spring peak)
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Sanderling , <i>Calidris alba</i> , Eastern Atlantic	7401 individuals, representing an average of 6% of the population (5 year peak mean 1998/9-2002/3 - spring peak)
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Species with peak counts in winter:

Bar-tailed godwit , <i>Limosa lapponica lapponica</i> , W Palearctic	13,935 individuals, representing an average of 11.6% of the population (5 year peak mean 1998/9-2002/3)
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Eurasian oystercatcher , <i>Haematopus ostralegus ostralegus</i> , Europe & NW Africa -wintering	18,926 individuals, representing an average of 1.8% of the population (5 year peak mean 1998/9-2002/3)
--	--

Eurasian teal , <i>Anas crecca</i> , NW Europe	5107 individuals, representing an average of 1% of the population (5 year peak mean 1998/9-2002/3)
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Eurasian wigeon , <i>Anas penelope</i> , NW Europe	69,841 individuals, representing an average of 4.6% of the population (5 year peak mean 1998/9-2002/3)
Northern pintail , <i>Anas acuta</i> , NW Europe	1,497 individuals, representing an average of 2.5% of the population (5 year peak mean 1998/9-2002/3)
Pink-footed goose , <i>Anser brachyrhynchus</i> , Greenland, Iceland/UK	6,552 individuals, representing an average of 2.42% of the population (5 year peak mean 1998/9-2002/3)
Tundra swan , <i>Cygnus columbianus bewickii</i> , NW Europe	230 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/9-2002/3)
Whooper swan , <i>Cygnus cygnus</i> , Iceland/UK/Ireland	211 individuals, representing an average of 1% 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	basic, neutral, sand, alluvium, sedimentary
Geomorphology and landscape	lowland, coastal, intertidal sediments (including sandflat/mudflat), open coast (including bay), estuary
Nutrient status	mesotrophic
pH	alkaline, circumneutral
Salinity	brackish / mixosaline, saline / euhaline
Soil	mainly mineral
Water permanence	usually permanent
Summary of main climatic features	Annual averages (Blackpool, 1971–2000) (www.metoffice.com/climate/uk/averages/19712000/sites/blackpool.html) Max. daily temperature: 12.9° C Min. daily temperature: 6.4° C Days of air frost: 40.3 Rainfall: 871.3 mm Hrs. of sunshine: 1540.3

General description of the Physical Features:

No information available

15. Physical features of the catchment area:

No information available

16. Hydrological values:

Shoreline stabilisation and dissipation of erosive forces, Sediment trapping

17. Wetland types

Marine/coastal wetland

Code	Name	% Area
E	Sand / shingle shores (including dune systems)	8
G	Tidal flats	75
H	Salt marshes	16
Ts	Freshwater marshes / pools: seasonal / intermittent	1

18. General ecological features:

The Ribble and Alt Estuaries contain extensive areas of intertidal sand and mudflats. These are backed by, on the Ribble, one of the most extensive areas of grazed saltmarsh in Britain and, along the Sefton Coast, the largest calcareous dune complex in north-western England.

The intertidal flats support internationally important populations of waterfowl which feed on a rich invertebrate fauna and *Enteromorpha* beds.

The saltmarsh supports a range of vegetation communities typical of north-west England maintained by stable grazing regimes. However, the estuary is accreting in response to large-scale land-claim, with *Spartina anglica* dominant in the pioneer stages with *Festuca rubra* and *Puccinellia maritima* dominating the grazed sward. Natural transitions are prevented by coastal defence structures. Small areas of saltmarsh also occur in discrete locations along the Sefton Coast.

The sand dunes display a full range of plant communities and habitat types from embryo to grey dunes with transitions to dune grassland and heath. Numerous species-rich slacks can be found throughout the dune transition but generally the extent of vegetation cover and species diversity increases with distance from the sea. *Elytrigia juncea* and *Elymus arenarius* dominate the embryo dunes (NVC SD5&7), being replaced by *Ammophila arenaria* in the mobile yellow dunes (SD6); large areas of bare sand are still present. Two distinct types of vegetation dominate the extensive grey dunes, the first a *Festuca rubra*/*Rubus caesius* dune pasture and a *Salix repens*/*R. caesius*/dwarf shrub (SD9 variants). These dunes also support two large coniferous plantations which support a distinctive flora.

Elsewhere, and in the absence of management, smaller areas of secondary deciduous scrub/woodland remain including *Hippophae rhamnoides* and various *Populus* spp. Dune slacks are regularly found throughout the dune complex. Normally dominated by creeping willow, they also support a diverse flora including the nationally rare liverwort, *Petalophyllum ralfsii* and dune helleborine *Epipactis dunensis* (SD15&16). Dune grassland and heath occupy fragmented locations on the extreme eastern edge of the system with *Calluna vulgaris* and *Carex arenaria* both strong characteristics.

The dune system is a candidate Special Area of Conservation for the following Annex I habitats: dunes with creeping willow; shifting dunes; humid dune slacks; shifting dunes with marram; petalwort *Petalophyllum ralfsii*; great crested newt *Triturus cristatus*; coastal dune heathland; and dune grassland ('grey dunes'). The last two are priority habitat types under the EC Habitats Directive.

