

Working together for a
cleaner energy future



Environmental Impact Assessment – Scoping Report

MarramWind Offshore Wind Farm

Appendix 1A: Figures (Chapter 1 to Chapter 5: Section 5.8)

MarramWind

A joint venture between ScottishPower and Shell UK

January 2023



Appendix 1A: Figures

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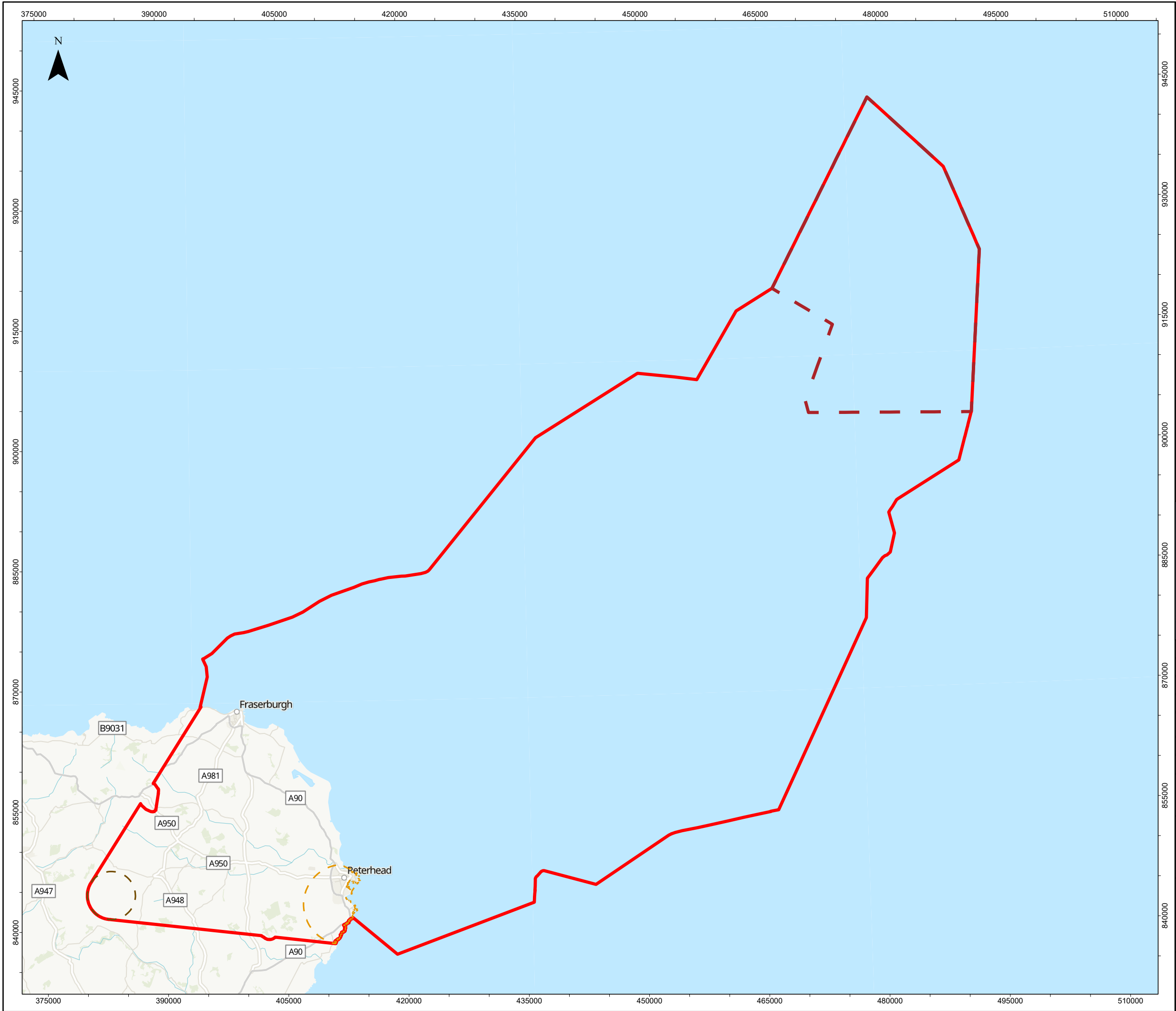
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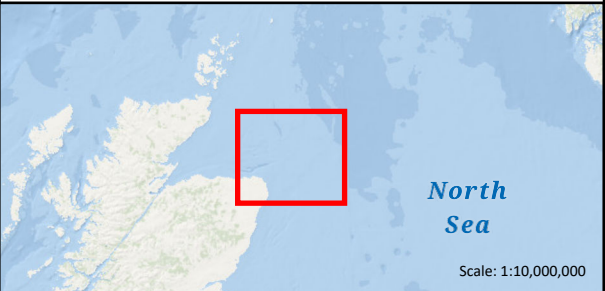
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- Scoping Boundary
- NE7 Option Agreement Area
- Peterhead onshore substation search area - base case point of connection for up to 3GW
- New Deer onshore substation search area - contingent point of connection for remaining 1.5GW



9	31/10/2022	SS	AMc	LG	LO
8	25/10/2022	SS	AMc	LG	LO
7	13/09/2022	NG	AMc	LG	LO
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MarramWind

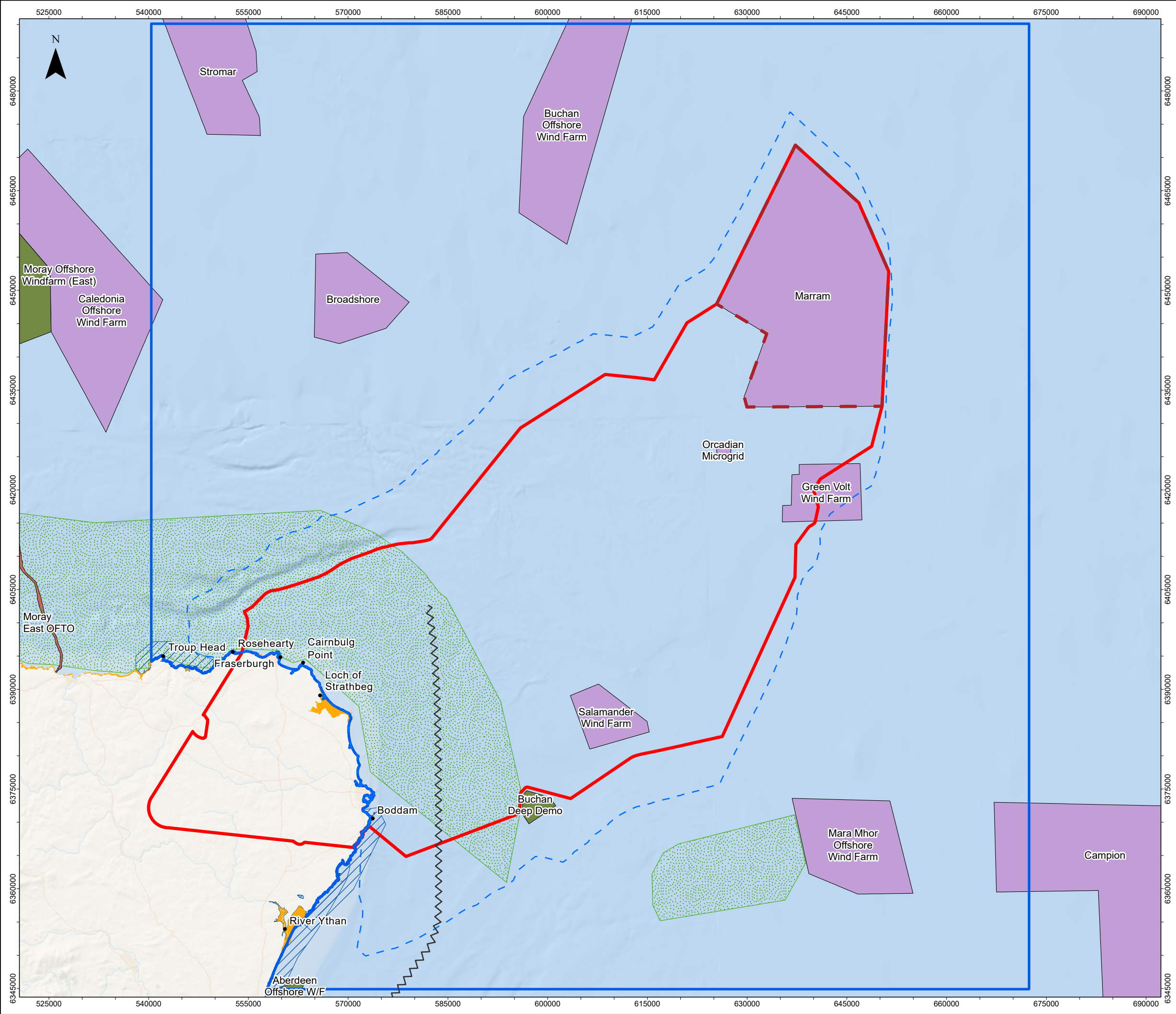
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Figure 1.1 Scoping Boundary

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- Scoping Boundary
- NE7 Option Agreement Area
- Marine geology, oceanography, and physical processes study area
- Special Area of Conservation
- Special Protection Area
- Site of Special Scientific Interest
- Marine Protected Area
- Offshore Wind - Project Phase
 - Operational
 - Pre Planning
 - Under Construction
- Spring tidal excursion ellipse buffer
- Approximate position of Buchan front

0 10 20 Kilometres



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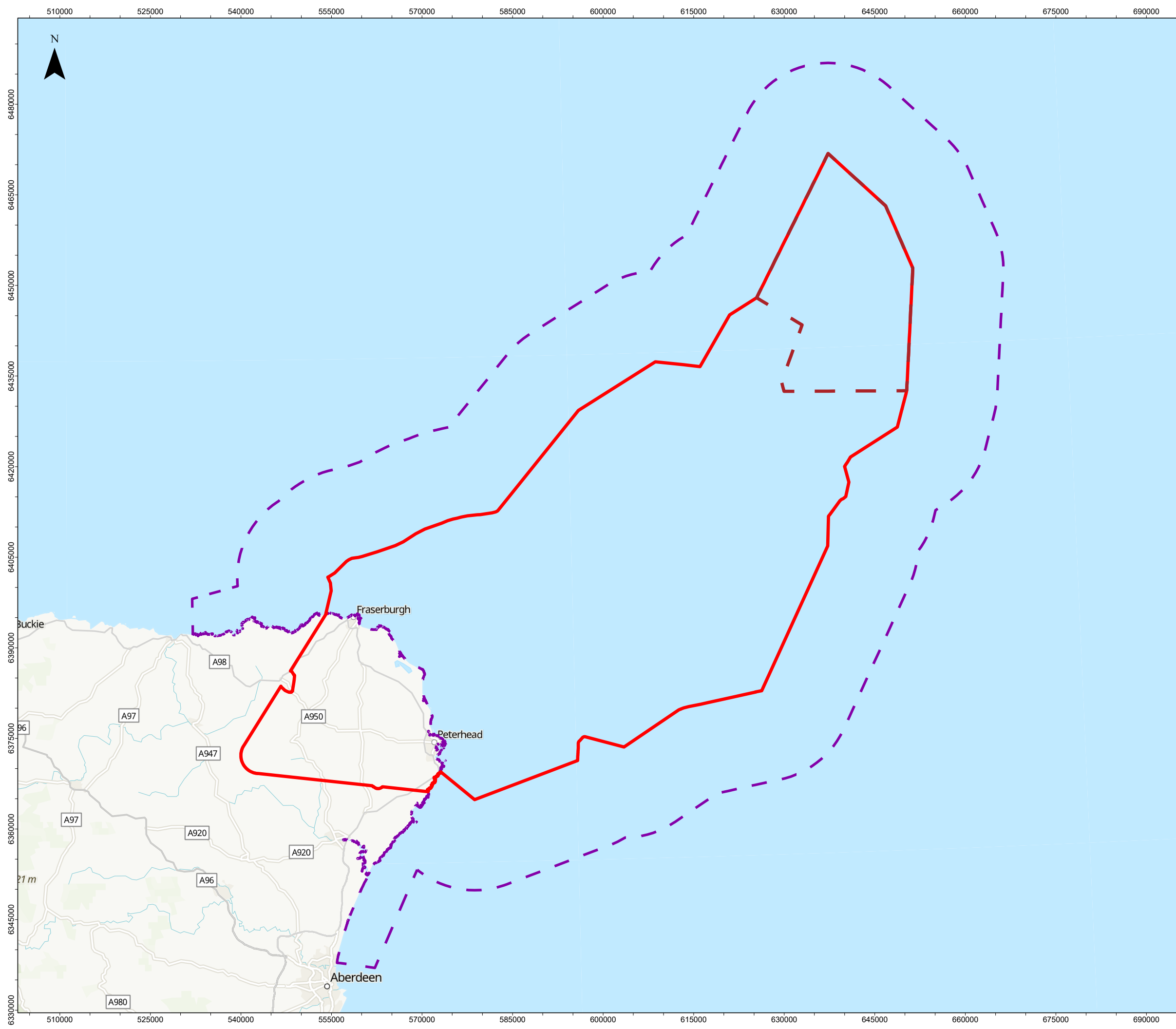
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Figure 5.1.1 Marine geology, oceanography, and physical processes study area

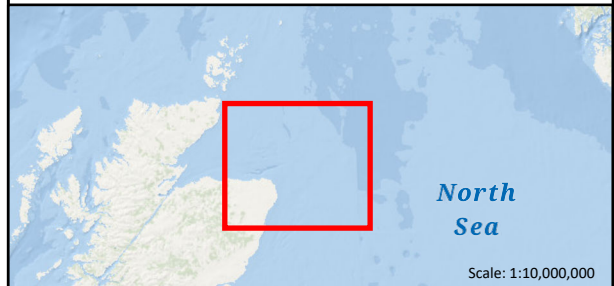
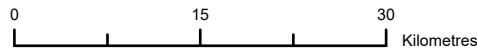
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- Scoping Boundary
- NE7 Option Agreement Area
- Marine water and sediment quality study area



