

Fisheries in EMS Habitats Regulations Assessment for **Amber** and **Green** risk categories

NWIFCA-RA-SPA-007

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Site: **Ribble and Alt Estuaries**

European Designated Sites: UK9005103 Ribble and Alt Estuaries Special Protection Area (SPA)
UK11057 Ribble and Alt Estuaries Ramsar
Sefton Coast SAC
(UK9020294 Liverpool Bay/Bae Lerpwl SPA adjoins this site – assessed separately in NWIFCA-LB-SPA-005)

European Marine Site **Ribble and Alt Estuaries**

Qualifying Feature(s):

SPA and Ramsar

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)
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

Breeding Waterbird Assemblage

Natterjack toad (NON MARINE)

SAC

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-Ulicetea*); 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

S1395. *Petalophyllum ralfsii*; Petalwort

Site sub-feature(s):**SPA and Ramsar****Supporting Habitat:**

- intertidal rock
- intertidal sand and muddy sand
- intertidal mud
- intertidal mixed sediment
- coastal saltmarshes and saline reedbeds – (Saltmarsh)
- freshwater and coastal grazing marsh (Saltmarsh)
- coastal sand dunes (Sand dunes)
- water column

Great crested newt and Natterjack toad Supporting Habitat: Coastal sand dunes

Generic sub-feature(s):

Estuarine birds, Surface feeding birds, Benthic feeding seabirds, Intertidal mud and sand, Saltmarsh spp.

High Level Conservation Objectives:

With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified and the Ramsar Site and the wetland habitats and/or species for which the site has been listed (the 'Qualifying Features' listed above), 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 and ensure that the site contributes to achieving the wise use of wetlands across the UK, 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.

Sefton Coast SAC

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.

Fishing activities assessed:

Gear type(s): **Drift nets** (demersal & pelagic)

1. Introduction

1.1 Need for an HRA assessment

In 2012, the Department for Environment, Food and Rural Affairs (Defra) announced a revised approach to the management of commercial fisheries in European Marine Sites (EMS). The objective of this revised approach is to ensure that all existing and potential commercial fishing activities are managed in accordance with Article 6 of the Habitats Directive.

This approach is being implemented using an evidence based, risk-prioritised, and phased basis. Risk prioritisation is informed by using a matrix of the generic sensitivity of the sub-features of EMS to a suite of fishing activities as a decision making tool. These sub-feature-activity combinations have been categorised according to specific definitions, as red, amber, green or blue.

Activity/feature interactions identified within the matrix as red risk have the highest priority for implementation of management measures by the end of 2013 in order to avoid the deterioration of Annex I features in line with obligations under Article 6(2) of the Habitats Directive.

Activity/feature interactions identified within the matrix as amber risk require a site-level assessment to determine whether management of an activity is required to conserve site features. Activity/feature interactions identified within the matrix as green also require a site level assessment if there are “in combination effects” with other plans or projects.

Some European Sites within the NWIFCA District consist of features that are not fully marine (eg. sand dunes) and therefore fall outwith of the EMS Review process. They have not been included in the original risk matrix. Due to the nature of some of the fisheries in the District, particularly intertidal fisheries, the NWIFCA has adopted the approach of carrying out full HRA on all the features (including non-marine) within European Sites to ensure that any potential risk from fishing activity has been identified and assessed.

Site level assessments are being carried out in a manner that is consistent with the provisions of Article 6(3) of the Habitats Directive, that is to determine that fishing activities are not having an adverse effect on the integrity of the site, to inform a judgement on whether or not appropriate steps are required to avoid the deterioration of natural habitats and the habitats of species as well as disturbances of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of this directive.

If measures are required, the revised approach requires these to be implemented by the end of 2016.

The purpose of this site specific assessment document is to assess whether or not in the view of NWIFCA the fishing activity of ‘Drift nets (demersal and pelagic)’ has a likely significant effect on the qualifying features of the Ribble and Alt Estuaries European Site and on the basis of this assessment whether or not it can be concluded that ‘Drift nets (demersal and pelagic)’ will not have an adverse effect on the integrity of this European Site.

1.2 Documents reviewed to inform this assessment

- Natural England's risk assessment Matrix of fishing activities and European habitat features and protected species¹
- Reference list² (Annex 1)
- Natural England's consultation advice (Annex 2)
- Site map(s) – sub-feature/feature location and extent (Annex 3)
- Fishing activity data (map(s), etc) (Annex 4)

2. Information about the EMS

(See cover pages). Throughout this document this group of designated sites will be referred to as a whole as “Ribble and Alt Estuaries European Site”.

3. Interest feature(s) of the EMS categorised as ‘Red’ risk and overview of management measure(s) (if applicable)

No interest features of the EMS categorised as ‘Red’ risk.

4. Information about the fishing activities within the site

Drift nets are mobile nets that are not fixed or set in any way; instead they drift with prevailing currents and tide, catching fish by entangling them (MCS Fishing Methods guide, Seafish basic fishing methods). The local IFCO reports that Pelagic Drift Netting for pelagic species (such as herring and mackerel) has not occurred in the Ribble and Alt Estuaries European Site since around the 1930s (Local IFCO, 2016). Demersal Drift Netting for demersal species such as bass and cod occurs in the site and is detailed below (Local IFCO, 2016). Nets are submerged throughout fishing activity and fishermen remain with the nets.

Local Officers report up to seven commercial drift netting boats operating in the Ribble and Alt Estuaries European Site using one fleet of nets each. There are four full time (but seasonal) commercial boats, and a maximum of three part time commercial boats. Fishermen use nets of 200-1000 yards length each, most commonly made of monofilament, with lengths used depending on the weather and tides. Three fishermen have 1000 yards available each, but in practice may use considerably less (Local IFCO, 2016). The four other fishermen have 500 yards or less available to them but again may use less depending on the conditions (Local IFCO, 2016). The local fishery officer estimates a maximum total length of up to 5000 yards of drift net is available for the seven boats in this area. Five boats are moored at Lytham, one is launched off the beach at Southport near Weld Road and one from Altcar (via designated access route). Netting is carried out over hard sand substrate. Main species targeted are bass, with cod and thornback ray occasionally taken. Drift nets are always attended to by fishermen during fishing and are normally attached to the boat (Local IFCO, 2016). The practice known as “free drifting” (where a drift net is buoyed at either end but not attached to a boat) is not normally practiced in the Ribble and Alt

¹ See Fisheries in EMS matrix:

http://www.marinemanagement.org.uk/protecting/conservation/documents/ems_fisheries/populated_matrix3.xls

² Reference list will include literature cited in the assessment (peer, grey and site specific evidence e.g. research, data on natural disturbance/energy levels etc)

Estuaries area (Local IFCO, 2016). The local IFCO (with 29 years' experience as a local fisheries officer) has no knowledge of reports of bycatch of birds. There are around twelve recreational vessels which fish intermittently.

An example of moored drift netting vessels were seen during a beach patrol at Lytham on 18th June 2015, (see Annex 5). These vessels usually hand haul nets (one has a hauler), and use gill mesh for bass with buoys at the end of the net.