19. Noteworthy flora:

International importance

Lower plants

Petalophyllum ralfsii (Conservation status: European Red List: Vulnerable; EC Habitats Directive: Annex II)

20. Noteworthy fauna:**Birds****Species currently occurring at levels of national importance:****Species regularly supported during the breeding season:**

Black-headed gull, *Larus ridibundus*, N & C 14888 apparently occupied nests, representing an average of 11.6% of the GB population (Seabird 2000 Census)

Common tern , <i>Sterna hirundo hirundo</i> , N & E Europe	182 pairs, representing an average of 1.7% of the GB population (1996)
Species with peak counts in spring/autumn:	
Common greenshank , <i>Tringa nebularia</i> , Europe/W Africa	9 individuals, representing an average of 1.5% of the GB population (5 year peak mean 1998/9-2002/3)
Eurasian curlew , <i>Numenius arquata arquata</i> , N. a. arquata Europe (breeding)	2502 individuals, representing an average of 1.7% of the GB population (5 year peak mean 1998/9-2002/3)
Ruff , <i>Philomachus pugnax</i> , Europe/W Africa	60 individuals, representing an average of 8.5% of the GB population (5 year peak mean 1998/9-2002/3)
Species with peak counts in winter:	
Black (common) scoter , <i>Melanitta nigra nigra</i> ,	691 individuals, representing an average of 1.3% of the GB population (5 year peak mean 1998/9-2002/3)
Black-headed gull , <i>Larus ridibundus</i> , N & C Europe	16849 individuals, representing an average of 1% of the GB population (5 year peak mean 1998/9-2002/3)
European golden plover, <i>Pluvialis apricaria apricaria</i> , Iceland & Faroes/E Atlantic	3588 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1998/9-2002/3)
Great cormorant , <i>Phalacrocorax carbo carbo</i> , NW Europe	463 individuals, representing an average of 2% of the GB population (5 year peak mean 1998/9-2002/3)
Northern shoveler , <i>Anas clypeata</i> , NW & C Europe	200 individuals, representing an average of 1.3% of the GB population (5 year peak mean 1998/9-2002/3)
Red-throated diver , <i>Gavia stellata</i> , NW Europe	56 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/9-2002/3)
Spotted redshank , <i>Tringa erythropus</i> , Europe/W Africa	2 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1998/9-2002/3)

Species Information

Species occurring at levels of national importance:
Natterjack toad *Bufo calamita* (c. 40% GB population)

21. Social and cultural values:

- Aesthetic
- Archaeological/historical site
- Conservation education
- Current scientific research
- Fisheries production
- Livestock grazing
- Non-consumptive recreation
- Sport fishing
- Sport hunting
- Tourism
- Transportation/navigation

22. Land tenure/ownership:

Ownership category	On-site	Off-site
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Non-governmental organisation	+	+
Local authority, municipality etc.	+	+
National/Crown estate	+	+
Private	+	+
Public/communal	+	+

23. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	+
Tourism	+	+
Recreation	+	+
Research	+	
Fishing: commercial	+	+
Fishing: recreational/sport	+	+
Gathering of shellfish	+	
Bait collection	+	
Permanent arable agriculture		+
Grazing (unspecified)	+	
Hunting: recreational/sport	+	
Industry	+	
Sewage treatment/disposal	+	+
Harbour/port		+
Flood control	+	+
Irrigation (inc agricultural water supply)		+
Mineral exploration	+	
Oil/gas exploration		+
Oil/gas production		+
Transport route	+	+
Urban development		+
Military activities		+

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?

Erosion	2	Coastal erosion is a factor at Formby Point with an estimated loss of 4 metres per year. It is a concern because pine woodland on the sand dunes is causing coastal squeeze and therefore preventing sand dune habitats from rolling back; as such dune slack habitats for natterjack toads are declining/being lost.	+		+
---------	---	---	---	--	---

For category 2 factors only.

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

Erosion - At Ainsdale Sand Dunes National Nature Reserve English Nature have made efforts to restore dune habitat; an Environmental Impact Assessment has been carried out with a view to submitting a tree-felling application in February 2005.

Is the site subject to adverse ecological change? NO

25. Conservation measures taken:

Conservation measure	On-site	Off-site
SSSI / ASSI	+	+
NNR	+	
SPA	+	
Land owned by a NGO for nature conservation	+	
Management agreement	+	
SAC	+	
Management plan in preparation	+	

26. Conservation measures proposed but not yet implemented:

No information available

27. Current scientific research and facilities:

Contemporary.

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.

Annual natterjack toad monitoring programme: Leisure Services, Metropolitan Borough of Sefton and English Nature Ainsdale NNR.

Completed.

Flora.

National sand dune survey. Sefton coast NCC Report (Edmondson *et al.* 1989)

Bryophyte surveys (various) of Sefton Coast (M Newton).

Ribble and Alt NVC saltmarsh survey 2002 (The Environment Partnership 2003)

Fauna.

Invertebrate surveys (numerous)

Documents held by various authorities on the coast including English Nature & Metropolitan Borough of Sefton.

