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

NWIFCA-MB-EMS-011
Date completed: 17/12/2015
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Site: Morecambe Bay and Duddon Estuary

European Designated Sites: UK0013027 Morecambe Bay Special Area of Conservation (SAC)
UK 9005031 Morecambe Bay Special Protection Area (SPA)
UK11045 Morecambe Bay Ramsar
UK9005031 Duddon Estuary Special Protection Area (SPA)
UK11022 Duddon Estuary Ramsar
Morecambe Bay and Duddon Estuary pSPA

European Marine Site: **Morecambe Bay and Duddon Estuary**

Qualifying Feature(s):

SAC and Ramsar

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 (NON MARINE)
H1310. *Salicornia* and other annuals colonising mud and sand; Glasswort and other annuals colonising mud and sand; Pioneer saltmarsh
H1330. Atlantic salt meadows (*Glauco-Puccinellietalia maritimae)*
H2110. Embryonic shifting dunes (NON MARINE)
H2120. Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes"); Shifting dunes with marram (NON MARINE)
H2130. Fixed dunes with herbaceous vegetation ("grey dunes"); Dune grassland (NON MARINE)
H2150. Atlantic decalcified fixed dunes (*Calluno-Ulicetea*); Coastal dune heathland (NON MARINE)
H2170. Dunes with *Salix repens ssp. argentea* (*Salicion arenariae*); Dunes with creeping willow (NON MARINE)
H2190. Humid dune slacks (NON MARINE)
S1166. *Triturus cristatus*; Great crested newt (NON MARINE)
Natterjack Toad (NON MARINE)

SPA and Ramsar

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)
A050 *Anas Penelope;* Wigeon - (non-breeding – Ramsar only)
A054 *Anas acuta*; Northern pintail (non-breeding)
A063 *Somateria mollissima*; Common eider (non-breeding – Ramsar only)
A067 *Bucephala clangula;* Goldeneye - (non-breeding – Ramsar only)
A069 *Mergus serrator;* Red-breasted merganser - (non-breeding – Ramsar only)
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)
A142 *Vanellus vanellus;* Lapwing - (non-breeding – Ramsar only)
A143 *Calidris canutus*; Red knot (non-breeding)
A144 *Calidris alba*; Sanderling (non-breeding)
A149 *Calidris alpina alpina*; Dunlin (non-breeding)
A151 *Calidris pugnax;* Ruff (non-breeding)
A156 *Limosa limosa;* 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 melancephalus; Mediterranean gull (non-breeding)
A183 *Larus fuscus*; Lesser black-backed gull (Breeding, non-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)
Phalacrocorax carbo; Cormorant – (non-breeding – Ramsar only)
Podiceps cristatus; Great crested grebe - (non-breeding – Ramsar only)
Seabird assemblage
Waterbird assemblage

Site sub-feature(s)/Notable Communites:

SAC and Ramsar

Sandbanks which are slightly covered by sea water all the time – Subtidal coarse sediment, subtidal mixed sediments, subtidal sand, subtidal mud.

Estuaries - Intertidal mud, intertidal sand and muddy sand, intertidal mixed sediments, intertidal coarse sediment, intertidal rock, intertidal stony reef, intertidal biogenic reef: mussel beds, subtidal coarse sediment, subtidal mixed sediments, subtidal sand, subtidal mud, Salicornia and other annuals colonising mud and sand, Atlantic salt meadows (Glauco-Puccinellietalia maritimae).

Mudflats and sandflats not covered by seawater at low tide; Intertidal mudflats and sandflats – Intertidal mud, intertidal sand and muddy sand, intertidal mixed sediments, intertidal seagrass beds, intertidal coarse sediment.

Coastal lagoons

Large shallow inlets and bays – Intertidal mud, intertidal sand and muddy sand, intertidal mixed sediments, intertidal seagrass beds, intertidal coarse sediment, intertidal rock, intertidal stony reef, intertidal biogenic reef: mussel beds, intertidal biogenic reef: Sabellaria spp., subtidal stony reef, circalittoral rock, subtidal coarse sediment, subtidal mixed sediments, subtidal sand, subtidal mud, Salicornia and other annuals colonising mud and sand, Atlantic salt meadows (Glauco-Puccinellietalia maritimae).

