

- Legend**
- Marine Scheme Boundary
  - Physical Environment and Seabed Conditions Study Area
  - UK 12 Nautical Mile Limit
  - Scotland/England Territorial Waters

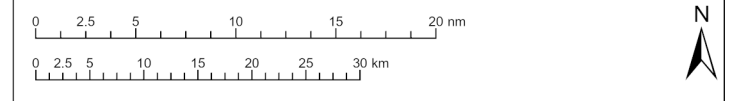
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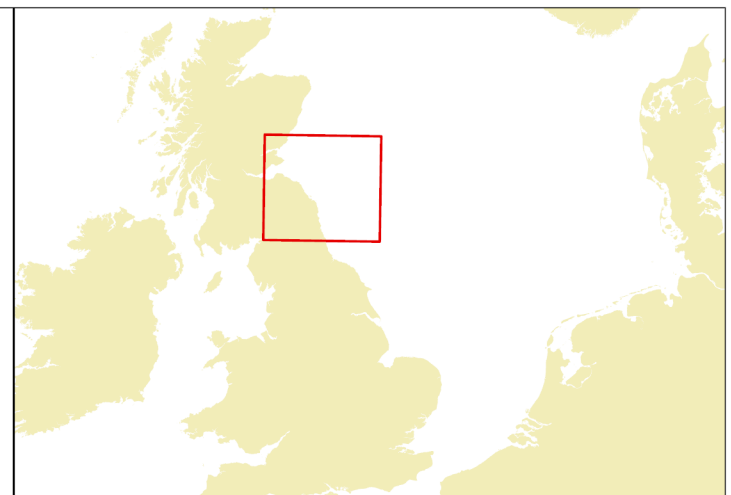
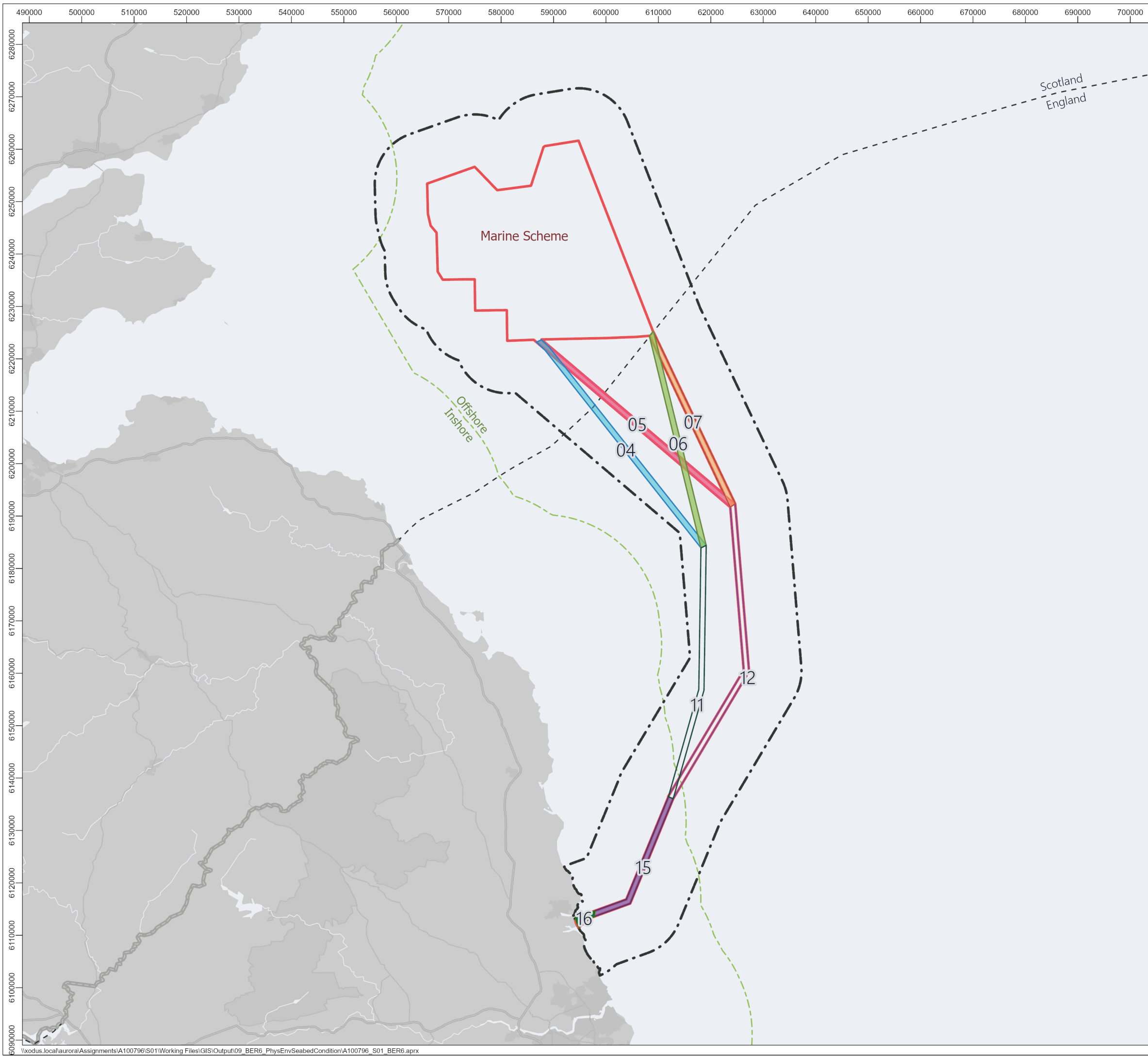
Project  
**Cambois Connection**

Title  
**Figure 7.1 Offshore Physical Environment and Seabed Conditions Study Area**



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**Legend**

- Marine Scheme Boundary
- Physical Environment and Seabed Conditions Study Area
- Cable Corridor Route Options
  - Cambois Landfall Search Area
  - Nearshore Area
  - Option A
  - Option 1
  - Option 2
  - Option B
  - Option 3
  - Option 4
- UK 12 Nautical Mile Limit
- Scotland/England Territorial Waters

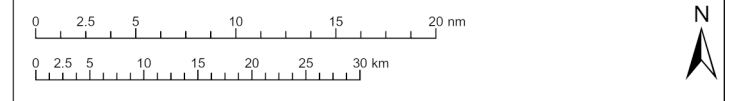
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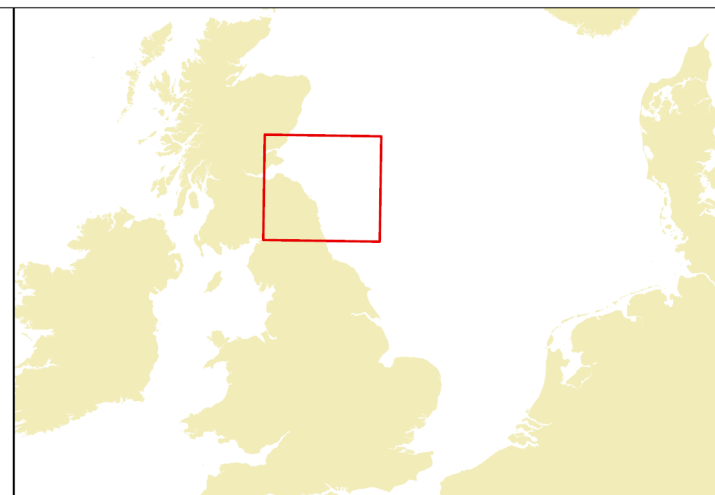
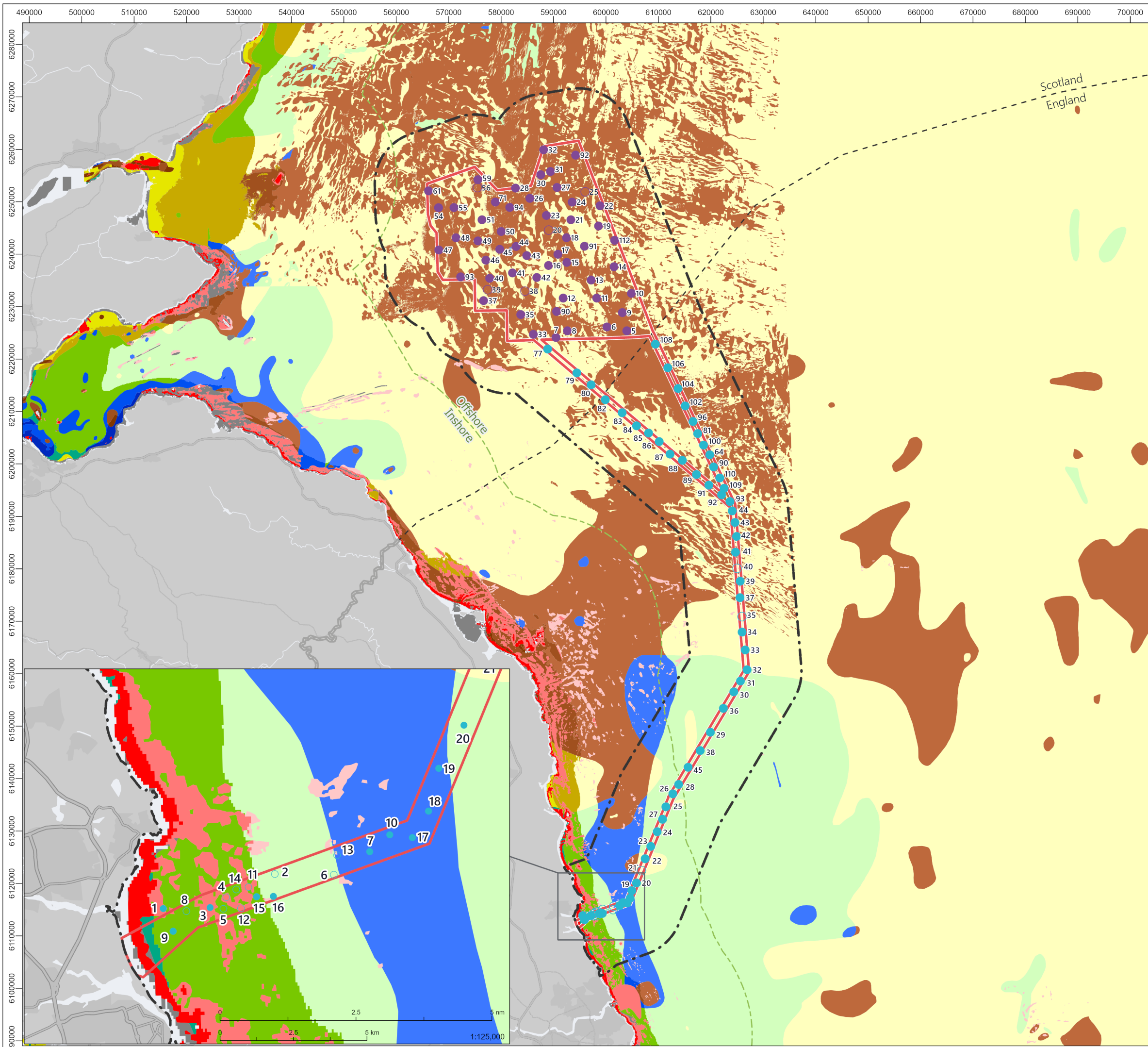
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**Figure 7.2 Site-Specific Geophysical Survey Corridors**



