

MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Environmental Statement

Volume 2, Figures – Part 4 of 5

December 2024
Rev: ES01

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| F01 | For issue: Application | AS | September 2024 | IM | September 2024 |
| ES01 | S51 advice update | AS | December 2024 | IM | December 2024 |

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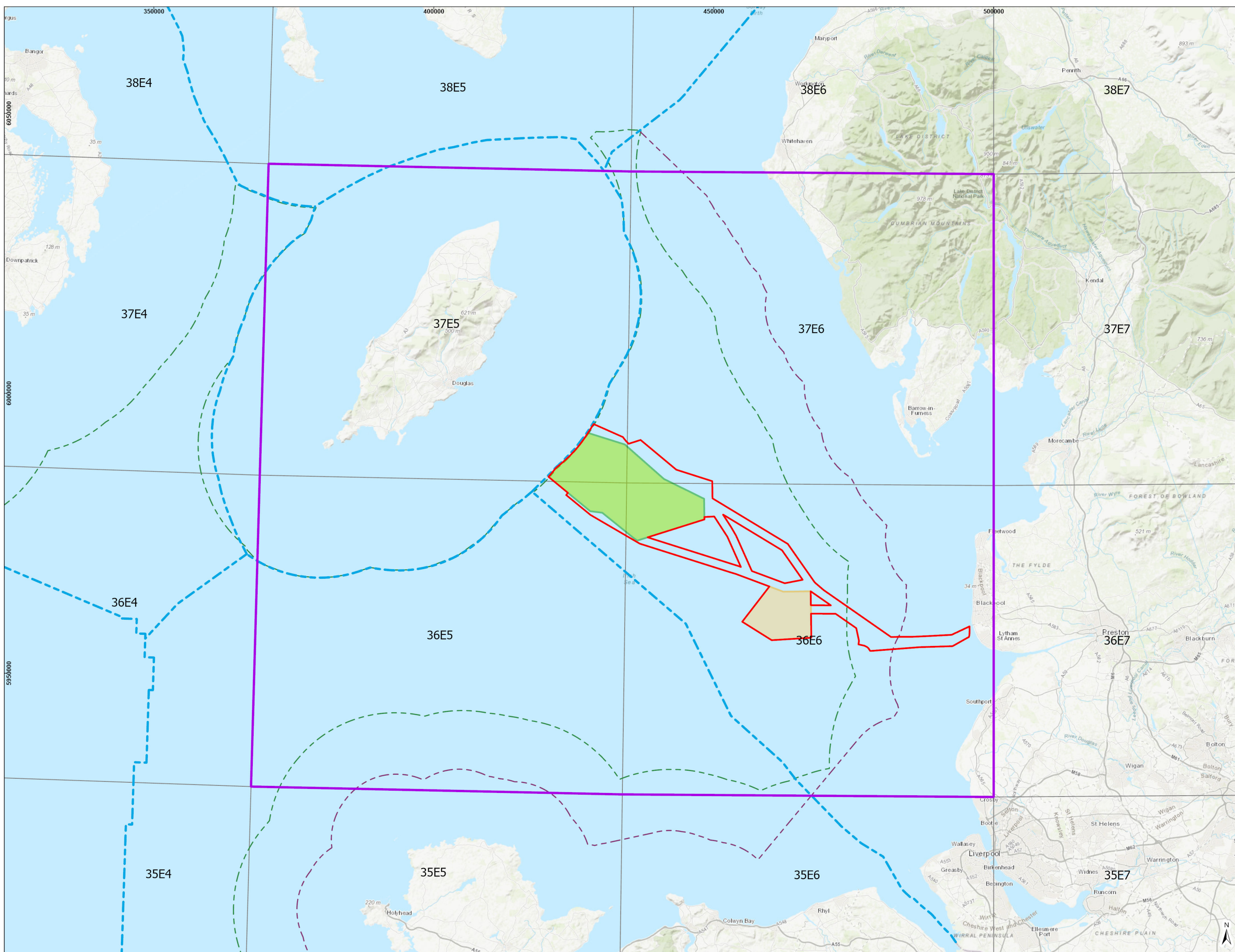
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Prepared by:

RPS

Prepared for:

**Morgan Offshore Wind Limited,
Morecambe Offshore Windfarm Ltd**



LEGEND

- Transmission Assets
- Order Limits: Offshore
- Morecambe Offshore Windfarm: Generation Assets
- ICES Rectangles
- Morgan Offshore Wind Project: Generation Assets
- Commercial Fisheries Study Area
- 12nm Boundary
- 6nm Boundary
- Jurisdictional Boundary

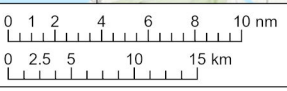


MORECAMBE
 cobria FLOTATION ENERGY
EnBW bp **RPS**
 Partners in UK offshore wind A TETRA TECH COMPANY

Figure - 6.1
 Drawing Number: MMTA-CF-01

Project Name:
 MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
 STUDY AREA FOR THE MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

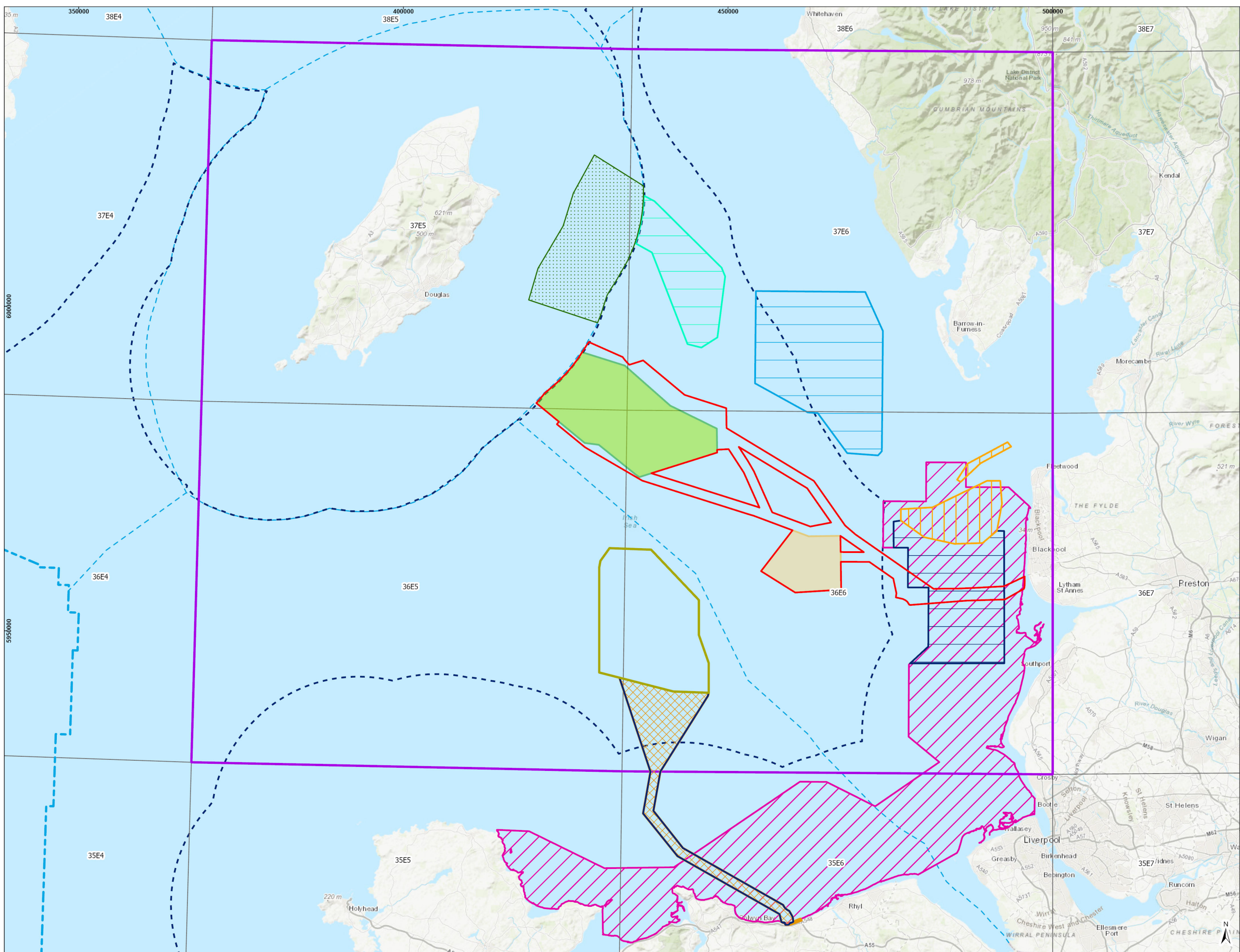


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Service Layer Credits: World Topographic Map: Esri, HERE, Garmin, FAO, NOAA, USGS
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| 01 | 11/09/24 | Final | NB | JD |



- LEGEND**
- Transmission Assets
 - Order Limits:
 - Offshore
 - Morecambe Offshore Windfarm:
 - Generation Assets
 - Morgan Offshore Wind Project:
 - Generation Assets
 - Mona Offshore Array Area
 - Mona Offshore Cable Corridor
 - Mona Offshore Cable Corridor & Access Areas
 - Moir Vannin OWF
 - Liverpool Bay / Bae Lerpwl SPA
 - West of Copeland MCZ
 - West of Walney MCZ
 - Fylde MCZ
 - Shell Flat and Lune Deep SAC
 - ICES Rectangles
 - Commercial Fisheries Study Area
 - Jurisdictional Boundary
 - 12NM Limit
 - Jurisdictional Boundary