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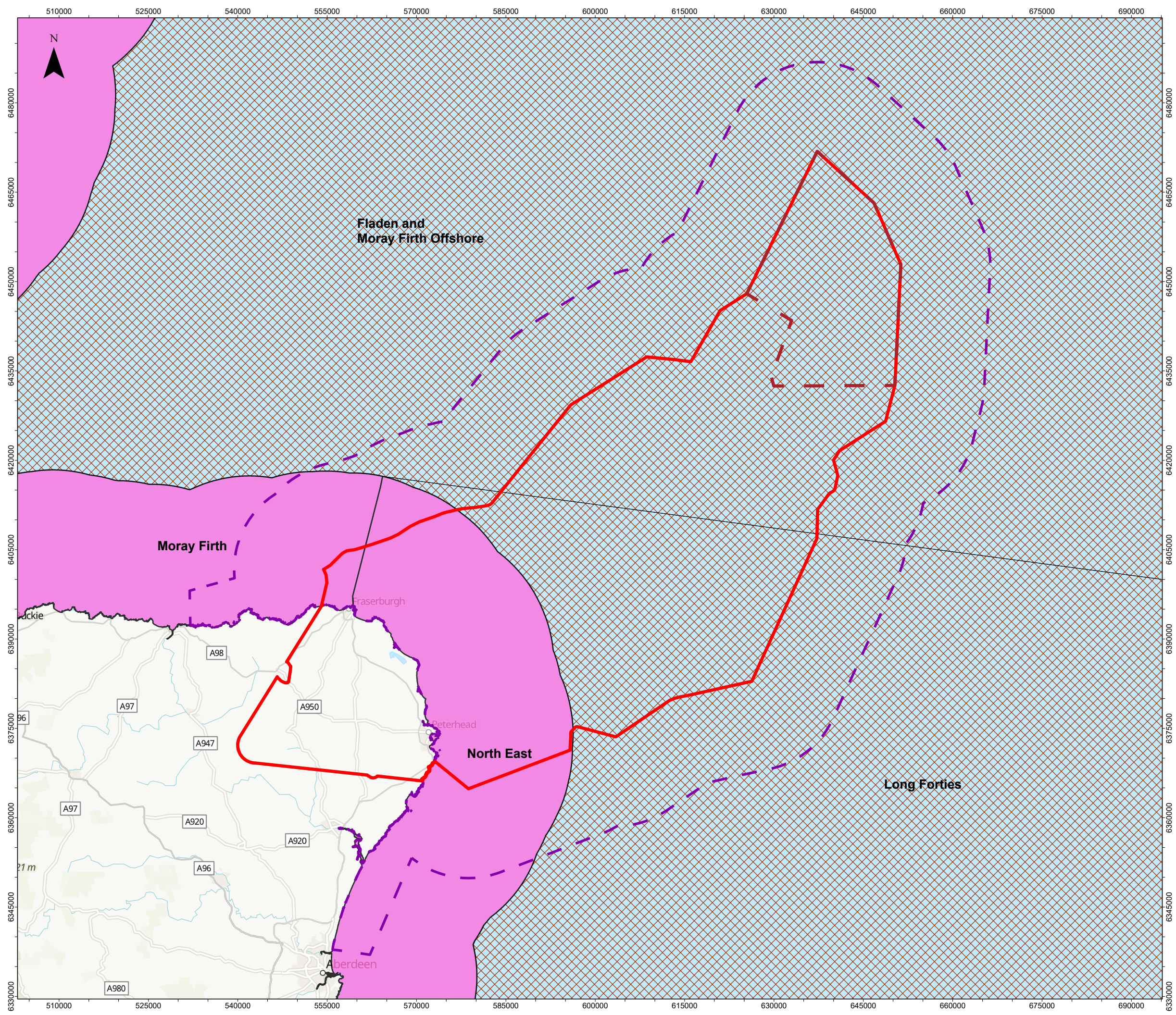
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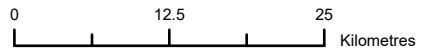
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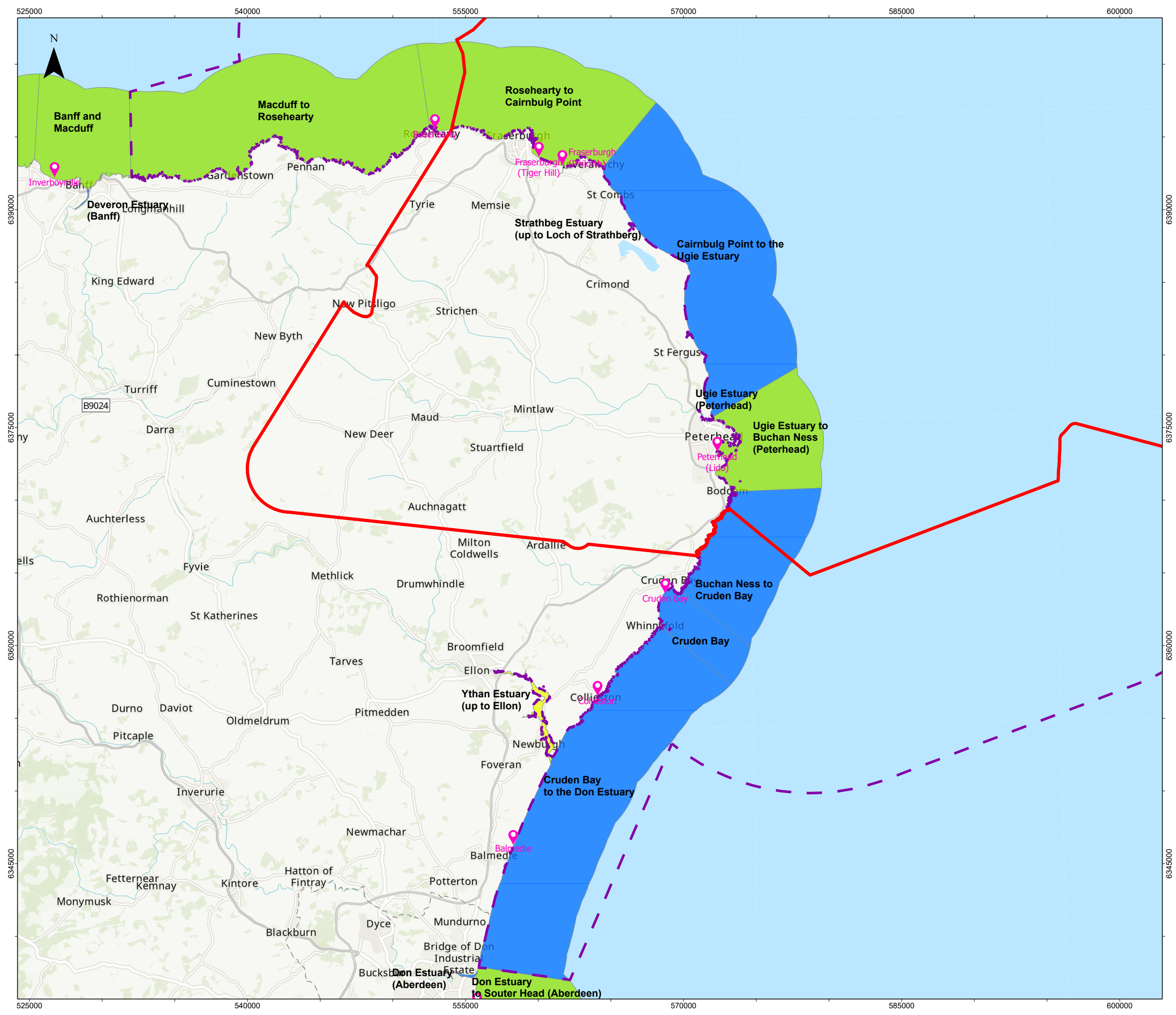


- Scoping Boundary
- NE7 Option Agreement Area
- Marine water and sediment quality study area
- Scottish Marine Regions (SMR)
- Offshore Marine Regions (OMR)



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DRAWING TITLE Figure 5.2.2 Scottish marine regions					
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Scoping Boundary

Marine water and sediment quality study area

Bathing water locations

WFD Transitional/ Estuarine water body boundaries

High status / potential

Good status / potential

Moderate status / potential

Poor status / potential

Bad status / potential

WFD Coastal water body boundaries

High status / potential

Good status / potential

Moderate status / potential

Poor status / potential

0

5

10

Kilometres

North Sea

Scale: 1:10,000,000

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DATUM

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PROJECTION

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Figure 5.2.3 WFD water bodies

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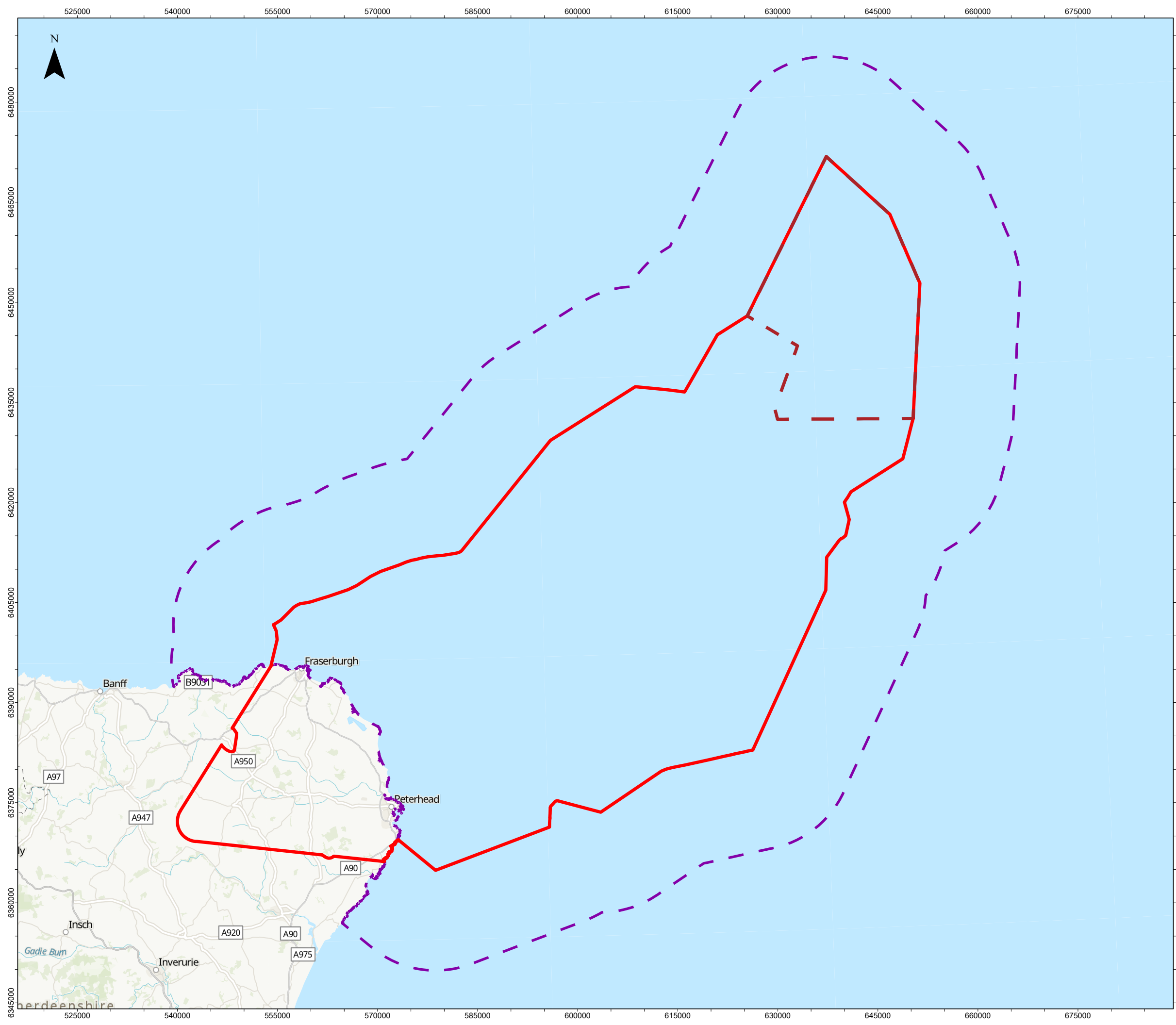
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WMS: Hydrography, WFD, Water Bodies, Marine, Water Quality

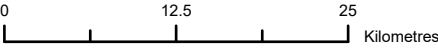
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- Scoping Boundary
- NE7 Option Agreement Area
- Benthic, epibenthic and intertidal ecology study area