For a full account of reports, papers etc, reference should be made to:

The sand dunes of the Sefton Coast (Atkinson & Houston 1993).

28. Current conservation education:

The Metropolitan Borough of Sefton, English Nature, National Trust and RSPB all lead guided walks onto suitable areas of the coast at all times of the year.

The entire site is reasonably well provided with fixed interpretation panels at many of the main public access points around the site.

The RSPB is developing educational/visitor facilities at its Reserve.

Southport Pier is developing into a major wildlife interpretation centre. English Nature, RSPB and Sefton Council are working on the project.

29. Current recreation and tourism:

Activities, Facilities provided and Seasonality.

Infrastructure developments

There are caravan parks adjacent to the site at Formby and moorings in the Alt. No major expansion anticipated.

Land-based recreation

There is intensive recreational use of the northern beaches (Southport & Ainsdale) where traditional activities are concentrated. These include beach car parking, and, during the summer months several large-scale events. Elsewhere, recreation is more informal and less intensive - but all beach activities on the Sefton Coast are managed by the Beach Management Plan. The golf courses are heavily used; Royal Birkdale hosted the British Open Golf Championship in 1998.

Water-based recreation

Mainly a summer activity based on the beach at Southport. Becoming more common but has, in the past, included pleasure trips on hovercraft.

Airborne recreation

Some disturbance in winter months by micro-lights, particularly to pink-footed goose populations.

Wildfowling

Occurs on extensive areas of the Ribble including the NNR. Usually controlled by agreement.

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

Atkinson, D & Houston, J (eds.) (1993) *The sand dunes of the Sefton coast. Proceedings of the Sefton Coast Research Seminar, Liverpool, 31st May 1991*. National Museums and Galleries on Merseyside, Liverpool

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Weighell, AJ, Donnelly, AP & Calder, K (eds.) (2000) *Directory of the Celtic coasts and seas*. Joint Nature Conservation Committee, Peterborough

Please return to: **Ramsar Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**

Telephone: +41 22 999 0170 • Fax: +41 22 999 0169 • email: europa@ramsar.org

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

Special Protection Area (SPA)

Name: *Liverpool Bay / Bae Lerpwl Special Protection Area*

Counties/Unitary Authorities:

The SPA lies almost entirely in UK territorial waters adjacent to the following counties / unitary authorities: Lancashire, Blackpool, Merseyside, Sir y Fflint / Flintshire, Conwy, Gwynedd, Ynys Môn / Isle of Anglesey and a small portion sits within Sir Ddinbych / Denbighshire unitary authority.

Boundary of the SPA:

The SPA extends out from Morecambe Bay beyond 12 nautical miles at the northwest point and offshore of the mouth of the Dee Estuary. The western boundary of the SPA extends into Welsh waters to Point Lynas on Anglesey.

The landward boundary of the SPA generally follows the mean low water mark or the boundaries of existing SPAs, whichever is the furthest seaward apart from at Prestatyn and in the river Mersey where it follows mean high water or the boundaries of existing SPAs.

Size of SPA: The SPA covers an area of 252,757.73 ha.

Site description:

Liverpool Bay is located in the south-eastern region of the northern part of the Irish Sea, bordering north-west England and north Wales. The SPA is a broad arc from approximately Morecambe Bay to the east coast of Anglesey. The seabed of the SPA consists of a wide range of mobile sediments. Large areas of muddy sand stretch from Rossall Point to the Ribble Estuary, and sand predominates in the remaining areas, with a concentrated area of gravelly sand off the Mersey Estuary and a number of prominent sandbanks off the English and Welsh coasts. The tidal currents throughout the SPA are generally weak, which combined with a relatively large tidal range facilitates the deposition of sediments.

Qualifying species:

The site qualifies under **Article 4.1** of the Birds 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 <i>Gavia stellata</i>	Non-breeding	1,171 individuals (2004/05 – 2010/11)	6.89% of GB population
Little gull <i>Hydrocoloeus minutus</i>	Non-breeding	319 individuals (2004/05 – 2010/11)	N/A – selected under stage 1.4 guideline
Little tern <i>Sternula albifrons</i>	Breeding	260 individuals (2010 - 2014)*	6.84% of GB population
Common tern <i>Sterna hirundo</i>	Breeding	360 individuals** (2011 – 2015)	1.80% of GB population

*130 pairs (Apparently Occupied Nests) at Gronant Beach from Seabird Monitoring Programme database. These figures represent the current population at the site (SMP, *pers. comm.*). The 'at classification' population for little tern in The Dee Estuary SPA is 138 individuals (1995-1999).

** 180 pairs (Apparently Occupied Nests) at Seaforth Nature Reserve from Seabird Monitoring Programme database.

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:

Species	Season	Count (Period)	% of population
Common scoter <i>Melanitta nigra</i>	Non-breeding	56,679 (2004/05 – 2010/11)	10.31% of biogeographic population

Assemblage qualification:

The site qualifies under SPA selection stage 1.3 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 site regularly supports at least 69,687 (2004/05 – 2010/11) individual waterbirds.

