

## Irish Sea Conservation Zone

### Report of Focus Group meeting for potential MCZs 2 and 3 Thursday March 31st, Haydock Park

#### Attendees

<u>Interest</u>	<u>Name</u>
Irish Fisheries	Lorcan O’Cinneide
Centrica (Morecambe Bay Gas Fields)	John Watson
Gateway Storage	Andrew Stacey
MOD	Tony Wyld
Centrica (Round 3 Windfarms)	Gero Vella
DONG (Walney Windfarms & WODS)	Stuart Livesey
DONG (Walney Extension)	Trine Sorensen
RWE (renewable Energy)	Julie Drew
Vattenhall (Ormonde Windfarm)	Stephen Saunders
RSPB	Andrew Gouldstone
JNCC	Finlay Bennet
JNCC	Tom Blasdale
Natural England	Chris Lumb
Wales Environment Group	John Clark
Belgian Fisheries	Johan Hennaert
Manx Fisheries	Tom Bryan Brown
NIFPO	Charlie MCBride
NIFPO	Leslie Girvan
Welsh Fisheries	Glynne Roberts
Conoco Phillips	Liz Matheson
Marine Institute, Ireland	Paul Connolly

#### Overview of activities and ecological features of the sites

The attendees discussed each activity and detail was recorded in terms of where it occurs, when, what equipment/machinery is used, and any existing management of the activity in the site.

#### **Commercial fishing**

##### pMCZ 2:

The main fishing activity in pMCZ 2 is otter trawling for nephrops (UK & Irish vessels) with up to 40 vessels active in the area. There are also 3-5 UK beam trawlers targeting mixed whitefish, 3-5 Belgian beam trawlers who target dover sole, about 3 seine netters targeting plaice, haddock and cod. Again, there are a few mid water trawlers (Irish vessels), drift netters, dredgers and potters, perhaps 5-10 vessels in total. Interviews with UK fishermen have identified at least 33 fishing vessels (24 bottom gear, 5 mid-water, 3 pots and traps, 2 dredges, 1 nets) that are active there.

pMCZ 3:

There are Belgian beam trawlers, UK seine netters, pair and single otter trawls, dredging and potting. Target species comprise nephrops, dover sole, shrimps, haddock, plaice, whitefish and scallops. Interviews with UK fishermen have identified at least 26 fishing vessels (16 bottom gear, 6 mid-water, 2 pots and traps, 1 net, 1 line, 1 dredge) that are known to be active there.

### **Other activities within pMCZ 2 and 3**

pMCZ 2 is possibly the most industrial part of the Irish Sea. As well as the fishing industry, there is gas extraction, gas pipelines, telecom cables, power interconnectors, shipping activity and offshore wind energy production. It may also be a disposal site for the port of Barrow.

There are also plans for gas storage and further wind energy production. Part of pMCZ 3 overlaps an area of search for Round 3 wind energy production.

There are also telecom cables in pMCZ 3, as well as plans for a power interconnector and two further telecom cables.

pMCZ 3 is also very busy in terms of shipping activity, accommodating the Holyhead to Dublin shipping route, and international shipping routes travelling north to south in the Irish Sea.

In terms of recreation, some diving and boat angling takes place in the sites. A few charter boats and private yachts/boats may also visit the areas. Military training (firing) is known to take place in pMCZ 2. No further information is available at present.

### **Ecological features of pMCZ 2 and 3**

The broad-scale habitat types around pMCZ 2 have been verified by benthic grabs and camera surveys by Dong energy and Vattenfall. There are also towed video surveys from the northern range of this mud area, (Hughes and Atkinson 1997).

pMCZ 2 includes mud habitats in deep water.. The marine invertebrates found within this habitat type are a key part of the food chain including the Dublin Bay prawn, for which there are valuable fishing grounds within this part of the project area.

In pMCZ 3, there is a Annex 1 reef habitat in the north east corner of the zone. Biological and acoustic survey data verified this (Blyth-Skyrme et al. 2008).