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**Legend**

- Marine Scheme Boundary
- Physical Environment and Seabed Conditions Study Area

**Benthic Sampling Stations**

- Combined Grab and DDV Sample (Cambois)
- DDV Only Sample (Cambois)
- Combined Grab and DDV Sample (Berwick Bank)
- DDV Only Sample (Berwick Bank)

UK 12 Nautical Mile Limit

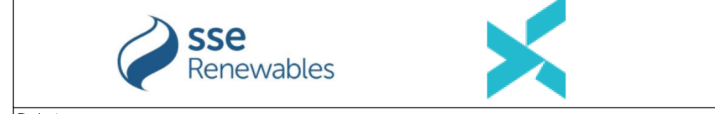
Scotland/England Territorial Waters

**EUSeaMap (2021) MSFD Benthic Broad Habitat Types**

- Infralittoral Coarse Sediment
- Infralittoral Rock and Biogenic Reef
- Infralittoral Sand
- Infralittoral Mud
- Circalittoral Rock and Biogenic Reef
- Circalittoral Sand
- Circalittoral Mud
- Offshore Circalittoral Mixed Sediment
- Offshore Circalittoral Coarse Sediment
- Offshore Circalittoral Rock and Biogenic Reef
- Offshore Circalittoral Sand
- Offshore Circalittoral Mud

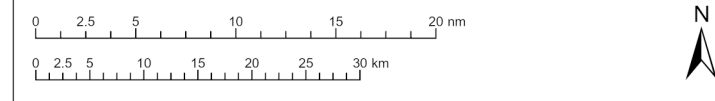
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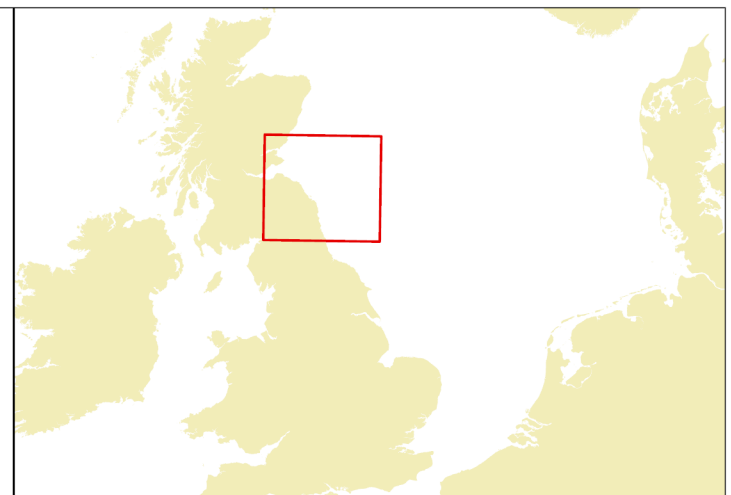
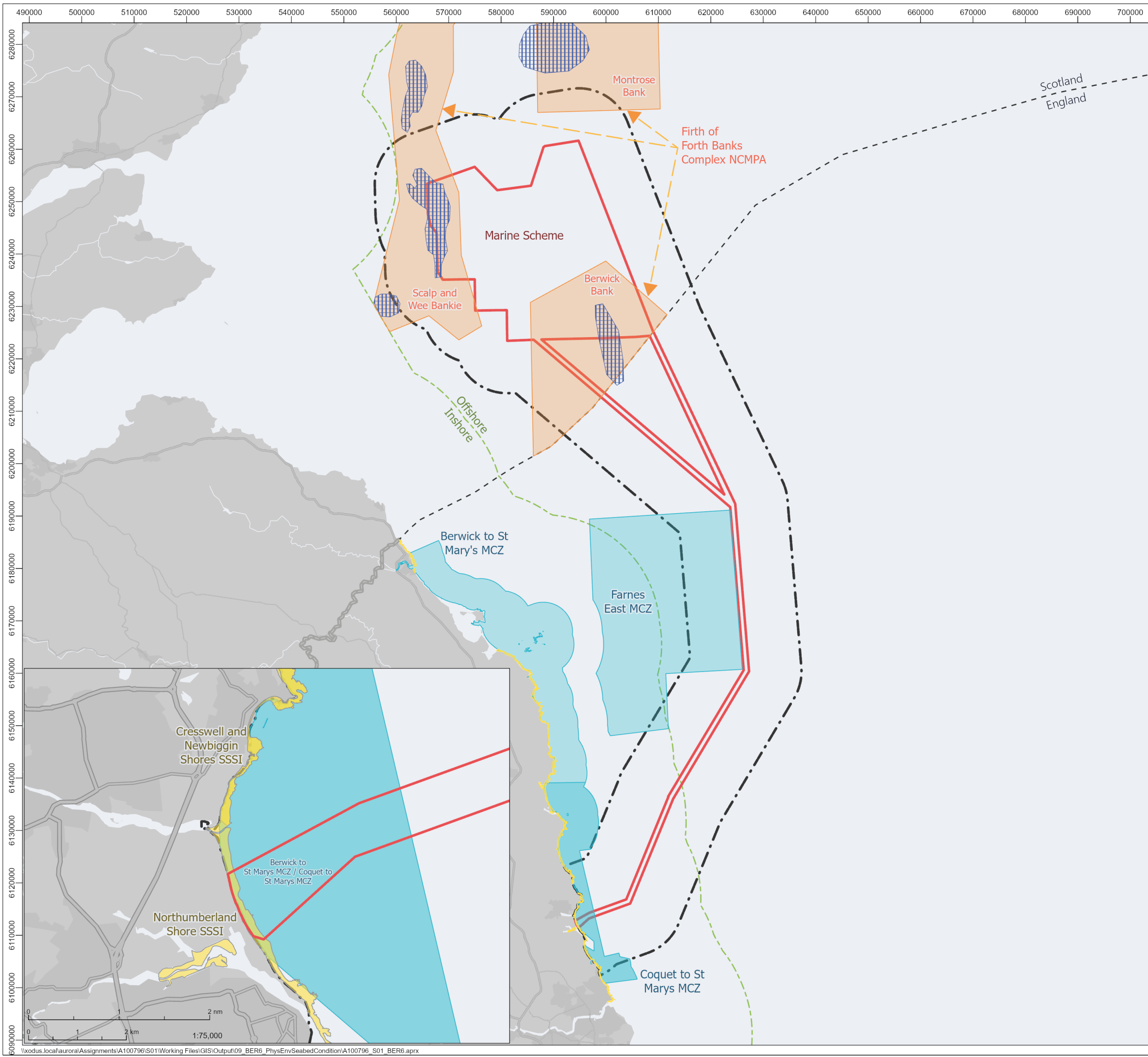
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**Figure 7.3 Site-Specific Sediment Sampling Locations across the Marine Scheme**



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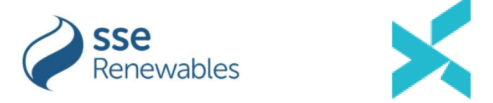
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Sheet No.: 001 OF 001



- Legend**
- Marine Scheme Boundary
  - Physical Environment and Seabed Conditions Study Area
  - MCZ (Marine Conservation Zone)
  - NCMPA (Nature Conservation Marine Protected Area)
  - SSSI (Site of Special Scientific Interest)
  - Shelf Banks and Mounds
  - UK 12 Nautical Mile Limit
  - Scotland/England Territorial Waters