Drift netting occurs in the outer parts of the Ribble estuary between March and November (weather dependent). Netting is restricted under permit by Byelaw 27 where netters are prohibited from working the inner part of the Ribble estuary from 1st May to 30th November. When drift nets are used in shallow areas of water, there is a chance that the footrope could catch and interact with the seabed, therefore potential pressures of this are included in this assessment. There is an EU restriction prohibiting any licenced fishing vessel to land, tranship or retain seabass between 1st January to 30th June 2016. From 1st July to 31st December there is a 1000kg of bass per vessel per month limit for drift netters.

5. Test for Likely Significant Effect (LSE)

The Habitats Regulations assessment (HRA) is a step-wise process and is first subject to a coarse test of whether a plan or project will cause a likely significant effect on an EMS³.

Is the activity/activities directly connected with or necessary to the management of the site for nature conservation? NO

5.1 Table 1: Assessment of LSE

What pressures (such as abrasion, disturbance) are potentially exerted by the gear type(s) to features? -taken from *NE Advice on Operations-Pelagic fishing (or fishing activities that do not interact with seabed)*. Additional pressures relating to seabed impacts of lines (*AoO- anchored nets and lines*) have also been included in the event that a drift net footrope catches on the seabed in an area of shallow water.

Features: As the fishing activity occurs off Formby and across the mouth of the Ribble estuary, all bird features except Ruff will be assessed in this document. [Breeding ruff have been screened out as the fishing activity is not close to nesting sites, nor does this species forage in the intertidal area].

Of the supporting habitats in the SPA, the only habitat the fishery occurs on is intertidal sand and muddy sand (when covered in water). Fishing activity occurs at high tide when the intertidal sand and muddy sand supporting habitat feature is submerged. The rest of the supporting habitats have been screened out due to there being no interaction between the fishing activity and the supporting habitat. Petalwort and sand dune features have been screened out because access is via boats and established access routes therefore impacts on these features are considered to be insignificant.

Pressures: All pressures from the Advice on Operations table provided in the Ribble & Alt Estuaries Conservation Advice package have been screened out other than the following pressures due to the nature of the fishing activity and the low level of fishing activity:

- Collision above water with static or moving objects not naturally found in the marine environment
- Collision below water with static or moving objects not naturally found in the marine environment
- Visual disturbance
- Removal of non-target species

³ Managing Natura 2000 sites: http://ec.europa.eu/environment/nature/natura2000/management/guidance_en.htm

<ul style="list-style-type: none"> ○ Abrasion/disturbance of the substrate on the surface of the seabed (<i>supporting habitat</i>) Penetration and/or disturbance on the substrate below the surface of the seabed including abrasion (<i>supporting habitat</i>) 					
Qualifying Feature	Sub-feature	Gear type and potential pressures	Sensitivity	Potential for Likely Significant Effect?	Justification and evidence
A037 <i>Cygnus columbianus bewickii</i> ; Bewick's swan (Non-breeding)	<i>Supporting habitats assessed separately</i>	Drift nets (demersal) <ul style="list-style-type: none"> ○ Collision above water with static or moving objects not naturally found in the marine environment ○ Collision below water with static or moving objects not naturally found in the marine environment 	Sensitive	NO	(Estuarine birds- grazing) For the majority of the time, bird features are present in saltmarsh and farmland areas, and occasionally in the intertidal area. Fishing occurs at high tide and using vessels which the birds would avoid. This, and the limited scale and intensity of netting activity means collision with vessels or gear above/out of or below water is highly unlikely. This is therefore unlikely to have a significant effect on the population or distribution of the qualifying features.
A038 <i>Cygnus cygnus</i> ; Whooper swan (Non-breeding)					
A040 <i>Anser brachyrhynchus</i> ; Pink-footed goose (Non-breeding)					
		<ul style="list-style-type: none"> ○ Visual disturbance 	Sensitive	NO	The scale and intensity of the netting activity is limited and access is along established routes, resulting in limited visual disturbance with little increase on background

		<ul style="list-style-type: none"> ○ Removal of non-target species such as... <ul style="list-style-type: none"> - Accidental bycatch of fish (bird prey) - Accidental bycatch of birds 	<p>(No interaction)</p> <p>Sensitive</p>	<p>NO</p> <p>NO</p>	<p>levels. This is unlikely to have an effect on the population or distribution of the qualifying features. Established access routes are used to launch boats.</p> <p>No interaction-birds feed on cereal, potatoes, grain and grass.</p> <p>Bird species do not go below the water surface and fishermen (and vessels) remain with the net during fishing, which the birds would avoid. This and limited activity means accidental removal of birds is highly unlikely. Bird bycatch is a very rare occurrence. This is therefore unlikely to have a significant effect on the population or distribution of the qualifying features.</p> <p>Estuarine bird feature interaction categorised as "Blue" in generic matrix.</p>
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A048 <i>Tadorna tadorna</i> ; Common shelduck (Non-breeding)	Supporting habitats assessed separately	Drift nets (demersal)	Sensitive	NO	<p>(Estuarine birds)</p> <p>Nets are fished below the water surface. Birds forage on shore, wade in shallow water and dabble in the upper few centimetres of the water- they do not go more than a few centimetres below the water surface and would avoid the fishing boats that stay with the drift nets. This, and the limited scale and intensity of netting activity means collision with vessels or gear above/out of or below water is highly unlikely. This is therefore unlikely to have a significant effect on the population or distribution of the qualifying features.</p>				
A050 <i>Anas penelope</i> ; Eurasian wigeon (Non-breeding)						<ul style="list-style-type: none"> ○ Collision above water with static or moving objects not naturally found in the marine environment 			
A052 <i>Anas crecca</i> ; Eurasian teal (Non-breeding)						<ul style="list-style-type: none"> ○ Collision below water with static or moving objects not naturally found in the marine environment 			
A054 <i>Anas acuta</i> ; Northern pintail (Non-breeding)						<ul style="list-style-type: none"> ○ Visual disturbance 	Sensitive	NO	<p>The scale and intensity of the netting activity and access is limited resulting in limited visual disturbance with little increase on background levels which is unlikely to have an effect on the population or distribution of</p>

		<ul style="list-style-type: none"> ○ Removal of non-target species such as... <ul style="list-style-type: none"> - Accidental bycatch of fish (bird prey) 	Sensitive	NO	<p>the qualifying features.</p> <p>Only shelduck feed on fish- they feed on a wide range of prey and the fish they do feed on are small and would not be caught in the nets mesh. The impact on the bird feature food resource is therefore minimal. This is unlikely to have an effect on the population or distribution of the qualifying features.</p>
		<ul style="list-style-type: none"> - Accidental bycatch of birds 	Sensitive	NO	<p>Birds forage on shore, wade in shallow water and dabble in the upper few centimetres of the water- they do not go more than a few centimetres below the water surface and would avoid the fishing boats that stay with the drift nets. This, and the limited scale and intensity of netting activity means entanglement in gear is highly unlikely and is therefore unlikely to have a significant effect on the population or distribution of</p>