### **Discussion of pressures applied by activities on ecological features in the sites**

Using the pressure benchmarks provided by the SNCBs (Science Nature and Conservation Bodies: JNCC and Natural England), the meeting attendees discussed how the activities within the sites might interact with the ecological features under consideration for protection.

For both pMCZ 2 and 3, regarding licensed industrial activities (Windfarms, Oil and Gas, Cables), the group agreed that many pressure benchmarks may be exceeded. However, there was also consensus that many of these pressures are highly localised in impact and are already covered by current management. They are also likely to be covered by the Environmental Impact Assessment that the industries are required to undertake.

For both pMCZ 2 and 3, regarding fishing, the focus group agreed that potting, netting and pelagic trawls were either not present, or do not impact upon the features according to the SNCB pressure matrix.

pMCZ 2 is a key area for benthic trawling for nephrops and the group agreed that this is a highly impacting form of fishing. However, gear adaptations have gone some way towards reconciling

fishing with the pressures present on the SNCB. There is also evidence for low density dredging activity which the group also agreed is a damaging activity.

pMCZ 3 has evidence for a range of benthic trawling, including beam trawling, and it was agreed that these activities may exceed various pressures from the SNCB matrix.

Overall, the group said it would be important to take into consideration not just if a particular activity exceeded a pressure benchmark, but how localized it is, how frequently it occurs, whether it is already covered by the environmental impact assessment process and whether any mitigation measures have been implemented.

### **Summary of boundary change discussions**

Group 1 suggested that the broad area of interest in pMCZ2 be removed and for the entire area to become a pMCZ. This would remove the need to increase the size of the zones elsewhere in the project area and make enforcement much easier. Group 1 also suggested that the northern boundaries of pMCZ3 should extend northwards to meet the boundary of the Centrica round 3 wind farm area and to cover more high value subtidal sand habitats.

Group 2 highlighted that the southern half of the pMCZ currently covers a high value Belgian fishing ground. The group suggested moving the southern half of pMCZ2 further southeast into an area that has high bivalve productivity and lower benthic fishing. This recommendation corresponds with advice from the Science Advisory Panel. The group suggests that the northern half of pMCZ2 should remain the same. The group made no suggestions for pMCZ3.

Group 3 would like to remove the broad area of interest and increase the buffer surrounding the wind farm licence area to 1 km. The group would also like to increase the southern boundary by 500 m to compensate. The increase in the buffer would allow the wind farm operations to continue unimpacted.

Group 3 suggested extending the eastern half of the northern boundary to meet the edge of the round three wind farm area as this area are considered more biologically diverse. However this would impede on high value scalloping grounds so the groups suggested shortening the northern boundary by 2 miles.

### **Summary of reference areas discussion**

This meeting did not discuss reference areas due to lack of time.

## Irish Sea Conservation Zone

### Minutes from focus group meeting for potential MCZs 4 and 5 Thursday March 24th, Liverpool

#### Attendees

<u>Interest</u>	<u>Name</u>
Belgian Fisheries	Tom Craeynest
Belgian Fisheries	Johan Hennaert
Welsh Fisheries	Glynne Roberts
Subsea Cables	Peter Jamieson
RSPB	Andrew Gouldstone
JNCC	Declan Tobin
Wildlife Trust	Cheryl Nicholson
Countryside Council for Wales	Kirsty Lindenbaum
Wales Environment Link Work Group	John Clark

#### Overview of activities and ecological features of the sites

The attendees discussed each activity and detail was recorded in terms of where it occurs, when, what equipment/machinery is used, and any existing management of the activity in the site.

#### **Fishing activity within pMCZ 4 and 5**

Most fishing takes place in pMCZ 4a and little, if any of this activity takes place in pMCZ 4b and pMCZ 5. Relatively speaking, very little UK fishing activity is known to take place in the sites. For > 15m vessels, bottom gear, lines, mid-water, static gear and seine netting are known to take place there (from VMS maps). Belgian (approx. five vessels) and Irish fleets are also known to fish there (from VMS maps). Less than five Scottish scallop dredgers are active there (from Fisherman interview). There are less than five vessels using trammel gill nets (from Fisherman interview). The Welsh fisheries, report that up to ten vessels (scallop dredges) may be active in the area, but other grounds are more important (Welsh inshore waters and the Round 3 windfarm area). Displacement from these areas is a concern and could result in more vessels visiting pMCZ 4. No pelagic fishing, static gear fishing or netting is known to take place in these sites.