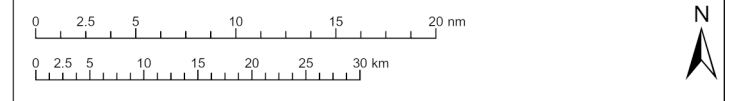
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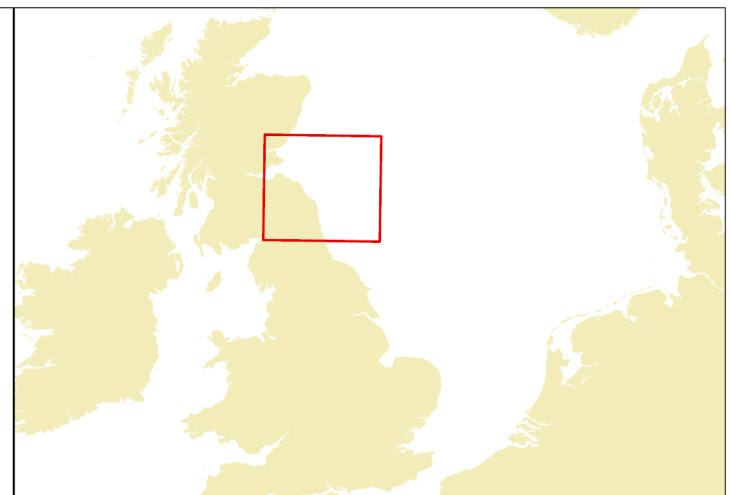
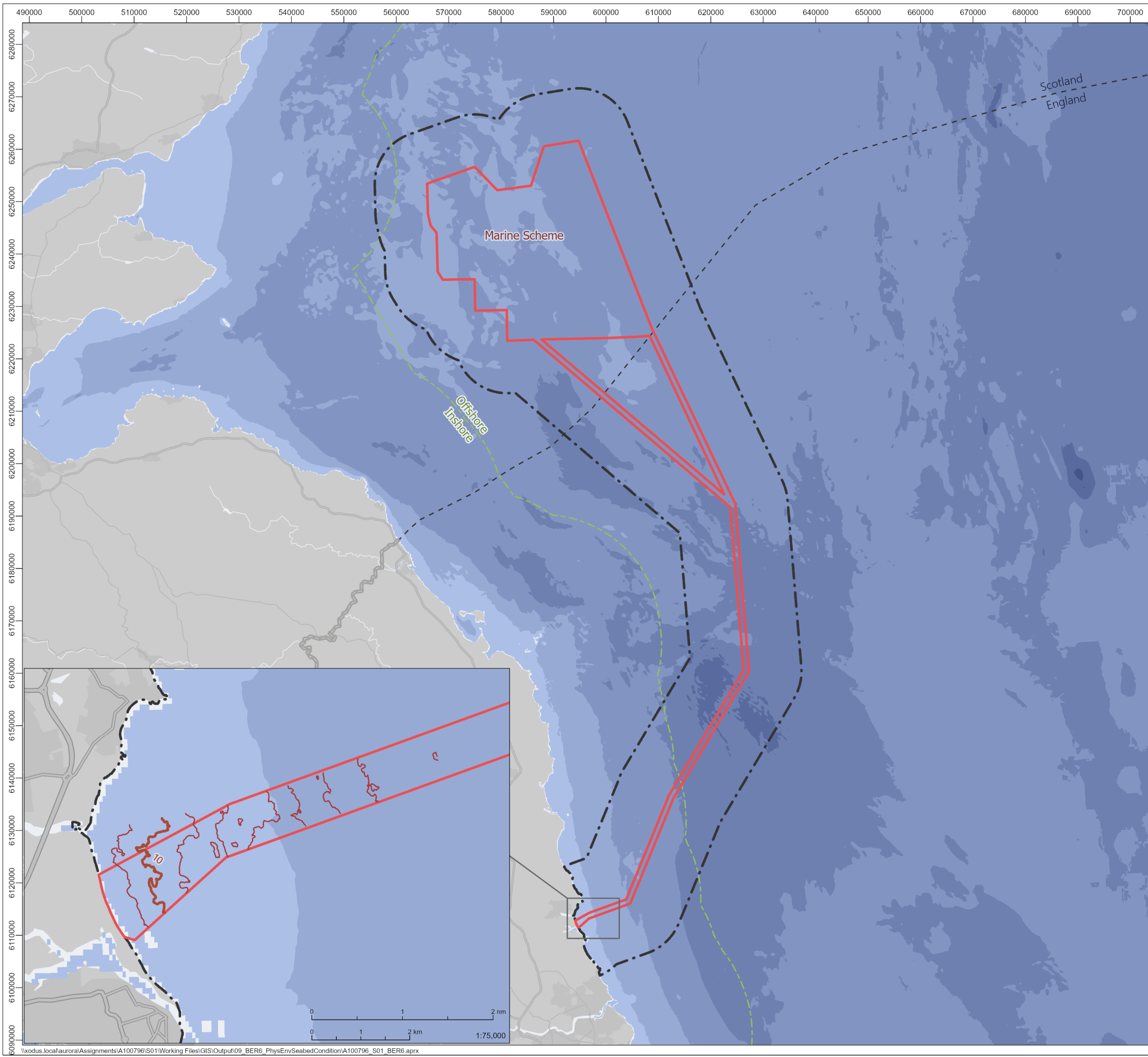
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**Figure 7.4 Designated Sites within the Offshore Physical Environment and Seabed Conditions Study Area**



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**Legend**

- Marine Scheme Boundary
- Physical Environment and Seabed Conditions Study Area
- UK 12 Nautical Mile Limit
- Scotland/England Territorial Waters
- LAT Bathymetry Contours

**Bathymetry (m)**

- 100 -150
- 75 -100
- 50 -75
- 25 -50
- 15 - 25
- <15

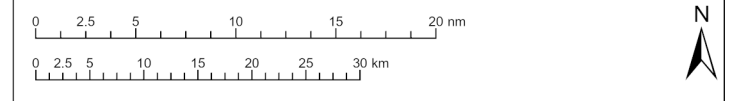
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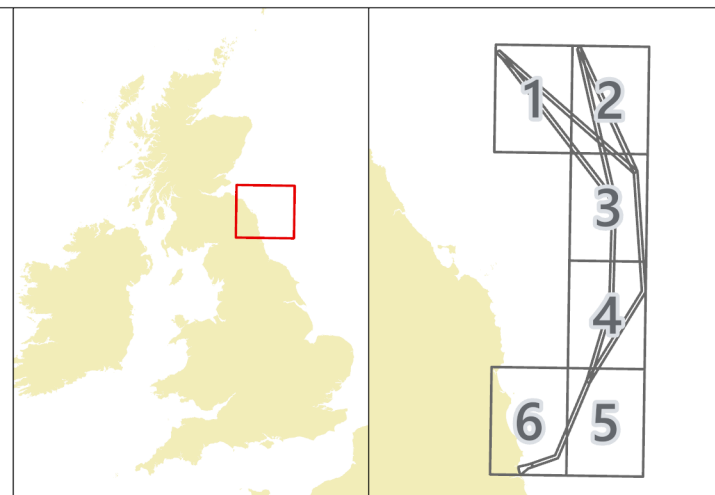
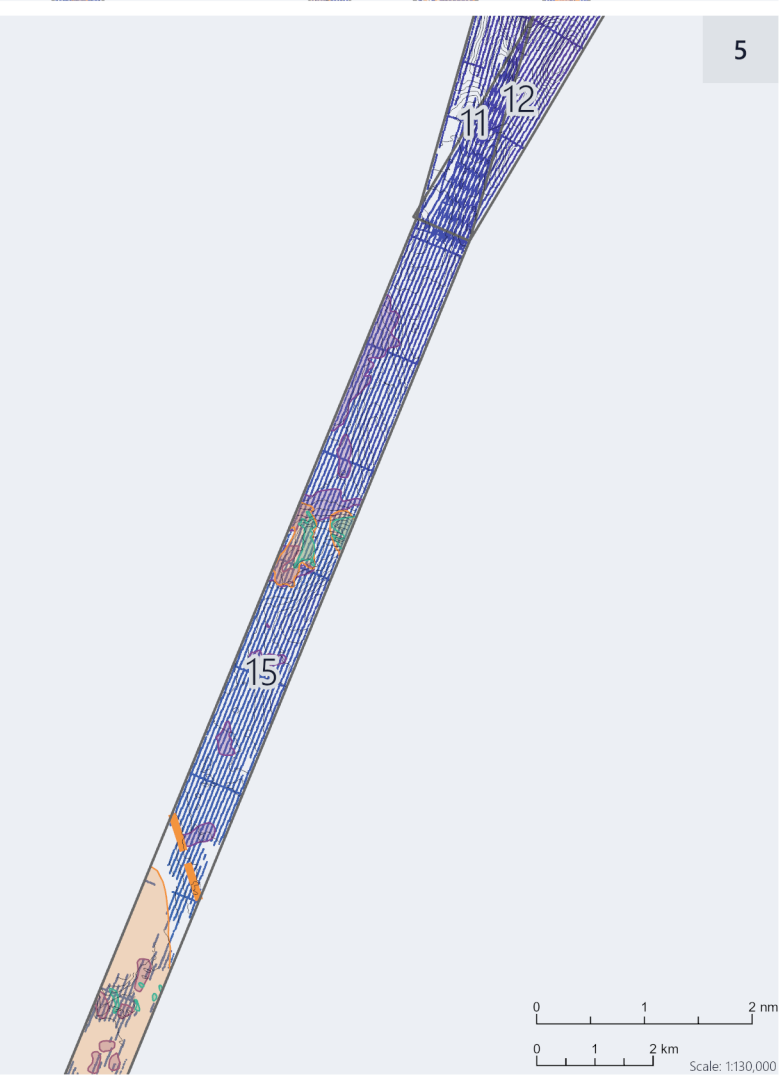
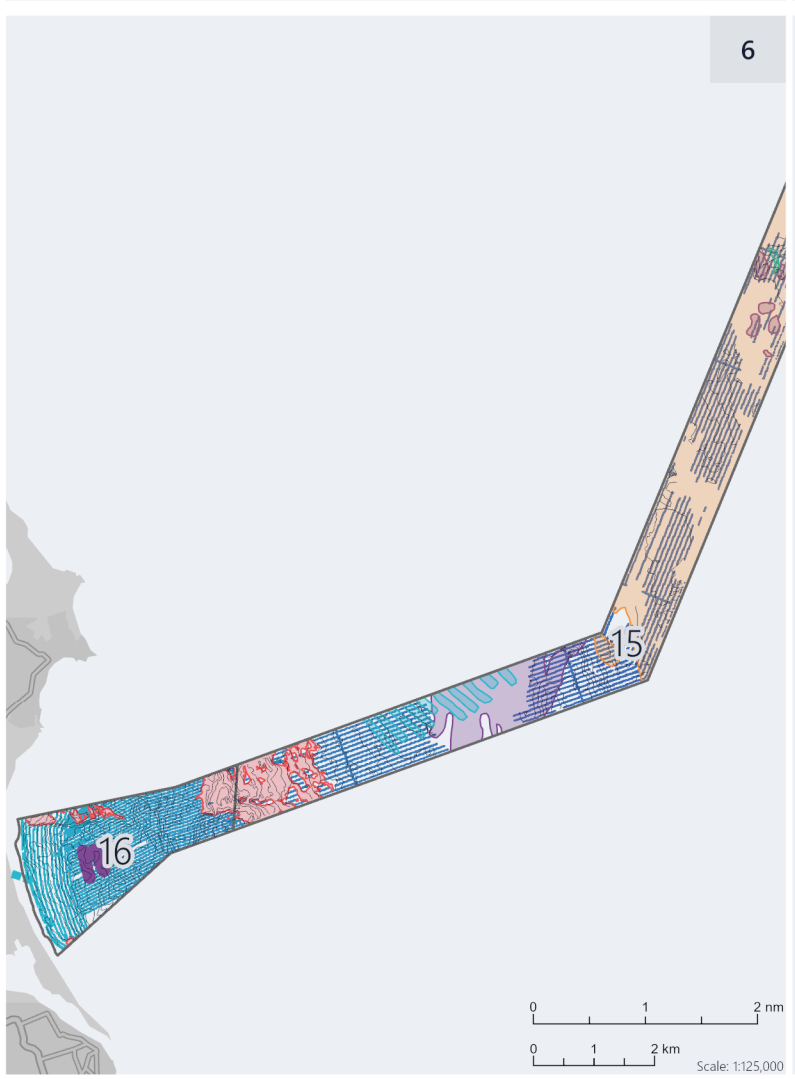
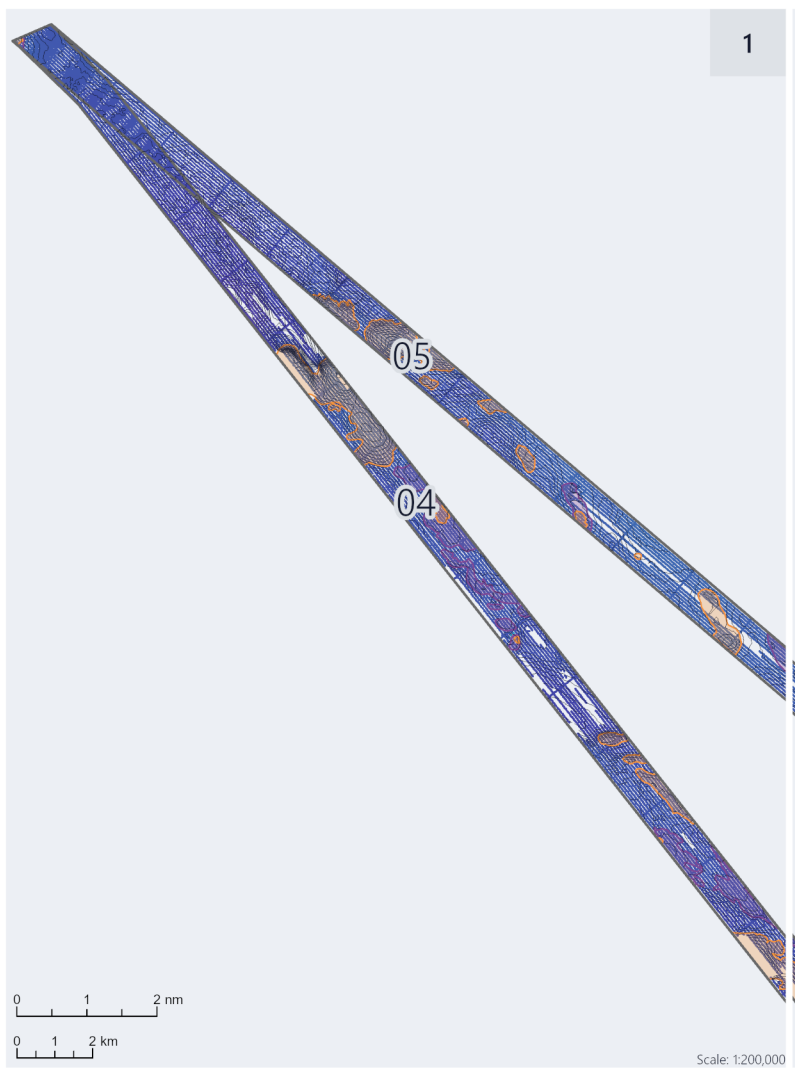
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**Cambois Connection**