					the qualifying features. Estuarine bird feature interaction categorised as “Blue” in generic matrix.
A130 <i>Haematopus ostralegus</i> ; Eurasian oystercatcher (Non-breeding)	<i>Supporting habitats assessed separately</i>	Drift nets (demersal) ○ Collision above water with static or moving objects not naturally found in the marine environment ○ Collision below water with static or moving objects not naturally found in the marine environment	Sensitive	NO	(Estuarine birds) Nets are fished below the water surface. Wader bird species may be present on the shore, wading in shallow water and others floating on the surface. Birds forage on shore and inshore in the upper few centimetres of the water and do not go below the water surface. Fishing occurs at high tide and using vessels which the birds would avoid. This, and the limited scale and intensity of netting activity means collision with vessels or gear above/out of or below water surface is highly unlikely. This is therefore unlikely to have a significant effect on the population or distribution of the qualifying features.
A137 <i>Charadrius hiaticula</i> ; Ringed plover (Non-breeding)					
A140 <i>Pluvialis apricaria</i> ; European golden plover (Non-breeding)					
A141 <i>Pluvialis squatarola</i> ; Grey plover (Non-breeding)					
A143 <i>Calidris canutus</i> ; Red knot (Non-breeding)					
A144 <i>Calidris alba</i> ; Sanderling (Non-breeding)					
A149 <i>Calidris alpina alpina</i> ; Dunlin (Non-breeding)					
A156 <i>Limosa limosa islandica</i> ; Black-tailed godwit (Non-breeding)					
A157 <i>Limosa lapponica</i> ; Bar-tailed godwit (Non-breeding)					
A162 <i>Tringa totanus</i> ; Common redshank (Non-breeding)					
Seabird assemblage					
Waterbird assemblage					

Breeding waterbird assemblage		<ul style="list-style-type: none"> ○ Visual disturbance 	Sensitive	NO	The scale and intensity of the netting activity is limited and access is along established routes, resulting in limited visual disturbance with little increase on background levels. This is unlikely to have an effect on the population or distribution of the qualifying features.
Non-breeding waterbird assemblage <i>Including the following species not assessed in their own right:</i> <ul style="list-style-type: none"> • Whimbrel • Curlew 		<ul style="list-style-type: none"> ○ Removal of non-target species such as... 	Sensitive	NO	The only birds that feed on fish are ringed plover and redshank. These bird species feed on a wide range of prey and the fish they do feed on are small and would not be caught in the nets mesh. The impact on the bird feature food resource is therefore minimal. This is unlikely to have an effect on the population or distribution of the qualifying features.
		<ul style="list-style-type: none"> - Accidental bycatch of fish (bird prey) 	Sensitive	NO	The only birds that feed on fish are ringed plover and redshank. These bird species feed on a wide range of prey and the fish they do feed on are small and would not be caught in the nets mesh. The impact on the bird feature food resource is therefore minimal. This is unlikely to have an effect on the population or distribution of the qualifying features.
		<ul style="list-style-type: none"> - Accidental bycatch of birds 	Sensitive	NO	Bird species do not go below the water surface and would avoid boats that remain with nets that are attended-limited activity

					<p>means accidental removal of birds is highly unlikely. Bird bycatch is a very rare occurrence- no reports of bird bycatch known to local IFCO. This is therefore unlikely to have a significant effect on the population or distribution of the qualifying features.</p> <p>Estuarine bird feature interaction categorised as "Blue" in generic matrix.</p>
A183 <i>Larus fuscus</i> ; Lesser black-backed gull (Breeding)	Supporting habitats assessed separately	Drift nets (demersal) <ul style="list-style-type: none"> ○ Collision above water with static or moving objects not naturally found in the marine environment ○ Collision below water with static or moving objects not naturally found in the marine environment 	Sensitive	NO	<p>(Surface feeding seabirds)</p> <p>Birds forage in the upper few centimetres of the water and do not go below the water surface where drift nets are fished. Fishing occurs at high tide and using vessels which the birds would avoid. This, and the limited scale and intensity of netting activity means collision with vessels or gear above or below water surface is highly unlikely. This is therefore unlikely to have a significant</p>
A193 <i>Sterna hirundo</i> ; Common tern (Breeding)					
<p>Breeding seabird assemblage</p> <p>Including the following species not assessed in their own right:</p> <ul style="list-style-type: none"> • <i>Black-headed gull</i> <i>Larus ridibundus</i> 					

		<ul style="list-style-type: none"> ○ Visual disturbance 	Sensitive	NO	<p>effect on the population or distribution of the qualifying features.</p> <p>The scale and intensity of the netting activity is limited and access is along established routes resulting in limited visual disturbance with little increase on background levels which is unlikely to have an effect on the population or distribution of the qualifying features.</p>
		<ul style="list-style-type: none"> ○ Removal of non-target species such as... <ul style="list-style-type: none"> - Accidental bycatch of fish (bird prey) 	Sensitive	NO	<p>Terns feed on small fish that wouldn't be caught in the mesh of drift nets. Lesser black-backed gulls are scavengers that feed on fishing discards and offal, as well as small fish including herring. Black-headed gulls may take dead or sick fish. Drift netters target bass and cod mainly. This, and the scale and intensity of the netting activity is limited resulting in limited pressure from removal of non-target species and</p>

		<p>- Accidental bycatch of birds</p>	Sensitive	NO	<p>impact on bird feature food resource is minimal- this is unlikely to have an effect on the population or distribution of the qualifying features.</p> <p>Birds forage in the upper few centimetres of the water column and do not go below the water surface where drift nets are fished. Fishing occurs at high tide and using vessels which the birds would avoid. Nets are attended to and local IFCO has had no reports of bird bycatch. This, and the limited scale and intensity of netting activity means entanglement of birds is highly unlikely. This is therefore unlikely to have a significant effect on the population or distribution of the qualifying features.</p> <p>Surface feeding bird feature interaction categorised as "Blue" in generic matrix.</p>
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		<ul style="list-style-type: none"> ○ Visual disturbance 	Sensitive	NO	<p>between scaup bird feature and fishing gear is low.</p> <p>The scale and intensity of the netting activity is limited and access is along established routes resulting in limited visual disturbance with little increase on background levels which is unlikely to have an effect on the population or distribution of the qualifying features.</p>
		<ul style="list-style-type: none"> ○ Removal of non-target species such as... <ul style="list-style-type: none"> - Accidental bycatch of fish (bird prey) 	Sensitive	NO	<p>Scoter and scaup feed on molluscs therefore there is no interaction with these species. Cormorant feed on fish species but this area is not their prime feeding ground and the scale and intensity of the netting activity is limited resulting in limited pressure from removal of non-target species and impact on bird feature food resource is minimal. This is unlikely to have an effect on the population or</p>

		<ul style="list-style-type: none"> - Accidental bycatch of birds 	Sensitive	YES	<p>distribution of the qualifying features.</p> <p>Risk of interaction (such as entanglement) between diving cormorant and scoter bird feature and fishing gear. Scaup is mainly found in freshwater areas so there would not be an interaction.</p>
<i>SPA Supporting Habitats</i>	Intertidal sand and muddy sand	<ul style="list-style-type: none"> o Abrasion/disturbance of the substrate on the surface of the seabed o Penetration and/or disturbance on the substrate below the surface of the seabed including abrasion <i>(eg through abrasion and movement of substrate via contact of nets)</i> 	Sensitive	NO	<p>Abrasion, penetration and disturbance could be caused by nets and lines during fishing activity. However, nets are set on sandy/muddy substrate and the area is naturally highly dynamic with strong currents, and a large tidal range, therefore any impacts caused by abrasion, penetration or disturbance would be quickly dissipated. Access to the fishery is via boats and established access routes. No increase in disturbance on existing background levels.</p> <p>The scale and intensity of the netting activity</p>
			Sensitive	NO	

					is limited and unlikely to have a significant effect on the extent, distribution, structure or function of the habitats of the qualifying features.
Natterjack toad (NON MARINE)	Coastal sand dunes (sand dunes)	Drift nets (demersal) ○ Visual disturbance		NO	Breeding Natterjack toads are present on land in area near Hightown Dunes, not in vicinity of fishing activity. They are also present in Altcar rifle range but there is no public access there. Access to beach is via vehicle and foot on established access routes or coastal path, therefore no increase on existing background disturbance levels. The scale and intensity of the netting activity and access is limited resulting in limited visual disturbance which is unlikely to have an effect on the population or distribution of the qualifying features.
S1166. <i>Triturus cristatus</i> ; Great crested newt					

