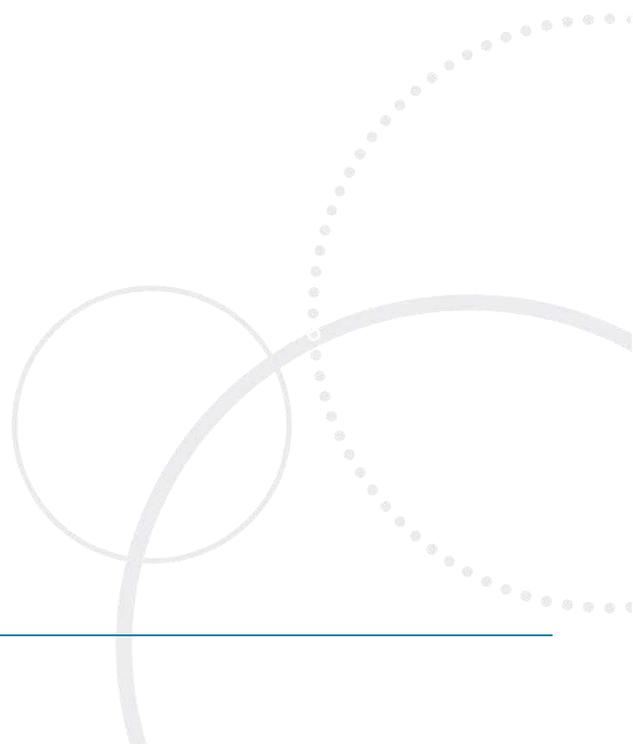


Volume III AEE Drawings



Chapter 1 Drawing 1.1 Statutory Environmental Designations



- KEY**
- Proposed Project
 - Site of Special Scientific Interest (SSSI)
 - Special Protection Area (SPA)
 - Important Bird Area (IBA)
 - National Nature Reserve (NNR)
 - National Scenic Area (NSA)
 - Scheduled Monument (SM)
 - ▲ A-Listed
 - ▲ B-Listed
 - ▲ C-Listed



Scale 1:40,000 @ A3



RFA SaxaVord
Assessment of Environmental Effects

Drawing 1.1
Statutory Environmental Designations

Project Number: 4879

Chapter 2 Drawing 2.1 Study Areas within the Environmental Zone of Influence

280000

290000

300000

6760000

6750000

6740000

280000

290000

300000



KEY

-  North Atlantic Environmental Zone of Influence
-  Ornithology - 4km buffer
-  Ornithology - 3km buffer
-  Ornithology - 2km buffer
-  Ornithology - 1km buffer
-  Ornithology - 0.5km buffer
-  Ecology – Habitat Study Area
-  Noise – Study Area
-  Ornithology – Study Area
-  LVIA – Study Area
-  Saxavord Project Site Boundary
-  Ecology – Otter Study Area
-  Air Quality - Study Area



Scale 1:100,000 @ A3



Rocket Factory Augsburg
Assessment of Environmental Effects

Drawing 2.1

Study Areas within the EZI

Date: 20/09/2023	Drawn by: AN	Checked by: IW	Version: Draft/V1
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Project Number: 3148

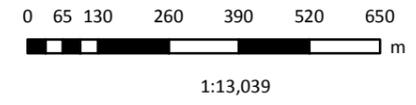
Chapter 3 Drawing 3.1 Proposed Project Location



KEY
 Proposed Project Boundary



Coordinate System: British National Grid
 Projection: Transverse Mercator
 Service Layer Credits: Contains OS data © Crown Copyright and database right 2020
 Contains OS data © Crown Copyright and database right

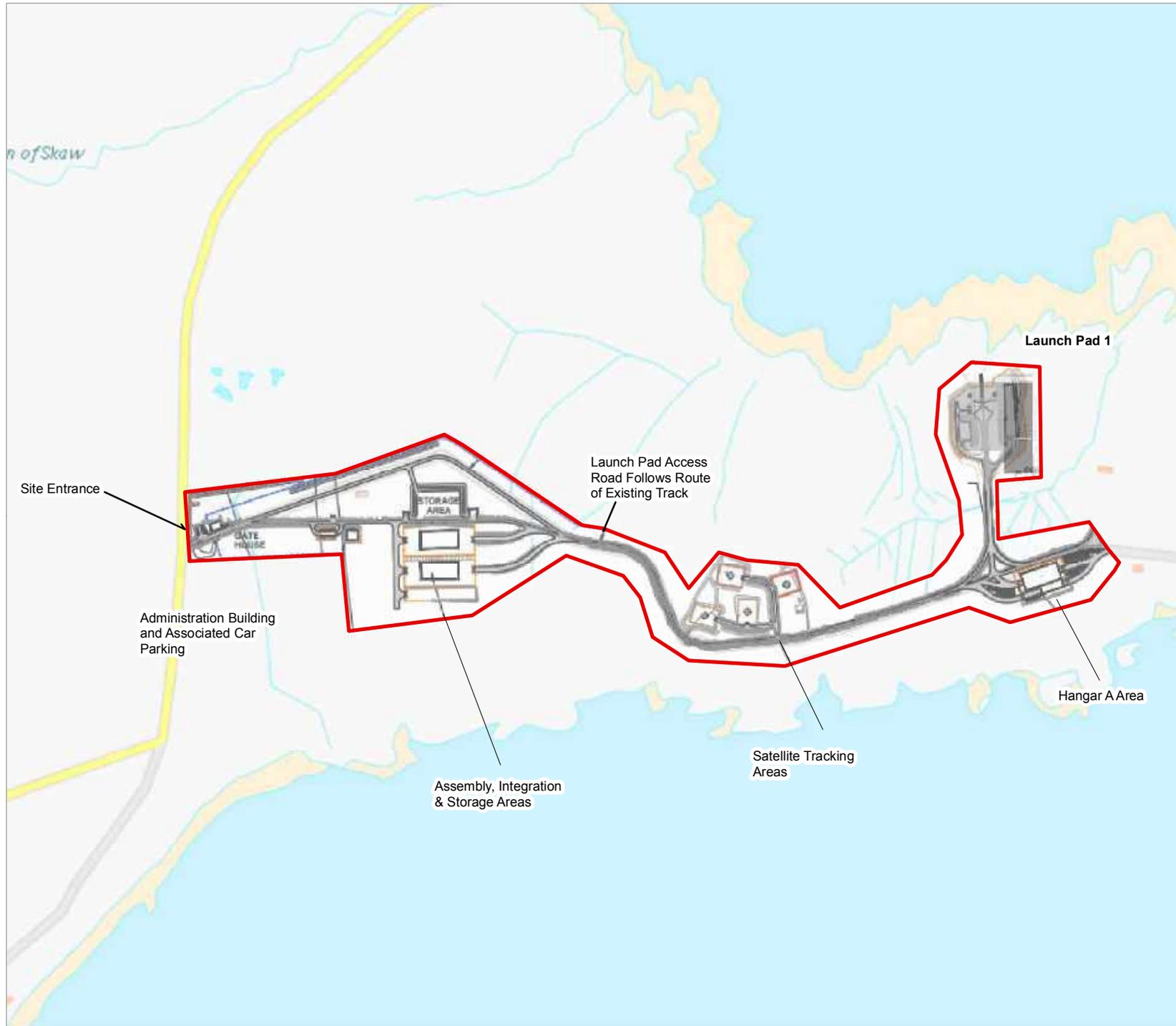


RFA SaxaVord
 Assessment of Environmental Effects
Drawing 3.1
Proposed Project Location

Date: 16/01/2023	Drawn by: AM	Review: RF	Version: V1
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Chapter 3 Drawing 3.2 Proposed Launch Site Layout





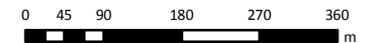
KEY

 Proposed Project Boundary



Coordinate System: British National Grid
 Projection: Transverse Mercator

Service Layer Credits: Contains OS data © Crown Copyright and database right 2020; Historic Environment Scotland and Ordnance Survey data ©



1:8,700

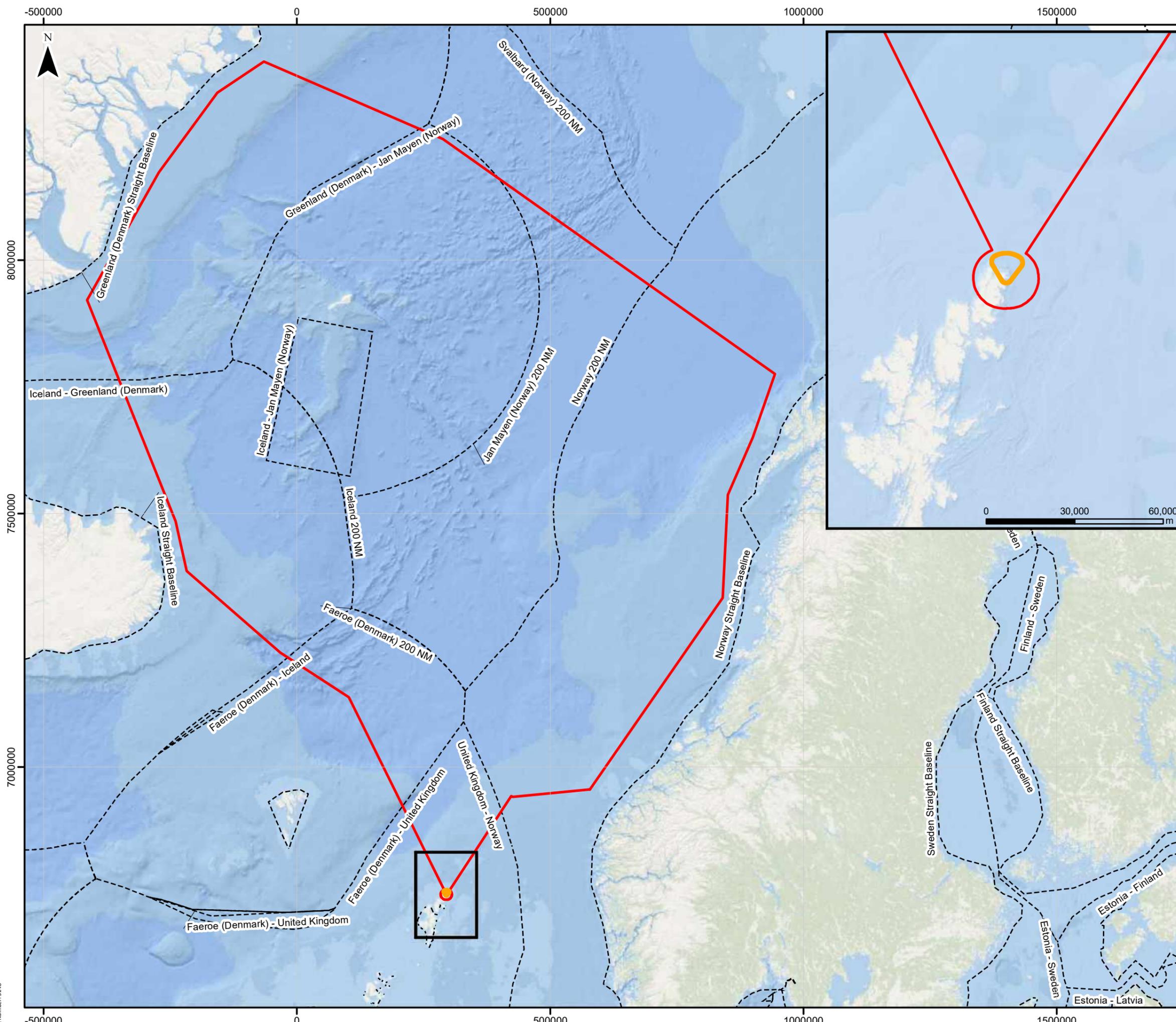


RFA SaxaVord
 Assessment of Environmental Effects

Drawing 3.2
Proposed Launch Site Layout

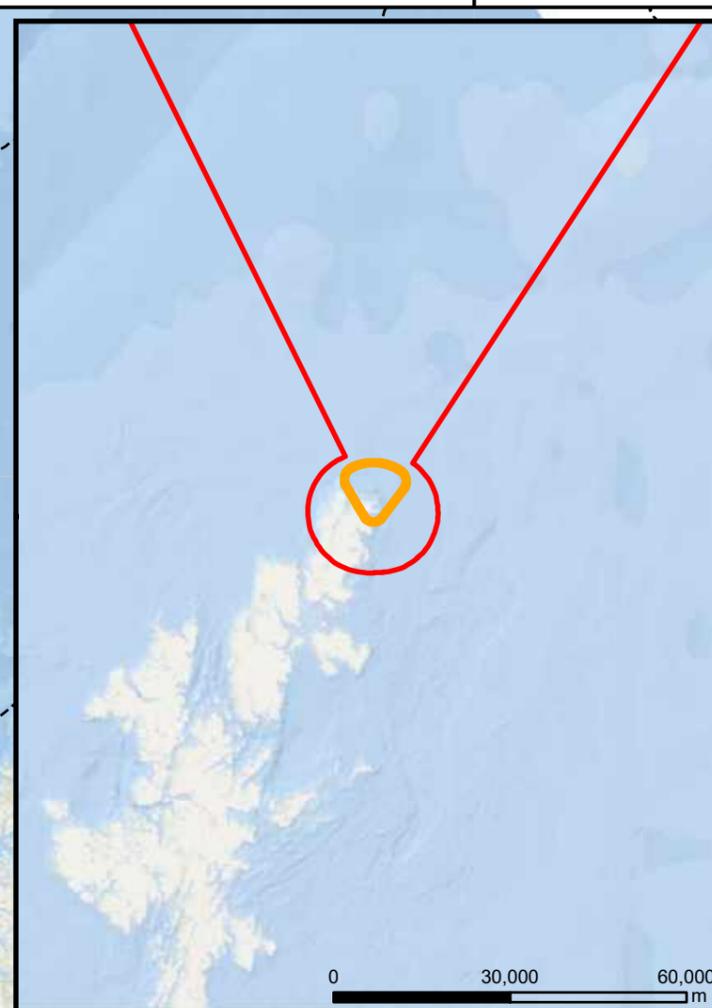
Date: 16/01/2023	Lead: AM	Review: RF	Version: V1
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Chapter 3 Drawing 3.3 North Atlantic Environmental Zone of Influence



Legend

- Launch Exclusion Zone
- North Atlantic Environmental Zone of Influence (EZI)
- EEZ boundaries