#### **Other activities within pMCZ 4 and 5**

Shipping takes place in both sites. A subsea telecom cable is in operation in pMCZ 5. There are no plans or proposals for further cables in either site. Military training (firing) is known to take place in pMCZ 4 (a & b) but no further information is available at present. In terms of recreation, some sea angling is known to take place in pMCZ 4 (a & b). Reportedly, wildlife boat operators may visit pMCZ 5. On the whole, very little recreation activity takes place here due to its distance offshore.

#### **Ecological features of pMCZ4 and 5**

Both of these sites lie offshore (outside of 12nm off the Welsh coast). Unlike a lot of offshore regions in the Irish Sea, the broadscale habitat types within the southern region of the project

area have accompanying biological data from a JNCC survey to map the distribution and quality of seabed habitats in offshore waters (see Dalkin 2008). The aim of this survey was to investigate an area of potential reef habitat in the mid Irish Sea.

Originally, the location of pMCZ 4a was believed to contain reef habitat. Upon revisiting the original report, it appears that the area with the greatest abundance of cobble and boulder habitat (which is considered reef habitat) actually lies to the north of the existing pMCZ 4a boundary. This does not necessarily exclude the possibility of reef habitat occurring within the existing pMCZ 4a boundary. However, it is possible that the RSG may move this boundary in May in light of this information.

This area, particularly the southern part of pMCZ 5 contains a high level of biodiversity (Seeley et al. 2010) and a high number of marine invertebrates species (Bolam et al. 2010). Molluscs and annelids (including bivalves and worms) along with crustaceans are the main secondary producers around the area of pMCZ 5 (Bolam et al. 2010), which means these marine invertebrates are important for recycling organic matter from within the sediment and are key in linking energy between primary production in the plankton with predatory fish (Bolam et al. 2010).

The area within pMCZ5 is subject to seasonal thermal upwelling, areas characterised by increased biological productivity. This increase in biological productivity attracts top predators, including whales and dolphins which are protected under the Annex 1 of the EU Habitats directive. St Georges channel is a critical habitat for the short beaked common dolphin *Delphinus delphis*, where they congregate in large numbers (from May to November) for feeding and calving (Clark et al. 2010).

In summary, the features under consideration of protection within these two sites are the following broad-scale habitats: moderate energy circalittoral rock, subtidal coarse sediment, subtidal mixed sediment and subtidal sands. Two features of conservation importance are also under consideration: subtidal sands and gravels, and horse mussel *Modiolus modiolus* beds. There were two additional (non-ENG) features that might benefit from this designation: seabirds and cetaceans.

### **Discussion of pressures applied by activities on ecological features in the sites**

Using the pressure benchmarks provided by the SNCBs (Science Nature and Conservation Bodies: JNCC and Natural England), the meeting attendees discussed how the activities within the sites might interact with the ecological features under consideration for protection.

Given that there are no new installation of cables planned in these sites and that the other activities do not contact the seabed, this highlighted two activities, benthic trawling and dredging, which were deemed to exceed the pressure benchmark for the broad-scale habitats and features of conservation importance in these sites. Details on the frequency and impact of each activity were gathered, and it was often the case that although the pressure benchmark may be exceeded as stipulated by the SNCB matrix, either the level or activity was low or existing management suggested any impact would be low. Examples includes, gear modifications which would reduce impact on the seabed habitat (for example the SUMWING beam trawl), the local energy conditions of the site which would determine the recovery potential, and the low levels of overall fishing effort in these sites.

It was also noted that from the activities discussed in the site these would have minimal impact on the non-ENG features under consideration in these two sites, although should birds be designated as a non-ENG feature there is the potential for long line fishing to impact birds.