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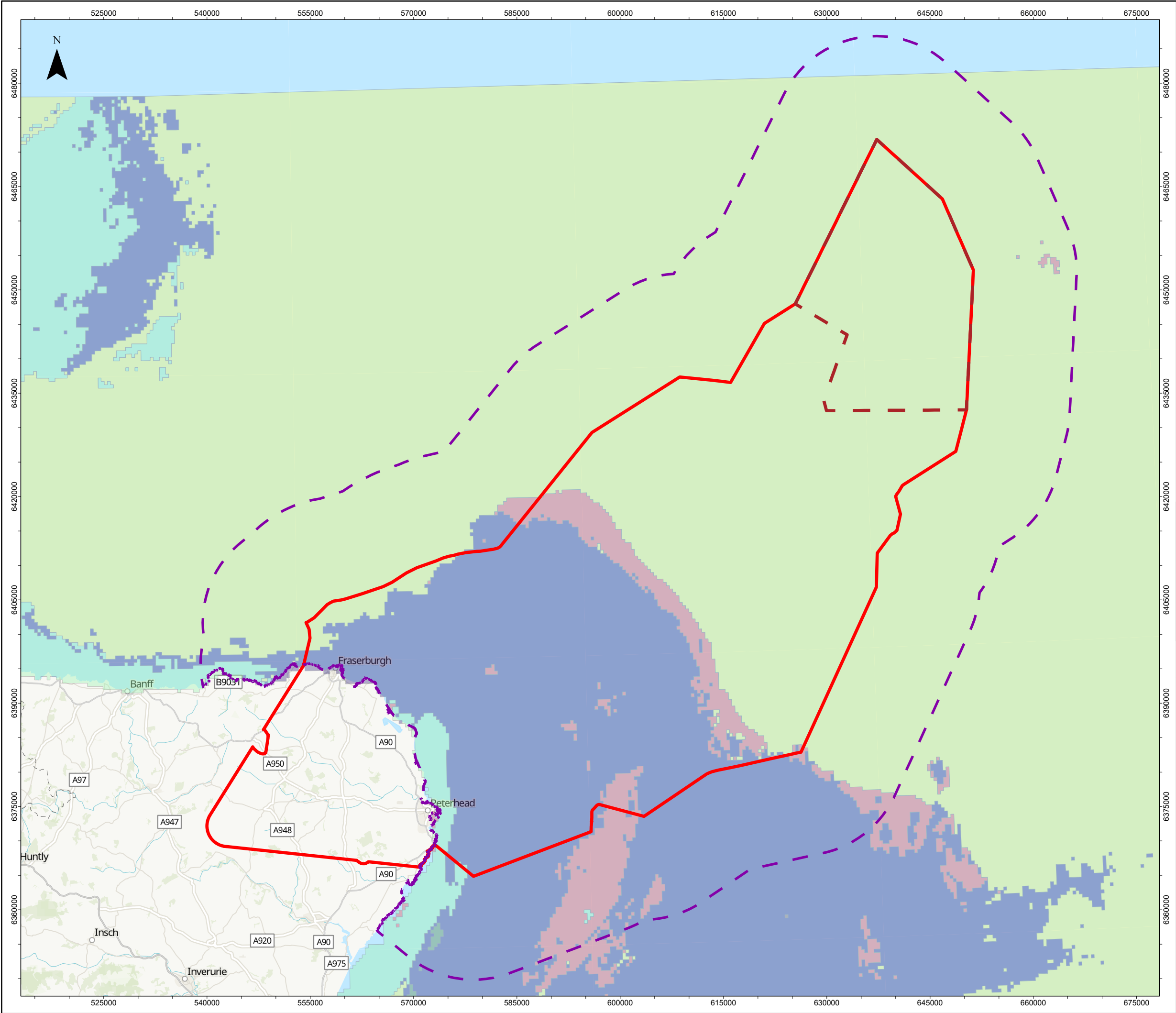
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Figure 5.5.1 Benthic, epibenthic and intertidal ecology study area

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- Scoping Boundary
- NE7 Option Agreement Area
- Benthic, epibenthic and intertidal ecology study area

Cefas biological-based habitat classification

- A2a
- C1b
- D2a
- D2b
- D2c
- D2d
- No Data

0 12.5 25 Kilometres



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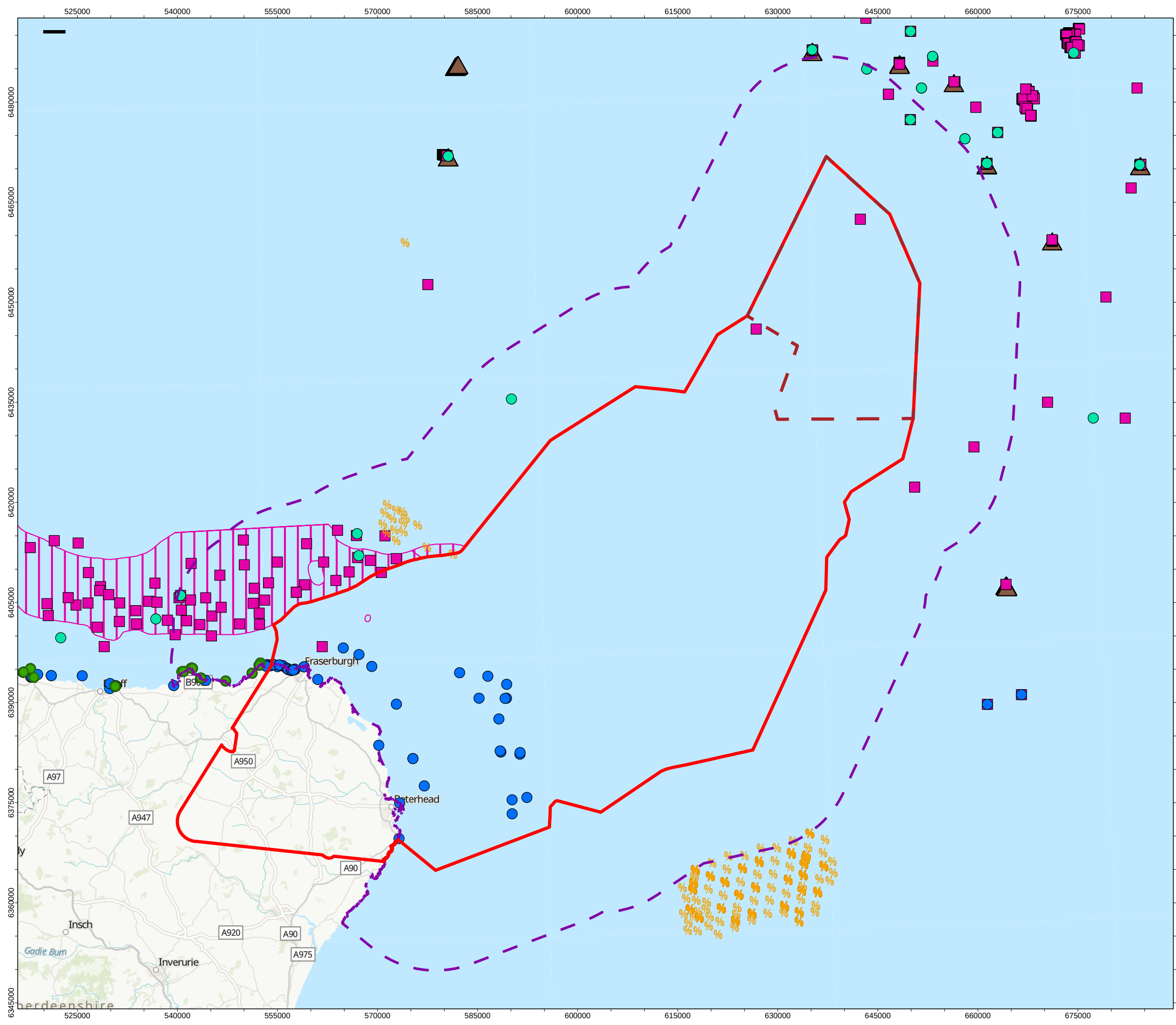
DRAWING TITLE Figure 5.5.3 Benthic biotopes

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- Scoping Boundary
- NE7 Option Agreement Area
- Benthic, epibenthic and intertidal ecology study area
- Burrowed mud (area)
- Burrowed mud (point)
- Offshore deep sea muds
- Offshore subtidal sands and gravels
- Reefs
- Ocean quahog
- Kelp beds



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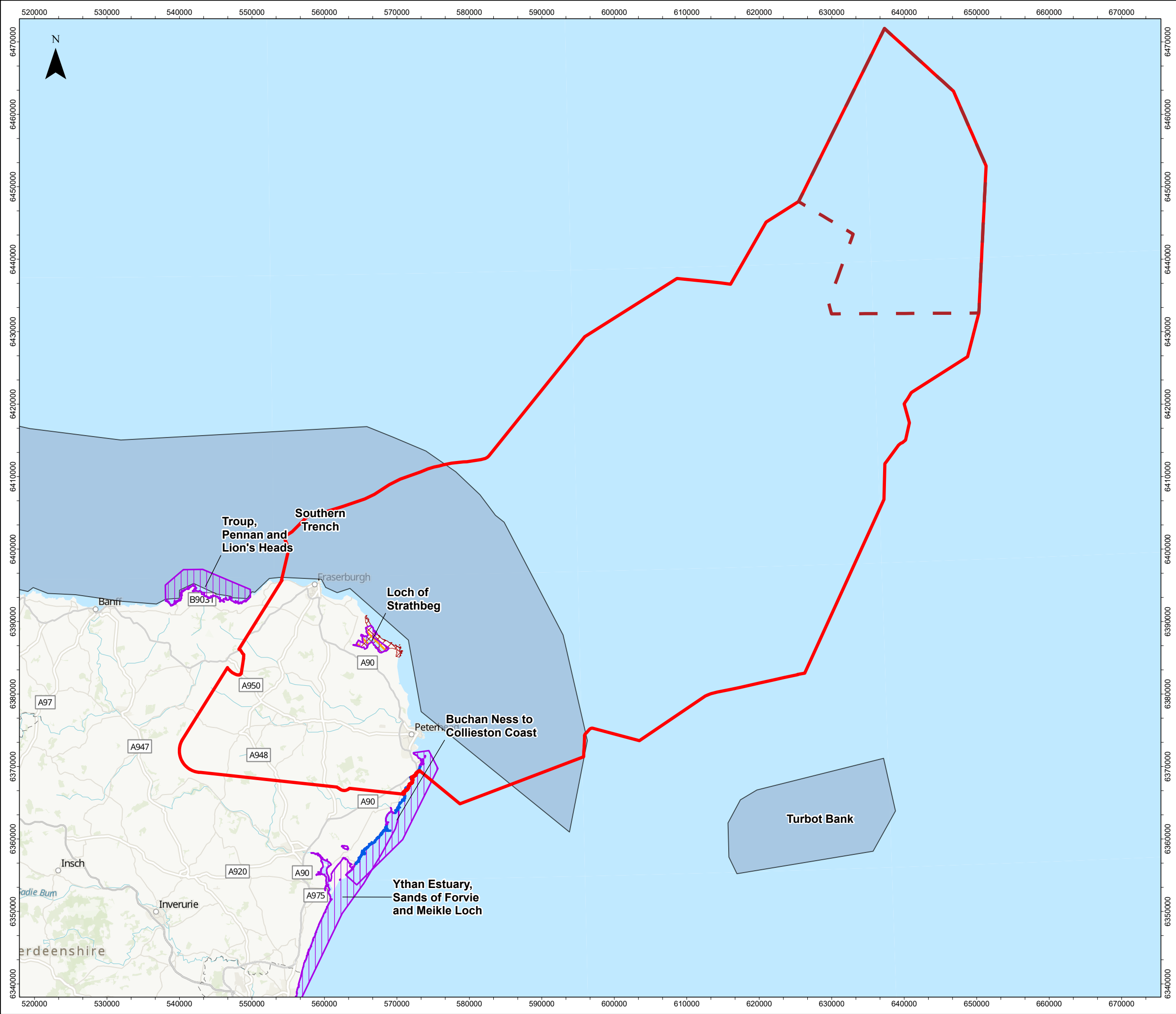
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Figure 5.5.4 Habitats of conservation importance

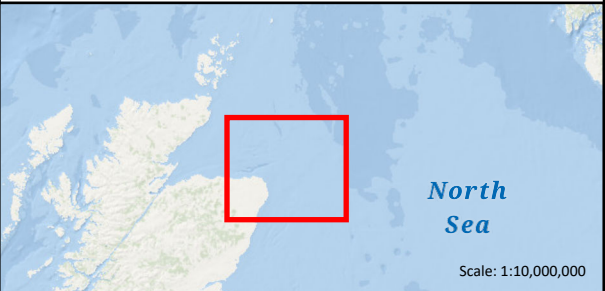
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- Scoping Boundary
- NE7 Option Agreement Area
- Special Protection Area (SPA)
- Special Area of Conservation (SAC)
- Ramsar Site
- Site of Special Scientific Interest (SSSI)
- Marine Protected Area (MPA)