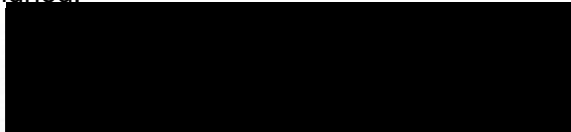
The main components of the assemblage include all of the non-breeding qualifying features listed above, as well as an additional two species present in numbers exceeding 1% of the GB total: red-breasted merganser *Mergus serrator* and great cormorant *Phalacrocorax carbo*.

Principal bird data sources:

Lawson, J., Kober, K., Win, I., Allcock, Z., Black, J. Reid, J.B., Way, L. & O'Brien, S.H. 2015. An assessment of the numbers and distribution of wintering waterbirds and seabirds in Liverpool Bay / Bae Lerpwl area of search. JNCC Report No 576. JNCC, Peterborough.

Tern colony count data from the national Seabird Monitoring Programme database.

This citation relates to a site entered in the Register of European Sites for Great Britain.
Register reference number: UK9020294
Date of registration: 31st October 2017
Signed:



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

European Site Conservation Objectives for Liverpool Bay / Bae Lerpwl Special Protection Area Site Code: UK9020294



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

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

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

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

Qualifying Features:

A001 *Gavia stellata*; Red-throated diver (Non-breeding)

A065 *Melanitta nigra*; Common scoter (Non-breeding)

A177 *Hydrocoloeus minutus*; Little gull (Non-breeding)

A193 *Sterna hirundo*; Common tern (Breeding)

A195 *Sternula albifrons*; Little tern (Breeding)

Waterbird assemblage

Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2017 (as amended) ('the Habitats Regulations'). They must be considered when a competent authority is required to make a 'Habitats Regulations Assessment' including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives, and the accompanying Supplementary Advice (where this is available), will also provide a framework to inform the management of the European Site and the prevention of deterioration of habitats and significant disturbance of its qualifying features

These Conservation Objectives are set for each bird feature for a [Special Protection Area \(SPA\)](#).

Where these objectives are being met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving the aims of the Wild Birds Directive.

This is a cross border site

This site crosses the border between England and Wales. The advice of [Natural Resources Wales](#) should therefore be sought separately.

This is a European Marine Site

This SPA is a part of the Liverpool Bay / Bae Lerpwl European Marine Site (EMS). These Conservation Objectives should be used in conjunction with the Conservation Advice document for the EMS.

Natural England's formal Conservation Advice for European Marine Sites can be found via [GOV.UK](#).

Publication date: 21 February 2019 (version 5). This document updates and replaces an earlier version dated 20 December 2017 to reflect the consolidation of the Habitats Regulations in 2017.

NATURA 2000 – STANDARD DATA FORM

Special Protection Areas (SPAs) classified under Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version), also known as the ‘Birds Directive’

and

Special Areas of Conservation (SACs) (includes candidate SACs, Sites of Community Importance (SCIs) and designated SACs) designated under Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, also known as the ‘Habitats Directive’

Each Natura 2000 site in the United Kingdom has its own Standard Data Form containing site-specific information.

The information provided here follows the officially agreed site information format for Natura 2000 sites, as set out in the [Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 \(2011/484/EU\)](#).

The Standard Data Forms are generated automatically for all of the UK’s Natura 2000 sites using the European Environment Agency’s Natura 2000 software. The structure and format of these forms is exactly as produced by the EEA’s Natura 2000 software (except for the addition of this coversheet and the end notes). The content matches exactly the data submitted to the European Commission.

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.

Further technical documentation may be found here:
http://bd.eionet.europa.eu/activities/Natura_2000/reference_portal

In December 2015, several sections of the UK’s previously published Standard Data Forms were updated. For details of the approach taken by the UK in this submission please refer to the following document:

http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf.

These changes formed part of the UK Submission to the European Commission on 22/12/2015.

More general information on Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) in the United Kingdom, including in Gibraltar, is available from the [SPA homepage](#) and [SAC homepage](#) on the JNCC website. These webpages also provide links to Standard Data Forms for all Natura 2000 sites in the UK.

Date Standard Data Form generated by the Joint Nature Conservation Committee:	14 th November 2017 (UK Tranche 56)
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<http://jncc.defra.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 UK0030376
SITENAME Shell Flat and Lune Deep

TABLE OF CONTENTS

- [1. SITE IDENTIFICATION](#)
- [2. SITE LOCATION](#)
- [3. ECOLOGICAL INFORMATION](#)
- [4. SITE DESCRIPTION](#)
- [6. SITE MANAGEMENT](#)
- [7. MAP OF THE SITE](#)

1. SITE IDENTIFICATION

1.1 Type B	1.2 Site code UK0030376	Back to top
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1.3 Site name

Shell Flat and Lune Deep

1.4 First Compilation date 2010-08	1.5 Update date 2017-10
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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

-3.204

Latitude

53.864

2.2 Area [ha]:

10567.49

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

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			8893.6		G	A	C	A	A
1170			306.46		G	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)

4. SITE DESCRIPTION

4.1 General site character

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Habitat class	% Cover
N01	100.0
Total Habitat Cover	100