Reefs – Circalittoral rock, intertidal biogenic reef: mussel beds, intertidal biogenic reef: Sabellaria spp., intertidal rock, intertidal stony reef, subtidal stony reef.

Perennial vegetation of stony banks: Coastal shingle vegetation outside the reach of waves

***Salicornia* and other annuals colonising mud and sand: Glasswort and other annuals colonising mud and sand; Pioneer saltmarsh**

Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) (referred to as Saltmarsh)

Embryonic shifting dunes

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

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

Atlantic decalcified fixed dunes (*Calluno-Ulicetea*); Coastal dune heathland

Dunes with *Salix repens spp. Argentea* (*Salicion arenariae*); dunes with creeping willow

Humid dune slacks

Great crested newt (*Triturus cristatus*)

Supporting habitat: Great crested newt (NON MARINE) – coastal sand dunes
Natterjack Toad (NON MARINE)- coastal sand dunes

SPA and Ramsar

Annual vegetation of drift lines, Atlantic salt meadows (Glauco-puccinellietalia maritimae), coastal lagoons, freshwater and coastal grazing marsh, intertidal biogenic reef: mussel beds, intertidal coarse sediment, intertidal mud, intertidal rock, intertidal sand and muddy sand, intertidal seagrass beds, intertidal stony reef, Salicornia and other annuals colonising mud and sand, water column.

Generic sub-feature(s):

Intertidal mud and sand, Intertidal mud, Seagrass, Saltmarsh spp., Brittlestar beds, Subtidal muddy sand, Intertidal boulder and cobble reef, Subtidal boulder and cobble reef, *Sabellaria* spp. reef, Intertidal boulder and cobble reef, Surface feeding birds, Estuarine birds, Intertidal mud and sand, Intertidal boulder and cobble reef, Saltmarsh spp., Coastal lagoons.

High Level Conservation Objectives:

Morecambe Bay SAC

With regard to the SAC and the natural habitats and/or species for which the site has been designated (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 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.

Morecambe Bay SPA

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.

Duddon Estuary SPA

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.

Fishing activities assessed:

Gear type(s):	**Longlines (demersal)**

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 2016.

The purpose of this site specific assessment document is to assess whether or not in the view of NWIFCA the fishing activity demersal longlining has a likely significant effect on the qualifying features of the Morecambe Bay European Site, and on the basis of this assessment whether or not it can be concluded that the Longlining 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 species[1]

[1] See Fisheries in EMS matrix: http://www.marinemanagement.org.uk/protecting/conservation/documents/ems_fisheries/populated_matrix3.xls

- Reference list[2] (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)

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

- Reefs: All bottom towed gear prohibited around area of *Sabellaria alevolata* reef by NWIFCA Byelaw 6.
- Seagrass: All bottom towed gear and hand worked fisheries (including bait collection) prohibited around area of seagrass by NWIFCA Byelaw 6.

4. Information about the fishing activities within the site

Demersal longlining activity in Morecambe Bay European Site is limited in intensity and location. The majority of the prosecution of this fishery is for recreational purposes and from a beach, with longlining from a boat rarely carried out.

Lines are set on intertidal areas around the bay including on beaches in the north of the bay, Roosebeck, Walney, Heysham Flat (2 or 3 hobby fishermen), Pilling (2 or 3 hobby fishermen) and Fleetwood (around 6 commercial fishermen) (see Annex 4). Areas of rocky ground are usually avoided in favour of sand. However, in the upper shore area and edges of Heysham Flat, some lines are set on scar areas.

Longlines are set out using small temporary stakes. Length ranges from 20 hooks to 100 hooks with spacing between hooks of approx. 1 foot. Hooks are usually baited by lugworms but other bait items can be used (especially in the Fleetwood area where more hooks are used). Species targeted include bass, flounder, codling, flatfish and rays. Spotted dogfish are also often caught on lines. Fishing activity mainly occurs between May and October.

Current and recent activity in the Morecambe Bay European Site is low level. In Fleetwood no more than 12 lines are ever set at one time while on Heysham Flat the maximum number is 5.

Activity is greatest during the summer months.

5. Test for Likely Significant Effect (LSE)

Is the activity/activities directly connected with or necessary to the management of the site for nature conservation?

