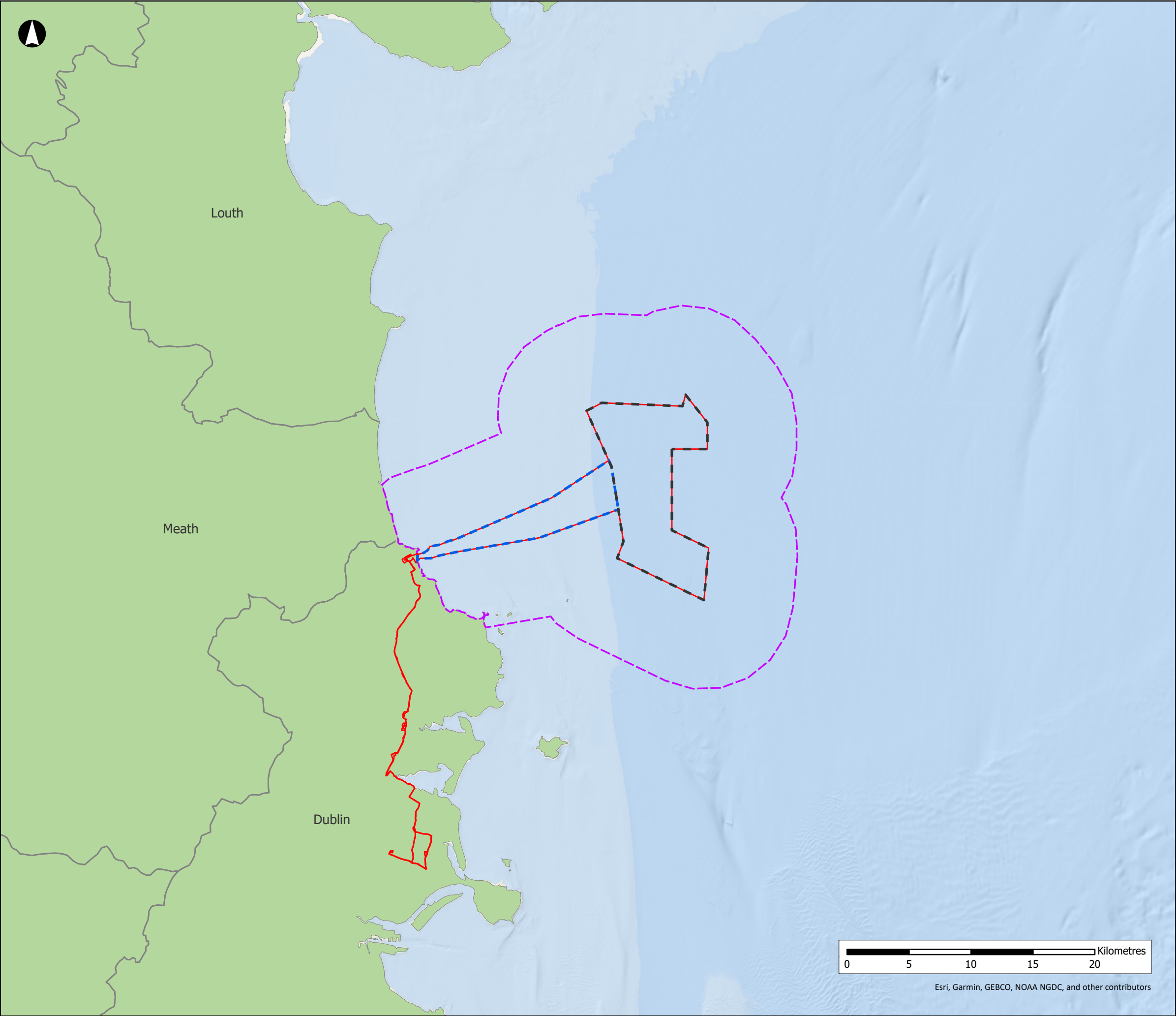


Volume 7A: Figures

Figures for Chapter 11 Marine Water and Sediment Quality



Proposed Development Boundary

Array Area

Offshore Export Cable Corridor

Zone of Influence

NISA

North Irish Sea Array

ARUP

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Figure Title

Overview of the Study Area for Marine Water and Sediment Quality

Job No: 281240

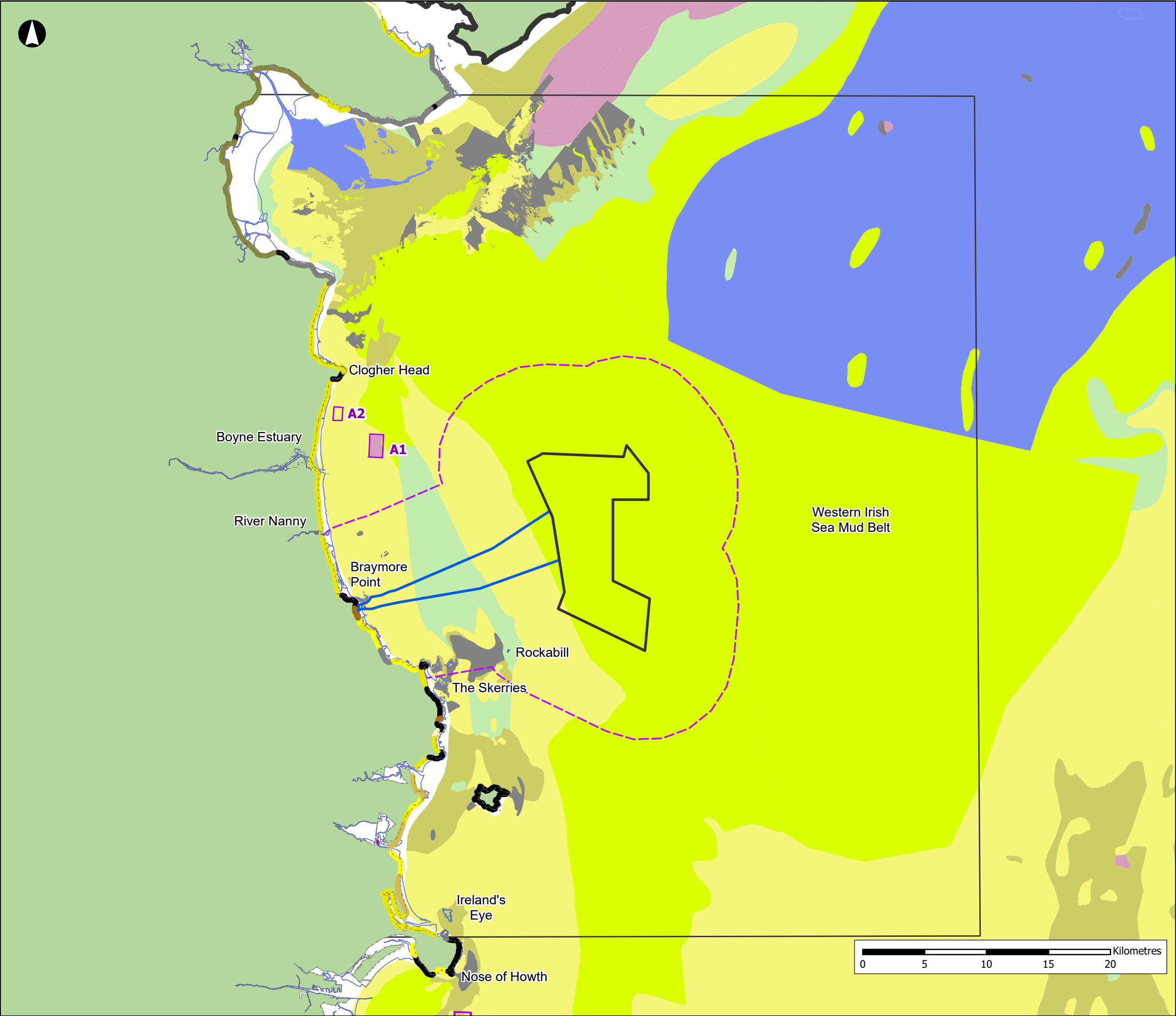
Date: May 2024

Scale: 1:300,000 @A3

Status: Issue

Datum: WGS84 Projection: UTM30N

Figure No: 11.1



Array Area

Offshore Export Cable Corridor

Zone of Influence

Study Area

Low Water Mark

High Water Mark

Disposal At Sea Sites (Active)

Coastal Types (EMODnet):

Beach that is part of extensive non-cohesive sedimentary systems (barrier, spit, tombolo)

Beach with rocky platform

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

Gravel beach fronting upland (> 1 km long)

Muddy coastline, including tidal flat, salt marsh

Pocket beaches (< 200 m long)

Sand beach fronting upland (> 1 km long)

Small beaches

Sediment Classification

Folk-7

The Folk-7 sediment classification ternary diagram shows the distribution of sediment types based on the percentage of Gravel (0% to 100%), Mixed sediment (0% to 100%), and Coarse substrate (0% to 100%). The diagram is divided into four main categories: Mud (0% to 5% Gravel), sandy Mud (5% to 30% Gravel), muddy Sand (30% to 80% Gravel), and Sand (80% to 100% Gravel). The ratios of Mud to Sand are 1:9, 1:1, and 9:1 respectively.