Other Site Characteristics

General site characteristics: The Shell Flat component of the Shell Flat and Lune Deep SAC is a crescent shaped sandbank comprising a range of mud and sand sediments. Shell Flat has a typical sandy substrate biological community. Shell Flat is the only sandbank feature identified within the outer Shell Flat site and is known to provide important habitat for commercial fish species and bird populations. Lune Deep and the area immediately to the north support mixed faunal turf communities over a cobble/rock substrate. These areas provide habitat for erect hydroids and bryozoans with some areas having erect sponges which form the biotope *Flustra foliacea* and *Haliclona oculata* with a rich faunal turf on tide-swept circalittoral mixed substrata. The reef habitat present in the area represents a good example of boulder and bedrock reef, with the largest proportions of rock found along the unique kettle hole feature known as Lune Deep. The northern edges of Lune Deep are characterised by heavily silted cobble and boulder slopes, subject to strong tidal currents with a dense hydroid and bryozoan turf. This unique enclosed deep hole provides a contrasting habitat to the surrounding muddy communities of the Eastern Irish Mudbelt. Data from a 2004 survey show that the northern flanks of Lune Deep are composed of exposed bedrock with a rugged seabed physiography. In contrast, the southern flank consists of a smooth seabed which is a sink for muddy sands.

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. Reefs 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
H	J02		B
H	C01		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 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=UK0030376&SiteName=shell%20fl>

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:

<input type="checkbox"/> Yes
<input type="checkbox"/> No, but in preparation
<input checked="" type="checkbox"/> 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).

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EXPLANATION OF CODES USED IN THE NATURA 2000 STANDARD DATA FORMS

The codes in the table below are also explained in the [official European Union guidelines for the Standard Data Form](#). The relevant corresponding page number is shown in the table below.

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: in the UK Natura 2000 submission, this is only used in Gibraltar)	53

3.1 Habitat representativity

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

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 <i>Ammophila arenaria</i> ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with <i>Empetrum nigrum</i>	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with <i>Hippophaë rhamnoides</i>	57
2170	Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with <i>Juniperus</i> spp.	57
2330	Inland dunes with open <i>Corynephorus</i> and <i>Agrostis</i> 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 <i>Chara</i> 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 Callitriche-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 Relative surface

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

3.1 Degree of conservation

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

3.1 Global assessment

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 assessment (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 Assemblages 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, Scree, 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 resources	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 (UK)	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 (SPA, EC Birds Directive)	67
IN09	Special Area of Conservation (SAC, EC Habitats Directive)	67

**European Site Conservation Objectives for
Shell Flat and Lune Deep Special Area of
Conservation
Site code: UK0030376**



With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- **The extent and distribution of qualifying natural habitats**
- **The structure and function (including typical species) of qualifying natural habitats, and**
- **The supporting processes on which the qualifying natural habitats rely**

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

Qualifying Features:

H1110. Sandbanks which are slightly covered by sea water all the time
H1170. Reefs

Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2017 as amended from time to time (the “Habitats Regulations”). They must be considered when a competent authority is required to make a ‘Habitats Regulations Assessment’, including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives and the accompanying Supplementary Advice (where available) will also provide a framework to inform the measures needed to conserve or restore the European Site and the prevention of deterioration or significant disturbance of its qualifying features.

These Conservation Objectives are set for each habitat or species of a [Special Area of Conservation \(SAC\)](#). Where the objectives are met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving Favourable Conservation Status for that species or habitat type at a UK level. The term ‘favourable conservation status’ is defined in regulation 3 of the Habitats Regulations.

This is a European Marine Site

This site is also part of the Shell Flat and Lune Deep European Marine Site (EMS). These Conservation Objectives should be used in conjunction with the Conservation Advice document for the EMS. Natural England’s formal Conservation Advice for European Marine Sites can be found via [GOV.UK](#).

Publication date: 27 November 2018 (version 3). This document updates and replaces an earlier version dated 24 October 2018 to reflect the consolidation of the Habitats Regulations in 2017.

File ref:

County: Lancashire **Site Name:** Wyre Estuary

District: Wyre, Fylde

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

Local Planning Authority: Fylde Borough Council
Wyre Borough Council

National Grid Reference: SD 350440 **Area:** 1,488.03 (ha) 3,675.43 (ac)

Ordnance Survey Sheet 1:50 000 102 **1:10 000** SD 33 NE
SD 34 NE
SD 34 NW
SD 34 SE
SD 34 SW
SD 35 SW

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

Date Notified (Under 1981 Act): 27 January 1995 **Date of Last Revision:** –

Other Information:

1. The site forms part of 'Morecambe Bay (including Wyre-Lune)' listed in 'A Nature Conservation Review', edited by D. A. Ratcliffe (1977), Cambridge University Press.
2. The site is adjacent to the Lune Estuary Site of Special Scientific Interest and incorporates Barnaby Sands Marsh and Burrows Marsh SSSIs.
3. The site is an integral part of the Morecambe Bay complex of estuaries and shore which collectively meet the criteria for inclusion within the Morecambe Bay Wetland of International Importance under the Ramsar Convention, and as a Special Protection Area under Article 4 of the European Community Directive 79/409/EEC on the Conservation of Wild Birds.