<p>Is the potential scale or magnitude of any effect likely to be significant?⁴</p>	<p>Alone</p> <p>Uncertain</p> <p>Comments :</p> <p>Demersal drift netting activity in the Ribble and Alt Estuaries European Site has the potential for gear interaction with the diving bird features through collision below water and entanglement although the levels of netting occurring in the European Site are low with 7 drift netters fishing.</p> <p>The NWIFCA concludes that netting may have a likely significant effect on the SPA features of the Ribble and Alt Estuaries European Site, therefore an Appropriate Assessment will be carried out.</p>	<p>OR In-combination⁵</p> <p>N/A</p> <p>Comments :</p> <p>These activities also occur at the site:</p> <ul style="list-style-type: none"> • Beam trawl (whitefish, shrimp) • Light otter trawls • Handworking (access from land and vessel) • Static- fixed nets • Pots/ creels • Longlines (demersal) • Shrimp push nets • Digging for bait <p>In combination effects will be assessed when all initial TLSEs for a site are completed.</p>
<p>Have NE been consulted on this LSE test? If yes, what was NE's advice?</p>	<p>Yes</p>	

⁴ Yes or uncertain: completion of AA required. If no: LSE required only.

⁵ If conclusion of LSE alone an in-combination assessment is not required.

6. Appropriate Assessment

6.1 Potential risks to features

Introduction

Extensive intertidal mud and sandflats make up the Ribble and Alt Estuaries SPA, along with large areas of saltmarsh in inner areas. A wide sandy shore runs from Crosby to the Alt Estuary, and along the Sefton Coast to the Ribble Estuary. Birds use the large areas of intertidal sand and mudflats as an important feeding area when exposed at low tide. Roost sites are used in the estuary itself (NE site information, 2015).

Drift nets (demersal)

(details of gear and activity described in section 4).

- **Non-breeding waterbird assemblage (cormorant and common scoter)**

Potential pressures: Due to the nature of the fishing activity all pressures from the Advice on Operations other than the following have been screened out:

- Collision / interaction BELOW water with static or moving objects not naturally found in the marine environment (e.g., boats, machinery, and structures) and entrapment
- Removal of non-target species

Impacts

There may be indirect and direct impacts of fisheries on birds, such as gear collision/entrapment below the water surface. Birds may be drowned when caught in gear, leading to incidental mortality (Tasker *et al.* 2000, Furness, 2003). The risk of entanglement of diving species is increased when nets are made from synthetic materials such as mono-filament nylon which makes nets difficult for birds to see whilst swimming underwater (Furness, 2003, Sonntag *et al.* 2012).

In a study by Sonntag *et al.* (2012), it was assumed that horizontal diving foraging birds were more vulnerable to net mortality than vertical diving species, as were birds that aggregate in large flocks (rather than small groups), and species with lower biogeographic population sizes. A study carried out in Newfoundland by Davoren (2007) found the majority of gillnet bird bycatch comprised of diving birds including auks, with some incidental catches of other species including common tern. Various studies carried out in Scotland, England and Ireland have reported that particular species at risk of being caught in nets as bycatch are guillemots and razorbills- diving auk species (Żydelis *et al.* 2009; Smiddy, 2001; Bourne, 1989; Robins, 1991; RSPB 2010). Żydelis *et al.* (2009) reported that every year in the UK, thousands of guillemots and hundreds of razorbills were caught as bycatch, with annual mortality from gillnets in the north-east of Scotland alone estimated at 10,000-15,000. A study in 1992 also found that the main seabird species caught and killed in salmon bag nets in northeast Scotland were razorbills and guillemots (species particularly vulnerable to entanglement in nets), although losses were small in relation to the total number of the species in the area (Murray *et al.* 1994). A review into the impacts of fisheries on marine birds in Welsh waters found relatively few reported interactions, with those found relating mostly to bycatch in set nets and disturbance/ prey abundance effects from shellfish harvesting (CCW, 2012).

Fishing effort, bird species and diving habits, abundance and distribution will determine the overall threat and numbers of birds killed within the fishery area and will differ between locations, with increased effects seen closer to breeding colonies where inexperienced young birds may be most susceptible to trapping (Ainley *et al.* 1981; Harrison & Robins, 1992; Tasker *et al.* 2000; Sewell *et al.* 2007; Murray *et al.* 1994; Furness, 2003; Gubbay & Knapman, 1999; Sewell & Hiscock, 2005). A CCW review (2012) stated that impacts varied spatially and temporally, with different effects to bird populations in different locations and at different times of year.

Unintentional bycatch of birds can occur when nets (or any other types of fishing gear) are set within the feeding range of seabirds (Tasker *et al.* 2000). In areas located around diving seabird colonies, or where high densities of birds gather on the water surface, there may be high incidental gill net fishery bycatches (Gubbay & Knapman, 1999; Sewell & Hiscock, 2005). A report by Robins (1991) reported localised seabird bycatch impacts in Britain and Ireland, with bass gillnets set in winter in St Ives Bay (Cornwall) accidentally catching up to 1000 razorbills and guillemots. Other studies in Wales and Scotland found specific impacts were seen in areas of nets set beside colonies but with no evidence of widespread impact (Thomas, 1992; Murray, 1993; Murray *et al.*, 1994; Tasker *et al.* 2000).

Gear loss can lead to “ghost fishing” where nets continue to fish after being lost (through bad weather or following damage by mobile gears) or discarded, potentially leading to entanglement of seabirds also (Furness, 2003; Kaiser *et al.* 1996; Sewell & Hiscock, 2005). A study by Kaiser *et al.* (1996) examined ghost fishing catches in gill nets over 9 months following gear being cut free, which reported fish being the main catch first, then increased crustacea catches over the 9 months. Three shags (diving bird species) were also found caught in the gill net- wave and tidal action may cause lost nets to be brought closer inshore and could lead to bird bycatch which may vary seasonally (Kaiser *et al.* 1996).

Exposure

The demersal drift net fishery in the Ribble and Alt Estuaries European Site is small scale compared to the fisheries discussed in the above reports, with a maximum of seven fishermen using demersal drift nets regularly. Fishermen (and boats) stay with the drift nets during fishing activity which will cause the birds to avoid the area of fishing. Bird bycatch is a rare occurrence according to the local fishery officer and the only diving bird species present in the area with the potential for interaction with drift nets are those included in the “Non-breeding waterbird assemblage” of Common scoter and Cormorant. The main populations of Common scoter and Cormorant are found further offshore (*pers. comm.* Natural England, 2016) - the Ribble and Alt Estuaries European Site is not a prime feeding ground for these species.

