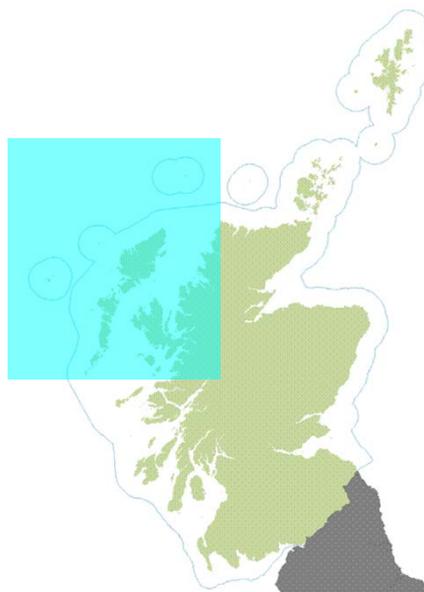


## 6. NORTH WEST

The North West Region has one Scoping Areas of Search.

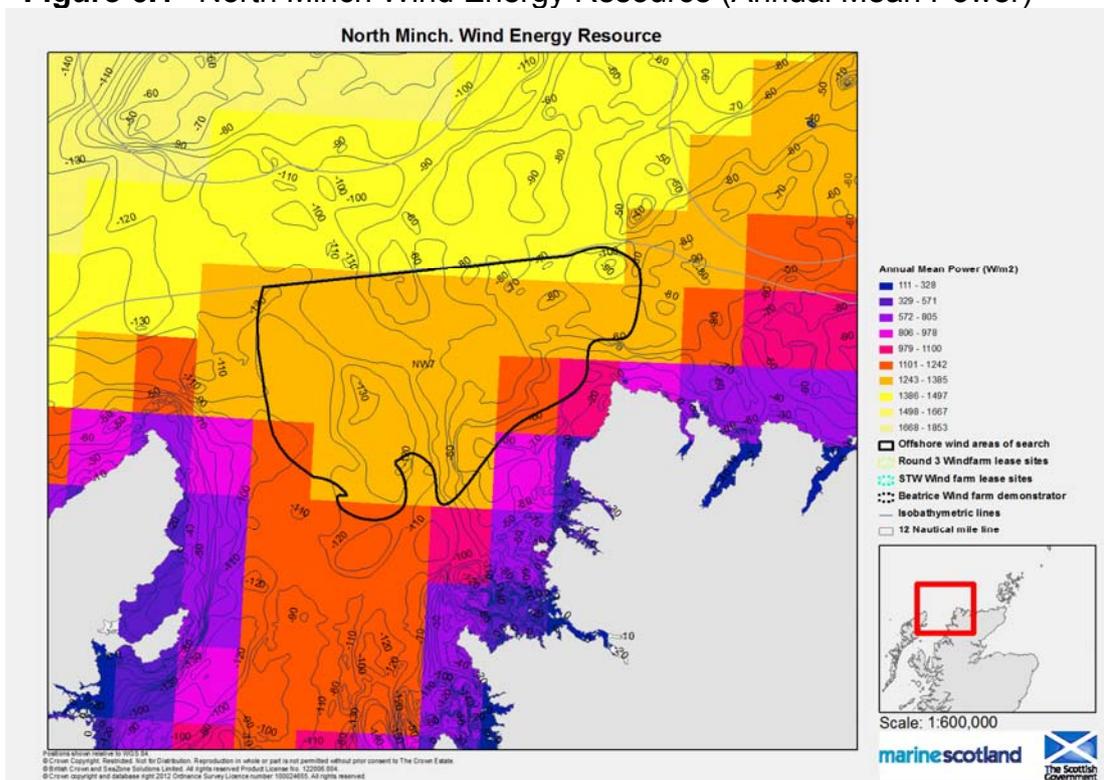
The Area of Search is NW4 (North Minch).



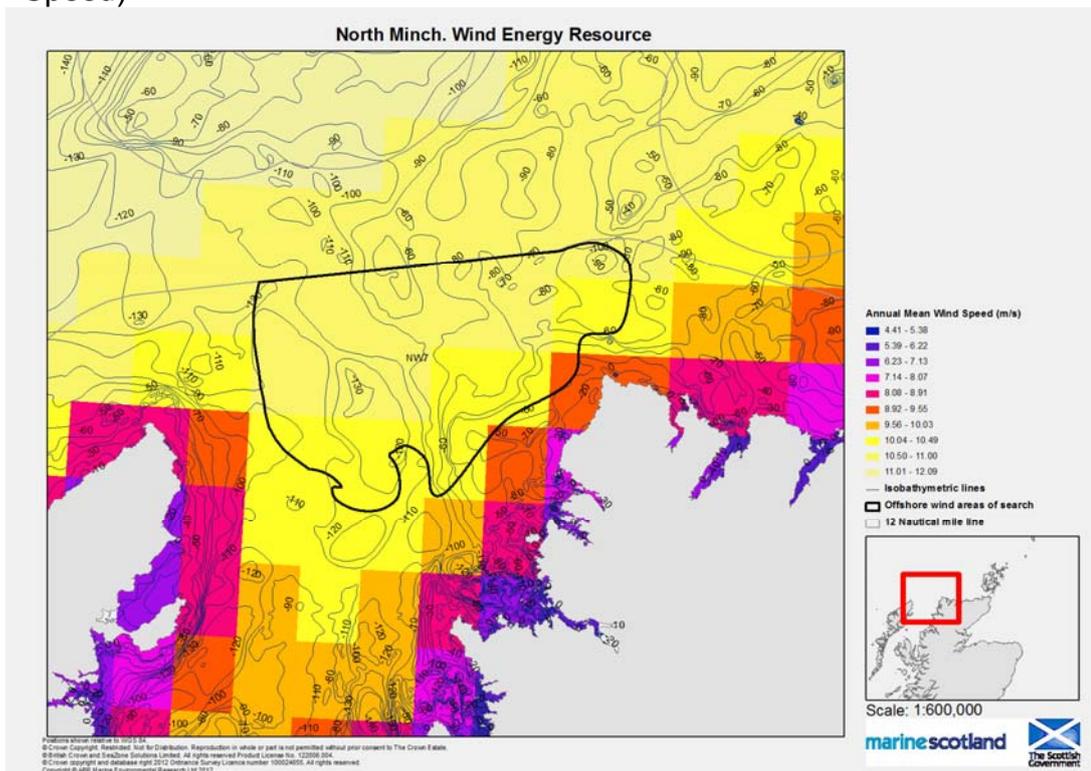
### 6.1 Resource

6.1.1 The North West area has a high wind resource offshore and a comparatively lesser resource inshore, within the area known as the Minches, due to the lee the Hebridean Islands offer. Area of search NW7 in the North Minch, equidistant from Cape Wrath and the Butt of Lewis receives a mean annual power density of  $1.4 \text{ kWm}^{-2}$  from a mean annual wind speed of  $10.7 \text{ ms}^{-1}$  within the delineated area. Summer power densities are of  $0.7 \text{ kWm}^{-2}$  from mean wind speeds of  $8.5 \text{ ms}^{-1}$ , these can rise to a mean power density of  $2.1 \text{ kWm}^{-2}$  from mean wind speeds of  $12.7 \text{ ms}^{-1}$  during the winter months.

**Figure 6.1** North Minch Wind Energy Resource (Annual Mean Power)



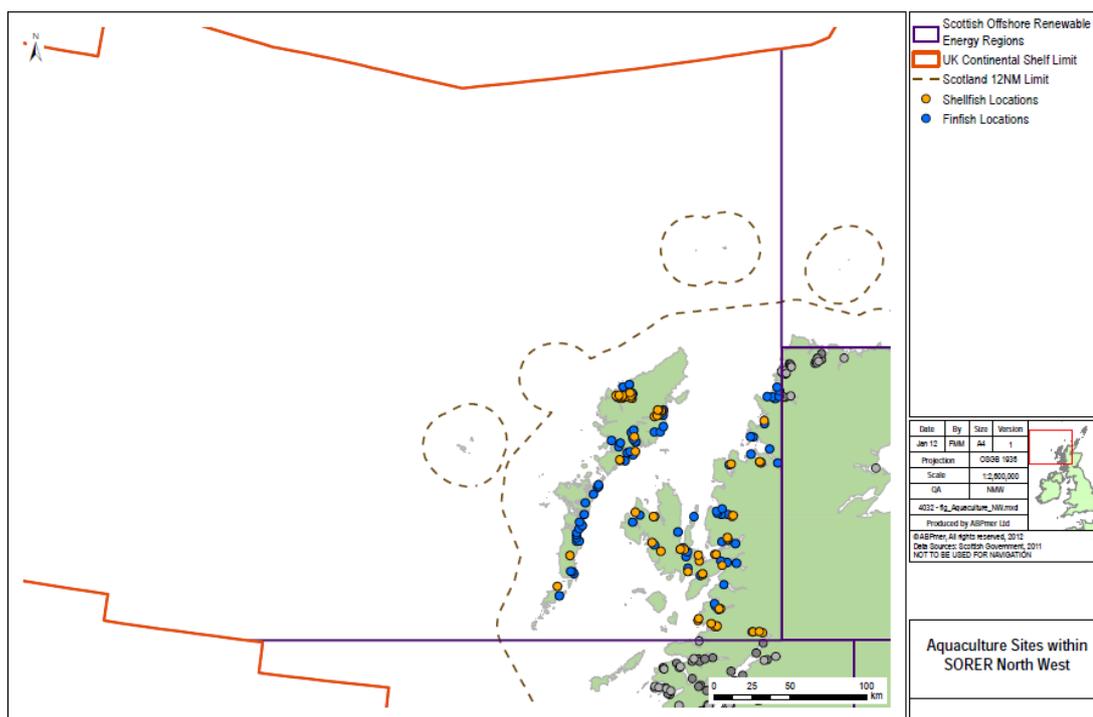
**Figure 6.2** North Minch Wind Energy Resource (Annual Mean Wind Speed)



## 6.2 Aquaculture

6.2.1 Marine aquaculture sites within the North West Region are shown in Figure 6.3. There are 99 finfish and 59 shellfish sites in this region. The figure reveals that aquaculture sites are widespread along the coastline within this region, in particular around the coasts of North and South Uist, the Isle of Harris, Isle of Lewis, and Isle of Skye as well as within the sheltered lochs of the mainland North West coast.

**Figure 6.3** Aquaculture activities in the North West Region

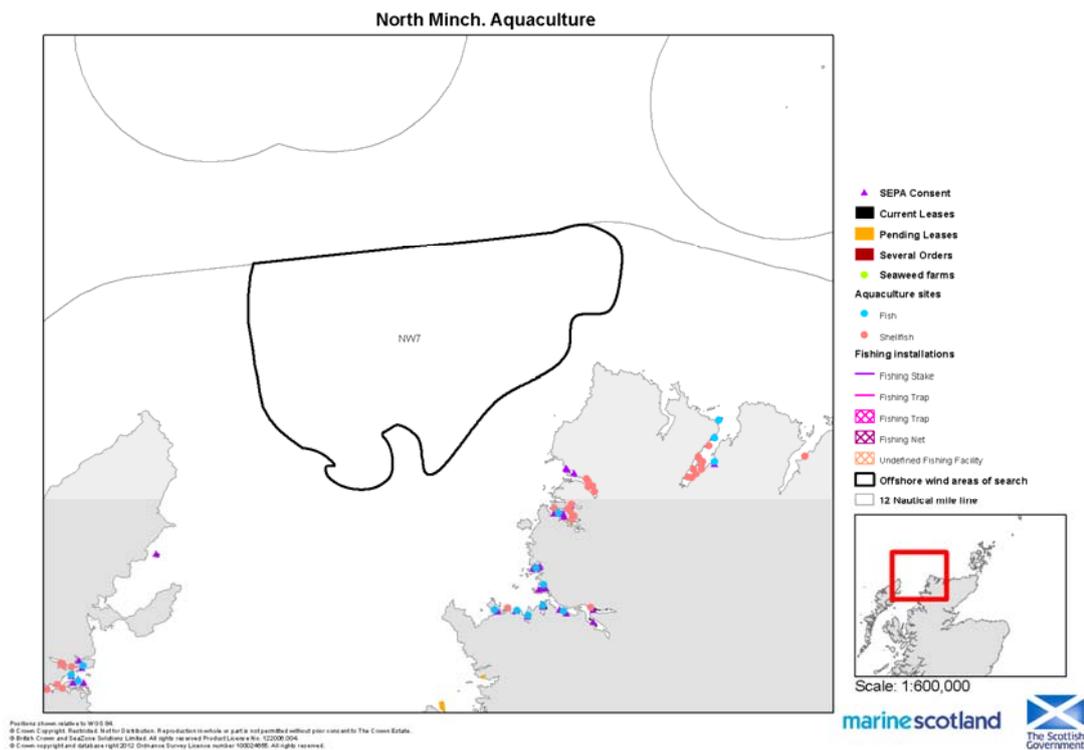


6.2.2 In 2010, there were 322 full-time and 93 part-time employees in the Marine Aquaculture industry in the North West Region of Scotland.

*Area of Search*

6.2.3 There are no aquaculture facilities within the area of potential development. There are some 13 fish farms and 30 shellfish farms located within the surrounding area which forms part of the North West, Highland and Western Isles regions. The North West region is responsible for 31% of Atlantic salmon production. The Highland region is responsible for 10% of mussels for the table, 27% of mussels for on-growing, 15% of Pacific oysters for the table, 97% of Pacific oysters for on-growing, 7% of queen scallops for the table and 100% of scallops for table and on-growing. The Western Isles region is responsible for 16% of Atlantic salmon production, 14% of mussels for the table, 9% of mussels for on-growing and 0.5% of Pacific oysters for the table.

**Figure 6.4** Aquaculture activities in the North Minch (Area of Search)

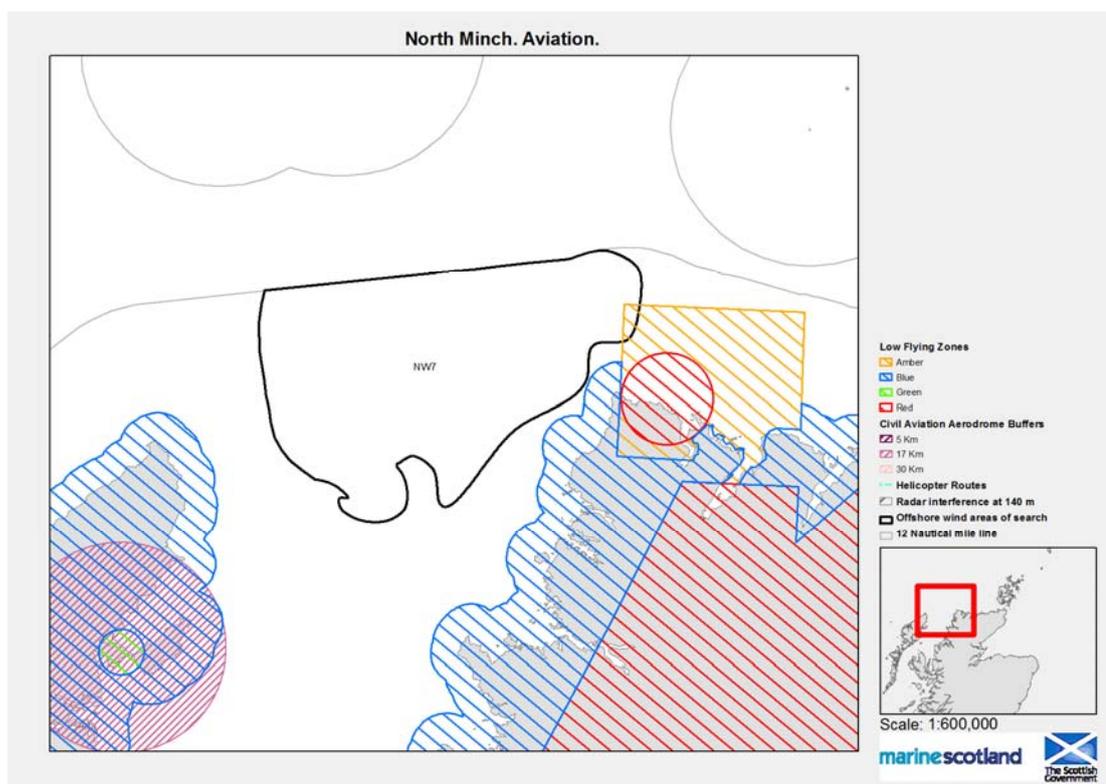


### 6.3 Aviation

6.3.1 Airports in this region include the ‘minor’ airports of Barra, Benbecula and Stornoway, all located in the Outer Hebrides.

6.3.2 Figure 6.5 identifies the potential interactions between Area of Search NW7 and aviation activities in the North West Region.