Description and Reasons for Notification:

The Wyre Estuary, lying just south of Lune Estuary is an integral part of Morecambe Bay, one of the two largest areas of intertidal estuarine flats in Britain (the other being the Wash). The whole estuarine complex is of international significance for wintering wading birds and of national significance for wintering wildfowl. The Wyre in its own right is of national importance for wintering and passage black-tailed godwit, wintering turnstone and for wintering teal in times of hard weather. The Wyre Estuary, including those parts within Barnaby Sands Marsh and Burrows Marsh Sites of Special

Scientific Interest, supports the largest area of ungrazed saltmarsh in North West England. The transitions from low to upper marsh are well developed and there are extensive transitions to freshwater swamp communities above high water mark.

The most extensive areas of saltmarsh are found on the east side of the estuary between Barnaby Sands and Staynall, on the west side north of Stannah and on the north side upstream of Shard Bridge. Much of the latter has recently developed on actively accreting mud.

The seaward edge of the saltmarsh is dominated by those species specialised to colonising bare mud and withstanding frequent tidal inundation – the glassworts *salicornia* spp., annual sea-blite *Suaeda maritima* and common saltmarsh-grass *Puccinellia maritima*. Common cord-grass *Spartina anglica* is abundant on some of the marshes but appears to be declining. Higher up the marshes there are extensive areas of saltmarsh communities characterised by grazing-sensitive species. The Wyre supports the largest area in Lancashire of saltmarsh dominated by sea-purslane *Halimione portulacoides* and also the largest area of a mixed community distinctive for the presence of common sea-lavender *Limonium vulgare*, sea plantain *Plantago maritima* and sea arrowgrass *Triglochin maritima*. The nationally scarce lax-flowered sea-lavender *Limonium humile* is also present. Most of the sea-purslane dominated saltmarsh is downstream of Shard Bridge. Upstream, especially on the north side, there are extensive areas dominated by sea aster *Aster tripolium*.

On the upper saltmarsh there is a mixture of communities with species typical of a less saline influence. Saltmarsh rush *Juncus gerardi*, sea rush *Juncus maritimus*, red fescue *Festuca rubra* and spear-leaved orache *Atriplex prostrata* are all present and, locally, there is long-bracted sedge *Carex extensa*. Of particular interest are the extensive transitions to brackish or freshwater habitats on the landward side. Here swamp is the dominant community with common reed *Phragmites australis* or sea club-rush *Scirpus maritimus*. In places the landward transition is to sea couch *Elymus pycnanthus*. Other transition species present include hemlock water-dropwort *Oenanthe crocata* and parsley water-dropwort *O. lachenalii*.

Ornithologically the Wyre Estuary is an integral part of the Morecambe Bay–Lune–Wyre system, the second most important intertidal area in Britain after the Wash for wintering and passage wading birds. The Wyre is nationally important in its own right for wintering and passage black-tailed godwit and wintering turnstone (numbers exceeding 1% of the British population). In spring and autumn the estuary regularly supports 200 black-tailed godwit and during the winter months about 100 feed and roost in the estuary. Peak numbers of turnstone feeding in the estuary have in recent years averaged at 640.

The Wyre is also known to be an important hard weather roost for teal. Large numbers of lapwing and golden plover use the estuary for roosting at low tide. Numbers of the former have in some years approached 1% of the UK population.

Movements of roosting and feeding birds within the Wyre and between this and other estuaries are complex with different parts of the estuary being important for birds at different stages of the tide. The major high tide roost is in Armhill with smaller ones at Stannah, Burrows Marsh, Barnaby Sands and Knott End Skears. On spring tides birds are displaced from the smaller roosts to Armhill which, on occasions, can hold over one thousand birds. Along with black-tailed godwit, turnstone, lapwing and golden plover, other wading birds which regularly use the estuary include oystercatcher, redshank and dunlin. The oystercatchers and turnstones feed at the mouth of the estuary on the rocky skears at Rossall Point and Knott End. Golden plover and lapwing roost at low tide around the upstream of Shard Bridge, the former feeding on the Lune estuary to the north at high tide. Waders roosting on the Wyre may be using other parts of the Morecambe Bay complex at low tide.

Wyre-Lune

Recommended Marine Conservation Zone

June 2018

Consultation on Sites Proposed for Designation in the Third Tranche of Marine Conservation Zones