Taking into account the movement of the net in water currents, the nets would have an approximate width of 1m (0.001km) when fished on the seabed, and a combined total length used of 5000 yards (4.572km), giving an approximation of 0.004572 km² footprint of nets being used in the Ribble and Alt Estuaries European Site (the total site covers 124 km²). This is 0.00369% of the site overall area (fished in areas off the Ribble and off Formby- Annex 4), generally only during March to November (when nets are fished, weather dependent and generally every three days). This area coverage would be in the event that all the nets were being fished at the same time. The birds would also need to be in this area at the same time as fishing is occurring for there to be an interaction between the gear and the features. Common scoter are present in Liverpool Bay from July to May, with the most significant numbers present during August to March (NE Conservation Advice for Liverpool Bay, 2012). This means significant numbers of scoter are present in Liverpool Bay (and may visit the Ribble and Alt Estuaries European Site) for five months of the fishing activity.

Overall, interaction (such as collision below water and entanglement) between bird feature and fishing gear/ vessel is highly unlikely due to the limited scale of activity. Local fishery officer (with 29 years of experience) reports that bird bycatch is a very rare occurrence. Fishermen set the nets from a boat and stay with the nets during the period of fishing which will keep birds away. In addition, the footprint of netting activity is small (0.00369% of the entire site) compared to the distribution and numbers of birds across the European Site (12,412.3 ha). This activity is unlikely to have a significant effect on the population or distribution of the qualifying features.

Table 2: Summary of Impacts

Feature/Sub feature(s)	Conservation Objective	Potential pressure ⁶ (such as abrasion, disturbance) exerted by gear type(s) ⁷	Potential ecological impacts of pressure exerted by the activity/activities on the feature ⁸ <i>(reference to conservation objectives)</i>	Level of exposure ⁹ of feature to pressure	Mitigation measures ¹⁰
<p>Non-breeding waterbird assemblage</p> <p><i>Including:</i> -Cormorant, -Common scoter</p>	<p>Maintain or restore the population and distribution of each of the qualifying features within the site.</p>	<p>Risk of interaction (such as collision <u>below</u> water and entanglement) between bird feature and fishing gear/ vessel.</p>	<p>Potential risk to population and distribution of the qualifying bird features from injury or mortality caused by interaction between gear and feature.</p>	<p>A small number of these birds may occasionally be found feeding in the Ribble and Alt Estuaries European Site.</p> <p>Low exposure risk due to low level activity and low numbers of birds. The scale and intensity of the netting activity is low (0.00369% footprint across entire site) resulting in very limited risk of collision or entanglement of birds with gear below water.</p> <p>Occurrence of bird bycatch is extremely rare and limited activity with nets (which are attended to by fishermen)</p>	<p>N/A</p>

⁶ Guidance and advice from NE.

⁷ Group gear types where applicable and assess individually if more in depth assessment required.

⁸ Document the sensitivity of the feature to that pressure (where available), including a site specific consideration of factors that will influence sensitivity.

⁹ Evidence based e.g. activity evidenced and footprint quantified if possible, including current management measures that reduce/remove the feature's exposure to the activity.

¹⁰ Detail how this reduces/removes the potential pressure/impact(s) on the feature e.g. spatial/temporal/effort restrictions that would be introduced.

				<p>means accidental removal of birds is unlikely.</p> <p>This is unlikely to have a significant effect on the population or distribution of the qualifying features.</p>	
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7. Conclusion¹¹

Taking into account the information detailed in the Appropriate Assessment, it can be concluded that the current low level of fishing using drift nets (demersal and pelagic), has no adverse effect on the integrity of the Ribble and Alt Estuaries European Site interest features.

8. In-combination assessment¹³

In combination effects will be assessed in a separate document when all initial TLSEs for a site are completed.

9. Summary of consultation with Natural England

See attached advice from Natural England (Annex 2).

10. Integrity test

It can be concluded that fishing using drift nets (demersal and pelagic) has no adverse effect on the integrity of the Ribble and Alt Estuaries European Site interest features.

Annex 1: Reference list

Ainley, D.G., DeGange, A.R., Jones, L.L., Beach, R.J. 1981. Mortality of seabirds in high-sea salmon gillnets. *Fish. Bull.* 79: 800-806.

Birdlife website- reference for bird feeding and habitat information. Available at www.birdlife.org

Bourne, W.R.P. 1989. New evidence for bird losses in fishing nets. *Marine Pollution Bulletin.* **10**: 482.

Brown, S. 2015. *Personal communication from IFCA local fisheries officer*

CCW Report. 2012. Review of the impacts of fisheries on marine birds with particular reference to Wales. Marine Spatial Planning in Wales Project. WWT consulting. CCW Policy Research Report No. 11/6.

Davoren, G.K. 2007. Effects of Gill-Net Fishing on Marine Birds in a Biological Hotspot in the Northwest Atlantic. *Conservation Biology.* **21** (4):1032-1045.

Furness, R.W. 2003. Impacts of fisheries on seabird communities. *Scientia Marina* 67 (Suppl.2): 33-45.

Gubbay, S. & Knapman, P.A. 1999. A review of the effects of fishing within UK European marine sites. English Nature (UK Marine SACs Project). 134 pages

Harrison, N. & Robins, M. 1992. The threat from nets to seabirds. *RSPB Conservation Review* 6: 51-56.

Holden, P. & Cleeves, T. 2006. *RSPB Handbook of British Birds.* Second edition book.

¹¹ If conclusion of adverse affect alone an in-combination assessment is not required.