0 170,000 340,000 m

Scale 1:7,000,000 @ A3

Rocket Factory Augsburg
 Assessment of Environmental Effects

Drawing 3.3

North Atlantic Environmental Zone of Influence

Date: 19/09/2023	Drawn by: AN	Checked by: IW	Version: Draft/V1
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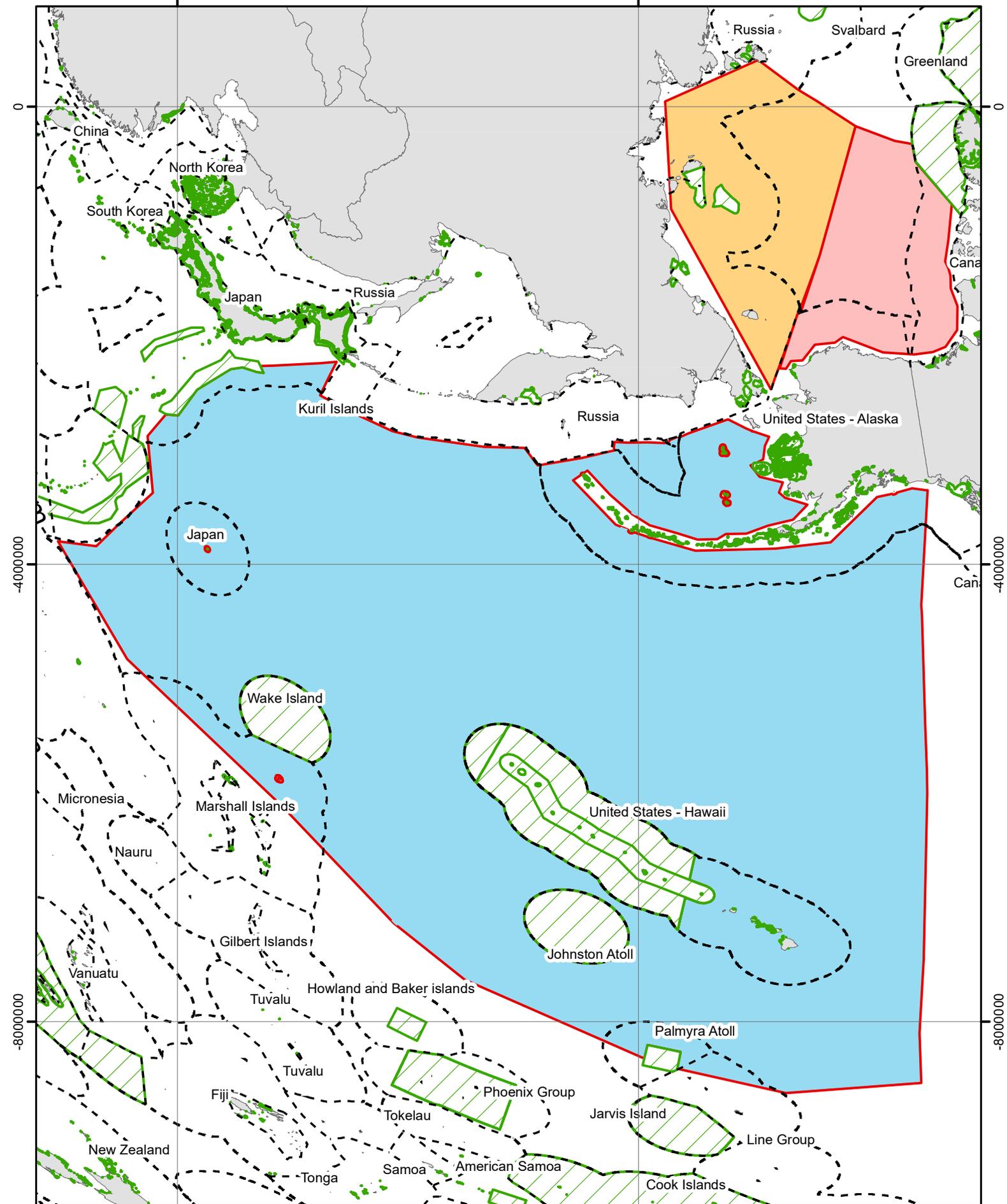
Project Number: 3148
 Service Layer Credits: Esri, Garmin, GEBCO, NOAA NGDC, and other contributors

Chapter 3 Drawing 3.4 Pacific Environmental Zone of Influence



-6000000

-2000000



-4000000

-4000000

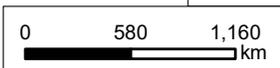
-8000000

-8000000

Legend

-  MPA
-  Pacific EZI Section a
-  Pacific EZI Section b
-  Pacific EZI Section c
-  EEZ

Rocket Factory Augsburg
 Assessment of Environmental Effects
Drawing 3.4
**Pacific Environmental Zone
 of Influence**



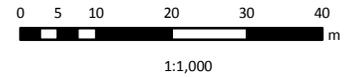
Scale : 1:42,000,000 @ A3 Date: 20/09/2023
 Drawn by: AN Checked by: IW Version: Draft/V1

Chapter 3 Drawing 3.5 Launch Pad 1 Layout



Drawing was provided to ITP Energised by AECOM

Coordinate System: British National Grid
Projection: Transverse Mercator
Service Layer Credits: Contains OS data © Crown Copyright and database right 2020; Historic Environment Scotland and Ordnance Survey data ©



RFA SaxaVord
Assessment of Environmental Effects

Drawing 3.5
Launch Pad 1 Layout

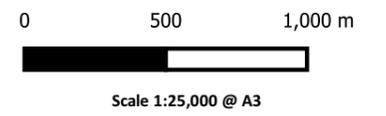
Date: 16/01/2023	Lead: AM	Review: RF	Version: V1
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Chapter 4 -

Chapter 5 SaxaVord Spaceport Drawing 5.1 Breeding Birds Study Area



- KEY**
-  Proposed Project Site Boundary
 -  Launch pad
 -  0.5km buffer launch pads
 -  1km buffer launch pads
 -  2km buffer launch pads
 -  3km buffer launch pads
 -  4km buffer launch pads



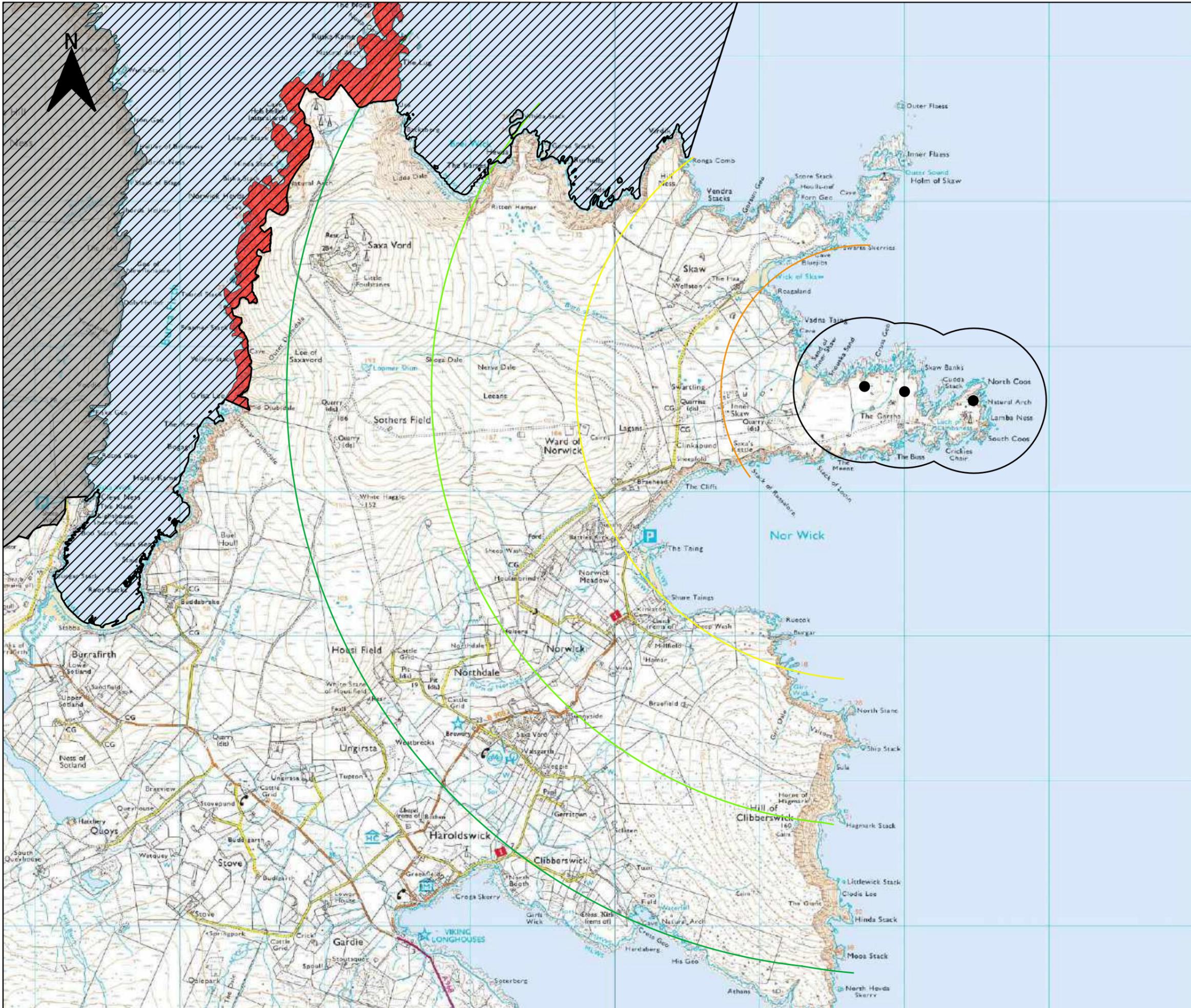
Saxa Vord Spaceport
 Assessment of Environmental Effects

Drawing 5.1
Breeding birds Study Area

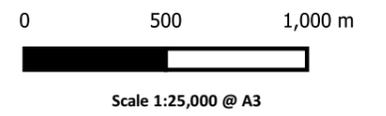
Date: 16/11/2021	Drawn by: K.M.	Checked by: P.C.	Version: Rev. 6
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Chapter 5 SaxaVord Spaceport Drawing 5.2 Designated Sites





- KEY**
-  Hermaness, Saxa Vord and Valla Field SPA
 -  Hermaness SSSI
 -  Saxa Vord SSSI
 -  Proposed Project Site Boundary
 -  Launch pad
 -  0.5km buffer launch pads
 -  1km buffer launch pads
 -  2km buffer launch pads
 -  3km buffer launch pads
 -  4km buffer launch pads



Saxa Vord Spaceport
 Assessment of Environmental Effects

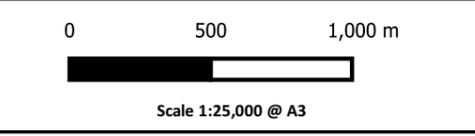
Drawing 5.2
 Designated sites within
 ornithological Study Area

Date: 16/11/2021	Drawn by: K.M.	Checked by: P.C.	Version: Rev. 6
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Chapter 5 SaxaVord Spaceport Drawing 5.3 Breeding Black Guillemot within EZI



- KEY**
- Black guillemot individuals
 - Proposed Project Site Boundary
 - Launch pad
 - 0.5km buffer launch pads
 - 1km buffer launch pads
 - 2km buffer launch pads
 - 3km buffer launch pads
 - 4km buffer launch pads



Saxa Vord Spaceport
Assessment of Environmental Effects

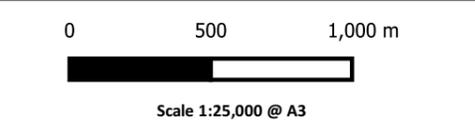
Drawing 5.3
Breeding black guillemot within the Study Area

Date: 16/11/2021	Drawn by: K.M.	Checked by: P.C.	Version: Rev. 6
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Chapter 5 SaxaVord Spaceport Drawing 5.4 Breeding Shag within EZI



- KEY**
- ▲ Shag Apparently Occupied Nests
 - Proposed Project Site Boundary
 - Launch pad
 - 0.5km buffer launch pads
 - 1km buffer launch pads
 - 2km buffer launch pads
 - 3km buffer launch pads
 - 4km buffer launch pads



Saxa Vord Spaceport
 Assessment of Environmental Effects

Drawing 5.4
Breeding shag within the Study Area

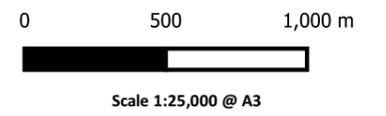
Date: 16/11/2021	Drawn by: K.M.	Checked by: P.C.	Version: Rev. 6
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Project Number: 3148

Chapter 5 SaxaVord Spaceport Drawing 5.5 Breeding Fulmar within EZI



- KEY**
- Fulmar Apparently Occupied Nests
 - Proposed Project Site Boundary
 - Launch pad
 - 0.5km buffer launch pads
 - 1km buffer launch pads
 - 2km buffer launch pads
 - 3km buffer launch pads
 - 4km buffer launch pads



Saxa Vord Spaceport
 Assessment of Environmental Effects

Drawing 5.5
Breeding fulmar within the Study Area

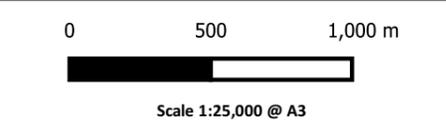
Date: 16/11/2021	Drawn by: K.M.	Checked by: P.C.	Version: Rev. 6
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Project Number: 3148

Chapter 5 SaxaVord Spaceport Drawing 5.6 Breeding Gulls within EZI



- KEY**
- Nesting gulls (boat surveys)
 - ◆ Mixed inland gull colony
 - Lesser black-backed gull
2018 - 12 pairs
2019 - 10 pairs
 - Herring gull
2018 - 10 pairs
2019 - 16 pairs
 - Common gull
2018 - 22 pairs
2019 - 30 pairs
 - ◆ Black-headed gull colony
2018 - 11 pairs
2019 - 13 pairs
 - Proposed Project Site Boundary
 - Launch pad
 - 0.5km buffer launch pads
 - 1km buffer launch pads
 - 2km buffer launch pads
 - 3km buffer launch pads
 - 4km buffer launch pads



Saxa Vord Spaceport
Assessment of Environmental Effects

Drawing 5.6
Breeding gulls within the Study Area

Date: 16/11/2021	Drawn by: K.M.	Checked by: P.C.	Version: Rev. 6
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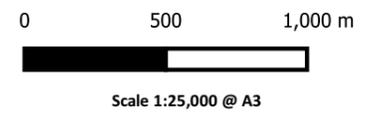
Project Number: 3148

Chapter 5 SaxaVord Spaceport Drawing 5.7 Breeding Common Guillemot within EZI





- KEY**
- Common guillemot individuals
 - Proposed Project Site Boundary
 - Launch pad
 - 0.5km buffer launch pads
 - 1km buffer launch pads
 - 2km buffer launch pads
 - 3km buffer launch pads
 - 4km buffer launch pads



Saxa Vord Spaceport
 Assessment of Environmental Effects

Drawing 5.7
**Breeding common guillemot within
 the Study Area**

Date: 16/11/2021	Drawn by: K.M.	Checked by: P.C.	Version: Rev. 6
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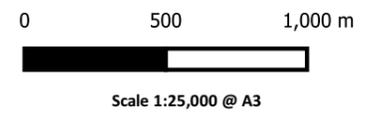
Project Number: 3148

Chapter 5 SaxaVord Spaceport Drawing 5.8 Breeding Razorbill within EZI





- KEY**
- Razorbill individuals
 - Proposed Project Site Boundary
 - Launch pad
 - 0.5km buffer launch pads
 - 1km buffer launch pads
 - 2km buffer launch pads
 - 3km buffer launch pads
 - 4km buffer launch pads



Saxa Vord Spaceport
 Assessment of Environmental Effects

Drawing 5.8
Breeding razorbill within the Study Area

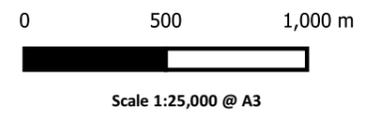
Date: 16/11/2021	Drawn by: K.M.	Checked by: P.C.	Version: Rev. 6
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Project Number: 3148

Chapter 5 SaxaVord Spaceport Drawing 5.9 Breeding Puffins within EZI



- KEY**
- Puffin individuals
 - Proposed Project Site Boundary
 - Launch pad
 - 0.5km buffer launch pads
 - 1km buffer launch pads
 - 2km buffer launch pads
 - 3km buffer launch pads
 - 4km buffer launch pads



Saxa Vord Spaceport
 Assessment of Environmental Effects

Drawing 5.9
Breeding puffin within the Study Area

Date: 16/11/2021	Drawn by: K.M.	Checked by: P.C.	Version: Rev. 6
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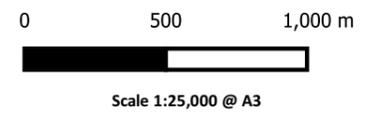
Project Number: 3148

Chapter 5 SaxaVord Spaceport Drawing 5.10 Breeding Ringed Plover within EZI



KEY

- 2018
- ★ 2019
- Proposed Project Site Boundary
- Launch pad
- 0.5km buffer launch pads
- 1km buffer launch pads
- 2km buffer launch pads
- 3km buffer launch pads
- 4km buffer launch pads



Saxa Vord Spaceport
 Assessment of Environmental Effects

Drawing 5.10
Breeding ringed plover within the Study Area

Date: 16/11/2021	Drawn by: K.M.	Checked by: P.C.	Version: Rev. 6
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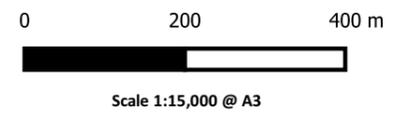
Project Number: 3148