Title  
**Figure 7.5 Seabed Bathymetry in the Offshore Physical Environment and Seabed Conditions Study Area**



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**Legend**

- Survey Corridor
- Megaripples
- Depression Fields
- Dredging Scars
- Morphological Features
- Outcrop with Veneer Sediment
- sandwaves
- Transitional Bedforms
- Sandwave Crests
- Pipe
- Pipe Trenching
- Fishing Gear
- Bathymetry Contours

**LAT Bathymetry (m)**

1.1

110

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**Cambois Connection**

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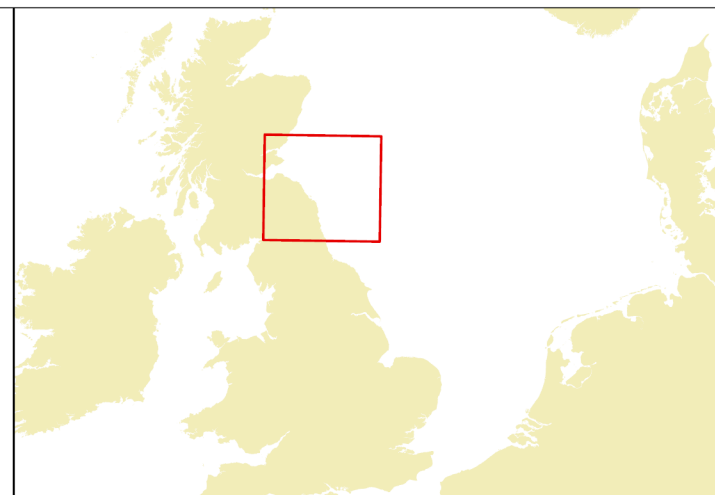
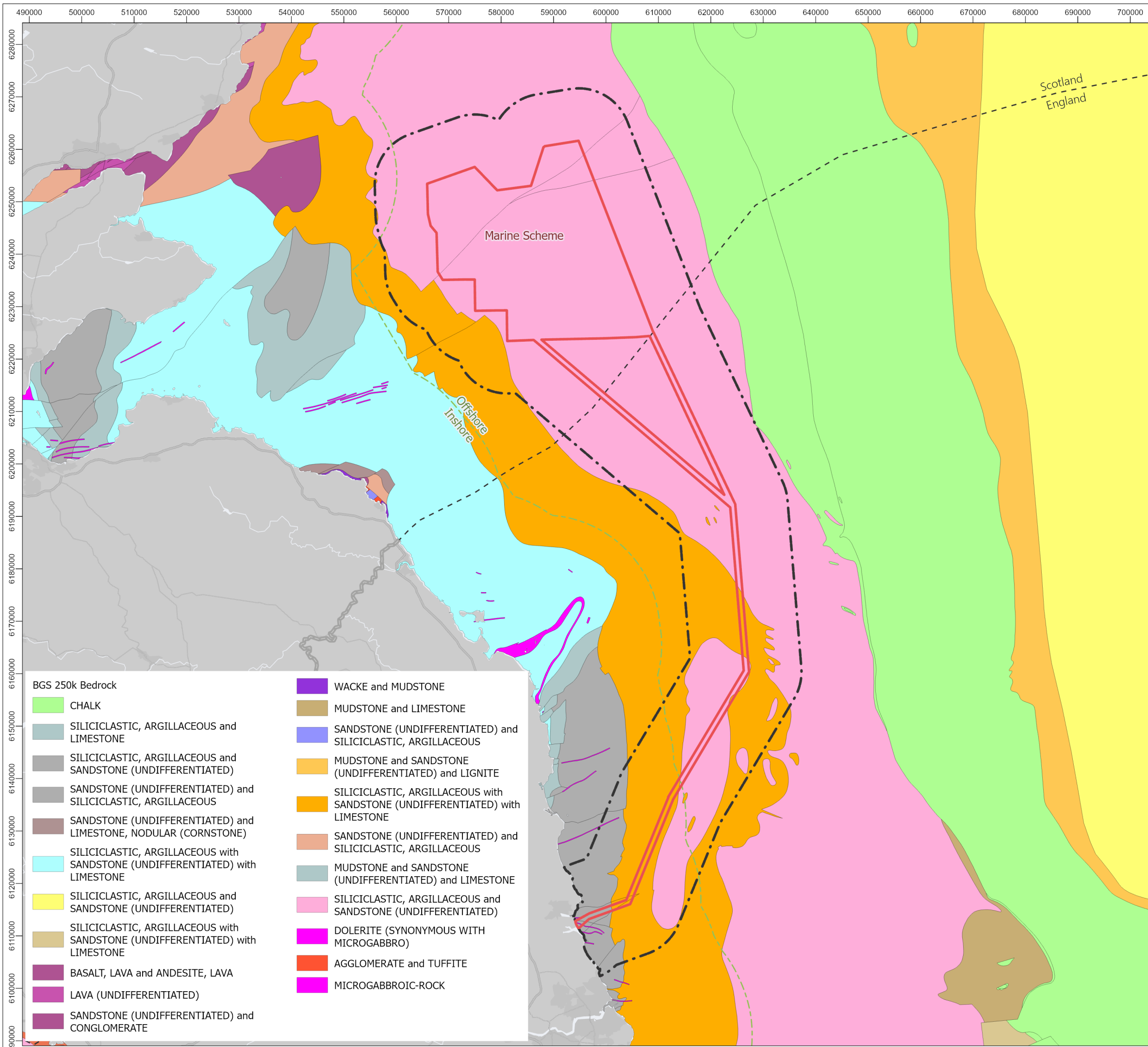
**Figure 7.6 Seabed Bathymetry and Features in the Offshore Physical Environment and Seabed Conditions Study Area (XOCEAN, 2022)**

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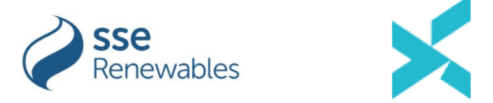