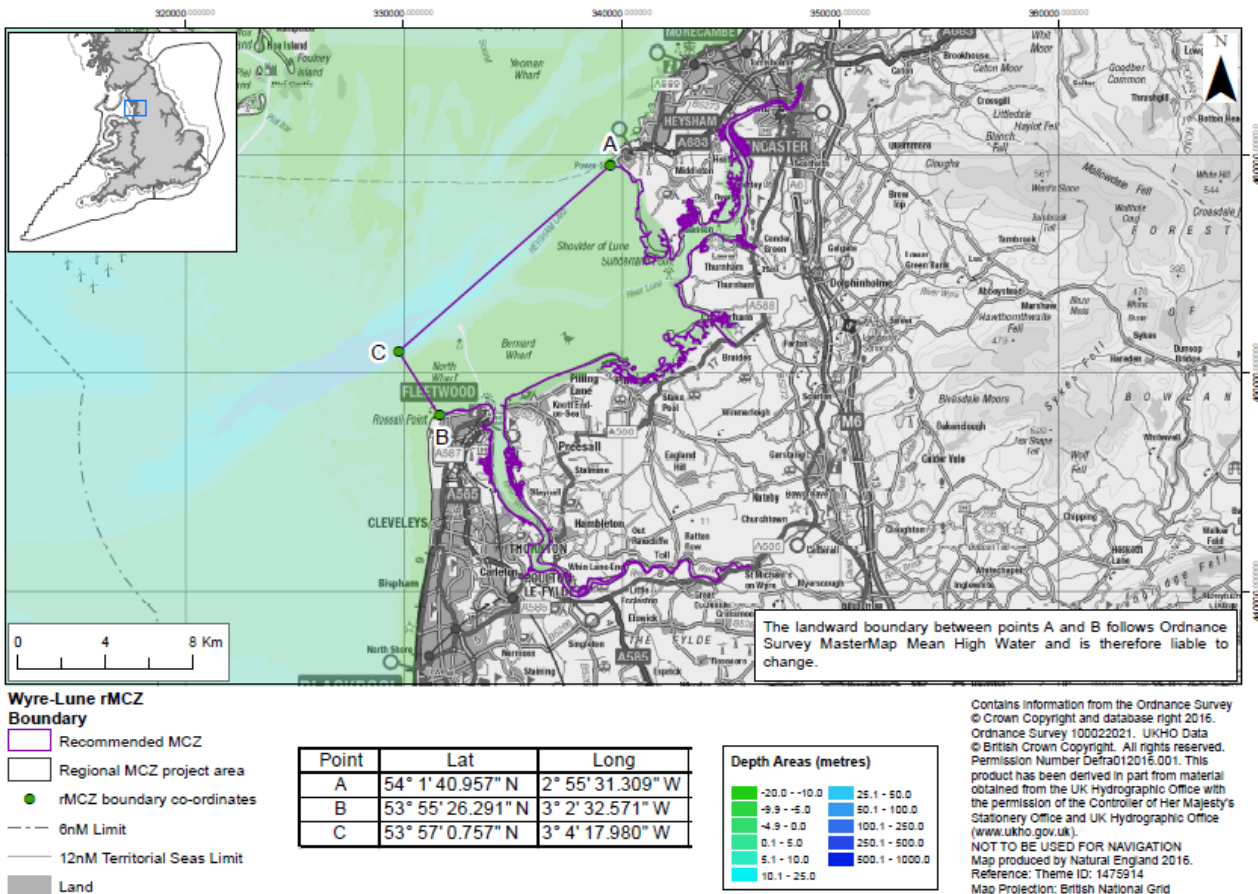
Smelt © Jack Perks

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Where is the site located?

The Wyre-Lune recommended Marine Conservation Zone (MCZ) is an inshore site that covers an area of approximately 92 km². It is located in the southern part of Morecambe Bay, Lancashire, in the Irish Sea. The site boundary has been modified from that proposed by the Regional Project in order to better capture potential smelt spawning habitat. It now extends up to the tidal limit of each estuary at St Michael's on Wyre and Lancaster (Skerton weir).



Why is the site environmentally important?

Smelt (*Osmerus eperlanus*) were once widespread in estuaries in the UK but have declined considerably over the past 200 years. They are known to congregate in large shoals in lower estuaries and migrate into freshwater where they spawn in spring. Estuaries such as those around the Wyre and the Lune therefore provide critical habitats required to complete smelt lifecycles, including for feeding and post-larval development.