Chapter 5 SaxaVord Spaceport Drawing 5.11 Breeding Ringed Plover within the Proposed Project Boundary



KEY

- Ringed plover territory centre 2018
- ★ Ringed plover territory centre 2019
- Spaceport design layout
 - Infrastructure/building
 - Fenced launch pad area
 - Road
 - Construction compound
 - Temporary construction compound
 - Track to wildlife hide
 - Wildlife hide
 - Launch pad
 - Fence
 - Proposed Project Site Boundary



Saxa Vord Spaceport
 Assessment of Environmental Effects

Drawing 5.11
Breeding ringed plover within the
Proposed Project Boundary

Date: 16/11/2021	Drawn by: K.M.	Checked by: P.C.	Version: Rev. 6
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Project Number: 3148

Chapter 5 SaxaVord Spaceport Drawing 5.12 Breeding Golden Plover within EZI



- KEY**
- Golden plover territory centre
 - 2018
 - 2019
 - Proposed Project Site Boundary
 - Launch pad
 - 0.5km buffer launch pads
 - 1km buffer launch pads
 - 2km buffer launch pads
 - 3km buffer launch pads
 - 4km buffer launch pads

0 500 1,000 m



Scale 1:25,000 @ A3



Saxa Vord Spaceport
Assessment of Environmental Effects

Drawing 5.12
Breeding golden plover within the Study Area

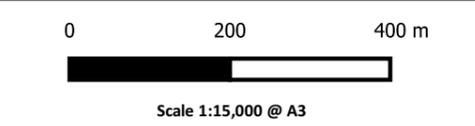
Date: 16/11/2021	Drawn by: K.M.	Checked by: P.C.	Version: Rev. 6
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Project Number: 3148

Chapter 5 SaxaVord Spaceport Drawing 5.13 Breeding Golden Plover within Proposed Project Boundary



- KEY**
- Golden plover territory centre
 - ◆ 2018
 - 2019
 - Spaceport design layout
 - Infrastructure/building
 - ▣ Fenced launch pad area
 - Road
 - Construction compound
 - Temporary construction compound
 - Track to wildlife hide
 - Wildlife hide
 - Launch pad
 - - - Fence
 - Proposed Project Site Boundary



Saxa Vord Spaceport
 Assessment of Environmental Effects

Drawing 5.13
Breeding golden plover within the
Proposed Project Boundary

Date: 16/11/2021	Drawn by: K.M.	Checked by: P.C.	Version: Rev. 6
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Project Number: 3148

Chapter 5 SaxaVord Spaceport Drawing 5.14 Breeding Curlew within EZI





- KEY**
- Curlew territory centre
 - 2019
 - ◆ 2018
 - Proposed Project Site Boundary
 - Launch pad
 - 0.5km buffer launch pads
 - 1km buffer launch pads
 - 2km buffer launch pads
 - 3km buffer launch pads
 - 4km buffer launch pads

0 500 1,000 m



Scale 1:25,000 @ A3



Saxa Vord Spaceport
Assessment of Environmental Effects

Drawing 5.14
Breeding curlew within the Study Area

Date: 16/11/2021	Drawn by: K.M.	Checked by: P.C.	Version: Rev. 6
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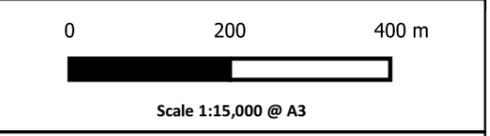
Project Number: 3148

Chapter 5 SaxaVord Spaceport Drawing 5.15 Breeding Curlew within Proposed Project Boundary



KEY

- Curlew territory centre
- 2019
- ◆ 2018
- Spaceport design layout
- Infrastructure/building
- ▣ Fenced launch pad area
- Road
- Construction compound
- Temporary construction compound
- Track to wildlife hide
- Wildlife hide
- Launch pad
- - - Fence
- Proposed Project Site Boundary



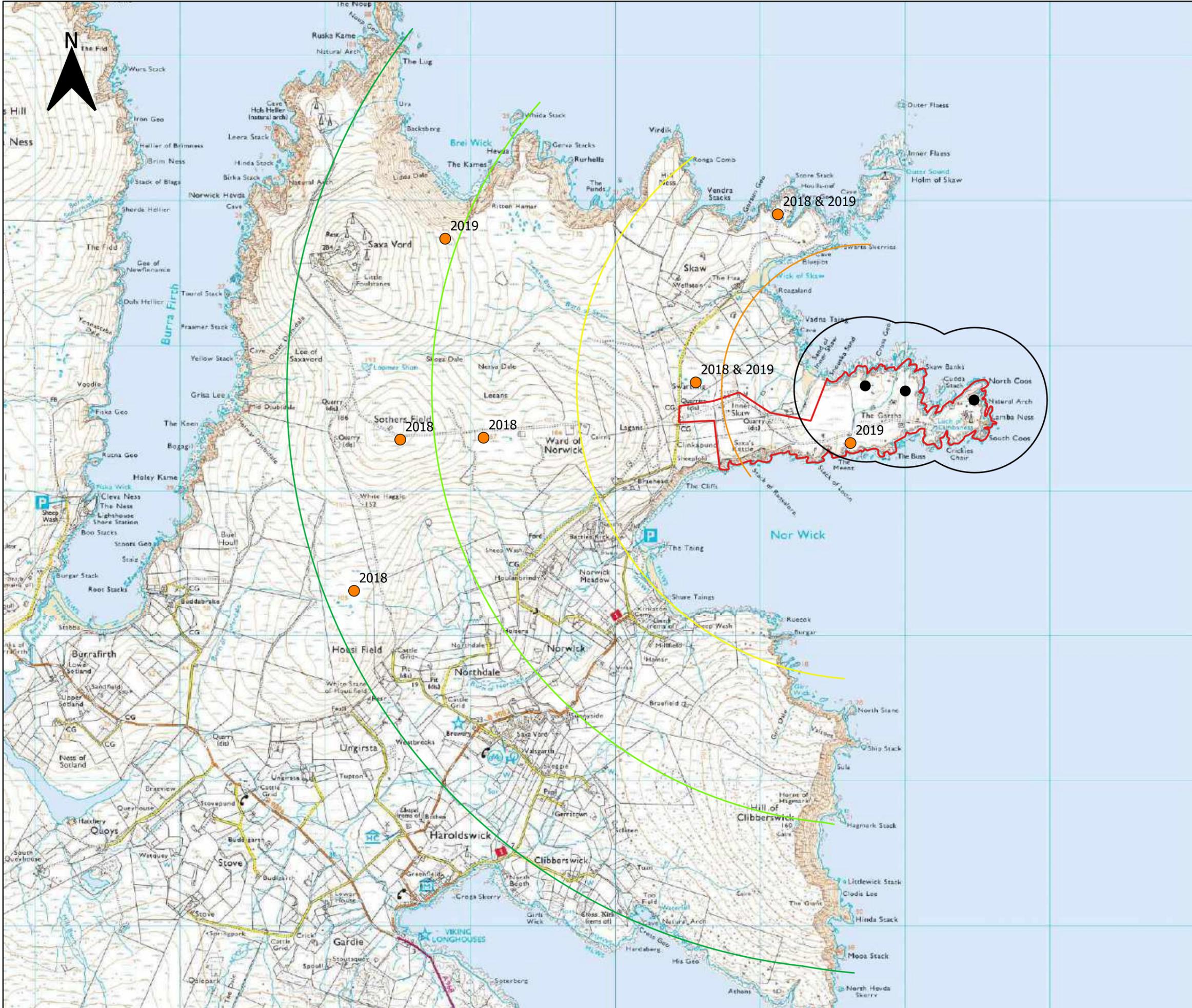
Saxa Vord Spaceport
 Assessment of Environmental Effects

Drawing 5.15
Breeding curlew within the
Proposed Project Boundary

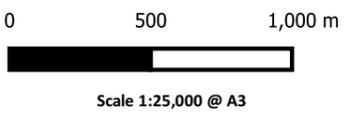
Date: 16/11/2021	Drawn by: K.M.	Checked by: P.C.	Version: Rev. 6
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Project Number: 3148

Chapter 5 SaxaVord Spaceport Drawing 5.16 Breeding Dunlin within EZI



- KEY**
- Dunlin territory centre
 - Proposed Project Site Boundary
 - Launch pad
 - 0.5km buffer launch pads
 - 1km buffer launch pads
 - 2km buffer launch pads
 - 3km buffer launch pads
 - 4km buffer launch pads



Saxa Vord Spaceport
 Assessment of Environmental Effects

Drawing 5.16
Breeding dunlin within the Study Area

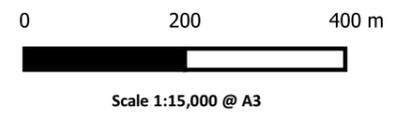
Date: 16/11/2021	Drawn by: K.M.	Checked by: P.C.	Version: Rev. 6
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Project Number: 3148

Chapter 5 SaxaVord Spaceport Drawing 5.17 Breeding Dunlin within Proposed Project Boundary



- KEY**
- Dunlin territory centre
 - Spaceport design layout
 - Infrastructure/building
 - Fenced launch pad area
 - Road
 - Construction compound
 - Temporary construction compound
 - Track to wildlife hide
 - Wildlife hide
 - Launch pad
 - Fence
 - Proposed Project Site Boundary



Saxa Vord Spaceport
 Assessment of Environmental Effects

Drawing 5.17
Breeding dunlin within the
Proposed Project Boundary

Date: 16/11/2021	Drawn by: K.M.	Checked by: P.C.	Version: Rev. 6
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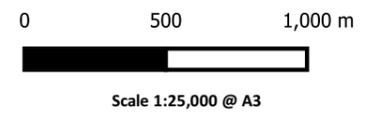
Project Number: 3148

Chapter 5 SaxaVord Spaceport Drawing 5.18 Breeding Arctic Tern within EZI





- KEY**
- Arctic tern nests
 - Proposed Project Site Boundary
 - Launch pad
 - 0.5km buffer launch pads
 - 1km buffer launch pads
 - 2km buffer launch pads
 - 3km buffer launch pads
 - 4km buffer launch pads



Saxa Vord Spaceport
 Assessment of Environmental Effects

Drawing 5.18
Breeding arctic tern within the Study Area

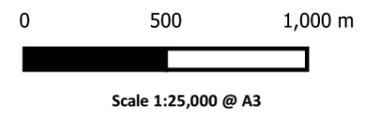
Date: 16/11/2021	Drawn by: K.M.	Checked by: P.C.	Version: Rev. 6
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Project Number: 3148

Chapter 5 SaxaVord Spaceport Drawing 5.19 Breeding Arctic Skua within EZI



- KEY**
- Arctic skua territory centre
 - ◆ 1 pair 2018 and 19 2 pair 2020
 - ◆ 2018
 - ◆ 2018 & 2019
 - ◆ 2019
 - ◆ 2020
 - Proposed Project Site Boundary
 - Launch pad
 - 0.5km buffer launch pads
 - 1km buffer launch pads
 - 2km buffer launch pads
 - 3km buffer launch pads
 - 4km buffer launch pads



Saxa Vord Spaceport
 Assessment of Environmental Effects

Drawing 5.19
Breeding arctic skua within the Study Area

Date: 16/11/2021	Drawn by: K.M.	Checked by: P.C.	Version: Rev. 6
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Project Number: 3148

Chapter 5 SaxaVord Spaceport Drawing 5.20 Breeding Arctic Skua within Proposed Project Boundary



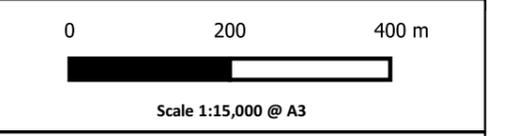
KEY

Arctic skua territory centre

- ◆ 1 pair 2018 and 19 2 pair 2020
- ◆ 2018
- ◆ 2018 & 2019
- ◆ 2019
- ◆ 2020

Spaceport design layout

- Infrastructure/building
- Fenced launch pad area
- Road
- Construction compound
- Temporary construction compound
- Track to wildlife hide
- Wildlife hide
- Launch pad
- Fence
- Proposed Project Site Boundary



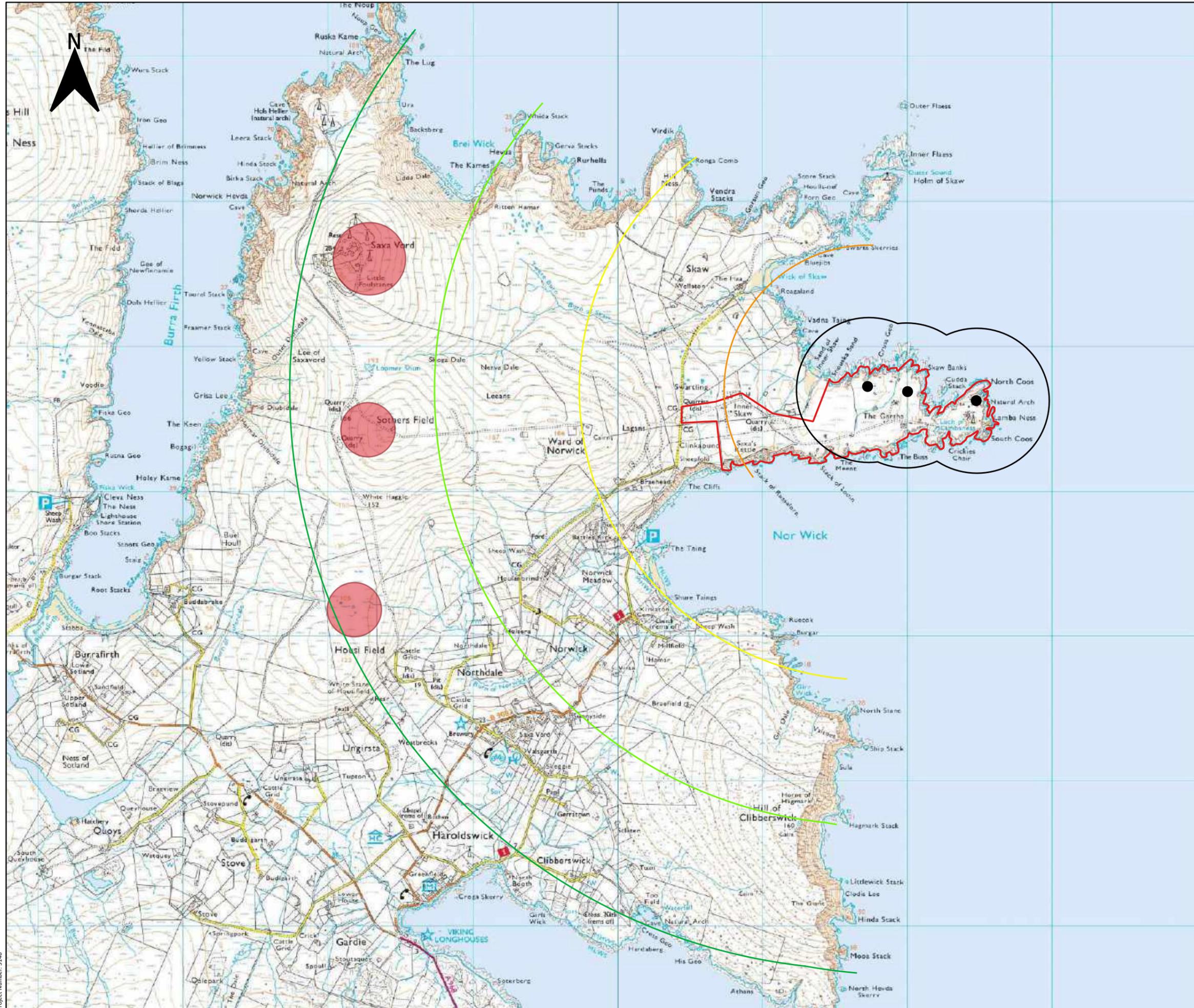
Saxa Vord Spaceport
Assessment of Environmental Effects