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Figure Title

Seabed Substrate Classification, Folk 5, from EMODnet Data

Job No: 281240

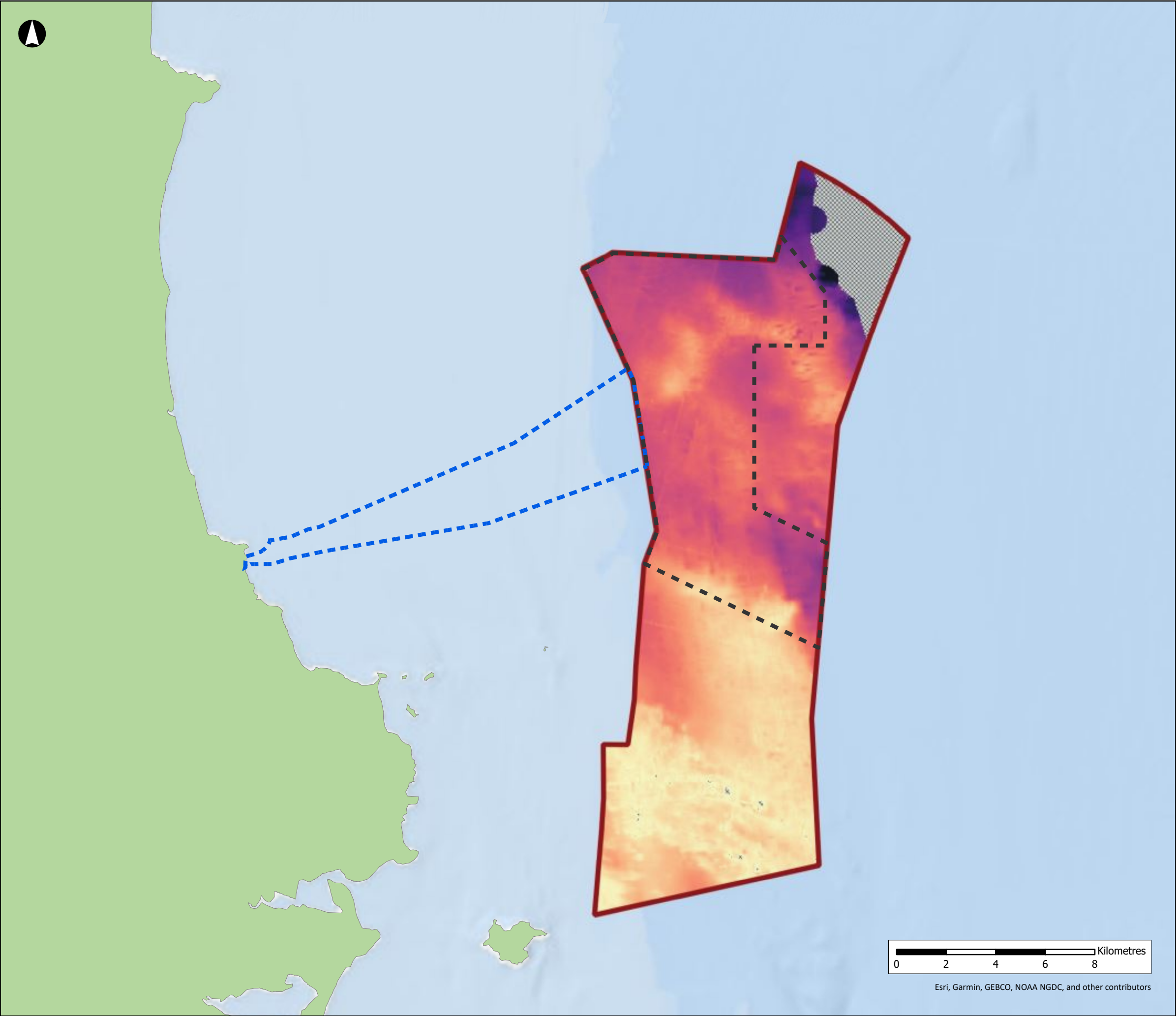
Date: May 2024

Scale: 1:300,000 @A3

Status: Issue

Datum: WGS84 **Projection:** UTM30N

Figure No: **11.2**



- Array Area
- Offshore Export Cable Corridor
- Area Assessed Within Geophysical Interpretation Report
- Horizon Not Interpreted

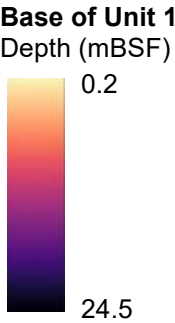


Figure adapted from Geophysical Interpretation Report 2020, (Figure 8-26, p90, REF: 20062-000-00)