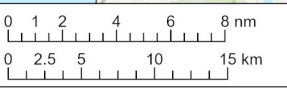


Figure - 6.2

Drawing Number:
MMTA-CF-02

Project Name:
MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
OTHER PROJECTS, PLANS AND ACTIVITIES SCREENED INTO THE CUMULATIVE EFFECTS ASSESSMENT FOR COMMERCIAL FISHERIES

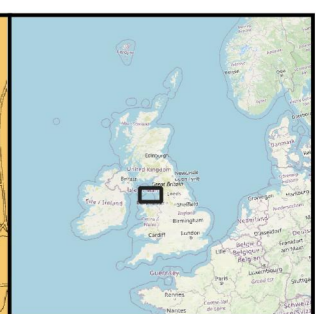
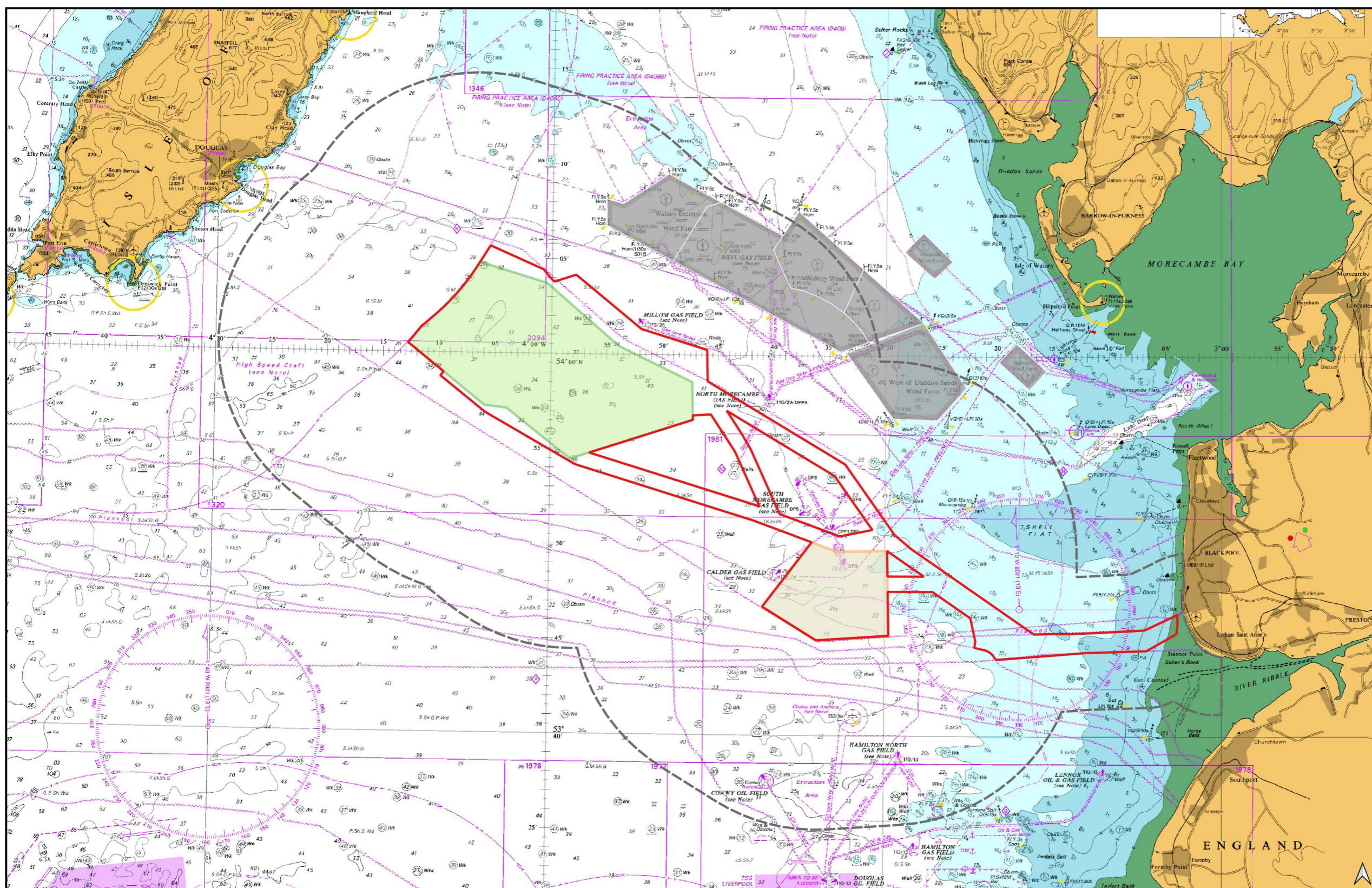


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World Topographic Map: Esri UK, Esri, HERE, FAO, USGS, NGA

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LEGEND

- Morgan and Morecambe Offshore Windfarms: Transmission Assets Order Limits - Offshore
- Morgan Offshore Wind Project: Generation Assets
- Morecambe Offshore Windfarm: Generation Assets
- Existing Offshore Windfarms
- Shipping and Navigation Study Area

MORECAMBE
oceanwise FLUTATION ENERGY

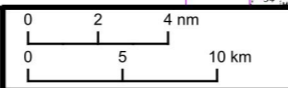
EnBW **rps**
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Figure 7.1

Drawing Number:
NASH-MMTA-SN-001-00

Project Name:
MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
Shipping and Navigation Study Area



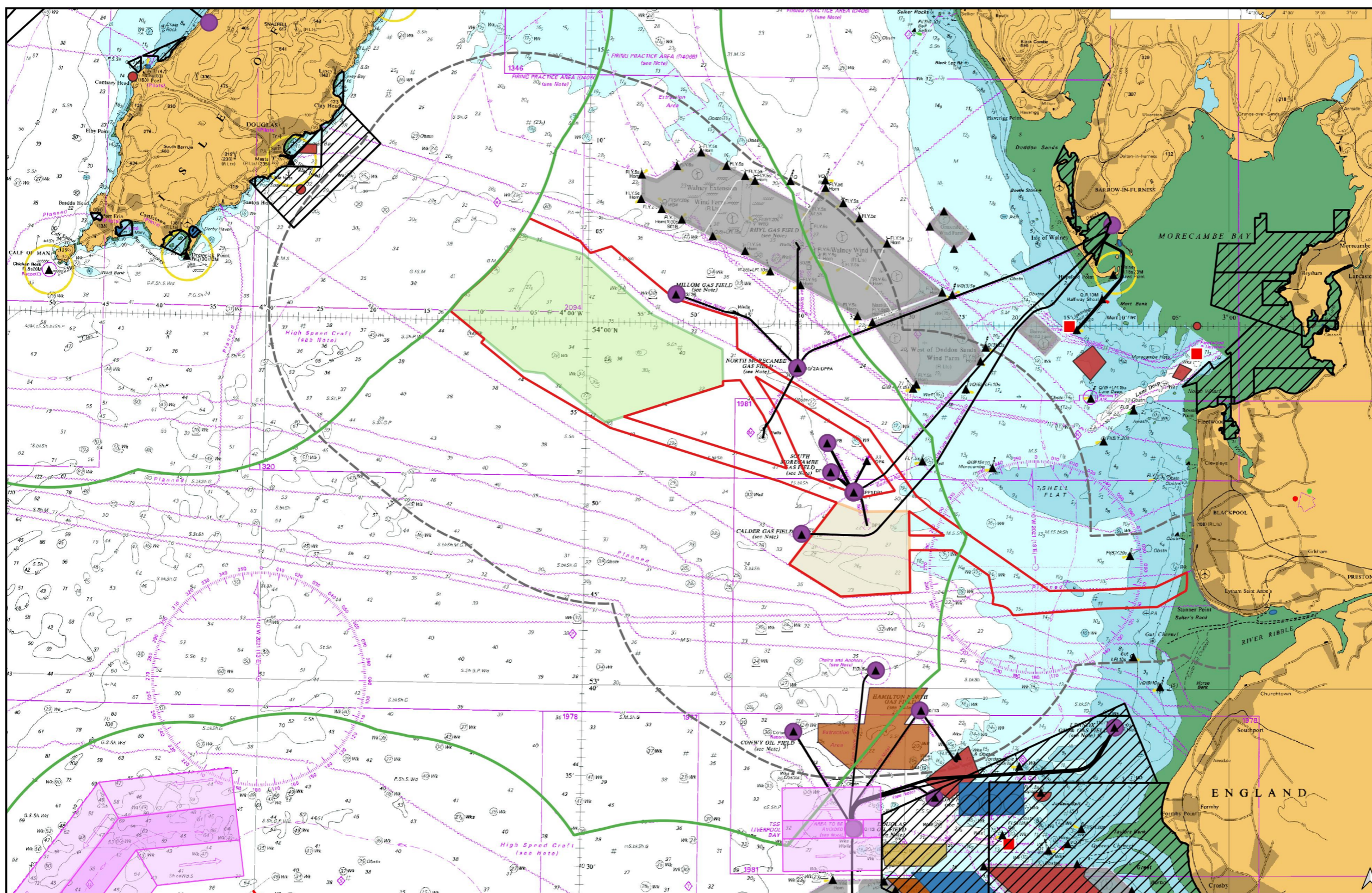
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LEGEND