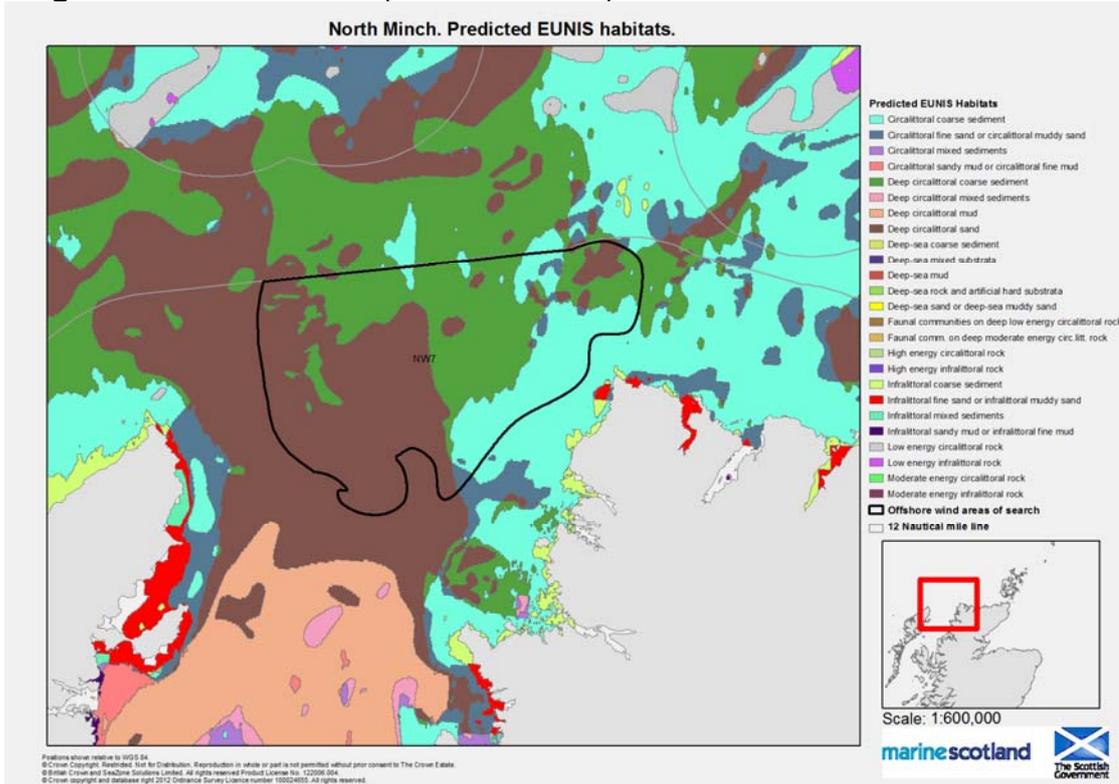
**Figure 6.5** Aviation activities in the North Minch (Area of Search)



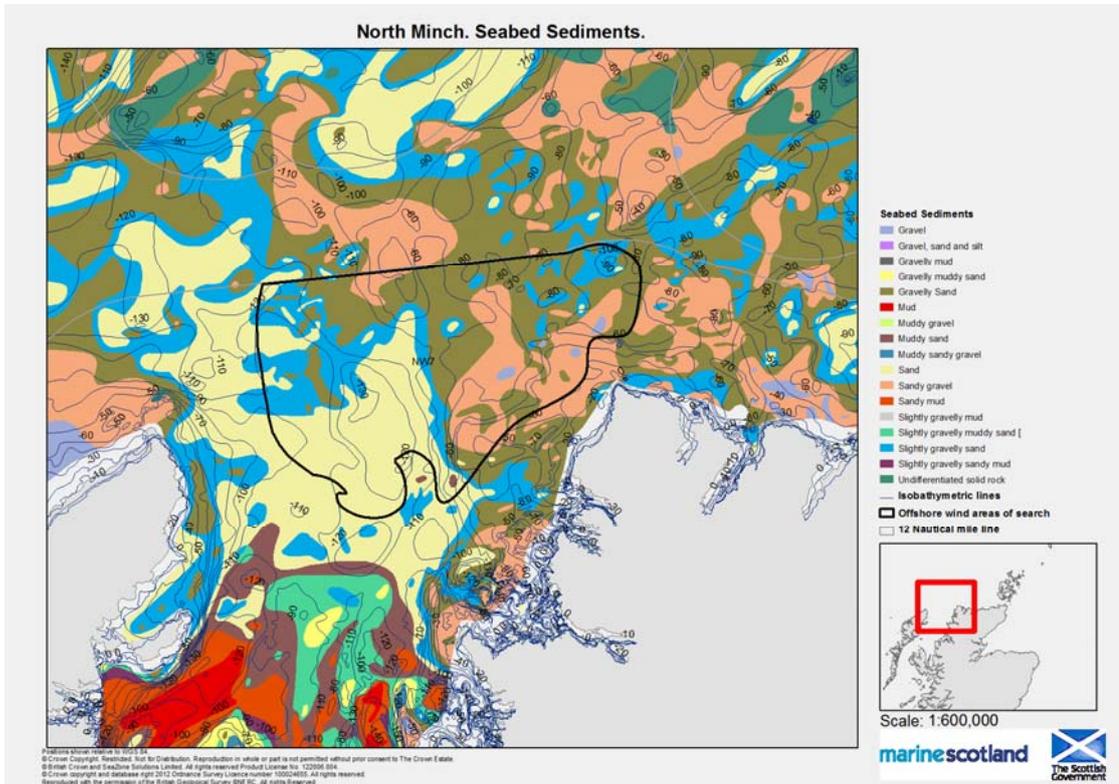
#### 6.4 Bathymetry and Seabed

6.4.1 The offshore wind search area NW7 has depths that range from 70-130 m. The deeper part of the search area is found in the western half towards the Butt of Lewis and the shallower part is found towards Cape Wrath. The sediments identified run from sand in the southwest part of the search area to increasingly gravelly sand towards the eastern part. The EUNIS dataset classes the southwest part as deep circalittoral sand and deep circalittoral / circalittoral coarse sediment towards the northeast of the search area. Patches of finer sediment are present closer to the shore on both sides of the area of search.

**Figure 6.6** North Minch (Area of Search) Seabed Sediments



**Figure 6.7** North Minch (Area of Search) Seabed Predicted EUNIS Habitats



## 6.5 Cultural Heritage

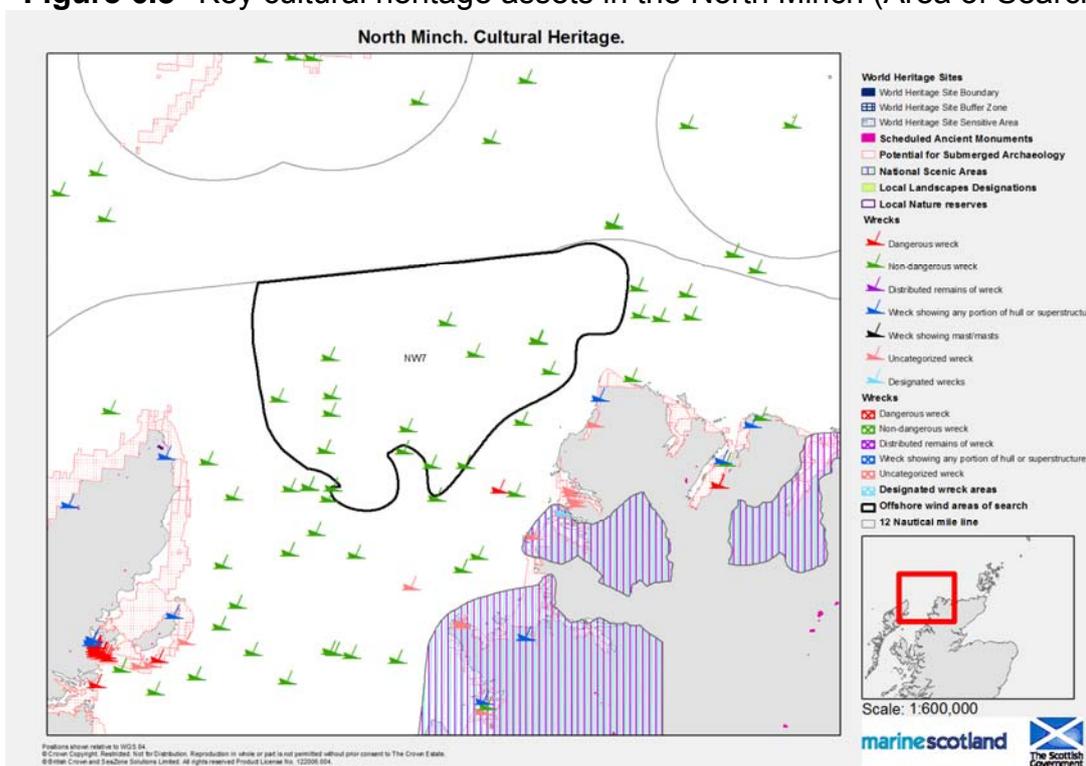
6.5.1 Key resources in the North West Region include St. Kilda World Heritage Site, located to the west of the Outer Hebrides.

6.5.2 The area also has numerous wrecks, distributed across potential areas of development and these extend beyond into the offshore area, and one important designated wreck site at Kinlochbervie. The mapping shows extensive areas around the coast of the mainland and the islands, and around some wrecks further offshore, where there is potential for submerged archaeology

6.5.3 Onshore there are numerous scheduled monuments on the coast or further inland which have close links with the marine environment. These extend from the Category A listed Barra Head Lighthouse, and village remains and field systems on small islands and on the coast at the southern end of the Outer Hebrides, to the Butt of Lewis lighthouse (also a Category A listed building), sheilings, cairns, chapels and forts at the northern end. Towns such as Stornoway, smaller villages and crofting townships also include numerous listed buildings and sites of interest.

6.5.4 The key cultural heritage assets in relation to the North Minch area of search are contained in Figure 6.8 below.

**Figure 6.8** Key cultural heritage assets in the North Minch (Area of Search)

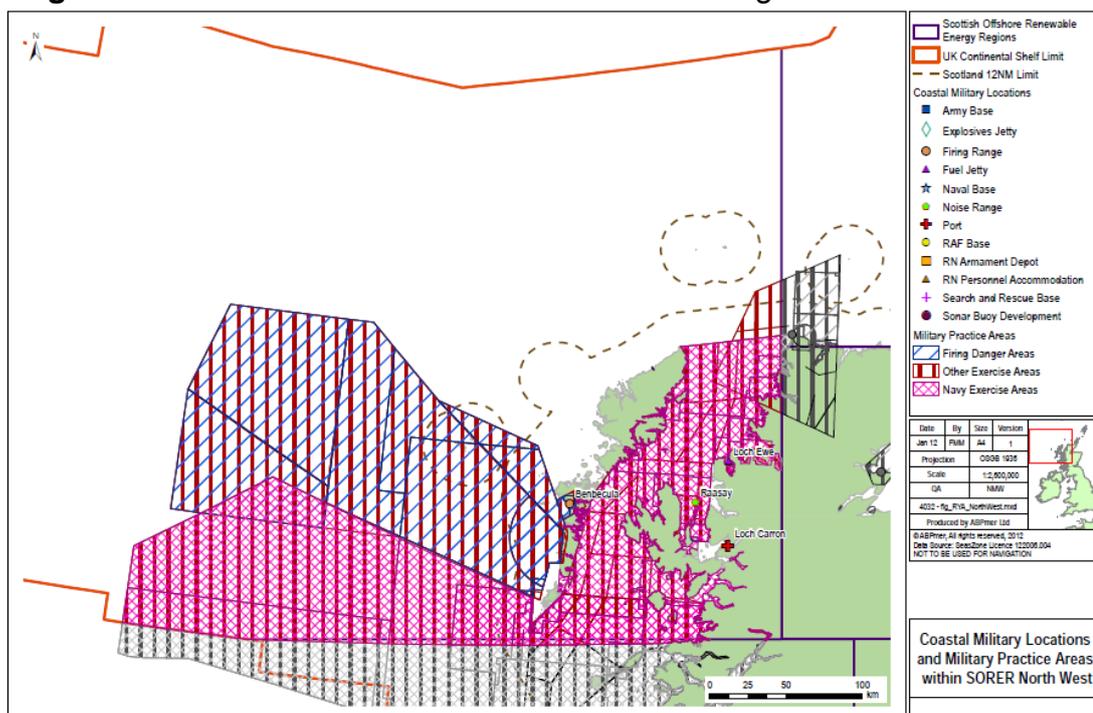


## 6.6 Defence

6.6.1 The coastal military locations which occur within this region are shown in Figure 6.9. Military interests in this region include:

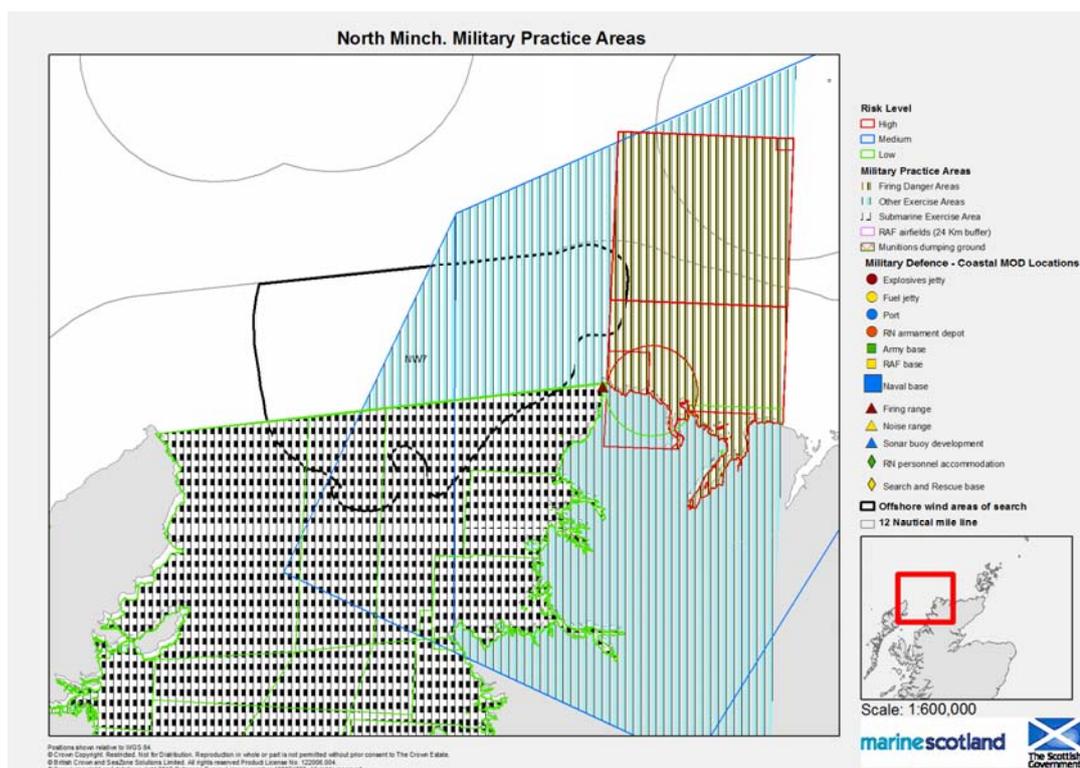
- Loch Carron Port;
- Inner Sound of Raasay official weapon test site including the British Underwater Test and Evaluation Centre (BUTEC) range, the official range for the testing and certification of the Royal Navy’s underwater weapons;
- Benbecula Firing Range;
- Loch Ewe Fuel Jetty;
- A Royal Navy SXA, which occurs within inshore waters and extends offshore in the South West of the Region; and
- The Hebrides Official weapon test site, a large sea area West-North-West of North Uist, Benbecula and South Uist, which is the current official test site for missiles and artillery systems.

**Figure 6.9** Defence activities in the North West Region



6.6.2 Figures 6.10 below shows known defence activities which take place within the current search areas for offshore wind energy in the North West Region.

**Figure 6.10** Military Practice Areas and North Minch (Area of Search)



6.6.3 Defence interests accounts for around 700 employees in the North West Region.

## 6.7 Environment

### *Coastal Protection and Flood Defence*

6.7.1 Five coastal protection schemes have been undertaken since 2000 within this region (see Figure 6.11). These are: Craigston is 0.3km in length, Ludag is 1.15km, Stoneybridge is 0.5km, Pol na Craan is 0.5km and Bullyanich is 0.15km.

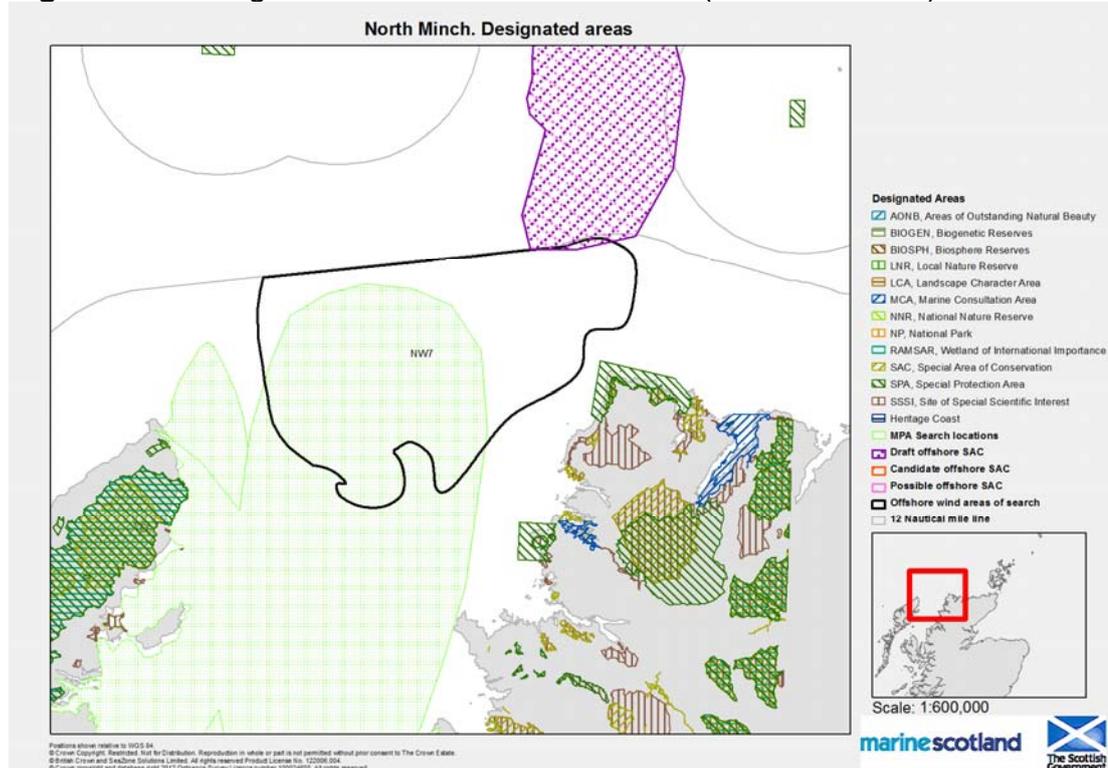
**Figure 6.11 Coastal and Flood Defence Schemes in North West Region**



*Designated sites*

6.7.2 The area of search at the northern end of the Minch has the potential to interact with offshore and coastal sites. The following designated sites are potentially relevant to this area:

**Figure 6.12 Designated sites in the North Minch (Area of Search)**



- This includes Solan Bank Reef, the possible offshore SAC, but outwith its boundary. Onshore, there are numerous protected areas including Cape Wrath SPA and Handa SPA (which are protected for seabirds), coastal protected areas such as Oldshoremore and Sandwood SAC (dunes and machair), and the extensive Lewis Peatlands SPA which is protected for a number of bird species. Lewis and other parts of the Outer Hebrides has a dense mosaic of further internationally and nationally protected sites, which may also need further consideration.
- An area has been identified around the north east coast of Lewis, with potential for designation as a MPA based on its value for sandeels and Risso's dolphin and , subject to further assessment. An area further into the Minch (Shiant Isles), has also been included in the additional list of potential MPAs, as an important marine habitat. Two further areas, one in the North Minch and another to the west of Lewis, were identified as an MPA search areas, as a result of their interest for white-beaked dolphin.
- Further north in the offshore area, key sites include North Rona and Sula Sgeir SPA (protected for seabirds and North Rona SAC (protected for its sea cliffs, caves and reefs, and its support for grey seals). To the east of this, Sule Skerry and Sule Stack SPA is also designated for seabird interests.
- A significant distance further north, the Darwin Mounds and Wyville Thomson Ridge cSACs are important reef features.
- Further north again, the Windsock and Shetland Faroe Channel have been identified as areas of search with potential for MPA status, as important offshore habitats. Further MPA search areas have been identified to the north west of Lewis, which may have some indirect relationship with development in the area, but are unlikely to be significantly affected.
- On the Sutherland Coast, an area known as the North West Sea Lochs and Summer Isles has been included for further assessment as an MPA as a result of its value as a sea loch habitat.