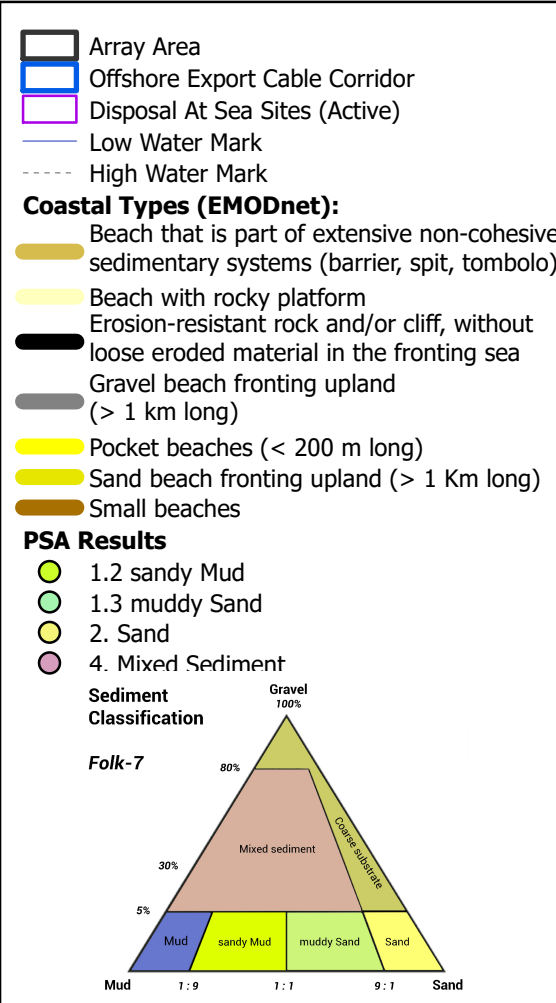
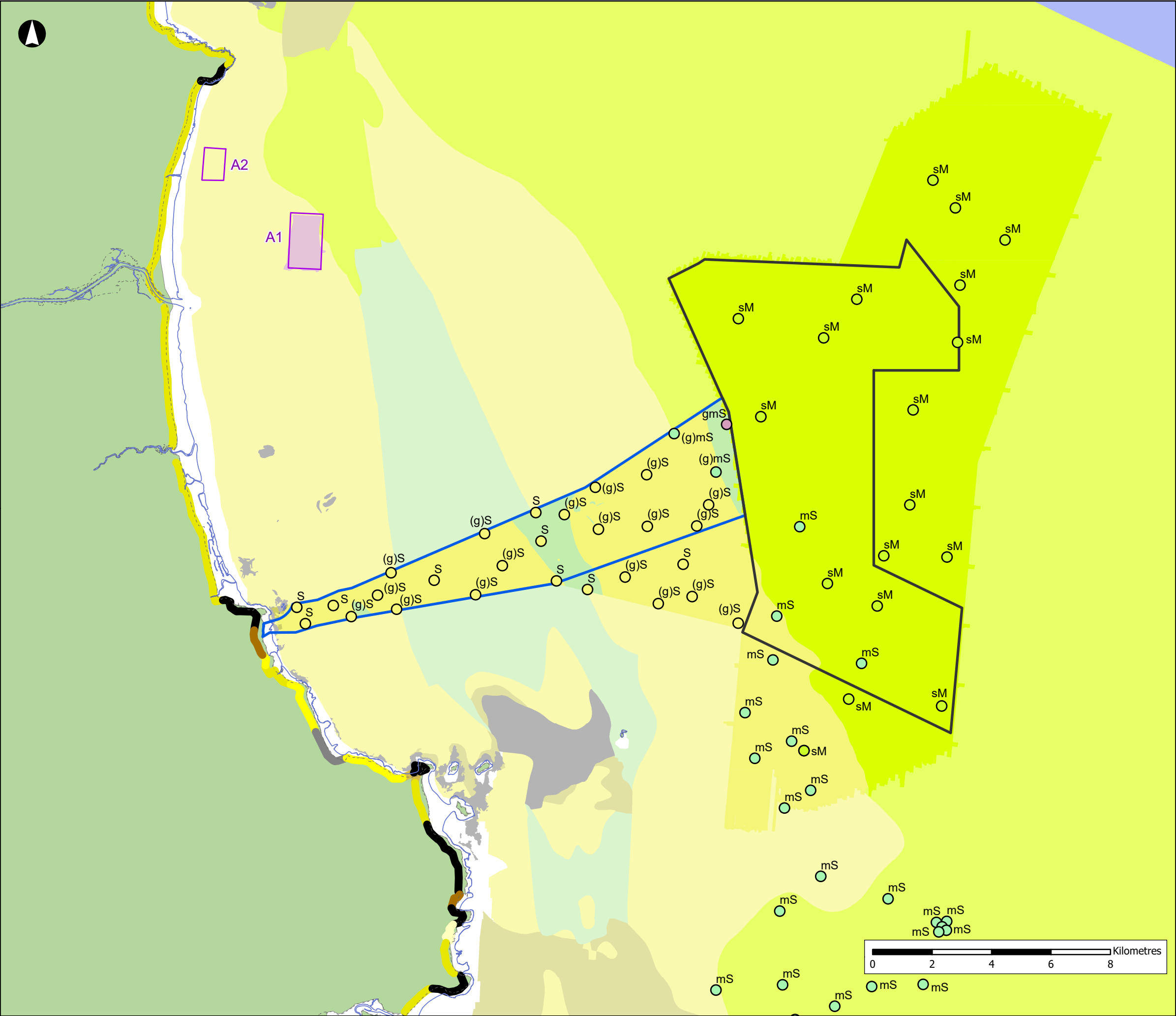
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Figure Title
**Depth of Unit 1
(Unconsolidated, Fine-grained
Holocene Clays and Silts) within
the Array Area (source: Figure
8-26 from Statkraft Geophysical
Interpretation Report 2020)**

Job No: 281240	Datum: WGS84 Projection: UTM30N
Date: May 2024	Figure No:
Scale: 1:150,000 @A3	11.3
Status: Issue	