Drawing 5.20
Breeding arctic skua within the
Proposed Project Boundary

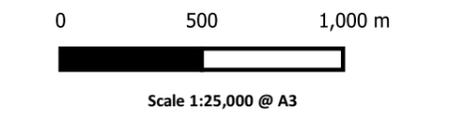
Date: 16/11/2021	Drawn by: K.M.	Checked by: P.C.	Version: Rev. 6
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Project Number: 3148

Chapter 5 SaxaVord Spaceport Drawing 5.21 Breeding Great Skua within EZI



- KEY**
- Main great skua breeding areas
 - Proposed Project Site Boundary
 - Launch pad
 - 0.5km buffer launch pads
 - 1km buffer launch pads
 - 2km buffer launch pads
 - 3km buffer launch pads
 - 4km buffer launch pads



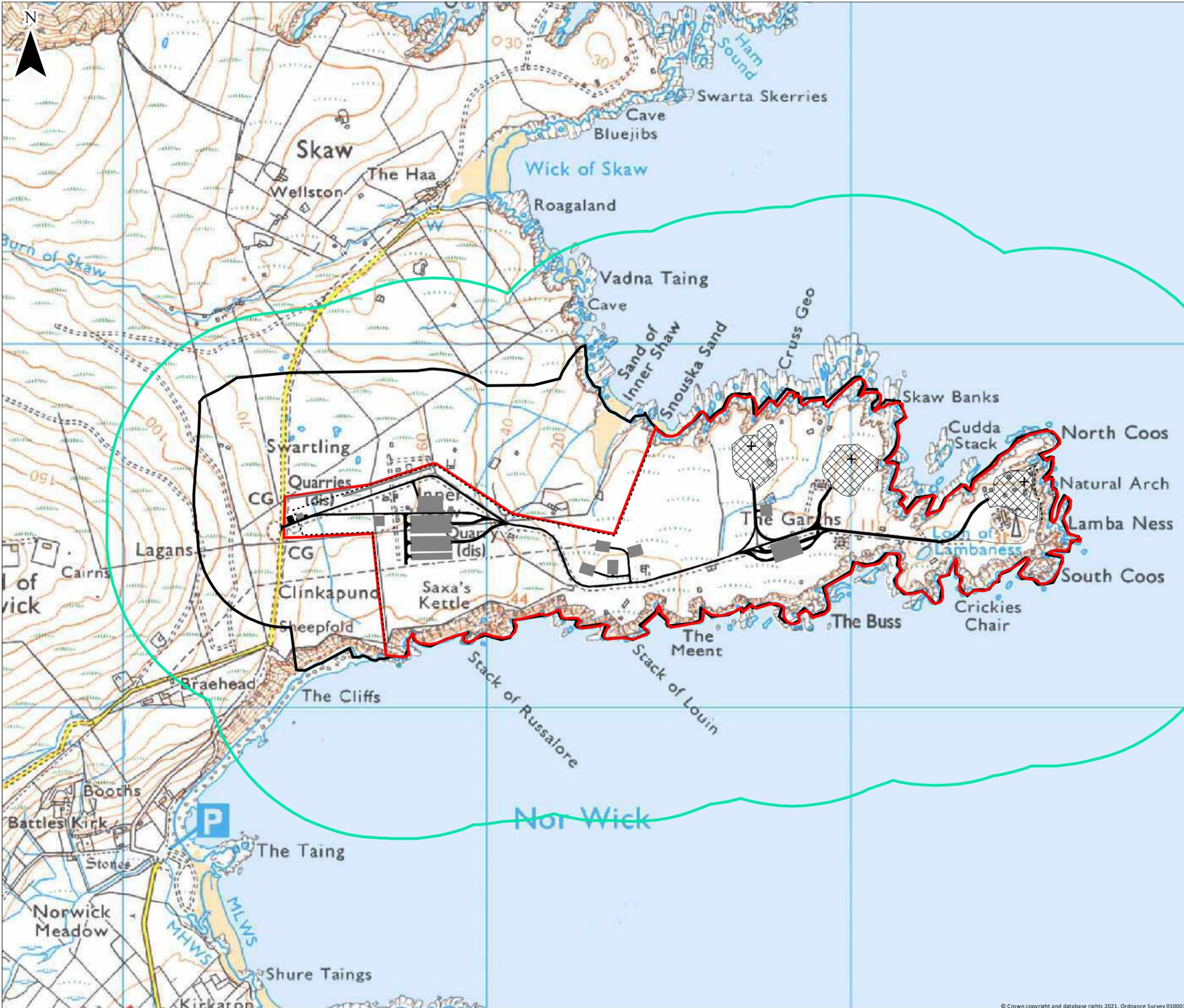
Saxavord Spaceport
 Assessment of Environmental Effects

Drawing 5.21
Breeding great skua within the Study Area

Date: 16/11/2021	Drawn by: K.M.	Checked by: P.C.	Version: Rev. 7
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Project Number: 3148

Chapter 6 SaxaVord Spaceport Drawing 6.1 Ecology Study Area



- KEY**
- + Launch Pad
 - Fence
 - ▨ Fenced Launch Pad Area
 - Building/Infrastructure
 - Road
 - ▭ Proposed Project Site Boundary
 - ▭ Habitat Study Area, 250m buffer
 - ▭ Otter Study Area, 500m buffer



Scale 1:10,000 @ A3



Saxa Vord Spaceport
Assessment of Environmental Effects

Drawing 6.1

Study Area

Date: 16/11/2021 Drawn by: KM Checked by: RF Version: Draft/V1

Project Number: 3148

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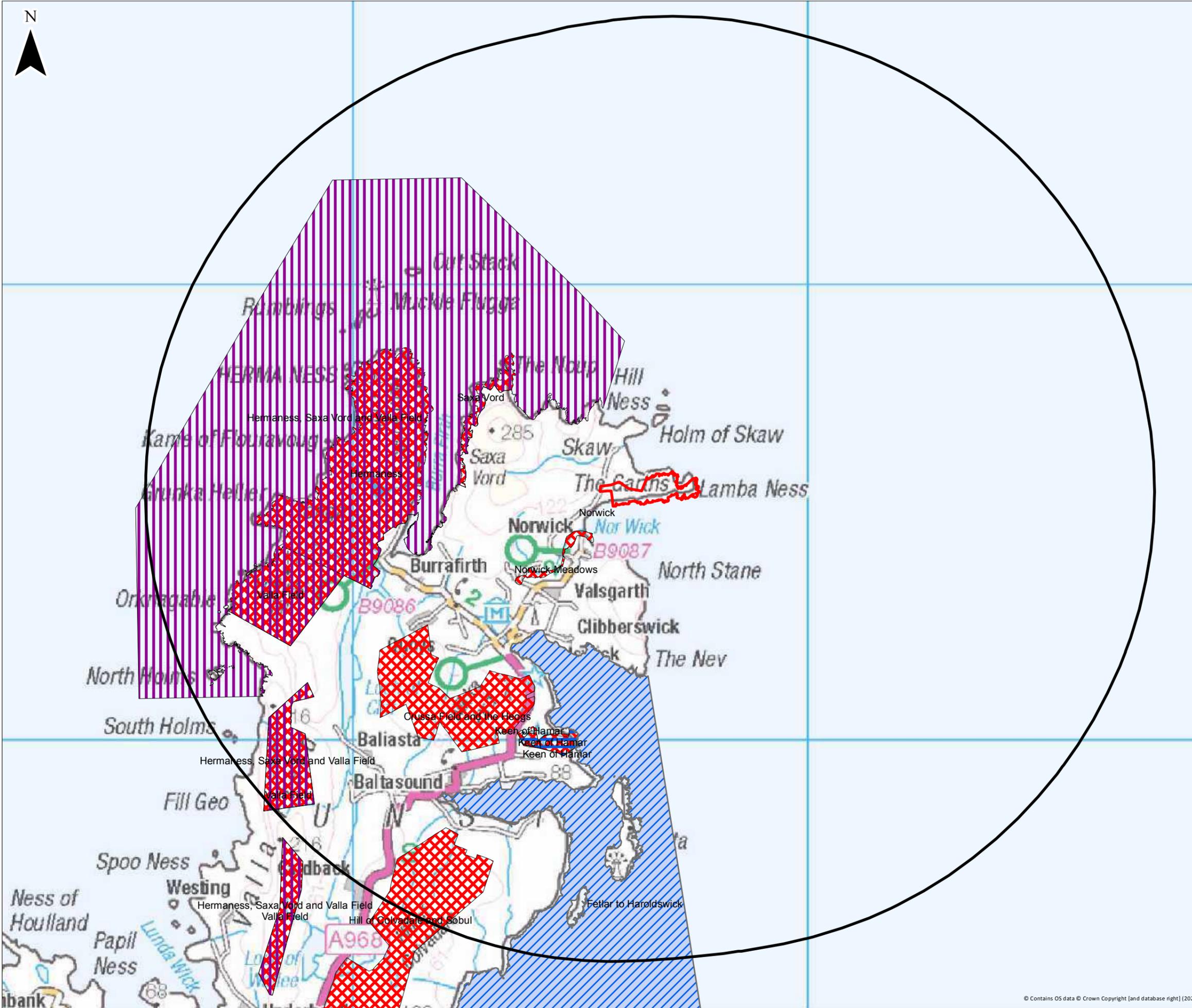
Chapter 6 SaxaVord Spaceport Drawing 6.2 Designated Sites

N



KEY

-  Proposed Project Boundary
-  10km buffer
-  Marine Protected Area
-  Special Areas of Conservation
-  Special Protection Areas
-  Sites of Special Scientific Interest



Scale 1:80,000 @ A3

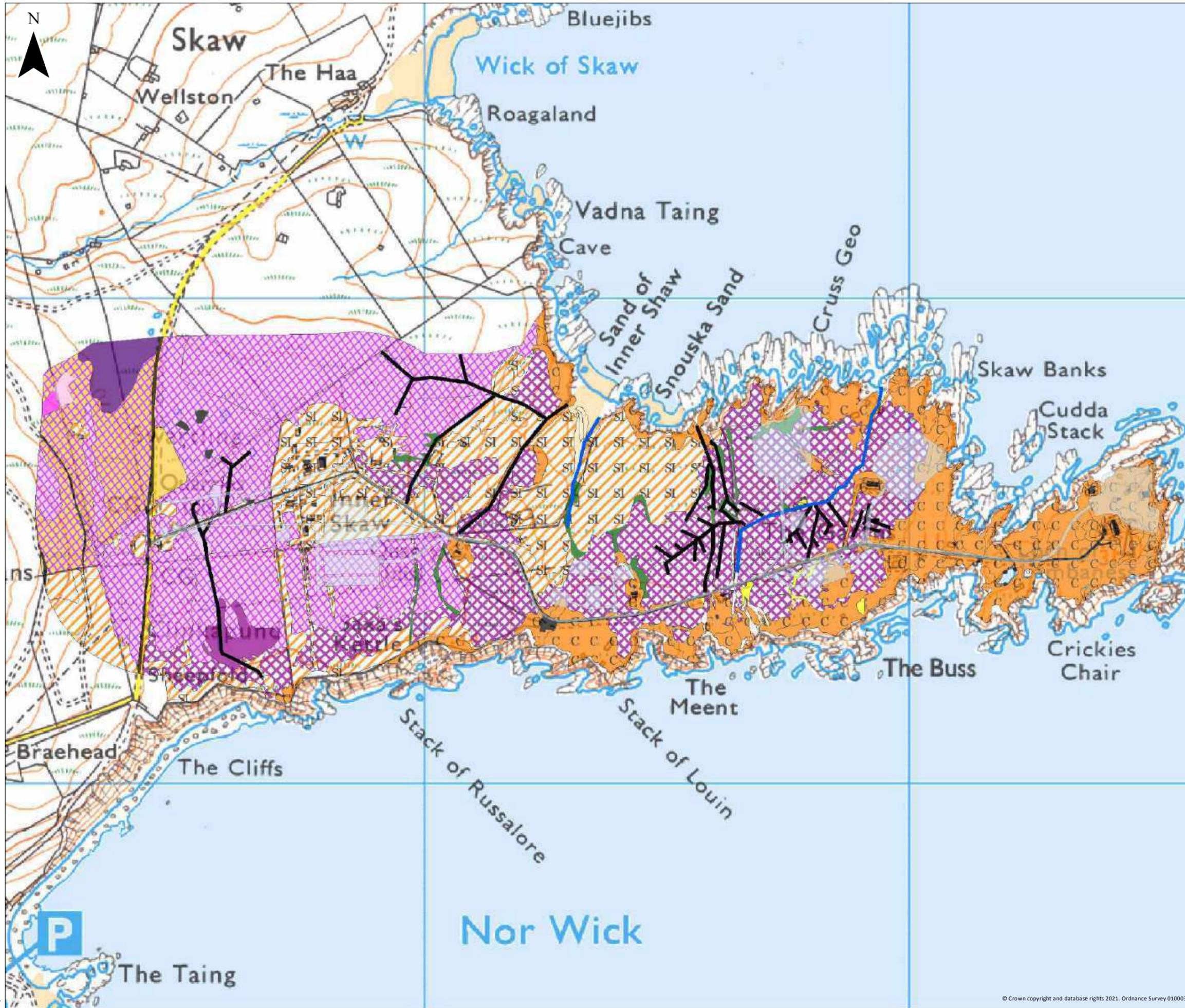


Saxa Vord Spaceport
Assessment of Environmental Effects

Drawing 6.2

Designated Sites

Chapter 6 SaxaVord Spaceport Drawing 6.3 Phase 1 Habitat Study Area



- Infrastructure
- Drain
- Watercourse
- Unimproved acid grassland
- Semi-improved acid grassland
- Neutral grassland
- Blanket bog
- Wet modified bog
- Wet modified bog/wet heath
- Blanket bog/bare peat
- Wet modified bog/wet heath/bare peat
- Wet modified bog/wet heath/acid flush
- Dry dwarf shrub heath
- Fen
- Acid flush
- Wet modified bog/wet heath/dry heath
- Bare peat
- Marginal vegetation
- Standing water
- Saltmarsh
- Sand dunes
- Coastal grassland
- Buildings and roads
- Bare ground



Scale 1:7,500 @ A3



Saxa Vord Spaceport
Assessment of Environmental Effects

Drawing 6.3

Phase 1 Habitats

Chapter 6 SaxaVord Spaceport Drawing 6.4 NVC Habitat Study Area



- KEY**
-  Infrastructure
 -  Unimproved acid grassland, U5, U6
 -  Semi-improved acid grassland, U4
 -  Neutral grassland, MG10
 -  Blanket bog, M2b, M18
 -  Wet modified bog, M25, M3x
 -  Wet modified bog/wet heath, M15
 -  Blanket bog/bare peat, M19/M3
 -  Wet modified bog/wet heath/bare peat, M15d/M3
 -  Wet modified bog/wet heath/acid flush, M15d/M6
 -  Dry dwarf shrub heath, H10
 -  Fen, Mxd
 -  Acid flush, M6
 -  Wet modified bog/wet heath/dry heath, M15d/H10b
 -  Bare peat, M3
 -  Marginal vegetaion, S19, A24, A22
 -  Standing water
 -  Saltmarsh, SM16
 -  Sand dunes, SD4, SD8
 -  Coastal grassland, MC8, MC10, MG11
 -  Buildings and roads
 -  Bare ground