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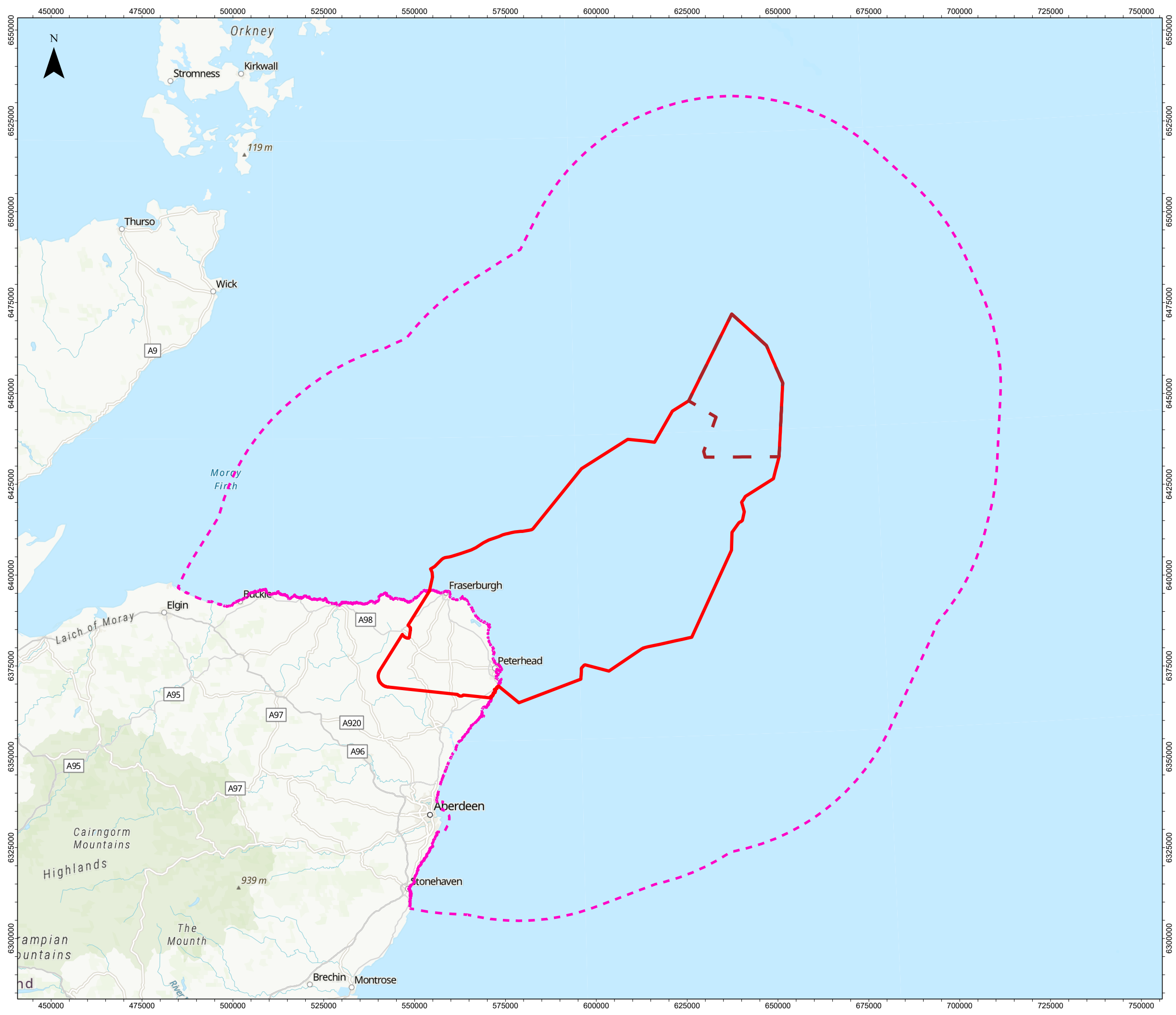
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Figure 5.5.5 Designated sites surrounding the Project, with relevance to benthic, epibenthic and intertidal ecology

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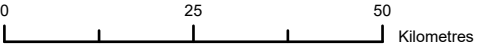
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- Scoping Boundary
- NE7 Option Agreement Area
- Marine mammal study area



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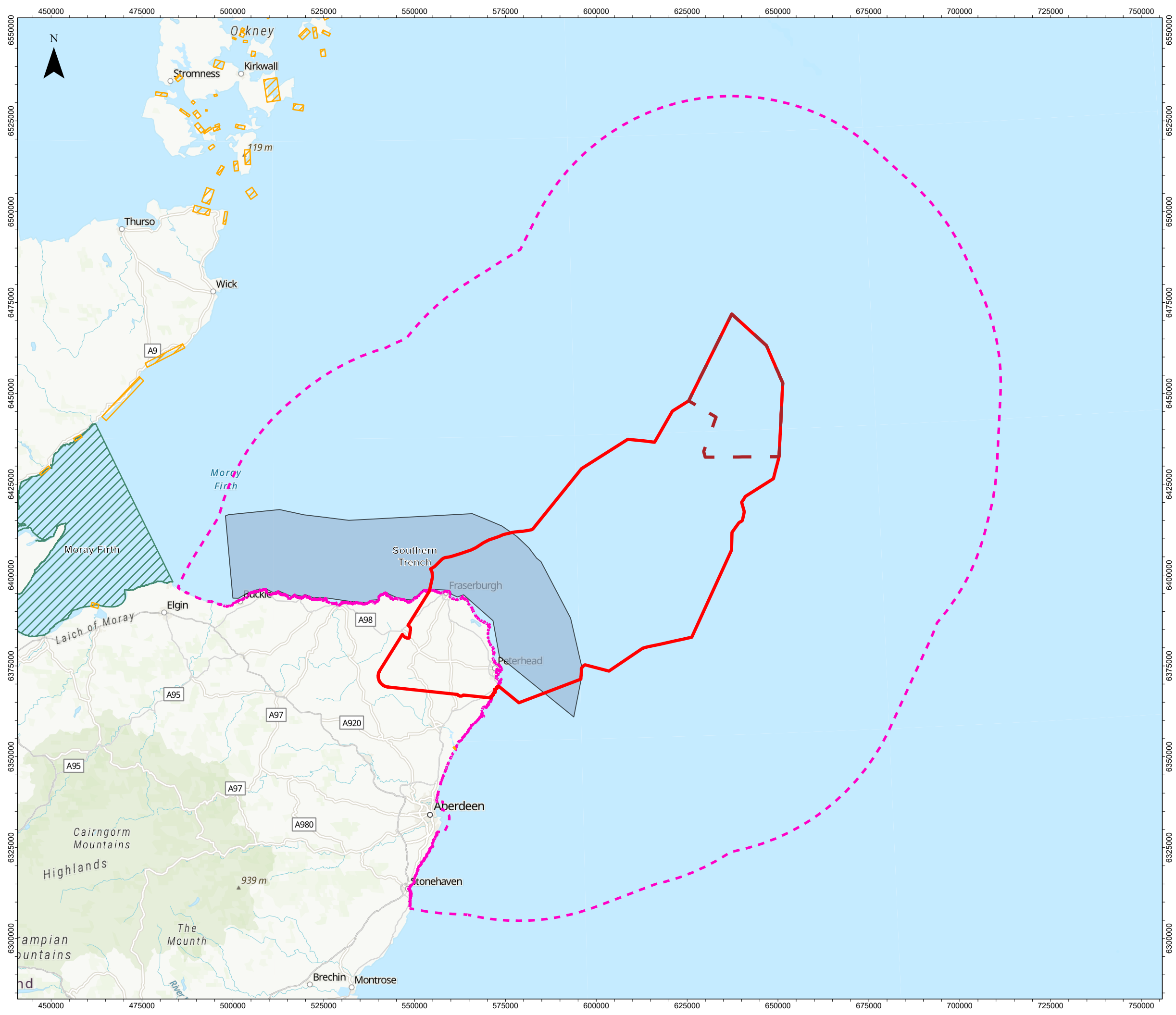
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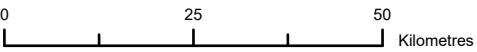
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- Scoping Boundary
- NE7 Option Agreement Area
- Marine mammal study area
- Southern Trench Marine Protected Area (MPA)
- Moray Firth Special Area of Conservation (SAC)
- Protected seal haul-out sites



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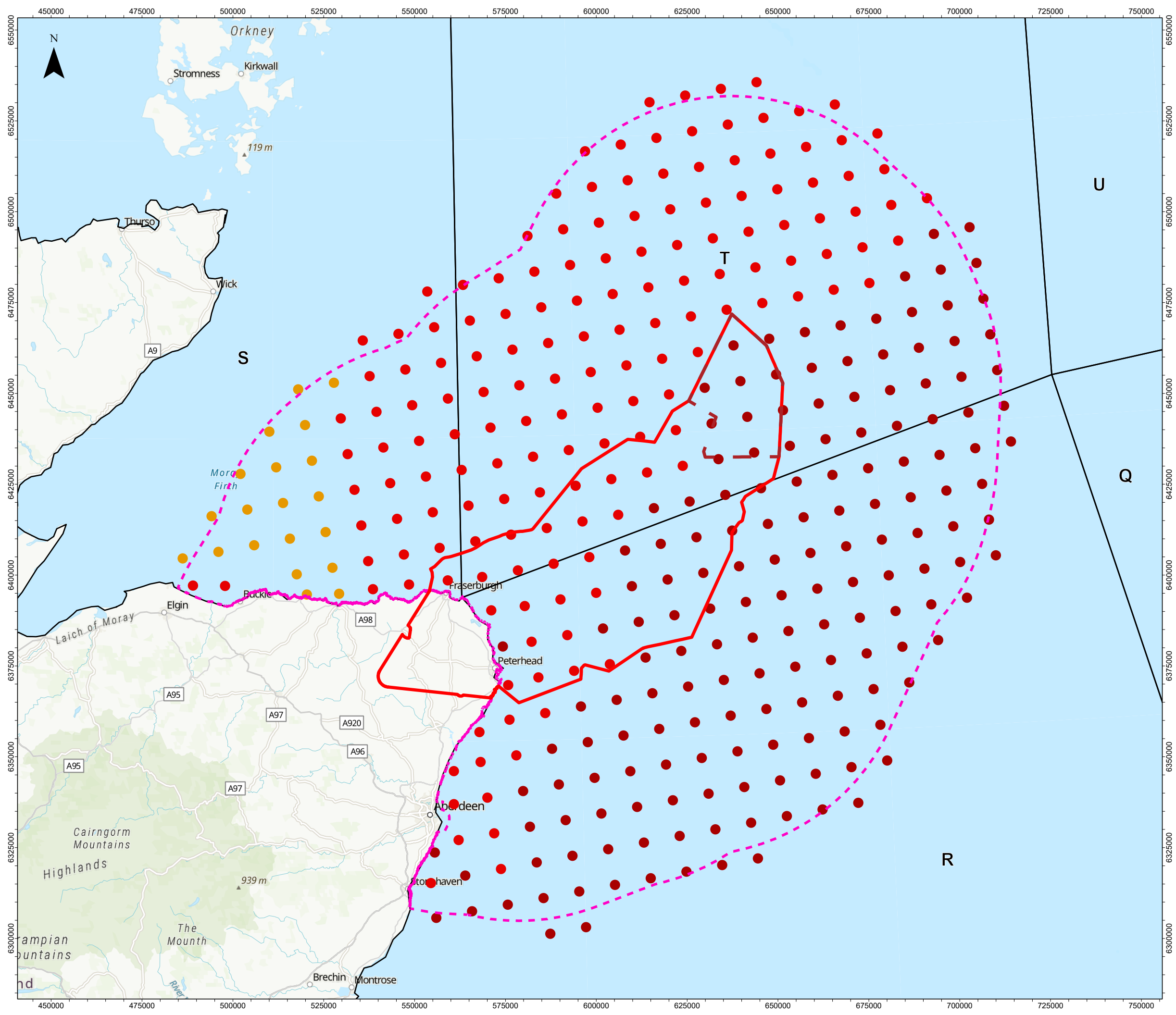
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Figure 5.6.2 Marine mammal protected sites

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Scoping Boundary

NE7 Option Agreement Area

Marine mammal study area

SCANS survey blocks

Harbour porpoise

Density per km²

0.0 - 0.02

>0.02 - 0.05

>0.05 - 0.1

>0.1 - 0.2

>0.2 - 0.3

>0.3 - 0.5

> 0.5

02550

Kilometres

North Sea

Scale: 1:10,000,000

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5.6.3 Harbour porpoise abundance data including SCANS blocks (Lacey et al., 2022)

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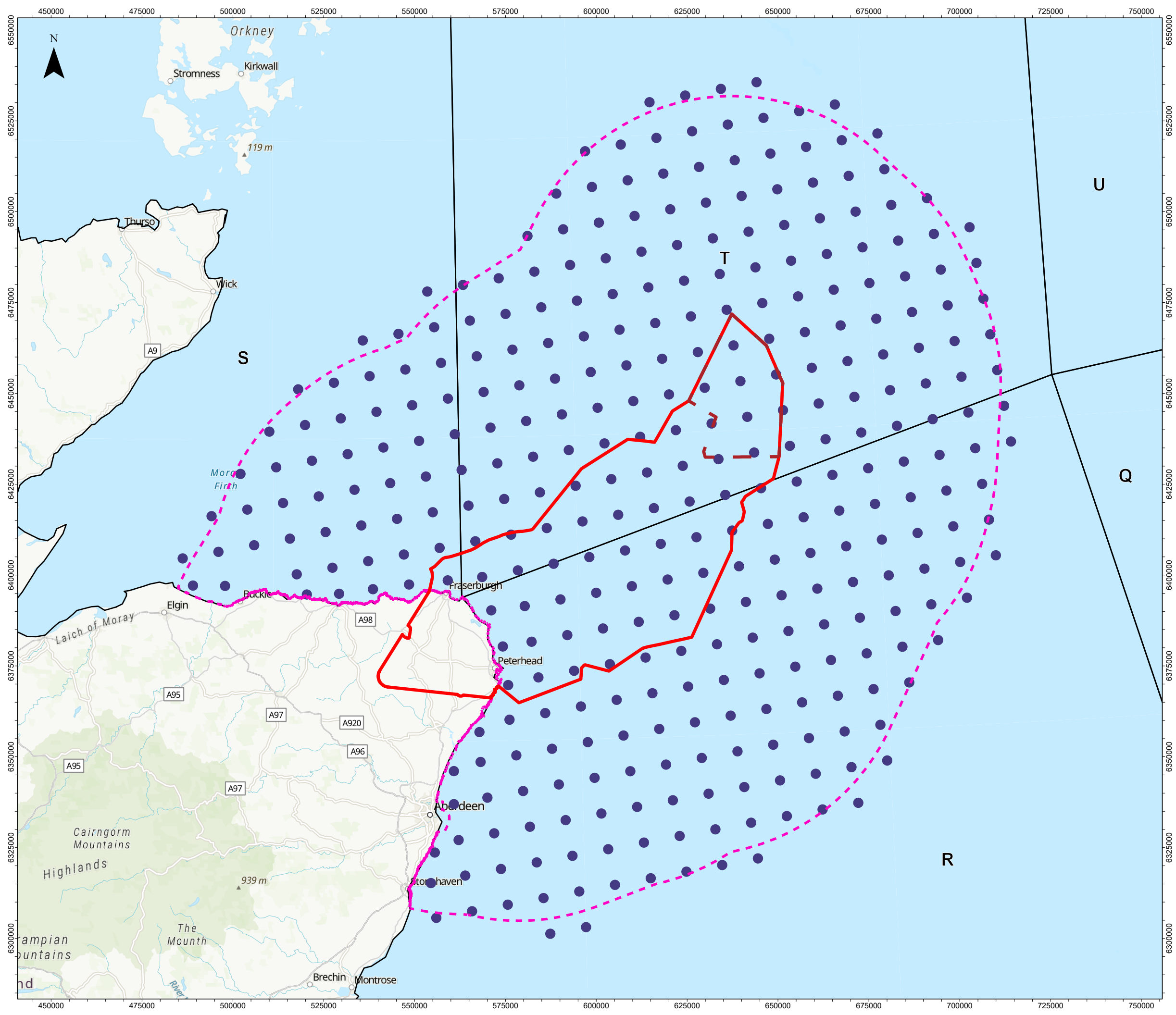
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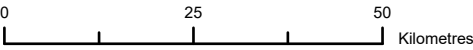