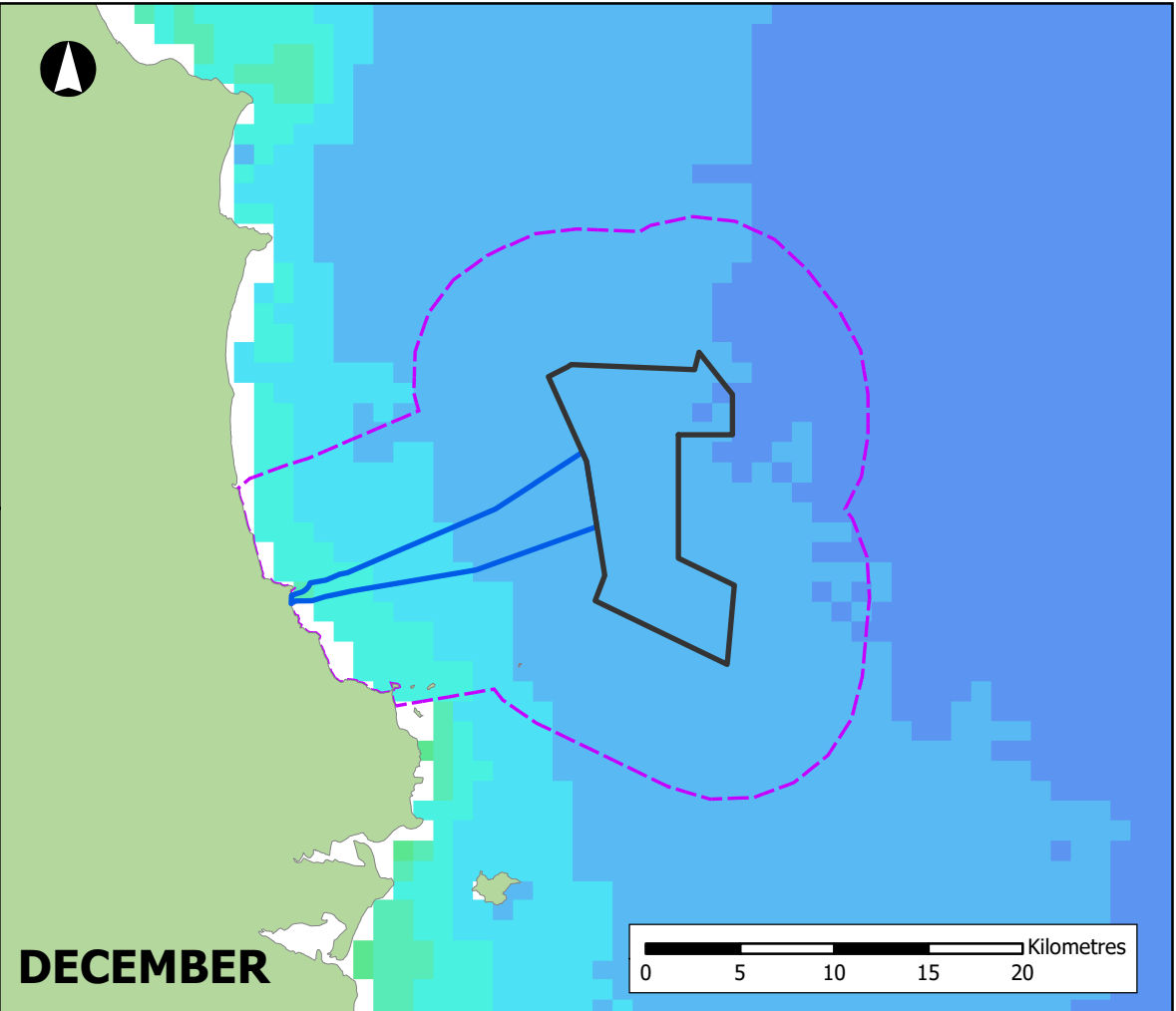
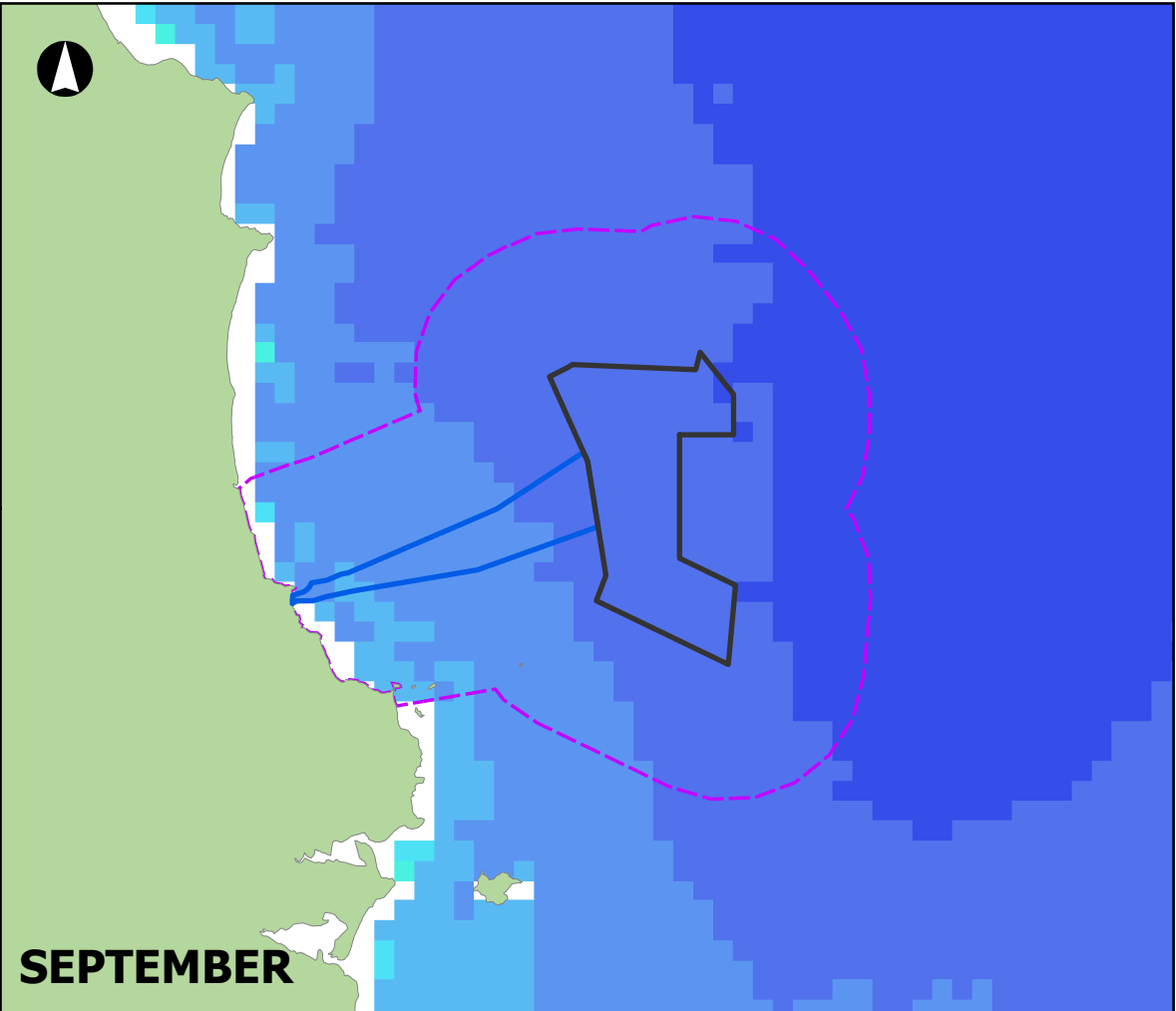
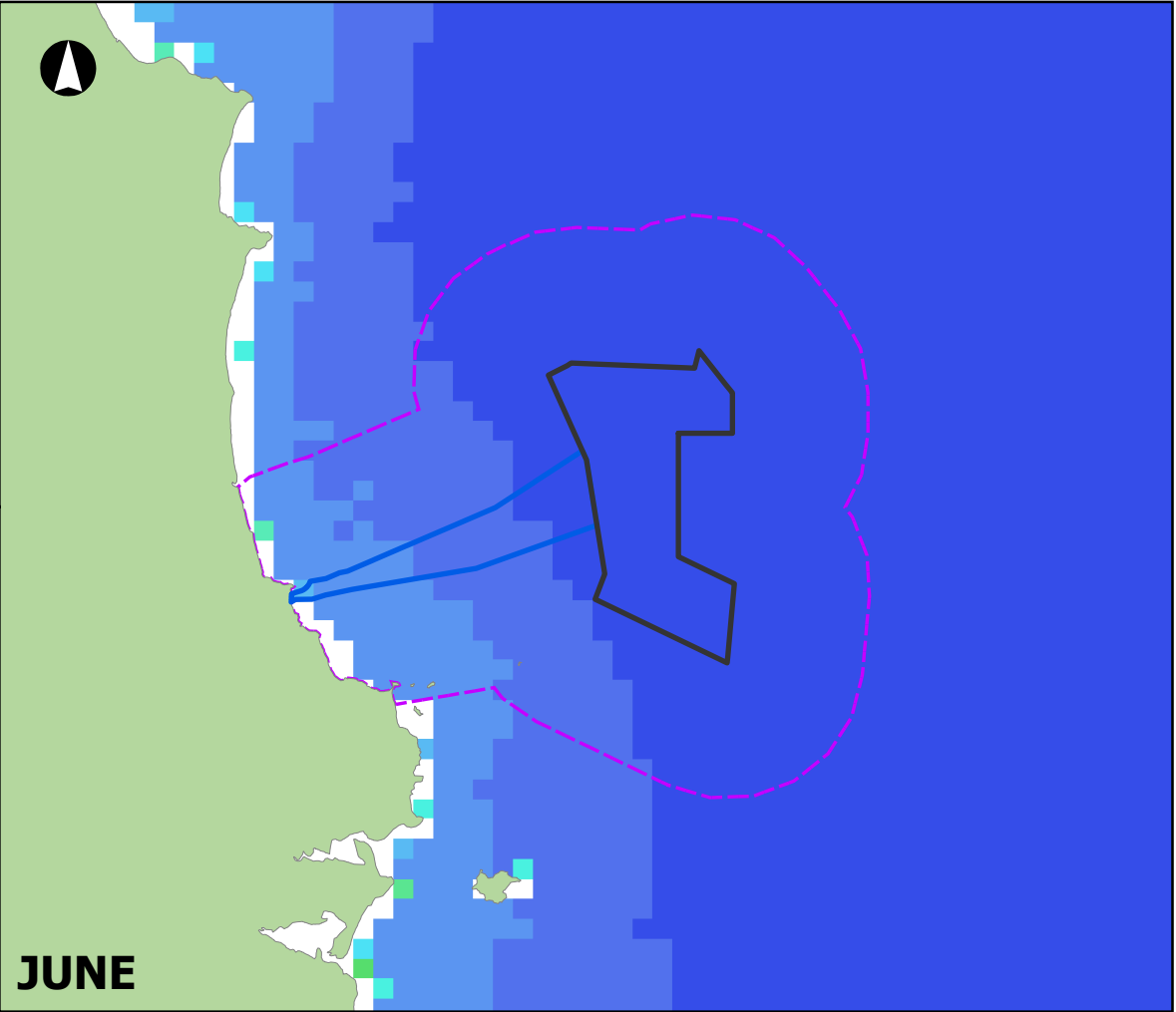
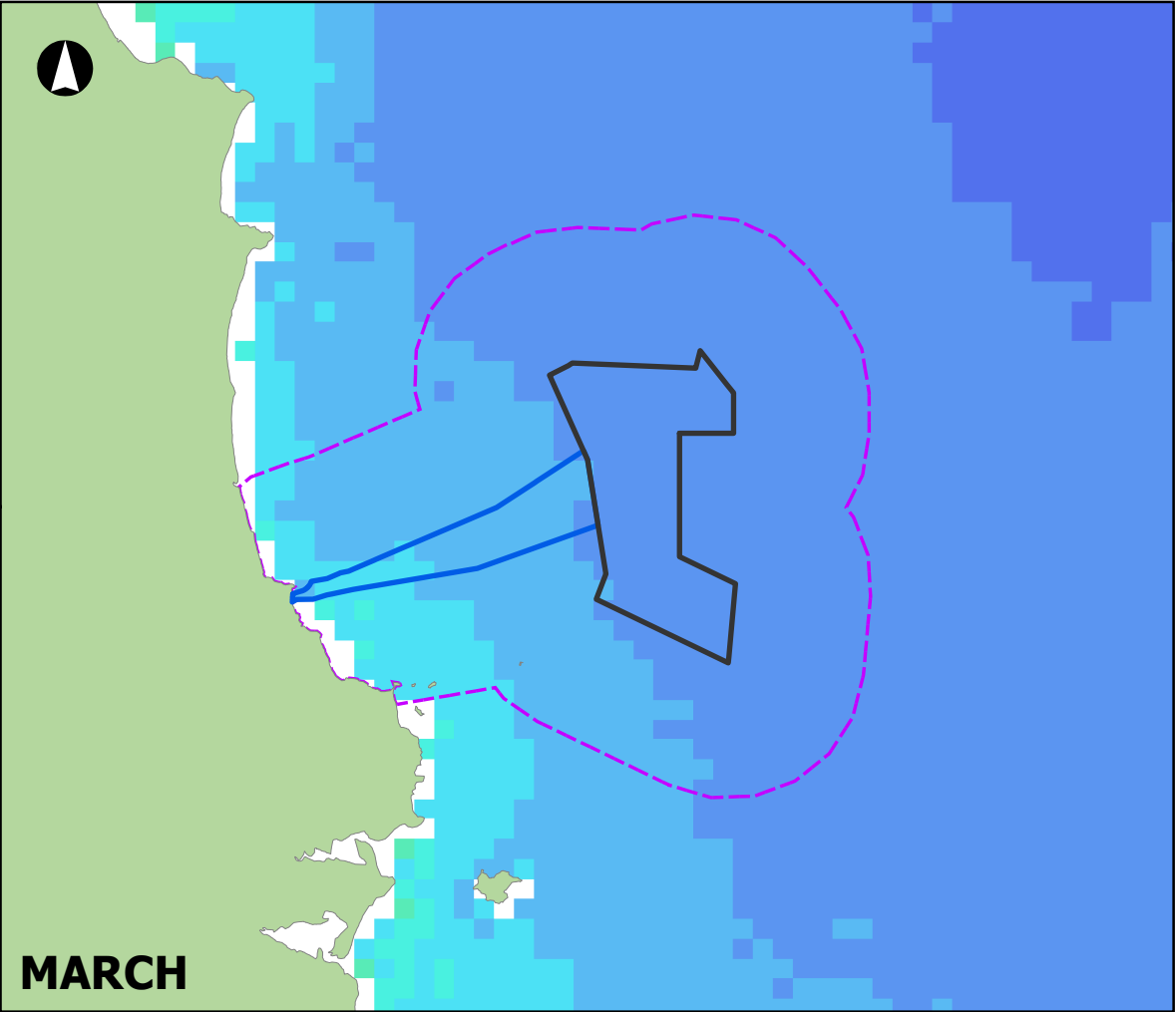
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Figure Title
**Location of Sediment Samples
within the Array Area**