- Morgan and Morecambe Offshore Windfarms: Transmission Assets Order Limits - Offshore
- Morgan Offshore Wind Project: Generation Assets
- Morecambe Offshore Windfarm: Generation Assets
- Existing Offshore Windfarms
- Shipping and Navigation Study Area
- Anchorage
- ▲ AtoN
- Disposal Site
- Harbour Area
- IMO Routing Scheme
- O&G Surface Infrastructure
- Pilot Station
- O&G Pipeline
- 12nm Limit

Aggregate Areas

- Exploration and Option Area
- Production Agreement Area

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ocean FLUTATION ENERGY

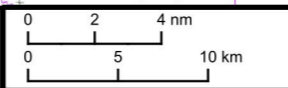
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Figure 7.2

Drawing Number:
 NASH-MMTA-SN-002-00

Project Name:
MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
 Overview of Existing Marine Environment



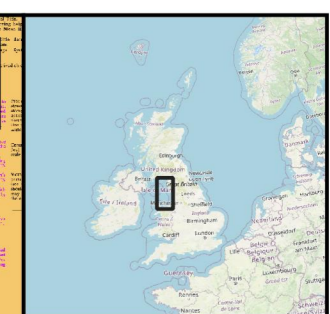
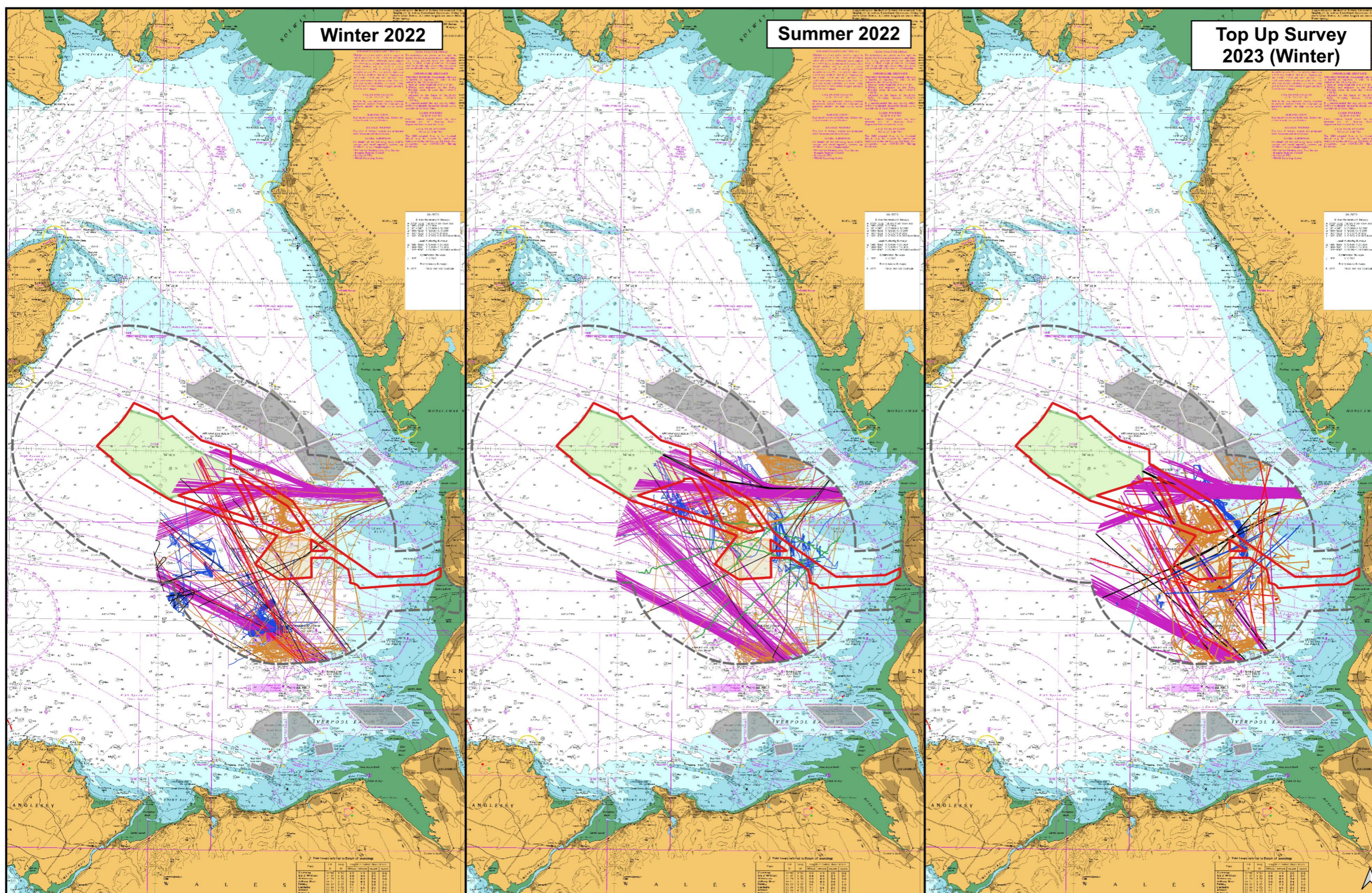
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Data Sources: Admiralty Charts 1826 & 1981; IMO Routing / Maritime Limits from UKHO; Disposal Sites from CEFAS; O&G from North Sea Transition Authority; Aggregate Areas and OWFs from The Crown Estate

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LEGEND

- Morgan and Morecambe Offshore Windfarms: Transmission Assets Order Limits - Offshore
- Morgan Offshore Wind Project: Generation Assets
- Morecambe Offshore Windfarm: Generation Assets
- Existing Offshore Windfarms
- Shipping and Navigation Study Area

Vessel Tracks

- Cargo
- Tanker
- Passenger
- Fishing
- Recreational
- Tug & Service

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Figure 7.3

Drawing Number:
 NASH-MMTA-SN-039-00

Project Name:
 MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
 Morecambe Vessel Traffic Surveys

0 2 4 nm
 0 5 10 km

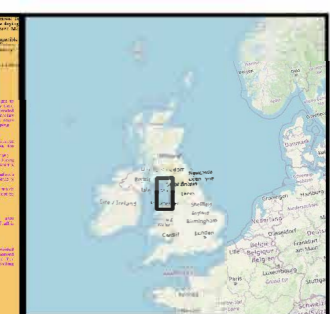
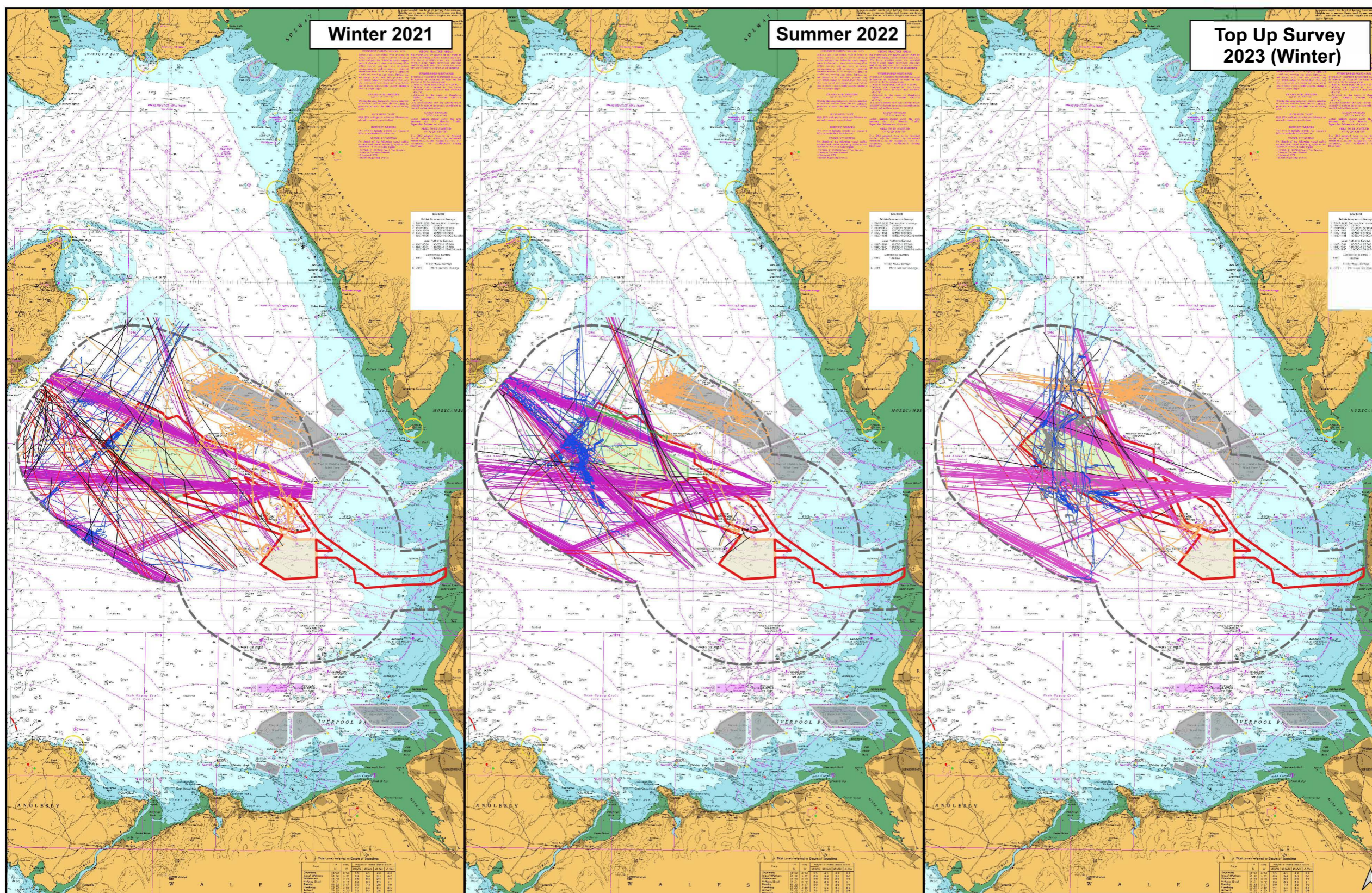
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Data Sources: Admiralty Charts 1826 & 1981;
 OWFs from The Crown Estate; NASH Maritime
 Traffic Survey Data 2022-2023