### **Summary of boundary change discussions**

It was suggested and accepted by the focus group members that site pMCZ 4b be dropped due to a lack of evidence to support the presence of horse mussel beds and as an alternative, the boundary of 4a be straightened, for two reasons 1) the benefits of straight line boundaries in

terms of navigation and enforcement, and 2) the potential benefits afforded to seabirds as an AAEI, as this area represents an important offshore foraging ground.

### **Summary of reference areas discussions**

#### **General notes:**

The Welsh inshore plans for marine conservation zones have yet to be formalized (they still have to go through consultation), however preliminary plans indicate that these will be inshore and within the existing SACs and to be reference areas.

#### **Suggested reference area 1:**

Given the low fishing effort and cable activity, combined with the general high level of biodiversity in pMCZ 5, it was suggested that this would be a good location for a reference area. Discussion included: the potential for spillover effects into the existing pMCZ 5 boundaries and the alternate options of having the reference area in the middle of the existing boundaries, so the area was surrounded by a buffer zone, or having the reference area in line with the Irish waters edge, for ease of recognition. It was agreed to not place the reference area over the existing telecom cable as this is likely to require maintenance works.

#### **Suggested reference area 2:**

Moderate energy circalittoral rock: it was suggested that this broadscale habitat type be protected within this potential area even if it does not meet the minimal size requirements.

Boundary line suggestions: maximise the two different habitat types and include a small area with sublittoral sand which could have thermal fronts, high biodiversity, representing important feeding grounds for seabirds.

Additional general comment on reference areas: suggested that reference areas are not presented to the stakeholder group based on these ecological benefits, rather they be based on their representivity of what it is they are designated for, bearing in mind the purpose of reference areas is to provide a tool through which the MCZs can be monitored for change.

## Irish Sea Conservation Zone

### Report of Focus Group meeting for potential MCZs 6 and 7 Tuesday March 29<sup>th</sup>, Northern Ireland

#### Attendees

<u>Interest</u>	<u>Name</u>
NIFPO	Judith Farell
NIFPO	Sam Warnock
ANIFPO	Davie Hill
JNCC	Tom Blasdale
DOENI	Geraldine McEvoy
DARD	Paddy Campbell
AFBI	Matt Service
Wildlife Trust	Cheryl Nicholson
Ulster Wildlife Trust	Ben Diamond
SP Energy Networks	Claire Watson

#### Overview of activities and ecological features of the sites

The attendees discussed each activity and detail was recorded in terms of where it occurs, when, what equipment/machinery is used, and any existing management of the activity in the site.

#### **Cable installation and operation in pMCZ 6 and 7**

A telecommunication cable runs through pMCZ 6. Also, the route for a proposed power interconnector currently travels through part of pMCZ 7.

#### **Fishing activity within pMCZ 6 and 7**

Relative to the whole of the Irish Sea, pMCZ 6 overlaps part of the most important (in terms of number of vessels and landings value) fishing grounds in the Irish Sea. Bottom trawlers, mid-water trawlers and dredgers over 15m in length are known to be active in the site (from VMS data). Questionnaires with fishermen have identified at least 39 UK vessels that are known to be active there comprising bottom gear (32 vessels), midwater trawling (7 vessels) and dredging (less than 5 vessels). Seven of these 39 vessels are less than or equal to 15m in length. The focus meeting has identified that nearer to 100 vessels are active in the site, as well as pMCZ 7, using otter trawls (mostly twin rigs) to fish for nephrops. No non-UK vessels are known to fish there. There are also less than 5 vessels fishing for herring full-time (pelagic) and less than 5 vessels fishing for haddock and cod full-time and a further 6 fishing part-time (semi-pelagic). These part-time vessels fish also fish for nephrops.

#### **Other activities within pMCZ 6 and 7**

There is a potential development of a CO2 pipeline in this area, however, no further information is currently available. There are also mid-1990s exploration wells in the area. The area is a submarine exercise area but, again, no further detail is currently available. Shipping takes place in both sites, although this was not discussed at the focus meeting.