- Scoping Boundary
- NE7 Option Agreement Area
- Marine mammal study area
- SCANS survey blocks

Bottlenose dolphin

Density per km²

- 0.0 - 0.02
- >0.02 - 0.05
- >0.05 - 0.1
- >0.1 - 0.2
- >0.2 - 0.3
- >0.3 - 0.5
- > 0.5



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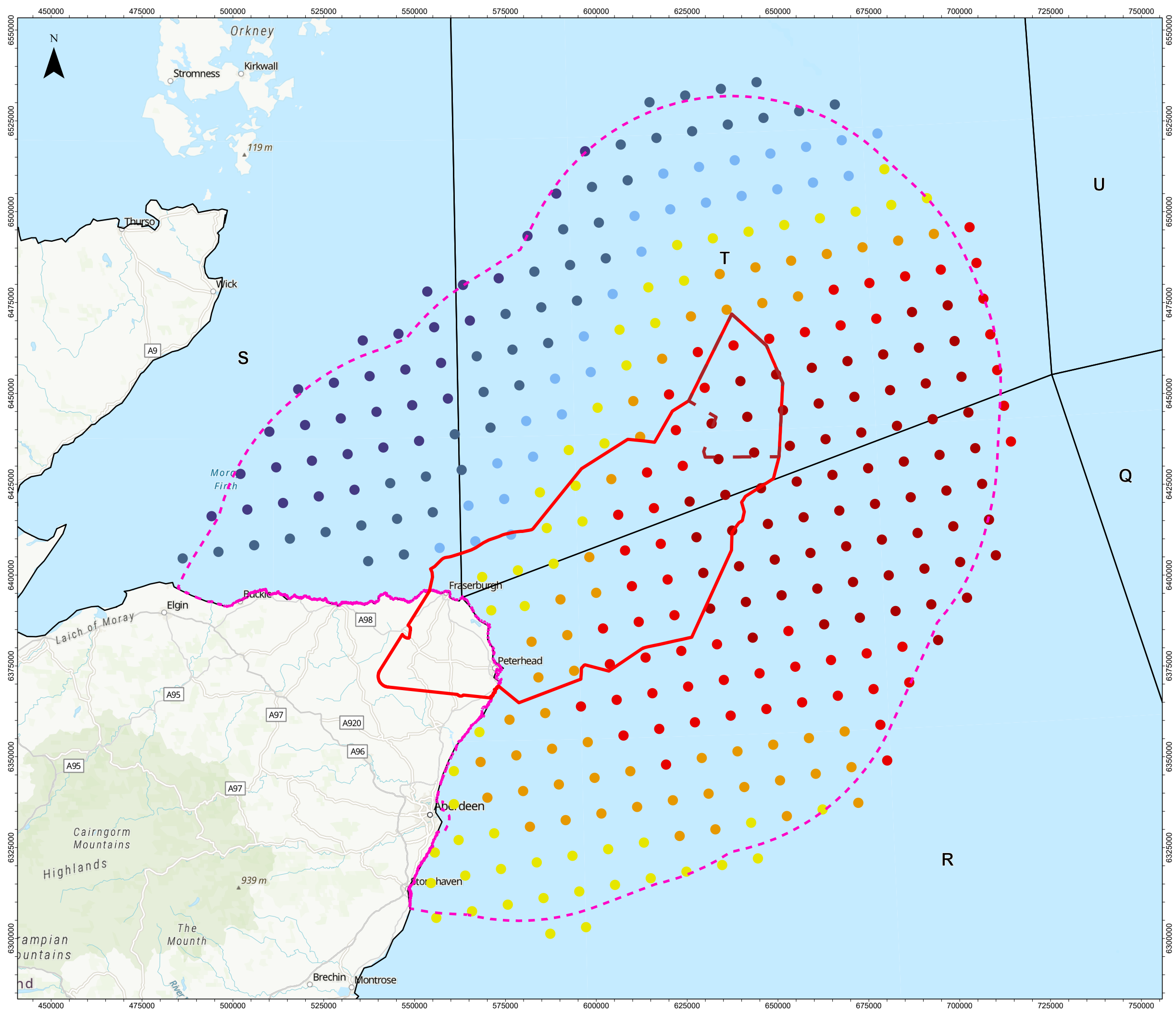
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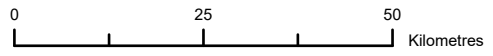


- Scoping Boundary
- NE7 Option Agreement Area
- Marine mammal study area
- SCANS survey blocks

White-beaked dolphin

Density per km²

- 0.0 - 0.02
- >0.02 - 0.05
- >0.05 - 0.1
- >0.1 - 0.2
- >0.2 - 0.3
- >0.3 - 0.5
- > 0.5



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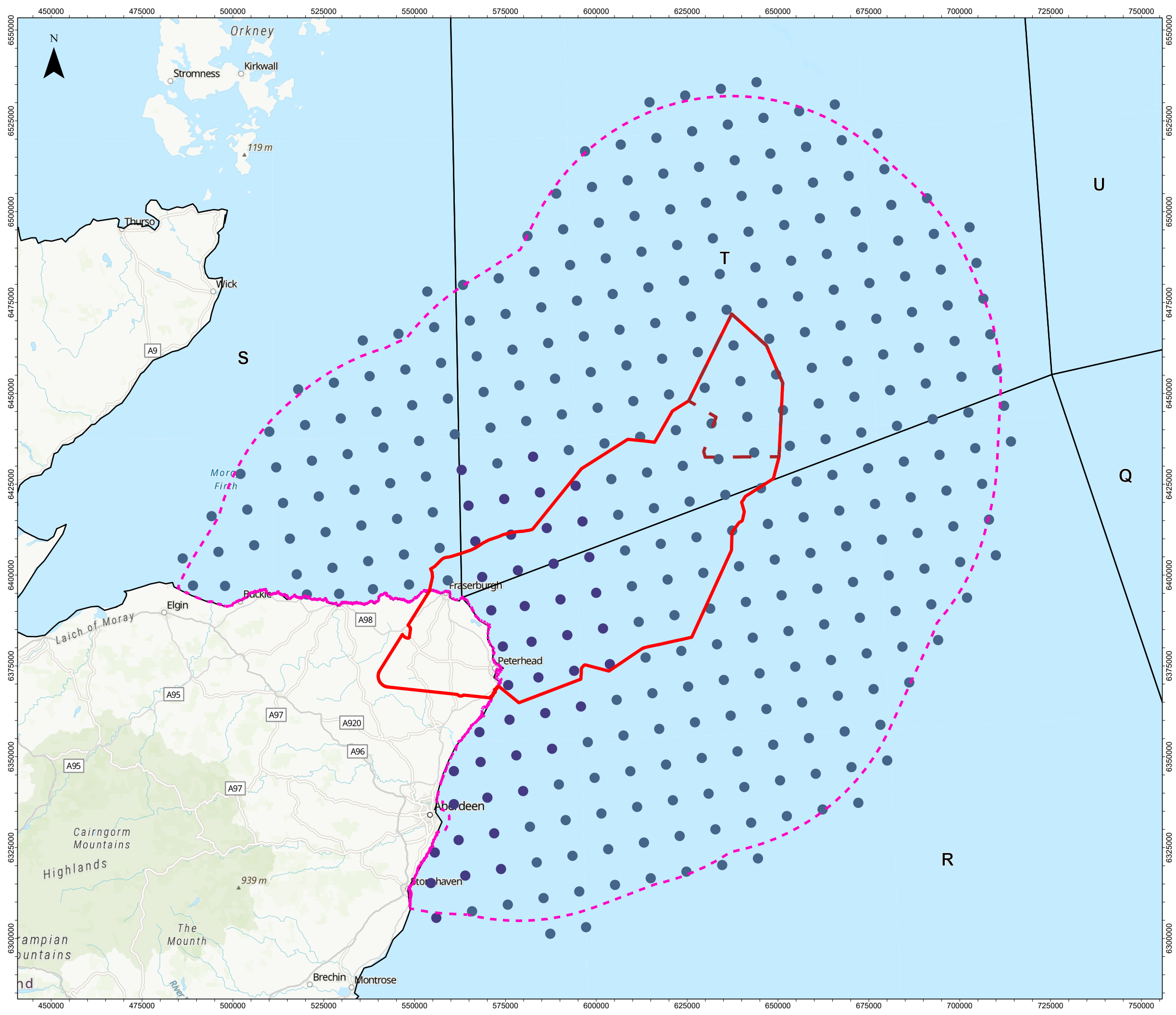
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- Scoping Boundary
- NE7 Option Agreement Area
- Marine mammal study area
- SCANS survey blocks

Minke whale

Density per km²

- 0.0 - 0.02
- >0.02 - 0.05
- >0.05 - 0.1
- >0.1 - 0.2
- >0.2 - 0.3
- >0.3 - 0.5
- > 0.5



3	11/01/2023	RE	AMc	LG	LO
2	10/01/2023	RE	AMc	LG	LO
1	08/11/2022	RE	AMc	LG	LO
REV	REV DATE	GIS CREATOR	GIS REVIEWER	TECHNICAL CHECKER	TECHNICAL APPROVER

DRAWING NUMBER	808368-WEIS-IA-SC-FG-M8-67989
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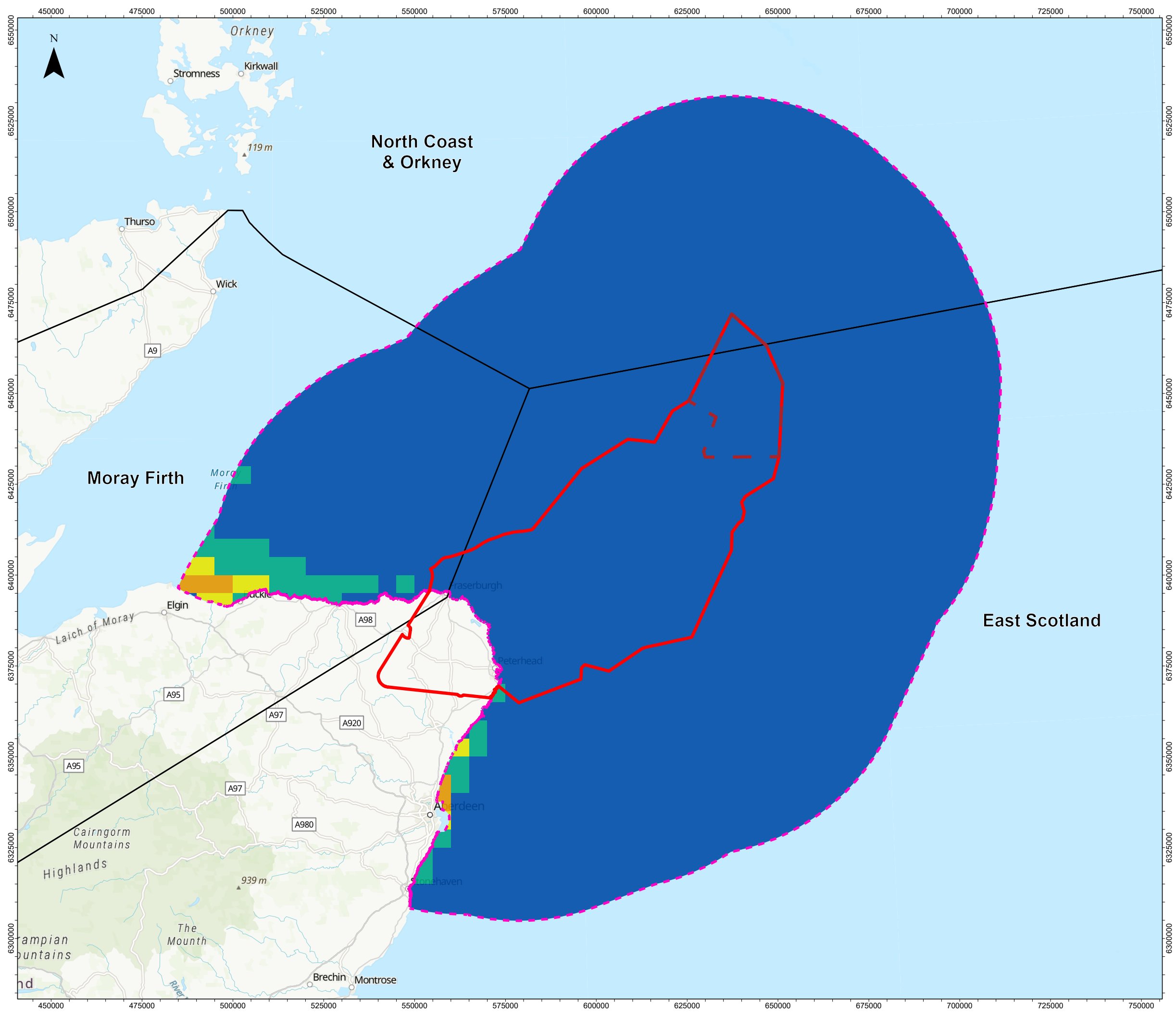
PROJECT TITLE	MarramWind
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DRAWING TITLE	5.6.6 Minke whale abundance data including SCANS blocks (Lacey et al., 2022)
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World Ocean Reference: Esri UK, Esri, HERE, Garmin, FAO, NOAA, USGS