- Kaiser, M.J., Bullimore, B., Newman, P., Lock, K., Gilbert, S.** 1996. Catches in 'ghost fishing' set nets. *Marine Ecology Progress Series* Vol. 145:11-16.
- MCS** Website Fishing Methods. Available at: http://www.mcsuk.org/downloads/fisheries/Fishing_Methods.pdf
- Murray, S.** 1993. Marine wildlife and net fisheries around Scotland and Northern Ireland in 1992. Royal Society for the Protection of Birds, Sandy. 96 pp.
- Murray, S., Wanless, S., & Harris, M. P.** 1994. The effects of fixed salmon *Salmo salar* nets on guillemot *Uria aalge* and razorbill *Alca torda* in northeast Scotland in 1992. *Biological Conservation*, 70: 251–256.
- Natural England Marine Conservation Advice for Special Protection Area: Ribble and Alt Estuaries**, published March 2015. Available at: <https://www.gov.uk/government/publications/marine-conservation-advice-for-special-protection-area-ribble-and-alt-estuaries-uk9005103>
- Natural England Marine Conservation Advice for Special Protection Area: Liverpool Bay**, published October 2012. Available at: <http://publications.naturalengland.org.uk/publication/3236717?category=3212324>
- Natural England**, 2016. Personal communication with Ribble and Alt Area Adviser. 8th January 2016.
- NWIFCA Byelaws**. Available at www.nw-ifca.gov.uk
- Robins, M.** 1991. *Synthetic Gill Nets and Seabirds*. Worldwide Fund for Nature/Royal Society for the Protection of Birds, Godalming. 68 pp.
- RSPB**. 2010. *So far so good for Filey bylaw*. Legal Eagle No. 62.
- RSPB website**- reference for bird feeding and habitat information. Available at www.rspb.org.uk
- Seafish**, 2005. Basic fishing methods. Available at: http://www.seafish.org/media/Publications/Basic_Fishing_Gear_Booklet_May05.pdf.
- Sewell, J. & Hiscock, K.**, 2005. Effects of fishing within UK European Marine Sites: guidance for nature conservation agencies. Report to the Countryside Council for Wales, English Nature and Scottish Natural Heritage from the Marine Biological Association. Plymouth: Marine Biological Association. CCW Contract FC 73-03-214A. 195 pp.
- Sewell, J., Harris, R., Hinz, H., Votier, S., Hiscock, K.** 2007. An assessment of the impact of selected fishing activities on European Marine Sites and a review of mitigation measures. Report to the Seafish Industry Authority (Seafish). Marine Biological Association of the UK, Plymouth and the University of Plymouth, members of the Plymouth Marine Sciences Partnership.
- Smiddy, P.** 2001. Auks (alcidae) drowned in fishing nets in east Cork in January and February 1983. *Irish Naturalists Journal*. **26**(11): 414-419.
- Sonntag, N., Schwemmer, H., Fock, H.o., Bellebaum, J., Garthe, S.** 2012. Seabirds, set-nets and conservation management: assessment of conflict potential and vulnerability of birds to bycatch in gillnets. *ICES Journal of Marine Science*, 69: 578-589.
- Still, D.A., Calibrade, N.A., Holt, C.A.** 2015. [Review and analysis of changes in water-bird use of the Mersey Estuary SPA, Mersey Narrows & North Wirral Foreshore SPA and Ribble & Alt Estuaries SPA](#). BTO Research Report No. 648.
- Tasker, ML, Camphuysen, C.J., Cooper, J., Garthe, S., Montevecchi, W.A., Blaber, S.J.M.** 2000. The impacts of fishing on marine birds. *ICES Journal of Marine Science* 57: 531-547.

Thomas, D. 1992. Marine Wildlife and Net Fisheries around Wales. Royal Society for the Protection of Birds/Countryside Council for Wales, Newtown. 55 pp.

Žydelis, R., Bellebaum, J., Österblom, H., Vetemaa, M., Schirmeister, B., Stipiece, A., Dagys, M., van Eerden, M., Garthe, S. 2009. Bycatch in gillnet fisheries- An overlooked threat to waterbird populations. *Biological Conservation*. 142: 1269-1281.

Annex 2: Natural England's consultation advice

Date: 23 February 2016
Our ref: 179138
Your ref: NWIFCA-RA-SPA-006 & NWIFCA-RA-SPA_007



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BY EMAIL ONLY

T 0300 060 3900

Dear Sarah

Formal Advice to NWIFCA. Fisheries in EMS Habitats Regulations Assessment for Amber risk Categories in Ribble & Alt Estuaries SPA, including gear types: Gill nets, trammels, entangling nets (NWIFCA-RA-SPA-006) and drift nets (demersal and pelagic) (NWIFCA-RA-SPA-007).

Thank you for your consultation on the above which was received by Natural England on 17 February 2016.

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.

In 2012, the Department for Environment, Food and Rural Affairs (Defra) announced a revised approach to the management of commercial fisheries in EMSs¹. The objective of this revised approach is to ensure that all existing and potential commercial fishing activities are managed in accordance with Article 6 of the Habitats Directive. This document states that for 'green' risk activities a site level assessment will be required if there are 'in combination effects' with other plans or projects. The Department's strong preference is that site level assessments be carried out in a manner that is consistent with the provisions of Article 6(3) of the Habitats Directive. Appropriate management measures should be put in place to ensure that the fishing activity or activities either 1) have no likely significant effect on a site in view of its conservation objectives or 2) following assessment, can be concluded to have no adverse effect on the integrity of the site.

Natural England has considered the two Habitat Regulations Assessments (HRAs) prepared by North Western Inshore Fisheries and Conservation Authority (IFCA) for the purposes of making an assessment consistent with the provisions of Article 6(3). Please accept this letter as Natural England's formal advice on the assessments and the conclusions they make. The assessments consider the effects of the following fishing activities on the Ribble & Alt Estuaries Special Protection Area (SPA):

- NWIFCA-RA-SPA-006: Gill nets, trammels, entangling nets;
- NWIFCA-RA-SPA-007: Drift nets (demersal and pelagic);

¹ Defra revised approach:

<https://www.gov.uk/government/publications/revised-approach-to-the-management-of-commercial-fisheries-in-european-marine-sites-overarching-policy-and-delivery>



We are content that the best available and most up to date evidence has been used to carry out the HRAs by North Western IFCA officers to determine whether management of an activity is required to conserve site features, and thus to ensure the protection of the features, from direct and indirect impacts, from the collection of marine fisheries resources.

We note that in combination effects will be assessed in a separate document when all initial Tests of Likely Significant Effects (TLSEs) for a site are completed.

Subject to the outcomes of the in combination assessments, it is Natural England's view that through their two HRAs, North Western IFCA officers appear to have appropriately identified those activities that are likely to have a significant effect in view of the site's conservation objectives, and whether management measures are required in order to ensure that the assessed fishing activity or activities will have no adverse effect on the integrity of the EMS.

It is Natural England's view that any foreseeable risk, or harm to the site has been appropriately assessed, and a robust mechanism for re-assessing that risk is in place. This view is based on our current knowledge of the impacts of these fishing activities on the designated features.

If you require any further comments or have any queries regarding the above please contact me to discuss them further.