- Legend**
- Marine Scheme Boundary
  - Physical Environment and Seabed Conditions Study Area
  - UK 12 Nautical Mile Limit
  - Scotland/England Territorial Waters

- BGS 250k Bedrock**
- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #90EE90; margin-right: 5px;"></span> CHALK</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #808080; margin-right: 5px;"></span> SILICICLASTIC, ARGILLACEOUS and LIMESTONE</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #696969; margin-right: 5px;"></span> SILICICLASTIC, ARGILLACEOUS and SANDSTONE (UNDIFFERENTIATED)</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #404040; margin-right: 5px;"></span> SANDSTONE (UNDIFFERENTIATED) and SILICICLASTIC, ARGILLACEOUS</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #8B4513; margin-right: 5px;"></span> SANDSTONE (UNDIFFERENTIATED) and LIMESTONE, NODULAR (CORNSTONE)</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #00CED1; margin-right: 5px;"></span> SILICICLASTIC, ARGILLACEOUS with SANDSTONE (UNDIFFERENTIATED) with LIMESTONE</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FFFF00; margin-right: 5px;"></span> SILICICLASTIC, ARGILLACEOUS and SANDSTONE (UNDIFFERENTIATED)</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #D2B48C; margin-right: 5px;"></span> SILICICLASTIC, ARGILLACEOUS with SANDSTONE (UNDIFFERENTIATED) with LIMESTONE</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #800080; margin-right: 5px;"></span> BASALT, LAVA and ANDESITE, LAVA</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #800080; margin-right: 5px;"></span> LAVA (UNDIFFERENTIATED)</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #800080; margin-right: 5px;"></span> SANDSTONE (UNDIFFERENTIATED) and CONGLOMERATE</li> </ul> | <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #800080; margin-right: 5px;"></span> WACKE and MUDSTONE</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #8B4513; margin-right: 5px;"></span> MUDSTONE and LIMESTONE</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #6495ED; margin-right: 5px;"></span> SANDSTONE (UNDIFFERENTIATED) and SILICICLASTIC, ARGILLACEOUS</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FFA500; margin-right: 5px;"></span> MUDSTONE and SANDSTONE (UNDIFFERENTIATED) and LIGNITE</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FF8C00; margin-right: 5px;"></span> SILICICLASTIC, ARGILLACEOUS with SANDSTONE (UNDIFFERENTIATED) with LIMESTONE</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #D2B48C; margin-right: 5px;"></span> SANDSTONE (UNDIFFERENTIATED) and SILICICLASTIC, ARGILLACEOUS</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #808080; margin-right: 5px;"></span> MUDSTONE and SANDSTONE (UNDIFFERENTIATED) and LIMESTONE</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FFB6C1; margin-right: 5px;"></span> SILICICLASTIC, ARGILLACEOUS and SANDSTONE (UNDIFFERENTIATED)</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FF00FF; margin-right: 5px;"></span> DOLERITE (SYNONYMOUS WITH MICROGABBRO)</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FF4500; margin-right: 5px;"></span> AGGLOMERATE and TUFFITE</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FF00FF; margin-right: 5px;"></span> MICROGABBROIC-ROCK</li> </ul> |
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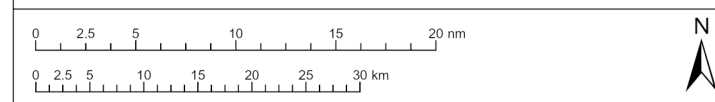
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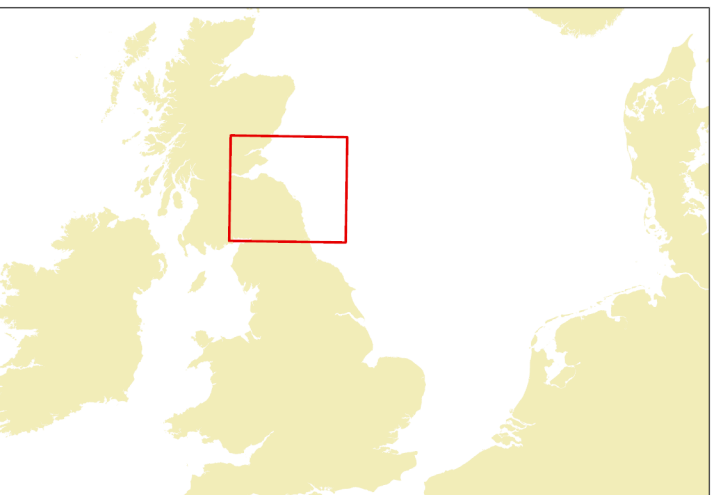
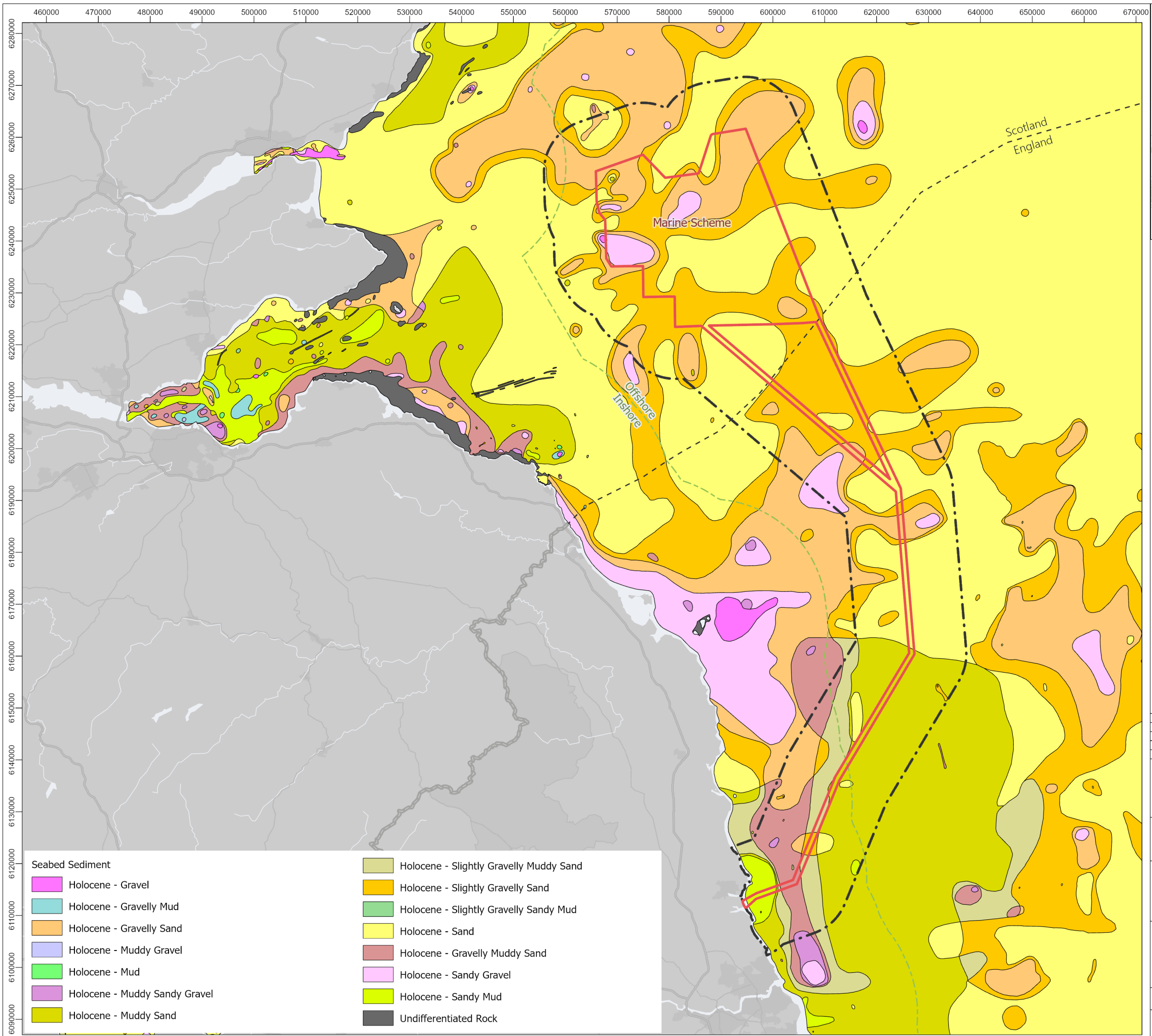
Title  
**Figure 7.7 Bedrock across the Offshore Physical Environment and Seabed Conditions Study Area**



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**Legend**

- Marine Scheme Boundary
- Physical Environment and Seabed Conditions Study Area
- UK 12 Nautical Mile Limit
- Scotland/England Territorial Waters