### **Ecological features of pMCZ 6 and 7**

The western Irish Sea is quite distinct from the remaining regional area based on the presence of a deep water mud habitat. Within both pMCZ 6 and 7, this broad-scale habitat type classification includes reef habitat (listed under Annex 1 of the Habitats Directive as of conservation importance). The North West Irish Sea Mounds occurs within pMCZ 6 while pMCZ 7 includes the Pisces Reef, a reef complex that is composed of three outcrops which are separated by between 5-14 km.

The features under consideration of protection within these two sites are the following broad-scale habitats: moderate energy circalittoral rock, low energy circalittoral rock, subtidal coarse sediment, subtidal sand, subtidal mud, subtidal mixed sediments. Features of conservation importance present in this site are: subtidal sands and gravels and mud habitats in deep water and potentially seapens and burrowing megafauna although the project team is awaiting confirmation of this.

### **Discussion of pressures applied by activities on ecological features in the sites**

Using the pressure benchmarks provided by the SNCBs (Science Nature and Conservation Bodies: JNCC and Natural England), the meeting attendees discussed how the activities within the sites might interact with the ecological features under consideration for protection.

With regard to cable installation and operation, there is one cable in place in pMCZ 6. The pressure benchmarks were deemed not to be exceeded as the cable is already installed, with the exception of activities relating to cable maintenance. Should the proposed cable route in pMCZ 7 be consented then the installation and operation of this cable would exceed some of the pressure benchmarks, therefore details on the extent of impact this activity would have on the seabed were gathered. It was noted, however, that the identification of impacts and any resulting mitigation would be covered by existing environmental impact assessment requirements. Although environmental impact assessments are not required outside of 12nm, it is industry practice to do one as part of consent applications.

Of the fishing activities which take place in pMCZs 6 and 7, benthic trawling and dredging were considered to exceed the pressure benchmark for the broad-scale habitats and features of conservation importance in these sites. However, some mitigation measures are being trialled. The seasonality of fishing effort for nephrops was explored, as well as over what habitats this takes place. The degree to which twin trawls contact the seabed was also noted and the fact that fishermen aim to decrease any contact as this will increase drag and fuel consumption by the boat. They are able to do this quite precisely using high-tech gear, such as echo-sounders and sensors on the net. It was also noted that areas mapped as moderate energy circalittoral rock are actually covered by a veneer of mud, and as such these areas are important nephrops grounds. Scallop dredging would also exceed the pressure benchmark but this would only apply to the subtidal sand habitat which is located to the northeast of pMCZ 6 (see change discussions below).

### **Summary of boundary change discussions**

The project team presented new evidence on the presence of *Artica islandica*, the ocean quahog, in the area to the northeast of pMCZ 6. This species is a target for protection for the marine conservation zone project, and the importance of this area to the ocean quahog is evident from the fact that it contains the only known breeding population in the Irish Sea project region. The attendees discussed moving the zone boundary to incorporate this species of conservation importance.

## **Summary of reference areas discussion**

### **Suggested reference area 1:**

The discussions on reference areas centred around designating an area to capture subtidal mud habitats, a broad-scale habitat type which is only present in the northeast and northwest of the Irish Sea project area. There was a preference within the group for locating this area within pMCZ 7, given that the areas around the PISCES reef in pMCZ 7 are likely to be designated as a special area of conservation anyway, in addition to the fact that less fishing activity takes place in 7 compared to pMCZ 6. It was noted that fisheries representatives would have to consider the co-ordinates of this area to understand the implications of this potential reference area, however, this was put in context by the fact that a 100km<sup>2</sup> area around the Pisces Reef would equate to a 0.5% or approximately three days of fishing.

### **Suggested reference area 2:**

Another suggestion was for a reference area outside of pMCZ6 to the north east to capture the presence of quahogs, reportedly the best area for quahogs in the Irish Sea.