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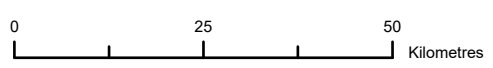


- Scoping Boundary
- NE7 Option Agreement Area
- Marine mammal study area
- Seal management area

Harbour seal

Mean % at-sea population per 25km²

- 0 - 0.001
- >0.001 - 0.005
- >0.005 - 0.01
- >0.01 - 0.025
- >0.025 - 0.05
- >0.05 - 0.1



3	11/01/2023	RE	AMc	LG	LO
2	10/01/2023	RE	AMc	LG	LO
1	08/11/2022	RE	AMc	LG	LO
REV	REV DATE	GIS CREATOR	GIS REVIEWER	TECHNICAL CHECKER	TECHNICAL APPROVER

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DATUM ETRS 89 PROJECTION UTM Zone 30N

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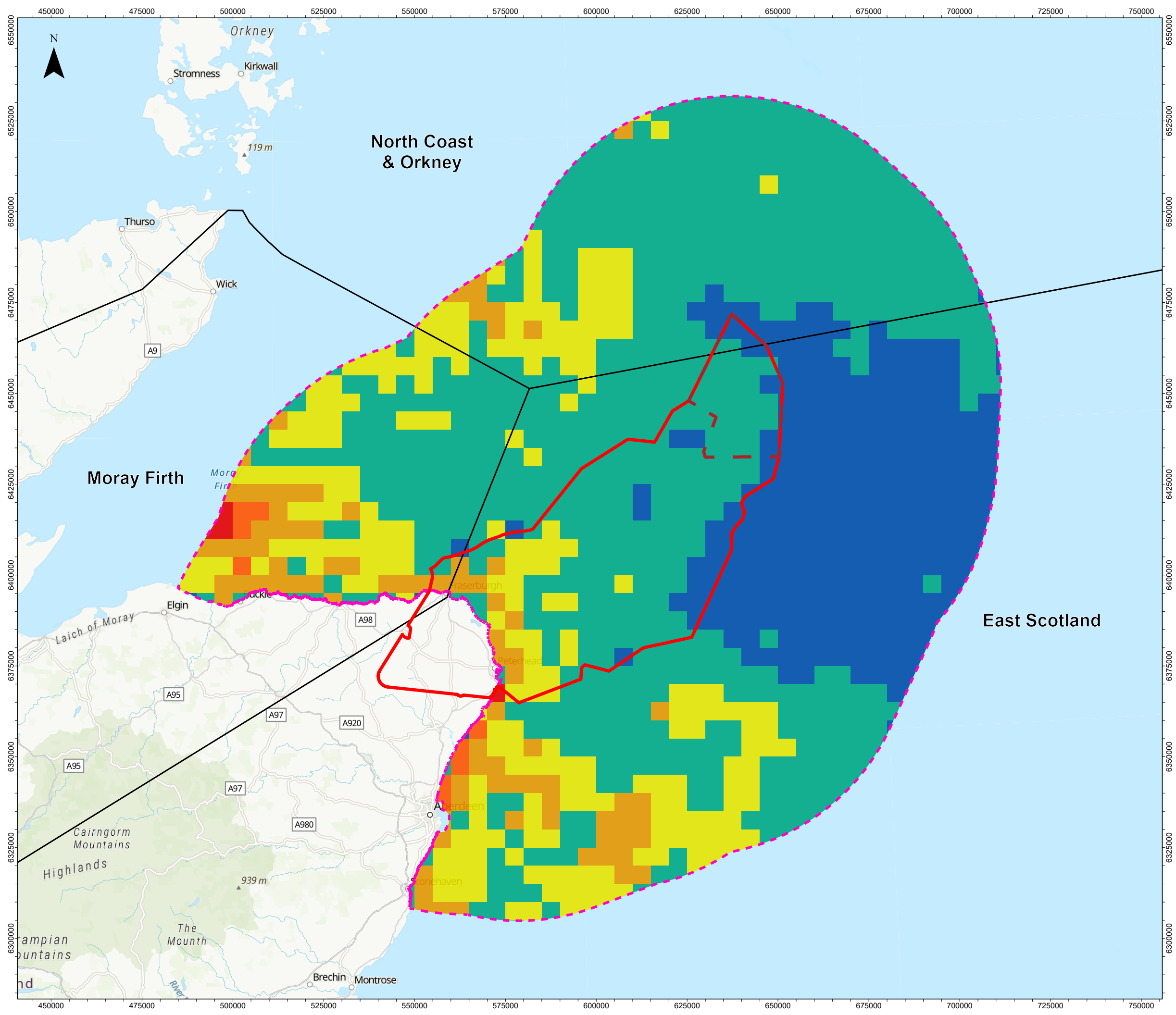
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Figure 5.6.7 Harbour seal telemetry data (Carter et al. 2020; 2022)

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- Scoping Boundary
- NE7 Option Agreement Area
- Marine mammal study area
- Seal management area

Grey seal
Mean % at-sea population per 25km²

- 0 - 0.001
- >0.001 - 0.005
- >0.005 - 0.01
- >0.01 - 0.025
- >0.025 - 0.05
- >0.05 - 0.1



3	11/03/2023	RE	AMc	LG	LO
2	10/01/2023	RE	AMc	LG	LO
1	08/11/2022	RE	AMc	LG	LO
REV	REV DATE	GIS CREATOR	GIS REVIEWER	TECHNICAL CHECKER	TECHNICAL APPROVER

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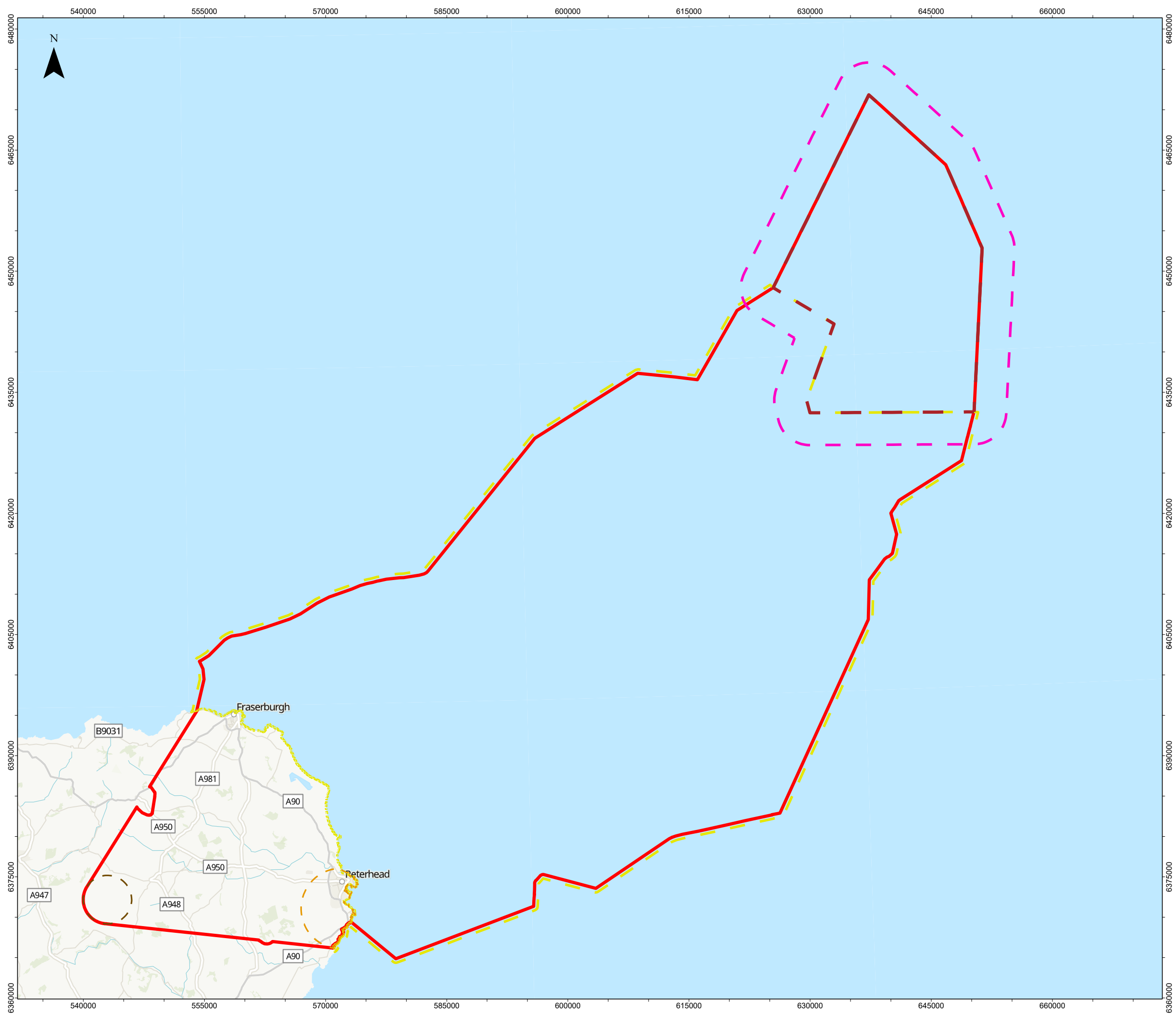
PROJECT TITLE
MarramWind

DRAWING TITLE
Figure 5.6.8 Grey seal telemetry data (Carter et al. 2020; 2022)

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Scoping Boundary

NE7 Option Agreement Area

NE7 Option Agreement Area
4km buffer

Offshore export cable corridor
search area 0.5km buffer

Peterhead onshore substation
search area - base case point of
connection for up to 3GW

New Deer onshore substation
search area - contingent point of
connection for remaining 1.5
GW

0

12.5

25

Kilometres



3	24/01/2023	SS	AMc	LG	LO
2	31/10/2022	SS	AMc	LG	LO
1	26/10/2022	SS	AMc	LG	LO
REV	REV DATE	GIS CREATOR	GIS REVIEWER	TECHNICAL CHECKER	TECHNICAL APPROVER

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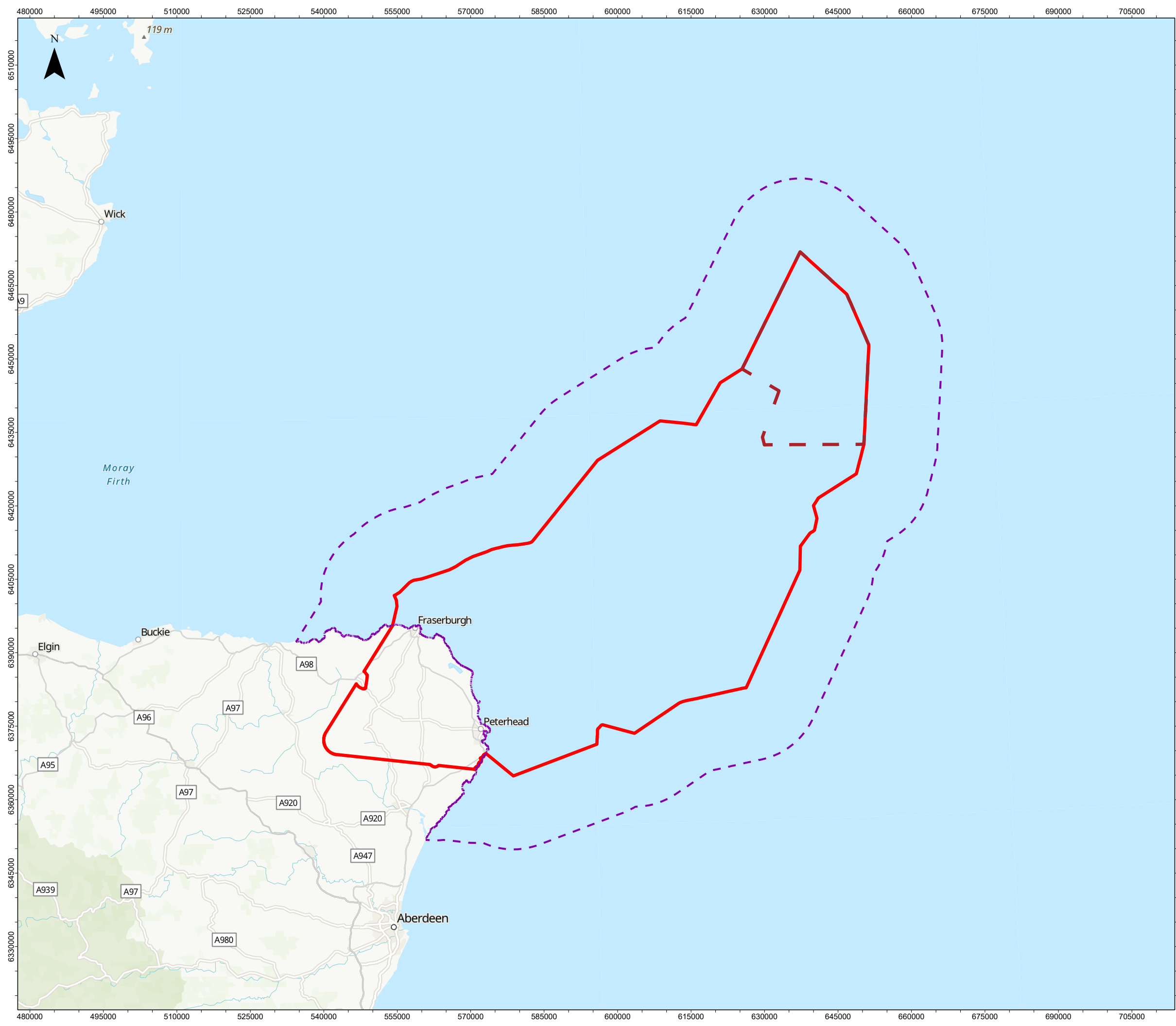
PROJECT TITLE
MarramWind