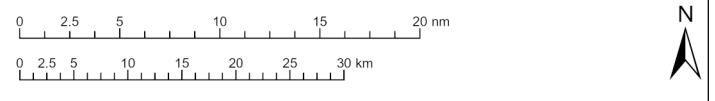
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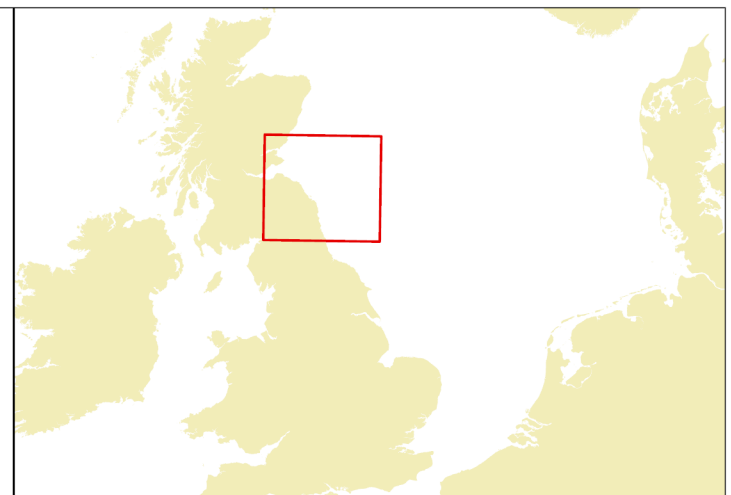
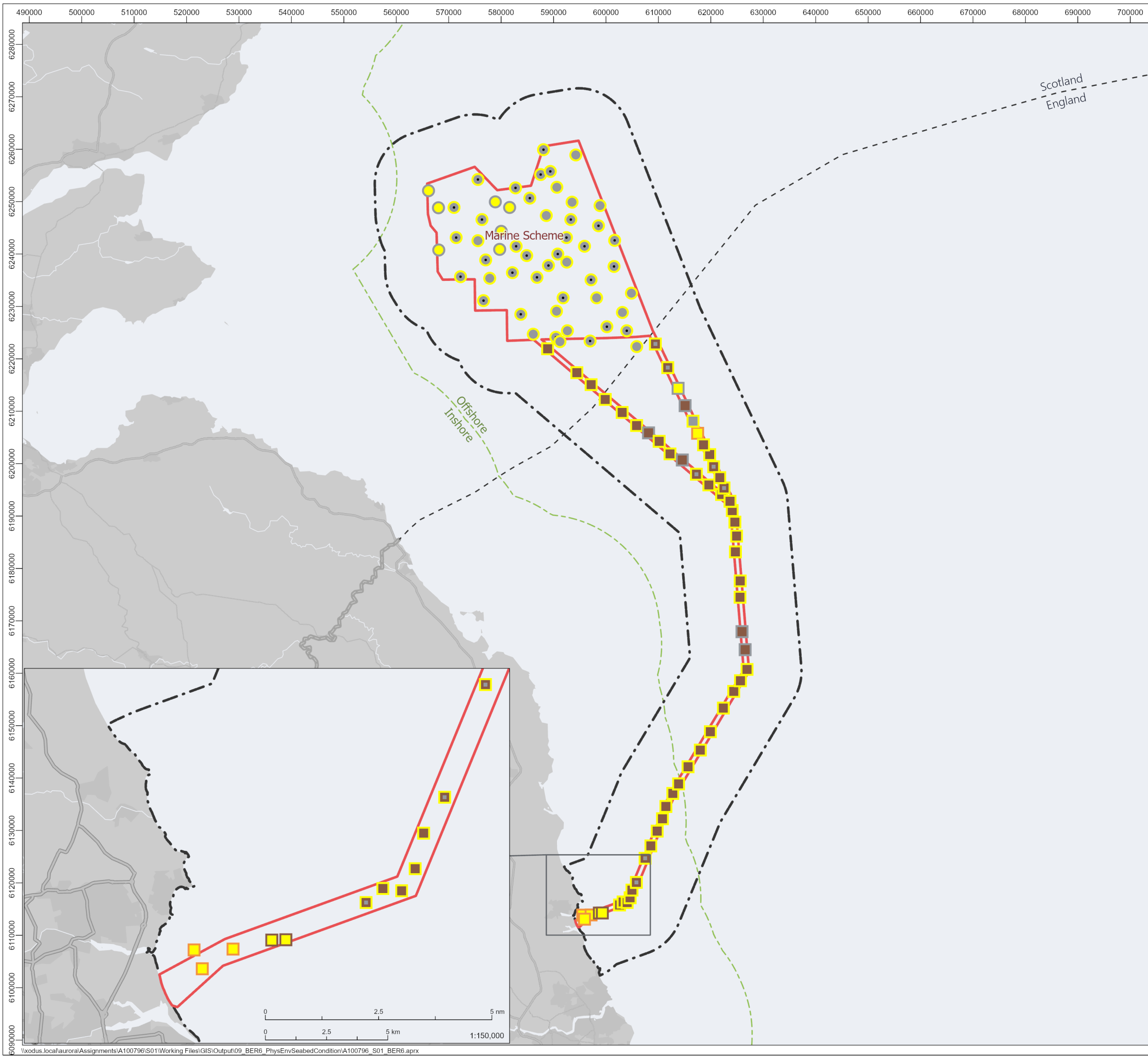
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**Cambois Connection**

Title  
**Figure 7.8 BGS Seabed Sediment Classification across the Offshore Physical Environment and Seabed Conditions Study Area**



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**Legend**

- Marine Scheme Boundary
- Physical Environment and Seabed Conditions Study Area
- UK 12 Nautical Mile Limit
- Scotland/England Territorial Waters

**Folk Sediment Classification (Berwick Bank)**

- Gravelly Sand
- Sandy Gravel
- Slightly Gravelly Sand

**Folk Sediment Classification (Cambois)**

- Gravelly Muddy Sand; (Gravelly) Muddy Sand
- Gravelly Sand
- Muddy Sand
- Muddy Sandy Gravel
- Sand; (Gravelly) Sand
- Sandy Gravel
- Sandy Mud; (Gravelly) Sandy Mud

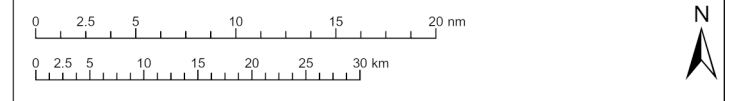
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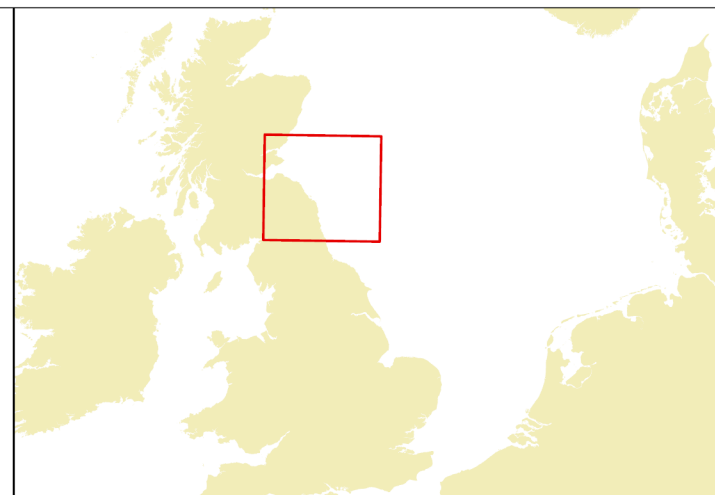
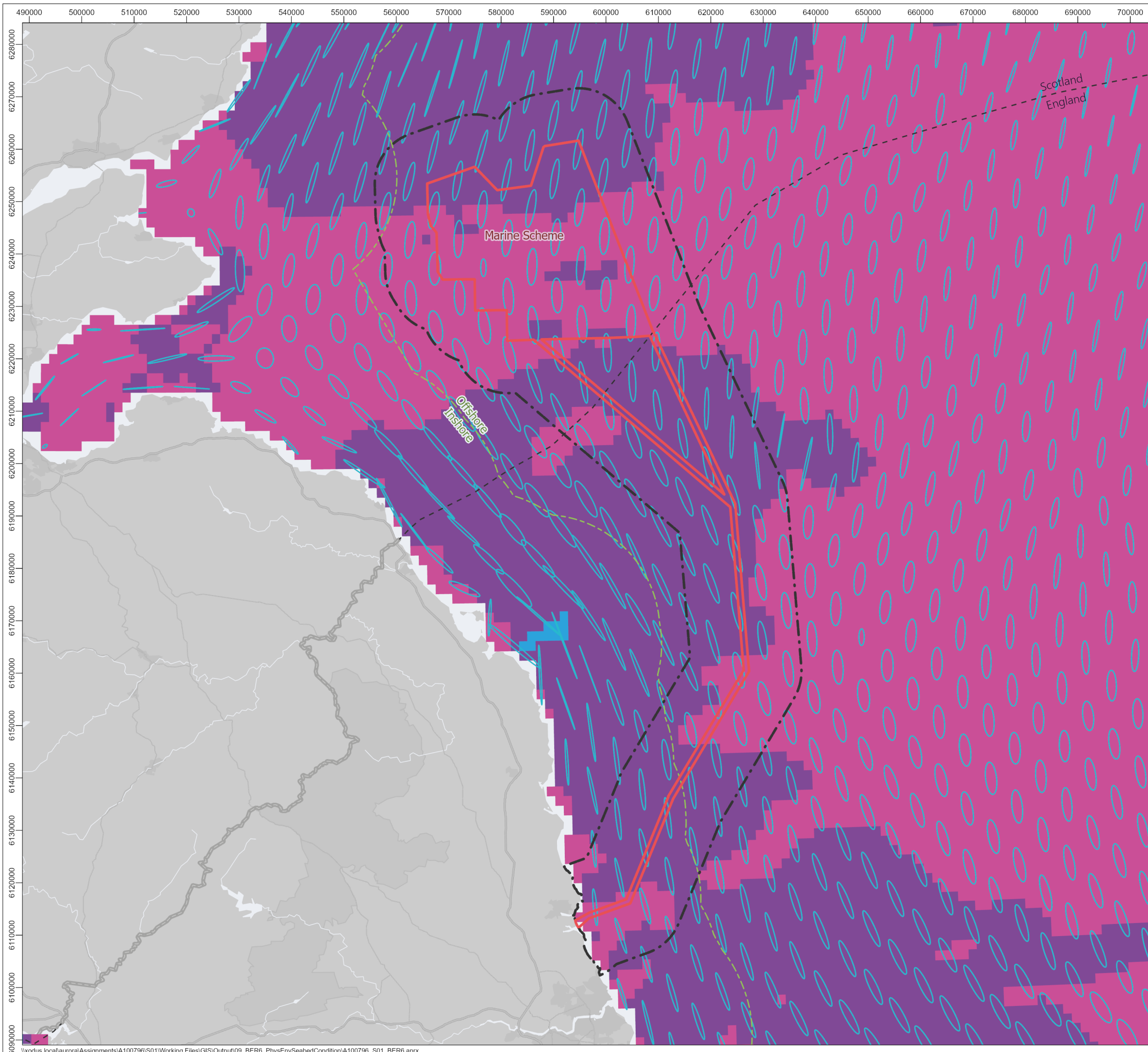
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**Figure 7.9 Seabed Sediment Classification across the Marine Scheme, based on Site-Specific Sampled PSA**