#### *Landscape Designations with Region*

- 6.7.3 There are 11 coastal NSAs in the North West, and local landscape designations also extend over much of the coastal area of Highland. The areas of search identified at scoping lie to the south and west of Eilean Siar, and off the north west coast. Development proposals would need to take into account potential impacts on the special qualities of these areas.
- 6.7.4 The **Morar, Moidart and Ardnamurchan** NSA includes the northern edge of the Ardnamurchan Peninsula and the coast towards Arisaig. It is a landscape of outstanding *coastal scenery* with a fragmented coastline lying between the *distinctive backdrop of the small isles* and the hills and mountains. The varied coastline provides changing views and the *seascapes are both intimate and distant*. The lack of development means the landscape has a *peaceful, unspoilt and remote* character. Within the rural landscape is the *formal element* of four *designed landscapes*, with

associated policy woodlands. *Strong historical associations* link Loch nan Uamh to Jacobite history. Location specific qualities include the *indented Ardnamurchan coast*, the *spectacular volcanic landforms* of the interior Ardnamurchan peninsula. The contrasting *flat expanse of Kentra Bay and Kentra Moss*, the sheltered *Loch Moidart and its islands*, and the distinctive *Castle Tioram, which is a romantic ruin and cultural icon* providing a popular tourist attraction. Loch nan Uamh and Loch Ailort open into the Sound of Arisaig providing fine views to the Small Isles, and the wooded shores and rocky promontories provide foreground to the wide panoramic seascapes.

- 6.7.5 **The Small Isles** covers Eigg, Muck, Rum, Canna and Sanday. Together they form an *archipelago of individually distinctive islands*. The islands all have pockets of fertile areas which appear as *populated fertile areas within a hinterland of moorland*. Each island has its own unique appearance, but they share a *geology of ancient igneous activity*. Each of the islands has a *dramatic coastline* which is predominantly steep and rocky. The islands are *remote, but centrally located within the Hebrides archipelago*, which gives them commanding views to the surrounding coasts, mountains and islands. The islands and seas are also home to an *abundance of wildlife*. Rum has a *distinctive silhouette of the Rum Cuillin*, which rises from the impressive coastline of cliffs, natural arches and raised beaches. It is a *wild but now empty landscape*, with settlement restricted to Kinloch. On Canna settlement is clustered around the bay, and the *harbour provides sanctuary* in the midst of the mountain and sea. The *columnar cliffs* that occur throughout the landscape provide a striking feature in views. The profile of Eigg is dominated by the distinctive landmark of the *Sgurr of Eigg*, and the *Cleadale coast* contains many geological features which provide *fascinating shapes and sounds*. The island of Muck contrasts with its neighbours, and is much less rugged and described as a *productive island farm*.
- 6.7.6 Although bounded on the western side by the Sound of Sleat and the Sleat peninsula of Skye the height of the hills within the **Knoydart** NSA and extensive *views across to the Inner Hebrides* afforded from them makes this NSA worthy of inclusion. The special qualities of Knoydart include that it is *one of the remotest places on mainland Britain*, accessible only on foot or by sea, and it is *one of Scotland's last great wild areas*. The *experience of the mountains from sea level highlights their majesty and extent*, and they are *some of the grandest coastal and mountain scenery on the west coast*. The sea lochs of *Loch Hourne and Loch Nevis are dramatic and have contrasting character*, and the rugged landscape provides an *exemplar of a previously glaciated landscape*.
- 6.7.7 The **Cuillin Hills** NSA includes the Red Cuillin and Black Cuillin, extending from Broadford to Sligachan and Glen Brittle. The overriding feature of the landscape is the *magnificent mountain scenery* which rises dramatically from the sea and provides a distinctive skyline. There is *contrast and complement between the harsh jagged profile of the Black Cuillin and the steep rounded Red Cuillin*. *The surrounding wild landscape of moorland and grassland provides a fitting foil for the dramatic mountains*, and the coastal landscape includes views to the islands of Canna, Rum and Eigg which

emphasise the remoteness of the coast. At the fringes of the NSA there are *iconic images of crofting townships* with dramatic backdrops of the mountains. The dramatic *Cuillin Ridge is a landmark throughout the northwest*, being visible from many of the surrounding areas. The Cuillins are subject to *ever-changing weather* conditions which influence their character, contributes to their role as a *place of inspiration*, and their label as *the most challenging mountains in Scotland*.

6.7.8 **The Trotternish** NSA includes the northern part of the Trotternish Ridge, Quiraing and the coastal edge. The special qualities of the area include the *unique Trotternish landslip topography*, and the *contrast between the platform of moorland and the ridge above*. Crofts are generally focused on the coastal edge and the *crofting settlement* provides a *human dimension to the landscape*. The rock formations and vegetation provide *variations from light to dark across the landscape*. At the coast, there are *dramatic sea-cliffs of basaltic columns*, including the spectacular waterfall at Kilt Rock, which falls directly to the sea. There are *distant views over the sea* from the Trotternish ridge both to the east and west. Specific to the landscape is the *mysterious presence of the Quiraing*, with the distinctive shapes of the rock features.

6.7.9 The **Wester Ross** NSA extends north from Loch Kishorn to Little Loch Broom, and inland over high mountain peaks. The varied landforms contribute to an area of *scenic splendour*. The cultivated and populated coast provides a strong contrast between *human settlement within a vast natural backdrop*. On the coast there are both expansive views over the Minch and shorter views over the sea lochs. The multitude of *spectacular and magnificent mountains* rise precipitously and dominate the view. All of the mountains have *recognisable profiles*, making them distinct and easily recognisable. *Stark geology and bare rock* is a prominent landscape feature, although there are *large sweeps of open, expansive moorland* between the high mountains. The *populated coastal settlements* each with *distinctive* character are typically crofting townships. Although an uncommon landscape feature, where they occur *woodlands and trees soften the landscape*. Between the settlements and roads there are *great tracts of wild and remote land*. The landscape of the *coast is superb* and *coastal views* are varied, lone islands are the focal point to many views. There is an *abundance of water in the landscape, which provides a foreground to dramatic views*. It is a *landscape of many layers, with visual continuity of coastal landscape, moorland and mountain*. *The ever-changing weather and light* constantly alter the landscape experience. Location specific qualities include *Loch Maree and Slioch*, identified as *one of the most iconic and recognisable landscapes in Scotland*, the *spectacular high mountain pass of the Bealach na Bà* on the road to Applecross.

6.7.10 The **Assynt – Coigach** NSA extends from the mouth of Loch Broom, near Ullapool to Badcall Bay near Scourie. It reaches inland to Ledmore and the peak of Ben More Assynt. This is an unparalleled landscape within Britain where the diversity and drama of the peaks is mirrored in the complexity of the coastline. The special qualities of the area include the *spectacular*

*scenery of lone mountains* which rise above cnocan, moorland and loch. Below the mountain peaks is a *rocky topography of great variety*. The small *settlements are nestled within a wider landscape of mountain peaks, wild moorlands and rocky seascapes*, dwarfed by the wider landscape of wild moors and mountains. The *extensive cnocan landscapes* provide background to the higher peaks. The sea frames the mountains, cnocan and moor, and the *coastline has endless drama*. There is an *intricate multitude of lochs and lochans*, most easily appreciated from the elevation of the mountains. It is a *landscape of vast open space and exposure*, and *significant tracts of wild land*. Although many parts of the NSA are virtually treeless, there are *unexpected and extensive tracts of native woodland* within parts of the cnocan. There is limited human movement within the landscape which contributes to a *still, quiet landscape under a constantly changing sky* although the coastal waters provide a subtle relentless sense of movement. Reflecting the abundance of rock and water and challenges to access there are *extensive tracts of wild land*.

- 6.7.11 **North-West Sutherland** NSA extends from the north of Scourie Bay to the head of Loch Laxford, and reaches inland to the peaks of Ben Stack, Arkle and Foinaven. The special qualities of the NSA reflect the geology of the area, where the three quartzite peaks rest on Lewisian gneiss conveying that this is a *landscape of rock*. The profiles of the peaks provide a *backdrop of distinctive mountains* which stand above a *complex cnochan landscape of rock, water and sky*. At the coast, the landscape forms an *intimate mix of sea and land*, with the indented shoreline giving a wild and secluded feel. Most of the land is uninhabited and uncultivated, and this provides a *contrast between extensive uninhabited land and localised human settlement*. At the coast, *Handa's towering sea cliffs* contrast with the broken cnocan coastline found elsewhere.
- 6.7.12 The **Kyle of Tongue** NSA lies on the north coast of Scotland to the west of Bettyhill, includes the Kyle of Tongue, the surrounding slopes and the peaks of Ben Hope and Ben Loyal which provide an *ever-present backdrop of mountains*. *The Kyle provides a link from an inhabited coast to a wild moorland* which illustrates the change in scale from domestic to monumental. The movement of tide and water provides an *ever-changing character of the Kyle*, and there is a *rich variety of coastal scenery*, and a *distinct pattern of settlement* within the crofting townships.
- 6.7.13 The **South Uist Machair** extends over the eastern coastal edge of South Uist, and is an area of *distinctive scenery between the mountains and the sea*. Views westward over the blackland, machair and seashore appear horizontal and flat, accentuated by the open sea beyond. It is an *extensive area of traditionally-managed machair*, which has a *profusion of flowers* in the summer months. The landscape is characterised by the profusion of *birds and song at every step*. The pattern of crofts, croft houses and the unenclosed cultivation and grazing of the machair is typical of the indigenous, South Uist settlement pattern. At the shore the *white, shell-sand beaches and turquoise seas* are located along the *scalloped coastline* which is bounded by the *wide, open horizons and skies* of the open sea. The

marram grass that covers the extensive dunes has earned the area the name of ‘the land of bent grass’. Inland there is a *host of lochs and wetlands* which intermingle with the machair and blackland. The lack of enclosure and extensive landscape flatness highlights the *force of nature and elemental beauty*, which is reflected in the *deserted beaches, remoteness and solitude*.

- 6.7.14 **South Lewis, Harris and North Uist NSA** includes the upland landscape of southern Lewis and Harris, and the fragmented coast of North Uist. The special qualities of the landscape include the *rich variety of exceptional scenery* and the *great diversity of seascapes*, which have a close relationship with the land. In places there are grand, open seascapes and panoramas, including the expansiveness of the Atlantic ocean and the distant St Kilda. *Intervisibility* is a key feature of the landscape from different landscape types and from high peaks views can extend from Cape Wrath, to the Cuillin and St Kilda. There is a *close interplay of the natural world, settlement and culture*, reflecting the constraint the landscape has put on habitation. The effect of human activity on the landscape has left an indivisible linkage of landscape and history. The remoteness of the islands contributes to the perception that they are on the *very edge of Europe*, and reflecting their exposure to the western weather systems there is a *dominance of the weather*. Location specific qualities include the *wild, mountainous character* of South Lewis and Harris, accentuated by their proximity to the sea. *Deep sea lochs that penetrate the hills*, have a wild, undeveloped character. Notable is the *narrow gorge of Glen Bhaltos* which is an impressive meltwater channel. The *rockscapes of Harris* dominate the landscape with huge exposed sheets of bare Lewisian gneiss. The western fringe of the Harris coast and Uig in South Lewis include *extensive machair and dune systems with expansive beaches* which relieve the stark rocky landscape. The *drama of Ceapabhal and Taigh an Taoibh Thuath* is provided by the contrast between the steep sided low hill and vast tidal bay. The *distinct, well populated island of Sgalpaigh* has long distance views over to Skye, Raasay and the Applecross peninsula. At the southern end of Harris the *enclosed glens of Choisleitir, Shranndabhal and Roghadail* provide a sense of containment and lack connectivity to the sea.
- 6.7.15 Location specific qualities of the Sound of Harris include the *dramatic island-studded* landscape comprising a variety of landforms and landscape types with the close association of the sea. The character of North Uist is typified by a *watery maze of lochs, lochans, bays and fjards* (rocky narrow inlets). The *distinctive peninsula of Lochportain* provides a low lying, rocky coastline which affords fine views out over the North Uist Hills, the Sound of Harris, the Harris Hills, Berneray and the North Uist Coast. The *north coast* of North Uist is varied but characterised by the *low, expansive machair* which is complemented by the great, expansive flatness extending out into the ocean, emphasising the horizontal elements of the landscape. The *island of Bearnaraigh* is described as *the Uists in miniature*, encapsulating the range of coastal scenery. The low lying coastal landscape is constantly subject to change, and is a *dynamic, shifting land*, responding to the constant weather systems.

6.7.16 The special qualities of the **St Kilda** NSA include the *spectacular natural scenery combined with an outstanding cultural landscape*, which are reflected in its designation as a World Heritage Site. The high hills, vertical cliffs and pounding seas create a *magnificence of hill, cliff and island*. The human history of the islands is brought to life by *the vivid story of human endeavour on small isolated islands*. The islands of the archipelago demonstrate the *variety of island form*, and *each has a distinct profile*. The islands are isolated and *remote, dominated by weather and sea*. During summer months there is *an unparalleled abundance of seabirds*, which add immeasurably to the landscape. In clear weather the distinctive profile of St Kilda is visible in *views from the Western Isles*. Location-specific qualities include the *superb landscape setting of Village Bay* on Hirta, and *the completeness of settlement and agricultural remains on Hirta*. Soay sheep found on the islands of Hirta and Soay are a particularly distinctive feature of the landscape.

6.7.17 There are no local landscape designations in Eilean Siar. However, there are 13 special landscape areas with a coastal association within Highland Council<sup>1</sup> in the North West Region which have been described below:

- **Oldshoremore, Cape Wrath and Durness SLA** has varying seaward views which include westward views to the Outer Hebrides and northward views over the Pentland Firth. The landscape is noted for its *remote coastline, geological and landscape diversity, and singular geographic and landscape features*;
- **Eriboll East and Whiten Head SLA** includes the enclosed coastling of Loch Eriboll and the northern coast of Whiten Head. There are views north to the open Atlantic and the combination of mountain, sea and loch creates a striking composition. The special qualities of the landscape include its *striking geological and landscape contrasts, the striking views and sparse settlement and naturalness*;
- **Farr Bay, Strathy and Portskerra SLA** extends along the north coast from Farr Bay to Melvich Bay. Extensive views are noted along the coast and out to sea, and accentuated by the large scale of the landscape. The special qualities of the landscape include the *dramatically intricate coastline and forceful sea, the moorland and crofting mosaic, the big skies and extensive views and the historical dimension* of Brove Castle;
- **North West Skye SLA** extends from Glen Brittle over the northern peninsulas of Waternish, Duirinish and Minginish. There are frequent large-scale panoramic views over moorland, coastline, small islands, skerries and seascape, and an overriding sense of openness, exposure and a horizontal emphasis of land and seascape. Special qualities of the landscape include the *dynamic coastline, distinctive terrain and crofting landscapes*;

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<sup>1</sup>Assessment of Highland Special Landscape Areas (2011)  
<http://www.highland.gov.uk/NR/rdonlyres/75BE9453-1C1D-4076-BCFE-D7A3BEADCB9E/0/AHSLA.pdf>

- **Greshornish SLA** is a small peninsula lying at the head of Loch Snizort, the high ground provides views in clear conditions to the distant Harris hills to the north. The special qualities of the landscape include *contrasting geology, enclosure and exposure* and the *historic landscape* with prehistoric and medieval landscape features;
- **Trotternish and Tianavaig SLA** extends over most of the Trotternish peninsula. Views from settlement vary from exposed and open prospects over open water, or to adjacent islands, to framed seaward views from the protection of sheltered bays. Special qualities of the area include the *dynamic landslip character, the ridgeline spine and coastal fringe and historic landscape*; and
- **Raasay and Rona SLA** lies between the Isle of Skye and the mainland and affords good panoramic views both of the coastal waters and open sea, and to the large scale mountain ranges on Skye and the mainland. Special qualities include the *exposure, remoteness and accessibility, the outstanding mix of island coastal features and views* and the *geological and historical diversity*.

6.7.18 The following SLAs are more enclosed by the surrounding topography, and therefore lack intervisibility with the wider offshore environment. However they are sensitive to local landscape change:

- **Kyle – Plockton SLA** includes the coastal edge from the Skye bridge to Plockton and the south side of outer Loch Carron. Special qualities are the *intricate coastline and picturesque vistas*, which include views across the water to the prominent skylines of the Torridon and Cuillin mountains;
- **South West Applecross and Crowlin Islands SLA** includes the south western margins of the Applecross peninsula in the narrow waters between Skye, and the sea is dominant in views. The special qualities include the *intricate coast and impressive panoramic views*;
- **Moidart, Morar and Glen Shiel SLA** includes the coastal edge between Arisaig and Mallaig, and the extensive upland area between Glen Shiel and Moidart. The special qualities are the *distinctive West Highland composition* which includes the intricate coastline, and Loch nan Ceall is noted for offering expansive views to the sea and distinctive profiles of the mountainous islands to the west;
- **Outer Loch Sunart and Islands SLA** is tightly enclosed by Mull and the Ardnamurchan and Morvern peninsulas. The special qualities describe a *sheltered and intricate coastal landscape*, which also contains rich *historic landscape* features;
- **Inninmore Bay and Garbh Shlios SLA** includes the coastal edge at the southernmost tip of Moidart where it meets Mull and Lismore. Special qualities include the *distinctive landscape features fashioned by geology, the exceptional woodland and the panoramic exposure and seclusion*; and
- **Ardgour SLA** includes the coast and hills of Ardgour on the western shores of Loch Linnhe. Special qualities include the *prominent interlocking peaks and glens, semi-isolated, peninsular location, and the contrasts between settled shoreline and imposing hills*.

6.7.19 North West Highlands Geopark includes Coigach, Assynt, Eddrachilles and Cape Wrath. Although not specifically a landscape designation, the Geopark designation reflects the significant role the geology of the area plays in the landscape experience.

*Marine mammals, Basking Shark and Seals*

6.7.19 Proportional numbers of encounters of cetaceans are high around the North Minch. Species that are sighted most frequently are minke whales, orca, white beaked dolphin, short beaked common dolphin, Risso's dolphin and harbour porpoise.