Scale 1:7,500 @ A3



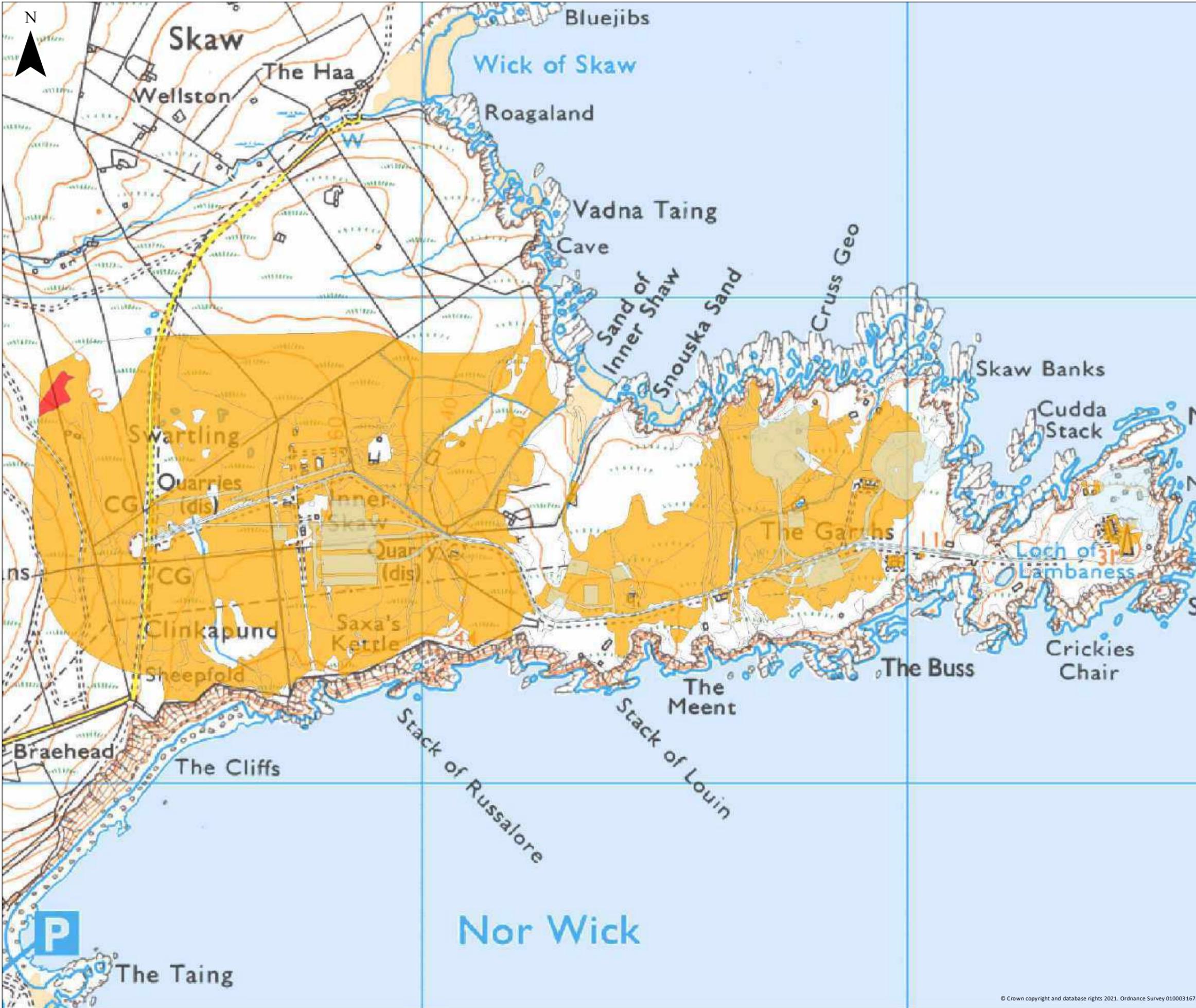
Saxa Vord Spaceport
Assessment of Environmental Effects

Drawing 6.4

NVC

Project Number: 3148

Chapter 6 SaxaVord Spaceport Drawing 6.5 Potential Ground Water Dependant Terrestrial Ecosystems



KEY

- Infrastructure
- Potentially high GWDTE
- Potentially moderate GWDTE
- Not a GWDTE



Scale 1:7,500 @ A3

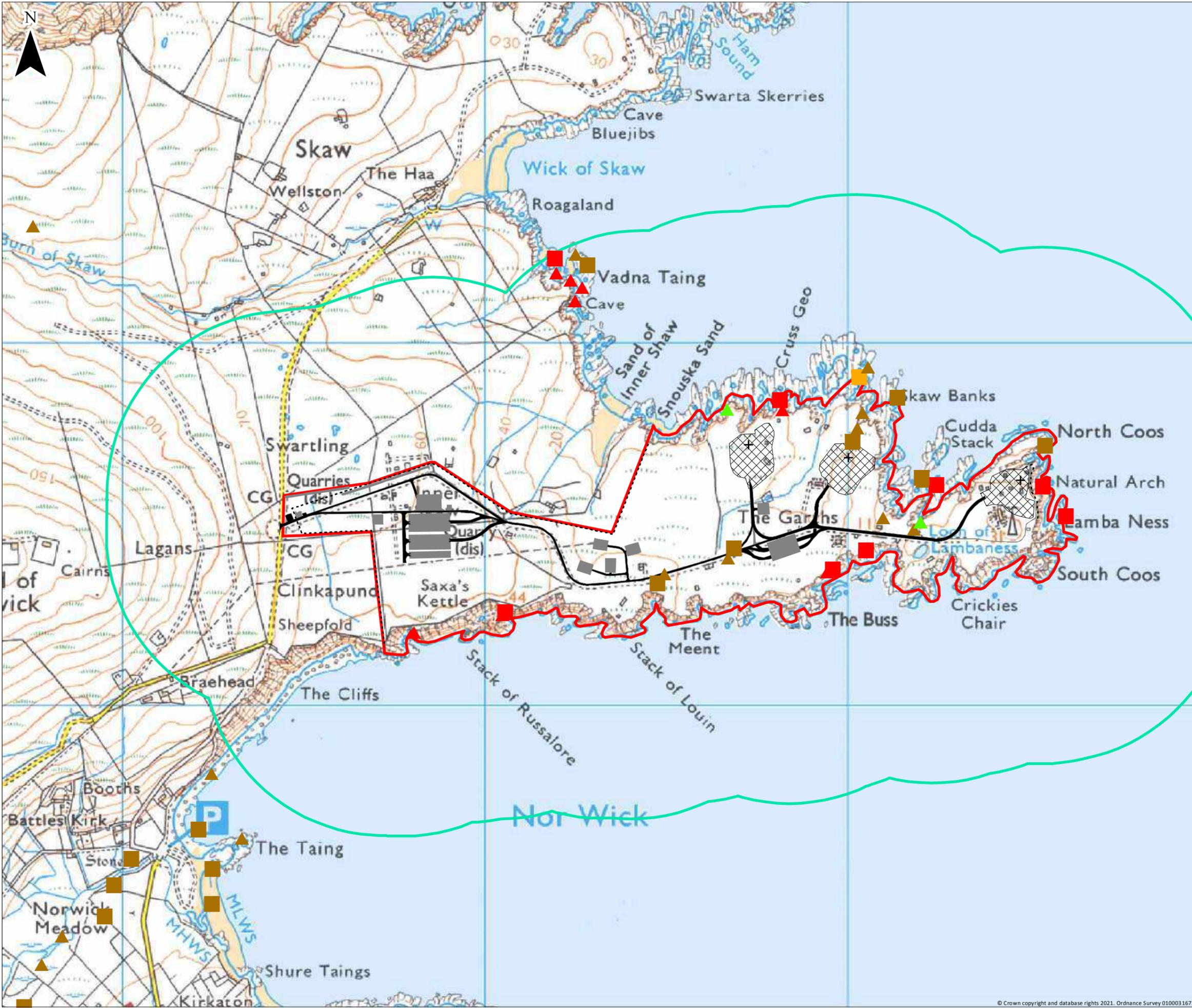


Saxa Vord Spaceport
Assessment of Environmental Effects

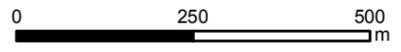
Drawing 6.5

Potential GWDTE

Chapter 6 SaxaVord Spaceport Drawing 6.6 Otter Signs 2018



- KEY**
- ▲ Holts, spring 2018
 - ▲ Spraints and prints, spring 2018
 - ▲ Run, spring 2018
 - Holt, autumn 2018
 - Lay up, autumn 2018
 - Spraints and prints, autumn 2018
 - + Launch Pad
 - Fence
 - ▨ Fenced Launch Pad Area
 - Building/Infrastructure
 - Road
 - ▭ Proposed Project Site Boundary
 - Otter Study Area, 500m buffer



Scale 1:10,000 @ A3



Saxa Vord Spaceport
Assessment of Environmental Effects

Drawing 6.6

Otter Signs

Date: 16/11/2021 Drawn by: KM Checked by: RF Version: Draft/V1

Project Number: 3148

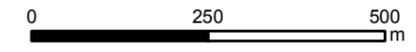
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Chapter 6 SaxaVord Spaceport Drawing 6.7 Otter Signs 2020





- KEY**
- ▲ Holt
 - ▲ Lay up
 - ▲ Spraints and prints
 - ▲ Run
 - +
 Launch Pad
 - Fence
 - ▨ Fenced Launch Pad Area
 - Building/Infrastructure
 - Road
 - ▭ Proposed Project Site Boundary



Scale 1:10,000 @ A3



Saxa Vord Spaceport
Assessment of Environmental Effects

Drawing 6.7

Otter Signs

Date: 16/11/2021 Drawn by: KM Checked by: RF Version: Draft/V1

Project Number: 3148

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Chapter 7 Drawing 7.1 Launch Pad 1 Receptor Location and Study Area

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1217000 1216000 1215000 1214000 1213000 1212000



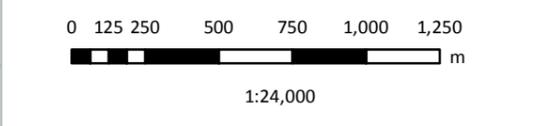
KEY

- Proposed Project Boundary
- Modelled Receptor
- Launch Pad 1C
- Study Area



Coordinate System: British National Grid
 Projection: Transverse Mercator

Service Layer Credits: Contains OS data © Crown Copyright and database right 2020
 Contains OS data © Crown Copyright and database



RFA SaxaVord
 Assessment of Environmental Effects

Drawing 7.1
Launch Pad 1 Receptor Location and Study Area

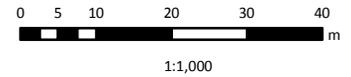
Date: 19/10/2022	Drawn by: ER	Review: RF	Version: V1
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Chapter 7 Drawing 7.2 Launch Pad 1 Proposed Layout



Drawing was provided to ITP Energised by AECOM

Coordinate System: British National Grid
Projection: Transverse Mercator
Service Layer Credits: Contains OS data © Crown Copyright and database right 2020; Historic Environment Scotland and Ordnance Survey data ©



RFA SaxaVord
Assessment of Environmental Effects
Drawing 7.2
Launch Pad 1 Layout

Date: 16/01/2023	Lead: AM	Review: RF	Version: V1
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Chapter 7 Drawing 7.3 Modelled Roads and Receptors

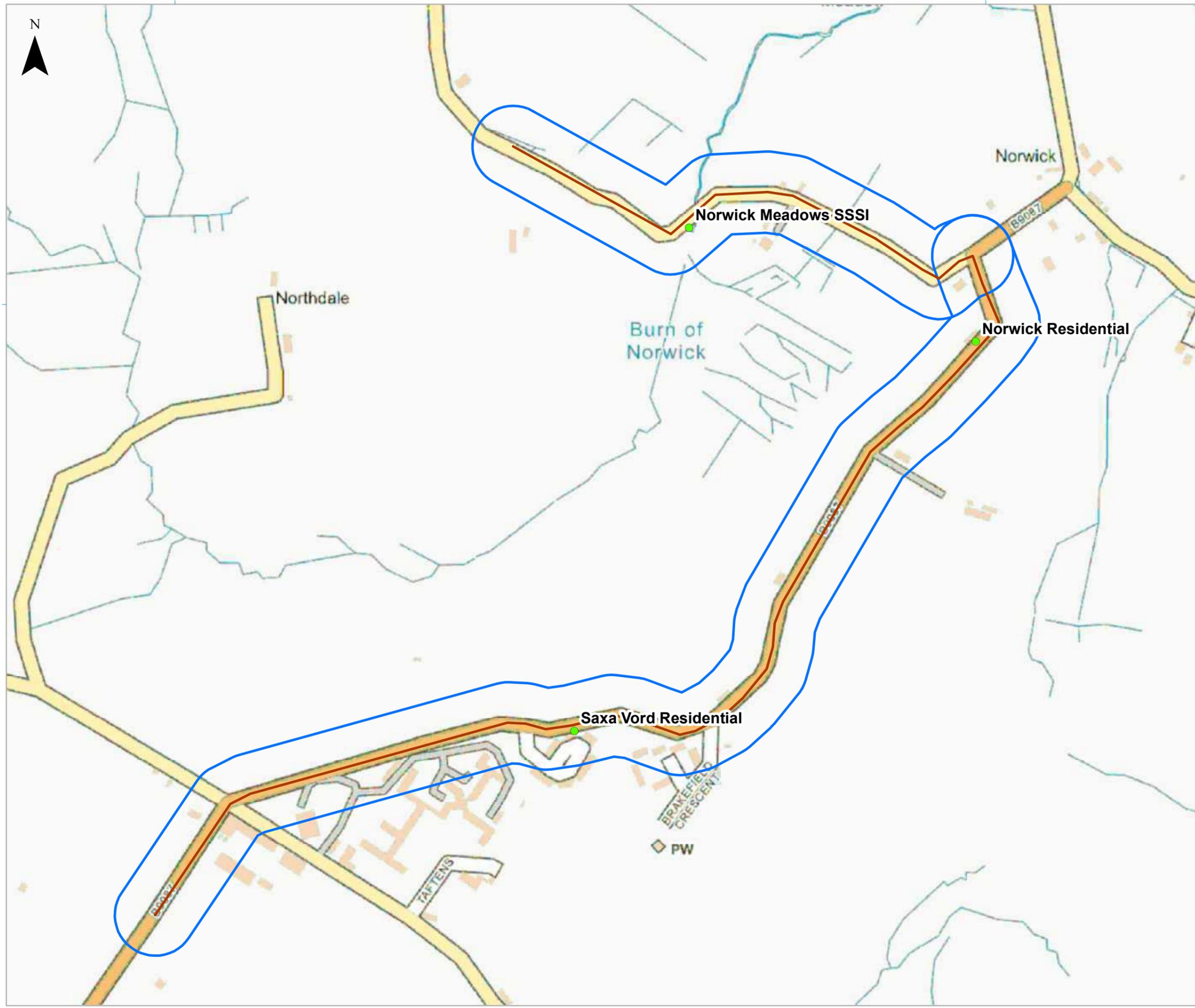
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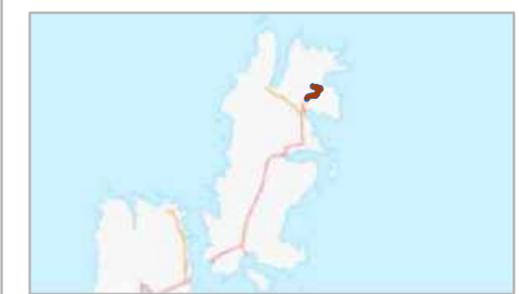


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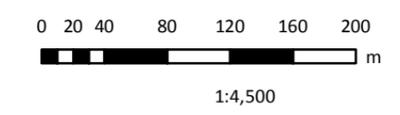
KEY

-  Modelled Receptor
-  Modelled Road Links
-  EZI



Coordinate System: British National Grid
Projection: Transverse Mercator

Service Layer Credits: Contains OS data © Crown Copyright and database right 2020
Contains OS data © Crown Copyright and database