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**Legend**

- Marine Scheme Boundary
- Physical Environment and Seabed Conditions Study Area
- Spring Tidal Excursion Ellipse

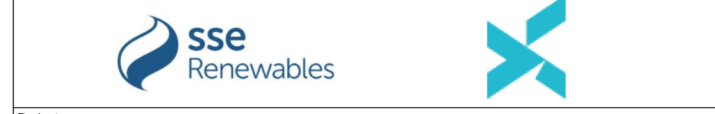
Peak current speed of a mean spring tide (m/s)

- 0.00 - 0.500
- 0.501 - 1.00
- 1.01 - 1.50

- UK 12 Nautical Mile Limit
- Scotland/England Territorial Waters

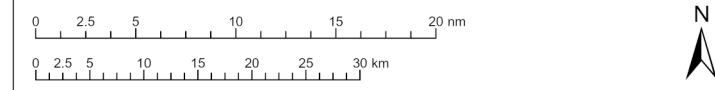
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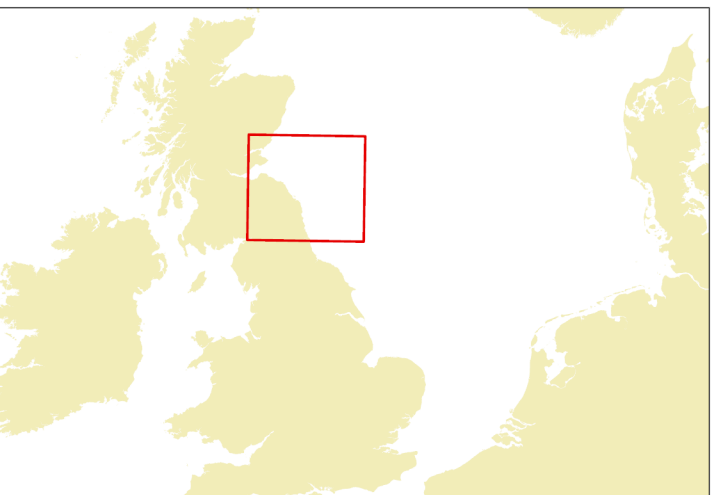
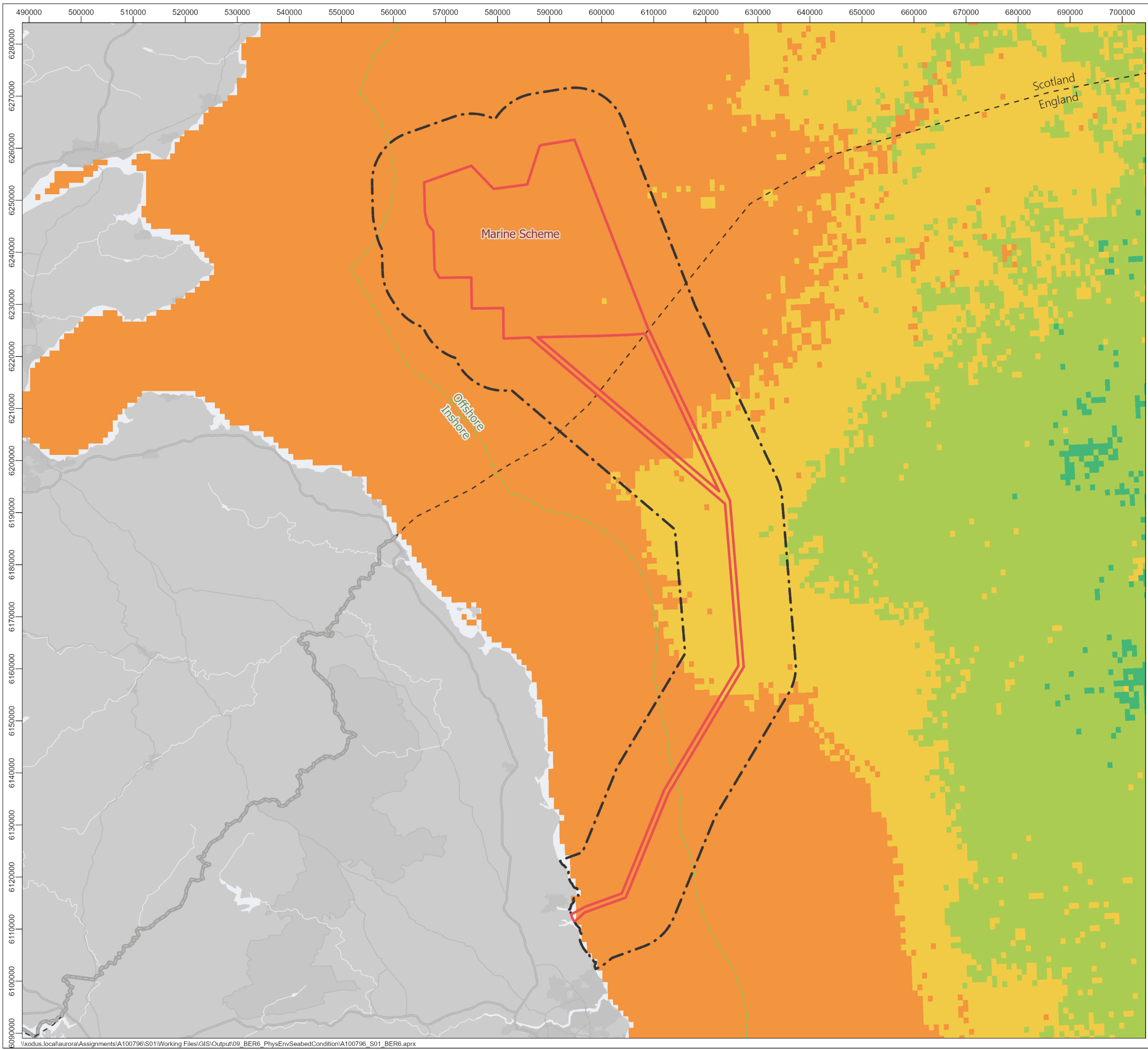
Title  
**Figure 7.10 Peak (Depth-Average) Flows on a Mean Spring Tide across the Offshore Physical Environment and Seabed Conditions Study Area**



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**Legend**

- Marine Scheme Boundary
- Physical Environment and Seabed Conditions Study Area

Non-living suspended matters mean ( $1 \times 10^{-3} \text{ kg/m}^3$ )

- 0.5 - 0.6
- 0.6 - 0.7
- 0.7 - 0.8
- 0.8 - 1.0

- UK 12 Nautical Mile Limit
- Scotland/England Territorial Waters

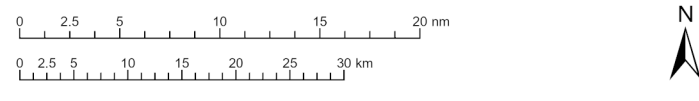
© Crown copyright 2023. All rights reserved. Esri, HERE, Garmin, FourSquare, GeoTechnologies, Inc, METI/ASA, USGS, EMODnet Silva (2016). Monthly average non-algal Suspended Particulate Matter concentrations. Cefas, UK, V1. (Based on Gohin et al 2011). doi: <https://doi.org/10.14466/CefasData#tab:31>

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01	06/04/2023	Issued	TF	SW	EW
Rev	Date	Status	Drwn	Chkd	Appd



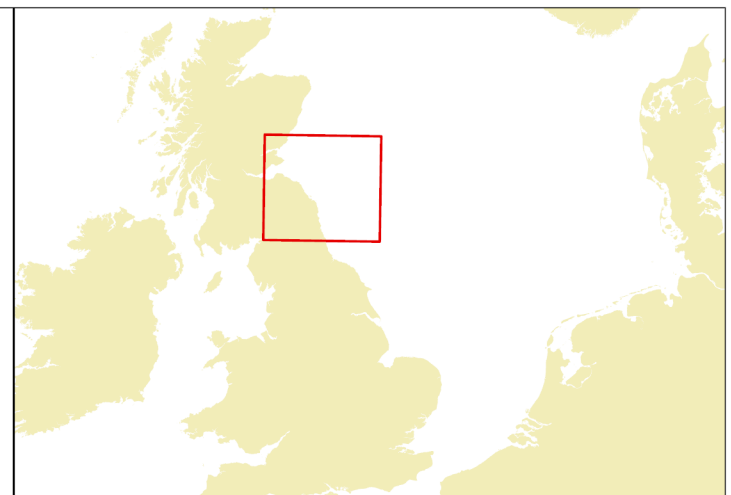
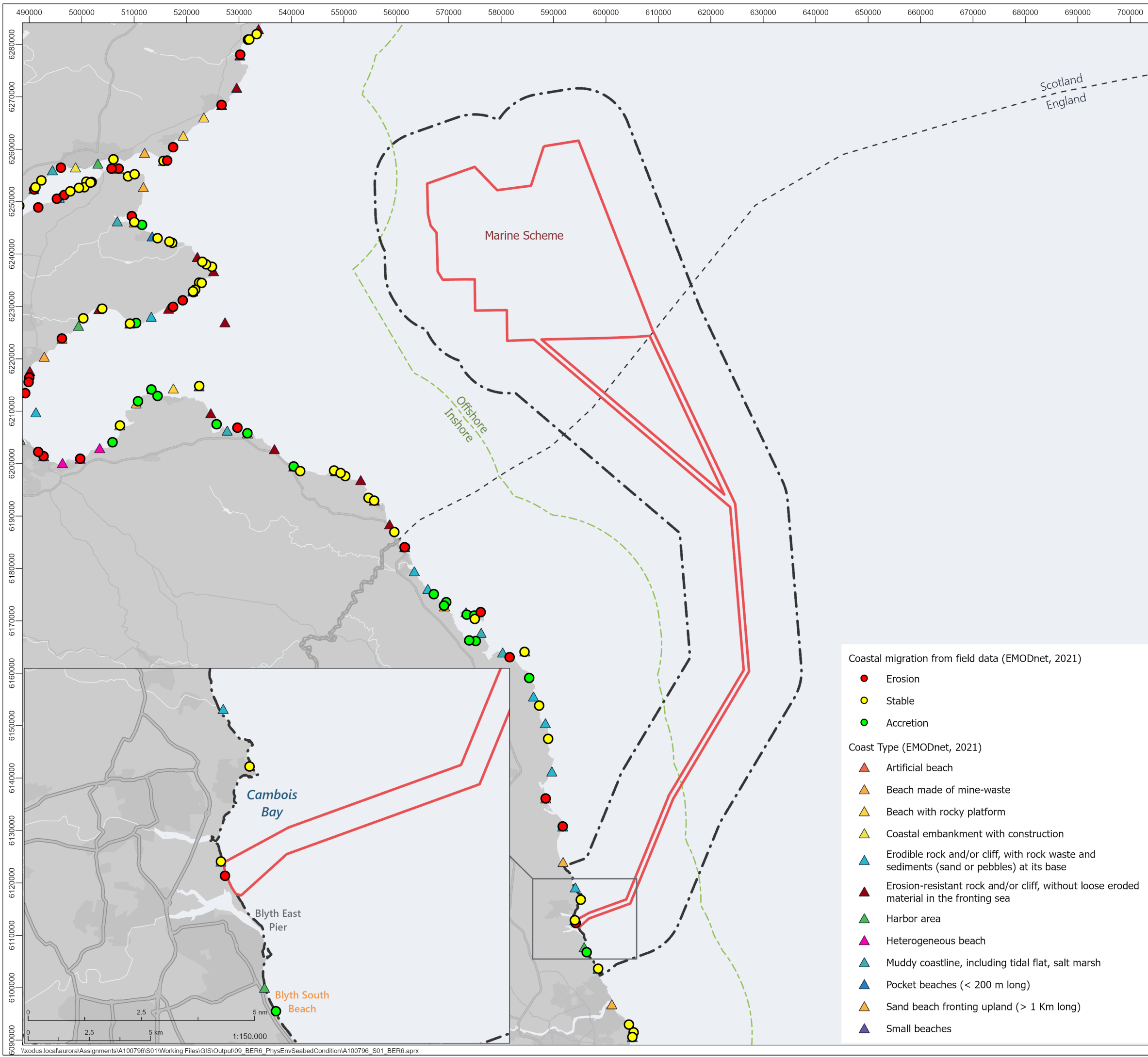
Project  
**Cambois Connection**