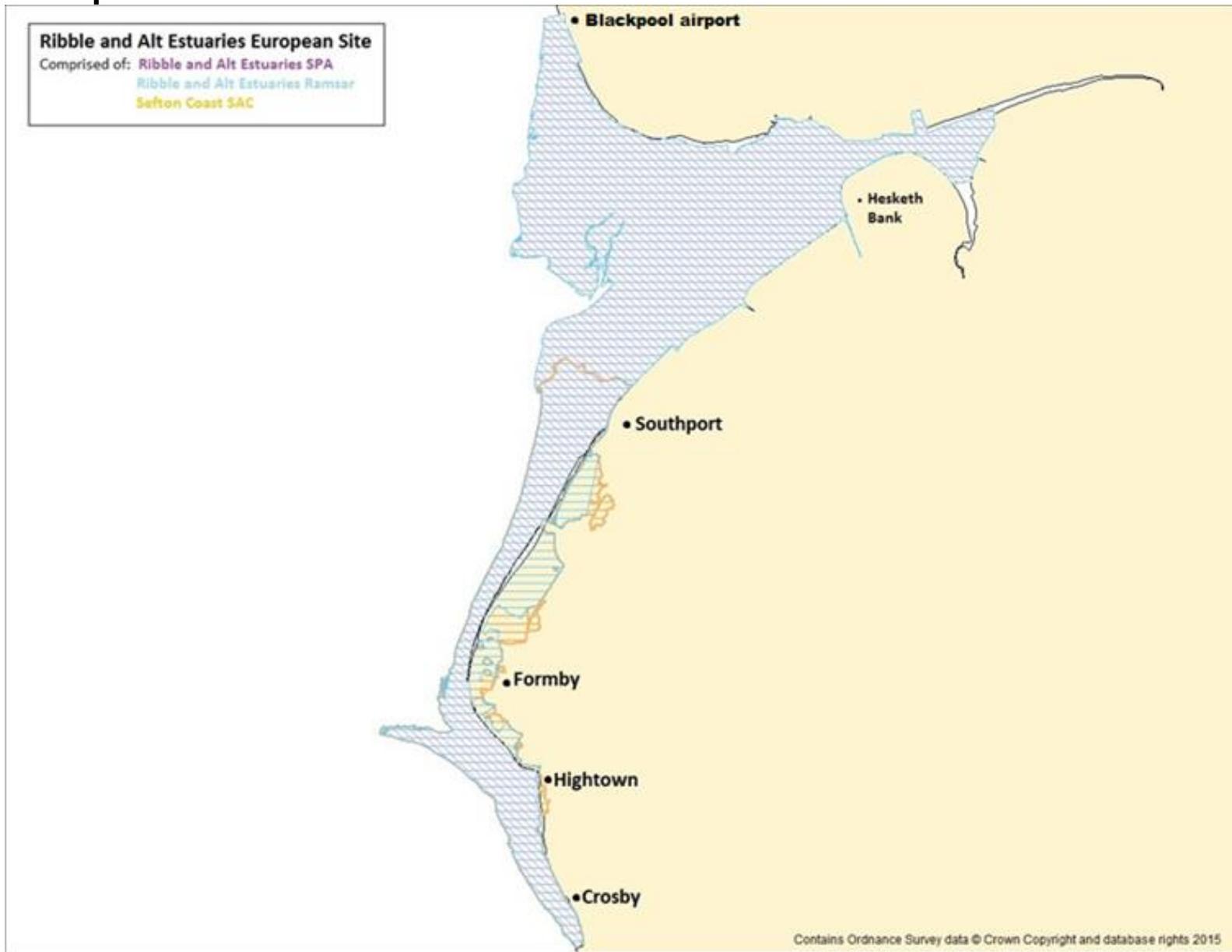
Yours sincerely



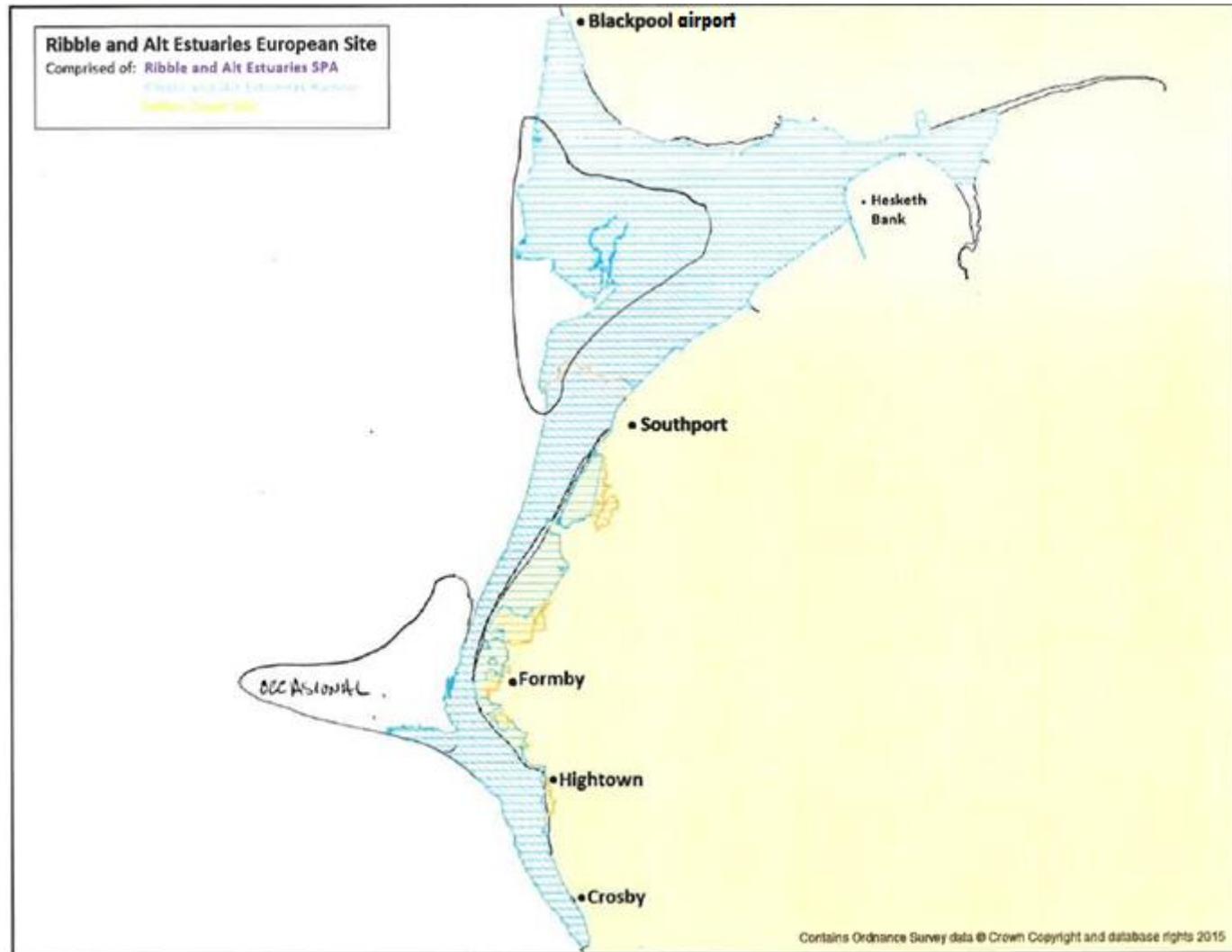
Emily Hardman
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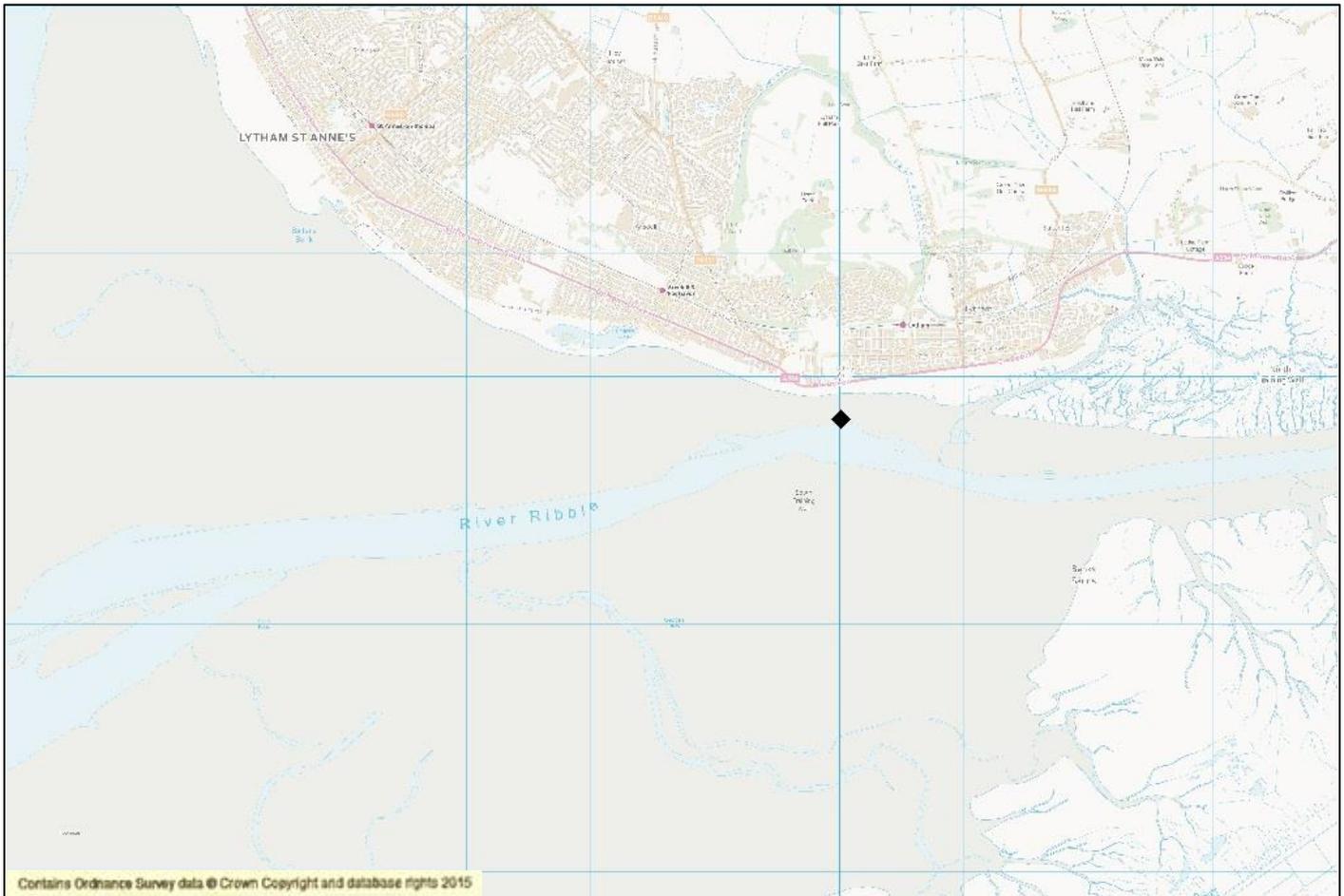