## Irish Sea Conservation Zone

### Report of Focus Group meeting for potential MCZ 10 and BAI 1 Tuesday April 5th, Whitehaven

#### Attendees

<u>Interest</u>	<u>Name</u>
RSPB	Andrew Gouldstone
Natural England	Chris Lumb
Wildlife Trust	Cheryl Nicholson
Entec	Jane Lancaster
Marine Conservation Society	Kay Foster
Cumbria Fisheries (mobile gear)	Ron Graham
Cumbria Sea Fisheries Committee	Dave Dobson
Fishing	Alan Bone
Whitehaven Fisheries (bottom gear)	Brian Phillipson
Port of Workington	Colin Sharpe
Industry (Sellafield)	Martin Clough
Cumbria County Council	David Haughian
Recreation (sailing)	Simon de Reoper
Recreation (sea angling)	Steve Waldron
Sellafield Dive Team	Gordon Atkinson
Ravenglass Fisheries (static gear)	Gill Graham
Ravenglass Fisheries (static gear)	Jack Graham
Cumbria Fisheries	David Proud
NIFPO	Keith Christian

#### Overview of activities and ecological features of the sites

Full minutes of this meeting are available on request.

#### Discussion of pressures applied by activities on ecological features in the sites

Using the pressure benchmarks provided by the SNCBs (Science Nature and Conservation Bodies: JNCC and Natural England), the meeting attendees discussed how the activities within the sites might interact with the ecological features under consideration for protection.

#### Summary of boundary change and reference area discussions

The focus group suggested that the area between Siddick and Whitehaven should be removed and a new area created about 11 nm further south, covering approximately 30 sq miles. The group suggested that this area would be acceptable for a reference area, as it is used for benthic fishing, which they assumed would be restricted. This reference area has been given the preliminary name of pRef\_A.

The focus group suggested a new area for honeycomb worm (*Sabellaria alveolata*) reefs at Tarn point. This area contains the best examples of honeycomb worm reefs along the Cumbrian coast and is very

inaccessible to the public and very little fishing activity occurs here. The focus group also suggested that this area could be a reference area. This reference area has been given the preliminary name of pRef\_K.

The focus group suggested that pMCZ10 should be extended further offshore to include an area known as Maryport Roads. This area was originally identified by E.J Perkins (1973) as a highly biodiverse area and would greatly benefit from MCZ protection. The group suggested that as the substrate is not exposed to benthic fishing this would be an excellent reference area. The reference area can be seen in Figure 1 as pRef\_H.

The group also suggested that the intertidal underboulder communities at Saltom Bay would be suitable for a reference area (p\_RefJ).

## Irish Sea Conservation Zone

### Report of Focus Group meeting for potential MCZ 13 and 14 Tuesday April 12th, Liverpool

#### Attendees

<b>Interest</b>	<b>Name</b>
Natural England	Robert Whiteley
RSPB	Clare Reid
Wildlife Trust	Cheryl Nicholson
English Heritage	Sue Stallibrass
Sefton Coastal Partnership	Dave McLeavy
North West Coastal Forum	Caroline Salthouse
NW IFCA	Steve Brown
North Wales Fishermen's Association	Jim Mealor
Sefton Sea Anglers	Steve Bates
Sefton Boat Angler	Les Trish
Sefton Bait Digger	Keith Gray
Blundell Sands SSC/RYA	Alan Roe
Southport Angling/Boating Club	John Law
Sailing/RYA	Geoff Meggit
Blundell Sand SSC	Charles Lloyd

#### Overview of activities and ecological features of the sites

##### **Other activities within pMCZ 13 and 14**

###### Commercial Fisheries - pMCZ 13

For > 15m vessels, some bottom gear is known to take place quite close to the shore. Non-UK fishing vessels are not permitted to fish within 6nm of the coast. For <15m vessels, at least three UK vessels are known to be active in this site. They use bottom trawls and gill nets. There are numerous intertidal fishermen who use shank nets, push nets, gill nets, hand dredges and hand picking in the area for species that include cockles, mussels and razor clams. The site is completely contained within a CFP herring closure area (fishing for herring is prohibited all year) and areas where numerous IFCA byelaws apply (within 6nm). There is no evidence of dredging, potting or pelagic trawling in pMCZ 13.