NO

[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)

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-anchored lines)

1. Above water noise
2. Visual disturbance
3. Underwater noise changes
4. Collision above and below water with lines
5. Litter
6. Removal of non-target species
7. Removal of target species
8. Introduction or spread of non-indigenous species
9. Genetic modification and translocation of indigenous species
10. Abrasion/ disturbance of the substrate on the surface of the seabed *(supporting habitat)*
11. Penetration and/ or disturbance of the substrate below the surface of the seabed *(supporting habitat)*

SCREENED OUT-

Due to the nature of the longlining activity and the low levels of activity occurring in the European Site and existing background levels, the following potential pressures can be screened out as unlikely to be a pressure:

12. Barrier to species movement
13. Hydrocarbon and PAH contamination
14. Introduction of light
15. Introduction of other substances
16. Organic enrichment
17. Synthetic compound contamination
18. Transition elements and organo-metal contamination

Qualifying Feature	Sub-feature	Gear type and potential pressures	Potential for Likely Significant Effect?	Justification and evidence
H1110. Sandbanks which are slightly covered by sea water all the time; Subtidal sandbanks		Beach Longline	NO	This activity does not occur on or near subtidal areas. Feature interaction categorised as "Green" in generic matrix.
H1130. Estuaries		Beach Longline	NO	All habitats/species are assessed as features in their own right
H1140. Mudflats and sandflats not covered by seawater at low tide; Intertidal mudflats and sandflats	sand communities, mud communities,	Beach Longline 10. Abrasion/ disturbance of the substrate on the surface of the seabed 11. Penetration and/ or disturbance of the substrate below the surface of the seabed	NO	Potential risk of physical impacts through abrasion/ disturbance of lines on the substrate, however the activity is limited in scale and is low level. Feature interaction categorised as "Green" in generic matrix.
	eelgrass bed communities	Beach Longline	NO	Activity does not currently occur on this subfeature. IFCOs will monitor fishing activity.

				Should longlining activity start occurring on this feature in the future, NWIFCA will assess fishing activity levels and, if necessary, manage the activity.
H1150. Coastal lagoons		Beach Longline	NO	Activity does not occur on or near this feature.
H1160. Large shallow inlets and bays	intertidal boulder and cobble skear communities, intertidal boulder clay communities,	Beach Longline 10. Abrasion/ disturbance of the substrate on the surface of the seabed 11. Penetration and/ or disturbance of the substrate below the surface of the seabed	NO	Potential risk of physical impacts through abrasion/ disturbance of lines on the substrate, however the activity is limited in scale and is low level. Activity is limited on this subfeature (Heysham Flat only). Habitat has a low sensitivity to this type of activity (Hall et al 2008).
	subtidal boulder and cobble skear communities,	Beach Longline	NO	This activity does not occur in subtidal areas.
	brittlestar bed communities,	Beach Longline	NO	This activity does not occur in subtidal areas.
	coastal lagoon communities,	Beach Longline	n/a	Habitat assessed as feature in its own right.
	sublittoral mixed sediment,	Beach Longline	n/a	Habitat assessed as feature in its own right.
	intertidal mudflat and sandflat communities,	Beach Longline	n/a	Habitat assessed as feature in its own right.
	pioneer saltmarsh communities, saltmarsh communities	Beach Longline	n/a	Habitat assessed as feature in its own right.
H1170. Reefs	Biogenic reefs: mussel beds,	Beach Longline	NO	Activity is limited in scale.
	sublittoral stony reef	Beach Longline	NO	This activity does not occur in subtidal areas.
H1220. Perennial vegetation of stony banks; Coastal shingle vegetation outside the reach of waves (NON MARINE)		Beach Longline	NO	Access to beach is via foot on established access routes.
H1310. *Salicornia* and other annuals colonising mud and sand; Glasswort and other annuals colonising mud and sand; Pioneer	Glasswort *Salicornia spp*. communities	Beach Longline	NO	Access to beach is via foot on established access routes. Feature interaction categorised as “Blue” in