Annex 3: Site Map



Annex 4: Fishing activity map (annotated by local IFCO 20/11/15)





Rough area that drift netting boats are moored in at Lytham (black diamond)

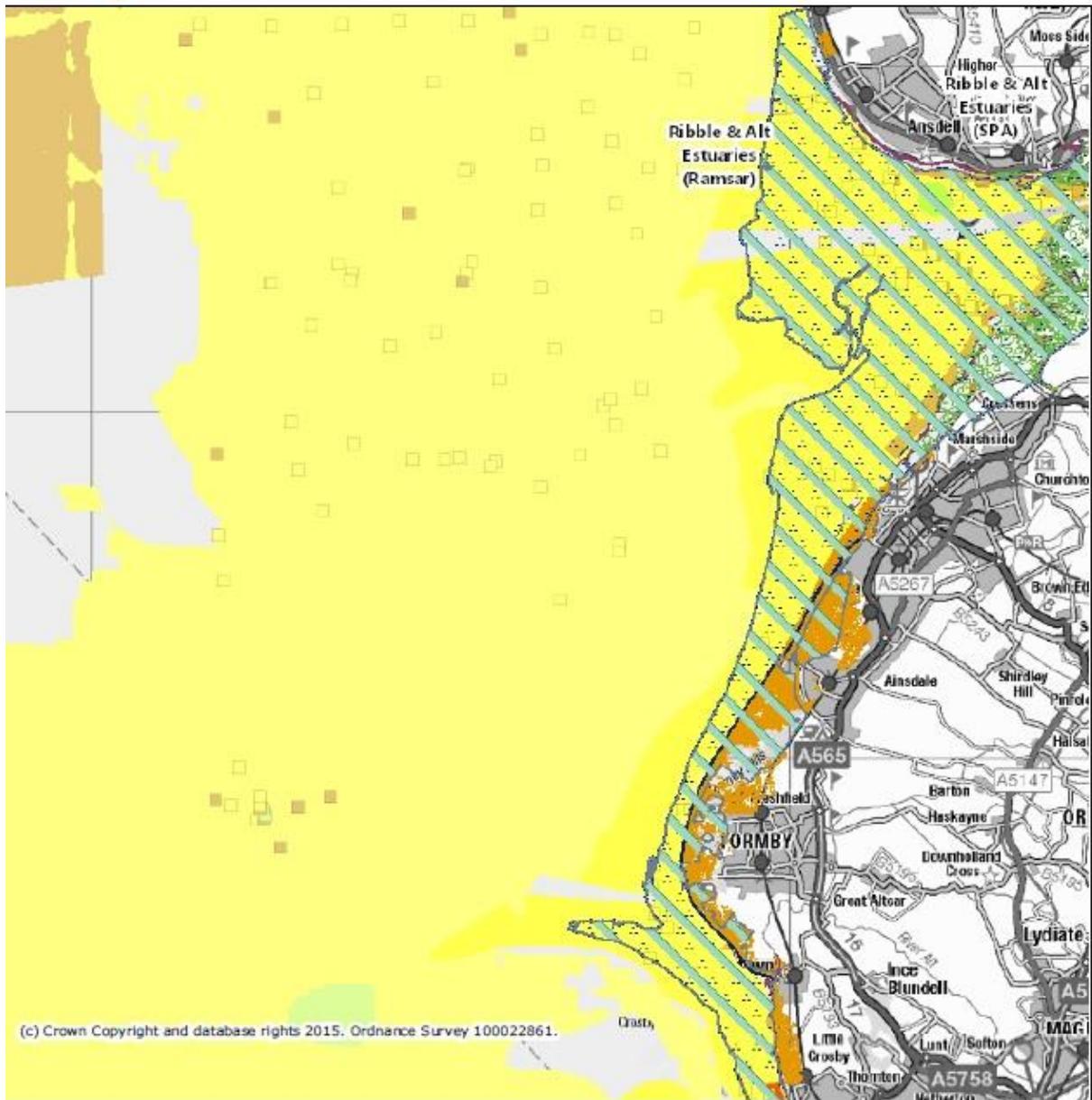
Annex 5: Fishing vessels





Annex 6: Feature map

Ribble & Alt Estuaries SPA and Ramsar Magic Map



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Legend

-  Ramsar Sites (England)
-  Special Protection Areas (England)
-  Priority Habitat Inventory - Coastal Sand Dunes (England)
-  Intertidal coarse sediment (A2.1)
-  Intertidal sand and muddy sand (A2.2)
-  Intertidal mud (A2.3)
-  Intertidal mixed sediments (A2.4)
-  Intertidal seagrass beds (A2.61)
-  Intertidal coarse sediment (A2.1)
-  Intertidal sand and muddy sand (A2.2)

Projection = OSGB36

xmin = 278400

ymin = 394000

xmax = 367500

ymax = 437800

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