DRAWING TITLE
Figure 5.7.1 Offshore and Intertidal Ornithology Study Area

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World Ocean Base: Esri, GEBCO, DeLorme, NaturalVue
World Ocean Reference: Esri UK, Esri, HERE, Garmin, FAO, NOAA, USGS

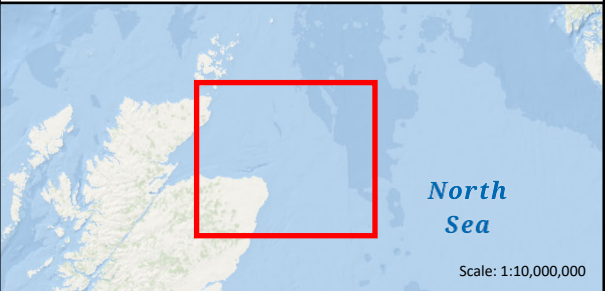
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- Scoping Boundary
- NE7 Option Agreement Area
- Fish and Shellfish Ecology Study Area

0 12.5 25 Kilometres



	ddmm/yyyy	--	--	--	--
2	31/10/2022	SS	AMc	LG	LO
1	07/09/2022	SS	AMc	LG	LO
REV	REV DATE	GIS CREATOR	GIS REVIEWER	TECHNICAL CHECKER	TECHNICAL APPROVER

DRAWING NUMBER	808368-WOOD-IA-SC-FG-F6-24270
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DATUM	ETRS 89	PROJECTION	UTM Zone 30N
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PROJECT TITLE	MarramWind
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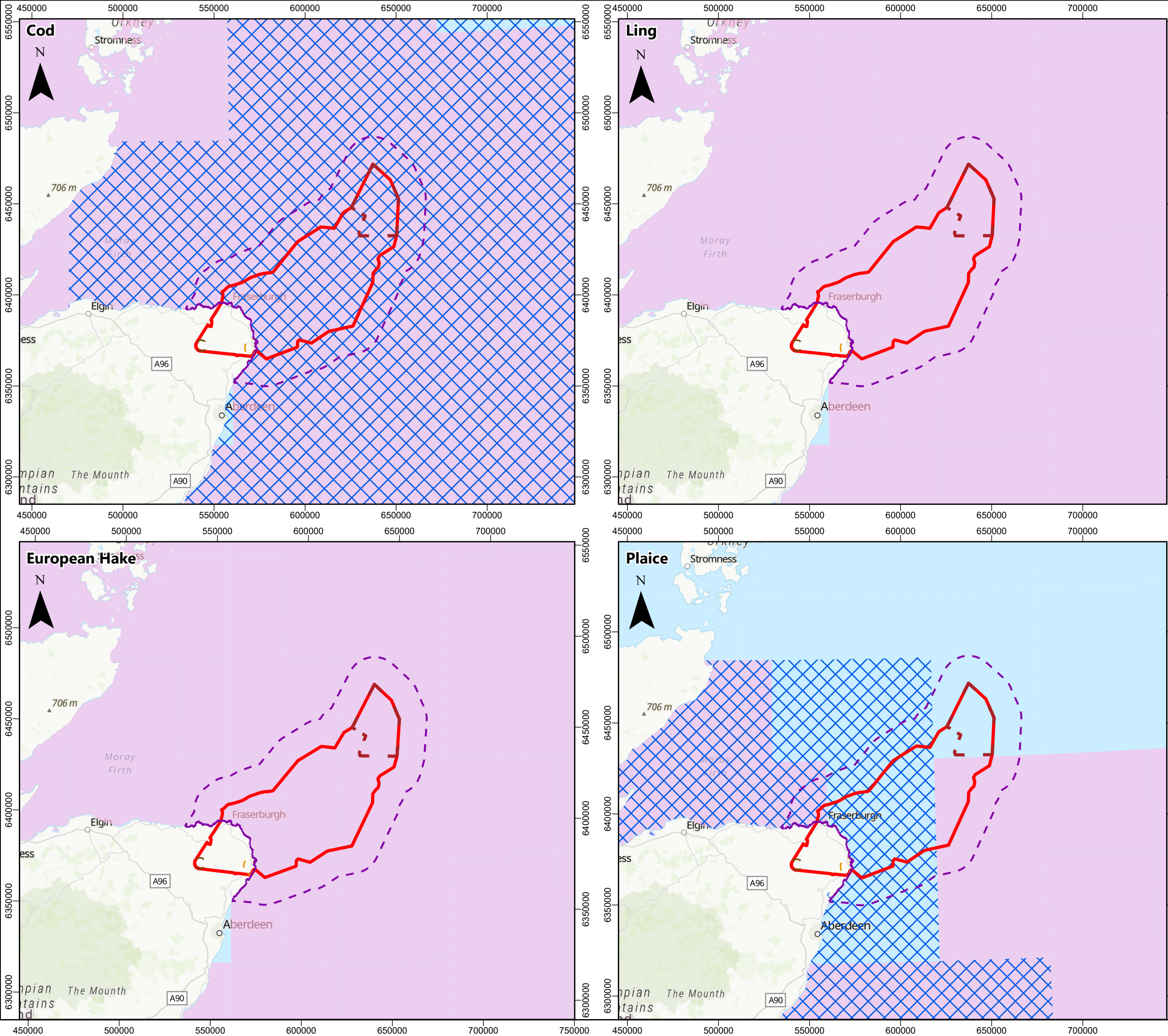
DRAWING TITLE	Figure 5.8.1 Fish and shellfish ecology study area
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Scoping Boundary

NE7 Option Agreement Area

Peterhead onshore substation search area - base case point of connection for up to 3GW

New Deer onshore substation search area - contingent point of connection for remaining 1.5GW

Fish and Shellfish Ecology Study Area

Spawning Areas

Nursery Grounds

0

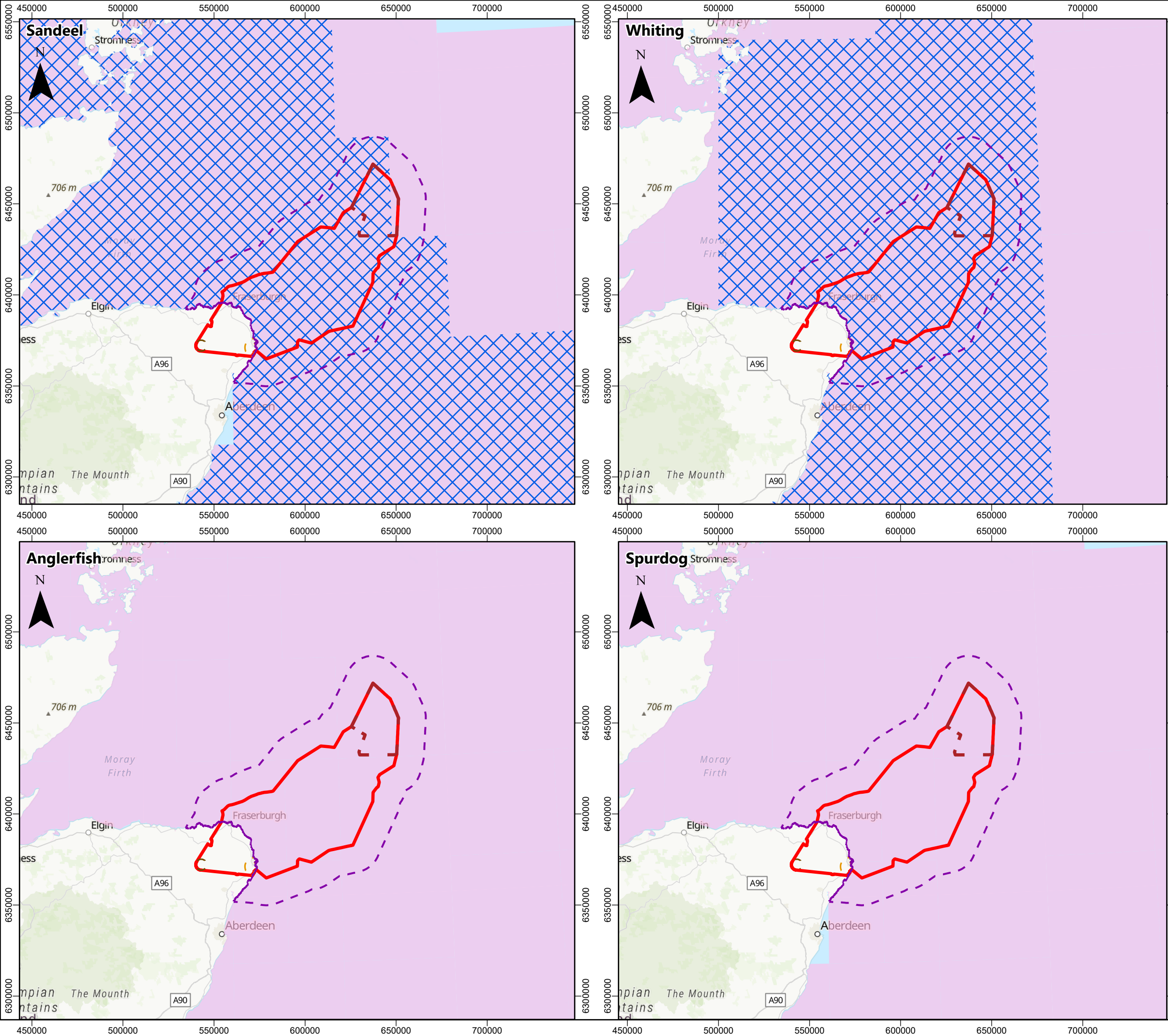
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Kilometres



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1	08/09/2022	SS	AMc	LG	LO
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DATUM ETRS 89			PROJECTION UTM Zone 30N		
SCALE 1:2,000,000			PAGE SIZE A3		
PROJECT TITLE MarramWind					
DRAWING TITLE Figure 5.8.2 Spawning and nursery grounds Sheet 1 of 4					
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Scoping Boundary

NE7 Option Agreement Area

Peterhead onshore substation search area - base case point of connection for up to 3GW

New Deer onshore substation search area - contingent point of connection for remaining 1.5 GW

Fish and Shellfish Ecology Study Area

Spawning Areas

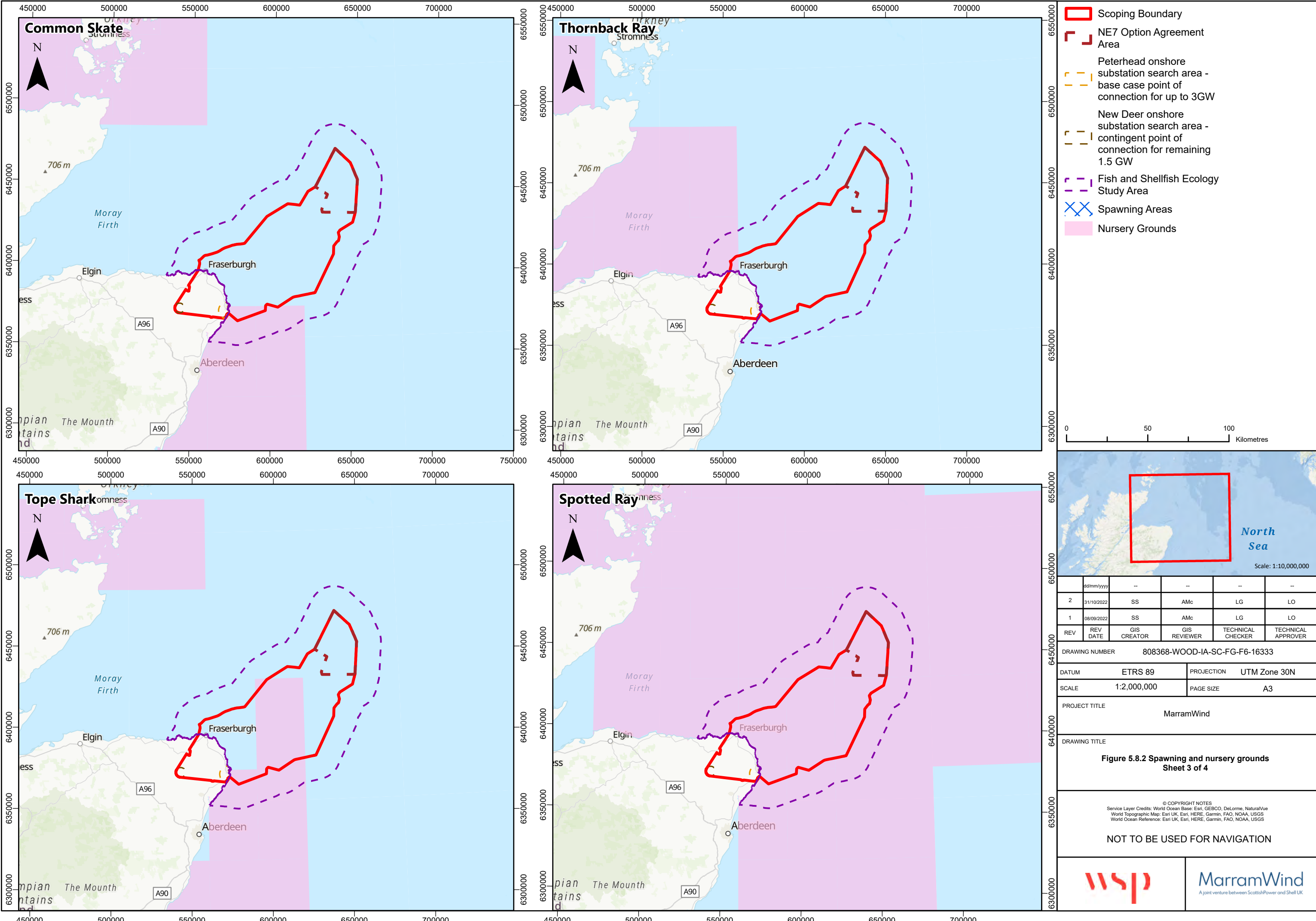
Nursery Grounds

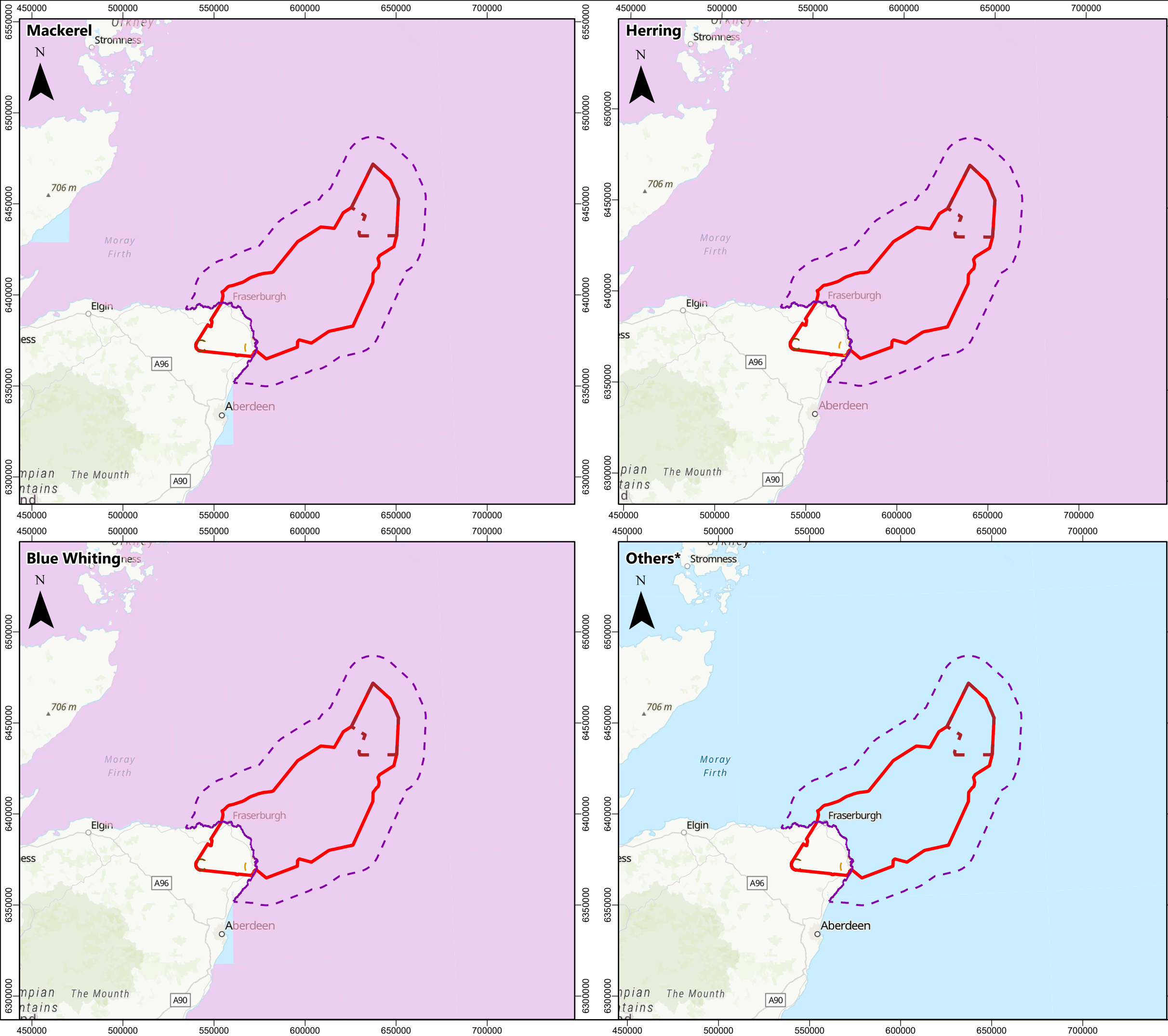
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Kilometres



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1	08/09/2022	SS	AMc	LG	LO
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DATUM ETRS 89			PROJECTION UTM Zone 30N		
SCALE 1:2,000,000			PAGE SIZE A3		
PROJECT TITLE MarramWind					
DRAWING TITLE Figure 5.8.2 Spawning and nursery grounds Sheet 2 of 4					
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Scoping Boundary

NE7 Option Agreement Area

Peterhead onshore substation search area - base case point of connection for up to 3GW

New Deer onshore substation search area - contingent point of connection for remaining 1.5 GW

Fish and Shellfish Ecology Study Area

Spawning Areas

Nursery Grounds

***Includes Species (Hake, Horse Mackerel and Undulate Ray) not found within/near the study area.**

0

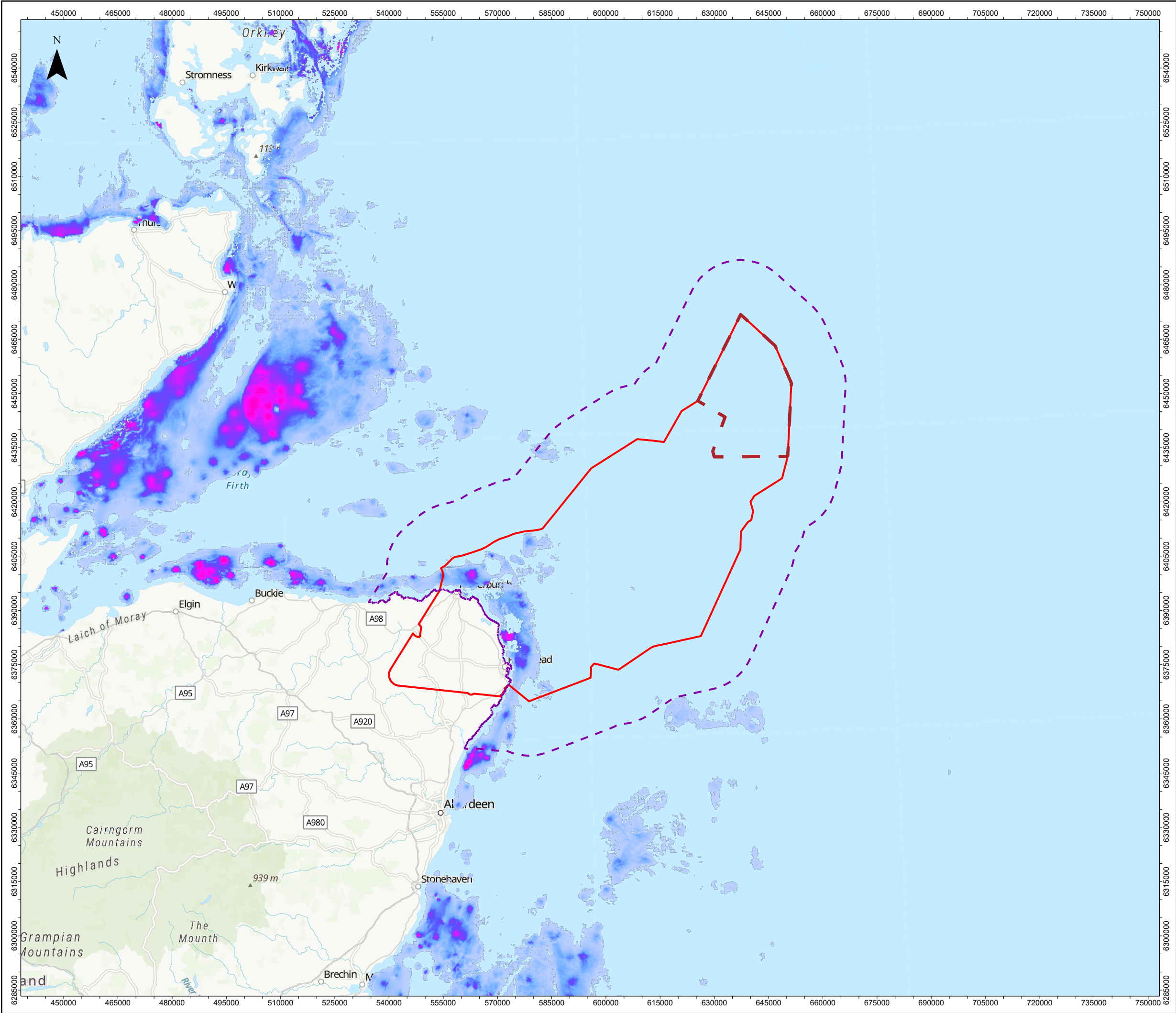
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Kilometres

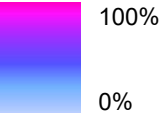


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DATUM ETRS 89			PROJECTION UTM Zone 30N		
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PROJECT TITLE MarramWind					
DRAWING TITLE Figure 5.8.2 Spawning and nursery grounds Sheet 4 of 4					
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- Scoping Boundary
- NE7 Option Agreement Area
- Fish and Shellfish Ecology Study Area

Predicted presence of buried lesser sandeels



	ddmm/yyyy	--	--	--	--
2	31/10/2022	SS	AMc	LG	LO
1	07/09/2022	SS	AMc	LG	LO
REV	REV DATE	GIS CREATOR	GIS REVIEWER	TECHNICAL CHECKER	TECHNICAL APPROVER

DRAWING NUMBER 808368-WOOD-IA-SC-FG-F6-9544

DATUM ETRS 89 PROJECTION UTM Zone 30N

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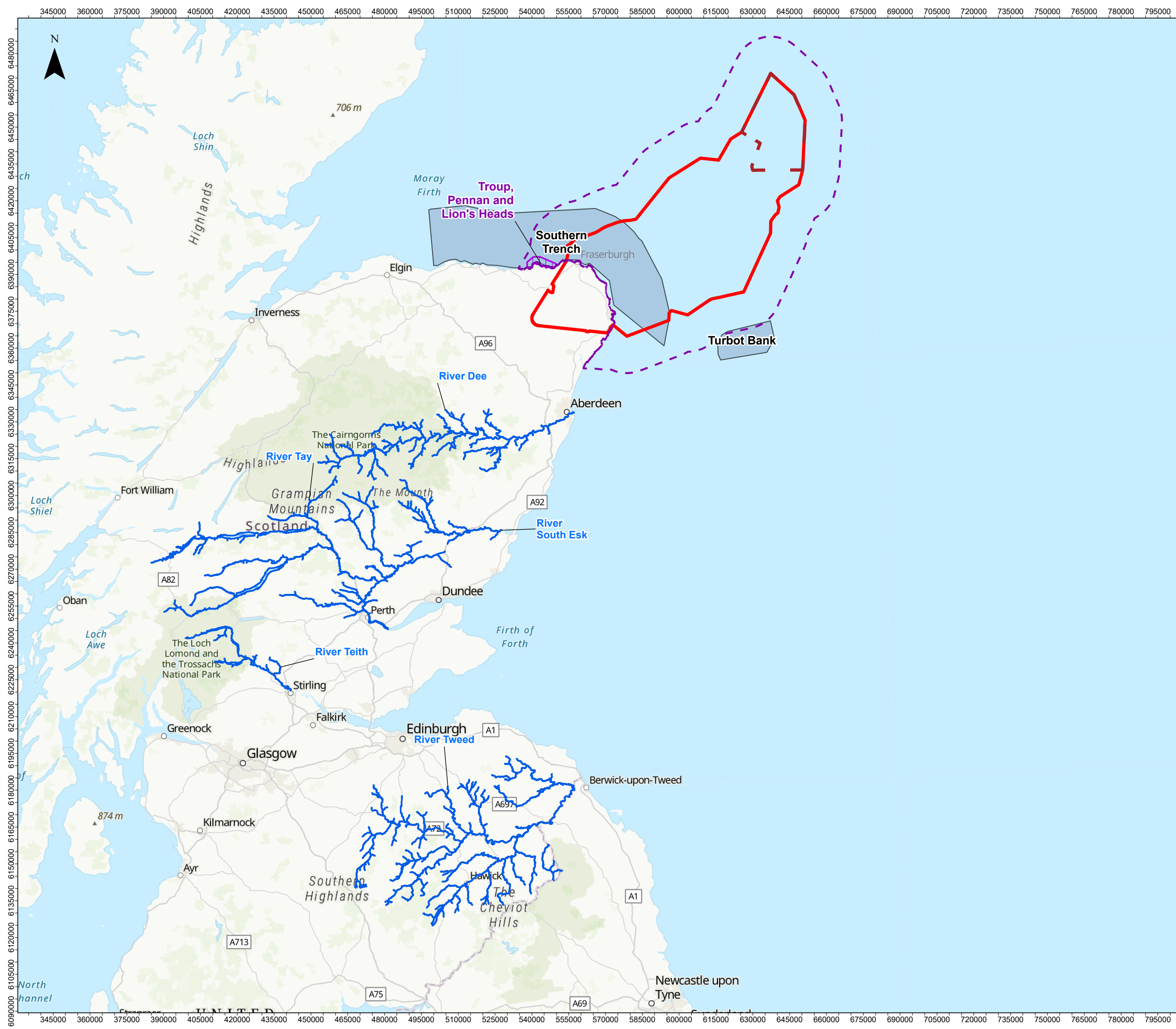
PROJECT TITLE MarramWind

DRAWING TITLE
Figure 5.8.3 Predicted presence of buried lesser sandeels

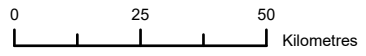
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- Scoping Boundary
- NE7 Option Agreement Area
- Fish and Shellfish Ecology Study Area
- Special Protection Area
- Special Area of Conservation
- Marine Protected Area



4	06/01/2023	SS	AMc	LG	LO
3	22/12/2022	SS	AMc	LG	LO
2	31/10/2022	SS	AMc	LG	LO
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DATUM	ETRS 89	PROJECTION	UTM Zone 30N
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PROJECT TITLE MarramWind

DRAWING TITLE
Figure 5.8.4 Designated sites of relevance to fish and shellfish ecology

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