###### Commercial Fisheries - pMCZ 14

No data has been recorded for >15m vessels via VMS in pMCZ 14.

From interviews with fishermen, there are at least 17 UK vessels (<15m) known to be active in the site (beam trawls, gill netting and midwater trawls). There are at least twenty intertidal fishermen who hand pick cockles, mussels and clams; use hand dredges, push nets and drift nets.. Fisheries in the Dee are highly regulated through EA (now IFCA) bylaws. A trusted and balanced relationship has been struck between local fishermen and regulators. The cockle fishery in the Dee estuary is administered under the Regulating Order by the Environment Agency and limited to 50 fishermen. Fishermen are only allowed to hand rake the cockles. All cockles have to be passed through a riddle and only 20mm cockles allowed. The cockles can only be assessed and transported to designated access points by boat. No vehicle access is allowed for cockling. The season is from July 1st to December 31st. The cockle beds are surveyed 3 times a year and the level of permitted fishing is based on this. For shrimping, only the regulated length beam is allowed. No twin beaming is allowed. The nets have to be fitted with vails. Shrimp, fish trawling, trammel and gill nets are regulated by national rules and the by-laws of the IFCA. There is no evidence of potting or pelagic trawling in pMCZ 14.

## **Ecological features of pMCZ 13 and B14**

### **pMCZ 13**

pMCZ 13 is being considered for two habitat features of conservation importance. Peat and clay exposures are present within pMCZ 13. This has been verified with data from the DEFRA commissioned MB102 contract, information from English Heritage and peer-reviewed records from the British Geological Society (primarily the Hazel 2008 database). In addition to the ecological reasons for protecting this habitat type, the peat beds found on this part of the coast are superb regional examples of peat deposits containing preserved remnants of submerged forests and human and animal footprints that date back to the stone age. Over the last 20 years, over 200 human footprint trails within peat and clay exposures have been recorded on this coast, which date back to the late Mesolithic to mid Neolithic era.

Subtidal sand and gravels are the second habitat feature of conservation importance for which pMCZ 13 was considered. The Liverpool Bay Special Protection Area (SPA) begins at the low water tide mark adjacent to pMCZ13, therefore if this site is to be designated for the subtidal sand and gravel habitat feature, the area will have to extend beyond that of the Liverpool Bay SPA shoreward boundary.

### **pMCZ 14**

pMCZ 14 surrounds Hilbre, an archipelago of three islands which run northwest, parallel to the river channel. This area is being considered for two habitat features of conservation importance (FOCI) blue mussel (*Mytilus edulis*) beds and peat and clay exposures. The presence of peat and clay exposures have been verified with data from the DEFRA commissioned MB102 contract based on a CCW survey in 2002

## **Discussion of pressures applied by activities on ecological features in the sites**

Using the pressure benchmarks provided by the SNCBs (Science Nature and Conservation Bodies: JNCC and Natural England), the meeting attendees discussed how the activities within the sites might interact with the ecological features under consideration for protection:

Recreation and angling: the Focus Group agreed that at pMCZ 13 any recreation activity was either within the pressure benchmark for the features or is already sufficiently managed. At pMCZ 14 the group decided that the level of recreation in particular horse riding may become a concern if shown to be impacting on the features. Fishing: The focus group believe that only benthic fishing (mainly beam trawling) and dredging will impact upon the features in line with the SNCB sensitivity matrix, this impact is mainly concerned with the damaging and abrasion of the seafloor and features

For other activities it was often the case that although the pressure benchmark may be exceeded as stipulated by the SNCB matrix, either the level or activity was low or existing management suggested any impact would be low

### **Summary of boundary change discussions**

The group suggested changing the boundary to reduce the southern part of the site, so that it no longer covers Crosby beach, and to extend the site further north around Formby point up to a specific metal fence. Figure 9 shows the suggested changes from the focus group.

There were no boundary changes recommended for pMCZ14.

### **Summary of reference areas discussion**

This meeting did not discuss reference areas due to lack of time.