Job No: 281240	Datum: WGS84 Projection: UTM30N
Date: May 2024	Figure No:
Scale: 1:125,000 @A3	11.4
Status: Issue	



Array Area

Offshore Export Cable Corridor

Zone of Influence

Suspended Particulate Matter (Cefas)
Monthly Mean (mg/l) (1998-2015)

0.085 - 0.97

0.97 - 2

2 - 4

4 - 6

6 - 8

8 - 10

10 - 12

12 - 14

14 - 16

>16

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Figure Title

Suspended Particulate Matter
Levels, as derived from Satellite
Data, for the Period 1998 to
2015, throughout the Year

Job No: 281240

Datum: WGS84 Projection: UTM30N

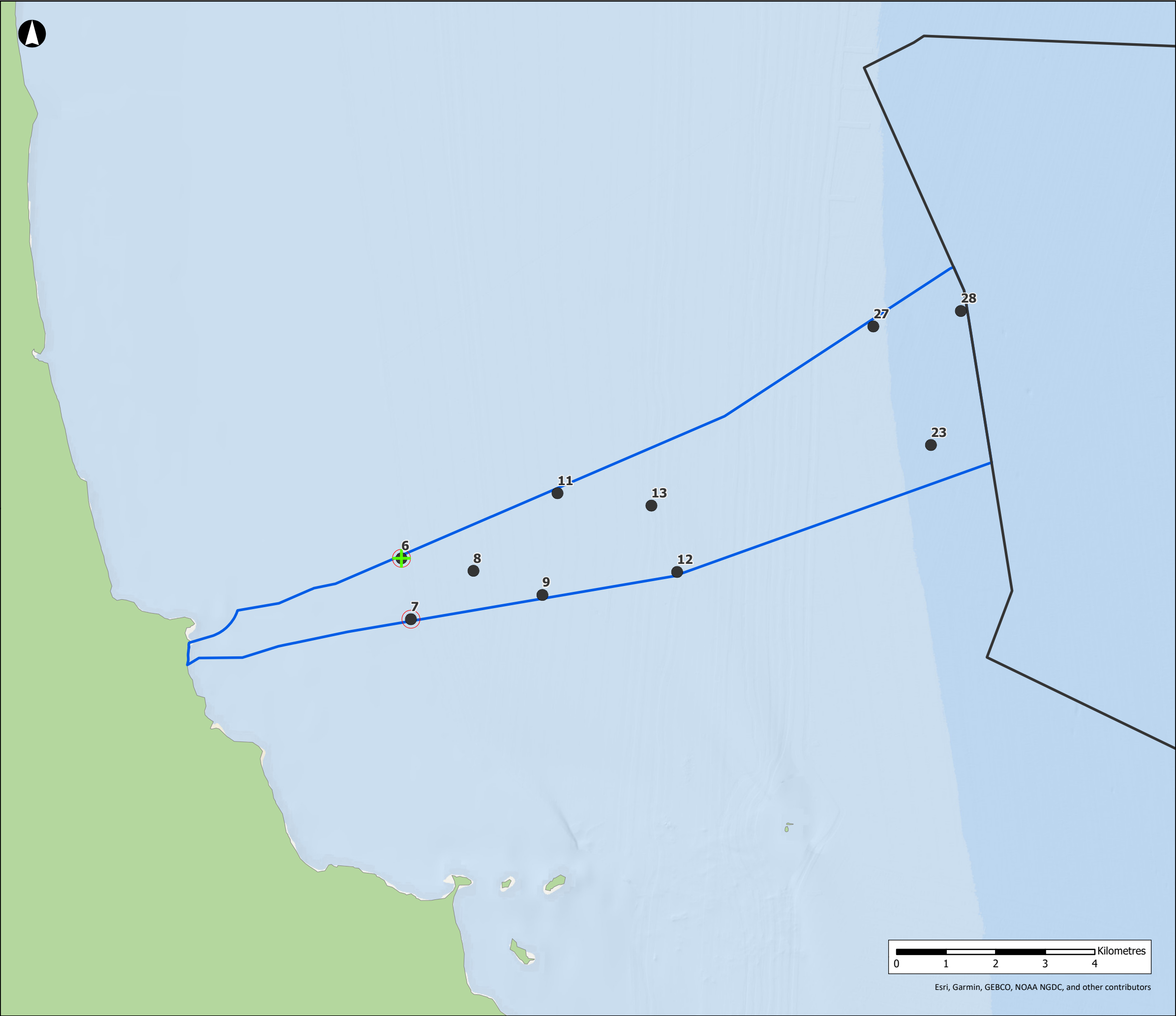
Date: May 2024

Figure No:

Scale: 1:400,000 @A3

11.5

Status: Issue



- Array Area
- Offshore Export Cable Corridor
- Contaminants Sampling Station
- Exceeded for Zinc
- Exceeded for Cadmium

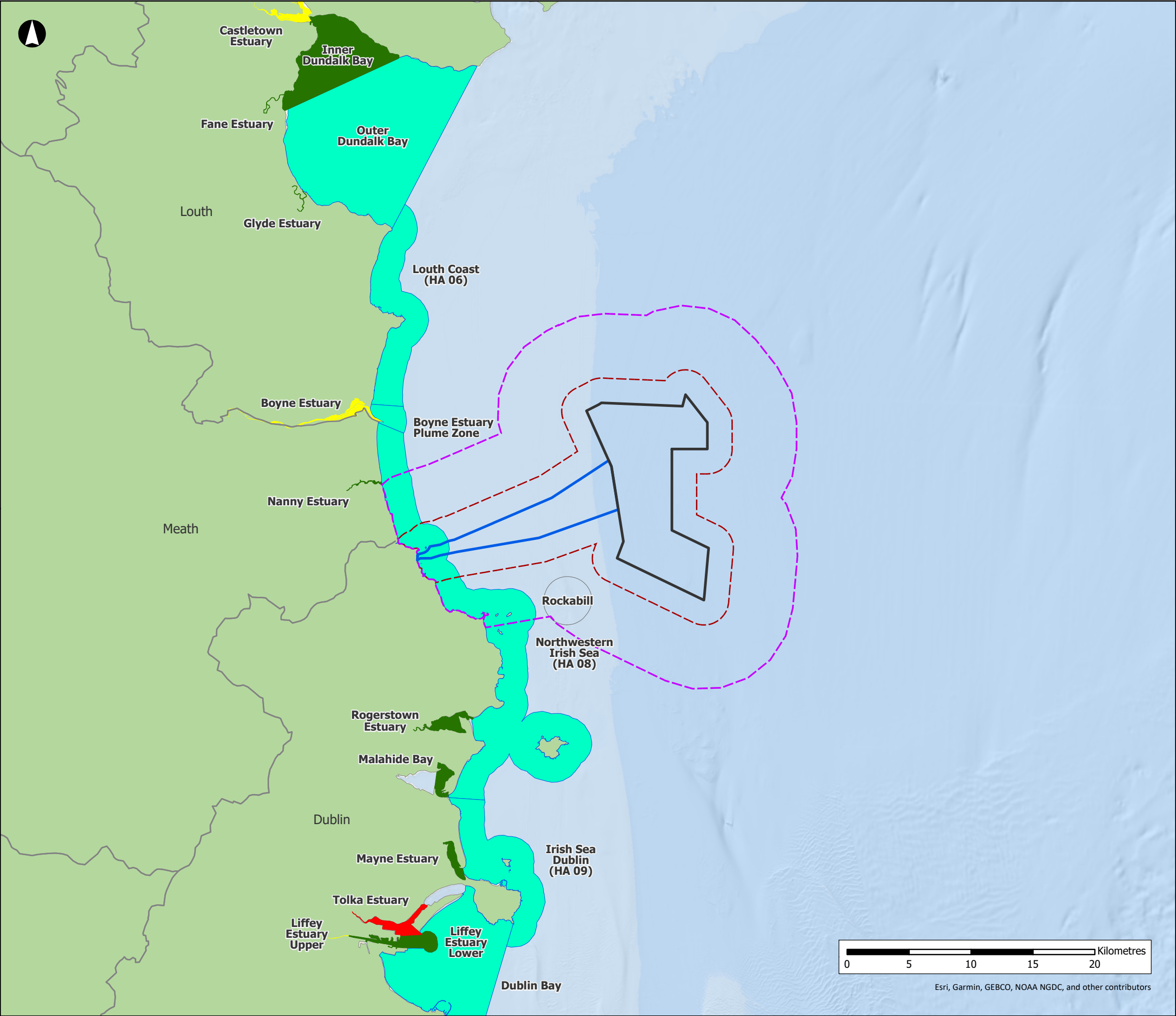
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Figure Title
**Spatial Location of those
Sediment Samples that
Exceeded Irish Action Levels**

Job No: 281240	Datum: WGS84 Projection: UTM30N
Date: May 2024	Figure No: 11.7
Scale: 1:75,000 @A3	
Status: Issue	



Array Area

Offshore Export Cable Corridor

Zone of Influence

2km Buffer from Array and ECC

Transitional and Coastal Water Quality Assessment (2018 -20):

Assessment 2010 - 2012

Unpolluted

Intermediate

Potentially Eutrophic

Eutrophic

Not Assessed

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Figure Title

Water Quality Status (Source: Environmental Protection Agency)

Job No: 281240

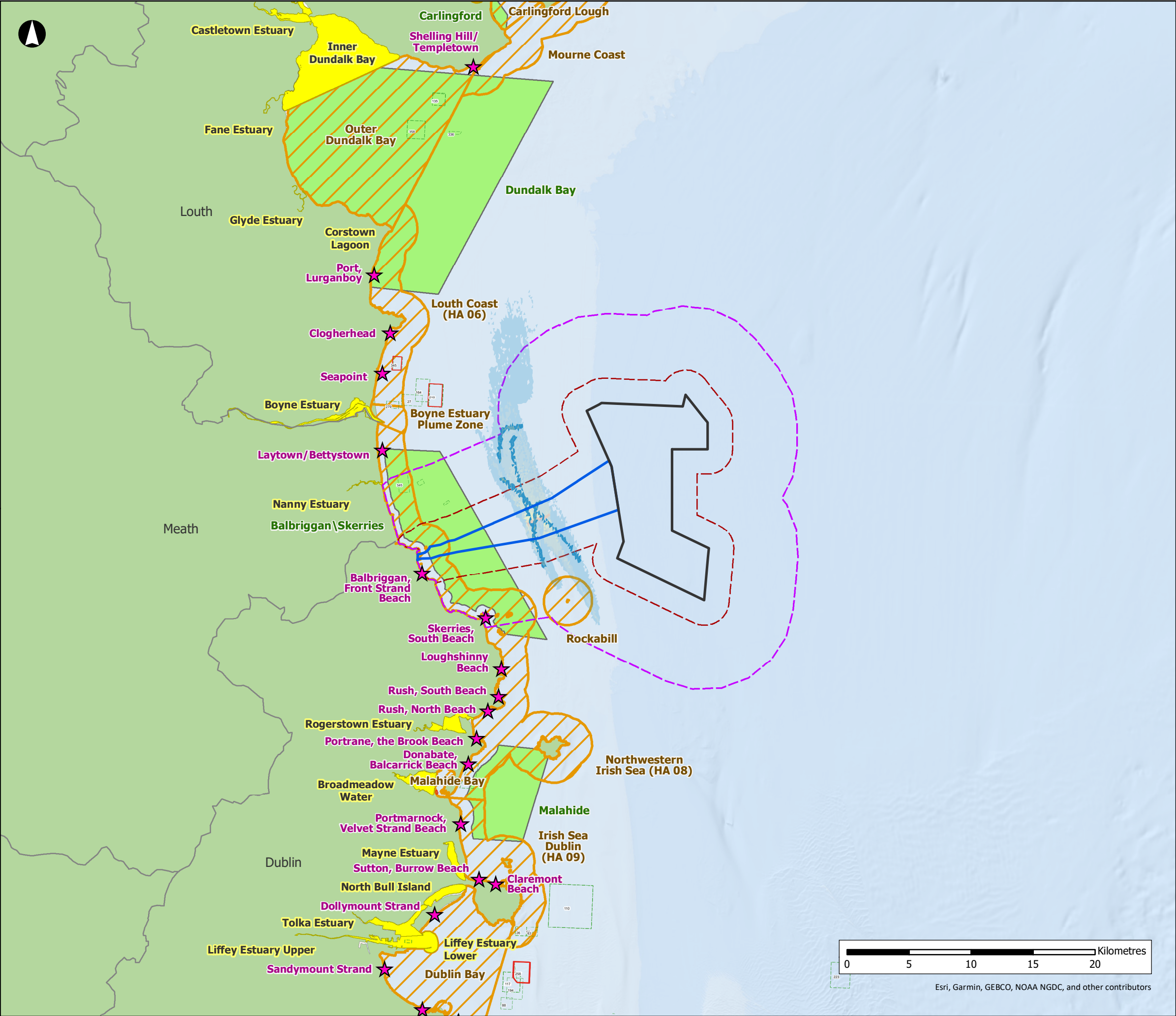
Date: May 2024

Scale: 1:300,000 @A3

Status: Issue

Datum: WGS84 Projection: UTM30N

Figure No: 11.8



Array Area

Offshore Export Cable Corridor

Zone of Influence

2km Buffer from Array and ECC

Bathing Waters

Coastal Water Bodies

Transitional Water Bodies

Shellfish Waters

ECC Cable Trenching

Suspended Sediment (mg/l)

<1 (trace level)

1 - 2 (normal variation)

2 - 5 (background level)

5 - 10 (background level)

10 - 20 (background level)

20 - 50 (4 * background)

50 - 100 (10 * background)

100 - 200 (20 * background)

200 - 500 (40 * background)

500 - 1000 (100 * background)

>1000 (200 * background)

Offshore Dumping Sites: Status

Latest Permit

Previous Permit

DAFF Permit

DAFF (Department of Agriculture, Fisheries and Food)

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Figure Title

Predicted Sediment Plumes arising from ECC Installation Jetting Activities

Job No: 281240

Date: May 2024

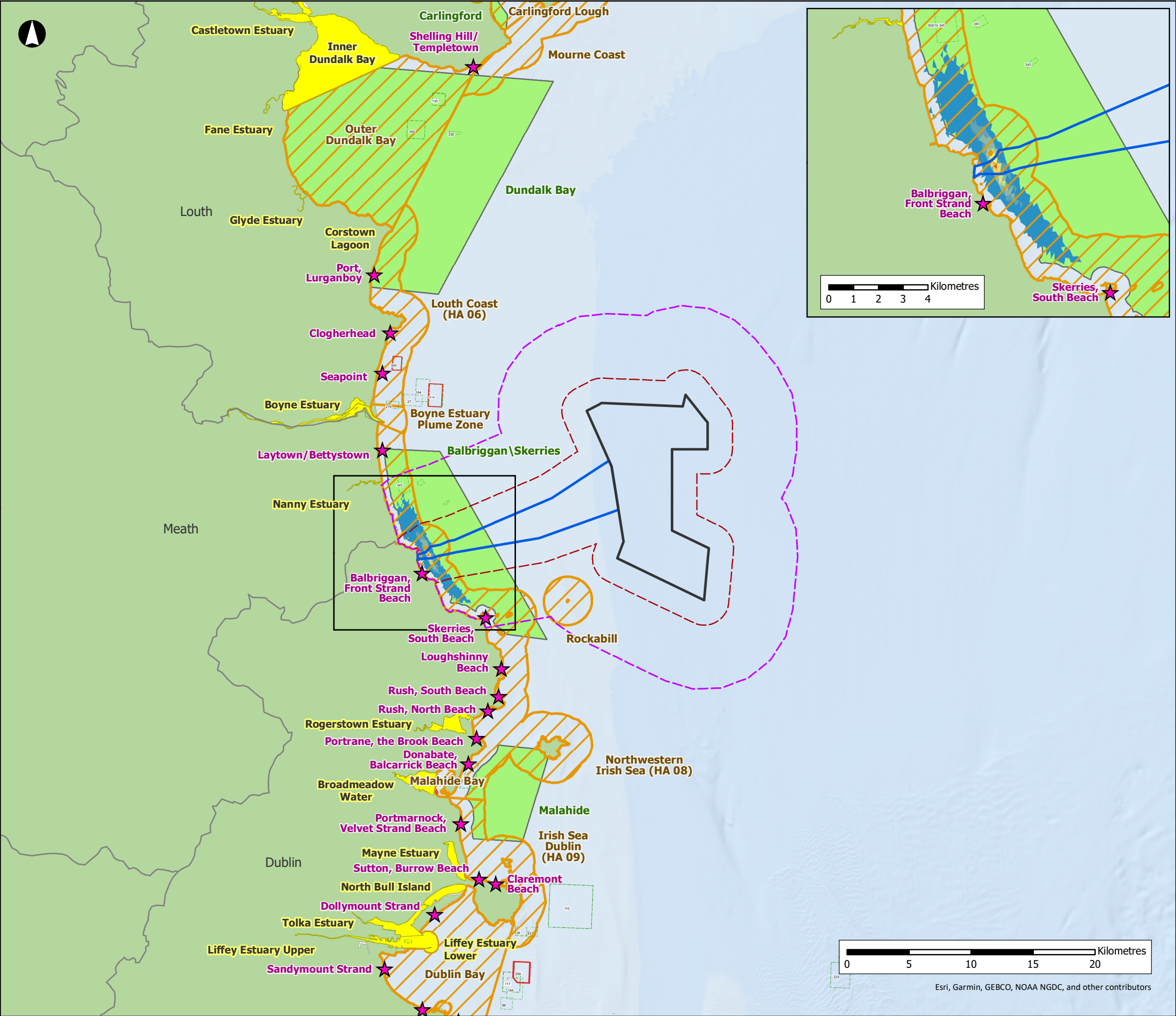
Scale: 1:300,000 @A3

Status: Issue

Datum: WGS84 Projection: UTM30N

Figure No:

11.10



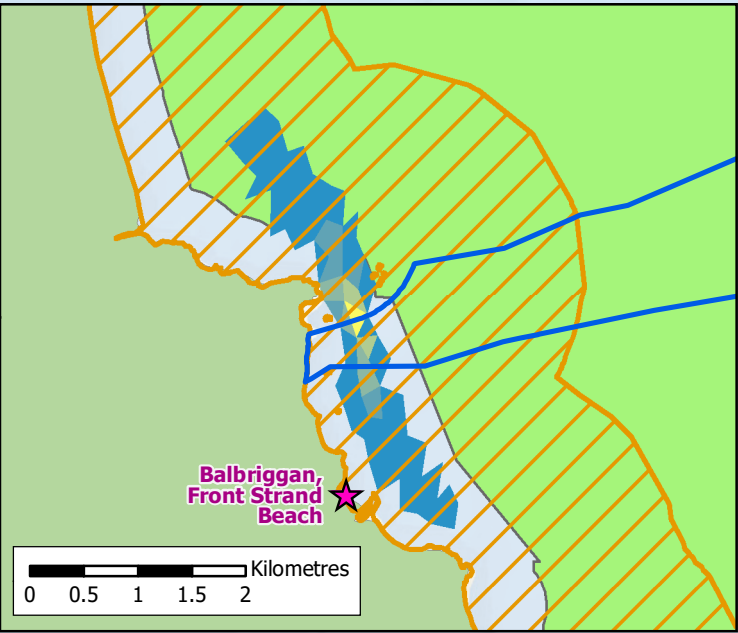
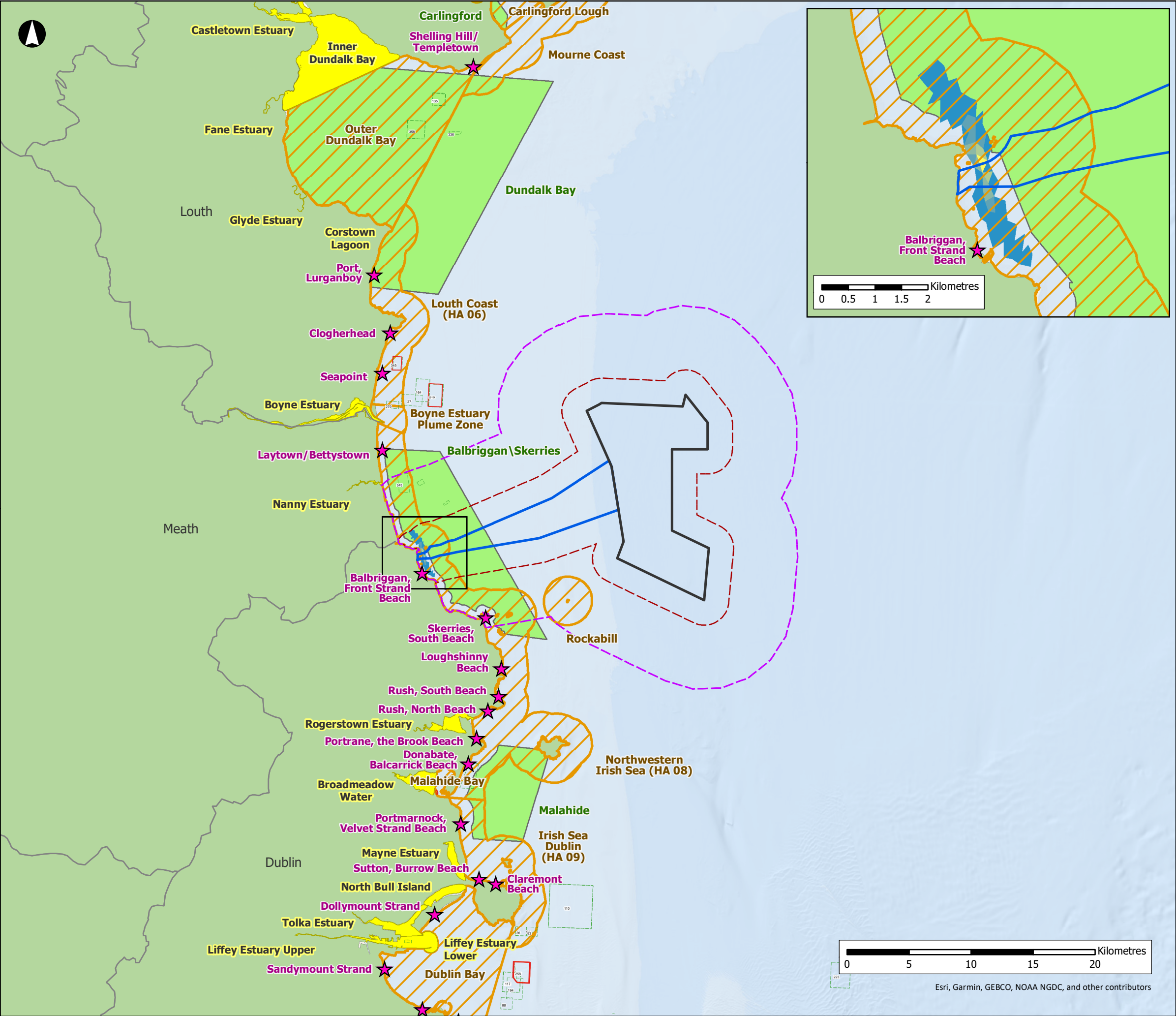
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Figure Title
Predicted Sediment Plumes
arising from HDD Exit Pit

Job No: 281240	Datum: WGS84 Projection: UTM30N
Date: May 2024	Figure No:
Scale: 1:300,000 @A3	11.11
Status: Issue	



- Array Area
- Offshore Export Cable Corridor
- Zone of Influence
- 2km Buffer from Array and ECC
- Bathing Waters
- Coastal Water Bodies
- Transitional Water Bodies
- Shellfish Waters

Bentonite Suspended Max

Suspended Bentonite (mg/l)

- <1 (trace level)
- 1 - 2 (normal variation)
- 2 - 5 (background level)
- 5 - 10 (background level)
- 10 - 20 (background level)
- 20 - 50 (4 * background)
- 50 - 100 (10 * background)
- 100 - 200 (20 * background)
- 200 - 500 (40 * background)
- 500 - 1000 (100 * background)
- >1000 (200 * background)

Offshore Dumping Sites: Status

- Latest Permit
- Previous Permit
- DAFF Permit

DAFF (Department of Agriculture, Fisheries and Food)

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Figure Title

**Predicted Bentonite Plumes
resulting from HDD Punch-Out**

Job No: 281240

Datum: WGS84 **Projection:** UTM30N

Date: May 2024

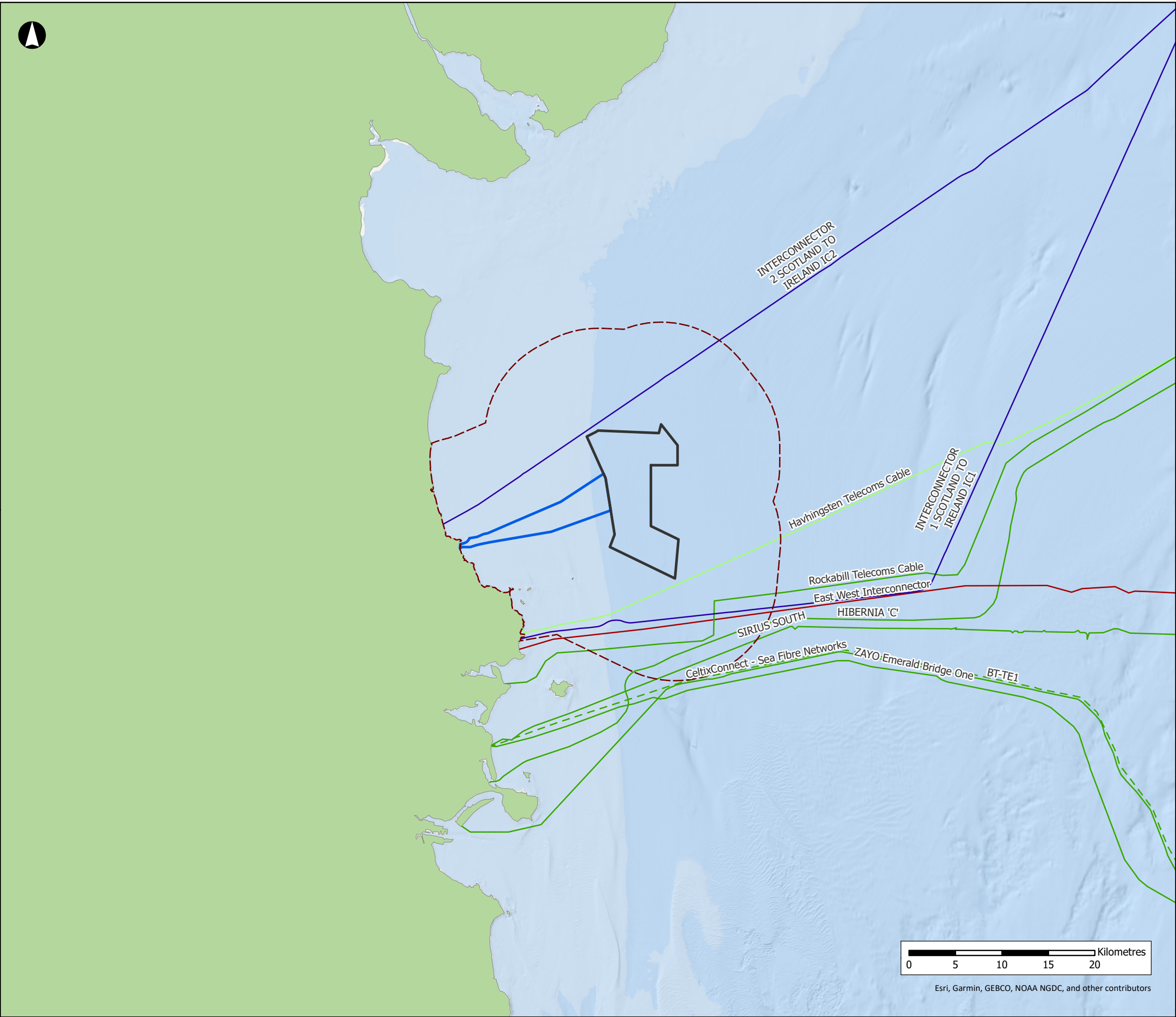
Figure No:

Scale: 1:300,000 @A3

11.12

Status: Issue

Esri, Garmin, GEBCO, NOAA NGDC, and other contributors



- Array Area
- Offshore Export Cable Corridor
- Study Area
- Gas Pipelines
- Subsea Cable (Type - Status)
 - Power - Active
 - Telecom - Active
 - Telecom - Disused
 - Telecom - Proposed

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Figure Title
**Location of Other Plans and
Projects included in the MW&SQ
Assessment**

Job No: 281240	Datum: WGS84 Projection: UTM30N
Date: May 2024	Figure No:
Scale: 1:400,000 @A3	11.13
Status: Issue	