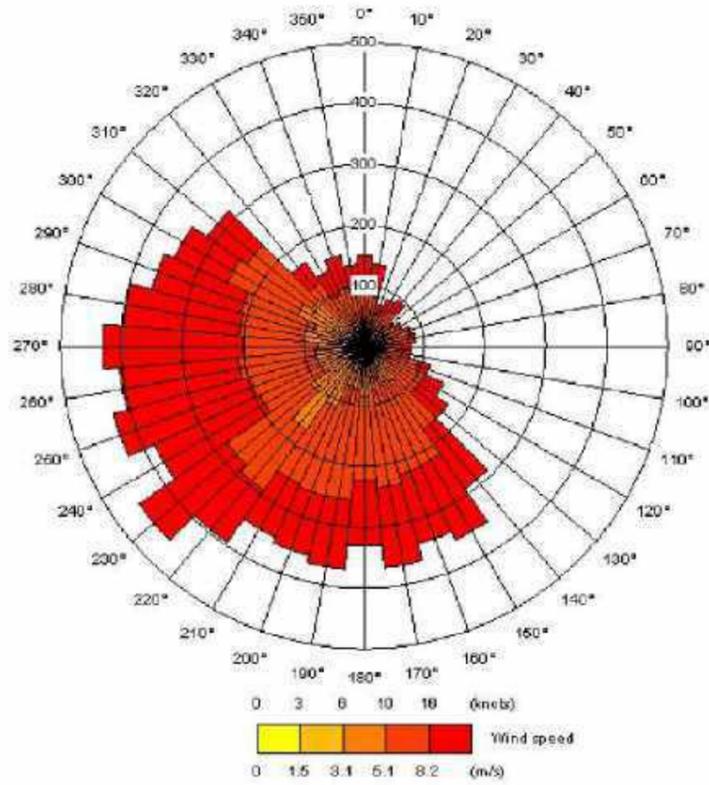
RFA SaxaVord
Assessment of Environmental Effects

Drawing 7.3
Modelled Roads & Receptors

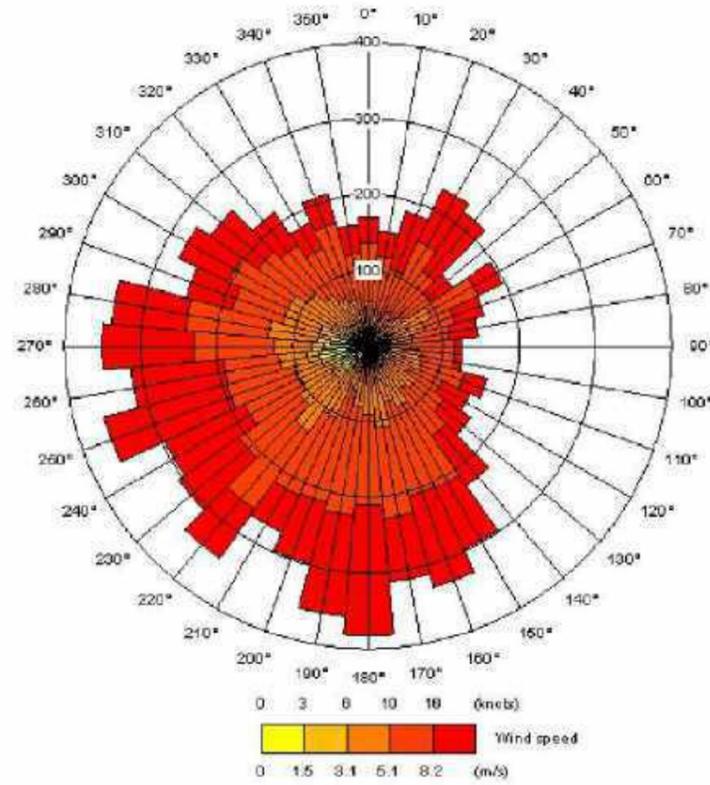
Date: 19/10/2022	Drawn by: ER	Review: RF	Version: V1
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Chapter 7 Drawing 7.4 Hourly Meteorological Data 2015-2019

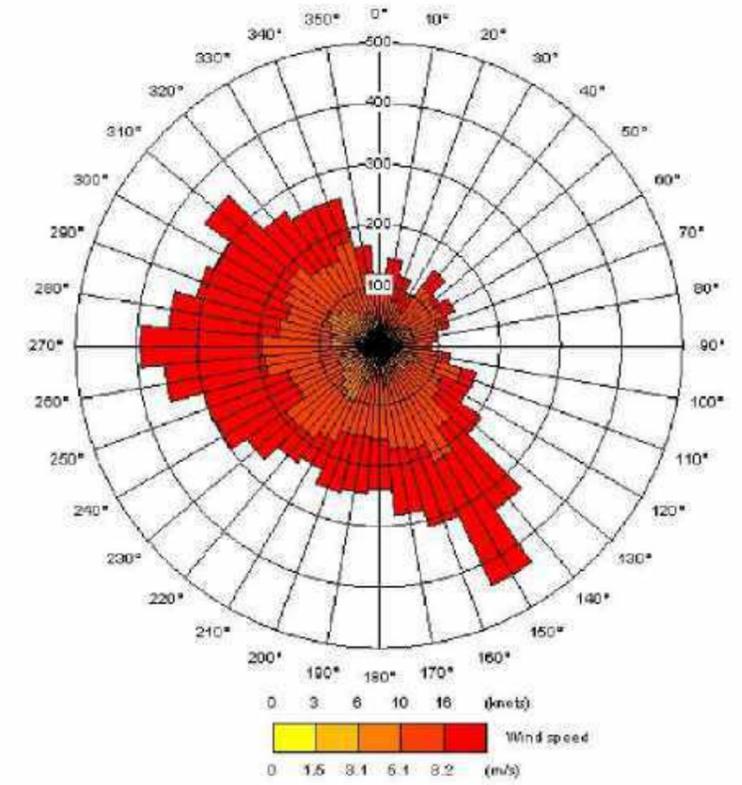
Baltasound 2015 Wind Rose



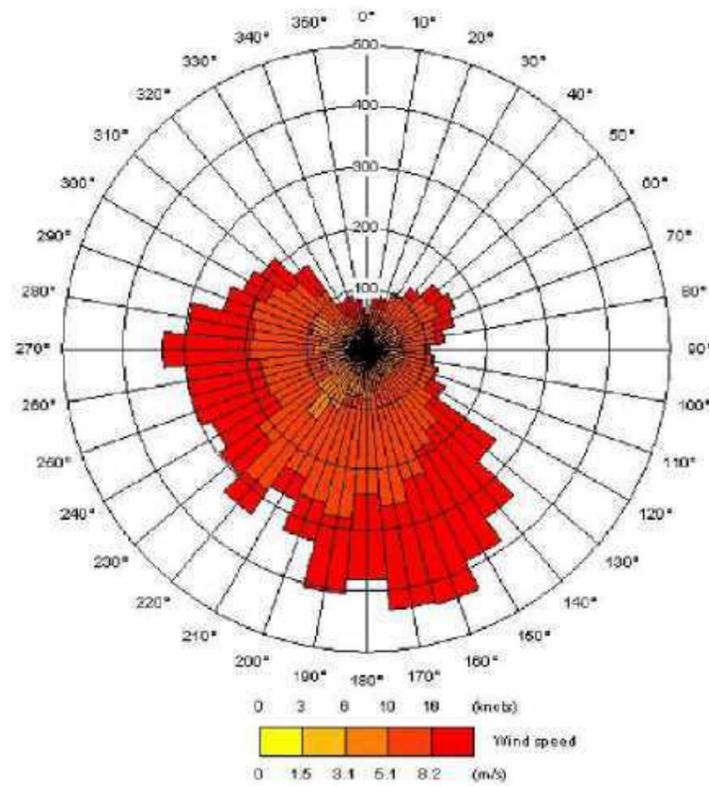
Baltasound 2016 Wind Rose



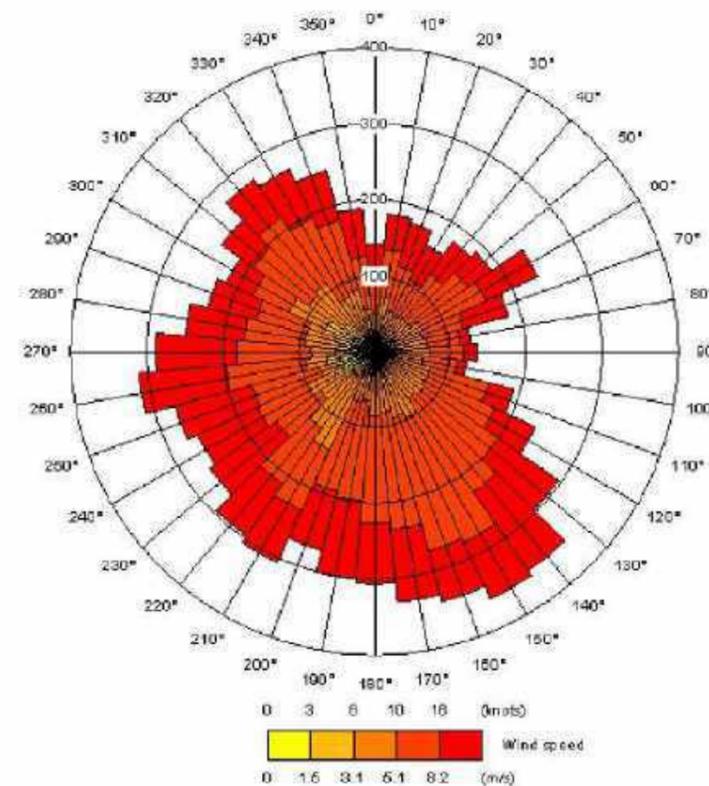
Baltasound 2017 Wind Rose



Baltasound 2018 Wind Rose



Baltasound 2019 Wind Rose



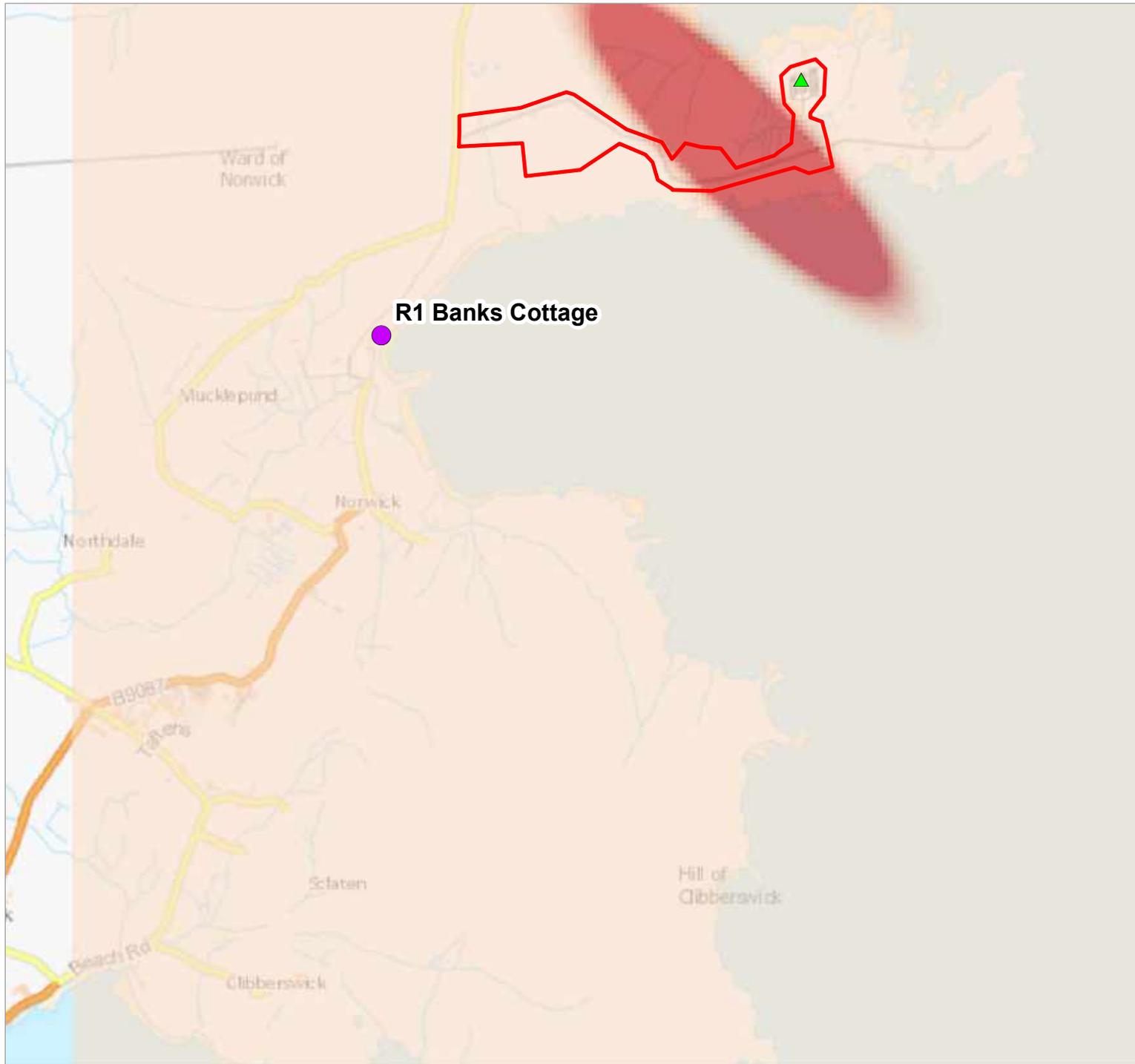
RFA Launch Operator Licence
Assessment of Environmental Effects

Drawing 7.4
Baltasound, Unst
Hourly Meteorological Data 2015 - 2019

Date: 19/10/2022	Drawn by: ER	Checked by: RF	Version: V1
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Chapter 7 Drawing 7.5 CO Contours 1 Minute after Launch





KEY

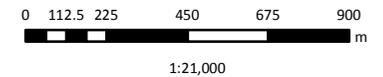
- Site Boundary
- R1 - Banks Cottage
- Launch-Pad 1c

1 minutes after release mg/m³

 0.05	 0.5 - 0.55
 0.05 - 0.1	 0.55 - 0.6
 0.10 - 0.15	 0.6 - 0.65
 0.15 - 0.2	 0.65 - 0.7
 0.2 - 0.25	 0.7 - 0.75
 0.25 - 0.3	 0.75 - 0.8
 0.3 - 0.35	 0.8 - 0.85
 0.35 - 0.4	 0.85 - 0.9
 0.4 - 0.45	 0.9 - 0.95
 0.45 - 0.5	 >1

Coordinate System: British National Grid
 Projection: Transverse Mercator

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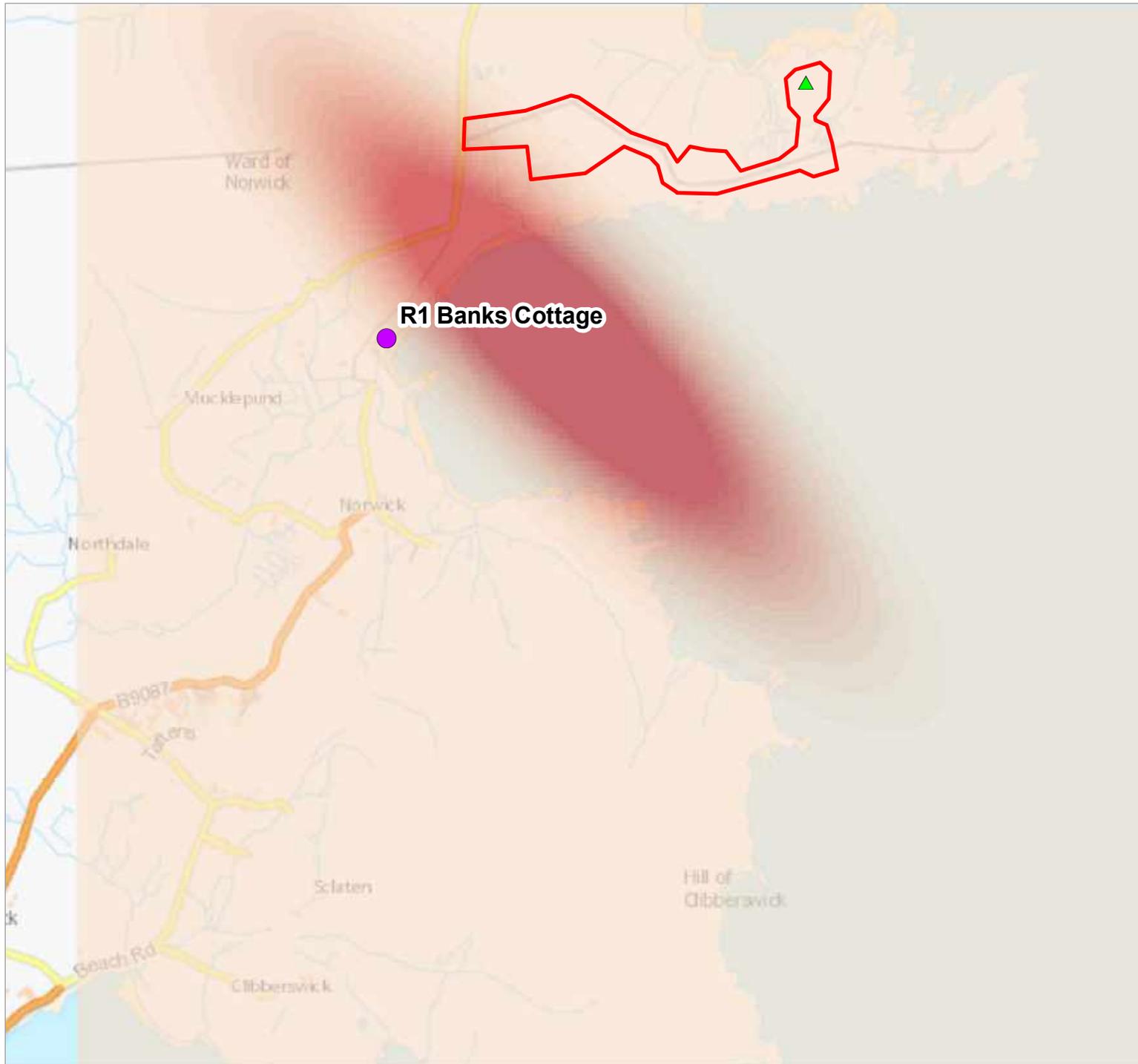


RFA SaxaVord
 Assessment of Environmental Effects
Drawing 7.5
Concentration of CO₂ 1 Minute After Launch

Date: 19/10/2022	Lead: ER	Review: RF	Version: V1
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Chapter 7 Drawing 7.6 CO Contours 3 Minutes after Launch





KEY

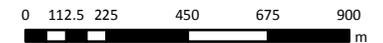
- Site Boundary
- R1 - Banks Cottage
- ▲ Launch-Pad 1c

3 minutes after release mg/m³

	0.05		0.5 - 0.55
	0.05 - 0.1		0.55 - 0.6
	0.10 - 0.15		0.6 - 0.65
	0.15 - 0.2		0.65 - 0.7
	0.2 - 0.25		0.7 - 0.75
	0.25 - 0.3		0.75 - 0.8
	0.3 - 0.35		0.8 - 0.85
	0.35 - 0.4		0.85 - 0.9
	0.4 - 0.45		0.9 - 0.95
	0.45 - 0.5		>1

Coordinate System: British National Grid
Projection: Transverse Mercator

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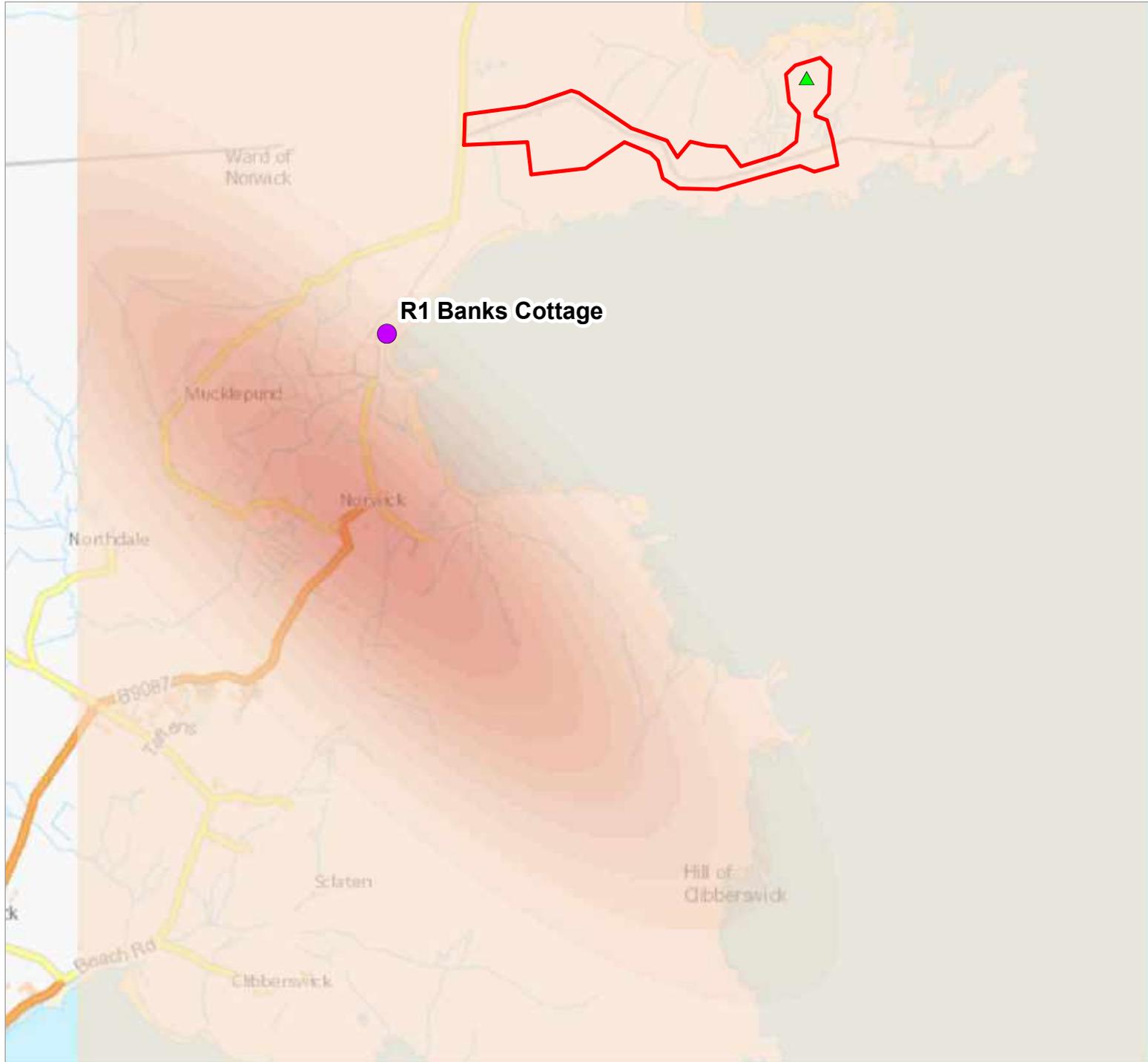
RFA SaxaVord
Assessment of Environmental Effects

Drawing 7.6
Concentration of CO₂ 3 Minutes After Launch

Date: 19/10/2022	Lead: ER	Review: RF	Version: V1
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Chapter 7 Drawing 7.7 CO Contours 5 Minutes after Launch





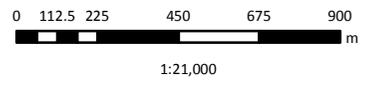
KEY

- Site Boundary
- R1 - Banks Cottage
- ▲ Launch-Pad 1c

5 minutes after release mg/m³

 0.05	 0.5 - 0.55
 0.05 - 0.1	 0.55 - 0.6
 0.10 - 0.15	 0.6 - 0.65
 0.15 - 0.2	 0.65 - 0.7
 0.2 - 0.25	 0.7 - 0.75
 0.25 - 0.3	 0.75 - 0.8
 0.3 - 0.35	 0.8 - 0.85
 0.35 - 0.4	 0.85 - 0.9
 0.4 - 0.45	 0.9 - 0.95
 0.45 - 0.5	 >1

Coordinate System: British National Grid
 Projection: Transverse Mercator
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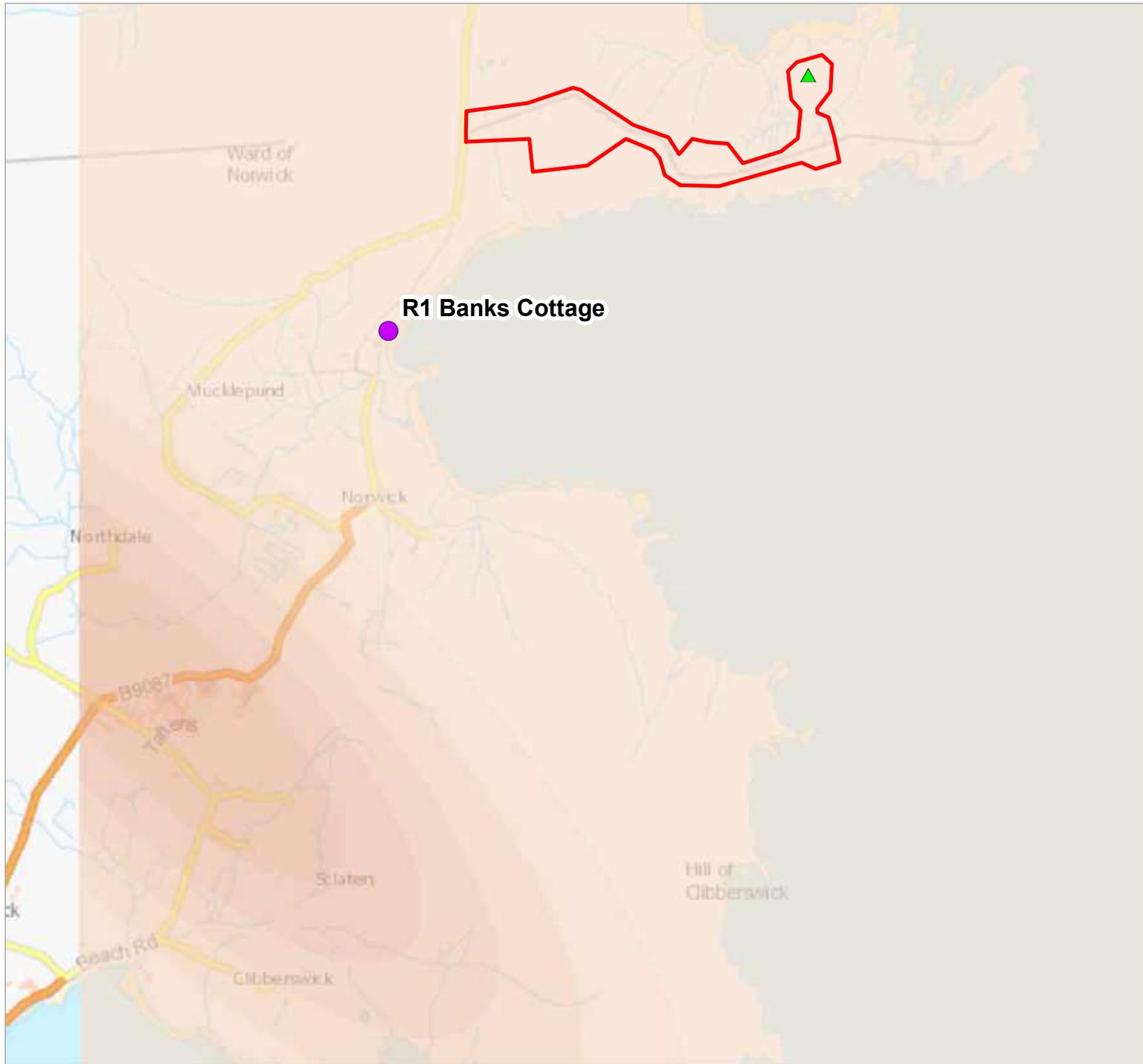


RFA SaxaVord
 Assessment of Environmental Effects

Drawing 7.7
Concentration of CO₂ 5 Minutes After Launch

Date: 19/10/2022	Lead: ER	Review: RF	Version: V1
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Chapter 7 Drawing 7.8 CO Contours 7 Minutes after Launch



KEY

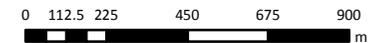
- Site Boundary
- R1 - Banks Cottage
- Launch-Pad 1c

7 minutes after release mg/m³

 0.05	 0.5 - 0.55
 0.05 - 0.1	 0.55 - 0.6
 0.10 - 0.15	 0.6 - 0.65
 0.15 - 0.2	 0.65 - 0.7
 0.2 - 0.25	 0.7 - 0.75
 0.25 - 0.3	 0.75 - 0.8
 0.3 - 0.35	 0.8 - 0.85
 0.35 - 0.4	 0.85 - 0.9
 0.4 - 0.45	 0.9 - 0.95
 0.45 - 0.5	 >1

Coordinate System: British National Grid
 Projection: Transverse Mercator

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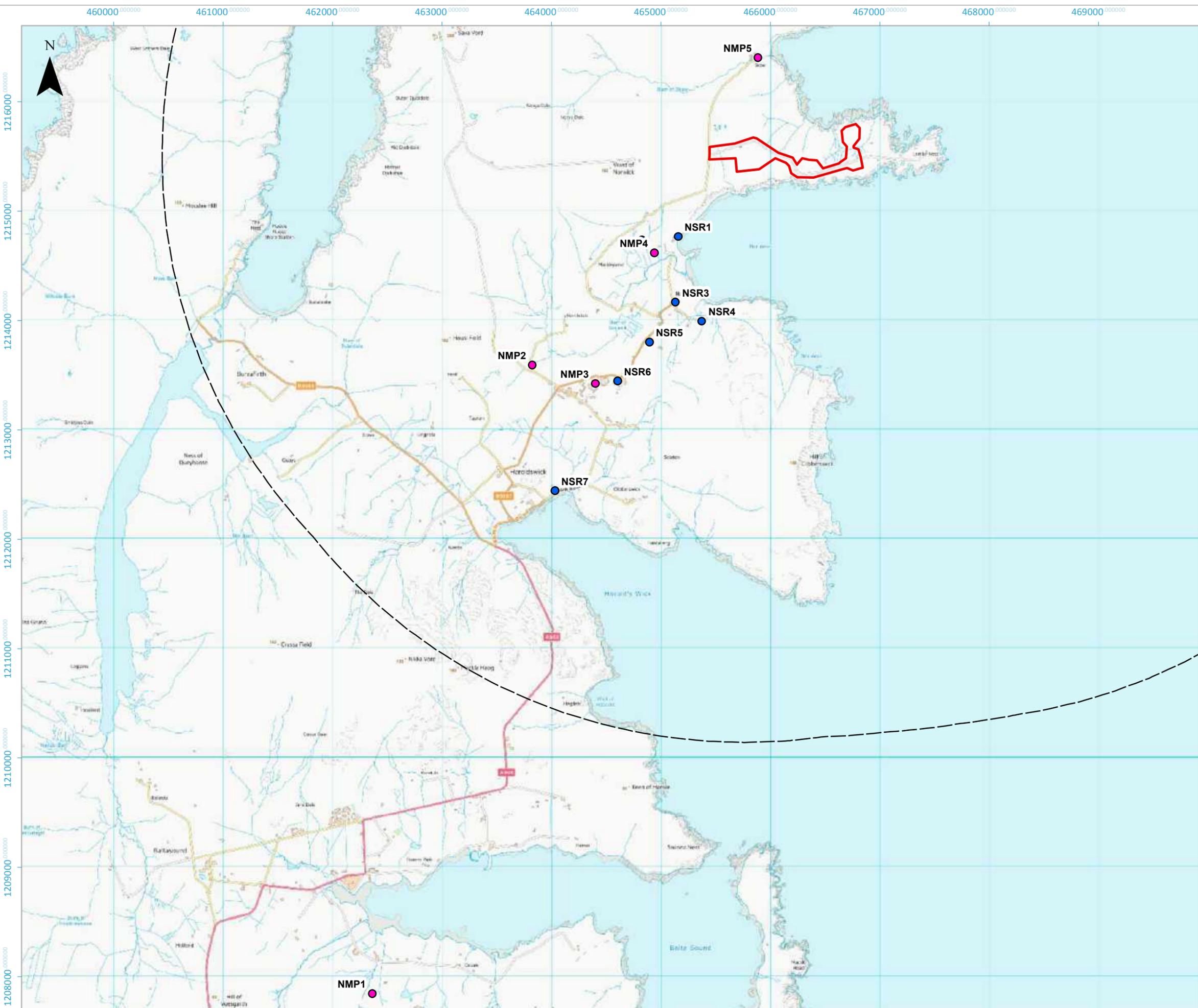
RFA SaxaVord
 Assessment of Environmental Effects