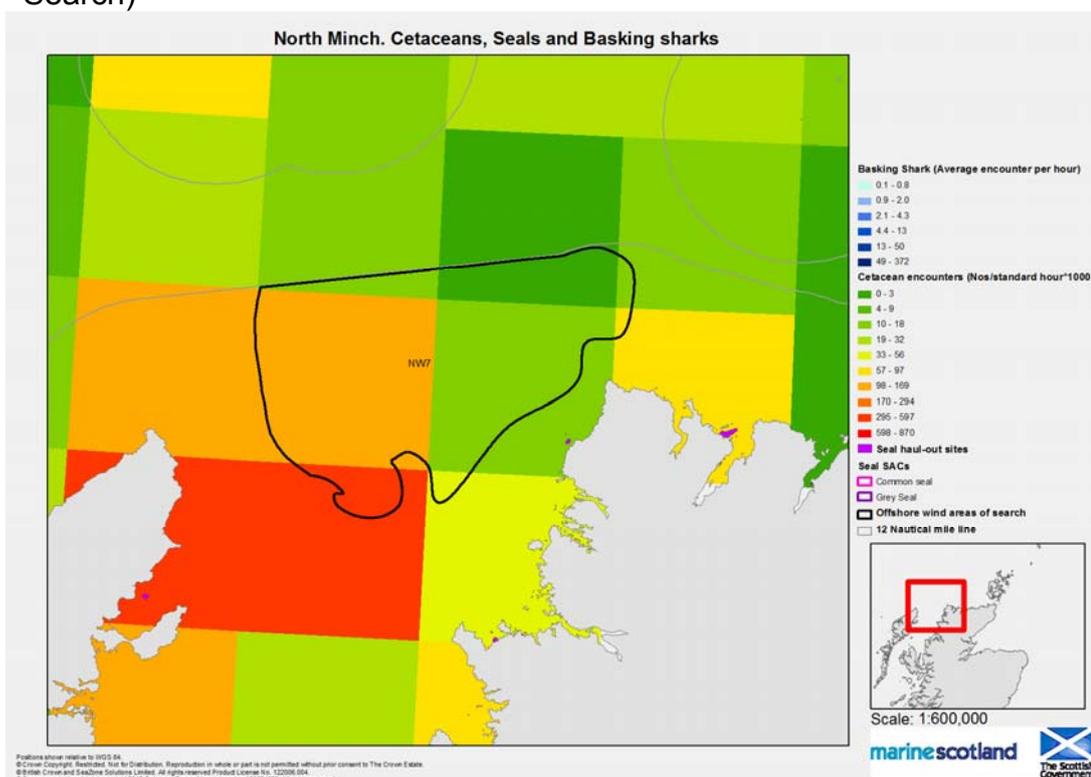
6.7.20 The summarised map of mammal encounters shows that the western and south western sector of NW7 is a relatively important area for marine mammals compared to the north west sector.

6.7.21 No areas of high basking shark density exist around the area of search. From the early nineties a small number of sightings have been recorded each year (Marine Conservation society) , none of which were within NW7.

6.7.22 Seal SACs have been established 20 nm to the north at North Rona for grey seals and to the south at Ascrib, Islay and Dunvegan at the north west of the Island of Skye for common seals at 56 nm distance from area of search NW7.

6.7.23 The closest seal haul-out sites lie approximately 4 nm south east of NW7 between Cape Wrath and Sheigra with another at 14 nm at Durness. Both these are established for grey seals. Two more haul-out sites can be found along the same coast, one for grey and one for common seals. Further south, two more sites have been identified along the Culkein to Drumbeg coastline. The western site is for grey seals and the eastern for common seals. Southwest of the area of search, a haul-out site for common seals has been established 6 nm from Stornoway at Cnoc an t-Solais.

**Figure 6.13** Cetaceans, Seals and Basking Sharks in North Minch (Area of Search)



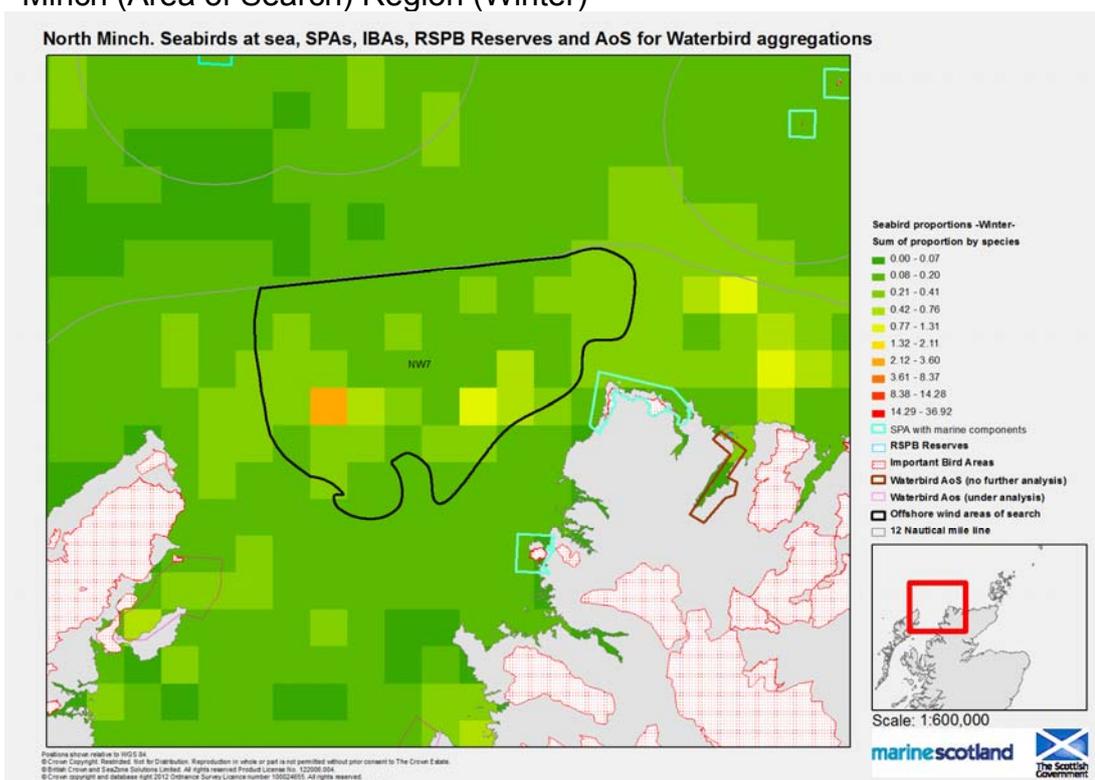
### Seabirds

- 6.7.24 The collated ESAS seabird data shows a moderate level of density of seabirds in the North West area, except for the westernmost part where some grid squares of higher density can be seen. This higher proportional density can be traced back to high numbers of common guillemots. Outside of the area of search to the west, and north of the Butt of Lewis the density increases and shows a hotspot that reflects the high numbers of lesser black back gulls and northern fulmars.
- 6.7.25 The winter pattern is similar within NW7 with the lesser black back gull showing high proportional density.
- 6.7.26 Seabird SPAs that will have to be considered as possible sources of interactions can be found at Cape Wrath at less than 2 nm from NW7 And which is especially important for gulls and auks. Handa Island at approximately 10 nm south of the area of search is important for breeding seabirds and is a nesting locality for seabirds that forage locally.
- 6.7.27 Two more SPAs have been established further offshore at North Rona -Sule Sgeir and Sule Skerry and Sule Stack. These islands provide strategically placed nesting localities for large numbers of seabirds which feed in the waters off the north coast of Scotland away from the SPA. They hold a diverse assemblage of species including large numbers of petrels, auks, gulls and gannet. It is one of only seven known nesting localities in the EU for Leach's Petrel (JNCC).

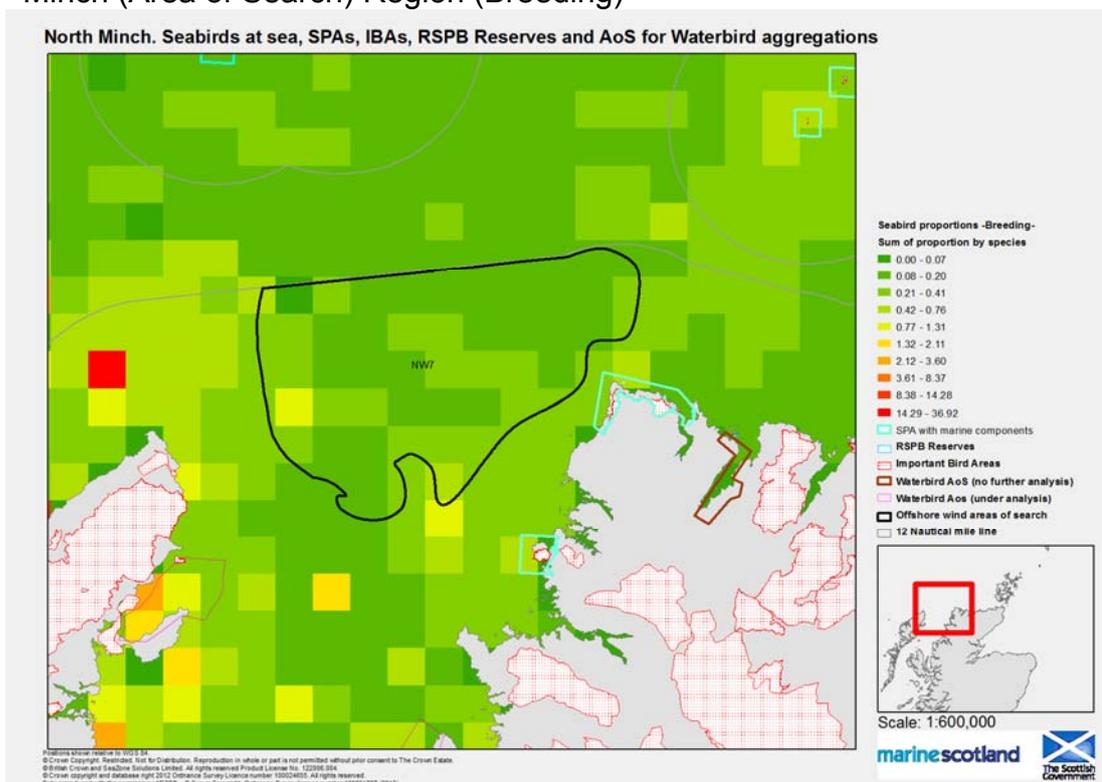
6.7.28 IBAs exist to the west of NW7 on the Isle of Lewis, chosen for its importance to waders, divers and raptors. To the east the Cape Wrath IBA is host to some 17,000 breeding pairs and 27,000 breeding pairs. To the south the IBA at Handa Island 91,000 breeding pairs visit regularly, this site is also important for common guillemots and black legged kittiwakes (RSPB).

6.7.29 Small RSPB reserves exist west of NW7 on the north coast of Lewis at Loch na Muilne and also east at Eilean Hoan to protect colonies of waterbirds.

**Figure 6.14** Seabirds, Important Bird Areas and RSPB Reserves in North Minch (Area of Search) Region (Winter)



**Figure 6.15** Seabirds, Important Bird Areas and RSPB Reserves in North Minch (Area of Search) Region (Breeding)



## 6.8 Fishing

### *Commercial Fisheries Regional Overview*

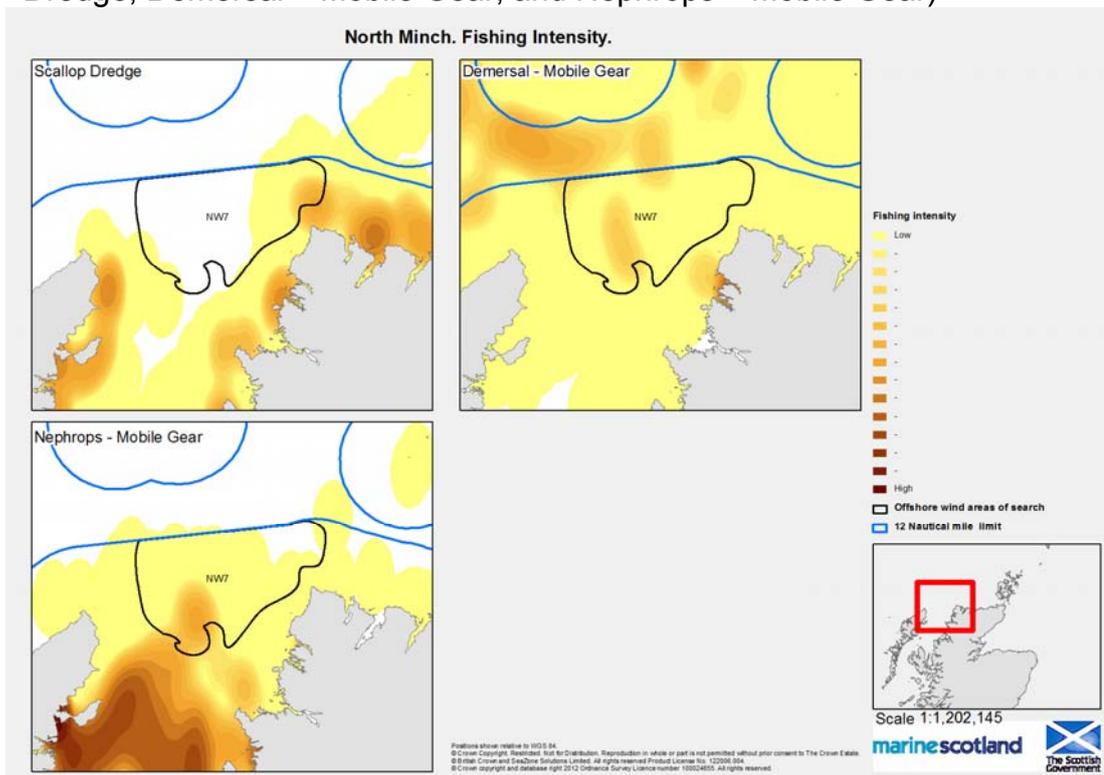
- 6.8.1 Landings caught by UK vessels within the North West SORER had an average annual value of £98 million (25.6% of the Scottish total) and an average annual live weight of 112,300 tonnes (26.2% of the Scottish total) for the ten year period from 2001 to 2010.
- 6.8.2 The majority of the value and volume of landings from within the South and West of the North West SORER are shellfish, whereas in the North of this SORER the majority are demersal species. There is a marked difference between the main species caught in inshore waters (within 12 nm from the coast) and offshore waters (greater than 12 nm from the coast). In 2010, Nephrops accounted for 69% of the total catch value from inshore waters, while scallops and 'other shellfish' accounted for 11% and 15% of the total catch value, respectively. Offshore, landings of mackerel accounted for 36% of the total catch value and 54% were whitefish.
- 6.8.3 In 2010, 33% of the value of landings from inshore waters was taken by vessels 10m and under in length, 27% was landed by vessels over 10m and less than 15m, and 40% was landed by vessels 15m and over. Offshore, 82% of the value of landings was taken by vessels 15m and over in length.

- 6.8.4 For inshore waters, 45% of the total catch value was caught by pots and 36% by Nephrops trawls; whereas for offshore waters, 43% was caught by demersal trawls and 41% by pelagic trawls.
- 6.8.5 The North West SORER is covered by the administrative ports of Mallaig, Portree, Ullapool, Lochinver and Stornoway. There are 1,102 fishermen employed on Scottish based vessels in these districts; 922 of these are employed full-time, 128 are part-time and 35 are crofters. There are 290 active vessels registered in these districts, 207 of which are 10m and under in length.
- 6.8.6 In the majority of this region, direct employment in the fishing sector accounts for between 5% and 10% of total employment (Baxter et al., 2011). However, in the Southern islands of the Outer Hebrides, direct employment in the fishing sector accounts for between 10% and 15% of total employment (Baxter et al., 2011).

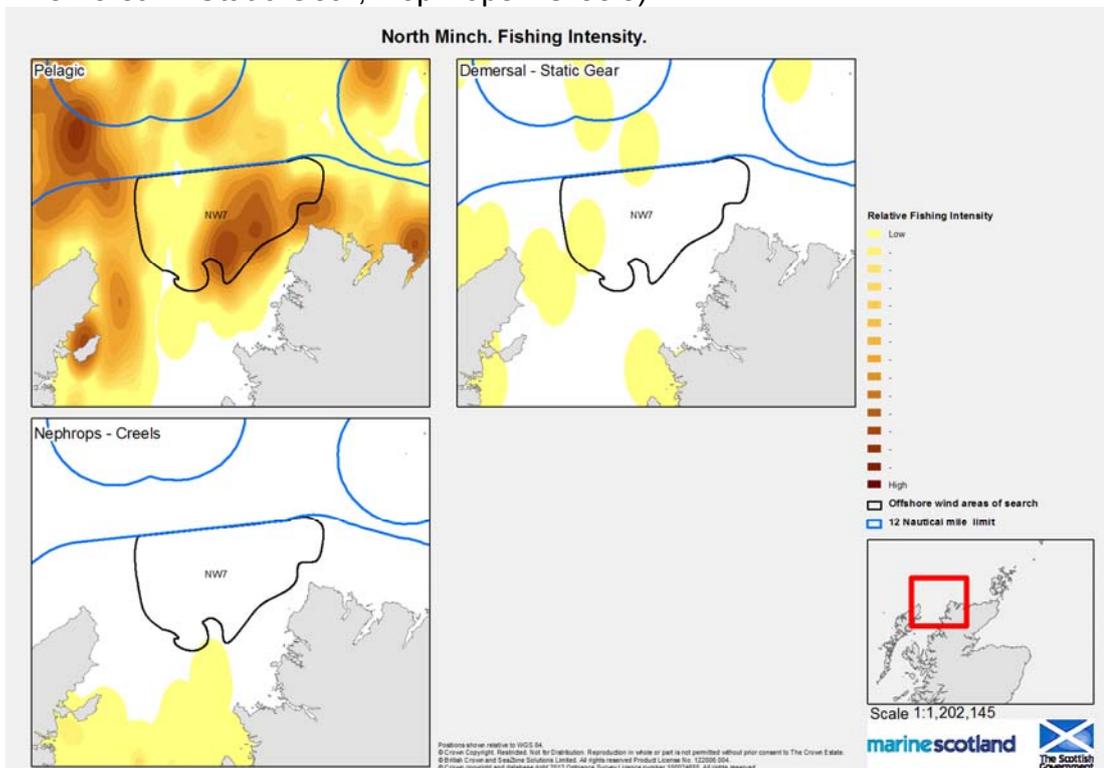
*Area of Search Interactions*

- 6.8.7 As the map shows there are many species whose spawning ranges overlap with NW7, these are: cod, whiting, herring, Lemon sole, nephrops, norway pout (high intensity), sandeel and sprat. Spatial-temporal interactions would have to be investigated for each species individually. The number of overlaps is relatively high in NW7.
- 6.8.8 Fish species that have their nursery sites partially within NW7 include: haddock, lemon sole, nephrops, norway pout, saithe, sandeel and whiting.

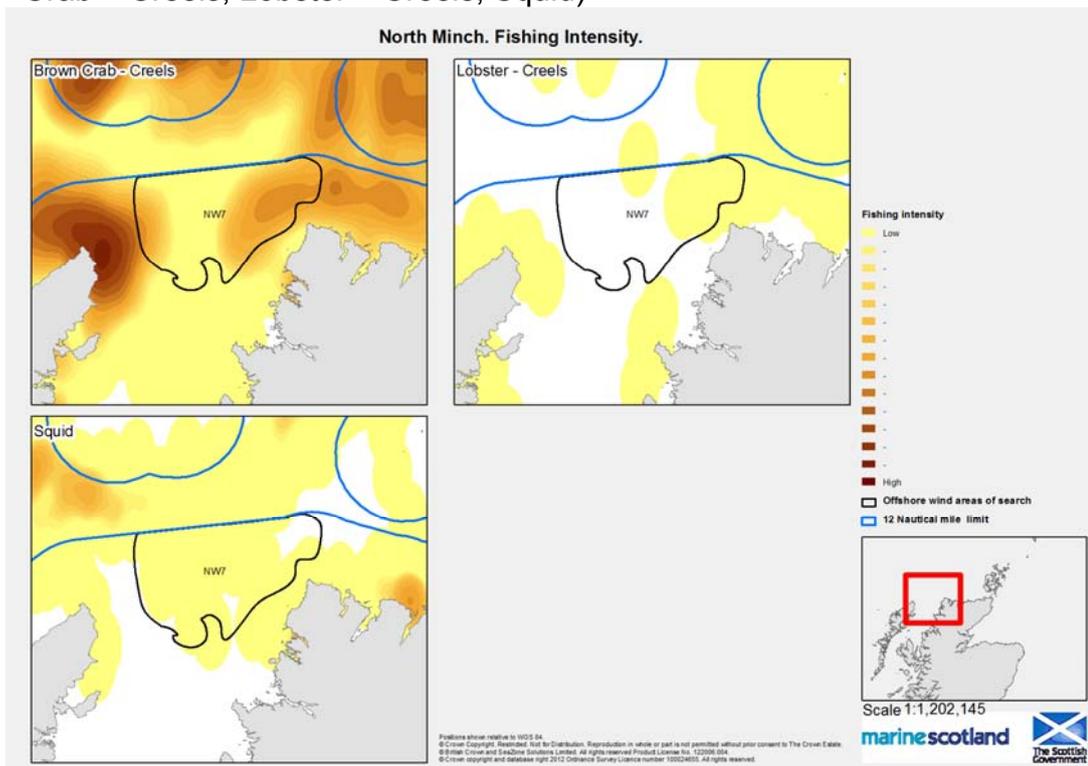
**Figure 6.16** Fishing Intensity in the North Minch (Area of Search)(Scallop Dredge, Demersal – Mobile Gear, and Nephrops – Mobile Gear)



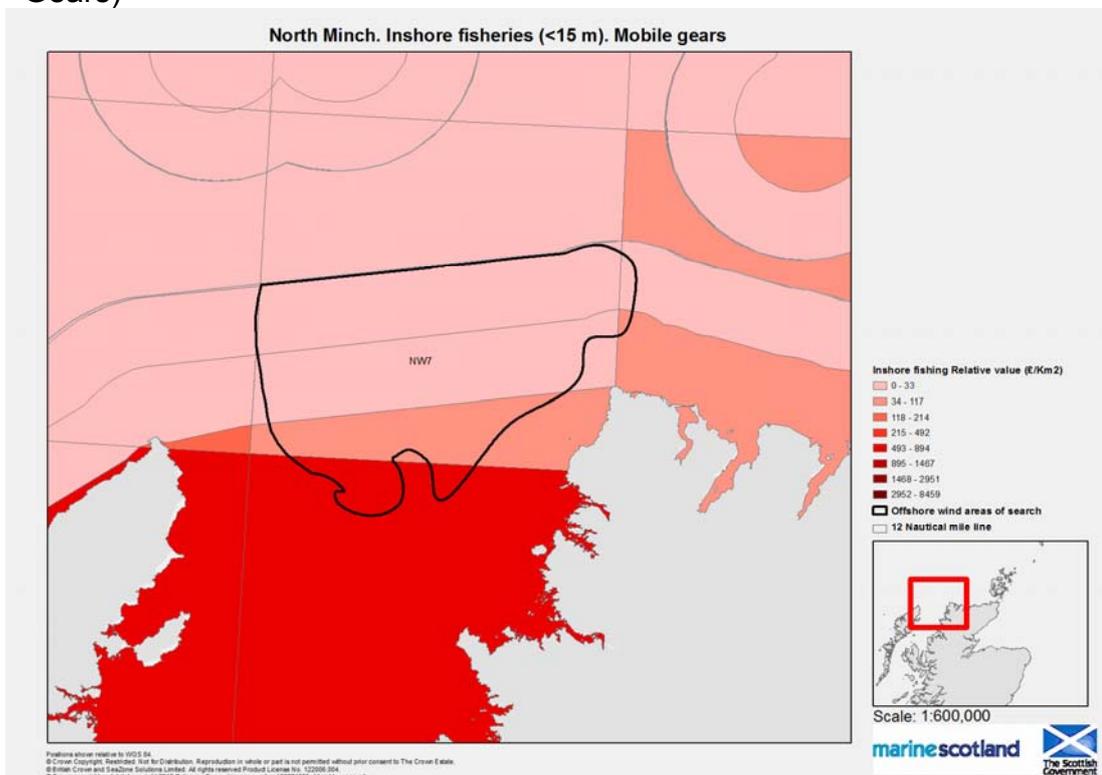
**Figure 6.17** Fishing Intensity in the North Minch (Area of Search)(Pelagic, Demersal – Static Gear, Nephrops - Creels)



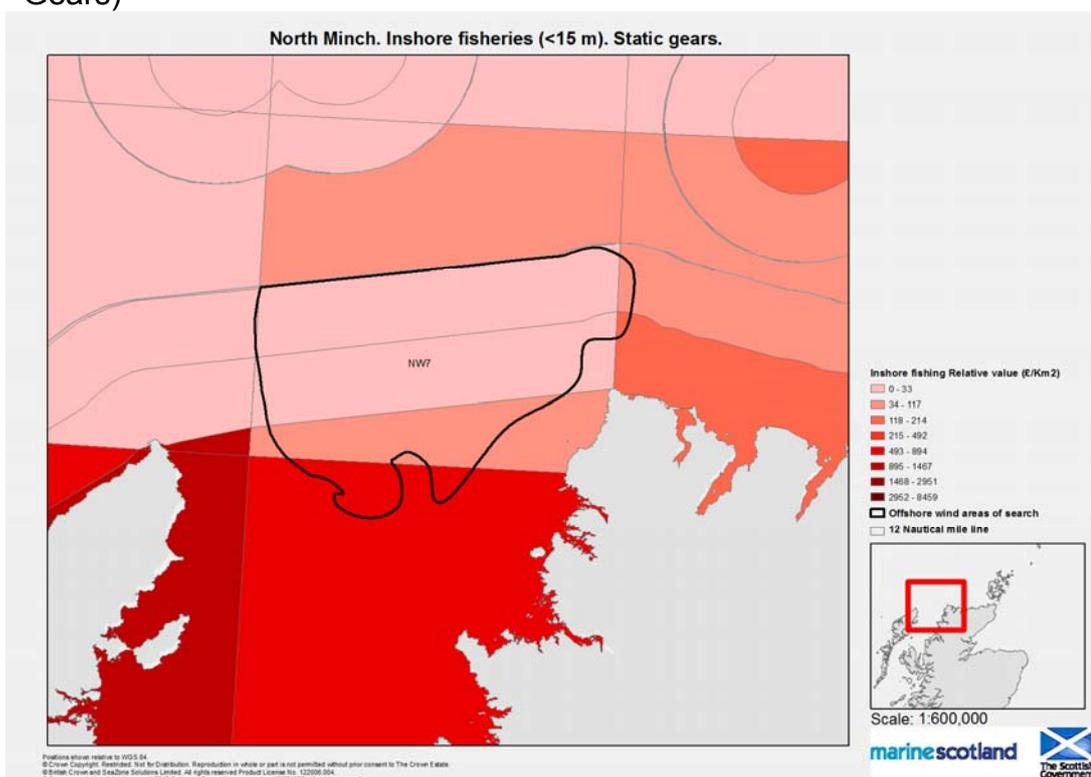
**Figure 6.18** Fishing Intensity in the North Minch (Area of Search)(Brown Crab – Creels, Lobster – Creels, Squid)



**Figure 6.19** Inshore Fisheries in the North Minch (Area of Search) (Mobile Gears)



**Figure 6.20** Inshore Fisheries in the North Minch (Area of Search) (Static Gears)



### *Fish Processing Activities*

6.8.9 Prawn and shellfish factories are operated in the Western Isles, and in Mallaig. White fish primary processing takes place in Stornoway, Kinlochbervie, Lochinver and Mallaig. There are no fish processing facilities at Ullapool. Young's Seafood in Stornoway is one of the larger fish processing units in this region, producing breaded scampi from Nephrops sourced off the West coast of Scotland.

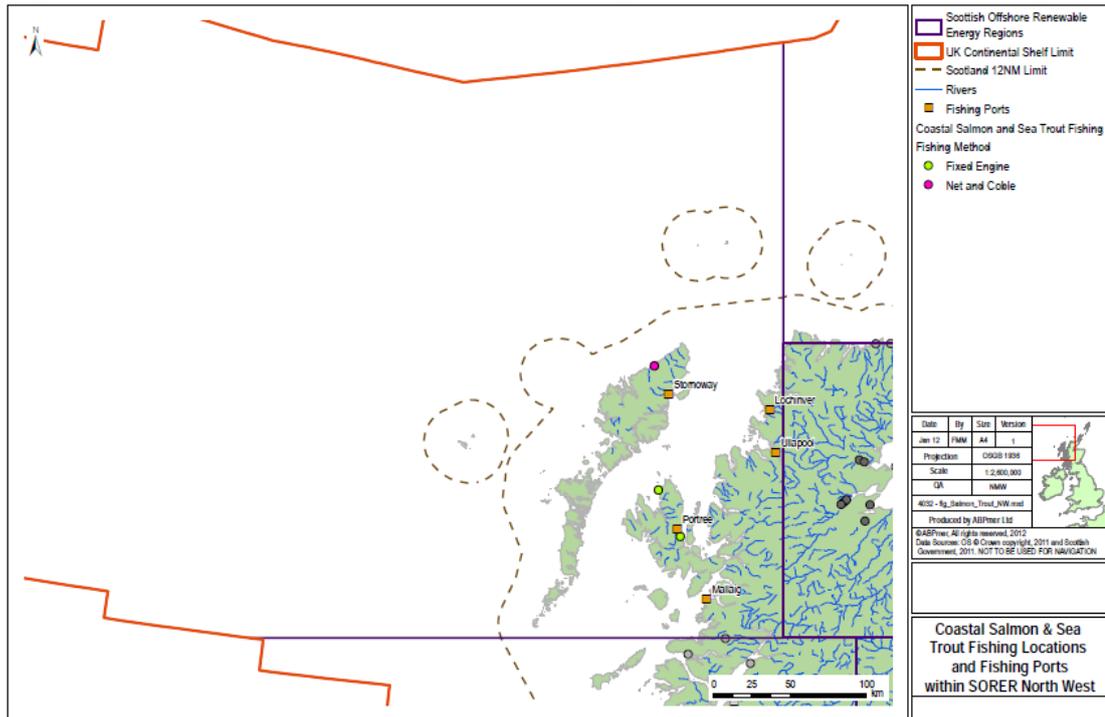
6.8.10 In 2010, it was estimated that 453 full-time and 46 part-time staff were involved in fish processing activities in the North West Region.

### *Wild Salmon and Sea Trout*

6.8.11 There are two fixed engines netting sites on the Isle of Skye and one net and coble netting site on the Isle of Lewis in the North West SORER (see Figure 6.21).

6.8.12 The main rod and line fishing rivers in this region are the Rivers Lochy (salmon), Croe (salmon), Carron (sea trout), Torridon (salmon), Ewe (salmon), Gruinard (salmon), Ullapool (salmon), Kirkaig (salmon) and Inver (salmon).

**Figure 6.21** Salmon and Sea Trout Fishing Locations in North West Region



## 6.9 Infrastructure and Grid Provision

### *Existing*

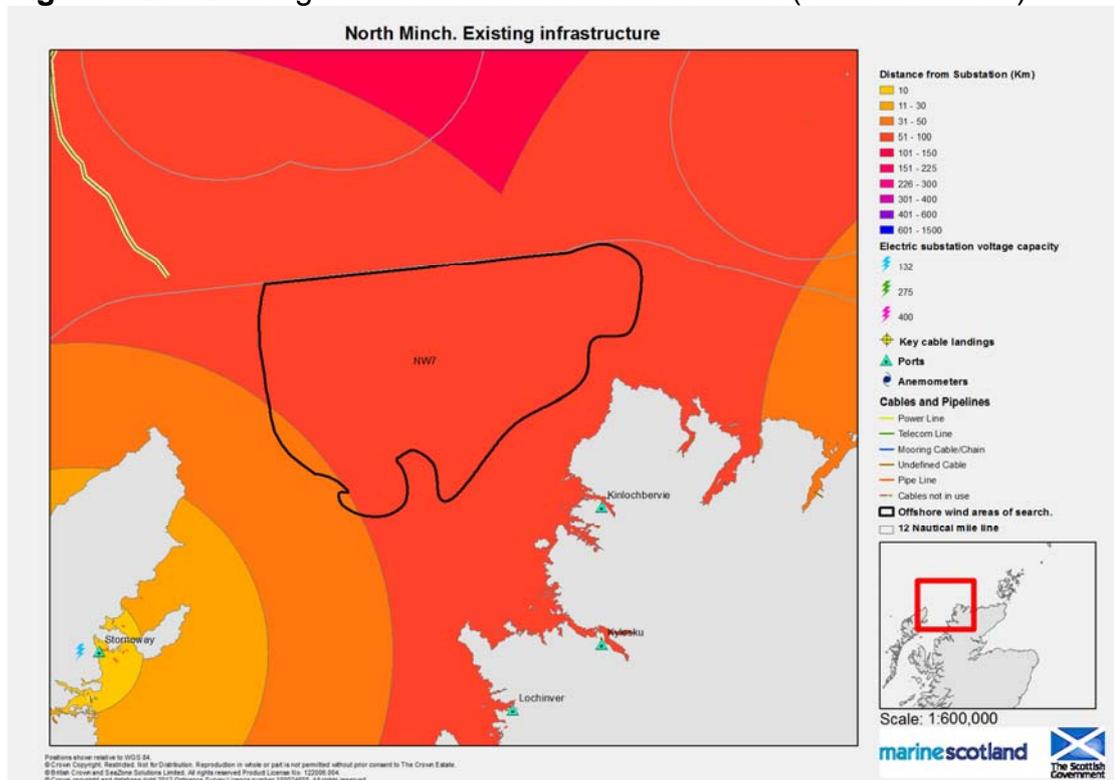
- 6.9.1 The North West does not host any major power stations.
- 6.9.2 Numerous domestic subsea power cables exist in this region, connecting parts of the mainland and offshore islands (Isle of Skye and Outer Hebrides). These cables are outlined in Figure 6.22 below.

**Figure 6.22** Interconnector cables in the North West Region



6.9.3 The existing infrastructure for electricity grid substations along with an indication of sub-station voltage capacity in relation to the North Minch Area of Search is outlined in Figure 6.23 (below):

**Figure 6.23** Existing Infrastructure in the North Minch (Area of Search)



*Future*

6.9.4 The potential infrastructure and grid provision within the North West Region are:

- Possible link to ISLES project; and
- Western Isles to Beaulieu HVDC link.

6.9.5 Table 6.1 provides an indication of the current stage of the planning for the potential infrastructure projects:

**Table 6.1** Planning Stage for Potential Infrastructure Projects

<b>Project</b>	<b>Current Stage of Planning</b>
ISLES project	See previous.
Western Isles to Beaulieu HVDC link	<p>Included as a national development in NPF2 and assessed in principle in its SEA.                      Included in ENSG but not subjected to environmental assessment.                      Referred to in EGPS but not subjected to environmental assessment.</p> <p>SHETL has proposed a 450MW radial connector (upgradeable to 900MW) from Gravaire in Lewis to Beaulieu in Highland Region where the connector will join the Main Interconnected Transmission System (MITS).</p> <p>It includes the construction / installation and operation of two High Voltage Direct Current (HVDC) cable circuits that involve underground cable sections between the landing site at Gravaire and the proposed converter station, and between Dundonnell at the head of Little Loch Broom and the proposed converter station at Beaulieu. The connection also includes subsea cables between Gravaire, on Loch Odhairn and Dundonnell, on Little Loch Broom; the construction / installation and operation of the proposed converter stations at Gravaire and Beaulieu; and the maintenance aspects of the proposed development..</p> <p>Planning consents are in place for a 450MW link between Gravaire on Lewis and Beaulieu. Planning permission for the converter station at Beaulieu was approved on appeal by the Scottish Ministers in March 2011.</p> <p>Work on the link has not commenced as a result of funding issues.</p> <p>It has been subjected to a full environmental appraisal (2008):  <a href="http://www.sse.com/uploadedFiles/Z_Microsites/Western_Isles/Controls/Lists/Resources(1)/NonTechnicalSummaryOctober2008.pdf">http://www.sse.com/uploadedFiles/Z_Microsites/Western_Isles/Controls/Lists/Resources(1)/NonTechnicalSummaryOctober2008.pdf</a></p>

## 6.10 Oil and Gas

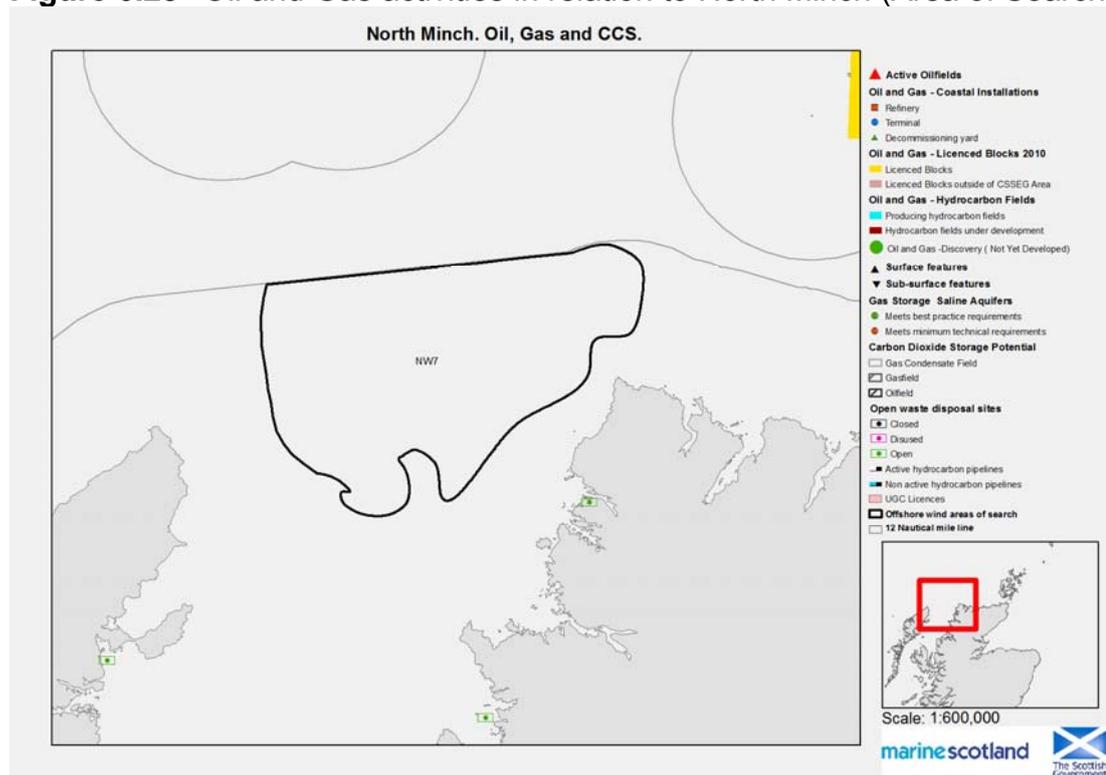
6.10.1 The Oil and Gas related infrastructure in this region comprises of a significant discovery not yet developed and a licensed area, both to the North West of the Outer Hebrides. There are no producing hydrocarbon fields or hydrocarbon fields under development in this region

**Figure 6.24** Oil and Gas activities in the North West Region



6.10.2 Figure 25 below contain the known activities in relation to oil and gas in relation to the areas of search NW7.

**Figure 6.25** Oil and Gas activities in relation to North Minch (Area of Search)



## 6.11 Planning Issues

### *Western Isles*

6.11.1 The Outer Hebrides Proposed LDP was recently submitted to Scottish Ministers for Examination. Supplementary Guidance on large scale wind energy developments was produced in 2010, covering only onshore developments. This identifies areas with constraints, including much of the coastal zone as most of the Islands' settlements are on the coast, and a 1.5km buffer zone has been identified around them.

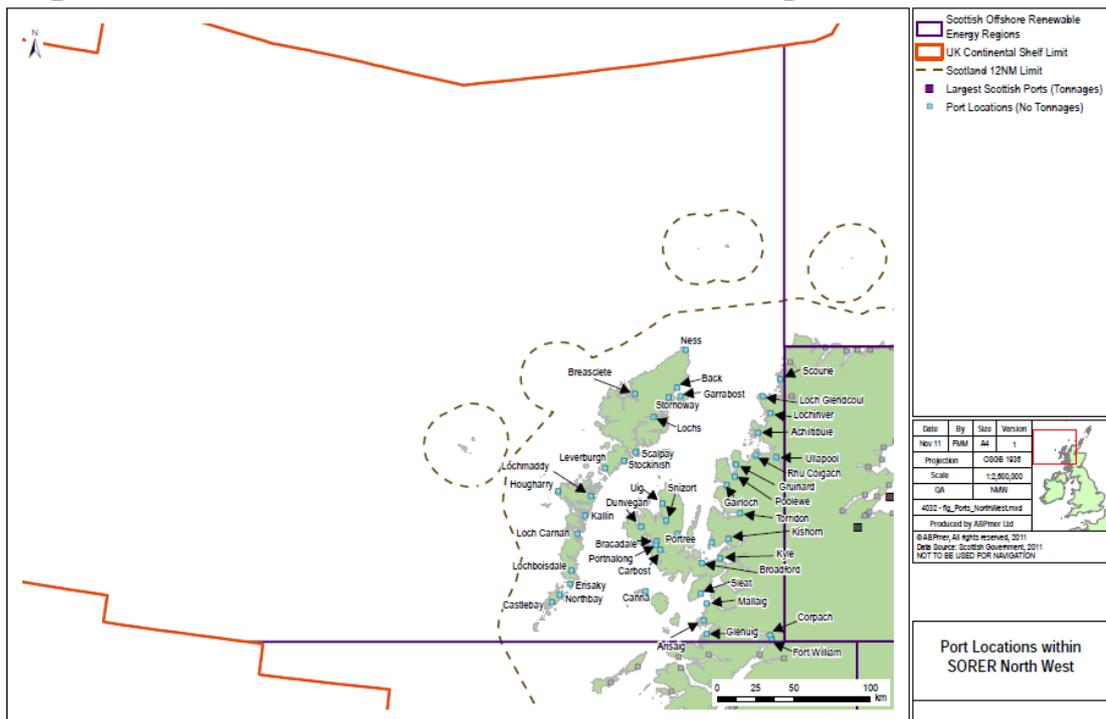
### *Highland*

6.11.2 The Highland Council produced its Draft Supplementary Guidance for onshore wind energy development in 2011. This notes that there is potential for cumulative impacts arising from on and offshore wind energy developments, maps existing onshore activity and takes forward targets for further development. The map shows significant concentrations of activity in North Caithness and Sutherland, including several projects close to the coast. The guidance highlights areas where constraint is required, largely on the basis of their designated status.

## 6.12 Ports and Harbours

6.12.1 There are no major ports located within this region (i.e. handling more than 1 million tonnes of cargo). There are 45 ports and harbours (see Figure 6.26 and Table 6.2) which are predominantly smaller jetties, piers and hard standing areas used by local communities as a base for fishing vessels, inter-island transport and recreational facilities. A number of larger ports are located within this region, these include ports such as Stornaway, Mallaig, Uig (Isle of Skye) and Ullapool which for an integral part in linking island communities with the mainland (BPA, 2008).

**Figure 6.26** Ports and Harbours in the North West Region



**Table.6.2** Ports and Harbours in the North West Region

Port	Operator	Type
Achiltibuie		Local Authority
Applecross		Private
Arisaig		Private
Back		unknown
Bracadale		unknown
Breasculate		Local Authority
Broadford		Local Authority
Canna		Private
Carbost	Carbost Pier Ltd	Private
Castlebay		Private
Corpach	Clydeboyd Fort William Ltd	Private
Dunvegan		unknown
Eriskay	Recently modernised	Local authority
Fort William		Local Authority
Gairloch	Highland Harbours	Local Authority
Garrabost		unknown
Glenuig		Private
Gruinard		Local Authority
Hougharry		unknown
Kallin		Local Authority
Kishorn	Ferguson Transport (Spean Bridge) Ltd	Private
Kyle		Local Authority
Leverburgh	Comhairle nan Eilean Siar	Local Authority
Loch Carnan		Local Authority
Loch Glendcoul		Local Authority
Lochboisdale	Caledonian MacBrayne	Other
Lochinver	Highland Harbours	Local Authority
Lochmaddy		Local Authority
Lochs		unknown
Mallaig	Mallaig Harbour Authority	Trust
Ness		Local Authority
Northbay	Northbay Port User's Association	Private
Poolewe		Private
Portnalong		unknown
Portree	Highland Harbours	Local Authority
Rhu Coigach		unknown
Scalpay	Comhairle nan Eilean Siar	Local Authority
Scourie		Local Authority
Sleat	Ornsay Harbour, Sound of Sleat	Unknown
Snizort		unknown
Stockinish		Local Authority
Stornoway	Stornoway Port Authority	Trust
Torridon		unknown
Uig	Highland Harbours	Local Authority
Ullapool	Ullapool Harbour Trust	Trust

(Source: Marine Scotland, 2011a)

6.12.2 The majority of employed staff in this region are associated with services to water transportation and ship repair, boat repair and marine structures work. In 2010, there were 96 full-time and 2 part-time staff working within ports and harbours in the North West Region.

6.12.3 The N-RIP Stage 2 report identifies Arnish and Kishorn as Phase 1 sites, to support distributed manufacturing. Arnish is also included within the Low Carbon / Renewables North Enterprise Area.

6.12.4 **Arnish** is located on the Isle of Lewis, 4 miles from Stornoway. Previously servicing the oil and gas sector, this is a substantial site with considerable facilities and scope for redevelopment. It is currently used by BiFab, and there are plans to construct a larger quay. It is considered to be well placed to support offshore wind and wave sector developments in the medium to long term.

6.12.5 **Kishorn** is located on the mainland, also a former centre to support the oil and gas sector. N-RIP notes its potential for concrete gravity base foundation manufacturing

6.12.6 Further ports and harbours within the area including:

- **Ullapool** on the mainland supporting commercial fishing and a key ferry route to the Western Isles;
- **Kyle of Lochalsh**, the former port for the Skye ferries, which remains a busy deepwater port supporting cargo, fishing, aquaculture, recreation activity and medium sized cruise liners;
- **Mallaig**, a major west coast port, the port for ferries to Skye, the Small Isles and the Knoydart peninsula and a key centre for fishing craft;
- **Corpach**, a smaller port close to Forth William, which is of importance for timber and other freight. It is also located at the southern end of the Caledonian Canal;
- **Uig** on Skye, a ferry port with links to the Western Isles which also supports the fishing sector;
- **Portree** on Skye, used by fishing and pleasure craft;
- **Stornoway** on Lewis, with an extensive harbour and onshore facilities and three main piers. This is the port for the Lewis Ferry and a key centre for fishing and pleasure craft (marina facilities); and
- **Lochmaddy**, the port for the ferry to Skye (Uig).

6.12.7 Harbours supporting commercial fishing and pleasure craft, including at Kinlochbervie, Lochinver, Gairloch, Callanish, leverburgh

## 6.13 Recreation

### *Recreational Angling*

6.13.1 Sea angling is undertaken at a range of sites in this area particularly around the Isle of Skye, Gairloch and Mallaig although intensity is generally less than further South due to the remoteness of some areas causing access issues (Land Use Consultants, 2007).

6.13.2 Radford et al (2009) estimated the sea angling activity and economic value in eight regions of Scotland. Two of these regions, namely North and Western Isles, fall within the North West Region. As the areas in Radford et

al (2009) do not align with the SORERs the values, should only be taken as indicative values for comparison between areas.

6.13.3 The total estimated regional sea angling activity and expenditure within these two regions is shown in Table 6.3 It has not been possible to obtain regional employment figures for activities relating directly to water sports in the North West.

**Table.6.3** Estimated Regional Sea Angling Activity and Expenditure in East Region

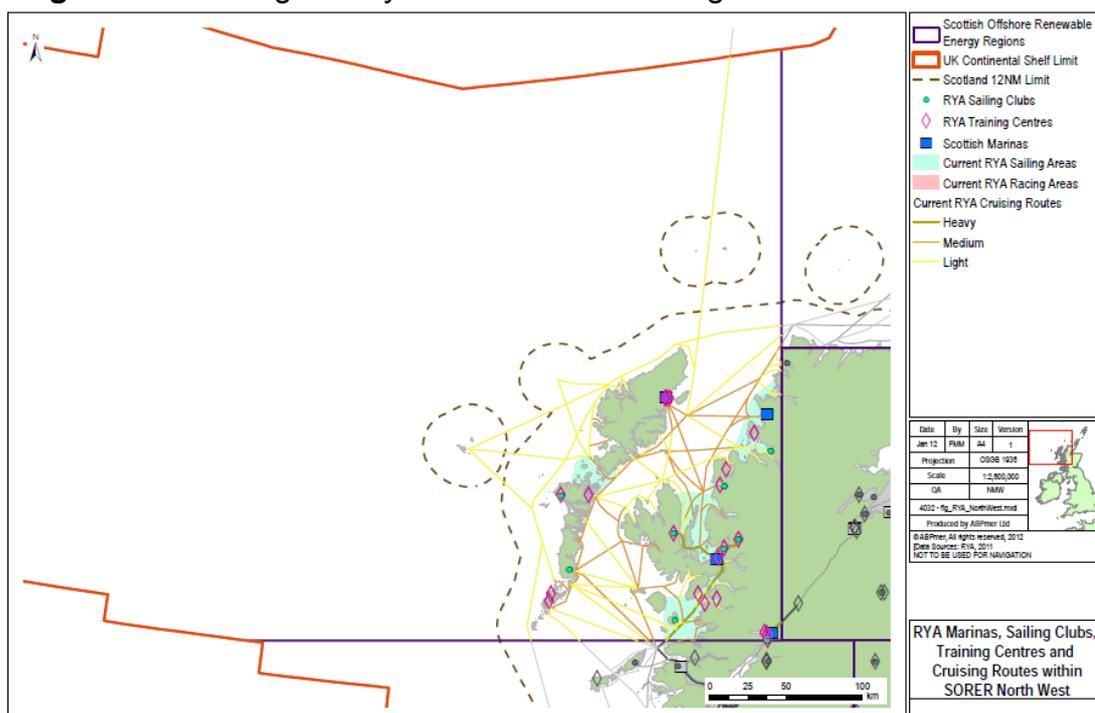
Region	No. Resident Sea Anglers	Annual Sea Angler Days Spent in Region	% of Total Activity Undertaken on the Shore	Total Annual Sea Angler Expenditure (£M)	% of Expenditure Spent on Shore Angling	Number of Jobs Supported
North Scotland	7894	144346	43%	11.2	41%	299
Western Isles	2515	80567	44%	9.2	42%	184

(Source: Radford *et al*, 2009)

*Recreational Boating*

6.13.4 Sailing activity in the North West Region is shown in Figure 6.27. The figure highlights that recreational use is mostly concentrated within the sea lochs and islets near the mainland and the sounds of the Inner Hebrides. Heavy recreational use is made of the Summer Isles, Enard Bay, Eddrachillis Bay, Sound of Raasay, The Inner Sound, Sound of Sleat, Small Isles and the Sound of Harris. Ullapool and Stornoway have medium sized marinas and Kyle of Lochalsh a small marina (Baxter *et al*. 2011). Stornoway Harbour Trust has experienced an increase in leisure craft visitors, with numbers up from 220 in 2008 to 262 in 2009. Limited moorings are also available throughout the rest of the islands, but visiting boat numbers remain small (Taylor *et al* 2010).

**Figure 6.27** Sailing activity in the North West Region

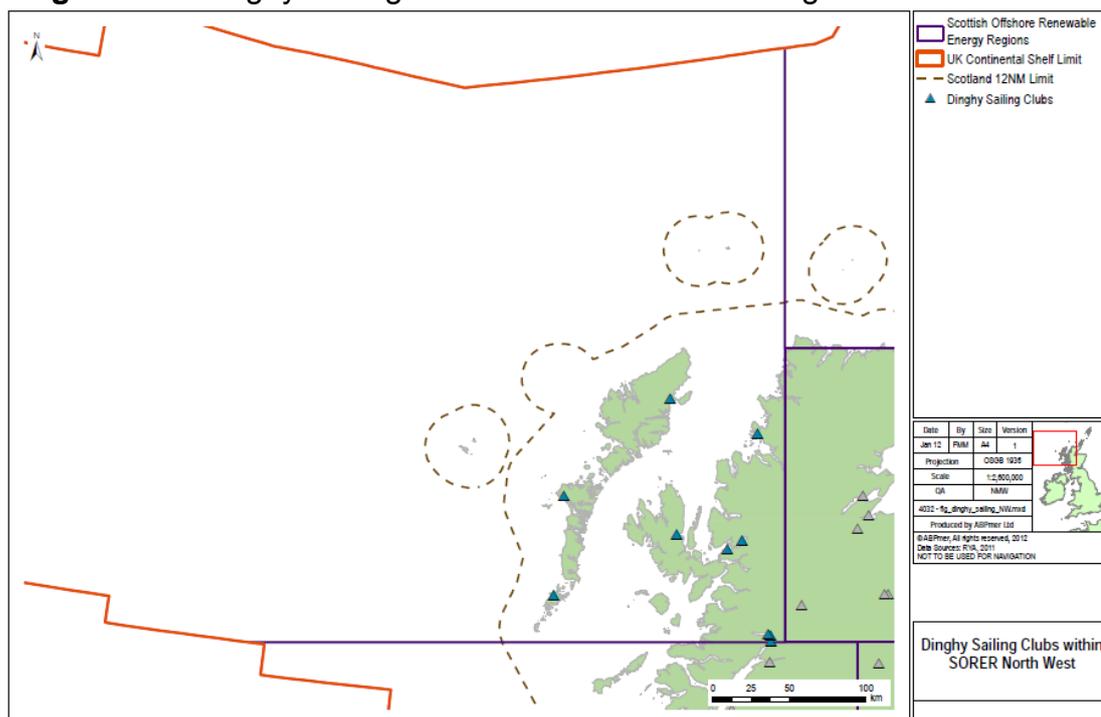


- 6.13.5 A heavy usage cruising route also exists which runs past the Small Isles and between Skye and the mainland (Baxter et al., 2011). Light and medium usage cruising routes connect these heavy routes with the islands in the Inner Hebrides and Outer Hebrides and the far North coast of mainland Scotland (Caithness and Sutherland). It should be noted that the RYA UK Recreational Boating Atlas highlights that many lightly used routes are the only routes available and therefore have considerable local importance.
- 6.13.6 The North West Coast of Scotland has a contributes to the broader West Coast area which has GVA of around £39 million with 1,030 pontoons and 2,637 moorings.

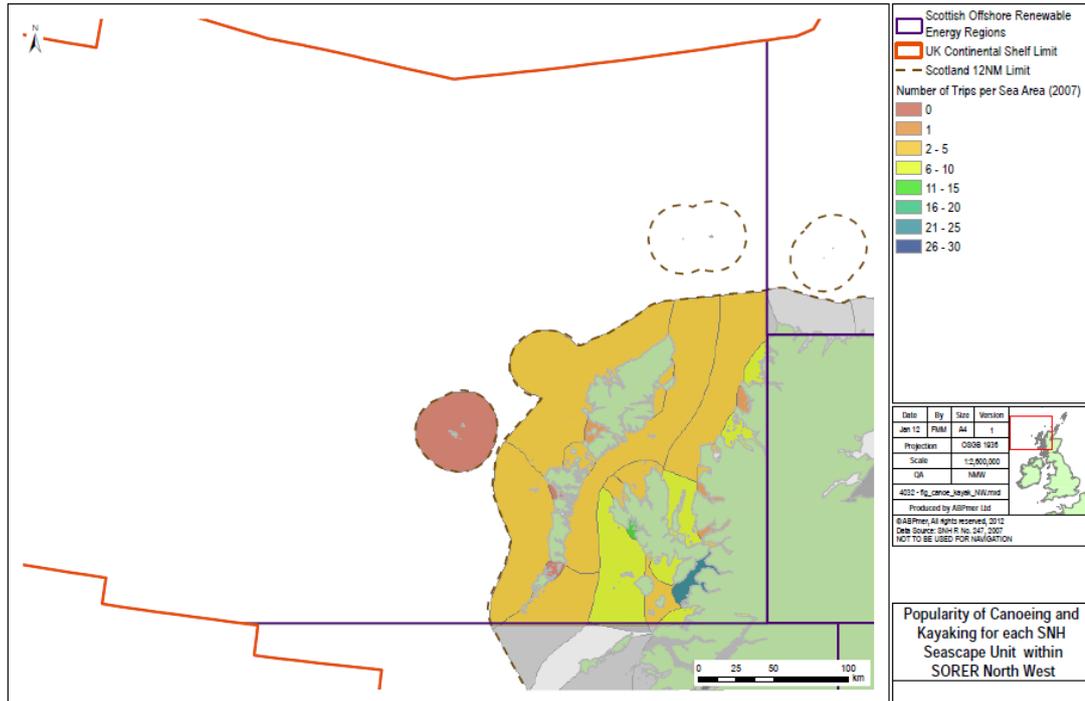
*Sea kayaking and small boat activities*

- 6.13.7 A number of coastal dinghy sailing clubs can be found in the North West Region, primarily located in the more populated areas such as Portree, Kyle of Lochalsh and Stornoway (Figure 6.28). Sea kayaking in the North West Region is popular around the Isle of Skye and Sound of Sleat (Land Use Consultants, 2007) (Figure 6.29).

**Figure 6.28** Dinghy Sailing Clubs in the North West Region



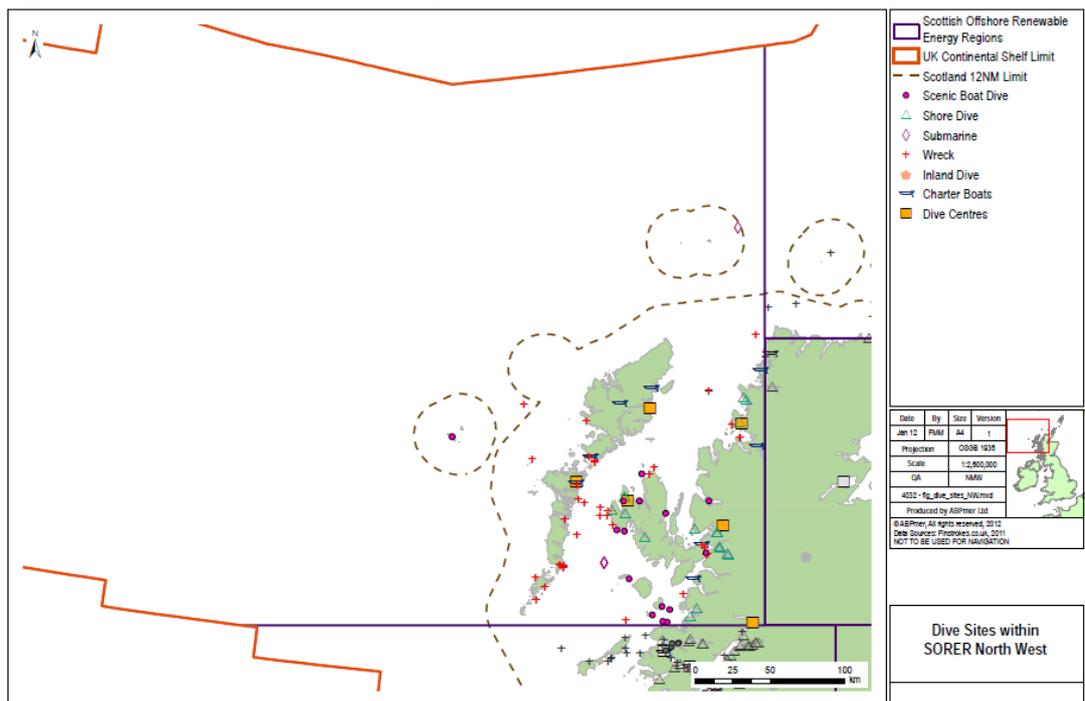
**Figure 6.29** Kayaking and Small Boat Activities in the North West Region



*Scuba Diving*

6.13.8 The location of major scuba diving sites in this area can be seen in Figure 6.30. Sites are mainly distributed around the Inner Sound and North West coast of Skye. A total of six dive centres and eight dive charter boats along with a few dive clubs operate in the area.

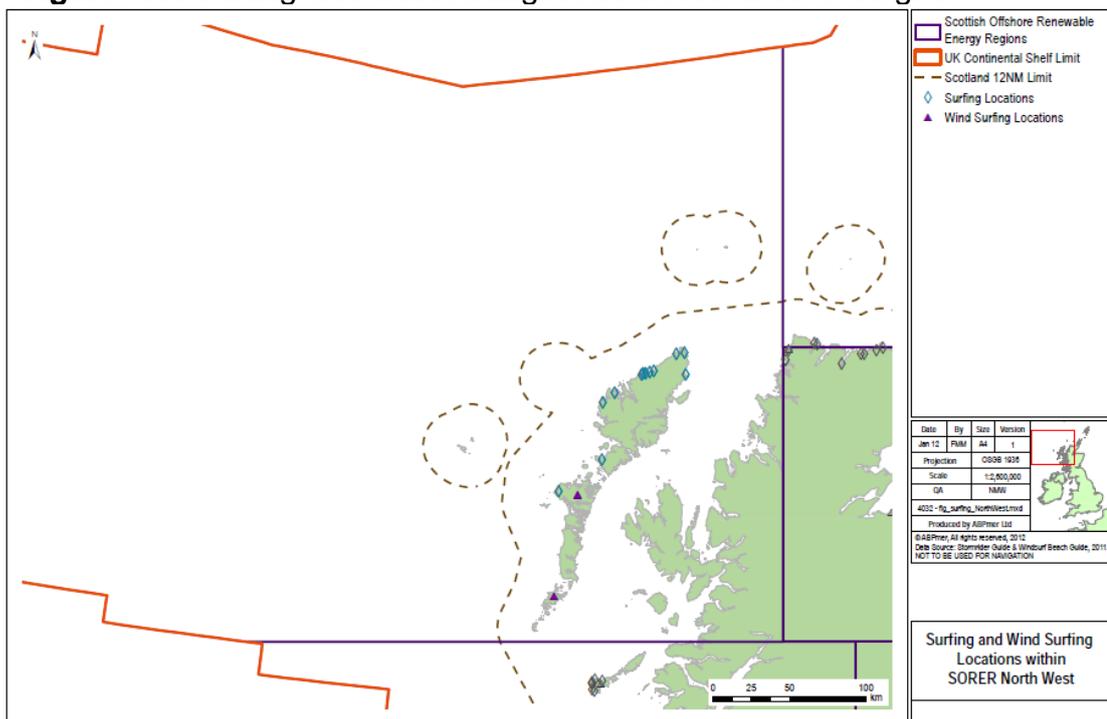
**Figure 6.30** Recreational diving activities in the North West Region



### Surfing and Windsurfing

6.13.9 The Outer Hebrides are exposed to Atlantic swells from the S, W and N, including NE swells coming from the direction of Scandinavia (<http://www.lowpressure.co.uk>). Some of the spots in this area are considered high quality although the remoteness of the location means they remain uncrowded most of the time (SAS, 2009). The SAS (2009) report shows about 16 surfing locations occur within the North West Region (Figure 6.31) Some of these spots are also used for windsurfing.

**Figure 6.31** Surfing and Windsurfing locations North West Region



**Table.6.4** Key Surfing and Windsurfing Locations in the North West Region

General Location	Surf Location*
Outer Hebrides*	Tolsta
	Port of Ness
	Europie
	Barvas
	Bus Stop
	Bragar
	Dalbeg
	Dalmore
	Cliff
	Mangersta
	Scarasta
	Hosta
	Culla Bay
Barra - West coast	
Bagh Siar	
Sutherland	Oldshoremore

\* Specific beaches for windsurfing are not listed in the Windsurf magazine 'beach guide' although the islands of North Uist and Barra are listed as windsurfing locations.

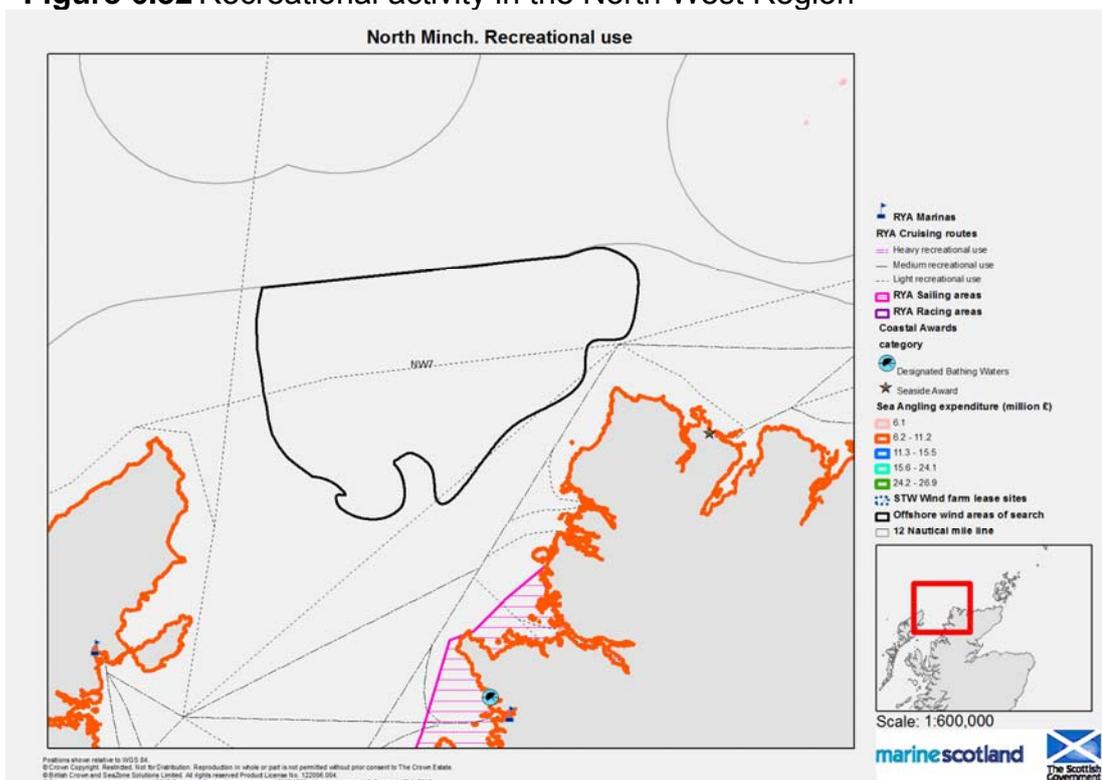
(Source: Based on SAS, 2009 and 'Stormrider Guides' 2010)

*Areas of Search*

6.13.10 In relation to the known recreational activities, there is one RYA cruising route which currently runs through area NW7.

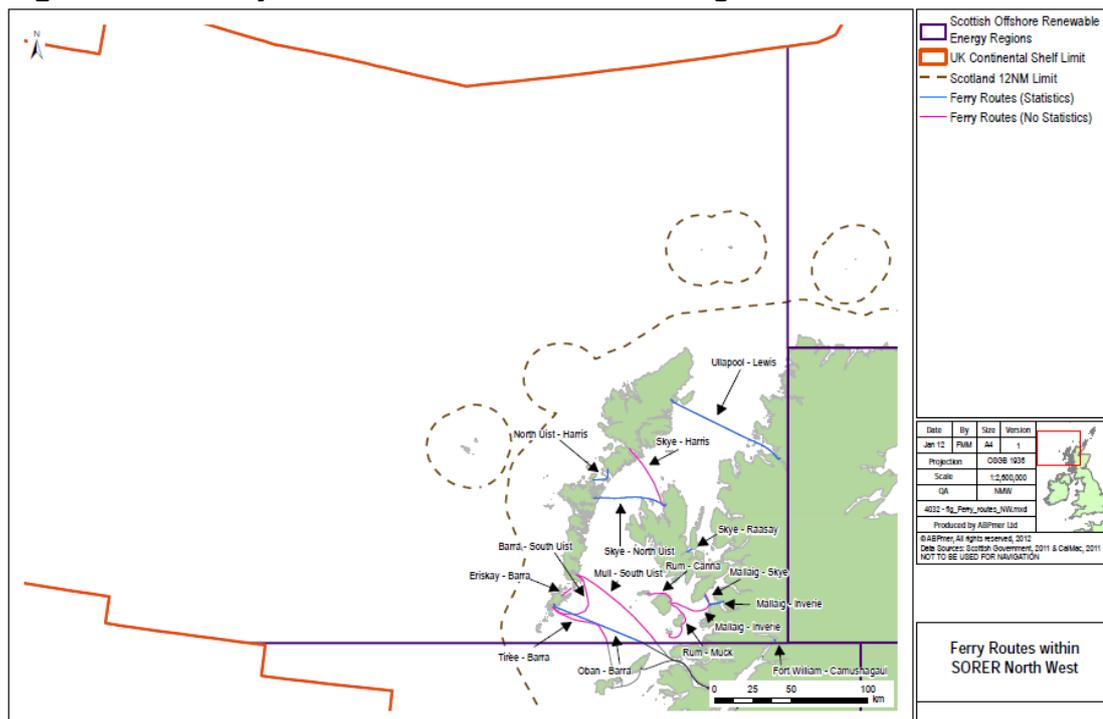
6.13.11 Figure 6.32 below identifies the recreational activities taking place in the North West Region areas of search NW7.

**Figure 6.32** Recreational activity in the North West Region



## 6.14 Shipping

- 6.14.1 Between Ardnamurchan and Cape Wrath there is an almost uninterrupted succession of deep inlets and embayments, fronted by bold rocky cliffs and headlands, from islands, narrows and sea lochs. From a navigational perspective strong tidal streams and eddies can be experienced in narrows and inshore. The Hebrides (a chain of about 30 islands) lay parallel to and a short distance from the mainland. These islands are in two groups, the Outer and Inner Hebrides separated by the Sea of the Hebrides and the Little Minch. Further North the Outer Hebrides are separated from the mainland by the North Minch, the islands are exposed to the Atlantic Ocean on their Westward facing side. The sound of Harris provides a route from Little Minch to the Atlantic for coastal craft (GLA, 2010).
- 6.14.2 The passage between the Inner and Outer Hebrides affords some shelter from the Atlantic but depths within the Little Minch are very irregular and several banks some of which are extensive lie across the North East entrance causing navigational difficulties. In bad weather, the Little Minch forms a dangerous sea area due to the wind, tidal streams and uneven nature of the bottom producing high and turbulent seas. Consequently, the higher risk of navigational error combined with the extent of marine traffic provides a need for the already establish traffic routing and reporting measures (GLA, 2010).
- 6.14.3 Transitory through traffic consists of large and smaller crude and product tankers, navigating to and from North Sea and Flotta, Scapa and the Forth. Other traffic include oilfield support vessels repositioning to and from the North Sea, seasonal cruise ship traffic and significant coaster trade to and from Orkney, Shetland or East coast ports to Scandinavia (GLA, 2010). IMO routing measures for the Minch and West of the Hebrides largely govern transitory through traffic patterns. With larger laden tankers over 35,000 DWT using the deep water route West of the Hebrides, but when in ballast they often choose to navigate through the Minch North bound as a shortened route.
- 6.14.4 Within this region, ports such as Mallaig, Ullapool and Stornaway provide for ferry terminals for routes to the islands, fishing, coastal general bulk cargo, fish farm support and frequent seasonal cruise vessel traffic. Timber is exported from mainland ports such as Kishorn with substantial quarry traffic also occurring. Local life line ferries operate Mallaig to Eigg, Muck, Canna and Rhum; Mallaig to Armadale; Ullapool to Stornaway; Uig to Tarbert and Lochmaddy; Berneray to Leverburgh; Oban to Lochboisdale and Castlebay and Barra to Eriskay (GLA, 2010). There are 16 ferry routes in the area detailed in Figure 6.33.

**Figure 6.33** Ferry activities in the North West Region

6.14.5 There is no published information on the specific economic value of shipping to this region. Employment extracted from ONS shows that the main employment in this sector is categorised as ‘Sea and Coastal Passenger Water Transport’, with 93 people in employed full time employment in 2010. There are no other figures of direct port employment from this region.

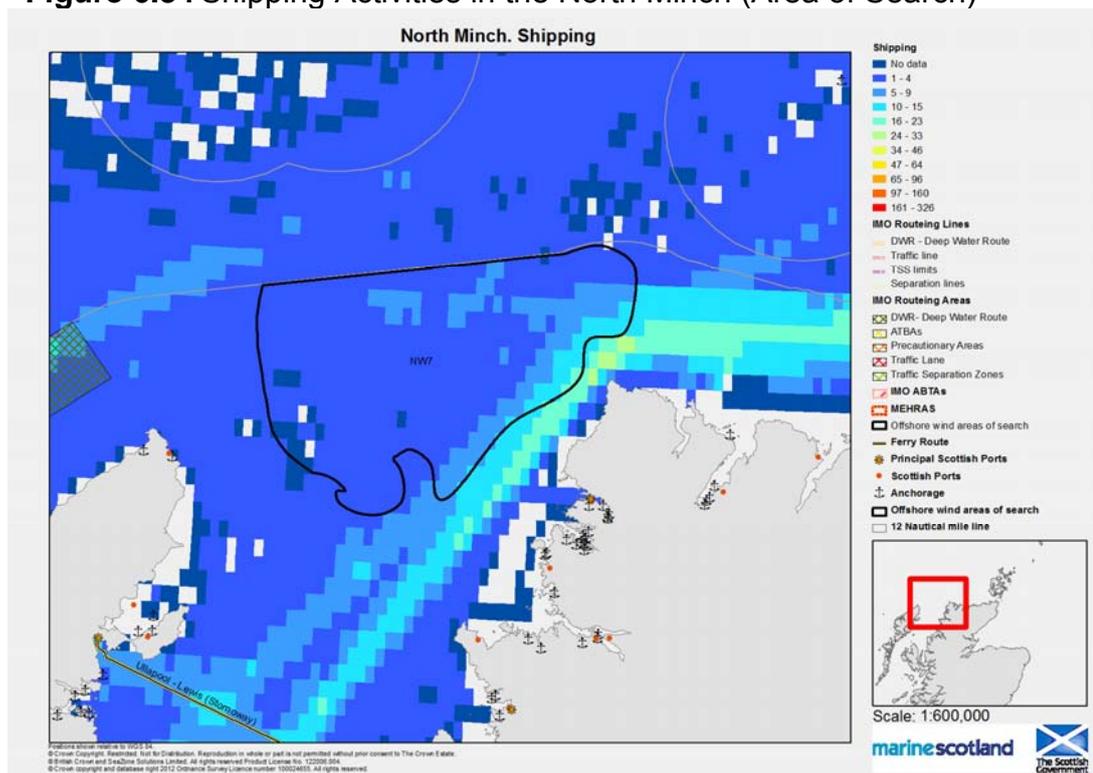
#### *Area of Search*

6.14.6 A number of ferry routes are active all year round around this sector. The Ullapool-Stornoway ferry crosses the north Minch in a north westerly direction. Also further south and to the east the Skye-Harris and the Skye-North Uist ferries also cross the Minch. None of these three ferry routes intersect or are close to any areas of search.

6.14.7 However, further south area NW4 is crossed by the routes from the ferry from Oban-Barra and Barra-Tiree.

6.14.8 To the west of Lewis a deep water route (DWR) put in place by the IMO runs the whole length of the Hebridean Islands from Cape Butt to the south of Barra. Distances between the Hebrides and this DWR range from 7 nm at the closest approach to 25 nm at the furthest away. In the sea space remaining between the IMO and the islands there is moderate to low shipping activity mainly by ferries and cargo vessels as described by the AIS ship density data of 2010.

6.14.9 The shipping traffic is relatively light with approximately 2-3 AIS class A vessels crossing this site per week, predominantly in its western part.

**Figure 6.34** Shipping Activities in the North Minch (Area of Search)

## 6.15 Social Considerations

- 6.15.1 The total population in North West Region is 131,000. The population of the North West is significantly greater in the older age bands (45-49 to 90+), but is lower than the national average for ages between 15 and 39. The overall average age in the North West Region is 41 years old (two years more than the national average). Some of the significant differences seen may be explained by the relatively small population in this region.
- 6.15.2 Both the number of children and people of working age has declined. The decline in the number of children (from 10,400 in 1996 to 8,200 in 2010, a reduction of 21.5%) has been on-going. The number of working age people has fluctuated, increasing in some years and decreasing in others. Overall, the reduction is 3.2% (from 30,100 in 1996 to 29,200 in 2010). The number of people of pensionable age has increased by 17% between 1996 and 2010 (from 10,600 in 1996 to 12,400 in 2010).
- 6.15.3 Median gross weekly income for full-time employees in North West Region was £323.60 (Highland) and £390.50 (Eilean Siar) in 2001. By 2010, the median earnings had increased to £457.20 in the Highlands and to £460.10 in Eilean Siar, a difference of just £2.90 per week. The overall change between 2001 and 2010 was 41.3% in the Highland compared with just 17.8% in Eilean Siar. Taking account of inflation, the gross weekly earnings increased by 9.5% in Highlands but had reduced, in real terms, by almost 9% in Eilean Siar.

- 6.15.4 The greatest number of jobs in the region are associated with human health and social work activities, 17% of the total for 2010. Other industry sectors accounting for more than 10% of jobs are in wholesale and retail at 14%, education at 13% and accommodation and food service activities at 12%. Agriculture, forestry and fishing makes up almost 4% of all jobs, while jobs in arts, entertainment and recreation make up more than 2% of all jobs in the North West.
- 6.15.5 Crofting is an important part of the economy and community in this region, with several crofting communities located in Skye, Lochalsh, Lochaber, the Western Isles and the NW Highland counties of Caithness, Ross-Shire and Sutherland. The Skye, Lochaber and Lochalsh area contains around 2,500 crofts with 11,460 households in parishes containing crofts. The NE Highland area contains 2,063 crofts. The Western Isles contains considerably more crofts with 6,027 crofts and 11,275 households in parishes containing crofts. The proportion of household income in Skye, Lochalsh and Lochaber is almost double that in the Western Isles and the total income is much higher in the NW Highland and Western Isles areas than Skye, Lochalsh and Lochaber. Income from crofting activities is very similar in both Skye, Lochalsh and Lochaber and the Western Isles areas, but is higher in the NW Highlands.
- 6.15.6 The proportion of people rating their health as good or very good in Highland increased very slightly from 88.3% (2001/2002) to 88.8% (2007/2008). This compares with a small decrease in Eilean Siar from 89.7% (2001/2002) to 88.8% (2007/2008).
- 6.15.7 There are 65 SIMD coastal datazones in the North West, equivalent to 94% of all datazones. There are no datazones in the North West Region that fall into the 10% most deprived. Coastal datazones are slightly more likely to be in the 10% most affluent datazones for education, skills and training, income and health. The average ranking for coastal datazones is higher for education, skills and training, employment, income and health, being slightly lower for housing (suggesting coastal datazones are slightly more deprived under the housing indicator), however since 94% of the datazones are identified as being coastal, it is not surprising that the differences are small. The overall implications of these data are that communities in the North West tend to fall into the middle ground of being neither deprived nor affluent.
- 6.15.7 The level of qualifications within the region has increased over time (as an increase for those with degrees and a reduction of those with no qualifications). The pattern for job-related training is more variable, with a slight decrease from 2004 to 2010.
- 6.15.8 In terms of the population with no qualifications, the range is between 15% and 20% in 2004, and between 6.6% and 11% in 2010. The area with the highest proportion of the population with no qualifications is Eilean Siar in both 2004 and 2010. The minimum values are for Highland. Highland offers the greatest proportion of job-related training in 2004 and 2010, closely

followed by Eilean Siar. The minimum drive time to a college of Further or Higher Education in the North West Region is 53 minutes in both Eilean Siar and Highland.

- 6.15.9 House prices vary between the two local authorities in the North West Region, although the values for Highland are close to the national average. In recent years, (since 2003), values in Highland have increased so they are higher than the national average. Mean house sale prices in Eilean Siar are considerably lower than the national average. In 2010, the national average was £154,078 while the average in Eilean Siar was £103,288, or 33% lower than the national average. Within the national context, Highland is the second least affordable areas to buy a house in Scotland (after Edinburgh) with 27.6% of disposable income spent on mortgage payments. It is also one of the areas with older average first-time buyers: the average age of first-time buyers in Highland in 2011 was 30, with a house price to earnings ratio of 4.2.
- 6.15.10 Average drive times to services shows that some communities are considerably more isolated from services such as petrol stations and supermarkets, than others.
- 6.15.11 The highest perceived quality of life in 2007/2008 was in the Eilean Siar, where 73.5% rated their neighbourhood as good or very good. The value for Highland was significantly lower at 62.3%. The percentage of adults rating their neighbourhood as good or very good has increased by 10.7% between 1999/2000 and 2007/2008 in Eilean Siar, although there has been a decrease since 2003/2004 from a high of 75.6%. In Highland, there has been a slight decline of 0.6% between 1999/2000 and 2007/2008. There has, though, been a much larger decline since 2005/2006, from a high of 67.5%.
- 6.15.12 Average electricity consumption (per household) in the North West Region was 8.2 MWh in 2009 (compared with an overall estimated average per household for Scotland of 5.7 MWh). A reduction in MWh consumed per household was seen in both local authorities, although the change is small. Those households where the highest income earner (HIH) is 60+ are more likely to be in fuel poverty than the whole population in 2007/2009. At 68.5%, this is much higher than the national average of 45.9% for this group. The percentage of HIH 60+ in fuel poverty has, though, decreased very slightly between 2005/2008 and 2007/2009 (from 68.9% to 68.5%). The proportion of households with HIH 60+ that are in fuel poverty is very different in Eilean Siar (85.1%), the highest of any local authority in Scotland, and Highland (51.8%). The percentage of HIH 60+ in fuel poverty in Eilean Siar has increased from 77.4% in 2004/2007 and 82.5% in 2005/2008, and seems to be continuing to increase. For the population as a whole, the percentage in fuel poverty is again much higher in Eilean Siar (58.7%) compared with Highland (36.2%). Both local authorities show an increase from 2004/2007 to 2007/2009 with Eilean Siar increasing by 9.3% and Highland by 4.7%.

*Future Trends*

6.15.13 Table 6.5 summarises the statistics and trends discussed above to give an indication of the likely future changes by indicator, comparing national with local trends (where data are available). There is much greater uncertainty over trends for the time period of 30 to 50 years and, in both cases, it is assumed that future trends follow recent and historic trends.

**Table 6.5** Summary of future trends in North West Region

Indicator	National		Regional		Evidence for Trend
	10-20 years	30-50 years	10-20 years	30-50 years	
Average age	↑	↑	↑	↑	Estimate of proportion of the population that is of pensionable age between 2001 and 2010
Working age population	↑	→	↓	→	Recent trends suggest an increase in the proportion of working age people but longer-term slight decrease. The proportion of children has also been declining so there may be a decrease
Income	↑	↑	↑	↑	Recent trends suggest slight increase over time
Health	↑	→	→	→	Regional trends suggest very little change in health, possibly a small increase
Perception that neighbourhood is a very good place to live	↕	↕	↓	↓	Regional trends suggest recent decline in perception of neighbourhood
Affordability of housing	↑	→	↑	→	Suggestion that affordability has increased recently, but this may not be sustained. Highland, in particular, is one of the least affordable regions
Housing quality	↑	↑	↑	↑	Housing quality, as measured by percentage of housing failing the SHQS, is improving, although the definition used in the standard has changed over time, making this difficult to confirm
Energy consumption	↓	↕	↓	→	Recent trends suggest potential for continued slight decline, in longer term is more uncertain
Fuel poverty	↑	→	↑	→	Recent trends show an overall increase even though the Scottish Government policy is that there should be no fuel poverty in the medium to long-term (some groups such as HIH 60+ do show a recent small decrease)
Key: ↑: indication of upward trend expected ↓: indication of downward trend →: no significant change up or down expected ↕: uncertain trend could be up or down					

## 6.16 Supply Chain

6.16.1 In the North West Region, there are 2 sites identified by N-RIP as suitable for offshore wind manufacturing:

- Arnish, Isle of Lewis, Outer Hebrides; and
- Kishorn, Wester Ross, Highlands.

6.16.2 The Arnish facility was previously an oil and gas fabrication yard and Phase 1 of its redevelopment is largely utilised by BiFab for the fabrication of subcomponents for jacket substructures for offshore wind. Due to its location next to extensive offshore wind, wave and tidal resources the site will host further renewables related activities as well as offering potential for laydown, assembly, and operation and maintenance in the offshore renewables sector. More information can found at the Scottish Development International Website ([www.sdi.co.uk](http://www.sdi.co.uk)).

6.16.3 Kishorn Port is ideal for offshore wind manufacturing, assembly and fabrication, operations and maintenance and decommissioning. It has very deep water with a depth of 80 m in the main channel, making it capable of handling extremely large structures, as well as an extensive dry dock. The site also has the added feature of a concrete casting facility on site, if concrete gravity base structures or concrete caissons are required. The quarry at Kishorn is capable of producing one million tonnes of aggregate.

6.16.3 These priority sites can be supported by the following other sites in the North West Region, offering potential for Operations and Maintenance, logistical support services and supply chain manufacturing:

- Lochboisdale, South Uist, Outer Hebrides;
- Ullapool, West Highlands;
- Kyle of Lochalsh, West Highlands;
- Mallaig, West Highlands;
- Stornoway, Isle of Lewis, Outer Hebrides; and
- Port Ellen, Isle of Islay, Inner Hebrides.

6.16.4 Further to this, Comhairle nan Eilean Siar and Highlands and Islands Enterprise are currently carrying out a comprehensive survey of island harbours to determine their suitability to support marine energy deployments and associated maintenance requirements. This survey covers road access, pier frontage, craneage, lay down area, sheltered anchorage, shoreside services etc.

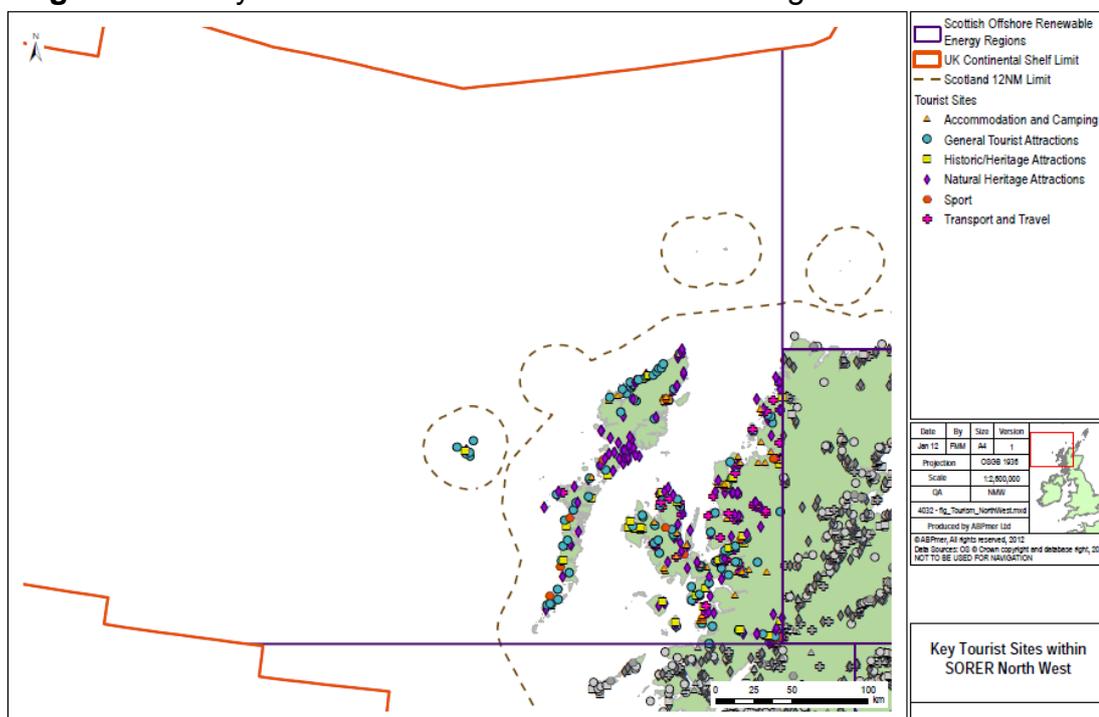
6.16.5 In terms of supply chain, the Outer Hebrides already have Arnish Yard operated by Bi-Fab of Methil and comprising considerable steel rolling capability, deep water access and ample lay down area.

6.16.6 In terms of educational facilities, Lews Castle College, part of the University of the Highlands and Islands, is located on the Outer Hebrides Isles. As well as offering courses relating to marine energy, the Colleges is developing market leading research capability in marine energy research, co-located to Europe’s area of best resource. Further information on all of the above supply chain activities is available in *Scottish Offshore Renewables Development Sites: West Coast Cluster* Scottish Development International ([www.sdi.co.uk](http://www.sdi.co.uk)).

## 6.17 Tourism

6.17.1 In North West Scotland, all types of tourist sites are represented (see Figure 6.35), with the majority of sites being on the coast rather than inland. It should be noted that there is a considerable concentration of natural heritage attractions in the South of the Isle of Harris. In addition, the Islands of Canna and Hyskeir in the Sea of the Hebrides have been established as basking shark hotspots (Speedie et al, 2009). This is likely to be promoting wildlife watching in the area. Indeed wildlife tourism has increased, even in times of recession (Scottish Government, 2010). The value of the North West Region’s wildlife is also emphasised by the fact that there are 14 Marine Special Areas of Conservation. These are mainly located around the Hebrides and Western Isles (Joint Marine Programme, 2004).

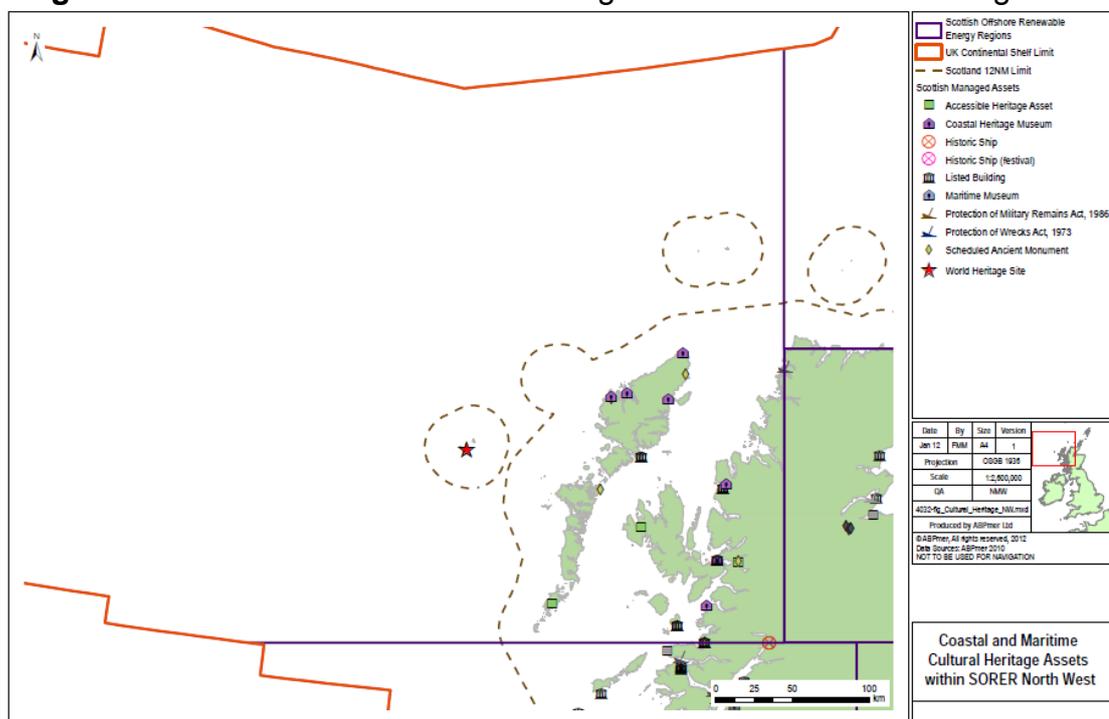
**Figure 6.35** Key tourist sites within the North West Region



6.17.2 Historic/heritage attractions also feature, both on the islands and the mainland. Indeed, the region includes the St Kilda World Heritage Site (see Figure 6.36) which is the only such site in Scotland to be designated for both its natural and cultural significance. St Kilda is home to five million seabirds

including the largest colony of Northern Gannets in the world, with 36% of the global population (Joint Marine Programme, 2004).

**Figure 6.36** Cultural and Maritime Heritage Assets in North West Region



6.17.3 For more active tourism, North West Scotland has one designated bathing water at Achmelvich Bay, a site which also holds a Seaside Award (see Figure 6.37). Although overall visitor numbers do not exist for the region as a whole, information from VisitScotland can be used to provide an approximation. For the Western Isles alone, in 2009 UK visitors made around 80,000 trips, stayed for around 380,000 nights and spent £20 million. Overseas visitors to the islands made around 110,000 trips, stayed for around 440,000 nights and spent £30 million.

**Figure 6.37 Coastal Awards in North West Region**



6.17.4 In the Outer Hebrides, tourism is a significant contributor to the economy (Taylor et al, 2010). However, information on the number of jobs in tourism is not readily available.