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LEGEND

- Morgan and Morecambe Offshore Windfarms: Transmission Assets Order Limits - Offshore
- Morgan Offshore Wind Project: Generation Assets
- Morecambe Offshore Windfarm: Generation Assets
- Existing Offshore Windfarms
- Shipping and Navigation Study Area

Vessel Tracks

- Cargo
- Tanker
- Passenger
- Fishing
- Recreational
- Tug and Service

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 RPS

Figure 7.4
 Drawing Number:
 NASH-MMTA-SN-036-00

Project Name:
MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
 Morgan Vessel Traffic Surveys

0 2 4 nm
 0 5 10 km

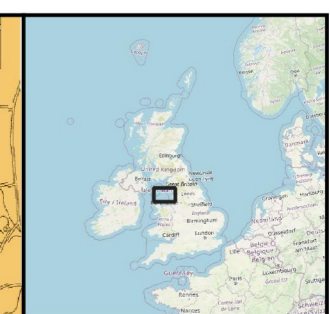
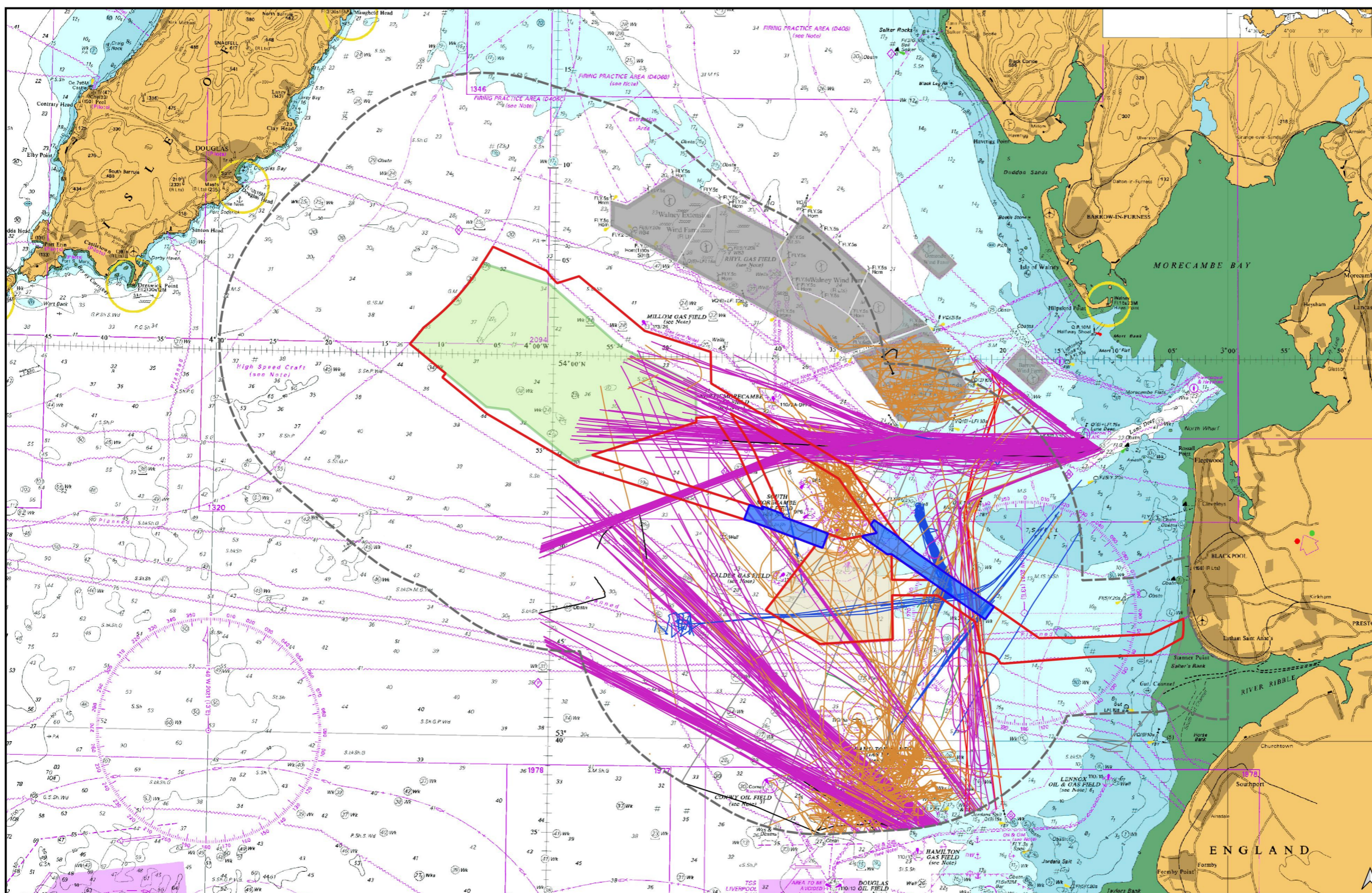
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LEGEND

- Morgan and Morecambe Offshore Windfarms
- Transmission Assets Order Limits - Offshore
- Morgan Offshore Wind Project: Generation Assets
- Morecambe Offshore Windfarm: Generation Assets
- Existing Offshore Windfarms
- Shipping and Navigation Study Area
- Morgan Offshore Wind Project Offshore Booster Station Search Areas - Subsequently Removed From Project Design

Vessel Tracks

- Cargo
- Tanker
- Passenger
- Fishing
- Recreational
- Tug & Service

MORECAMBE
CHOOBA | INNOVATION ENERGY

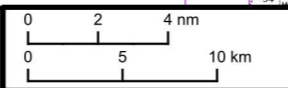
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Figure 7.5

Drawing Number:
 NASH-MMTA-SN-042-00

Project Name:
 MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
 Summer 2023 Booster Station Vessel Traffic Survey



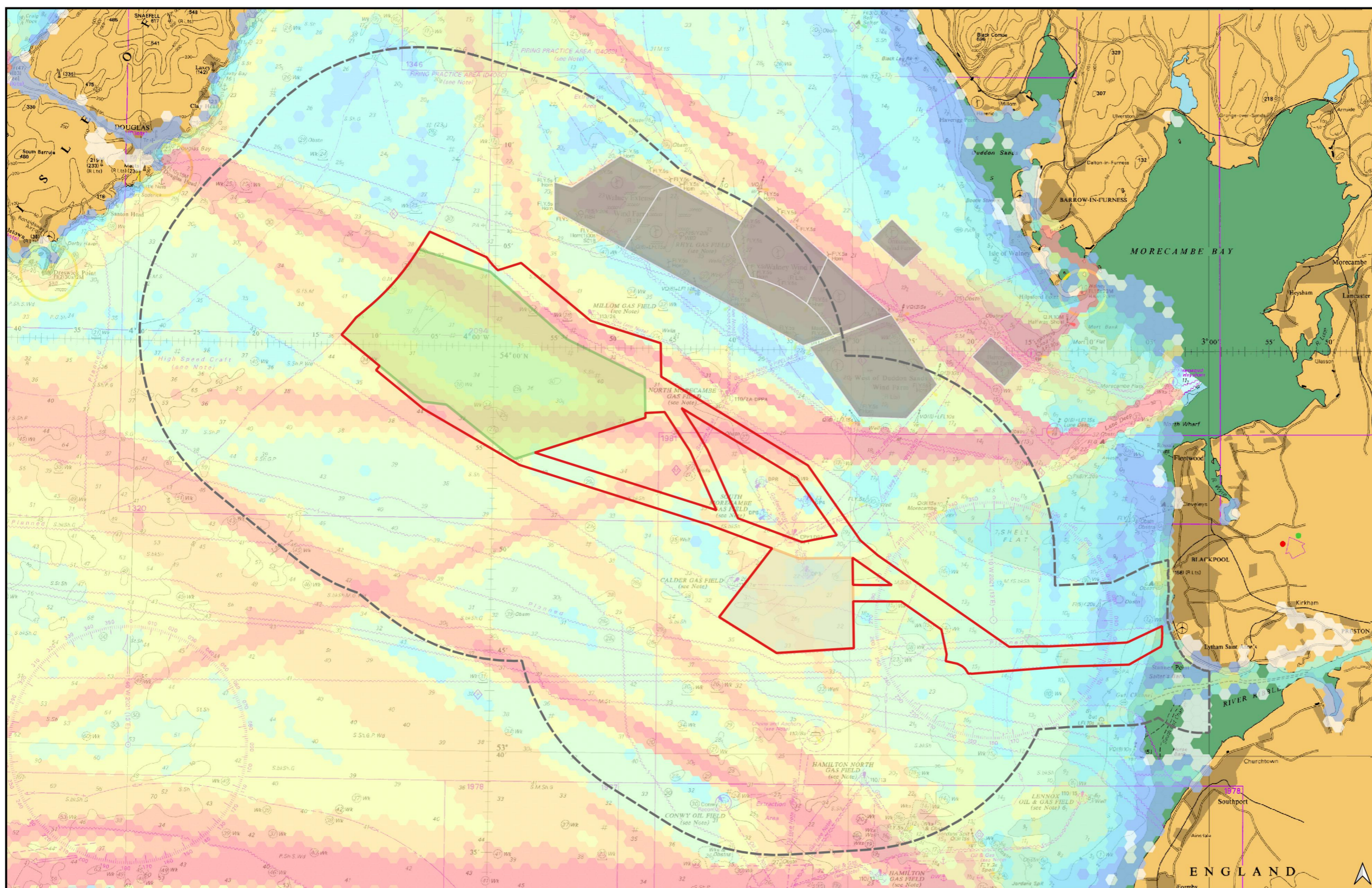
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Data Sources: Admiralty Charts 1826 & 1981; OWFs from The Crown Estate; NASH Maritime Traffic Survey Data 2022-2023

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LEGEND

- Morgan and Morecambe Offshore Windfarms: Transmission Assets Order Limits - Offshore
- Morgan Offshore Wind Project: Generation Assets
- Morecambe Offshore Windfarm: Generation Assets
- Existing Offshore Windfarms
- Shipping and Navigation Study Area

Transits / Year

- <math>< 1</math>
- 1 - 10
- 10 - 20
- 20 - 40
- 40 - 80
- 80 - 160
- 160 - 320
- 320 - 640
- > 640

MORECAMBE
oceanwise | FLUTATION ENERGY

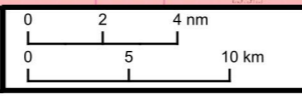
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Figure 7.6

Drawing Number:
 NASH-MMTA-SN-012-00

Project Name:
 MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
 Vessel Traffic Density (2022)



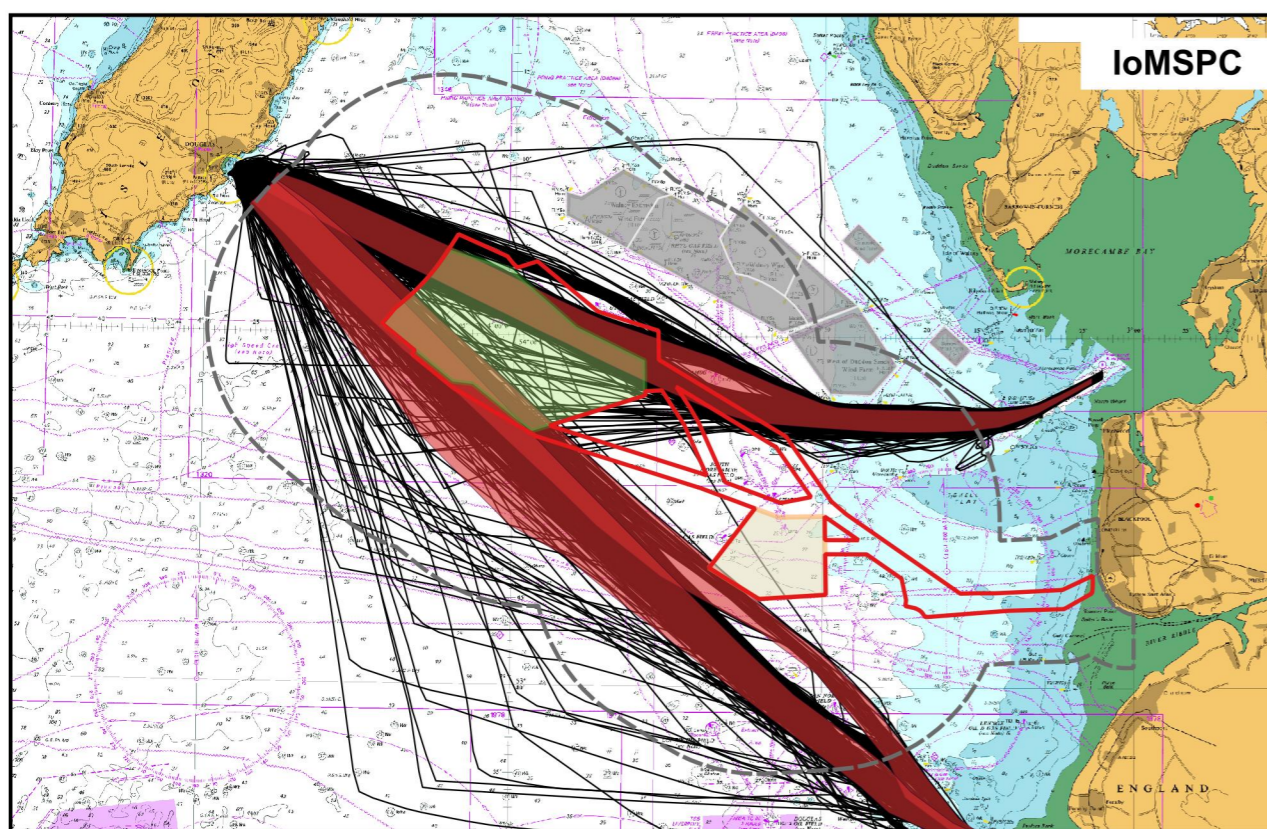
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Data Sources: Admiralty Charts 1826 & 1981;
 OWFs from The Crown Estate; Marine Traffic 2022
 AIS Data

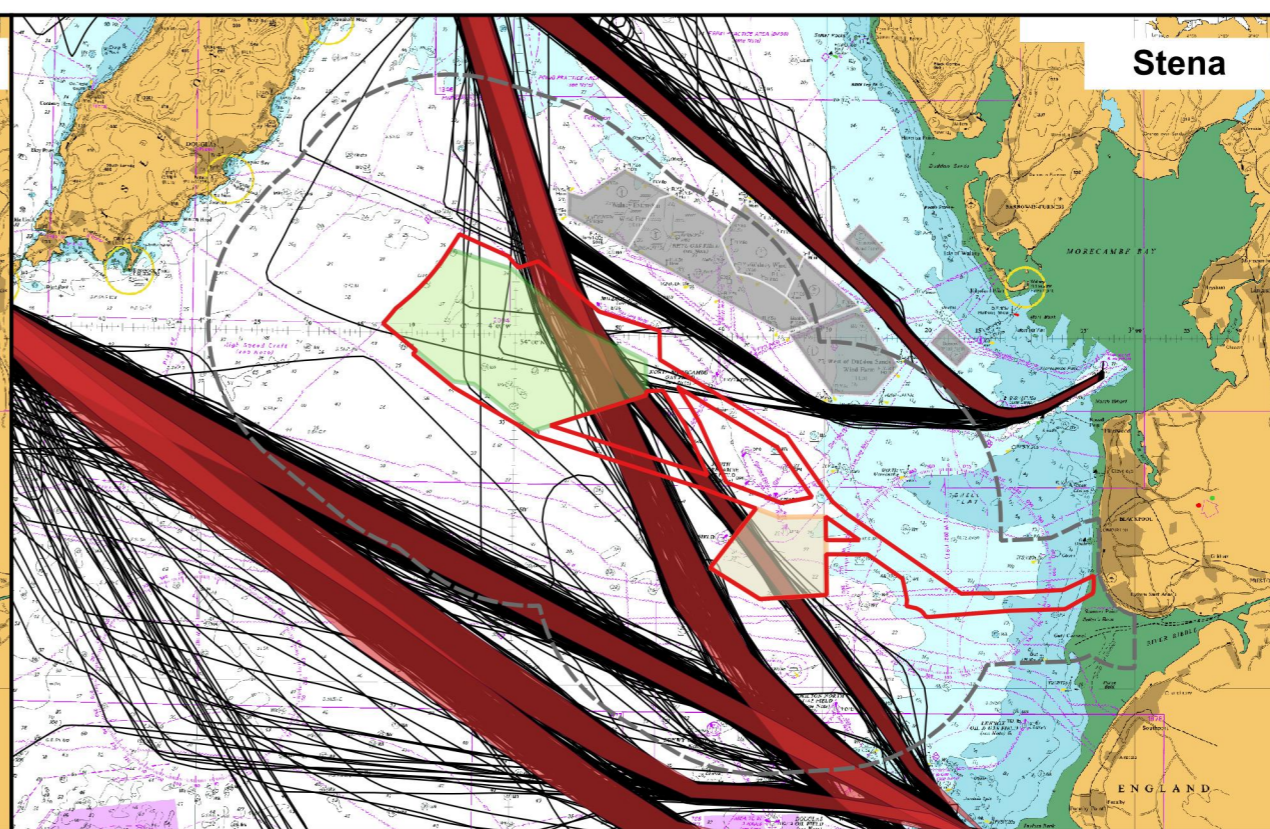
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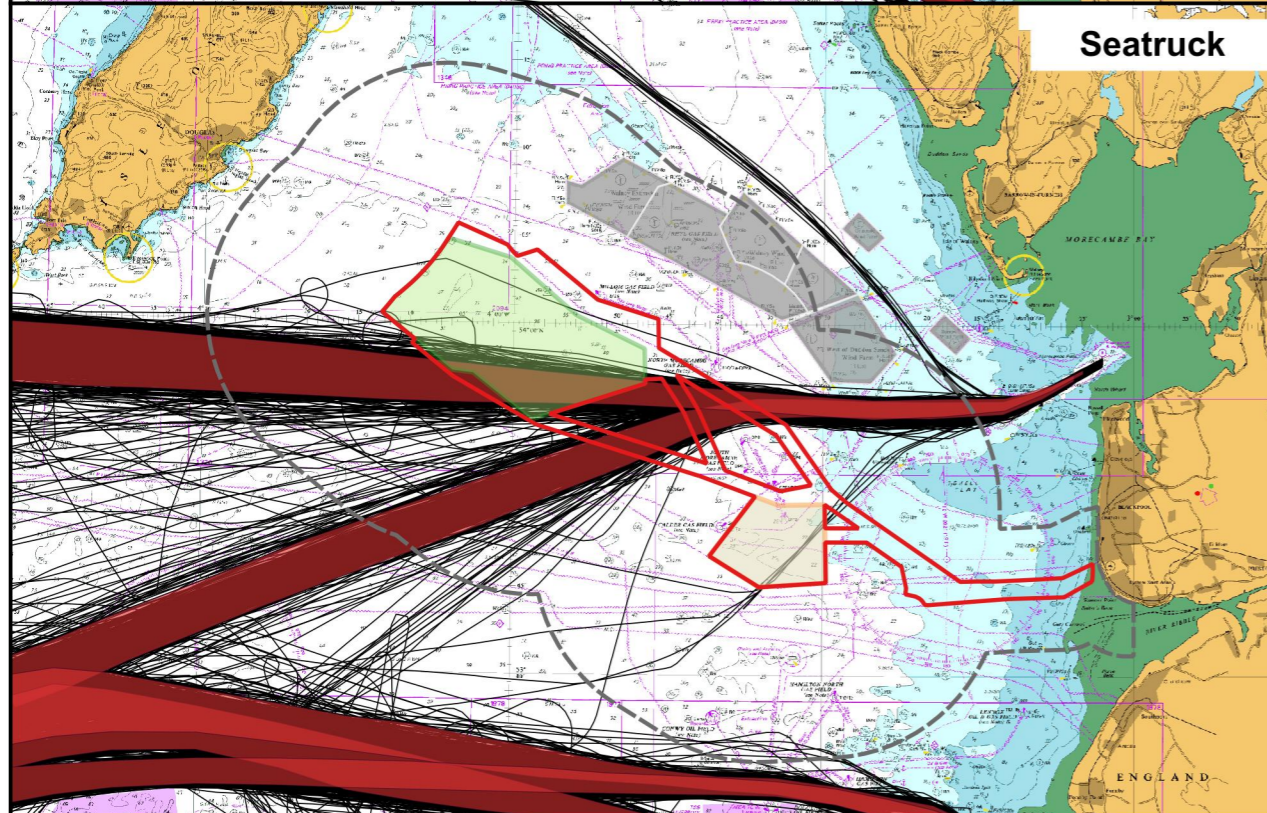




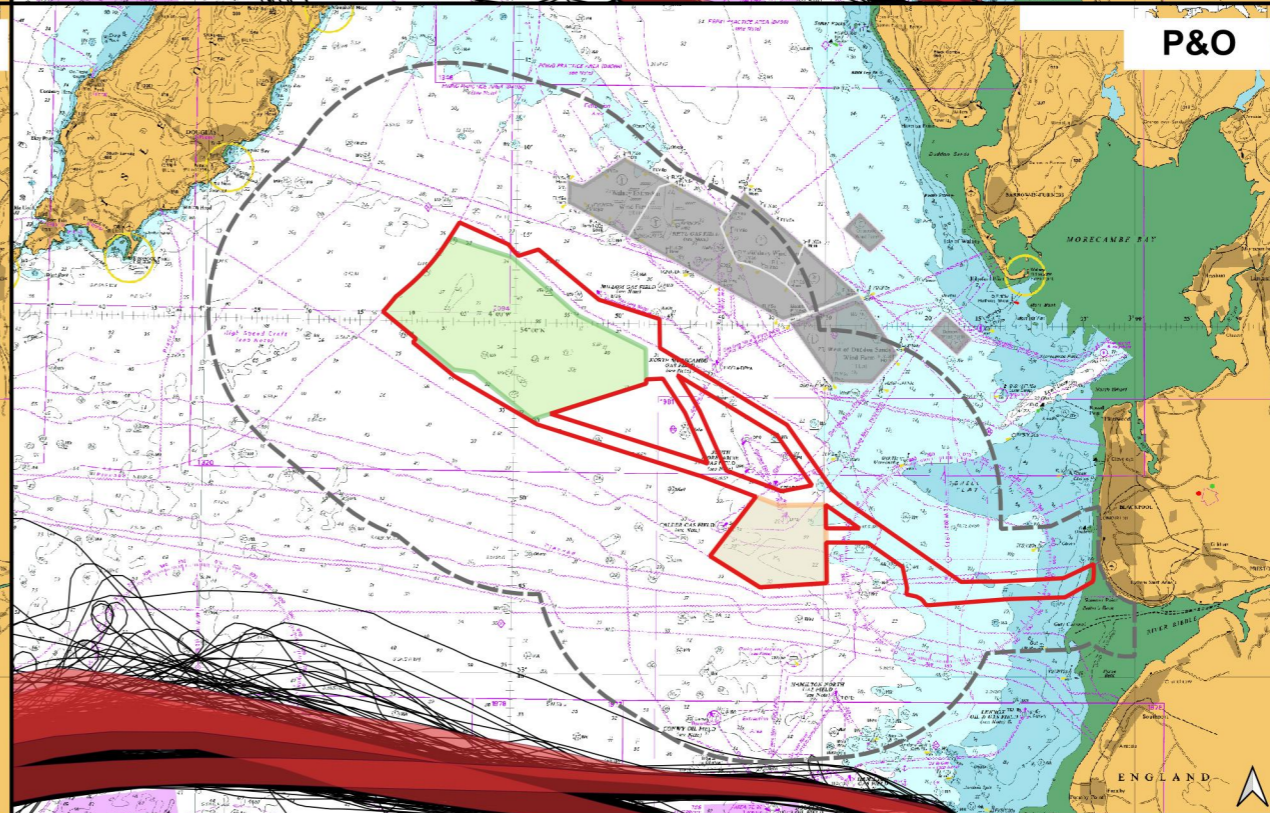
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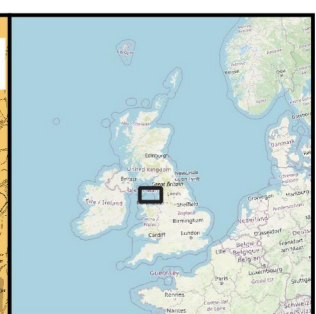
Stena



Seatruck



P&O



- LEGEND**
- Morgan and Morecambe Offshore Windfarms Transmission Assets Order Limits
 - Morgan Offshore Wind Project: Generation Assets
 - Morecambe Offshore Windfarm: Generation Assets
 - Existing Offshore Windfarms
 - Shipping and Navigation Study Area
 - 90th Percentile Corridors
 - Ferry Vessel Track

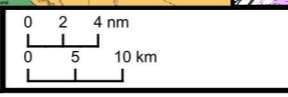


Figure 7.7

Drawing Number:
NASH-MMTA-SN-021-00

Project Name:
MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
90th Percentile and Non-Typical Ferry Routes (2022)



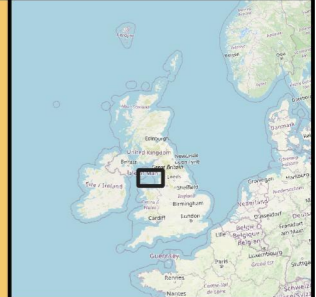
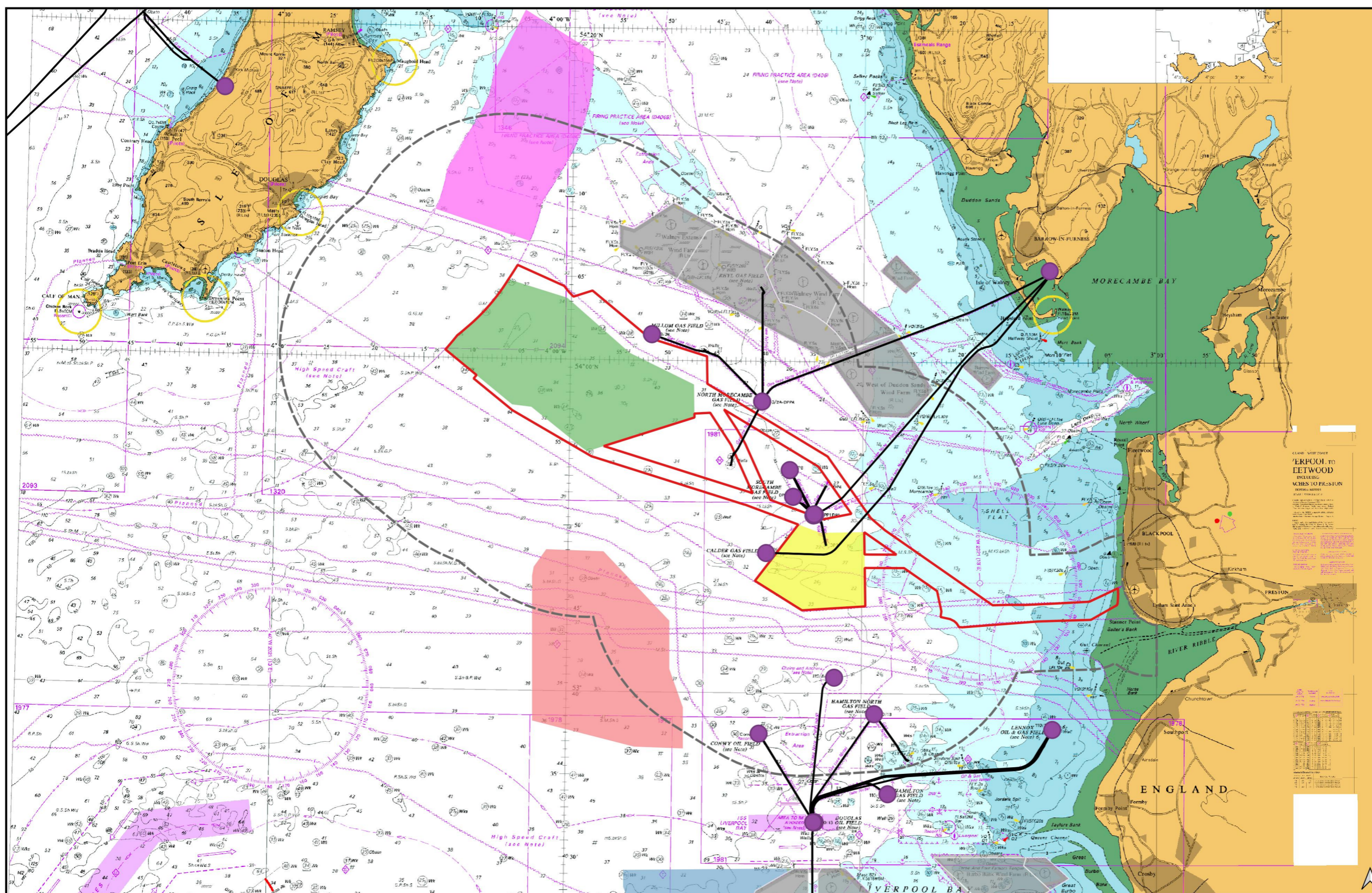
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LEGEND

- Morgan and Morecambe Offshore Windfarms: Transmission Assets Order Limits - Offshore
- Morgan Offshore Wind Project: Generation Assets
- Morecambe Offshore Windfarm: Generation Assets
- Existing Offshore Windfarms
- Shipping and Navigation Study Area
- Oil & Gas**
- Pipeline
- Surface Infrastructure
- Tier 1 Windfarm Projects**
- Awel y Mor
- Mona Array Area
- Tier 2 Windfarm Projects**
- Moir Vannin Offshore Wind Farm

CLASS: VERT-DRAWN
 'LIVERPOOL TO EETWOOD'
 INCLUDING
 'MORNINGTON' AND 'MORNINGTON'
 DETAIL NUMBER
 PLAN: 100000000

MORECAMBE
 aedra FLOTATION ENERGY

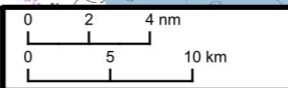
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Figure 7.8

Drawing Number:
 NASH-MMTA-SN-034-00

Project Name:
 MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
 Tier 1 and Tier 2 Windfarms



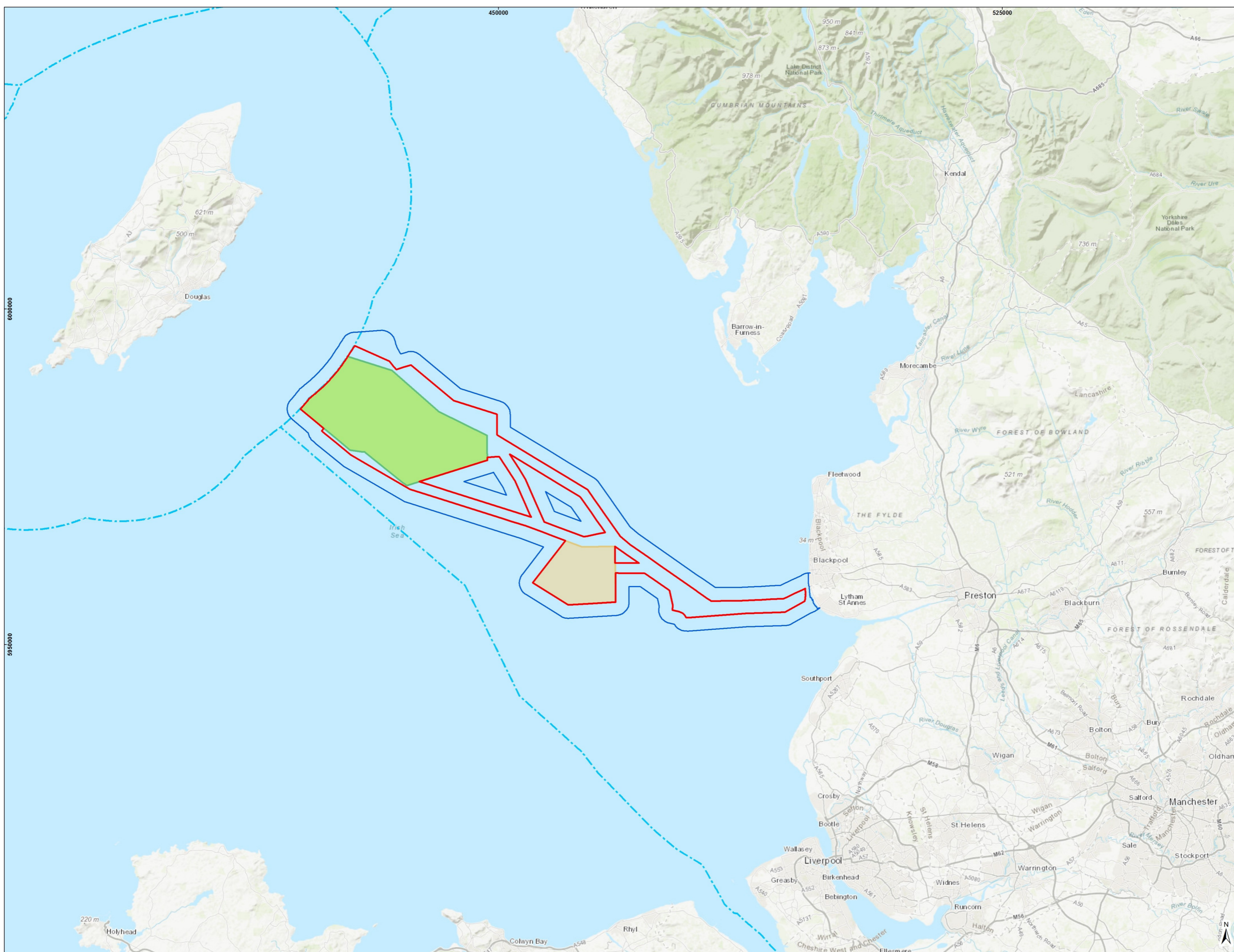
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LEGEND

- Morgan and Morecambe Offshore Windfarms: Transmission Assets Order Limits – Offshore
- Morgan Offshore Wind Project: Generation Assets
- Morecambe Offshore Windfarm: Generation Assets
- Marine Archaeology Study Area
- Jurisdictional Boundary

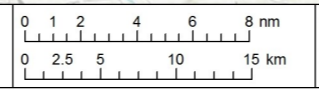
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Figure 8.1

Drawing Number:
RPSE-ES-MAR-E002-03

Project Name:
MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
TRANSMISSION ASSETS MARINE ARCHAEOLOGY STUDY AREA