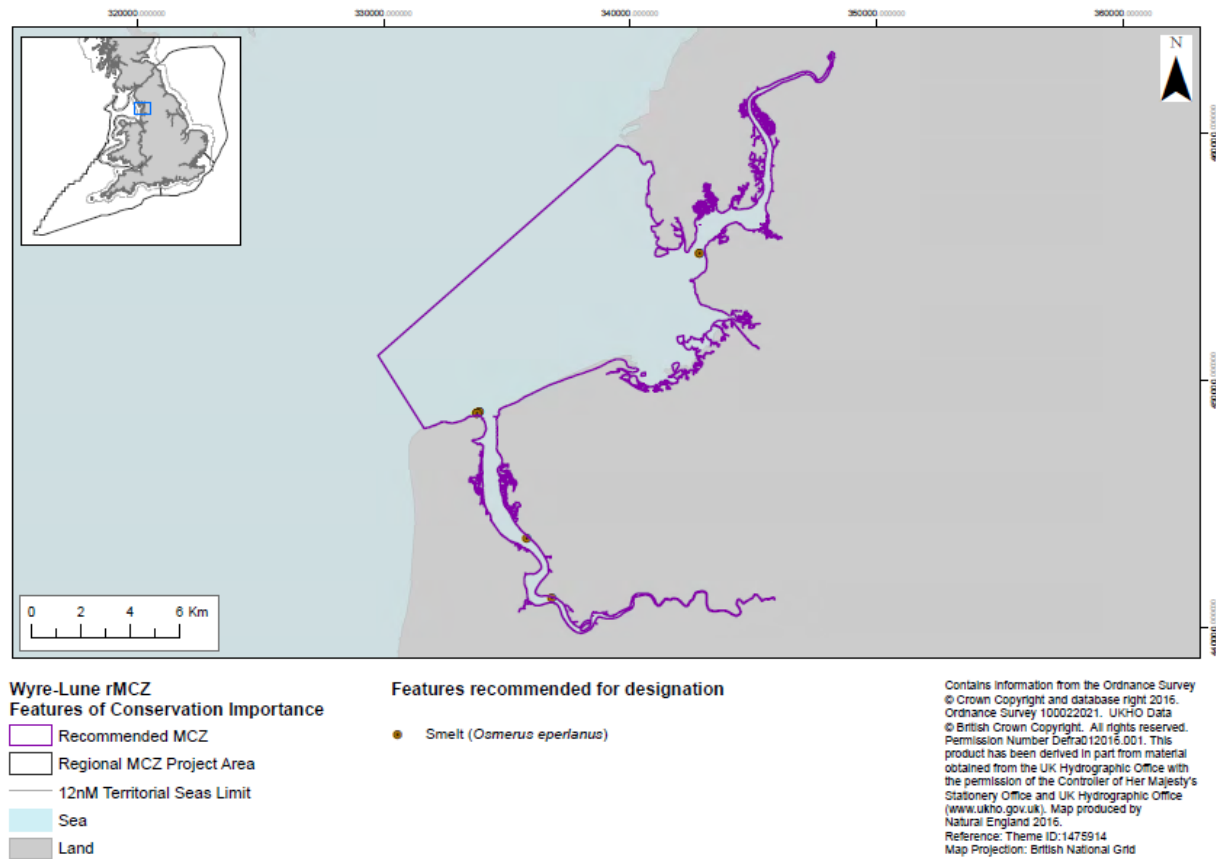
What would this site protect?

Designation would protect the following feature. You can read more about the feature this site protects and why it is important [here](#).

Feature	General Management Approach
Smelt (<i>Osmerus eperlanus</i>)	Recover to favourable condition

Where are the features located?

The following map shows the location of the feature to be protected within the site. A range of different types of surveys have been used to create site maps. More detailed information on the techniques used can be found [here](#).



Which activities are likely to be affected?

Management decisions are taken on a case by case basis by relevant regulators. If an activity is identified as requiring management this does not necessarily mean that it will need to be significantly restricted. Decisions will be based on the specifics of each case and any restrictions will depend on the sensitivity of the species, habitats or geological/geomorphological features to be protected to the activity taking place. More detail is available in the Impact Assessment.

Sectors and activities likely to be affected by designation		
Sector	Activity Affected	Best Cost Estimate (£) per year (rounded to nearest £100)
Ports and harbours	Disposal site	£8,000
Best estimate total cost		£8,000

Ports and harbours

This site is located close to several dredge disposal sites. There is also maintenance dredging at Fleetwood. All future licence applications made in relation to these activities will need to consider the possible effects on smelt. Environmental Impact Assessments for future licence applications to use disposal sites within 5 km of the boundary of the MCZ are likely to incur additional costs.

Which activities are not likely to be affected?

These activities are known to take place at this site but at their current levels of intensity the best available evidence indicates they are not likely to be damaging the features to be protected:

- Archaeological heritage
- Commercial fishing
- Flood and coastal erosion risk management activities
- Recreation

Additional information

To read the advice provided by Natural England, please visit

<http://publications.naturalengland.org.uk/publication/6079955233931264>

To read the advice provided by the Joint Nature Conservation Committee, please visit

<http://jncc.defra.gov.uk/page-7119>

For further information, please contact Defra on

- 03459 33 55 77 (UK only)
- +44 20 7238 6951 (from outside the UK)
- defra.helpline@defra.gsi.gov.uk



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This publication is available at www.gov.uk/government/publications

ANNEX C: Glossary of Terms

ALC	Agricultural Land Classification
BHA	Biological Heritage Site
BMV	Best and Most Versatile Land
DCO	Development Consent Order
Defra	Department of the Environment, Food and Rural Affairs
GCN	Great-crested newt
Habs Regs	Conservation of Habitats and Species Regulations 2010 (as amended)
HRA	Habitat Regulations Assessment
JNCC	Joint Nature Conservation Committee
MCAA	Marine and Coastal Access Act 2009
MCZ	Marine Conservation Zone
pMCZ	Proposed Marine Conservation Zone
MMO	Marine Management Organisation
MPA	Marine Protected Areas
Ramsar Convention 1971	Convention on Wetlands of International Importance
REAC	Record of Environmental Commitments
Relevant Representation response	Natural England's previous relevant representations written response dated 24 January 2019.
SAC	Special Areas of Conservation
SMP	Soil Management Plan
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest