

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Environmental Statement

**Volume 4, Annex 10.2: Seascape and landscape character baseline
technical report**

Planning Inspectorate Reference Number: EN010136

Document Number: MRCNS-J3303-RPS-10079

Document Reference: F4.10.2

APFP Regulations: 5(2)(a)

April 2024

F01



Image of an offshore wind farm

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
F01	Application	RPS	Morgan Offshore Wind Ltd.	Morgan Offshore Wind Ltd.	April 2024

Prepared by:

RPS

Prepared for:

Morgan Offshore Wind Ltd.

Contents

1	SEASCAPE AND LANDSCAPE CHARACTER BASELINE TECHNICAL REPORT.....	1
1.1	Introduction	1
1.2	Study area	1
1.3	Desktop study	1
1.3.2	Introduction to results	2
1.3.3	Offshore Seascape/Marine and Coastal Character Areas that overlap with the ZTV for the Morgan Generation Assets	3
1.3.4	Onshore National Character Areas and Landscape Character Types that overlap with the Morgan Array Area ZTV	13
1.4	Summary	19
1.5	References	20

Tables

Table 1.1:	Summary of key desktop characterisation sources.....	2
------------	--	---

Appendices

APPENDIX A :	LANDSCAPE CHARACTER TYPE FIGURES	21
APPENDIX B :	EXTRACTS FROM PUBLISHED SEASCAPE AND LANDSCAPE CHARACTER ASSESSMENTS.....	28

Appendices Figures

Figure A. 1:	National landscape and seascape/marine character areas.	21
Figure A. 2:	Plan showing extents and location of the detailed figures on National landscape and seascape/marine character areas.	22
Figure A. 3:	National landscape and seascape/marine character areas (sheet 1).	23
Figure A. 4:	National landscape and seascape/marine character areas (sheet 2).	24
Figure A. 5:	National landscape and seascape/marine character areas (sheet 3).	25
Figure A. 6:	National landscape and seascape/marine character areas (sheet 4).	26
Figure A. 7:	Photograph of baseline seascape character captured from the Liverpool to Douglas ferry.	27

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Glossary

Term	Meaning
Landscape	An area, as perceived by people, the character of which is a result of the action and interaction of natural and/or human factors.
Landscape character	A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.
Landscape Character Areas	These are single unique areas which are the discrete geographical areas of a particular landscape type.
Landscape Character Assessment	The process of identifying and describing variation in the character of the landscape and using this information to assist in managing change in the landscape. It seeks to identify and explain the unique combination of elements and features that make landscape distinctive. The process results in the production of a Landscape Character Assessment.
Landscape Character Types	These are distinct types of landscape that are relatively homogeneous in character. They are generic in nature in that they may occur in different areas in different parts of the country, but wherever they occur they share broadly similar combinations of geology, topography, drainage patterns, vegetation, historical land use, and settlement pattern.
Zone of Theoretical Visibility	A map, usually digitally produced, showing areas of land within which, a development is theoretically visible.

Acronyms

Acronym	Description
LCA	Landscape Character Area
LCT	Landscape Character Type
LUC	Land Use Consultants
MCA	Marine Character Area
MCZ	Marine Conservation Zone
MDS	Maximum Design Scenario
MOD	Ministry of Defence
National Landscape	Area of Outstanding Natural Beauty
NCA	National Character Area
NRW	Natural Resources Wales
SAC	Special Area of Conservation
SCA	Seascape Character Area
SPA	Special Protection Area
SLVIA	Seascape and Landscape Visual Impact Assessment
SSZ	Seascape Sensitivity Zone
ZTV	Zone of Theoretical Visibility

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Units

Unit	Description
km	Kilometres
km ²	Square kilometres
m	Metres
m/s	Metres per second

1 Seascape and landscape character baseline technical report

1.1 Introduction

1.1.1.1 This technical report describes the seascape and landscape character baseline that will form part of the Seascape and Landscape Visual Impact Assessment (SLVIA) in Volume 2, Chapter 10: Seascape, landscape and visual resources of the Morgan Offshore Wind Project: Generation Assets (hereafter referred to as the Morgan Generation Assets) Environmental Statement.

1.2 Study area

1.2.1.1 The SLVIA study area for the Morgan Generation Assets, hereafter referred to as the 'SLVIA study area', is shown in Figure A. 1 and Appendix A, Figure A. 2.

1.2.1.2 The SLVIA study area for the assessment of effects on seascape and landscape character has been based on the findings of an analysis of the Zone of Theoretical Visibility (ZTV) (see Appendix A, Figure A. 1 and Figure A. 2). The SLVIA study area comprises the area of land and sea to be temporarily and permanently occupied during construction, operations and maintenance and decommissioning of the Morgan Generation Assets together with a 50 km buffer from the Morgan Array Area.

1.2.1.3 The buffers used to define the SLVIA study area are based on the Maximum Design Scenario (MDS) as described in Volume 2, Chapter 10: Seascape, landscape and visual resources of the Environmental Statement.

1.3 Desktop study

1.3.1.1 Information on the baseline seascape and landscape character within the SLVIA study area was collected through a detailed desktop review of published studies and datasets. These are summarised at Table 1.1 below.

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Table 1.1: Summary of key desktop characterisation sources.

Title	Source	Year	Author
An assessment of the sensitivity and capacity of the Scottish seascape in relation to wind farms SNH Commissioned Report No. 103	Scottish Natural Heritage	2005	Scott, K.E., Anderson, C., Dunsford, H., Benson, J.F. and MacFarlane, R.
Isle of Man Landscape Character Assessment	Isle of Man Government	2008	Chris Blandford Associates
(2016 to 2019) National Character Area Profile	Natural England Website http://publications.naturalengland.org.uk/	Various (2014)	Natural England
Marine Plan Areas in England	Marine Management Organisation	2014	Marine Management Organisation
National Seascape Assessment for Wales Natural Resources Wales (NRW) Evidence Report No 80	NRW	2015	Land Use Consultants
Seascape Character Assessment for the North West Inshore and Offshore Marine Plan Areas	Marine Management Organisation	2018	Land Use Consultants
Seascape and visual sensitivity to offshore wind farms in Wales: Strategic assessment and guidance. Stage3- Seascape and visual sensitivity assessment for offshore wind farms Report No. 331	NRW	2019	White, S., Michaels, S., King, H.

1.3.2 Introduction to results

- 1.3.2.1 This section provides summary descriptions of National Landscape Character and Marine/Seascape Character of relevance to the assessment of the Morgan Generation Assets.
- 1.3.2.2 The landscape and seascape character descriptions are drawn from published assessments and are supported by observations in the field. The extent of the ZTV has been used to identify those character areas which have the potential to experience direct and indirect impacts of the Morgan Generation Assets.
- 1.3.2.3 Data on the special qualities of nationally and internationally designated landscapes of relevance to the Morgan Generation Assets is documented in Volume 4, Annex 10.5: International and nationally designated landscape study of the Environmental Statement.
- 1.3.2.4 The ZTV for the Morgan Generation Assets is shown in context with the Wales National Marine Character Areas (MCAs), Welsh Seascape Sensitivity Zones (SSZs), English MCAs and Isle of Man Seascape/MCAs (RPS characterisation) along with national landscape character (England and Isle of Man). These are illustrated on Figure A. 1 to Figure A. 6 in Appendix A.

1.3.3 Offshore Seascape/Marine and Coastal Character Areas that overlap with the ZTV for the Morgan Generation Assets

English Seascape/Marine Character Areas

1.3.3.1 The character of English territorial waters within the SLVIA study area is described by Land Use Consultants (LUC) in the Seascape Character Assessment for the Northwest Inshore and Offshore Marine Plan Areas (Marine Management Organisation, 2018). The characteristics of the Marine Character Areas (MCAs) that fall within the SLVIA offshore study area are outlined below and illustrated on Figure A. 1 to Figure A. 6 in Appendix A.

MCA 31: St Bees to Haverigg coastal waters

1.3.3.2 MCA 31 covers the shallow, inshore, coastal waters off the southwest coast of Cumbria, from St. Bees Head to Haverigg Point. The vast majority of this MCA lies within the SLVIA study area. The key characteristics of relevance to the Morgan Generation Assets are:

- Apart from the dune system at Ravenglass, a long, smooth coast without significant indentation. The broad foreshore comprises sandy beaches with areas of shingle and exposed wave-cut rock
- Rocky scars project some way offshore in several locations, most notably at Selker Rocks some 2 km from the High Water Mark, and Kokoarrah Scar off the Drigg dunes
- Britain's 'Energy Coast', with nuclear power having been generated at Sellafield from the 1950s to the early 21st century. The extensive plant remains a significant visual presence in views from land and sea
- Military firing practice range based at Eskmeals on the dunes near Ravenglass; the range extends out to sea
- An onshore wind farm is located at Haverigg, with offshore wind farms visible to the south
- There are medium-use recreational sailing routes following the coast
- Fisheries are limited but include crab, lobster, mussels and winkles around Ravenglass, and netting for bass, cod and thornback ray along the coast
- Caravan parks located along the coastline, associated with the sandier stretches of foreshore
- This area of sea is highly visible from land, including in views from the fells of the southwest Lake District National Park that look out to the Isle of Man: in turn it forms part of the seascape setting of the designated landscape
- An undeveloped coastline with no large settlements. The exception is the nuclear power station and associated industrial development at Sellafield, at the mouth of the Calder
- A strong sense of tranquillity with dark night skies, particularly between Ravenglass and Millom.

MCA 32: Walney coastal waters and Duddon estuary

1.3.3.3

This MCA lies to the west of Morecambe Bay. Barrow, Ormonde and parts of Walney and West of Duddon Sands offshore wind farms lie within this MCA. Key characteristics include:

- Glacial processes and subsequent movement of coastal sediments carried by strong tidal currents have resulted in a distinctive coastal landscape
- Complex sediment movement resulting in the development of ness/foreland dunes at several locations in the Duddon Estuary. There are also spit dunes at North Walney, formed largely from river sediment
- Walney Island is the largest barrier island in England, formed from glacial till and alluvium, and has been extended northwards and southwards by recurved shingle spits
- A chain of coastal defences dating to WWI and WWII, including pillboxes and observation posts, are reminders of the importance of Barrow's shipyard
- Barrow-in-Furness has been a major ship-building centre from the 19th century. It continues to be a centre for building the UK's nuclear submarine fleet, requiring the Walney Channel to be heavily dredged
- Lune Deep is important as a shipping access route through the sand banks and flats into Morecambe Bay
- Significant shoreline protection works line the Duddon Estuary and Barrow area, with the coastal railway line forming an important sea defence
- Four wind farms lie off the coast, forming prominent moving structures within the seascape
- A 34 km long pipeline from the Morecambe Bay Gas Field, located in MCA 38, supplies the Rampside Gas Terminal to the east of Walney Island
- Crab and lobster fisheries, and occasional cockles. Other fisheries include crab and lobster potting, cod, bass and thornback ray netting, and sole and flatfish beam trawling in the Lune Deep
- Wildlife and heritage are the principal attractions for visitors, with recreational angling also important for tourism
- There is a marked contrast between natural and man-made elements on the land, coastline and sea, creating a distinct sense of place
- Views out from the south extent of the Lake District National Park are dominated by the undeveloped Duddon Estuary which forms a significant component of the Park's setting in this locality
- Views out to sea from Black Combe and the south Fells into the MCA are a significant characteristic of this part of the Lake District National Park.

MCA33: Morecambe Bay

1.3.3.4

This MCA comprises the enclosed estuarine bay of Morecambe, where the waters of four large rivers merge. Key characteristics include:

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

- A shallow bay, mostly less than 10 m deep and often below 5 m, with a complex coastline incorporating the estuaries of four large rivers: the Leven, Kent, Keen, Lune and Wyre
- Receives sand and mud from the surrounding hills and coastal sediments carried from the south by strong tidal currents and large tidal range of 10.53 m
- Intertidal estuarine flats of fine sand and mud, interlaced by a system of shifting tidal channels, creating a dynamic and changing seascape
- The largest continuous intertidal area in Britain, with over 310 km² exposed at low tide. Harbours are a long way inshore, with approach and exit normally only possible at high tide
- Glacial till forms many coastal features, including Carboniferous limestone cliffs along the Silverdale coast to the north of the Bay. Foulney Island is a notable shingle feature
- Accretion is causing salt marshes to grow, with regular maintenance required to remove silt from shipping channels. Erosion is also occurring in places along the west shores. This erosion and accretion is a natural process and is affected by man-made structures. The channel dynamics of the Kent estuary have a major influence, cyclically scouring away coastal salt marshes and depositing the material elsewhere
- Natural systems much modified over time by human intervention: much of the coastal marshland has been drained for farmland. Coastal defences continue to be developed in places
- Morecambe Bay's salt marshes, sand and mud flats and rocky skaers are designated at an international level and support large populations of wintering waterfowl, waders and seabirds
- Until the 19th century the sands of the Bay were used, at low tide, as a principal access route between the Lancashire and Cumbrian coasts. Access can still be taken, led by the Queen's Guide to the Sands, an ancient royal appointment
- Aquaculture for oysters, as well as mussels has become established
- Although the fishing industry is much declined from former years, the Bay remains important for high value commercial cockle and mussel fisheries, plus other commercial fishing
- The construction of the Lancaster Canal and the arrival of railways led to a more rapid development of trade and tourism centred on Morecambe. The Arnside Viaduct remains a key feature in the bay. Fleetwood was also developed as a major fishing port
- Recreational angling is important for tourism
- The Port of Heysham plays a key role in providing freight services to the Republic of Ireland and Northern Ireland and passenger services to the Isle of Man. Heysham nuclear power station is a notable visual landmark from coast and sea
- Away from urban areas a strong sense of tranquillity and isolation results from the expansiveness of views and general absence of development
- This is a very animated landscape, with the character of the Bay's surface constantly changing, through the interplay of tides and light and the movement of its birdlife

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

- There are panoramic vistas across the bay from all directions, including views from the Lake District National Park, Forest of Bowland Area of Outstanding Natural Beauty (National Landscape), and Arnside and Silverdale National Landscape (e.g. Arnside Knott)
- Morecambe Bay forms a key component to the seascape setting of the Arnside and Silverdale National Landscape. In turn the elevated land of the protected landscapes forms a scenic backdrop to views across the Bay from its seaward side.

MCA 34: Blackpool coastal waters and Ribble Estuary

1.3.3.5

This MCA, is a shallow coastal area, shelving down from the low-lying Lancashire plain. It includes the Fylde Coast to the north and Formby Point to the south. Key characteristics include:

- Shallow waters and a high tidal range (up to 9.8 m at Lytham St Anne's) backed by extensive sandy and muddy/sandy beaches, intertidal sand flats and mudflats
- Complex coastal processes, with a high rate of movement of sand and shingle, although sea defences limit this in places
- Frequent storm surges, combining with high tides to cause flooding. Man-made barriers protect most of the coast, and sand bars, salt marsh and dunes also provide a natural defence
- Beyond the sandbanks, the Ribble Estuary is a landscape of intertidal salt marshes, pierced by dendritic creeks
- Along the Sefton Coast the landscape is dominated by sand dunes, stretching over 17 km long. Around Formby and Ainsdale the dunes reach over 20 m high, forming dominant features
- The Ribble Estuary and the Sefton Coast dunes have distinctive character, and in places, when screened from urban influences, a sense of remoteness and wildness
- The Ribble Estuary supports commercial fisheries
- The Lennox Oil and Gas Field, one of five interlinked sites currently operational in Liverpool Bay, is located in the south west part of the MCA
- The Fylde Coast in particular is now very urbanised, with much industrial development e.g. around Blackpool and Preston
- In addition to urban and beach-based tourism the coast is popular for bird watching, Recreational angling is also an attraction
- There are a number of prominent landmarks on the developed areas of coast, such as Blackpool's tower, pier and rollercoaster
- From the coast there are long views to the mountains of north Wales and the Lake District, and from the Sefton Coast shipping lanes, wind turbines and oil and gas infrastructure are visible.

MCA 35: Inner Liverpool Bay

1.3.3.6

This MCA, lies off the main approach to Liverpool, from the Irish Sea, so is much used by shipping. Ferries to the Isle of Man and Ireland pass through this area. Other human

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

activity includes dredging and, historically, dumping of dredged material. The north part of the area is within the Liverpool Bay oil and natural gas field, and offshore wind farms have been developed in recent years. Although offshore, the area is overlooked from the settled, low-lying coasts of the Wirral and Sefton. Burbo Bank offshore wind farm lies within this area. The SLVIA study area clips the north part of this MCA. This MCA is predicted to experience negligible impacts at most, and for this reason it is scoped out of the assessment.

MCA 37: Irish Sea North (England)

1.3.3.7 This MCA lies between 5 km and 15 km offshore of the Cumbrian coast, in the northeast part of the Irish Sea. It is some 16 km south of the Scottish coastline at its north point, and it lies to the east of the Isle of Man. The majority of the MCA lies within the SLVIA study area. Only the north tip of the MCA lies outside the SLVIA study area. Key characteristics include:

- The sea floor is relatively even, shelving gently down to the west from around 20 m depth to around 40 m, only becoming deeper in very small areas to the northwest
- The east tip of the King William Banks is within the MCA, where water depth is less than 10 m. These banks extend westward into Isle of Man waters
- A calm sea with low tidal energy and flows, rising only slightly across the north part of the MCA where the Solway flows out
- There are no fixed offshore structures in this MCA, and only a single light buoy at the east tip of the King William Banks, giving the MCA an undeveloped character
- Extensive military live-firing ranges cross the MCA, centred on Eskmeals Range off the Cumbrian coast and Kirkcudbright Range off the Scottish coast, resulting in potential for unexploded ordnance on the seabed
- The principal fishing activity is benthic trawling for Dublin prawns (Nephrops) by boats from Fleetwood, Whitehaven and further afield, amongst other important fisheries
- Some recreational sailing routes cross the area, noted as medium or light use, connecting the ports of Whitehaven, Douglas and Ramsey
- Under clear conditions, there is intervisibility with the hills of the Lake District National Park, the Dumfries and Galloway coast, and the Isle of Man
- With an absence of offshore lights, there are dark skies across this MCA.

MCA 38: Irish Sea south (England)

1.3.3.8 This MCA lies in the Irish Sea between the coasts of England, Wales and the Isle of Man. The Morgan Array Area lies wholly within this MCA. This MCA contains Walney Extension offshore wind farm. Key characteristics include:

- Tidal flows are generally quite weak, only becoming slightly faster along the southwest edge of the MCA
- Scallops, queen scallops and Dublin Bay prawns are targeted by trawlers
- A series of offshore hydrocarbon platforms. In the north the Morecambe, Calder and Millom fields supply gas via pipelines to Barrow-in-Furness

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

- The Hamilton and Douglas fields in the south deliver their gas to Point of Ayr in North Wales, while oil from these fields is transferred to tankers
- Dredging for aggregates is carried on in the north in the shallow sea east of the Isle of Man, and in the south in the vicinity of the Douglas oil field
- Walney Offshore Wind Farm extends west into this area from MCA 32, close to the North Morecambe gas platforms
- Several key shipping routes cross this sea, adding to the busy nature of the waters. These routes include the approaches to the major ports of Fleetwood and the Mersey
- A large number of 'medium use' recreational sailing routes criss-cross the MCA, linking all the harbours on the English, Welsh and Isle of Man coasts
- The coast is relatively distant from this MCA, and the nearest areas are low-lying, meaning that there are low levels of intervisibility with the land. Under clear conditions, there is intervisibility with the hills of the Lake District National Park and the Isle of Man
- Lighting from the offshore platforms and wind turbines influences night-time seaward views
- The area is viewed from ferry services which link Liverpool and Heysham with Douglas, Belfast and Larne

Wales national MCAs

1.3.3.9 The Wales National Seascape Assessment undertaken by LUC in 2015 (LUC, 2015) identified and described MCAs within coastal and inshore areas of Welsh territorial waters. Two MCAs fall within the SLVIA study area as follows and illustrated on Figure A. 1 to Figure A. 6 in Appendix A.

MCA 04 North Wales open waters

1.3.3.10 The ZTV overlaps with part of this MCA. The MCA includes the Gwynt y Môr Offshore Wind Farm. Key characteristics relevant to the Morgan Generation Assets include:

- Dominant maritime character is one of transit: recreational vessels entering or leaving the Menai Strait/Conwy Bay, or commercial vessels passing east and west to and from the Mersey and Dee
- Gwynt y Môr offshore wind farm dominates the east of the MCA, and to the north – access is restricted around the Douglas Oil Field (marked by a series of lit buoys and shipping lanes depicted on marine charts)
- Commercial shipping seen offshore, including large vessels waiting for Liverpool Pilots to guide them safely into port
- Recreational boats are a feature particularly in the southeast of the MCA during the warmer months
- The landward view changes considerably throughout the MCA, with rocky headlands, islets and large bays found to the west and the large shallow opening of Conwy Bay to the east, with a backdrop of the mountains of Eryri.

MCA 05 North West Anglesey open waters

- 1.3.3.11 The MCA wraps around the north of Anglesey and the ZTV overlaps with a small part of this MCA. Key characteristics relevant to the Morgan Generation Assets include:
- Glimpses of ferries and the Holyhead harbour breakwater are signs of significant human activity in adjacent MCA 24, while commercial shipping can be seen passing further offshore
 - Recreational boats can also be seen in coastal waters during the warmer months
 - The Skerries are prominent seascape features viewed from this MCA, with the Isle of Man and Holyhead Mountain also visible in clear conditions
 - In the south, visual relationships with the adjacent rocky north coast of Anglesey, with small bays and inlets, which contribute to character
 - The box-like form of Wylfa Power Station forms a prominent man-made feature in views to the coast, standing out against a rugged and open coastal scene
 - Commercial shipping lanes offshore, recreational boats can be seen close to the shore in the warmer months.

Welsh Seascape Sensitivity Zones

- 1.3.3.12 In addition to MCAs identified within the Wales National Seascape Assessment (LUC, 2015), Welsh SSZs have also been identified and described in NRW Report No. 331: '*Seascape and visual sensitivity to offshore wind farms in Wales - Stage 3 - Seascape and visual sensitivity assessment for offshore wind farms*' (White *et al.*, 2019). Some of these SSZs overlap in part with the MCAs, but not all of them. Five SSZs fall within the SLVIA study area. Summary descriptions of the SSZs in NRW Report No. 331 are set out below and illustrated on Figure A. 1 to Figure A. 6 in Appendix A.

SSZ No. 1: North East Wales inshore

- 1.3.3.13 The east section of MCA04 lie within SSZ 1. The descriptive summary of SSZ 1 is as follows:
- To the east is a large scale open, relatively straight coastline with a large proportion of urban settlement, the tourism is focussed on beach holidays. There are already wind farm and gas developments offshore, which act as lit vertical foci with related boats. To the west the settled coast becomes embayed with headlands and more formal promenades terminating in the distinctive landform of Great Orme.

SSZ No. 2: North East Wales offshore

- 1.3.3.14 SSZ 2 falls mostly beyond the area of the NRW seascape assessment. The descriptive summary of SSZ 2 is as follows:
- The zone lies in open sea with the north edge of Gwynt y Môr Wind Farm located on its south margins and the Douglas oil and gas complex nearby. Beyond this to the south are further wind farms and the northeast Wales coast which has large scale open, relatively straight coastline to the east and embayed coastline with headlands and the distinctive landform of Great Orme to the west. The coast has a high proportion of urban settlement focused on residential and tourism,

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

with caravan and beach holidays to the east and Victorian resorts with associated promenades mainly to the west.

SSZ No. 3: North Wales and North Anglesey inshore

1.3.3.15 Welsh North Wales Open Waters MCA04 and North West Anglesey Open Waters MCA05 lie within this SSZ. The descriptive summary of SSZ 3 is as follows:

- To the east the settled coast is backed by the mountains of Eryri (the Carneddau) and framed by the high cliffs of Great Orme's Head to the east and Puffin Island and the coast of Anglesey to the west. Anglesey generally has a lower plateau topography with resultant low cliffs and slopes, apart from the distinctive form of Holyhead Mountain which terminates the area with high sea cliffs to the west. Anglesey's north coast is rocky and convex meaning development out to sea would be largely unscaled whilst its northwest and east coasts have a series of small embayments and coves with associated small settlements and holiday accommodation in places.
- Some industrial features such as Wylfa are now disused, but the extant structures would remain juxtaposed with onshore wind farms inland. The sea is open and exposed with commercial vessels running to and from the Mersey ports and ferries issuing from Holyhead's busy harbour.

SSZ No. 4: North Wales and North Anglesey offshore

1.3.3.16 This SSZ falls beyond the area published in strategic assessment and guidance: Stage 3 – seascape and visual sensitivity to offshore wind farms in Wales (White Consultants (for NRW, 2020)). The descriptive summary of SSZ 4 is as follows:

- The area lies in open sea offshore from Anglesey and the north Wales coast with the Isle of Man to the north. To the southeast lies the Great Orme and Eryri but the area is closest to the north coast of Anglesey from Lynas Point running round west to Holy Island. Anglesey generally has a low plateau topography with resultant low cliffs and slopes, apart from the distinctive form of Holyhead Mountain which terminates the likely affected coastline to the west. Anglesey's north coast is rocky and convex meaning development out to sea would be largely unscaled whilst its northwest and east coasts have a series of small embayments and coves with associated small settlements and holiday accommodation in places. The main built coastal landmark is Wylfa nuclear power station, but the extant structures would be seen juxtaposed with onshore wind farms inland. The sea is open and exposed. Commercial vessels running to and from the Mersey ports and ferries issuing from Holyhead's busy harbour tend to pass between this zone and the coast.

SSZ No. 5: North Wales and Anglesey outer offshore

1.3.3.17 This SSZ falls beyond the area in published seascape. The descriptive summary of the SSZ 5 is as follows:

- The area lies in open sea at least 44 km offshore from the Anglesey, north Wales and the Llŷn peninsula coast although the zone's north edge is located around 22 km from the Isle of Man. To the southeast there are the existing arrays at Gwynt y Môr and further arrays lie to the northeast including Walney and West of Duddon Sands

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

- Anglesey predominantly has a low plateau topography and rocky coastline with a distinctive high point at Holyhead Mountain. Development out to sea would be largely unscaled in views. More elevated views are possible north from the north Wales coast at Great Orme and Conwy Mountain. The Llŷn peninsula also has cliff top views to the northeast towards the southwest extent of the zone. The sea is open and exposed with commercial vessels running inshore from this zone to and from the Mersey ports, and ferries issue from Holyhead's busy harbour.

Isle of Man Seascape/Marine Character Areas (RPS characterisation)

- 1.3.3.18 In the absence of published data on seascape character for the Isle of Man territorial waters, five marine character areas have been defined by RPS up to 12 nm from the Isle of Man coastal character areas, as set out below. These are illustrated on Figure A. 1 to Figure A. 6 in Appendix A.

MCA A: Dreswick Point to Maughold Head, Isle of Man southeast inshore waters

- 1.3.3.19 This large marine character area has been defined as extending from the seaward boundaries of the Isle of Man coastal character areas E1 to E6, as well as E11 and part of H5 to the 12nm inshore waters boundary:
- The waters to the east of the Isle of Man are less than 50 m deep, with a large area of shallower water to the north of the area, close to Isle of Man MCA B: Maughold Head to Point of Ayre
 - This is a busy area of the Isle of Man inshore waters, as there are ferry routes from the English mainland (Liverpool and Heysham to Douglas) as well as smaller numbers of shipping from the Island of Ireland and Scotland. Shipping routes from the English mainland to Scotland and the Island of Ireland pass through this MCA
 - This is also a popular area for recreational sailing, with boats crossing the Irish sea, as well as travelling along the coast of the Isle of Man
 - A Ministry of Defence (MOD) firing practice area is located to the north of Isle of Man MCA A. This is linked to a larger area in English territorial waters (D406C), extending from the MOD's Eskmeals Range, Cumbria. The west edge of Walney offshore wind farm (Walney Extension) is less than 5.5 km from the east edge of this MCA.

MCA B: Maughold Head to Point of Ayre, Isle of Man north east inshore waters

- 1.3.3.20 This marine character area has been defined as extending from the seaward boundaries of part of H5, G1 and part of G2 coastal character areas of the Isle of Man:
- The sand banks that lie off the northwest tip of the Isle of Man (Strunakill Bank, Whitestone Bank, Bahama Bank, Ballacash Bank, and King William Banks), result in larger shipping being concentrated into the channels. The condensed amount of shipping traffic close to the Isle of Man, gives a busy character to this small character area. Recreational shipping is also more directed, with boats following routes to Whitehaven and Scotland, with most avoiding the sand banks

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

- The sand banks are marked with light buoys. The Point of Ayre light house also provides navigational aid to shipping. While there is less shipping crossing this MCA than MCAs A, D and E, it is more concentrated and there are navigational warning lights that result in the character of the MCA being busy, even at night.

MCA C: Point of Ayre to Contrary Head, Isle of Man north west inshore waters

1.3.3.21 This marine character area has been defined as extending from the seaward boundaries of part of G2 to G4, E7 and part of H1 coastal character areas of the Isle of Man:

- This is a wide, open MCA, with long views across a relatively shallow part of the Irish sea. The major shipping routes pass to the north or south of the island, with only recreational boats landing at Peel, in the south of this MCA. As such this MCA is the least influenced by commercial shipping. This MCA, barring the north part of the area and the shallow waters, covers a submarine exercise area
- Although views of commercial shipping are common to the north and south of the area, as it travels north, predominantly to Belfast, this MCA is probably the least influenced by it. This side of the island has views towards Northern Ireland and Scotland.

MCA D: Contrary Head to Bradda Head, Isle of Man west inshore waters

1.3.3.22 This marine character area has been defined as extending from the seaward boundaries of part of H1, H2, H3 and E8 coastal character areas of the Isle of Man:

- This narrow MCA is the transition between the wide, open Isle of Man MCA C and the smaller coves and islands of MCA E. The MCA comprises two medium-sized bays, separated by Dalby Point. The bays face west and the influence of the currents in the Irish sea, has created deeper water closer to the island
- Commercial shipping travelling between the English mainland and Northern Ireland pass, in deeper waters, close to the Isle of Man, through this MCA. Recreational boats also cross this MCA from Peel to the island of Ireland. Part of a submarine training area is located within this MCA.

1.3.3.23 As only a small part of this seascape area is covered by the ZTV and it is on the north side of the island, there is no potential for the MCA to be significantly affected and so this MCA is not taken forward to the assessment stage.

MCA E: Bradda Head to Dreswick Point, Isle of Man south west inshore waters

1.3.3.24 This marine character area has been defined as extending from the seaward boundaries of part of H4, J1, E9 and E10 coastal character areas of the Isle of Man:

- This is an area of smaller coves and islands. The depth of the sea is shallow within the coves, and around the rocks and islands. However, the depth of the seabed deepens close to the land and commercial shipping en route to the island of Ireland comes close to the Isle of Man. This is a busy MCA, which also hosts many recreational boats, travelling in and out of Port St. Mary

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

- Lighthouses and light buoys mark the islands, rocks and coasts of the Isle of Man. Together with the commercial shipping result in this being a busy area of the sea.

Scottish seascape units

1.3.3.25 The SLVIA study area of the Morgan Generation Assets covers the south part (indicative seaward boundary of seascape unit) of Scottish Seascape Unit 29: Outer Solway, located in Scottish territorial waters and is shown on Figure A. 1 to Figure A. 6 of Appendix A.

Unit 29: Outer Solway

1.3.3.26 The seascape unit lies adjacent to English MCA 37: Irish Sea North (England) and Isle of Man MCA B: Maughold Head to Point of Ayre. Due to the distance from the Morgan Array Area, this seascape unit is predicted to experience negligible impacts, at most, and for this reason it is scoped out of the assessment.

1.3.4 Onshore National Character Areas and Landscape Character Types that overlap with the Morgan Array Area ZTV

1.3.4.1 The ZTV for the Morgan Array Area is shown in context with the England and Isle of Man National Character Areas (NCAs). These are illustrated on Figure A. 1 to Figure A. 6 of Appendix A.

England National Character Area

1.3.4.2 The national landscape character of England within the SLVIA study area is described by Natural England in its online resource of NCA profiles (Natural England, 2014a). These are illustrated on Figure A. 1 to Figure A. 6 of Appendix A.

NCA 7 West Cumbria coastal plain

1.3.4.3 This NCA lies towards the northeast part of the SLVIA study area, beyond the existing offshore wind farms of Walney, Ormonde, West of Duddon Sands and Barrow. Key characteristics include:

- The NCA consists of an undulating coastal landscape of varying width with open views to the Cumbria High Fells NCA and across the Irish Sea to Galloway and the Isle of Man
- The area has a diverse, open coastline ranging from depositional sand, shingle and pebble beaches and sand dunes, through low soft cliffs of glacial or industrial origin, to high sandstone cliffs with a rich and varied flora and fauna
- There are lowland river valleys with limited ancient semi-natural woodland, and expansive estuarine landscapes with lowland raised mires, salt marshes, mudflats and intertidal habitats
- Larger urban settlements and coastal towns are closely linked with the growth and location of the area's strong industrial history of coal and iron ore mining, processing ore, smelting and ship building

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

- Extensive urban-fringe influence is linked to highly visible industrial past and present, including quarrying, open cast mining, restoration and reclamation initiatives, manufacturing and processing plants and the nuclear energy industry
- A rich history is evident in the pattern of land use and heritage features dating from the Neolithic period onwards, including earthworks, forts and castles and all the Roman coastal forts that form part of the Hadrian's Wall World Heritage Site.

NCA 8 Cumbria High Fells

1.3.4.4 As with NCA 7, this NCA lies to the northeast of the SLVIA study area and beyond the existing offshore wind farms. Key characteristics include:

- Spectacular, formerly glaciated, mountain scenery of open fells and craggy peaks separated by U-shaped valleys with a radiating pattern of rivers and lakes
- Varied landform, the more rugged, sharp peaks of the Borrowdale Volcanic Group, accompanied by granite intrusions in the central area. Complex geology includes Silurian slates and fissile mudstones to the southeast and a fringe of Carboniferous limestone foothills. Extensive mineralisation has supported a mining heritage dating from the medieval period
- Rich historic environment including Neolithic stone circles, bronze age clearance cairns, Roman forts, Norse place names and crosses and key elements of the farmed and industrial landscape dating from the medieval period
- Cultural heritage linked to the picturesque and the Romantic Movement and significant in the foundation of the conservation movement, with houses, burial places and specific features that inspired ideas, art and poetry
- Tourism and recreation with large numbers of visitors attracted by the natural beauty of the area, its wildlife, cultural heritage and access opportunities for walking, climbing, water-based and other activities
- Large areas of relative tranquillity.

NCA 19 South Cumbria Low Fells

1.3.4.5 As with NCA7 and NCA8 this NCA lies to the northeast of the SLVIA study area beyond a number of existing offshore wind farms. Key characteristics include:

- Undulating, rugged low fells and ridges of Silurian slates and fissile mudstones radiate in a north-south orientation from the eroded central dome of the Cumbria High Fells, dissected by U-shaped valleys, which include the large lakes of Windermere and Coniston Water
- Open fells, over 300 m in height, with craggy ridges, rocky knolls and infrequent woodland and tree cover
- This is a significant tourism and recreational area, with large numbers of visitors attracted by the natural beauty, the wildlife, the cultural connections, and the opportunities for walking, cycling, running, climbing and water-based activities, among other pursuits.

NCA 20 Morecambe Bay Limestones

1.3.4.6 NCA 20 also lies to the northwest of the SLVIA study area, beyond the existing offshore wind farms. Key characteristics include:

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

- A flat lowland landscape, dominated by conspicuous, often steep-sided, hills of Lower Carboniferous Limestone, many of which include exposures of limestone pavement. Between the hills the landform is geologically recent, including areas of drumlin field, fluvial and estuarine sediment and peat bogs
- Wide expanses of shifting intertidal sand flats and expanses of salt marsh arcing round the head of Morecambe Bay, backed by low cliffs with windswept trees, or grassed embankments defending reclaimed grazing marshes
- The rivers Kent and Leven enter Morecambe Bay via dynamic estuary systems. The smaller rivers Winster, Bela and Keer lie predominantly within this NCA and have relatively extensive flood plain areas before flowing into the channel of the River Kent as they enter Morecambe Bay
- Extensive areas of reclaimed land on the coastal fringe and in the Lyth Valley have large fields bounded by ditch-flanked hedgerows. Lowland raised mires surrounding the limestone outcrops have been reclaimed for agriculture
- Larger centres include Grange-over-Sands, Arnside, Silverdale and Milnthorpe, some of which have a seaside resort character, reflecting the growth in the use of the area for recreation from the 18th century onwards
- An extensive rights of way network, particularly on areas of limestone geology, integrated with areas of permissive access land.

NCA 32 Lancashire and Amounderness Plain

- 1.3.4.7 The SLVIA study area clips the extreme west part of this NCA. Key characteristics are:
- A relatively flat to gently undulating coastal landscape
 - Extensive views across the plain, within which small to medium-sized blocks of mixed woodland (wind-sculpted near the coast) provide punctuation and vertical accents
 - The Fylde coast, which extends from Fleetwood in the north to the mouth of the Ribble Estuary, includes significant urban areas along the coastal strip (such as Blackpool and Fleetwood)
 - Urban settlement is concentrated in the planned Victorian coastal resorts (including Blackpool) and inland towns (the largest of which is Preston)
 - Tourism is an important contributor to the local economy, with many opportunities for informal recreation – particularly along the Fylde coast.
- 1.3.4.8 As this NCA is at the extreme edge of the SLVIA study area and is low-lying, there is no potential for significant effects and it is scoped out of the assessment.

Isle of Man Landscape Character Types

- 1.3.4.9 The landscape character of the Isle of Man is described in *The Isle of Man Landscape Character Assessment* (Isle of Man Government, 2008). The landscape character assessment divides the island and coast into Landscape Character Type (LCTs) and identifies Landscape Character Area (LCAs) within the LCTs. These are available in Table 10.10 of Volume 2, Chapter 10: Seascape, landscape and visual resources of the Environmental Statement. Figure A. 3 and Figure A. 4 in Appendix A shows the landscape and seascape/marine character areas for the territory of the Isle of Man.

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

1.3.4.10 For the purposes of this characterisation the LCAs are considered within each LCT heading. The key characteristics of the individual LCAs are set out in Appendix B to this technical report.

1.3.4.11 The assessment includes the coastal waters immediately adjacent to the Isle of Man LCTs. For the purpose of this SLVIA, in order to fill in the gap in seascape assessment for the Isle of Man territorial waters, marine character areas have been defined and described by RPS, referred to as Isle of Man MCAs A to E, as documented above – see section 1.3.3. They are illustrated on Figure A. 1, Figure A. 3 and Figure A. 4 in Appendix A.

LCT A Uplands

1.3.4.12 The ZTV overlaps the higher parts of the component LCA A1: Northern Uplands and A2: Southern Uplands.

1.3.4.13 Relevant characteristics include:

- Rolling open and expansive fells with numerous pronounced rounded summits and associated spurs
- Expansive panoramic views across the whole Island with some lower areas enclosed by surrounding peaks and river valleys
- Some upland areas about the sea where there are dramatic rocky steep cliffs that descend into the sea
- Exposed rocky outcrops with areas of scree slopes in south areas
- Simple and smooth texture
- Remote feel in places.

LCT B Narrow Upland Glens

1.3.4.14 The ZTV overlaps the higher and east facing parts of the component LCAs B3: Cornaa Valley, B4: Laxey Glen, B5: Glen Roy, and the edges of B6: East Baldwin and B8: Glen Helen. The latter two are not taken forward for assessment as the ZTV barely overlaps with these LCAs and therefore the effects are considered to be so limited and not significant.

1.3.4.15 Relevant characteristics include:

- Steep sided deeply incised V-shaped valleys cut by upland streams with stretches of white water with some large boulders and small waterfalls in places
- Interlocking spurs can prevent otherwise continuous views up the valley.

LCT C Broad Valley Lowland

1.3.4.16 The ZTV overlaps with all of the LCAs within this LCT, LCA1: Greeba Valley, C2: St. John's and C3: Union Mills, Glen Vine and Crosby.

1.3.4.17 Relevant characteristics include:

- Relatively steep valley sides rise up into areas of upland and inland plateau
- Variety of former river terraces along the valley sides gives a variety of relief in the east area of the valley floor

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

- Tributaries drain into the river from the surrounding upland areas as well as from various straightened drainage channels from surrounding flatter land.

LCT D Incised Inland Slopes

1.3.4.18 The ZTV overlaps some of this LCT particularly the higher ground and southeast facing slopes on the Isle of Man – The ZTV overlaps with LCAs D1: Ballajora and Ballaglass, D2: Laxey, D3: Conrhenny/Groudle, D10: Braaid, D11: Foxdale, D12: Douglas Head, D13: Santon, D14: Ballamodha, Earystane and St. Mark's. Regarding LCAs D7: Neb and D8: Peel, these two LCAs are not taken forward for assessment as the ZTV barely overlaps with them and therefore the effects are considered to be so limited and not significant.

1.3.4.19 Relevant characteristics include:

- Land generally slopes down from upland areas to the sea with notable undulations
- A network of deeply incised steep sided/gently sloping wooded glens (some of them National Glens containing exotic Victorian planting and pleasure gardens) cut across the area as rivers valleys run out to the sea, creating narrow linear landscape elements
- Distant views to coast and sea from several locations.

LCT E Rugged Coast

1.3.4.20 The ZTV overlaps all of the east facing Rugged Coastline on the Isle of Man, that is LCA E1: Port Greenaugh, E2: Port Soderick, E3: Douglas Bay, E4: Clay Head, E5: Laxey Bay, E9: Bay Ny Carrickey, E10: Castletown Bay and E11: Langness.

1.3.4.21 Relevant characteristics include:

- Rugged indented and varied coastline
- Sequences of rocky cliffs and stacks with extensive rocky wild headlands with some wave-cut platforms to gently graded sandy bays of varied enclosure and scale
- Variation in scale of bays, from large beaches to small concealed/intimate coves
- Steeply/gently sloping pastoral and arable land with a strong visual connection down to the seashore
- Numerous deep, steep sided wooded glens form small coves/beaches (Port Grenaugh, Port Soderick, Port Cornaa, Port Mooar, Glen Wyllin) where rivers flow into the sea
- Coastal settlements vary in size and character with a variety of historic elements such as Castle defences and ports often located in the sheltered coves and bays along the coast where there is a gently graded and accessible shore
- A combination of open views down cliffs to the shoreline and open and expansive views to sea
- Varied rocky and sandy foreshore
- A relatively strong sense of tranquillity within several of the bays and small coves.

LCT F Undulating Lowland Plain

- 1.3.4.22 The ZTV overlaps with some of the higher, lowland areas in the north of the island, LCAs F1: Bride Hills, F2: The Lhen, F3: Andreas and Jurby and part of F4: Sulby. The ZTV overlaps both F7: Castletown and Ballasalla and F8: Pollvaish and Scarlett Peninsula. LCA F4 Sulby is not taken forward for assessment as the ZTV overlaps with a very small part of this LCA and therefore the effects are considered to be so limited and not significant.
- 1.3.4.23 Relevant characteristics include:
- Low-lying, gently undulating predominantly arable farmland
 - Open and glimpsed views to the sea from higher areas.

LCT G Smooth Coastal Strip

- 1.3.4.24 The ZTV overlaps some of this LCT particularly along the coast from Ramsey northwards to Point of Ayre. The ZTV overlaps with LCAs G1: Ramsey Bay Smooth Coastal Strip and a small part of G2: The Ayres, at the Point of Ayre.
- 1.3.4.25 Relevant characteristics include:
- Yellowy conglomerate post-glacial deposits form loose sheer cliffs, some 10 to 20 m high along the south stretches of this coastline
 - Stretches of gently graded sand and shingle beaches
 - Sand dunes with rough grasses, scrubs, occasional areas of lichen and areas of heath developing on the back dunes
 - Cliffs form an abrupt boundary between the sand and shingle and the arable fields of the Undulating Inland Plain
 - Open, expansive panoramic views to sea and along the coast line
 - Strong sense of remoteness and tranquillity
 - Sweeping, unbroken, smooth coastline with shingle spur forming at the point of Ayre.

LCT H Coastal Cliffs

- 1.3.4.26 The ZTV overlaps with some of this LCT particularly at the coastal headlands, including Maughold Head in the north (LCA H5: Maughold Head) and Spanish Head and Black Head and the Sugar Loaf Stack in the south (LCA H4: Creagheash and Meayll Peninsular). The ZTV also overlaps with part of the landscape in LCA H3: Bradda Head. The ZTV overlaps with a very limited area in LCA H1: Peel Hill and LCA H2: Fleshwick. These two LCAs are not taken forward for assessment as the ZTV barely overlaps with them and therefore the effects are considered to be so limited and not significant.
- 1.3.4.27 Relevant characteristics include:
- High, steep sided dramatic rocky cliffs descend to the sea directly from surrounding Uplands, some with steep grassy slopes to rear
 - Small enclosed rocky coves with occasional sandy beaches
 - Sea stacks, rocky foreshores and wave cut platforms exposed at low tide

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

- Cliff top paths along gently shelving grassy slopes with dramatic panoramic coastal views
- Bird colonies nesting of the cliffs
- Numerous archaeological sites in prominent cliff top locations as well as abandoned mine workings
- Moorland vegetation on exposed, open and gently rounded hill tops with gently shelving grassed slopes running down to the cliff top.

LCT J Islands

1.3.4.28 The ZTV overlaps with some of the landscape along the east facing coastline of the Calf of Man along with some areas further inland within LCA J1: Calf of Man.

1.3.4.29 Relevant characteristics include:

- A number of small rugged islands lie in close proximity the coastline
- Steep rocky and dramatic cliffs
- Rounded, sometimes steeply sloping land with much undulation
- Low heathland vegetation with maritime grasses and flowers such as sea thrift
- Large area of rock pools in the inter-tidal zone exposed during low tide with its own habitats
- Bird colonies nesting on cliffs
- Often provide important sites for wildlife and contain key heritage sites.

1.4 Summary

1.4.1.1 This technical baseline report identifies the seascape/marine and landscape character types and areas that have the potential to be affected by the Morgan Generation Assets. The SLVIA study area and ZTV is based on the MDS set out in Volume 1, Chapter 3: Project description of the Environmental Statement.

1.4.1.2 The seascape and landscape character areas with potential to be affected by the Morgan Generation Assets have been identified and described in section 1.3 of this baseline technical report. Where there is no published seascape assessment coverage within the SLVIA study area, for instance around the Isle of Man, additional marine character areas have been defined and described by RPS and are included in this baseline assessment.

1.5 References

LUC (2015) National Seascape Assessment for Wales. Available: <https://naturalresources.wales/?lang=en>. Accessed January 2024.

Marine Management Organisation (2014) Marine Plan Areas in England

MMO (2018) Seascape Character Assessment for the Northwest Inshore and Offshore Marine Plan Areas

Natural England (2014) An Approach to Landscape Character Assessment

Scottish National Heritage (2005) An assessment of the sensitivity and capacity of the Scottish seascape in relation to wind farms SNH Commissioned Report No. 103

The Isle of Man Government (2008) The Isle of Man Landscape Character Assessment. Available: <https://www.gov.im/evidencebase>. Accessed January 2024.

White Consultants with Northumbria University (2020) Offshore Energy Strategic Environmental Assessment: Review and Update of Seascape and Visual Buffer Study for Offshore Wind Farms – Final Report. Hartley Anderson

White, S., Michaels, S., King, H., (2019c) Seascape and visual sensitivity to offshore wind farms in Wales: Strategic assessment and guidance – Stage 3, Strategic assessment and guidance (NRW Report No. 331). Natural Resources Wales

Appendix A: Landscape Character Type Figures

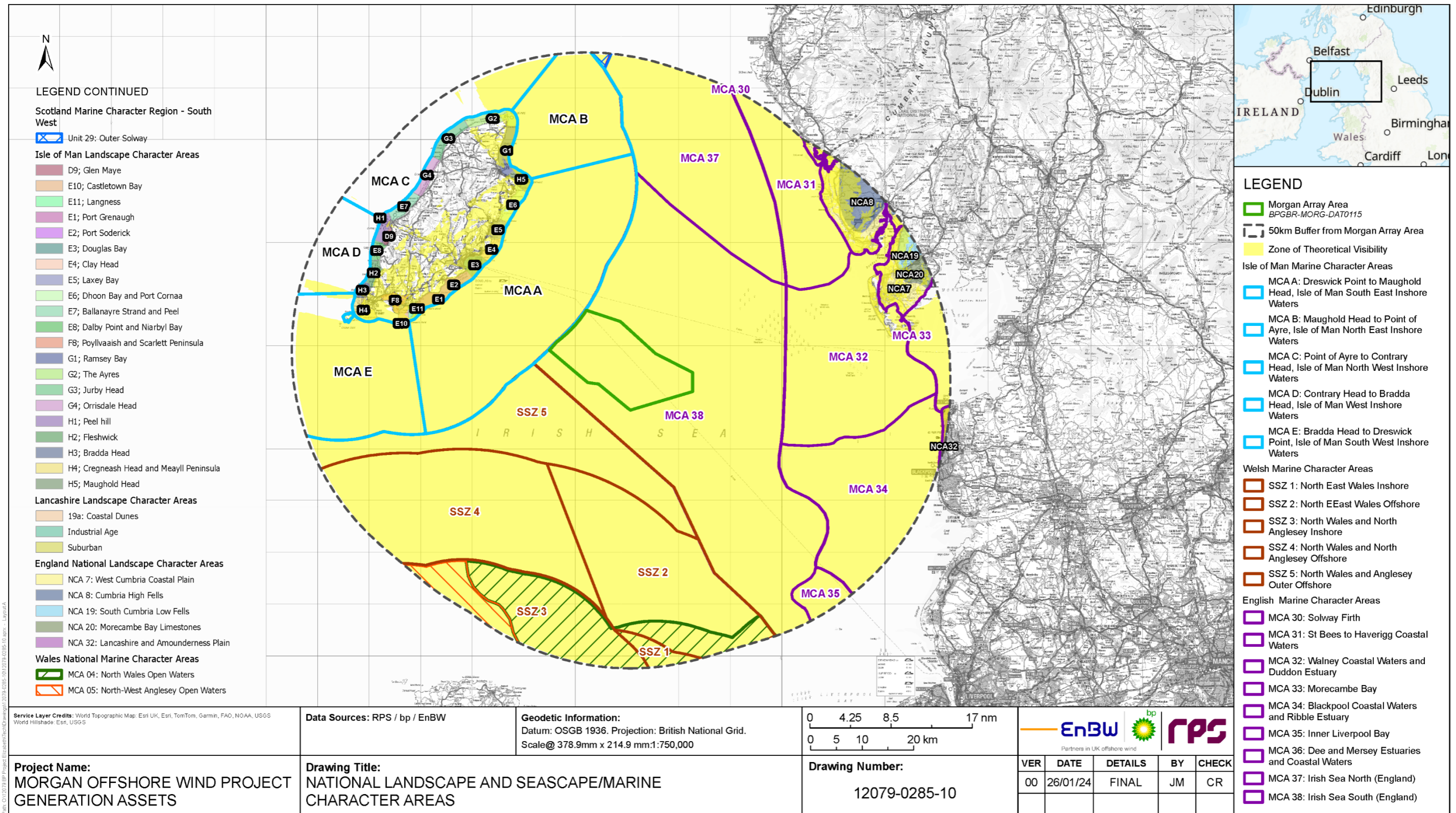


Figure A. 1: National landscape and seascape/marine character areas.

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

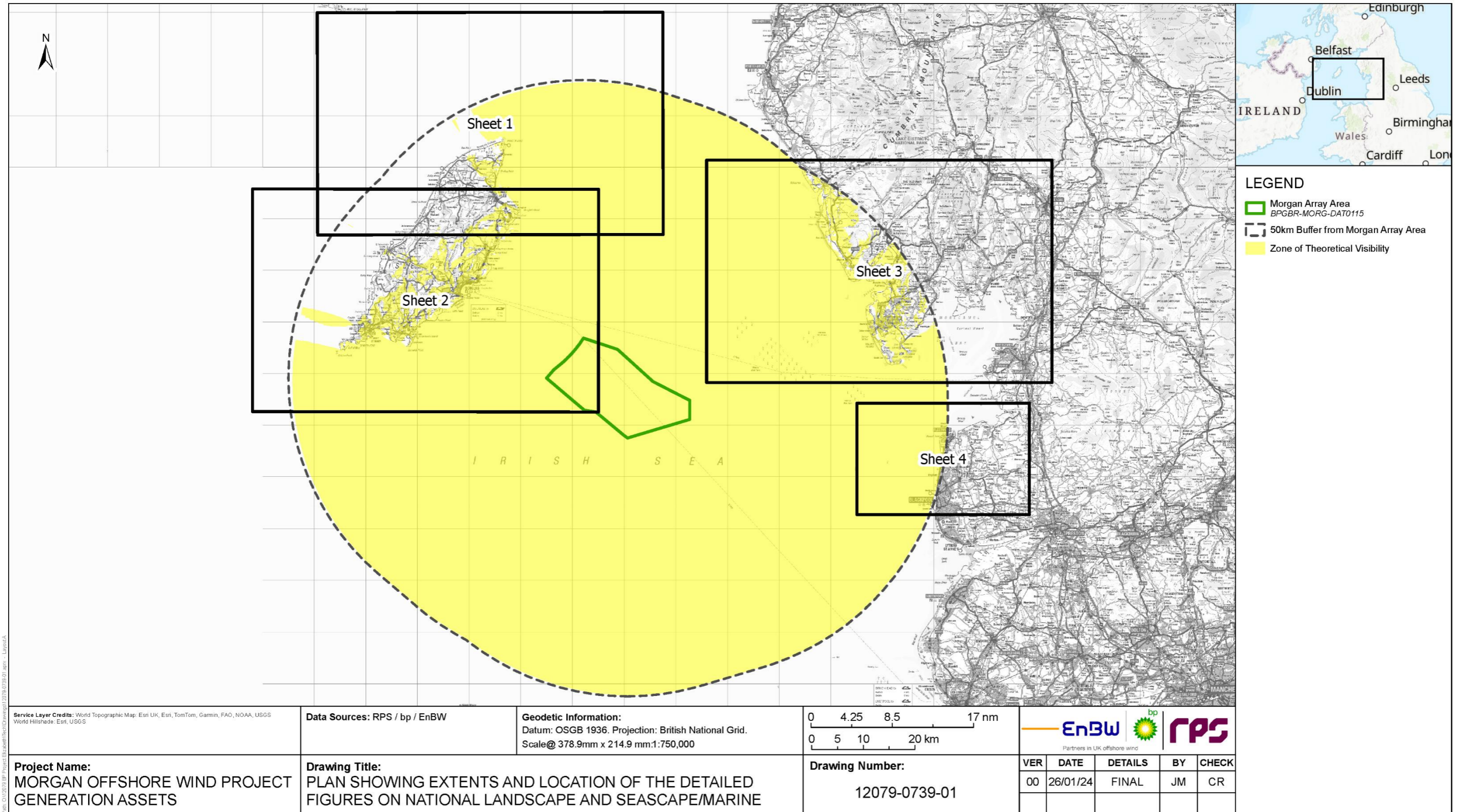


Figure A. 2: Plan showing extents and location of the detailed figures on National landscape and seascape/marine character areas.

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

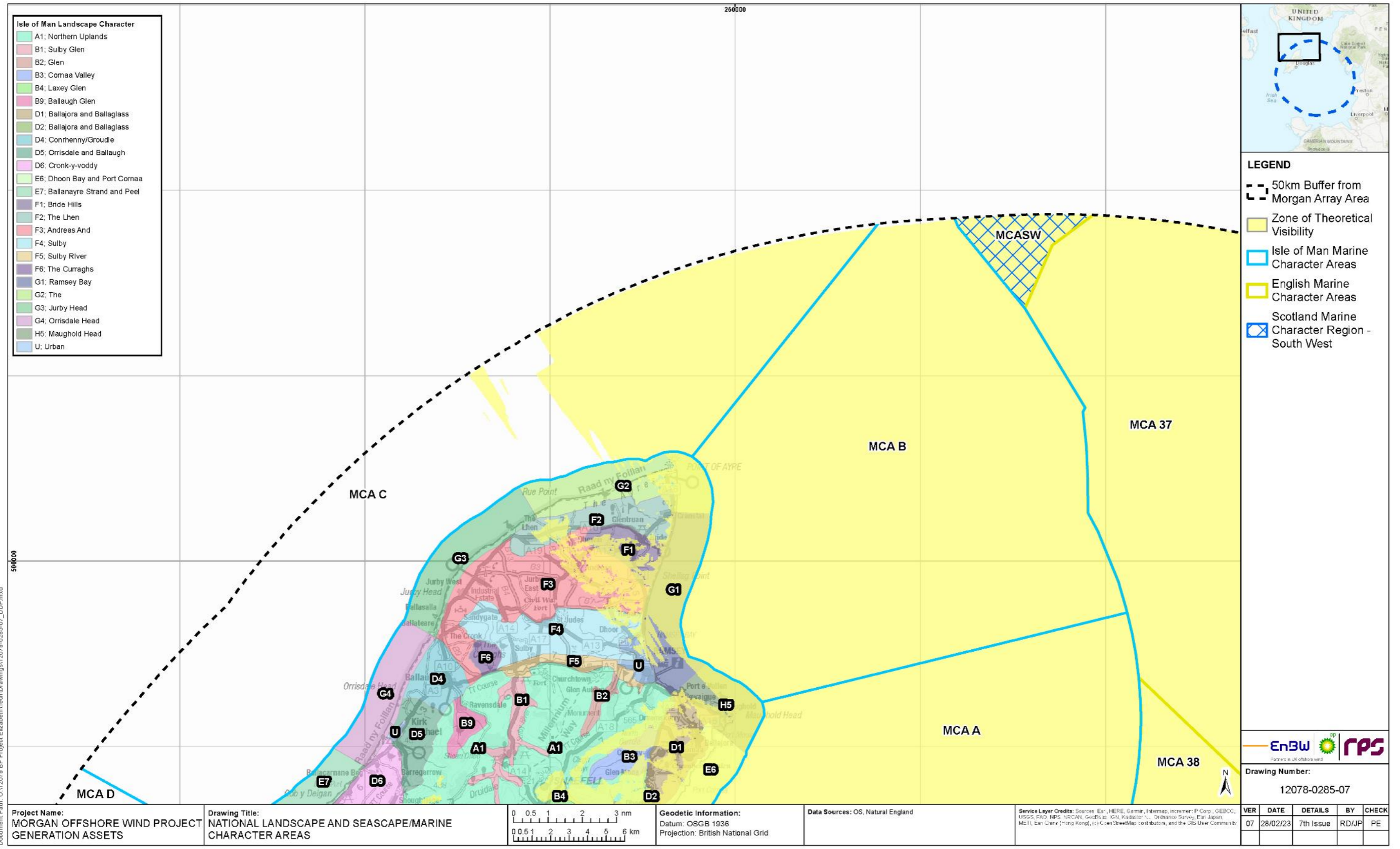


Figure A. 3: National landscape and seascape/marine character areas (sheet 1).

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

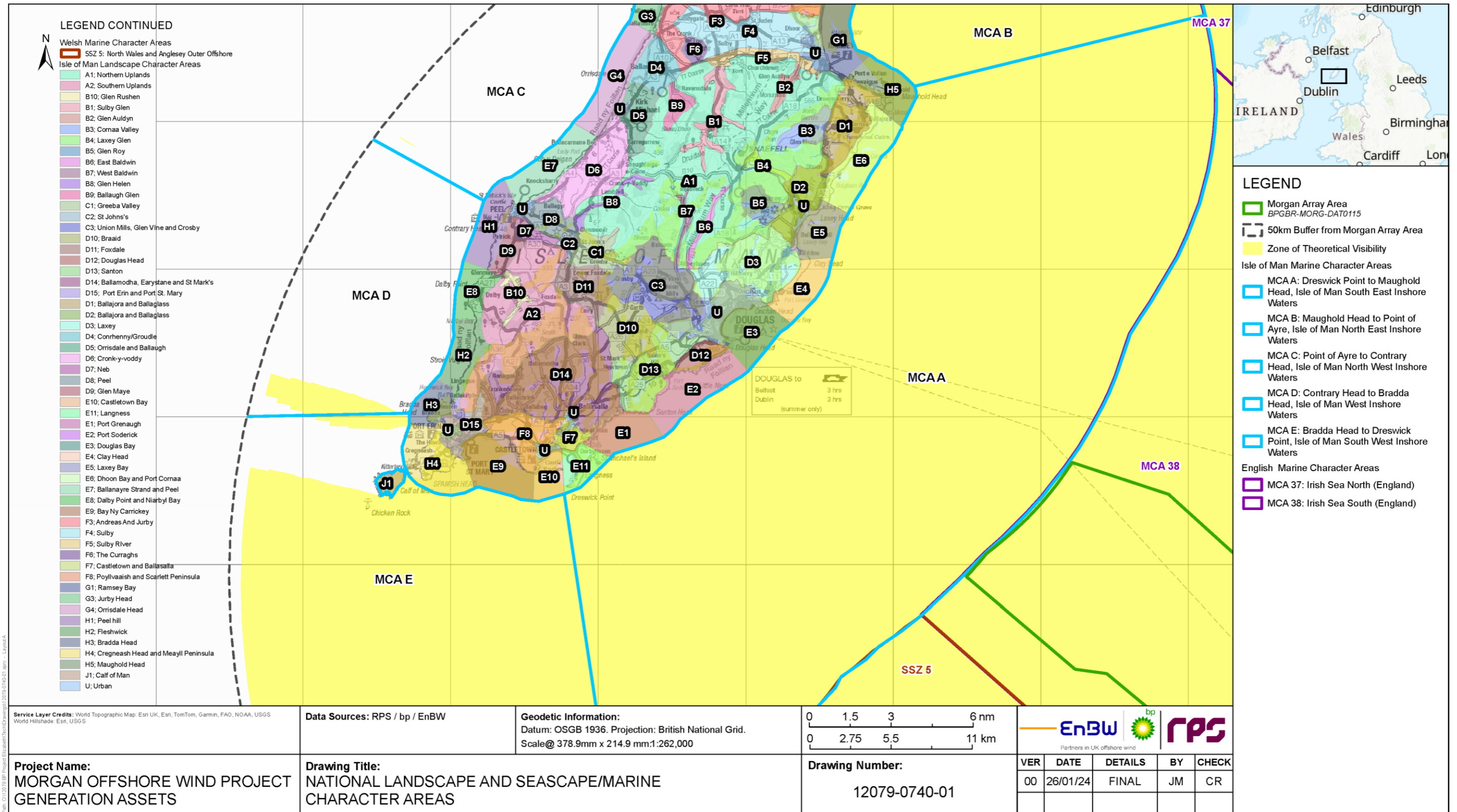


Figure A. 4: National landscape and seascape/marine character areas (sheet 2).

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

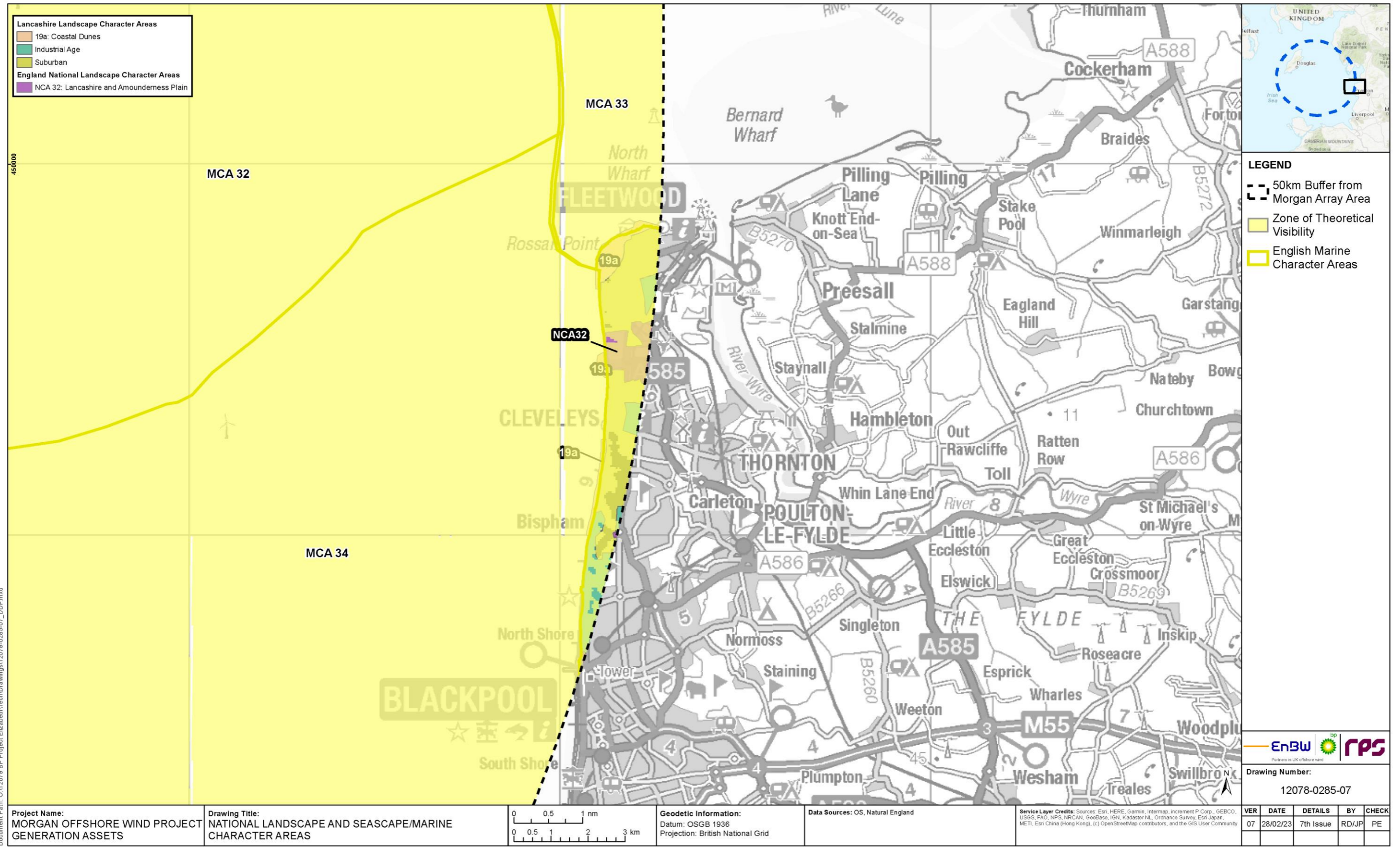
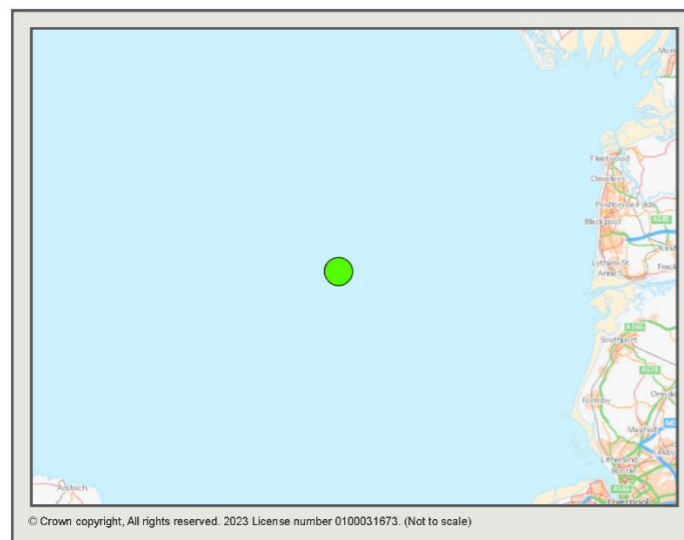
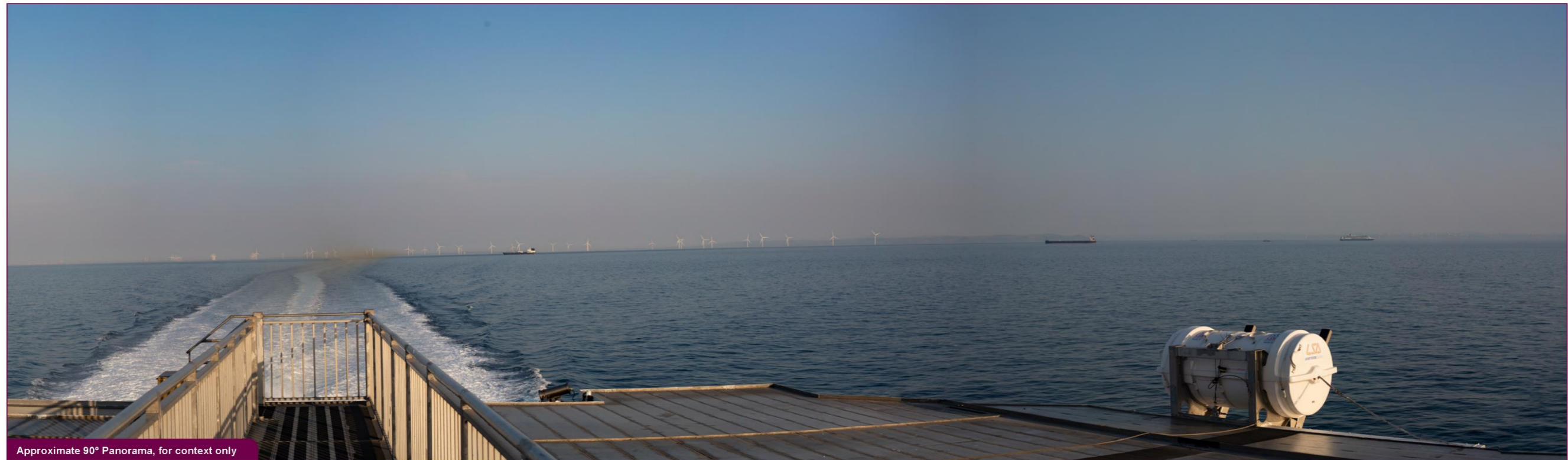
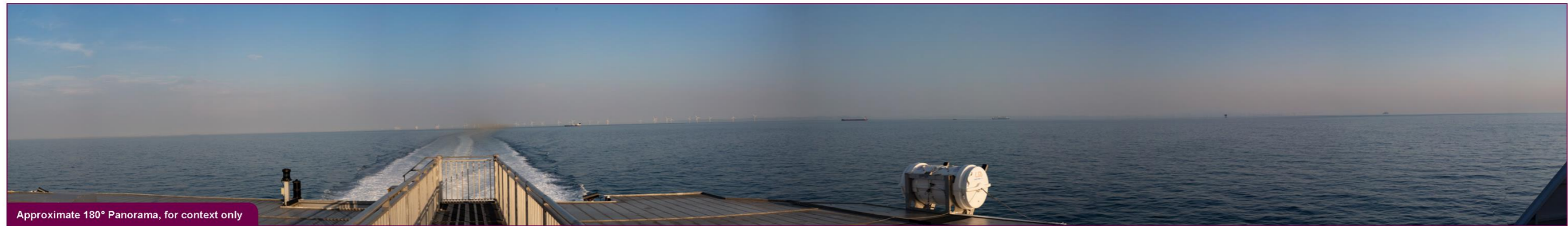


Figure A. 6: National landscape and seascape/marine character areas (sheet 4).

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS



3999-0055-01



Photograph of baseline seascape character captured from the Liverpool to Douglas ferry

Morgan Offshore Wind Project
JSL3999
For context only

Date of photograph: 19/07/2022
OS Grid Ref: 287504, 432892

Baseline Seascape Character
Vol 4 Annex 10.2 Figure A.7

Figure A. 7: Photograph of baseline seascape character captured from the Liverpool to Douglas ferry.

Appendix B: Extracts from Published Seascape and Landscape Character Assessments

Character Area/Type	Key characteristics
England National Character Areas (NCAs)	
NCA 7 West Cumbria Coastal Plain	<ul style="list-style-type: none"> • The NCA consists of an undulating coastal landscape of varying width with open views to the Cumbria High Fells NCA and across the Irish Sea to Galloway and the Isle of Man • The area has a diverse, open coastline ranging from depositional sand, shingle and pebble beaches and sand dunes, through low soft cliffs of glacial or industrial origin, to high sandstone cliffs with a rich and varied flora and fauna, including dune grasslands, seabird colonies and the natterjack toad • There are lowland river valleys with limited ancient semi-natural woodland, and expansive estuarine landscapes with lowland raised mires, salt marshes, mudflats and intertidal habitats with large numbers of wintering waders and wildfowl • Important areas of brownfield biodiversity, often in urban-fringe locations, are characterised by rare plants, reptiles and invertebrates including the small blue butterfly • The area includes open pastoral farmland with occasional woodlands, basin and valley fens, remnant semi-natural grasslands/meadows associated with stream sides, low-lying land, and localised pockets of arable land supporting species such as curlew and wintering hen harrier • There are areas of ancient enclosure with medium to large rectilinear fields and few hedgerow trees. They are bounded by hedges (often gappy and augmented by wire fences), stonewalls on higher ground, and stone-faced earth banks locally known as 'kests' along the coast • There is limited tree cover, with most woodland to be found on steeper slopes and along river corridors. There are some plantation woodlands and shelterbelts associated with the upland margins of the area and former open cast mining sites • There is a dispersed rural settlement pattern of hamlets and isolated farmsteads with some villages • Distinctive building materials are a combination of locally quarried red sandstone, red brick and render augmented by coastal pebbles along the south coast • Larger urban settlements and coastal towns are closely linked with the growth and location of the area's strong industrial history of coal and iron ore mining, processing ore, smelting and ship-building • Extensive urban-fringe influence is linked to highly visible industrial past and present, including quarrying, open cast mining, restoration and reclamation initiatives, manufacturing and processing plants and the nuclear energy industry • A rich history is evident in the pattern of land use and heritage features dating from the Neolithic period onwards, including earthworks, forts and castles and all the Roman coastal forts that form part of the Hadrian's Wall World Heritage Site.

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
NCA 8 Cumbria High Fells	<ul style="list-style-type: none"> • Spectacular, formerly glaciated, mountain scenery of open fells and craggy peaks separated by U-shaped valleys with a radiating pattern of rivers and lakes • Varied landform arising from the smooth sided fells of Ordovician Skiddaw Group rocks (metamorphosed mudstones) in the north, the more rugged, sharp peaks of the Borrowdale Volcanic Group, accompanied by granite intrusions in the central area. Complex geology includes Eycott Volcanic Group low-lying scarps in the north, Silurian slates and fissile mudstones to the south east and a fringe of Carboniferous limestone foothills. Extensive mineralisation has supported a mining heritage dating from the medieval period • The most biologically diverse suite of upland habitats in England with internationally important fell habitats, rivers, lakes unimproved grasslands, and native woodland. The extensive mosaic of fell habitats includes montane and upland heath, blanket bog, scree and ledge communities, springs, flushes, tarns, valley mires, juniper scrub, remnant woodland and Arctic Alpine plant communities • Valleys with rivers, lakes and surrounding wetlands, with a scattering of hay meadows, purple moor-grass and other species rich grasslands, in a matrix of improved pastures • Native woodland, often extensive, on valley sides and bottoms, with some large conifer plantations, and scattered trees and scrub on the fells, with a few isolated woods, including in gills. Extensive woodlands in Borrowdale, Ullswater and other valleys, supporting the best oceanic west oak woods in England • Field pattern of pastoral hill-farming with small valley in-bye fields, rougher intakes/allotments on valley sides and common grazing on the open fells; separated by a network of dry stone walls, with some hedges and trees, including pollards • Rich historic environment including Neolithic stone circles, bronze age clearance cairns, Roman forts, Norse place names and crosses and key elements of the farmed and industrial landscape dating from the medieval period • Cultural heritage linked to the picturesque and the Romantic Movement and significant in the foundation of the conservation movement, with houses, burial places and specific features that inspired ideas, art and poetry • Local stone-built farmsteads, hamlets and villages along the valleys, with the small market towns of Keswick and Ambleside, which expanded from Victorian times with the growth of tourism • Tourism and recreation with large numbers of visitors attracted by the natural beauty of the area, its wildlife, cultural heritage and access opportunities for walking, climbing, water-based and other activities • Large areas of relative tranquillity.
NCA 19 South Cumbria Low Fells	<ul style="list-style-type: none"> • Undulating, rugged low fells and ridges of Silurian slates and fissile mudstones radiate in a north–south orientation from the eroded central dome of the Cumbria High Fells, dissected by U-shaped valleys, which include the large lakes of Windermere and Coniston Water • Open fells, over 300 m in height, with craggy ridges, rocky knolls and infrequent woodland and tree cover • Mosaic of fell habitats, including upland heathland, valley and basin mires, springs and flushes, lakes, tarns, juniper scrub, upland calcareous grassland and lowland dry acid grassland, among fast-flowing rocky becks, rough pasture, bracken beds, and small broadleaved and coniferous woodlands • Extensive ancient, semi-natural woodlands, especially in the central area of South Cumbria Low Fells, extending from Coniston Water and the River Crake to the Winster Valley, and contiguous with large conifer plantations and mixed woodland in Grizedale and the surrounding area

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> • Rivers and streams drain southwards from the uplands, and flow through the area in a distinctive north–south orientation to drain into the Duddon Estuary or Morecambe Bay • A pastoral landscape, consisting of small secluded and larger open valleys and fells, with generally small- to medium-scale enclosures that increase in size towards the east • Open, semi-improved pasture on a plateau between the rivers Kent and Lune, with a shallow relief of ridges and hollows • Well-managed land with a parkland character is associated with the edges of the principal lakes, valley bottom locations and large country house estates • Villages, hamlets, farmsteads, farm buildings, villas and large country houses, with local building materials varying from limestone and slate in the south, to sandstone and slate elsewhere. Some buildings are lime-rendered, giving them a characteristic white exterior • Historic field systems dating from medieval times, with well-maintained drystone walls forming strong patterns and boundaries. Sheepwalks, (areas of grassland where sheep can roam freely) established on the fells from the 13th century, are also historic landscape features • There is an intricate pattern of undulating and twisting minor roads that serve the scattered hamlets and farmsteads • This is a significant tourism and recreational area, with large numbers of visitors attracted by the natural beauty, the wildlife, the cultural connections, and the opportunities for walking, cycling, running, climbing and water-based activities, among other pursuits.
NCA 20 Morecambe Bay Limestones	<ul style="list-style-type: none"> • A flat lowland landscape, dominated by conspicuous, often steep-sided, hills of Lower Carboniferous Limestone, many of which include exposures of limestone pavement. Between the hills the landform is geologically recent, including areas of drumlin field, fluvial and estuarine sediment and peat bogs • Wide expanses of shifting intertidal sand flats and expanses of salt marsh arcing round the head of Morecambe Bay, backed by low cliffs with windswept trees, or grassed embankments defending reclaimed grazing marshes • The rivers Kent and Leven enter Morecambe Bay via dynamic estuary systems. The smaller rivers Winster, Bela and Keer lie predominantly within this NCA and have relatively extensive flood plain areas before flowing into the channel of the River Kent as they enter Morecambe Bay • The limestones support a mixed pastoral farming and woodland landscape, often in tight mosaics, with orchards surrounding the farmsteads and fields bounded by limestone drystone walls • A winter climate ameliorated sea which, as well as the exposed south facing slopes of the limestone outcrops allows a number of temperature sensitive species to make this the northmost fringe of their range • Strong contrasts between the rectilinear enclosures of reclaimed valley bottoms and coastal fringes, and the older enclosures associated with farmsteads and ancient woodland, bounded by limestone drystone walls, on the limestone escarpments • Extensive areas of native broadleaved woodland on limestone areas, particularly on the steeper slopes and thinnest soils • An abundance of high-quality semi-natural habitats of national and international importance, including limestone pavements, herb-rich grasslands with juniper, species-rich scrub, ancient limestone woodlands, peaty fenlands, marl tarns, reedbeds, lowland raised bogs, salt marshes and intertidal mud and sand flats • An exceptional range of species associated with the diverse range of seminatural habitats, many with populations of national importance, including a suite of limestone butterflies, bittern, marsh tit and lady’s-slipper orchid

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> • Within the drumlin field to the south of Kendal, a gently undulating farmland of pastures and arable, divided by drystone walls made of field stone, with a limited cover of broadleaved woodland • Sheep and cattle graze the pastures and salt marshes, with rough grazing a feature of the higher grounds on unimproved limestone grassland • Extensive areas of reclaimed land on the coastal fringe and in the Lyth Valley have large fields bounded by ditch-flanked hedgerows. Lowland raised mires surrounding the limestone outcrops have been reclaimed for agriculture • Several stately homes set in parkland landscapes with well-maintained gardens • A vernacular building style common to all settlements and farmsteads based on the use of local limestone for walls and Lake District slate • Settlements are generally dispersed and rural in character, having usually grown around large farmsteads. Larger centres include Grange-over-Sands, Arnside, Silverdale and Milnthorpe, some of which have a seaside resort character, reflecting the growth in the use of the area for recreation from the 18th century onwards • A range of visible heritage features including burial mounds, stone circles, prehistoric settlements and enclosures, medieval field patterns, the Lancaster Canal and Second World War airfields • An extensive rights of way network, particularly on areas of limestone geology, integrated with areas of permissive access land.
NCA 32: Lancashire and Amounderness Plain	<ul style="list-style-type: none"> • A rich patchwork of pasture, arable fields and drainage ditches, on a relatively flat to gently undulating coastal landscape • Extensive views across the plain, within which small to medium-sized blocks of mixed woodland (wind-sculpted near the coast) provide punctuation and vertical accents • Thickly blanketed by glacial till, with poorly-drained peat-filled hollows that give rise to mosses and meres (now mainly remnants) • Medium-sized to large fields form an open, large-scale agricultural landscape. Pasture is more dominant north of the Ribble Estuary, with arable to the south. There is a high density of relict pastoral field ponds on the east side of the NCA • Localised areas of intensive market gardening provide seasonally varied colours and textures • A complex network of wide meandering rivers, raised drainage ditches and dykes divide and drain the landscape. Along with fragmented relicts of reedbeds and mosses, and historic place names, these provide a reminder of the area's heritage of wetland reclamation • Coastal habitats and large areas of open water are of international importance for their migratory and wintering wildfowl and wading bird populations • Mixed arable and pastoral farmland habitats support a nationally important assemblage of breeding farmland bird species • A complex network of channelised rivers, canals, drainage ditches and dykes supports a nationally important population of water vole • The Fylde coast, which extends from Fleetwood in the north to the mouth of the Ribble Estuary, includes significant urban areas along the coastal strip (such as Blackpool and Fleetwood) • Urban settlement is concentrated in the planned Victorian coastal resorts (including Blackpool) and inland towns (the largest of which is Preston) • The Ribble Link, Lancaster Canal, and Leeds and Liverpool Canal all cross the NCA • Designed landscapes associated with large houses are locally common in the south, where they provide enclosure in an otherwise open landscape

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> • A rectilinear network of lanes and tracks – usually without fences or hedges – subdivides the landscape, and isolated brick farmsteads occur in rural areas • Tourism is an important contributor to the local economy, with many opportunities for informal recreation – particularly along the Fylde coast • Several long-distance paths cross the NCA, including the Lancashire Coastal Way, the Ribble Way and the Wyre Way, as well as canal towpaths.

English Seascape/Marine Character Areas (MCAs)

MCA 31: St Bees to Haverigg Coastal Waters	<ul style="list-style-type: none"> • A sandstone coast, with Triassic rock extending south from St Bees Head to Haverigg Point. The same sandstone extends offshore, giving way to mudstones and halite in the southwest • The rivers Esk, Mite and Irk meet at the coast at Ravenglass, forming a distinctive trident-shaped tidal estuary. Broad dune systems have built up either side of the main channel • Elsewhere, a long, smooth coast without significant indentation. The broad foreshore comprises sandy beaches with areas of shingle and exposed wave-cut rock • The foreshore and seafloor are mainly sandy, with more mud further offshore as well as overlying glacial till and gravels • Rocky scars project some way offshore in several locations, most notably at Selker Rocks some 2km from the High-Water Mark, and Kokoarrah Scar off the Drigg dunes • The shallow sea slopes gently out from the coast towards the 20m depth contour, which represents a gradual transition into the adjacent MCA, with significant areas of less than 10 m depth • Very limited low-energy tidal flows, of less than 0.5 m/s • The Cumbria Coast Marine Conservation Zone (MCZ) and protects rocky and sandy habitats and peat exposures, from St Bees to the Esk. The Esk estuary and adjacent dune systems are protected at an international level • Haverigg Point, at the east edge of the Duddon Estuary, is protected at numerous levels for its intertidal habitats, and the area between here and the Esk provides an important area for foraging tern species • A particular concentration of shipwrecks is recorded off Haverigg Point • Britain's 'Energy Coast', with nuclear power having been generated at Sellafield from the 1950s to the early 21st century. The extensive plant remains a significant visual presence in views from land and sea • Military firing practice range based at Eskmeals on the dunes near Ravenglass; the range extends out to sea • An onshore wind farm is located at Haverigg, with offshore wind farms visible to the south (see MCAs 32 and 38) • Although there are no harbours on this coast, small yachts can moor at Ravenglass, and there are medium-use recreational sailing routes following the coast • Fisheries are limited but include crab, lobster, mussels and winkles around Ravenglass, and netting for bass, cod and thornback ray along the coast • Caravan parks located along the coastline, associated with the sandier stretches of foreshore. Ravenglass is a tourist centre in this part of the Lake District National Park
--	--

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> • This area of sea is highly visible from land, including in views from the fells of the southwest Lake District National Park that look out to the Isle of Man: in turn it forms part of the seascape setting of the designated landscape • The higher hills in the southwest Lake District, including Black Combe, are prominent features in views from the sea, as is St Bees Head in the north • This MCA forms part of the seascape setting of St Bees Head Heritage Coast, in views south along the coastline • An undeveloped coastline with no large settlements. The exception is the nuclear power station and associated industrial development at Sellafield, at the mouth of the Calder • A strong sense of tranquillity with dark night skies, particularly between Ravenglass and Millom.
MCA 32: Walney Coastal Waters and Duddon Estuary	<ul style="list-style-type: none"> • Gently shelving, muddy sand seabed, extending from the coast and edges of Morecambe Bay westwards to a depth of around 20 m • The exception to this bathymetry is Lune Deep, a glacially incised channel over 10 km in length which reaches 86 m depth at one point • Glacial processes and subsequent movement of coastal sediments carried by strong tidal currents have resulted in a distinctive coastal landscape • Complex sediment movement resulting in the development of ness/foreland dunes at several locations in the Duddon Estuary. There are also spit dunes at North Walney, formed largely from river sediment • Walney Island is the largest barrier island in England, formed from glacial till and alluvium, and has been extended northwards and southwards by recurved shingle spits • International designations reflect the importance of the intertidal habitats, including sand dunes, vegetated shingle, salt marsh and lagoons supporting a rich birdlife • Offshore there are important subtidal habitats, protected by the West of Walney MCZ and Shell Flat and Lune Deep Special Area of Conservation (SAC) • Piel Castle is a reminder of the earlier history of the area. Built in the 14th century by the abbot of the wealthy Furness Abbey, it provided protection for trading vessels using the harbour at Barrow • Natural systems have been much modified over time; much of the coastal marshland has been drained over the centuries to provide farmland • A chain of coastal defences dating to WWI and WWII, including pillboxes and observation posts, are reminders of the importance of Barrow's shipyard • Barrow-in-Furness has been a major ship-building centre from the 19th century. It continues to be a centre for building the UK's nuclear submarine fleet, requiring the Walney Channel to be heavily dredged • Lune Deep is important as a shipping access route through the sand banks and flats into Morecambe Bay • Significant shoreline protection works line the Duddon Estuary and Barrow area, with the coastal railway line forming an important sea defence • Four wind farms lie off the coast, forming prominent moving structures within the seascape • A 34 km long pipeline from the Morecambe Bay Gas Field, located in MCA 38, supplies the Rampside Gas Terminal to the east of Walney Island

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> • The waters of Duddon Estuary, Walney Channel and Foulney spit support harvested mussel beds, crab and lobster fisheries, and occasional cockles • Other fisheries include crab and lobster potting, cod, bass and thornback ray netting, and sole and flatfish beam trawling in the Lune Deep • Inshore areas support seagrass and are important as nurseries for pelagic and demersal fish species such as herring and plaice • There are important bird colonies around Walney Island, as well as Cumbria’s only colony of seals • Wildlife and heritage are the principal attractions for visitors, with recreational angling also important for tourism • There is a marked contrast between natural and man-made elements on the land, coastline and sea, creating a distinct sense of place • Views out from the south extent of the Lake District National Park are dominated by the undeveloped Duddon Estuary which forms a significant component of the Park’s setting in this locality • Views out to sea from Black Combe and the southern Fells into the MCA are a significant characteristic of this part of the Lake District National Park • Views inland have the backdrop of the Lake District’s mountains and industrial elements: views offshore feature the Isle of Man and the Galloway coast in Scotland.
MCA 33: Morecambe Bay	<ul style="list-style-type: none"> • A shallow bay, mostly less than 10 m deep and often below 5 m, with a complex coastline incorporating the estuaries of four large rivers: the Leven, Kent, Keen, Lune and Wyre • Receives sand and mud from the surrounding hills and coastal sediments carried from the south by strong tidal currents and large tidal range of 10.53 m • Intertidal estuarine flats of fine sand and mud, interlaced by a system of shifting tidal channels, creating a dynamic and changing seascape • The largest continuous intertidal area in Britain, with over 310 km² exposed at low tide. Harbours are a long way inshore, with approach and exit normally only possible at high tide • Glacial till forms many coastal features, including Carboniferous limestone cliffs along the Silverdale coast to the north of the Bay. Foulney Island is a notable shingle feature • Accretion is causing salt marshes to grow, with regular maintenance required to remove silt from shipping channels. Erosion is also occurring in places along the west shores. This erosion and accretion is a natural process and is affected by man-made structures. The channel dynamics of the Kent estuary have a major influence, cyclically scouring away coastal salt marshes and depositing the material elsewhere • Natural systems much modified over time by human intervention: much of the coastal marshland has been drained for farmland. Coastal defences continue to be developed in places • Morecambe Bay’s salt marshes, sand and mud flats and rocky skaers are designated at an international level and support large populations of wintering waterfowl, waders and seabirds • Until the 19th century the sands of the Bay were used, at low tide, as a principal access route between the Lancashire and Cumbrian coasts. Access can still be taken, led by the Queen’s Guide to the Sands, an ancient royal appointment

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> • The collection of cockles, mussels and shrimps, traditionally using shallow-drafted Morecambe Bay prawners, was historically an important part of the Bay's economy • The Bay is a valuable source of seed mussels, which are exported for planting in other estuaries. Aquaculture for oysters has also become established • Although the fishing industry is much declined from former years, the Bay remains important for high value commercial cockle and mussel fisheries, plus other commercial fishing for brown shrimp, crab and lobster, bass, flounder, sole, plaice, mullet, turbot, whitebait, codling, flatfish and thornback ray • The construction of the Lancaster Canal and the arrival of railways led to a more rapid development of trade and tourism centred on Morecambe. The Arnside Viaduct remains a key feature in the bay. Fleetwood was also developed as a major fishing port • Morecambe remains the focus for tourism in the area, though Arnside and Silverdale and the Furness coast are popular for less intensive tourism. Recreational angling is also important for tourism • The Port of Heysham plays a key role in providing freight services to the Republic of Ireland and Northern Ireland and passenger services to the Isle of Man. Heysham nuclear power station is a notable visual landmark from coast and sea • Away from urban areas a strong sense of tranquillity and isolation results from the expansiveness of views and general absence of development • This is a very animated landscape, with the character of the Bay's surface constantly changing, through the interplay of tides and light and the movement of its birdlife • There are panoramic vistas across the bay from all directions, including views from the Lake District National Park, Forest of Bowland National Landscape, and Arnside and Silverdale National Landscape (e.g., Arnside Knott) • Morecambe Bay forms a key component to the seascape setting of the Arnside and Silverdale National Landscape. In turn the elevated land of the protected landscapes forms a scenic backdrop to views across the Bay from its seaward side.
MCA 34: Blackpool Coastal Waters and Ribble Estuary	<ul style="list-style-type: none"> • A shallow, coastal area no more than 20 m deep, shelving very gently down from the low-lying Lancashire coastal plain • Shallow waters and a high tidal range (up to 9.8 m at Lytham St Anne's) backed by extensive sandy and muddy/sandy beaches, intertidal sand flats and mudflats • Complex coastal processes, with a high rate of movement of sand and shingle, although sea defences limit this in places • Frequent storm surges, combining with high tides to cause flooding. Man-made barriers protect most of the coast, and sand bars, salt marsh and dunes also provide a natural defence • Beyond the sandbanks, the Ribble Estuary is a landscape of intertidal salt marshes, pierced by dendritic creeks • Along the Sefton Coast the landscape is dominated by sand dunes, stretching over 17 km long. Around Formby and Ainsdale the dunes reach over 20 m high, forming dominant features. • The protected dune systems support internationally and nationally important species including natterjack toad and sand lizard • The Ribble Estuary and the Sefton Coast dunes have distinctive character, and in places, when screened from urban influences, a sense of remoteness and wildness • Large intertidal areas are internationally designated for their importance for migratory wildfowl, wading birds and sea birds

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> • The extensive Liverpool Bay Special Protection Area (SPA) includes all of this coast and supports common scoter and red-throated diver. The Fylde MCZ includes extensive areas of subtidal sediment habitats typical of the area and overlaps with the Shell Flat and Lune Deep SAC • At Formby Point, coastal erosion of the foreshore has revealed preserved human, animal and wading bird footprints dating from the Mesolithic Period (7,000–5,000 years ago) • Coastal waters and the Ribble Estuary are important nursery areas for commercially fished species such as herring, plaice, Dover sole and bass • The Ribble Estuary supports commercial fisheries for brown shrimp and cockles. Other commercial fisheries in this MCA include mussels, bass, crab, lobster, flatfish and thornback ray. • The Lennox Oil and Gas Field, one of five interlinked sites currently operational in Liverpool Bay, is located in the southwest part of the MCA • The Fylde Coast, in particular, is now very urbanised, with much industrial development e.g., around Blackpool and Preston • The marshy coastal area was sparsely populated until the 19th century, when land drainage enabled agriculture and the railways boosted tourism, most notably for Blackpool and Southport. • In addition to urban and beach-based tourism the coast is popular for bird watching, with a number of national and local nature reserves providing facilities for visitors. Recreational angling is also an attraction • There are a number of prominent landmarks on the developed areas of coast, such as Blackpool's tower, pier and rollercoaster • From the coast there are long views to the mountains of North Wales and the Lake District, and from the Sefton Coast shipping lanes, wind turbines and oil and gas infrastructure are visible.
MCA 35: Inner Liverpool Bay	<ul style="list-style-type: none"> • A gently shelving coastal zone, from around 5 m depth where it gives way to the inshore area of sand banks, mud flats and channels approaching the Mersey and Dee estuaries – to around 20 m in the west and north • The seabed is covered with Quaternary, mostly glacial and post-glacial sand and gravel deposits. These are underlain by mudstones and halite • Large quantities of material dredged from estuary areas, such as the Mersey docks, have been deposited in this part of Liverpool Bay since Victorian times • The semi-enclosed character of the Irish Sea means that wave heights are generally low • Several species of phytoplankton are noted for causing blooms in Liverpool Bay, the most visual expression of this being the 'red tides' associated with invertebrate mortalities • Spawning grounds for whiting, Dover sole and plaice extend southward and eastward as far as the north and west parts of the MCA • The whole of the MCA, along with other shallow waters along the northwest coast, is important as a nursery for pelagic and demersal fish species, including herring, plaice and Dover sole • Contains important foraging grounds sustaining the significant populations of red-throated diver, common scoter and terns, internationally designated as part of the Liverpool Bay SPA • Further offshore, cetaceans are found including dolphins, porpoise and occasional whales

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> • A busy area for commercial shipping, with the majority of vessels entering the Mersey passing through it. There is also moderate usage by recreational craft, including recreational anglers, as well as passenger ferries • An important area for oil and gas extraction. One of the five interlinked sites is the Hamilton East Gas Field, connected by pipeline to the Hamilton North Gas Field in MCA 38: Irish Sea (South) • More recently, offshore wind farms have been developed in this area • An area in the southwest of the MCA, and extending further west, is licensed by the Crown Estates for the dredging of marine aggregates, landed at Liverpool to supply the local market • MCA widely visible from land in its southern parts. The closer coasts are low lying and unlikely to be prominent in views from the sea, for example from the ferries which cross this area • The offshore platforms, shipping activity and offshore wind turbines also influence views and perceptual qualities at night-time.
MCA 37: Irish Sea North (England)	<ul style="list-style-type: none"> • Underlain largely by rocks of the Triassic period, with small areas of Carboniferous rock west of the Isle of Man with potential hydrocarbon deposits • The deep basin, formed by a syncline, is filled with deep Permo-Triassic mud, sand and gravel sediments which completely obscure these rocks • The resulting sea floor is relatively even, shelving gently down to the west from around 20 m depth to around 40 m, only becoming deeper in very small areas to the northwest • The east tip of the King William Banks is within the MCA, where water depth is less than 10 m. These banks extend westward into Isle of Man waters • A calm sea with low tidal energy and flows, rising only slightly across the north part of the MCA where the Solway flows out • Areas of sea-bed mud support <i>Nephrops</i> (Dublin Bay prawn) as well as crabs, shrimp, sea urchins and hydroids. In the far south of the MCA these mud habitats form part of the West of Walney MCZ. Brittlestars are typical of more sandy areas • Spawning grounds for commercially exploited cod, whiting and plaice occur within this MCA • Cetaceans are found in this area, including dolphins, porpoise and occasional whales • Relatively few wrecks, reflecting the lower levels of activity and/or calmer seas, though a number of ships are known to have foundered off St Bees Head in the northeast of the MCA • There are no fixed offshore structures in this MCA, and only a single light buoy at the east tip of the King William Banks, giving the MCA an undeveloped character • Extensive military live-firing ranges cross the MCA, centred on Eskmeals Range off the Cumbrian coast and Kirkcudbright Range off the Scottish coast, resulting in potential for unexploded ordnance on the seabed • The principal fishing activity is benthic trawling for <i>Nephrops</i> by boats from Fleetwood, Whitehaven and further afield. Other important fisheries include bass, thornback ray, cod, codling and flatfish • Some recreational sailing routes cross the area, noted as medium or light use, connecting the ports of Whitehaven, Douglas and Ramsey • Under clear conditions, there is intervisibility with the hills of the Lake District National Park, the Dumfries and Galloway coast, and the Isle of Man

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
MCA 38: Irish Sea South (England)	<ul style="list-style-type: none"> • With an absence of offshore lights, there are dark skies across this MCA. • Seabed primarily comprising Triassic mudstones and sandstones, with volcanic dykes running across the north edge that coincide with shallower waters • The sea becomes steadily deeper from around 20 m in the east to just over 40 m at the westmost point – with shallower waters associated with the volcanic dykes • Sand, mud and gravel seabed deposits sitting on deep layers of glacial till deposited during the Pleistocene glaciation • Tidal flows are generally quite weak, only becoming slightly faster along the south-west edge of the MCA • West of Walney MCZ protects areas of mud habitat, supporting Nephrops (Dublin Bay prawn) as well as other molluscs, sea urchins and sea pens. There are high densities of brittlestars in more sandy areas • Spawning grounds for commercially exploited cod, Dover sole, whiting and plaice. Scallops, queen scallops and Nephrops are targeted by trawlers • A series of offshore oil and gas platforms. In the north the Morecambe, Calder and Millom fields supply gas via pipelines to Barrow-in-Furness • The Hamilton and Douglas fields in the south deliver their gas to Point of Ayr in North Wales, while oil from these fields is transferred to tankers • Dredging for aggregates is carried on in the north in the shallow sea east of the Isle of Man, and in the south in the vicinity of the Douglas oil field • Walney Offshore Wind Farm extends west into this area from MCA 40, close to the North Morecambe gas platforms • Several key shipping routes cross this sea, adding to the busy nature of the waters. These routes include the approaches to the major ports of Fleetwood and the Mersey • Many ‘medium use’ recreational sailing routes criss-cross the MCA, linking all the harbours on the English, Welsh and Isle of Man coasts • The coast is relatively distant from this MCA, and the nearest areas are low-lying, meaning that there are low levels of intervisibility with the land. Under clear conditions, there is intervisibility with the hills of the Lake District National Park and the Isle of Man • Lighting from the offshore platforms and wind turbines influences night-time seaward views • The area is viewed from ferry services which link Liverpool and Heysham with Douglas, Belfast and Larne.
Wales National MCAs	
MCA 04: North Wales Open Waters	<ul style="list-style-type: none"> • An offshore MCA where depth increases gradually from approximately 15 m below chart datum near Conwy Bay to over 60 m in the northwest • A thin layer of mostly coarse quaternary sediments overlying Carboniferous and Triassic sedimentary bedrock. Finer sand is found in the southeast of the MCA • Includes a significant proportion within the Liverpool Bay SPA and Menai Strait and Conwy Bay SAC • A rich variety of life on the seabed and high levels of phytoplankton in the water provides important feeding grounds for sea birds, particularly in the southeast. Marine mammals including bottlenose dolphin and grey seal can be sighted

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> • Moderately strong eastwest tidal currents. The strongest currents are found in the southwest • A number of wrecks can be found in the MCA, including collisions owing to busy approaches to the Mersey, wartime losses, and losses from mine-laying activity • Dominant maritime character is one of transit: recreational vessels entering or leaving the Menai Strait/Conwy Bay, or commercial vessels passing east and west to and from the Mersey and Dee • Includes the former Mersey Docks and Harbour Board's spoil dumping ground in the northeast corner • Large fishing boats target demersal fish and scallops offshore with smaller potting boats seen closer to the coast • Gwynt y Môr offshore wind farm dominates the east of the MCA, and to the north – access is restricted around the Douglas Oil Field (marked by a series of lit buoys and shipping lanes depicted on marine charts) • Commercial shipping seen offshore, including large vessels waiting for Liverpool Pilots to guide them safely into port • Recreational boats are a feature particularly in the southeast of the MCA during the warmer months • Several wrecks are visited by recreational divers and diving clubs, including the HMS Derbent, Cartagena, Kincorth, Delfina, Cork and Vigsnes. The wreck of the Resurgam is a designated wreck • The landward view changes considerably throughout the MCA, with rocky headlands, islets and large bays found to the west and the large shallow opening of Conwy Bay to the east, with a backdrop of the mountains of Eryri.
MCA 05: Northwest Anglesey Open Waters	<ul style="list-style-type: none"> • The seabed drops steeply away from the north coast of Anglesey, with water depth greater than 30 m bathymetry, increasing to more than 80 m in the northwest • Preserved glacial bedforms found offshore. Fine sediment particles are suspended in the water resulting in a substrate of mostly exposed Precambrian rock and boulders with shallow patches of coarse gravel, pebbles and cobbles • Robust fauna colonising the harsh seabed environment supporting a mixture of demersal fish species. Marine mammals are frequently sited • Sand scour limits the amount of life found on the rocks particularly in the south. In lower energy areas diverse reef communities are found with many filter feeders • Strong/very strong tidal currents and wave climate, particularly to the southwest • A large number of wrecks, including from both World Wars, representing a wealth of seafaring heritage • Wartime losses include the Apapa which was sunk by a U-boat in 1917, and HMS Westphalia which was also sunk by a U boat • Lobster and crab potting takes place closer to the shore, with whelk potting, trawling and scallop dredging occurring elsewhere • Glimpses of ferries and the Holyhead harbour breakwater are signs of significant human activity in adjacent MCA 24, while commercial shipping can be seen passing further offshore • Recreational boats can also be seen in coastal waters during the warmer months • The Skerries are prominent seascape features viewed from this MCA, with the Isle of Man and Holyhead Mountain also visible in clear conditions • In the south, visual relationships with the adjacent rocky north coast of Anglesey, with small bays and inlets, which contribute to character

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> The box-like form of Wylfa Power Station forms a prominent man-made feature in views to the coast, standing out against a rugged and open coastal scene.
Welsh SSZs	
SSZ No. 1: North East Wales Inshore	<ul style="list-style-type: none"> The area is located off the north coast of Wales from the Great Orme east to the Dee estuary To the east is large scale open, relatively straight coastline with a large proportion of urban settlement, the tourism is focussed on beach holidays. There are already a wind farm and gas developments offshore which act as lit vertical foci with related boats. To the west the settled coast becomes embayed with headlands and more formal promenades terminating in the distinctive landform of Great Orme The area's lies particularly in the elevated views from Conwy Mountain and the Carneddau to the southwest and from the Great Orme Country Park. There is also susceptibility in views from the north tip of the Clwydian Range and from the framed views from Llandudno and from Colwyn Bay including the promenades. The area's value lies in its proximity to the Eryri National Park to the southwest and the Great Orme Heritage coast as well as views from Conservation areas (e.g. Llandudno) and listed buildings along the coast. There is potential for combined cumulative effects on the Great Orme and Eryri if further wind farms or extensions extend west, especially closer to shore.
SSZ No. 2: North East Wales Offshore	<ul style="list-style-type: none"> The area is located offshore from the north coast of Wales from the Great Orme east to the Dee estuary The zone lies in open sea with the north edge of Gwynt y Môr Offshore Wind Farm located on its southern margins and the Douglas oil and gas complex nearby. Beyond this to the south are further wind farms and the northeast Wales coast which has large scale open, relatively straight coastline to the east and embayed coastline with headlands and the distinctive landform of Great Orme to the west. The coast has a high proportion of urban settlement focussed on residential and tourism, with caravan and beach holidays to the east and Victorian resorts with associated promenades mainly to the west The area's susceptibility lies particularly in the elevated views from Conwy Mountain and the Carneddau to the southwest and from the Great Orme Country Park. There is also susceptibility from the north tip of the Clwydian Range and from the framed views from Llandudno and from Colwyn Bay including the promenades. The area's value lies in its location offshore from the Eryri National Park to the southwest and the Great Orme Heritage coast as well as views from Conservation areas (e.g. Llandudno) and listed buildings along the coast.
SSZ No. 3: North Wales and North Anglesey Inshore	<ul style="list-style-type: none"> The zone is located inshore between Great Orme to the east and North Stack, Holyhead Mountain on Anglesey To the east the settled coast is backed by the mountains of Eryri (Carneddau) and framed by the high cliffs of Great Orme's Head to the east and Puffin Island and the coast of Anglesey to the west. Anglesey generally has a lower plateau topography with resultant low cliffs and slopes, apart from the distinctive form of Holyhead Mountain which terminates the area with high sea cliffs to the west. Anglesey's north coast is rocky and convex meaning development out to sea would be largely unscaled whilst its northwest and east coasts have a series of small embayments and coves with associated small settlements and holiday accommodation in places. Industrial features such as Wylfa have now become disused, but structures may remain juxtaposed with onshore wind farms inland. The sea is open and exposed with commercial vessels running to and from the Mersey ports and ferries issuing from Holyhead's busy harbour The area's susceptibility lies particularly in the elevated views from Conwy Mountain and the Carneddau from the south, from Great Orme Country Park to the east, and from the rural Anglesey coastal fringe with associated Coast Path. Views north from the mainland could be affected if wind farms are seen in conjunction with Beaumaris or Puffin Island. The area's value lies in its proximity to the Eryri National Park and Great Orme Heritage coast to the south east, and Anglesey National Landscape (and associated heritage coast) to the south and

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<p>west as well as juxtaposition with the world heritage site at Beaumaris, and scheduled monuments along the coast. Particularly sensitive receptors on Anglesey include users of Penmon Point, Red Wharf Bay and Holyhead Mountain and the coast has some tranquillity and remoteness especially towards the north.</p>
<p>SSZ No. 4: North Wales and North Anglesey Offshore</p>	<ul style="list-style-type: none"> • The area is located offshore between Great Orme and Holyhead Mountain on Anglesey • The area lies in open sea offshore from Anglesey and the north Wales coast with the Isle of Man to the north. To the south east lies the Great Orme and Eryri but the area is closest to the north coast of Anglesey from Lynas Point running round west to Holy Island. Anglesey generally has a low plateau topography with resultant low cliffs and slopes, apart from the distinctive form of Holyhead Mountain which terminates the likely affected coastline to the west. Anglesey's north coast is rocky and convex meaning development out to sea would be largely unscaled whilst its north west and east coasts have a series of small embayments and coves with associated small settlements and holiday accommodation in places. The main built coastal landmark is Wylfa nuclear power station but structures may be seen juxtaposed with onshore wind farms inland. The sea is open and exposed. Commercial vessels running to and from the Mersey ports and ferries issuing from Holyhead's busy harbour tend to pass between this zone and the coast • The area's susceptibility lies particularly in the elevated views from Great Orme Country Park to the south east, from the rural Anglesey coastal fringe with associated Coast Path and from Conwy Mountain and the Carneddau from the south. The area's value lies in its location offshore from the Anglesey National Landscape (and associated heritage coast) to the south, Eryri National Park and Great Orme Heritage coast to the south east, and scheduled monuments along the coast. Particularly sensitive receptors on Anglesey include users of Penmon Point, Red Wharf Bay and Holyhead Mountain and the coast has some tranquillity and remoteness especially towards the north.
<p>SSZ No. 5: North Wales and Anglesey Outer Offshore</p>	<ul style="list-style-type: none"> • The zone is located in the outer offshore area running from Liverpool Bay between North Wales and the Isle of Man south west to the St George's Channel • The area lies in open sea at least 44 km offshore from the Anglesey, North Wales and Llŷn peninsula coasts although the zone's north edge is located around 22 km from the Isle of Man. To the south east there are the existing arrays at Gwynt y Môr and further arrays lie to the north east including Walney and West of Duddon Sands. Anglesey predominantly has a low plateau topography and rocky coastline with a distinctive high point at Holyhead Mountain. Development out to sea would be largely unscaled in views. More elevated views are possible north from the north Wales coast at Great Orme and Conwy Mountain. The Llŷn peninsula also has cliff top views to the north east towards the south west extent of the zone. The sea is open and exposed with commercial vessels running inshore from this zone to and from the Mersey ports, and ferries issue from Holyhead's busy harbour • The area's susceptibility lies predominantly in combined views from Anglesey and Llŷn National Landscapes offshore from Caernarfon Bay where development may be apparent in sunset conditions. The least susceptible area lies to the north east as this is located in further out to sea than existing wind, oil and gas development to the south and east. The value associated with the zone lies in its relationship with Anglesey and Llŷn National Landscapes and associated heritage coasts, Eryri National Park and Great Orme Heritage coast. Particularly sensitive receptor locations include Holyhead Mountain, Bardsey Island and the tip of the Llŷn peninsula, Point Lynas and Carmel Head.
<p>Landscape Character: Isle of Man</p>	
<p>LCA A1: Northern Uplands</p>	<ul style="list-style-type: none"> • Open exposed moorland underlain by the Manx Group rocks • Rounded smooth peaks and spurs

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> • Narrow steep sided V-shaped upland burns/streams with low vegetation • Large coniferous plantations with abrupt edges • Combination of moorland vegetation and rough pasture • Upland Hill farming on lower slopes and sheep grazing • Busy A-roads, with distinctive road markings and viewing platforms created for the TT races • Largely devoid of built structures except isolated white-washed farmhouses and scattered dwellings • Fragmented historic field patterns and abandoned dwellings • Various historic features: sites such as stone circles, scattered over the area • Smooth and uninterrupted skyline, except for visually prominent telecommunication towers on top of Snaefell forming an Island-wide landmark • Tranquil and remote character away from the roads with evocative abandoned 'intact' farms in the area • Extensive and panoramic views of surrounding peaks and over the whole Island.
LCA A2: Southern Uplands	<ul style="list-style-type: none"> • Smooth rounded peaks • Expansive open moorland • Steep sided narrow upland valleys • Large coniferous plantations with abrupt edges • Abandoned fields, archaeological sites, historic features and traces of former and contemporary mining and quarrying activities • Largely devoid of settlements (villages, hamlets) but has scattered isolated whitewashed farms • Telecommunications masts form prominent landmark on smooth skyline near Carnagrie and on the west side of South Barrule • Numerous A-roads cut across the area with no delineation other than the odd stone wall or post and wire fence • Extensive open views out to sea and over whole Island • Smooth and uninterrupted skyline • Tranquil and remote character away from the roads • Extensive and panoramic views of surrounding peaks, over the southern part of the Island and down to dramatic coastal cliffs.
LCA B3: Cornaa Valley	<ul style="list-style-type: none"> • U-shaped wide open valley, enclosed by the relatively high Northern Uplands • Unsettled, other than at the valley mouth at the small nodal settlement of Corran • Exposed and open steep upper slopes covered in bracken, heather, gorse with some areas of exposed rock and scree • Faint overgrown geometric field pattern which strengthens in the bottom and lower parts of the valley where rough grazing is enclosed by Manx hedges

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> • Remnants of mining activity • Remote and tranquil character with little activity or movement • Channelled open views up the open and smooth valley to surrounding upland slopes • Numerous historic features, including abandoned mines, hut circles and St. Mary's • Chapel/Keeill Woirrey.
LCA B4: Laxey Glen	<ul style="list-style-type: none"> • U-shaped wide open medium scale valley • Disused mining buildings and access roads • Numerous small streams with waterfalls join main river valley • Steep bare slopes with scattered trees increasing in density with their canopies closing in the lower valley bottom, with lush riparian woodland alongside the River Laxey • Snaefell Mountain railway line runs along and cuts into the valley's south side • Faint field pattern overgrown on upper slopes strengthens downstream with small pasture fields organized geometrically • Fields enclosed by Manx hedges and some stone walls • Small clustered traditional upland settlement of Agneash, with low stone and white washed houses • Winding steep road from Laxey, enclosed by Manx hedges becomes a rough track that leads up to the valley's head • Sense of tranquillity and relative remoteness, diminished by the Snaefell Mountain railway • Channelled views up the textured valley to surrounding upland areas and the peak of Snaefell.
LCA B5: Glen Roy	<ul style="list-style-type: none"> • Three deeply cut valleys join, forming the V-shaped Glen Roy • Numerous scattered farms and outbuildings surrounded by trees provide a settled character • Deciduous woodland along the valley bottom and fragmented tree blocks alongside Manx hedgerows • Regular field pattern of medium to large rectangular fields is faint at slope tops and strengthens down the valley • Small fords and bridges where the sunken narrow winding and often enclosed roads cross the numerous vegetated tributaries • Roads edged in places by Manx hedges with grassed banks • Tranquil valley with varied and interesting textures and a rural character • Opened and channelled views up to the surrounding uplands • An evocative sense of abandoned fields on the upper slopes.
LCA B6: East Baldwin	<ul style="list-style-type: none"> • Deep, steep sided V-shaped small scale valley surrounded by sloping uplands • Various smaller tributaries in gullies join the Baldwin River's widening course from the surrounding upland area

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> • Dense deciduous woodland in valley bottom and on lower slopes • Strong regular pastoral field patterns on lower slopes fragment into patches of moorland vegetation on middle and upper slopes • Scattered hill farms and houses along extent of west valley side, accessible by variety of tracks • Narrow, partly single-track B21 road providing access, enclosed by overhanging trees and grassed Manx hedges with vegetation and gaps in an otherwise tunnel-like road corridor • Remote, rural and tranquil feel • Glimpsed views through vegetation to the surrounding open expansive upland areas.
LCA B8: Glen Helen	<ul style="list-style-type: none"> • Steep sided V-shaped river valley with an intimate scale • Dense deciduous valley bottom riparian woodland that creates an enclosed character • Numerous coniferous plantations on steep valley sides • Exotic trees and walkways in Victorian National Glen Helen • Numerous wooded tributaries • Road corridor enclosed by woodland with a low stone wall along the pavement in places when the road is higher than the river • Small stone houses clustered around river crossing points in the upper valley • Pastoral fields on upper valley sides merge into surrounding upland areas • Enclosed views throughout the majority of the lower valley due to the deeply cut nature of the valley and the prevalence of trees which open out in the upper valley to surrounding uplands • A moderate sense of tranquillity, detracted from by the presence of the road in the lower valley bottom, with a strong sense of tranquillity and remoteness north of Mullen Rhenass • Historic features including abandoned chapels and mills.
LCA C1: Greeba Valley	<ul style="list-style-type: none"> • A well treed and settled rural valley • Strong sense of enclosure provided by narrow central valley, which slopes steeply up to meet the upland areas both to north and south • Sense of enclosure enhanced by trees alongside A1 (Peel Road) and Greeba River • Sense of tranquillity on the upper slopes • Relatively flat valley bottom with fragmented woodland along the valley floor and lush riparian vegetation alongside Greeba River • Settlement limited to individual houses and clusters of housing strung out along the A1 • Few minor roads of the busy A1 • Predominantly small-scale irregular pasture fields but with elongated rectangular fields of rough grazing on the valley sides

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> • Patches of upland vegetations begin to appear along the upper boundary • Presence of Manx Milestones • Greeba Castle, with its numerous mature trees • Greeba River flowing along the base of the valley, fed by numerous streams descending from side slopes • Coniferous plantations at relatively low elevations near main road.
LCA C2: St. John's	<ul style="list-style-type: none"> • Undulating and relatively flat land with exception of rounded hill at Tynwald National Park • Interlinked and crossed by numerous enclosed roads, lanes and main roads • Fragmented woodland runs along area's numerous water courses and roads • Woodland blocks and hedgerow trees surround and enclose scattered medium sized and irregular shaped fields sandwiched between water courses and settlement edges • Well vegetated character enhanced by plantations on the north edge of the southern uplands • Historic centre of Island with Tynwald Hill, processional avenue and assembly field • Retail centre at historic St. John's Mill • Intimate, enclosed and settled character with linear settlement along the A30, A1 and tucked along the many lanes that criss-cross the area • Some tranquillity in the area away from the roads and alongside the river • Presence of Manx Milestones.
LCA C3: Union Mills, Glen Vine and Crosby	<ul style="list-style-type: none"> • A well treed and settled rural valley with a strong sense of enclosure along the River Dhoo valley floor near the roads and the river • Wide flat bottomed river valley with historic terraces on the more undulating north valley side • Settled character with the three notable settlements of Union Mills, Glen Vine and Crosby • Lush riparian vegetation and deciduous woodland surrounds the River Dhoo and relatively steep and pronounced south valley side • Deeply cut and densely wooded valleys of River Glass and River Dhoo • Mixed field pattern of predominantly rectilinear fields in a variety of sizes along the flatter valley floor becomes more elongated and rectangular fields of rough pasture on the lower slopes of the north upland • Sense of tranquillity on the upper areas of the slopes • Presence of Manx Milestones.
LCA D1: Ballajora and Ballaglass	<ul style="list-style-type: none"> • A tranquil, rural landscape of predominantly arable fields • Scattered settlement consisting of small, isolated farmsteads and hamlets, but also with several clusters of housing (e.g. at Port Lawaigue, Ballajora etc.) • Topography slopes upwards to the west, to meet the base of the Uplands and falls (quite steeply in places) towards the sea to the east

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> • Relatively steep and incised paths of Ballaglass Glen and the south section of Glen Mona dissect the area • Distinct, relatively small-scale, irregular field pattern but with medium-scale, more regular fields in northern part of area • Field boundaries generally delineated by low, mature Manx hedgerows, with occasional single mature trees visible • Several large patches of mixed semi-natural woodland (containing many mature oak, beech, larch and pine trees) provide a strong sense of enclosure within Ballaglass Glen • Network of minor rural roads, which are characteristically single track, sometimes sunken and crossed by fords • Dramatic, dominant rising uplands to the west, provide a strong sense of enclosure in parts • Generally strong sense of tranquillity, but much diminished in vicinity of Dreemskerry Quarry and Dhoon Quarry • B19 and A15 Roads • Manx Electric Railway.
LCA D2: Laxey	<ul style="list-style-type: none"> • Strongly sloping topography • Encompasses the wooded lower course of Laxey Glen • Small, traditional Manx settlement village of Laxey with its woodland backdrop • Small-scale, relatively regular field pattern is apparent to the north of Laxey • Distinctive red and white appearance of 'Lady Isabella Water Wheel' (Laxey Wheel) provides an instantly recognisable landmark, on approaches to the area • Quaint character of the tramlines and the instantly recognisable hoot of the tram horn (Manx Electric Railway), contribute to a unique character and sense of place • Settlement pattern consists of series of isolated farmsteads scattered throughout the area • Strong sense of enclosure within Laxey, provided by the steep wooded sides of the glen and valley • Dramatic views to an Upland backdrop to the north and west • Visual dominance of the sea, which contrasts with the coastal landform.
LCA D3: Conrhenny and Groudle	<ul style="list-style-type: none"> • Gently rolling topography, which is cut by a series of rivers • Contain the relatively narrow corridors of the Groudle and Ballacottier Rivers • Patchwork of organised pasture and arable fields delineated by a combination of hedgerows, Manx banks and visible drainage ditches • Patches of regular coniferous woodland plantations as visible landmarks with the surrounding landscape • Distinctive black and white Manx milestones lining the A2 road corridor • Series of scattered, isolated farmsteads (several of which have associated modern farm buildings) • Sense of enclosure provided by Uplands to the northwest • Open views to visually harsh red roofs of modern housing developments at the edge of Onchan dominate views southwards • Dramatic, panoramic views eastwards across the ever-changing colour and nature of the sea and sky, contribute to strongly recognisable sense of place.

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
LCA D7: Neb	<ul style="list-style-type: none"> • Flat flood plain alongside the River Neb • Dense woodland and lush riparian vegetation along river's banks • Fragmented woodland and tree belts away from river • Substantial hedgerows and Manx hedges dividing irregular shaped pastoral fields • Few scattered farm houses with outhouses hidden down overgrown un-metalled tracks • Peel golf course and the edge of the built up area of Peel • A semi-enclosed character overall but high degrees of enclosure along some sections of road • An abandoned railway • A moderate sense of tranquillity • Presence of Manx Milestones.
LCA D8: Peel	<ul style="list-style-type: none"> • Dramatic backdrop of the rising Northern Uplands to the northeast and Peel Hill to the west • Predominantly open rural character • Undulating land that slopes gently upwards to the east. Various small but notable rounded hills in the east of the area • Large, open pastoral and arable fields (with few trees) enclosed by Manx hedges • Some heath vegetation on rounded hilltops • Scattered farm houses surrounded by tree blocks, linked by small lanes and tracks • Built-up edge of Peel abruptly abuts surrounding field pattern in places and is fragmented elsewhere by fingers of built development • Two A-roads and an abandoned railway are conspicuous man-made linear features • Open quarry at Poortown • Presence of Manx Milestones.
LCA D10: Braaid	<ul style="list-style-type: none"> • Gently undulating land sloping down southeastwards towards the coast with numerous notable rounded hill tops • Rough heathland vegetation • Coniferous Chibbanagh Plantation on hill tops and higher exposed areas • Large open predominantly pastoral fields with low Manx hedges and gorse spreading from hedgerows into more elevated fields in numerous places creating a semi-upland character • Sparsely settled area with some scattered farmhouses surrounded by trees in an otherwise open and treeless area • Numerous historic settlements and elements such as long and round houses at Braaid and remains of Broogh Fort • Small gullies containing burns and low vegetation cut across the fields

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> • Mount Murray Golf course and associated buildings near the small linear settlement of Newtown, extending along the A5 • Sunken lanes enclosed by grassed Manx hedges with some gorse and thorn bushes growing on the top enclosing the road corridor.
LCA D11: Foxdale	<ul style="list-style-type: none"> • A rural landscape with a settled farmland character • Wide wooded river valley with various settlements along the A3 and A24 • Small-scale rectilinear fields in valley bottom around settlements becoming larger and fragmented with strong geometric pattern around Mount Pleasant • Predominantly slate houses with front walls consisting of slate and white granite tops • Undulating farmland with large arable and pastoral fields with intact field boundaries • Gently rounded hills • Large Archallagan coniferous plantation on abrupt edge on rounded hilltop • Hill farms surrounded by trees • Irregular sized and shaped fields of rough pasture on increasingly steep slopes that lead up to the Southern Uplands • Fields generally enclosed by robust Manx hedgerows, with gorse in upper parts of area and occasional trees in valley bottom • Moderate sense of enclosure provided by surrounding slopes • Sense of tranquillity reduced in areas close to the busy A3/A24 • Legacy of abandoned mines and quarries, with spoiled areas and disused buildings • An evocative sense of abandoned fields on upper slopes • Kionslieu Reservoir and Eairy Dam waterbodies • Well vegetated river corridor descending to Greeba Valley and St. John's.
LCA D12: Douglas Head	<ul style="list-style-type: none"> • Prominent gently rounded hill overlooking the coast with some steeper undulations in the north and south • Open and windswept with large scale predominantly rectilinear fields over the majority of the area and some patches of heath on the seaward and north areas as well as on the summit around Upper Howe Farm • Carnane Communications mast forms a distinctive landmark on skyline • Former Douglas Head Hotel and surrounding buildings are highly visible surrounded by cut amenity grass on gently slopes • Panoramic views inland and out to sea • Scattered farmsteads, typically surrounded by trees • Strong sense of tranquillity in south and east parts, reduced elsewhere by views towards Douglas • Open and expansive views from most of the area out to sea, along the coast, over Douglas Bay and inland over the incised plateau up to the northern uplands

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
LCA D13: Santon	<ul style="list-style-type: none"> Lighthouse and camera obscura at east tip of Douglas Head. A predominantly rural landscape, dissected by A5 and A25 roads Densely wooded valley bottoms amongst undulating rolling land with large rectilinear arable and pastoral fields on the gently sloping hill sides and rounded tops Steep sided densely wooded Victorian pleasure Glens of Glen Grenaugh and Port Soderick Glen lead down to the coast Victorian electric railway line and stations runs through the area at the bottom of Crogga Glen Fragmented woodland along field boundaries and along tracks that access the scattered farmhouses centred around Quine's Hill (along the A25) and small settlements of Santon and Ballaveare Sea-facing hill slopes with large open fields running along the cliff tops with gorse, heather and bracken along the cliff top periphery Incinerator chimney forms notable landmark in the immediate area Presence of Manx Milestones Abrupt linear south built edge to Douglas, comprising residential and industrial development with minor localised extension of industrial character into character area south of Cooil Road Pulrose Golf Course on edge of Douglas.
LCA D14: Ballamodha and St Mark's	<ul style="list-style-type: none"> Land slopes down from the south uplands towards the coast Numerous deeply incised wooded river valleys and glens cut down into the landscape forming ribbons of fragmented woodland National Glens at Silverdale and Colby Settled farmland character with some large, nucleated settlements along the A7, small villages and a variety of scattered dwellings and farms Smaller predominantly rectangular pastoral fields with Manx hedges topped with gorse on the upland slopes to the north Patches of gorse, bracken and heather in fields on the upper slopes Larger rectilinear pastoral and arable fields with large deciduous trees growing on Manx hedges on the more gently sloping south slopes Around the various settlements and farms there are smaller rectangular arable and pastoral fields with Manx hedgerows containing numerous trees and some stone walls Network of tracks, small lanes and larger roads enclosed by substantial hedgerows containing deciduous trees all growing on grass covered Manx hedges Numerous small reservoirs and water bodies associated with water courses Some small churches with spires as well as various standing stones and other visible archaeological sites Presence of Manx Milestones Quarries at Turkeyland and at Ballown.
LCA D15 Port Erin and Port St. Mary	<ul style="list-style-type: none"> Settled and built-up areas of Port Erin and Port St. Mary around sandy beaches Numerous smaller settlements, scattered houses and farms create a settled character

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> Built-up areas meet a matrix of golf courses and large rectangular fields of rough grazing, which are divided by Manx hedges and stone walls in the lower areas Smaller rectangular fields on the upper slopes surround more scattered dwellings and farmsteads Patches of moorland vegetation spreading into the fragmenting fields along the upland periphery Isle of Man Steam Railway with stations and numerous small and large roads cut through the area Variety of archaeological sites in the area including Fairy Hill and some standing stones A fragmented settled rural character with roads and housing as dominant elements Little tree cover in the area other than around Trinity Church, the south edges of Ballakillowey and along the A7.
LCA E1: Port Grenaugh	<ul style="list-style-type: none"> Sheltered coves of Port Grenaugh and Port Soldrick with shelving shale beach Low rocky jagged sea cliffs Intertidal rock pools on rocky platforms in the litoral zone Steeply shelving grassy slopes abutting large flat pastoral and arable fields at cliff tops Remains of numerous Promontory Forts along the coastal footpath Strong sense of tranquillity Open and expansive views Colour and movement of the sea contrasts with the coastal landforms and combine to create a dramatic landscape.
LCA E2: Port Soderick	<ul style="list-style-type: none"> Rocky indented coast with various small coves and a graded shale beach at Port Soderick Shelving grassy slopes with some heath land vegetation abutting irregular shaped pastoral fields, abut high jagged rocky cliffs Rocky foreshore with banded Manx group slates and shales form rock pools with numerous offshore rocky outcrops Victorian pleasure drive of Marine Drive, with its crenellated entry arch (Registered Building), runs along the cliff edge with painted iron railings in places Relatively strong sense of tranquillity Open and expansive views from Marine Drive Colour and movement of the sea contrasts with the coastal landforms and combine to create a dramatic landscape.
LCA E3: Douglas Bay	<ul style="list-style-type: none"> Built-up areas of Douglas and Onchan form dominating back-drop to the area Gently graded sandy beach is contained by two prominent rocky headlands with jagged sea cliffs Victorian esplanade with metal railings forms a promenade along the beach's edge marking the edge of the area Settlement of Onchan perches on the cliff tops with development spreading to cliff edge path Concrete piers and break waters of Douglas harbour Views along the coast constrained by the two large headlands that enclose the area Little tranquillity in the area but an interesting character resulting from the urban back drop

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> • Strong visual contrast between sea and urban areas • Colour and movement of the sea contrasts with the coastal landforms and combine to create a dramatic landscape.
LCA E4: Clay Head	<ul style="list-style-type: none"> • Jagged indented rocky coastline with some natural arches • Rocky foreshore with banded bedrock and scattered large offshore rocks • Sheltered cove and graded shale beach at Groudle Glen • Steeply shelving grassy slopes with intermittent heath vegetation surrounding irregular shaped pastoral fields at cliff tops • Groudle Glen railway runs along the cliff edge to reach Sea Lion Cove • Open and exposed headland with medium sense of tranquillity • Colour and movement of the sea contrasts with the coastal landforms and combine to create a dramatic landscape.
LCA E5: Laxey Bay	<ul style="list-style-type: none"> • Glen Mooar and Glen Roy converge at Laxey and flow out towards the sea (via a relatively steeply incised valley) culminating within the bay • Rugged coastline lined by cliffs that fall steeply, from the Incised Inland Slopes to west, towards the sea • Green and vegetated cliffs provide a relatively strong sense of north-south enclosure within the bay • A cluster of two and three-storey white-washed houses, which overlooking Laxey Bay and climbing the steep enclosing slopes • Houses nestle around the bay and overlook the wide expanse of blue sea to the east • Shallow stony beach marks the transition from sea to shore, lined to the south by a wide promenade and seafront road • Rigid form of the grey stone harbour wall (housing two small lighthouses), and marking the entrance to a colourful harbour, is dominant within views northwards • A strong sense of enclosure is provided by rising headlands to the east and west, contributing to a sense of remoteness and seclusion • Within the harbour, the masts of yachts provide dominant vertical elements against the strongly wooded headland sides • Little sense of remoteness and relatively low tranquillity due to the influence of Laxey, the railway and the A2 • Colour and movement of the sea contrasts with the coastal landforms and combine to create a dramatic landscape.
LCA E6: Dhoon Bay and Port Cornaa	<ul style="list-style-type: none"> • Three semi-enclosed, rugged coastal bays (Port Cornaa, Dhoon Bay and Bulgham Bay) • Rugged cliffs, which rise steeply from the expansive open sea to the east, to the Incised Inland Slopes to the west • Rugged coastal edges leading to shallow beaches, strongly enclosed by the surrounding topography within the three bays • Strong sense of openness at the top of the cliffs • Narrow, incised course of Ballaglass Glen flows into the sea at Port Cornaa • Strongly wooded path of Dhoon Glen flows meets the sea at Dhoon Bay • Strong sense of remoteness and tranquillity throughout the character area • Lack of settlement pattern or communications (major or minor roads) • Extensive, panoramic views across the sweeping and ever-changing seascape to the east

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
LCA E9: Bay Ny Carrickey	<ul style="list-style-type: none"> • Colour and movement of the sea contrasts with the coastal landforms and combine to create a dramatic landscape. • Relatively flat topography, with a gently shelving stony beach, marking the transition between the shore and sea • A series of rugged wave-cut platforms extend into the sea (visible at low tide) • Distant sense of enclosure to the east and west • Relatively strong sense of openness within views across the area • Sense of tranquillity disturbed as a result of proximity to the main coastal (A5) road and Port St. Mary to the west • Terraced housing fronting beaches at Port St. Mary with occasional individual houses or small groups of houses fronting seashore in east part of bay • Colour and movement of the sea contrasts with the coastal landforms and combine to create a dramatic landscape.
LCA E10: Castletown Bay	<ul style="list-style-type: none"> • Adjacent to the large settlement of Castletown • Castle Rushen, Castletown harbour wall and the lighthouse are all landmark features • Relatively wide, sandy bay is dotted in places by weed-covered rocks and is lined to the north by an expanse of large, jagged boulders • Beach slopes gradually downwards in a southeasterly direction towards the vast expanse of sea • Bay is lined by a colourful array of predominantly modern houses, overlooking the seashore, and by the coastal road, which hugs the line of the shore • Settled character (particularly to the west), with sense of tranquillity generally disturbed by the hustle and bustle associated with Castletown • Extensive open views across the dynamic shoreline and constantly changing, colourful sea • Recognisable sense of place provided by views across the Bay, towards Langness Point to the southeast and rising landscape to the north of Castletown • Colour and movement of the sea contrasts with the coastal landforms and combine to create a dramatic landscape.
LCA E11: Langness	<ul style="list-style-type: none"> • Relatively narrow peninsula/isthmus of predominantly flat landscape, protruding from the south edge of the Island • East rocky shore of the peninsula is indented with a series of rugged small indentations (gulleets) • St. Michael's Island (a small island connected to the north-east edge of the peninsula) facilitates dramatic views northeastwards along the coastline • Castletown Golf Course/Links dominates the north end of this LCA • Generally lacking in settlement, but with occasional, white-washed buildings visible on the horizon and a concentration of housing at Derbyhaven • Two minor rural roads provide access to the area (Langness Road and Fort Island Road) • Panoramic views across adjacent ever-changing seascape • General sense of openness throughout the area • Sense of tranquillity greatly disturbed at times by proximity to Ronaldsway airport

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> • Colour and movement of the sea contrasts with the coastal landforms and combine to create a dramatic landscape • Lighthouse and Dreswick Point act as dominating landscape features • Numerous historic features, including the chapel at St. Michael's Island and the lighthouse at Dreswick Point.
LCA F1: Bride Hills	<ul style="list-style-type: none"> • Group of undulating low hills, forming the most prominent topographical feature within the north plain • Series of intimate dry valleys dissecting the hills • Relatively strong sense of enclosure amongst the hills • Strongly recognisable sense of place, as a result of views to dramatic upland backdrop to the south • Patchwork of sheep-grazing and rough grassland on lower slopes • Patches of arable farmland at the foot of the slopes • Distant views to upland peaks to the south • Deciduous woodland and shrubs covering the low peaks • Mixture of stone walls and relatively tall Manx hedge-banks, delineating field boundaries • Scattered and isolated settlement pattern • Strong sense of tranquillity throughout the area.
LCA F2: The Lhen	<ul style="list-style-type: none"> • Predominantly arable farmland, delineated by a combination of stone walls and low Manx hedgerows • Mixture of small to medium, relatively regular rectangular fields • Flat, to gently sloping, landscape which falls from south to north towards the sea • Several narrow, single-track lanes which connect the area with the beaches and coastal strip to the north • Scattered and isolated settlement pattern, consisting of several traditional Manx stone buildings • Generally few vertical elements • Open and glimpsed views to sea from several locations within the area • Civic Amenity waste site at Ballacallow • Glen Truan Golf Course • In places, the ruins of former farm buildings, set against the dramatic distant upland backdrop, provides strong recognisable character and sense of place.
LCA F3: Andreas and Jurby	<ul style="list-style-type: none"> • Swathe of farmland (covering the breadth of the Island) • Irregular pattern of medium-sized arable and pasture fields • Field boundaries demarcated by traditional Manx hedges and simple post and wire fences

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> • Inter-linking network of minor rural roads serve the area, together with the A10, A17 and A19 • Generally few vertical elements, other than occasional telegraph poles • Scattered and relatively isolated settlement pattern • Traditional farm buildings (characteristically white, with grey roofs) • Key settlements include the small town of Andreas and the villages of Bride, Jurby and Sandygate • The Isle of Man Government Industrial Estate and adjacent Jurby Aerodrome • Disused airfield at Andreas • Churches provide prominent landmarks within views • Views to dramatic upland backdrop to the south provide strong sense of place • Strong sense of openness and tranquillity (at distance from main A19 and A17 roads) • Slightly marked sinuous valley of Lhen Trench • Sandpit at Cronk-y-Scotty.
LCA F4: Sulby	<ul style="list-style-type: none"> • Predominantly flat landscape underlain by subdued mounds of sand and gravels • Belt of farmland, running eastwest and consisting of a patchwork of predominantly arable fields (interspersed with patches of rough grassland and pasture) • Fields delineated by a combination of mature Manx hedgerows and simple post and wire fences • Main A3 (TT course) and A13 roads run eastwest across the area, connected by several northsouth running minor rural roads • Predominantly rural character, with built character dominated by traditional Manx architecture • Strong sense of tranquillity at distance from A13, A3 and Ramsey • Strong sense of place throughout the area, provided in part, by views to the dramatic skyline of the Northern Uplands • Black and white Manx milestones lining the path of the A3.
LCA F7 Castletown and Ballasalla	<ul style="list-style-type: none"> • Flat land with strong coastal influence • Area dominated by Ronaldsway Airport and the numerous associated aeroplane hangars, car parking, runways, control towers and access roads • Built-up areas of Castletown and Ballasalla influence the visual character of the area with the prominent crenulated tower of Castle Rushen visible from the surrounding areas • Riparian vegetation grows thickly on the banks of Silver Burn • Rectilinear arable and pastoral fields in a variety of sizes to the north and west of the airport with low Manx hedges

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> • Busy A5 road corridor • Little sense of tranquillity • Route of the Isle of Man Steam railway runs along the area's west boundary with three stations • Ronaldsway Industrial Estate with large warehouses and areas of car parking • Open and panoramic views out to sea and over Langness' rocky shoreline beyond the Airport's numerous runways.
LCA F8: Pollyvaish and Scarlett Peninsula	<ul style="list-style-type: none"> • Predominantly flat open arable and pastoral land with large rectilinear fields in a rough geometric pattern in close proximity to the coast • Little settlement in the area other than a few scattered farms surrounded by small woodland blocks • East periphery meets and is influenced by the built up areas of Castletown, Ballasalla and the environs of Ronaldsway Airport • Various archaeological sites along the coastal areas including a Viking burial • Coastal views over open land with little intervening substantial tree cover • Some small rectilinear drainage ditches running along field boundaries • Few abandoned limestone quarries now flooded • Isle of Man Steam Railway with various stations cuts across the area eastwest • Relative sense of tranquillity amongst the fields and on the Scarlett Peninsula, but reduced near main roads and Poyll and Vaaish quarries • Large country estates west of Malew Road.
LCA G1: Ramsey Bay	<ul style="list-style-type: none"> • Soft, relatively abrupt cliffs mark transition from land to sea in the north • Shallow beach along Ramsey Bay, stretching out into the Bay • Distinctive long wrought iron pier runs out into the sea to the east of Ramsey • Predominantly sandy beaches visible along the length of the coastline • Seafront development at Ramsey, dominated by a series of residential (often tall with a modern character developments), alongside a series of seaside shops, nestling within the bay • Working harbour, to the north of Ramsey (at the mouth of the River Lhen, with associated concrete sea wall, parking and cranes) introduces a further degree of visible human influence • Vast, expansive seascape to the east • Rising uplands to the west of Ramsey provide a strong sense of enclosure • Sense of tranquillity within the area varies dependent on proximity to the hustle and bustle of Ramsey • Colour and movement of the sea contrasts with the coastal landforms, and combine to create a dramatic landscape.

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
LCA G2: The Ayres	<ul style="list-style-type: none"> • Symbiotic relationship between sea, gravely foreshore, dune and heath habitats along the coastal strip • Distinctive red and white striped landmark lighthouses (Registered Buildings) at the Point of Ayre • Relatively shallow coastal profile to the west, with a series of gravel ridges to the east • Strong sense of remoteness and tranquillity throughout the area • Diverse habitats support a range of (often rare) wildlife, plant and insect communities; • Patches of human influence visible at Blue Point, Rue Point and the Point of Ayre • Open and expansive views of sea and sky dominate the visual horizon to the north • Distant views to upland peaks to the south • Colour and movement of the sea contrasts with the coastal landforms, and combine to create a dramatic landscape • Sand and gravel pit and landfill site in east part of area • Network of tracks and public roads, together with the Raad ny Foillan coastal footpath.
LCA H1: Peel Cliffs	<ul style="list-style-type: none"> • Elongated, wind swept, open and exposed linear upland hill • High dramatic rocky coastal cliffs with indented rugged coastline composed of rocks from the Dalby Group • Uninhabited wild headland of Peel Hill forms shelter for the Harbour and built up area of Peel • Numerous tumuli, burial grounds and the prominent landmark of Corrins Tower along the hill tops • Medium sized rectilinear fields with regular patterns on the inland and south slopes around Glen Maye • Colour and movement of the sea contrasts with the coastal landforms, and combine to create a dramatic landscape.
LCA H2: Fleshwick	<ul style="list-style-type: none"> • Very high steeply sloping grass slopes above dramatic and jagged sea cliffs • Small rocky coves with small sandy beaches formed where small streams drain off the upland areas • Rocky stacks, wave cut platforms and an inaccessible rocky foreshore • Colour and movement of the sea contrasts with the coastal landforms, and combine to create a dramatic landscape • Remote and wild area • Dramatic coastal views.
LCA H3: Bradda Head	<ul style="list-style-type: none"> • Open and exposed steeply sided pronounced upland hill • Prominent landmark of the Milner's Tower on Bradda Head • Steeply sloping grass slopes above high and dramatic jagged sea cliffs • Small rocky coves, stacks and off shore rocks

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> • Network of surfaced and unsurfaced paths criss-cross the areas • Numerous abandoned mines and associated buildings as well as a derelict coast guard look out post • Expansive and dramatic panoramic views along the coastal cliffs, out to sea and inland • Colour and movement of the sea contrasts with the coastal landforms, and combine to create a dramatic landscape.
LCA H4: Cregneash and Meayll Peninsula	<ul style="list-style-type: none"> • Situated at the south-west tip of the Island, overlooking the Calf of Man • Landform rises from south to north • Series of rugged bays line the coast, with rugged rocky outcrops extending into the sea • Landmark Sugar Loaf Stack and a series of deep chasms to the south of Cregneash village (north of Bay Stacka) • Patchwork of regular pasture fields, delineated by traditional stone walls at field boundaries and occasional low Manx hedges • Settlement pattern consists of a series of isolated, scattered farmsteads with an old crofting village Cregneash Village (the oldest on the Island) at the centre of the area • The Cregneash Automatic Wireless Transmitting Direction-Finding Station and a telecommunications mast on elevated ground in the south part of the peninsula • Dramatic views across Calf Sound to the Calf of Man, often with seals basking on Kitterland rocky outcrop • The Sound Café at an isolated location overlooking Calf Sound • Coastline provides a haven for birds and wildlife • Strong sense of isolation, openness and tranquillity throughout • Atmospheric character, as a result of crashing waves, calls of sea birds and general lack of disturbing elements • Dramatic views of rising uplands to the north and across Port St. Mary Bay to the northeast, provide strong recognisable sense of place • Colour and movement of the sea contrasts with the coastal landforms, and combine to create a dramatic landscape.
LCA H5 Maughold Head	<ul style="list-style-type: none"> • Encompasses a rocky shore and coastline, which is strongly indented in places • Series of narrow, incised bays fold round the south edge of the Head • Rugged, rocky foreshore (with jagged rocky outcrops protruding into the sea) is generally inaccessible • Traditional small Manx church at Maughold is a distinctive landmark within views across the area • General sense of enclosure openness and exposure throughout the area • Patchwork of pasture fields, delineated by intact, low stone walls • Land cover is dominated by medium-sized rectilinear pasture fields • Patches of gorse, heather, bracken and grass contribute to landscape pattern;

MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

Character Area/Type	Key characteristics
	<ul style="list-style-type: none"> • Sense of tranquillity is relatively strong throughout the area • Lighthouse at Maughold Head.
LCA J1: Calf of Man	<ul style="list-style-type: none"> • Small islet separated from the main Isle of Man by a tidal (often turbulent) channel (the Sound) • Island rises dramatically from the surrounding sea • Series of rugged cliff faces visible around the perimeter of the Island • Patchwork of heathland and grassland covering the area • Important habitat for breeding birds • Colonies of grey seals bask on the rough outcrops that jut out from the Island into the sea • Few built structures or built vertical elements • Only accessible at certain times of the year.