saltmarsh				generic matrix.
H1330. Atlantic salt meadows (*Glauco-Puccinellietalia maritimae)*	low marsh communities, mid marsh communities, high marsh communities, transitional high marsh communities	Beach Longline	NO	Access to beach is via foot on established access routes. Feature interaction categorised as “Blue” in generic matrix.
H2110. Embryonic shifting dunes (NON MARINE)		Beach Longline	NO	Access to beach is via foot on established access routes.
H2120. Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes"); Shifting dunes with marram (NON MARINE)		Beach Longline	NO	Access to beach is via foot on established access routes.
H2130. Fixed dunes with herbaceous vegetation ("grey dunes"); Dune grassland (NON MARINE)		Beach Longline	NO	Access to beach is via foot on established access routes.
H2150. Atlantic decalcified fixed dunes (*Calluno-Ulicetea*); Coastal dune heathland (NON MARINE)		Beach Longline	NO	Access to beach is via foot on established access routes.
H2170. Dunes with *Salix repens ssp. argentea* (*Salicion arenariae*); Dunes with creeping willow (NON MARINE)		Beach Longline	NO	Access to beach is via foot on established access routes.
H2190. Humid dune slacks (NON MARINE)		Beach Longline	NO	Access to beach is via foot on established access routes.
S1166. *Triturus cristatus*; Great crested newt (NON MARINE)	Coastal sand dunes	Beach Longline	NO	Access to beach is via foot on established access routes.
Natterjack Toad (NON MARINE)	Coastal sand dunes	Beach Longline	NO	Access to beach is via foot on established access routes.
A026 *Egretta garzetta;* Little egret (non breeding) A038 *Cygnus cygnus;* Whooper swan (non-breeding) A040 *Anser brachyrhynchus*; Pink-footed goose (non-breeding)		Beach Longline 1. Above water noise 2. Visual disturbance 3. Underwater noise changes	NO	Estuarine Birds 1,2 & 3. Limited activity means that noise and visual disturbance is minimal. Access is via established access routes.

A048 *Tadorna tadorna*; Common shelduck (non-breeding) A050 *Anas Penelope* Wigeon (non-breeding- Ramsar only) A054 *Anas acuta*; Northern pintail (non-breeding) A067 *Bucephala clangula;* Goldeneye (non-breeding- Ramsar only) A069 *Mergus serrator;* Red-breasted merganser (non-breeding- Ramsar) 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) A142 *Vanellus vanellus;* Lapwing (non-breeding- Ramsar only) A143 *Calidris canutus*; Red knot (non-breeding) A149 *Calidris alpina alpina*; Dunlin (non-breeding) A151 *Calidris pugnax;* Ruff (non-breeding) A156 *Limosa limosa;* Black tailed godwit (non-breeding) A157 *Limosa lapponica*; Bar-tailed godwit (non-breeding) A160 *Numenius arquata*; Eurasian curlew (non-breeding)		4. Collision above and below water with lines 5. Litter 6. Removal of non-target species 7. Removal of target species 8. Introduction or spread of non-indigenous species 9. Genetic modification and translocation of indigenous species 10. Abrasion/ disturbance of the substrate on the surface of the seabed *(supporting habitat)* 11. Penetration and/ or disturbance of the substrate below the surface of the seabed *(supporting habitat)*		4. Interaction (such as collision) with bird feature and fishing gear highly unlikely due to small numbers of lines set and limited scale of activity. No bycatch of birds recorded. 5. Limited activity means that exposure of features to potential pressure is minimal and no greater than existing background levels. 6 & 7. Removal of target and non-target species through fishing activity- limited activity means impact on bird feature food resource is minimal. 8 & 9. Limited activity means that exposure of features to potential pressure is minimal and no greater than existing background levels. Fishermen don't move lines further than local area therefore unlikely to move non-indigenous species. 10 & 11. Abrasion risk to substrate and sub-surface substrate- potential impact to substrate and associated communities through abrasion and movement of substrate via contact of lines. Fishing activity footprint is small- limited activity means that exposure of features and sub-features to potential pressures is minimal. Area is naturally highly dynamic with strong currents, a large tidal range. Access to the fishery is via established access routes. No