Title  
**Figure 7.11 Monthly Average Sea Surface SPM Concentrations (Cefas, 2016)**



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Scale	Plot Size	Datum	Projection
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- Legend**
- Marine Scheme Boundary
  - Physical Environment and Seabed Conditions Study Area
  - UK 12 Nautical Mile Limit
  - Scotland/England Territorial Waters

- Coastal migration from field data (EMODnet, 2021)
- Erosion
  - Stable
  - Accretion
- Coast Type (EMODnet, 2021)
- ▲ Artificial beach
  - ▲ Beach made of mine-waste
  - ▲ Beach with rocky platform
  - ▲ Coastal embankment with construction
  - ▲ Erodible rock and/or cliff, with rock waste and sediments (sand or pebbles) at its base
  - ▲ Erosion-resistant rock and/or cliff, without loose eroded material in the fronting sea
  - ▲ Harbor area
  - ▲ Heterogeneous beach
  - ▲ Muddy coastline, including tidal flat, salt marsh
  - ▲ Pocket beaches (< 200 m long)
  - ▲ Sand beach fronting upland (> 1 Km long)
  - ▲ Small beaches

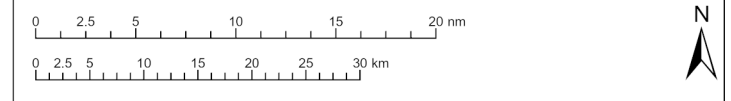
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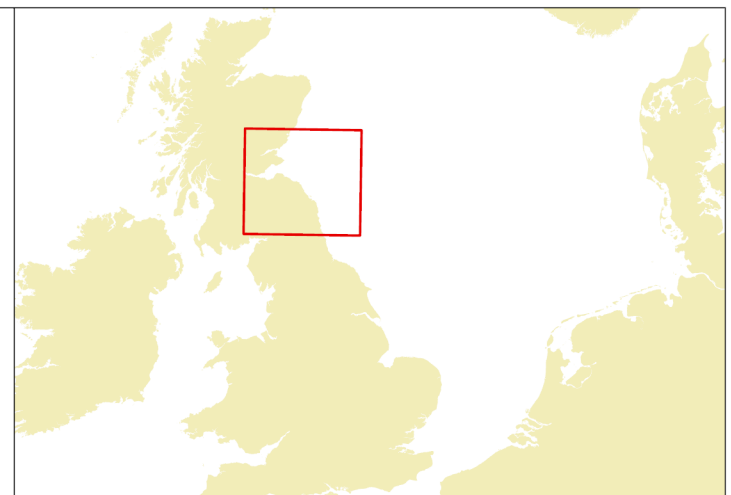
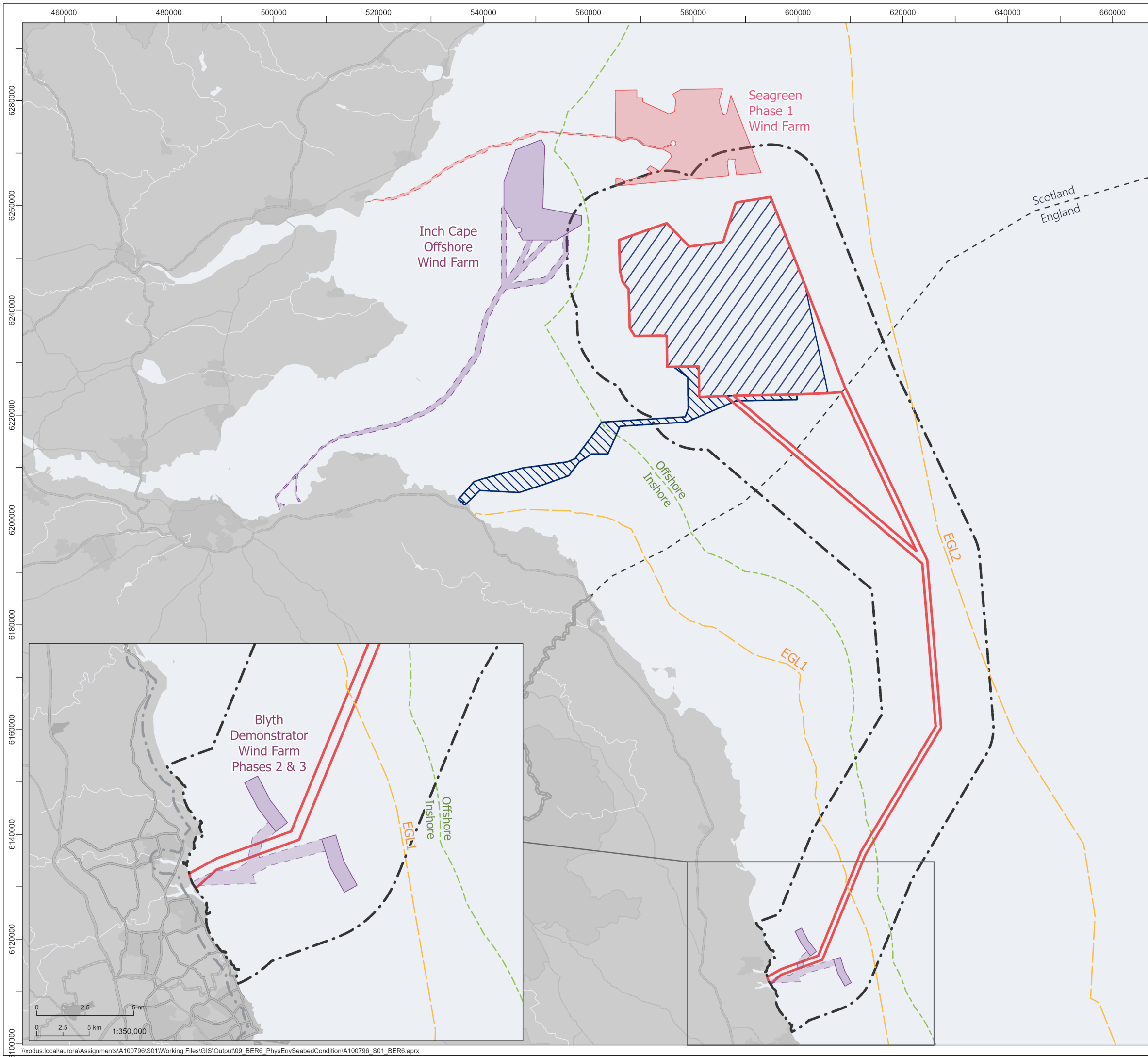
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**Cambois Connection**

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**Figure 7.12 Coastal Morphology in the Offshore Physical Environment and Seabed Conditions Study Area from EMODnet (2021)**



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**Legend**

- Marine Scheme Boundary
- Physical Environment and Seabed Conditions Study Area
- Berwick Bank Wind Farm Array Area
- Berwick Bank Wind Farm Branxton Connection
- Offshore Wind Farm Site Agreements
  - Under Construction
  - Consented
- Offshore Wind Farm Site Cable Corridors
  - Under Construction
  - Consented
  - Power (Consented/Planned)
  - UK 12 Nautical Mile Limit
  - Scotland/England Territorial Waters

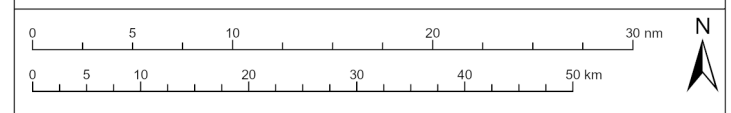
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Project  
**Cambois Connection**

Title  
**Figure 7.13 Third-Party Developments Considered within the CEA**



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