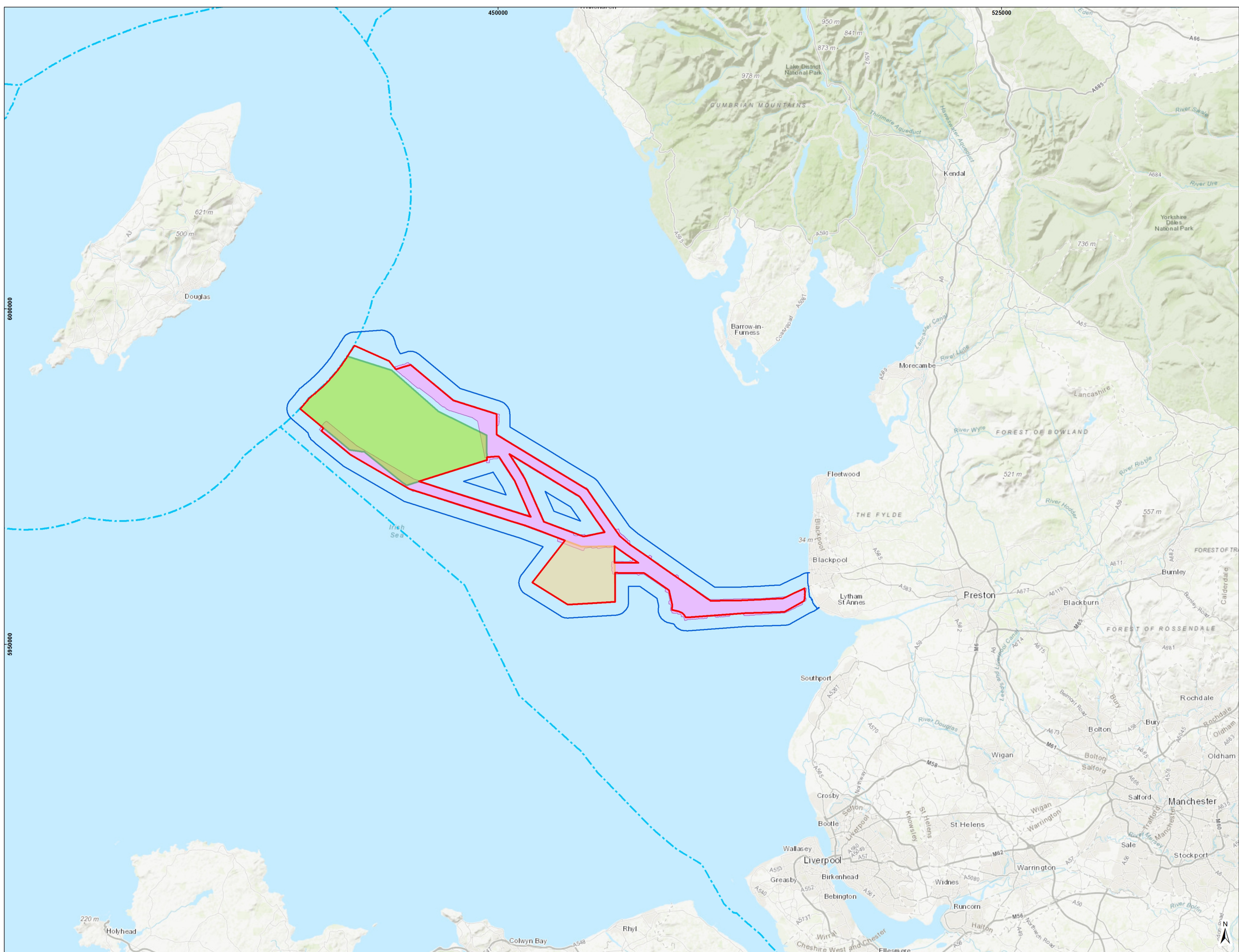


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- LEGEND**
- Morgan and Morecambe Offshore Windfarms: Transmission Assets Order Limits – Offshore
 - Morgan Offshore Wind Project: Generation Assets
 - Morecambe Offshore Windfarm: Generation Assets
 - Marine Archaeology Study Area
 - Transmission Assets Survey Area
 - Jurisdictional Boundary

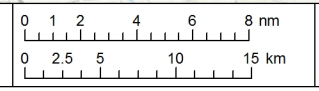


Figure 8.2

Drawing Number:
RPSE-ES-MAR-E003-03

Project Name:
MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
TRANSMISSION ASSETS SURVEY AREA

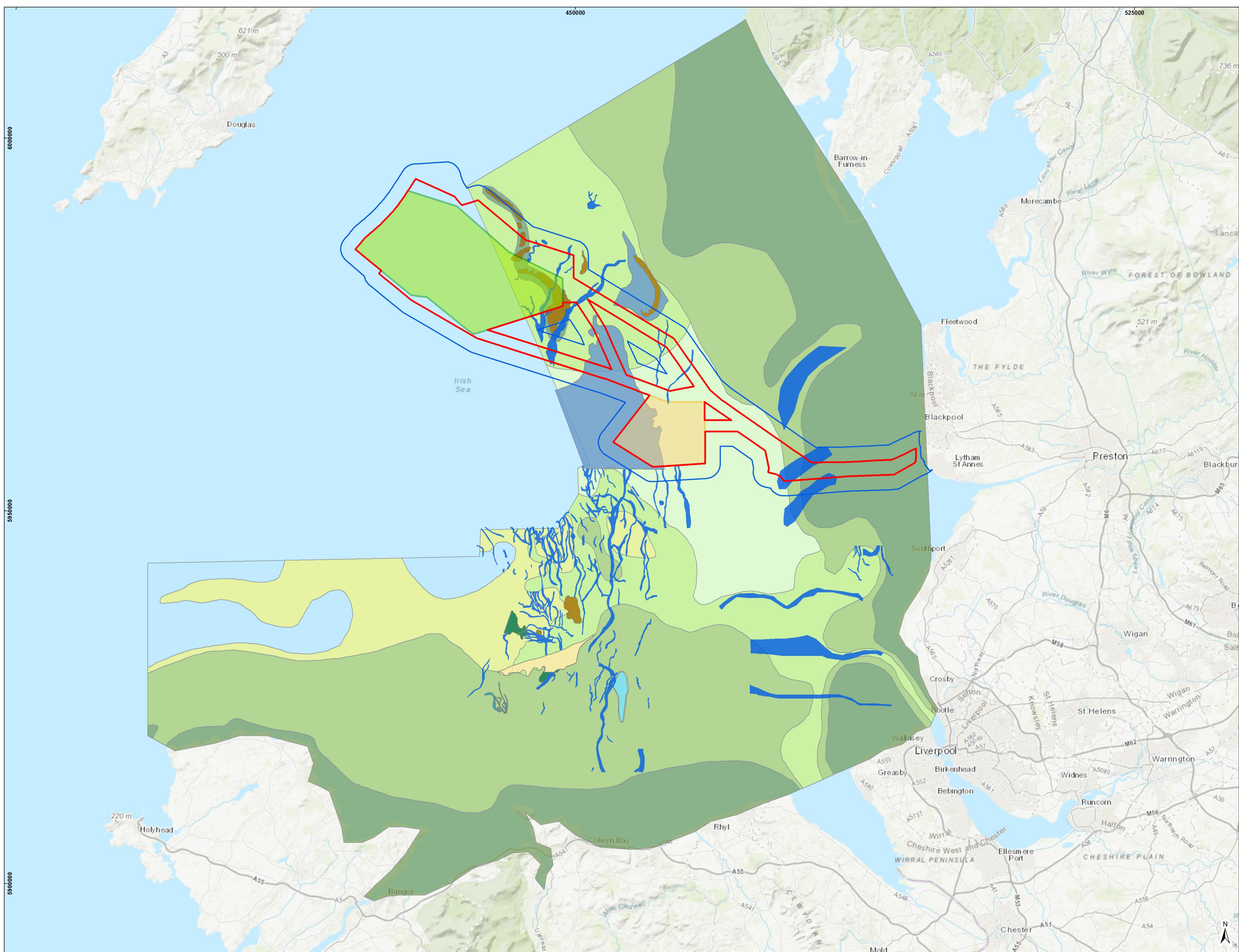


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LEGEND

- Morgan and Morecambe Offshore Windfarms:
 - Transmission Assets Order Limits – Offshore
 - Project: Generation Assets
- Morecambe Offshore Windfarm: Generation Assets
- Marine Archaeology Study Area
- Channel
- Basin structure
- High ground
- Floodplain

Relative Topography

- High
- High - Intermediate
- Intermediate
- Intermediate - Low
- Low
- Very Low

MORECAMBE
enbw | bp | FPS

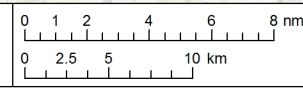
enbw **bp** **FPS**
Partners in UK offshore wind | A TOTAL TECH COMPANY

Figure 8.3

Drawing Number:
 RPSE-ES-MAR-E004-03

Project Name:
 MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Drawing Title:
 WEST COAST PALAEO LANDSCAPE STUDY RECONSTRUCTION OF THE TRANSMISSION ASSETS MARINE ARCHAEOLOGY STUDY AREA



Geodetic Information:
 Datum: ETRS 1989
 Projection: ETRS 1989 UTM Zone 30N
 Scale@379mmx231mm: 1:450,000

Data Sources: Client, The Crown Estate, MMO, NRW, ScotGov, MarineRegions.org, WCPS

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

| VER | DATE | DETAILS | BY | CHECK |
|-----|----------|---------------|----|-------|
| 00 | 22/04/24 | Initial Issue | MJ | LD |
| 03 | 17/09/24 | Final | MJ | BM |