A162 *Tringa totanus*; Common redshank (non-breeding) A169 *Arenaria interpres*; Ruddy turnstone (non-breeding) A144 *Calidris alba*; Sanderling (non-breeding) *Podiceps cristatus;* Great crested grebe (non-breeding- Ramsar only)				increase in disturbance on existing background levels. Feature interaction categorised as "Blue" in generic matrix.
A063 *Somateria mollissima*; Common eider (Breeding) *Phalacrocorax carbo;* Cormorant (non-breeding- Ramsar only)		Beach Longline 1. Above water noise 2. Visual disturbance 3. Underwater noise changes 4. Collision above and below water with lines 5. Litter 6. Removal of non-target species 7. Removal of target species 8. Introduction or spread of non-indigenous species 9. Genetic modification and translocation of indigenous species	NO	Benthic Feeding Seabird 1,2 & 3. Limited activity means that noise and visual disturbance is minimal. Access is via established access routes. 4. Interaction (such as collision) with bird feature and fishing gear highly unlikely due to small numbers of lines set and limited scale of activity. No bycatch of birds recorded. 5. Limited activity means that exposure of features to potential pressure is minimal and no greater than existing background levels. 6 & 7. Removal of target and non-target species through fishing activity- limited activity means impact on bird feature food resource is minimal. 8 & 9. Limited activity means that exposure of features to potential pressure is minimal and no greater than existing background levels. Fishermen don't move lines further than local area therefore unlikely to move non-indigenous species.

		10. Abrasion/ disturbance of the substrate on the surface of the seabed *(supporting habitat)* 11. Penetration and/ or disturbance of the substrate below the surface of the seabed *(supporting habitat)*		10 & 11. Abrasion risk to substrate and sub-surface substrate- potential impact to substrate and associated communities through abrasion and movement of substrate via contact of lines. Fishing activity footprint is small- limited activity means that exposure of features and sub-features to potential pressures is minimal. Area is naturally highly dynamic with strong currents, a large tidal range. Access to the fishery is via established access routes. No increase in disturbance on existing background levels. Feature interaction categorised as "Blue" in generic matrix.
A176 *Larus melancephalus;* Mediterranean 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)		Beach Longline 1. Above water noise 2. Visual disturbance 3. Underwater noise changes 4. Collision above and below water with lines 5. Litter 6. Removal of non-target species 7. Removal of	NO	Surface Feeding Seabird 1,2 & 3. Limited activity means that noise and visual disturbance is minimal. Access is via established access routes. 4. Interaction (such as collision) with bird feature and fishing gear highly unlikely due to small numbers of lines set and limited scale of activity. No bycatch of birds recorded. 5. Limited activity means that exposure of features to potential pressure is minimal and no greater than existing background levels. 6 & 7. Removal of target and non-target species through fishing activity- limited activity means

		target species		impact on bird feature food resource is minimal.
		8. Introduction or spread of non-indigenous species 9. Genetic modification and translocation of indigenous species		8 & 9. Limited activity means that exposure of features to potential pressure is minimal and no greater than existing background levels. Fishermen don't move lines further than local area therefore unlikely to move non-indigenous species.
		10. Abrasion/ disturbance of the substrate on the surface of the seabed *(supporting habitat)* 11. Penetration and/ or disturbance of the substrate below the surface of the seabed *(supporting habitat)*		10 & 11. Abrasion risk to substrate and sub-surface substrate- potential impact to substrate and associated communities through abrasion and movement of substrate via contact of lines. Fishing activity footprint is small- limited activity means that exposure of features and sub-features to potential pressures is minimal. Area is naturally highly dynamic with strong currents, a large tidal range. Access to the fishery is via established access routes. No increase in disturbance on existing background levels.
Seabird assemblage		Demersal Longlines 1. Above water noise 2. Visual disturbance 3. Underwater noise changes	NO	Surface Feeding & Benthic Feeding Seabirds 1,2 & 3. Limited activity means that noise and visual disturbance is minimal. Access is via established access routes.
		4. Collision above and below water with lines		4. Interaction (such as collision) with bird feature and fishing gear highly unlikely due to small numbers of lines set and limited scale of

				activity. No bycatch of birds recorded.
		5. Litter		5. Limited activity means that exposure of features to potential pressure is minimal and no greater than existing background levels.
		6. Removal of non-target species 7. Removal of target species		6 & 7. Removal of target and non-target species through fishing activity- limited activity means impact on bird feature food resource is minimal.
		8. Introduction or spread of non-indigenous species 9. Genetic modification and translocation of indigenous species		8 & 9. Limited activity means that exposure of features to potential pressure is minimal and no greater than existing background levels. Fishermen don't move lines further than local area therefore unlikely to move non-indigenous species.
		10. Abrasion/ disturbance of the substrate on the surface of the seabed *(supporting habitat)* 11. Penetration and/ or disturbance of the substrate below the surface of the seabed *(supporting habitat)*		10 & 11. Abrasion risk to substrate and sub-surface substrate- potential impact to substrate and associated communities through abrasion and movement of substrate via contact of lines. Fishing activity footprint is small- limited activity means that exposure of features and sub-features to potential pressures is minimal. Area is naturally highly dynamic with strong currents, a large tidal range. Access to the fishery is via established access routes. No increase in disturbance on existing background levels.
Waterbird assemblage		Demersal Longlines 1. Above water noise	NO	Estuarine Birds 1,2 & 3. Limited activity means that noise and

		2. Visual disturbance 3. Underwater noise changes		visual disturbance is minimal. Access is via established access routes.
		4. Collision above and below water with lines		4. Interaction (such as collision) with bird feature and fishing gear highly unlikely due to small numbers of lines set and limited scale of activity. No bycatch of birds recorded.
		5. Litter		5. Limited activity means that exposure of features to potential pressure is minimal and no greater than existing background levels.
		6. Removal of non-target species 7. Removal of target species		6 & 7. Removal of target and non-target species through fishing activity- limited activity means impact on bird feature food resource is minimal.
		8. Introduction or spread of non-indigenous species 9. Genetic modification and translocation of indigenous species		8 & 9. Limited activity means that exposure of features to potential pressure is minimal and no greater than existing background levels. Fishermen don't move lines further than local area therefore unlikely to move non-indigenous species.
		10. Abrasion/ disturbance of the substrate on the surface of the seabed *(supporting habitat)* 11. Penetration and/ or disturbance of the substrate below the surface of the seabed *(supporting habitat)*		10 & 11. Abrasion risk to substrate and sub-surface substrate- potential impact to substrate and associated communities through abrasion and movement of substrate via contact of lines. Fishing activity footprint is small- limited activity means that exposure of features and sub-features to potential pressures is minimal. Area is naturally highly dynamic with strong

				currents, a large tidal range. Access to the fishery is via established access routes. No increase in disturbance on existing background levels. Feature interaction categorised as "Blue" in generic matrix.

Is the potential scale or magnitude of any effect likely to be significant?[3]	**Alone** No **Comments :** Small scale activity with very limited impacts on a small number of features.
	In-combination[4] UNCERTAIN **Comments :** In combination effects will be assessed when all initial TLSEs for a site are completed
Have NE been consulted on this LSE test? If yes, what was NE's advice?	Yes

Annex 1: Reference list

K. Hall, O.A.L. Paramor, L. A. Robinson, A. Winrow-Giffin & C.L.J. Frid, N.C. Eno, K.M. Dernie, R.A.M. Sharp, G.C.Wyn & K Ramsay. (2008) Mapping the sensitivity of benthic habitats to fishing in Welsh waters - development of a protocol. CCW Policy Research Report No. 08/12

IFCOs Brown, S & Waite, S (Jan 2015) Local knowledge from fisheries officers. ..\..\..\Activity information\Site specific information from IFCOs\Morecambe Bay discussion with SB and SW.docx

IFCO I. Dixon (Jan 2015). Local knowledge from fisheries officers. ..\..\..\Activity information\Site specific information from IFCOs\Fisheries Activity Info M Bay Ian Dixon 23.01.15.docx

[3] Yes or uncertain: completion of AA required. If no: LSE required only.
[4] If conclusion of LSE alone an in-combination assessment is not required.

Annex 2: Natural England's consultation advice

Date: 18 January 2016
Our ref: 174648
Your ref: Formal Sign Off – MB EMS

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Electra Way
Crewe
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CW1 6GJ

T 0300 060 3900

North Western Inshore Fisheries and Conservation Authority (NWIFCA)
Preston Street
Carnforth
Lancashire
LA5 9BY

BY EMAIL ONLY

Dear Sarah

Formal Advice to NWIFCA. Review of Fisheries in Marine Protected Areas. Assessments for Morecambe Bay European Marine Site

Thank you for your consultation on the above which was received by Natural England on 18 December 2015.

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 EMSs[1]. 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 assessment and the conclusions it makes. The assessments consider the effects of the following fishing activities in the Morecambe Bay European Marine Site which includes Morecambe Bay Special Protection Area and Ramsar, Duddon Estuary SPA and Ramsar, Morecambe Bay and Duddon Estuary pSPA and Morecambe Bay Special Area of Conservation (SAC) :

- NWIFCA-MB-EMS-006 Tractor Dredge (Cockles);
- NWIFCA-MB-EMS-011 Longlines (Demersal)

[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

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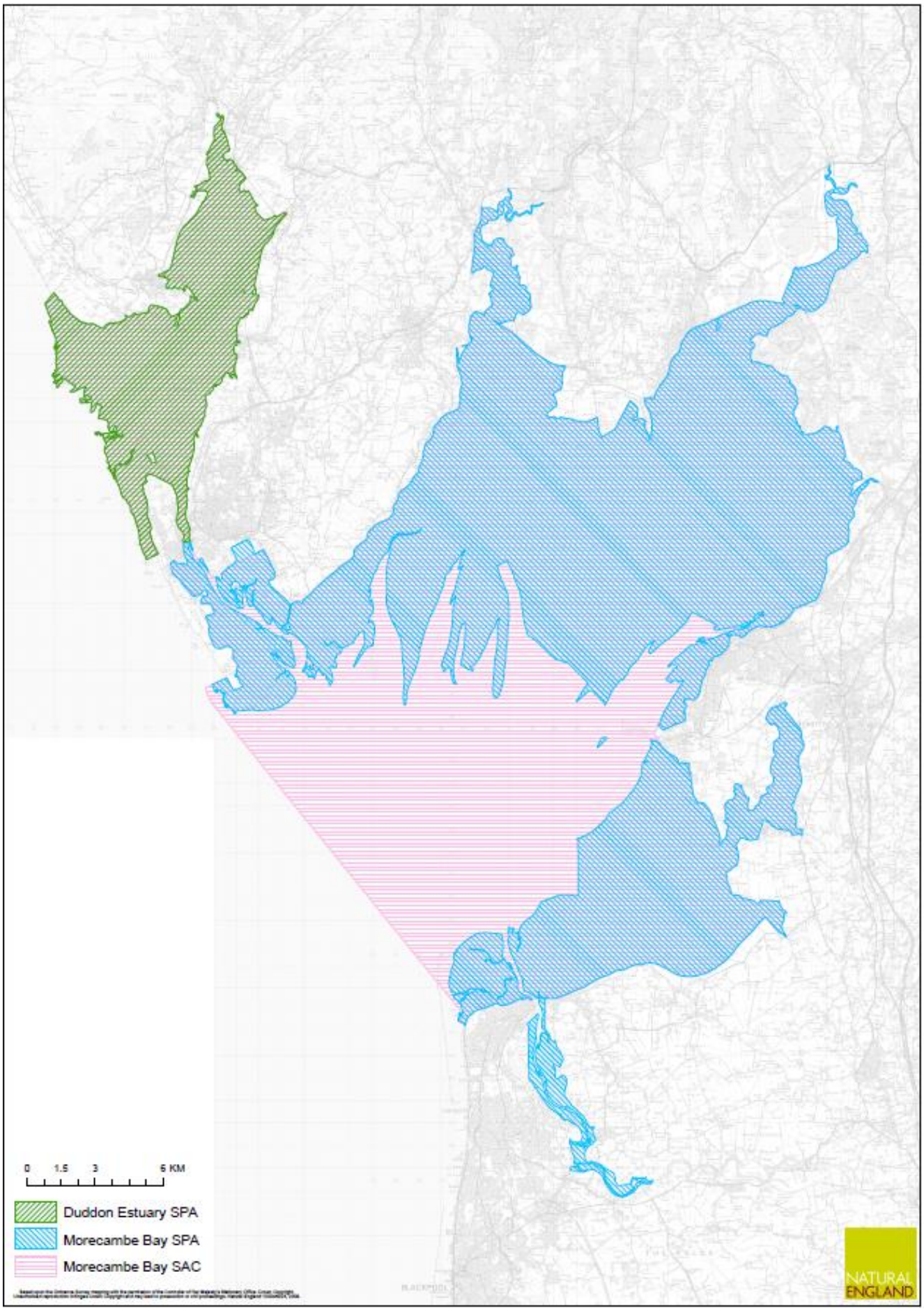
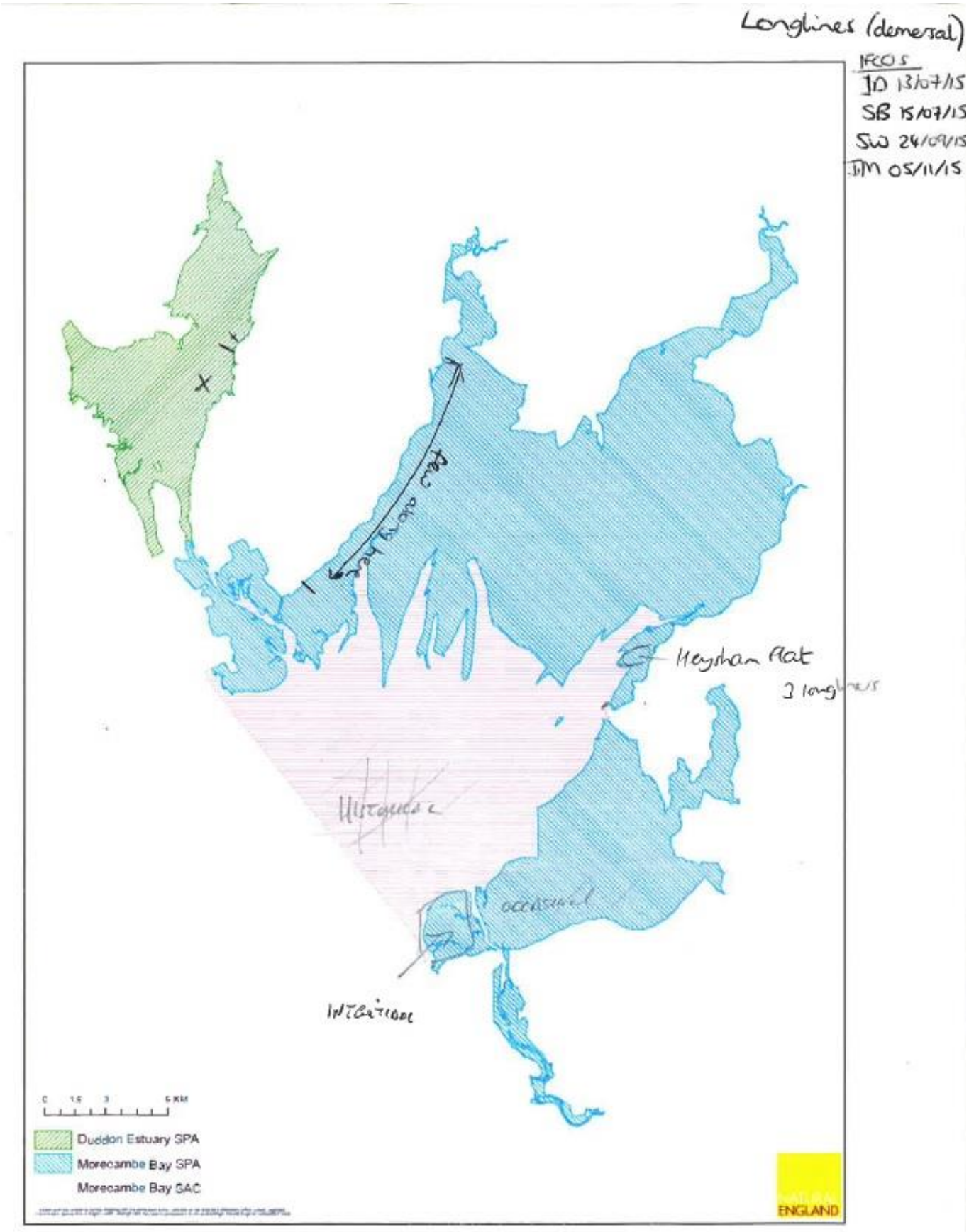
Tel: 0300 060 0493

Annex 3: Site Map



Annex 4: Fishing activity maps



Annex 5: Longlining activity

Fig 1. Example of a set beach longline. (Clockwise from top.) Extent of line, Hook baited with lugworm, Post for line attachment.