Drawing 7.8
Concentration of CO₂ 7 Minutes After Launch

Date: 19/10/2022	Lead: ER	Review: RF	Version: V1
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Chapter 8 Drawing 8.1 Noise Study Area and Noise Sensitive Receptors





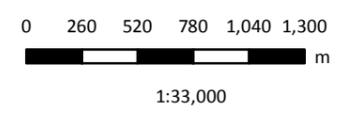
KEY

- Site Boundary
- 5km Study Area
- NSRs
- NMPs



Coordinate System: British National Grid
 Projection: Transverse Mercator

Service Layer Credits: Contains OS data © Crown Copyright and database right 2022

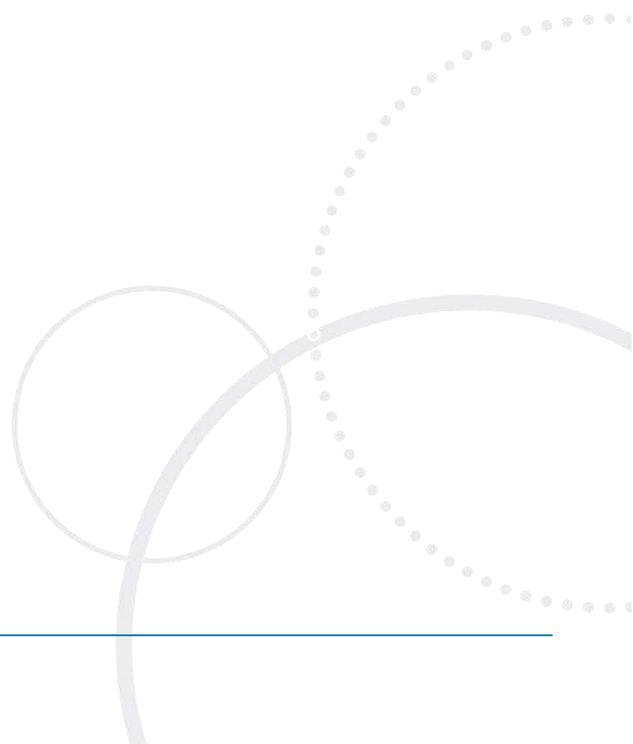


RFA SaxaVord
 Assessment of Environmental Effects

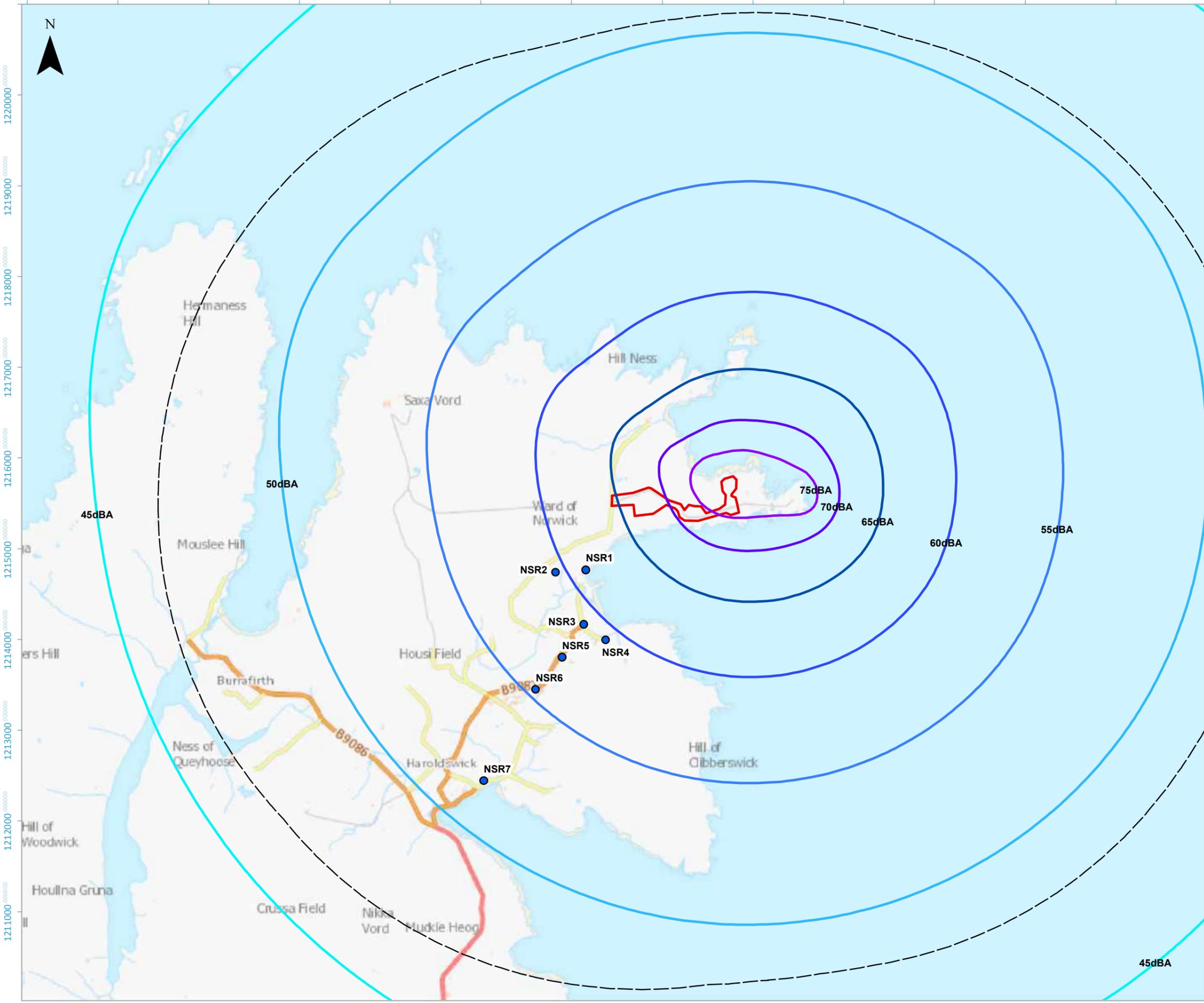
Drawing 8.1
 Noise Study Area and Noise Sensitive Receptors

Date: 08/06/2023	Drawn by: ES	Review: RF	Version: V1
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Chapter 8 Drawing 8.2 Lden Noise Contours



459000 460000 461000 462000 463000 464000 465000 466000 467000 468000 469000 470000 471000



1220000
1219000
1218000
1217000
1216000
1215000
1214000
1213000
1212000
1211000

KEY

- Site Boundary
- NSRs
- 5km Buffer

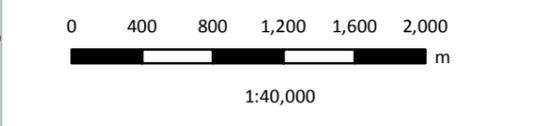
Lden, dBA

- 45
- 50
- 55
- 60
- 65
- 70
- 75



Coordinate System: British National Grid
 Projection: Transverse Mercator

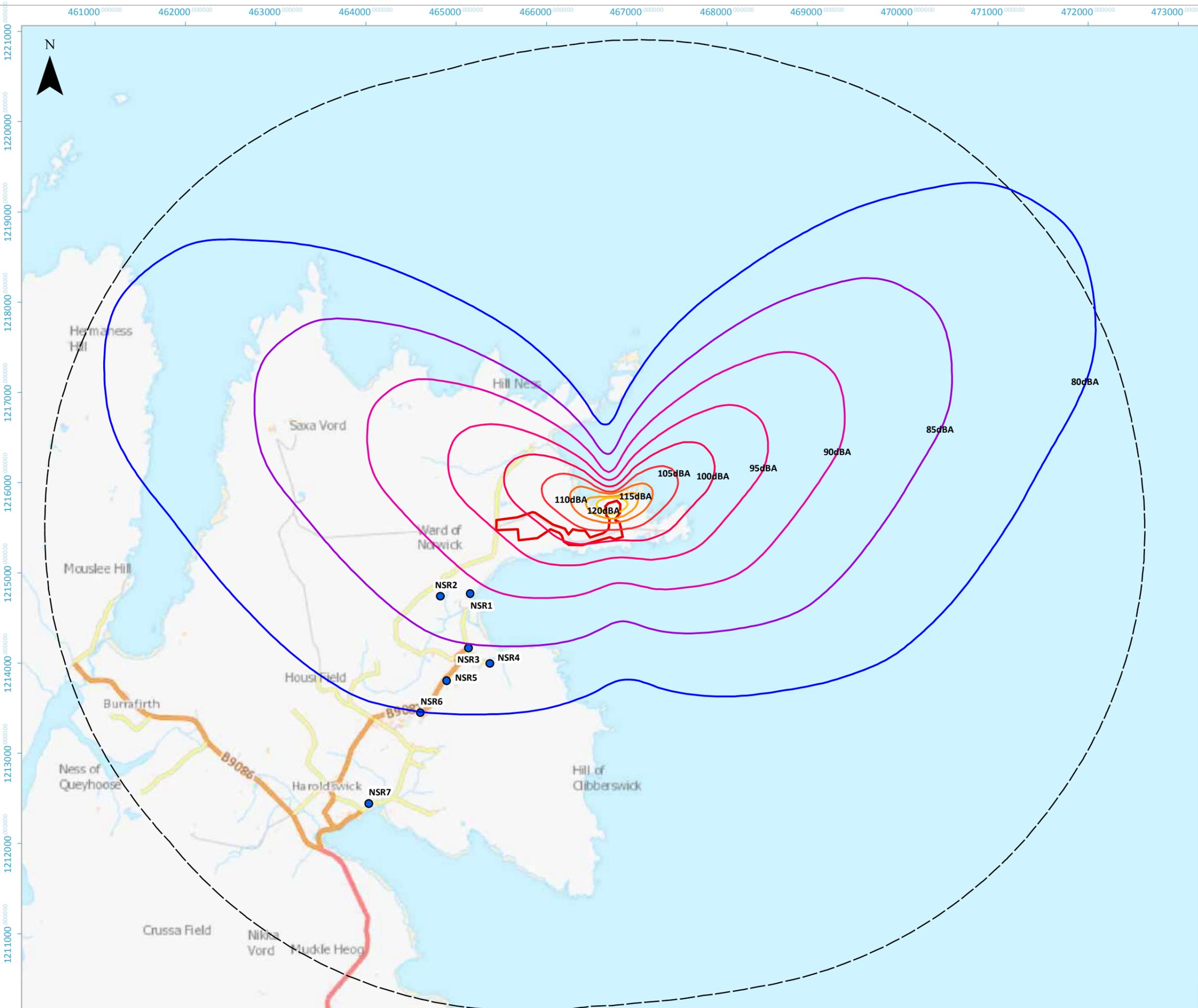
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RFA SaxaVord
 Assessment of Environmental Effects
Drawing 8.2
Lden Noise Contours

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Chapter 8 Drawing 8.3 LAmax 1 second Noise Contours, Static Engine Tests



KEY

- Site Boundary
- NSRs
- 5km Buffer

Pad 1 Static LAmax, dBA

- 80
- 85
- 90
- 95
- 100
- 105
- 110
- 115
- 120

Coordinate System: British National Grid
 Projection: Transverse Mercator

Service Layer Credits: Contains OS data © Crown Copyright and database right 2020
 Contains OS data © Crown Copyright and database right 2022

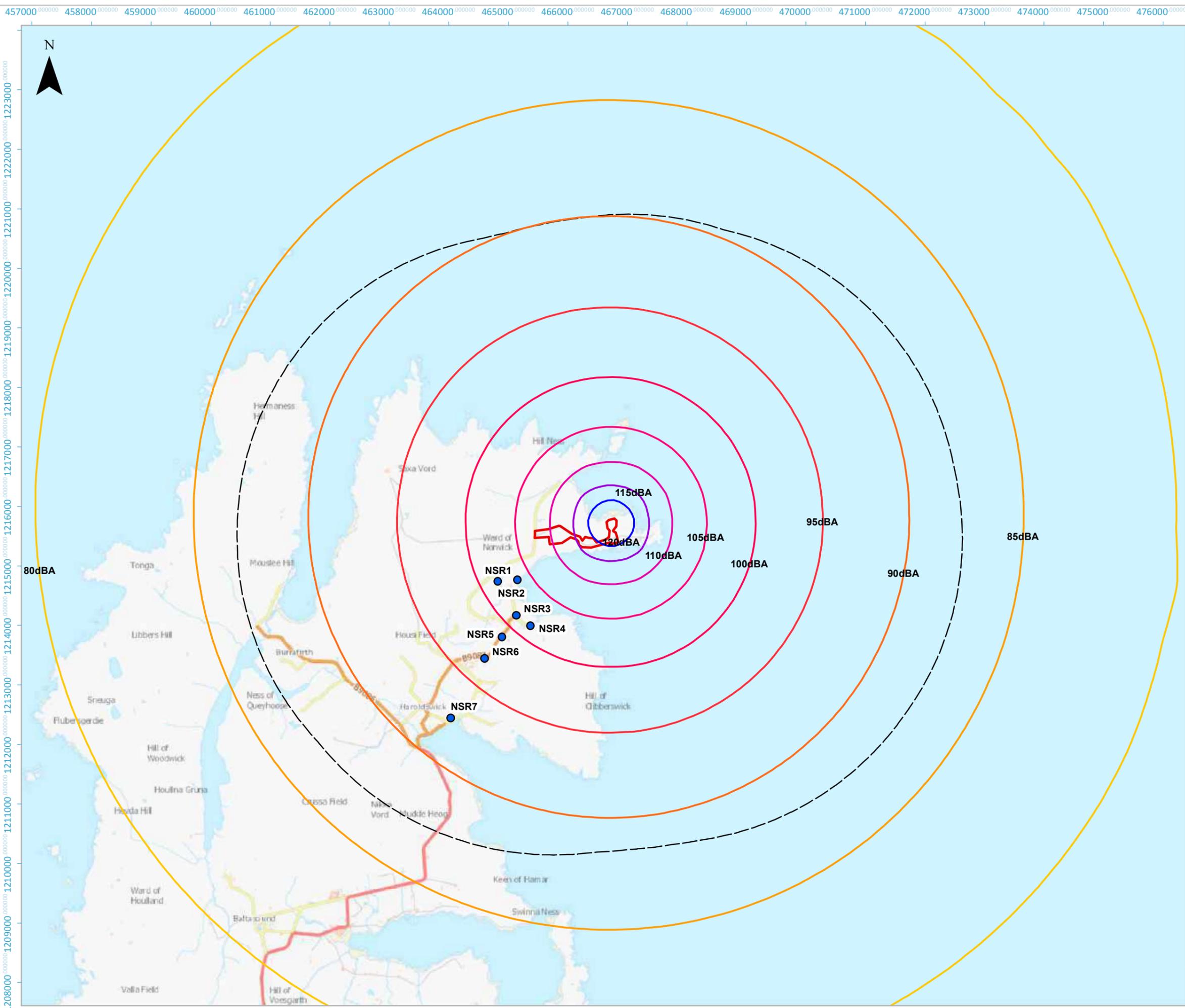
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RFA SaxaVord
 Assessment of Environmental Effects

Drawing 8.3 (Pad 1)
LAmax,1sec noise contours - static engine tests

Date: 08/06/2023	Drawn by: ES	Review: RF	Version: V1
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Chapter 8 Drawing 8.4 LAmax 1 second Noise Contours, Launches



KEY

- Site Boundary
- NSRs
- 5km Buffer

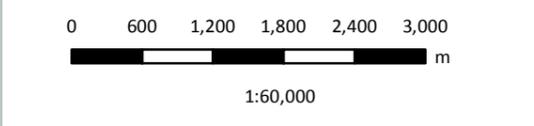
Pad 1 Launch L_{max}, dBA

- 80
- 85
- 90
- 95
- 100
- 105
- 110
- 115
- 120



Coordinate System: British National Grid
 Projection: Transverse Mercator

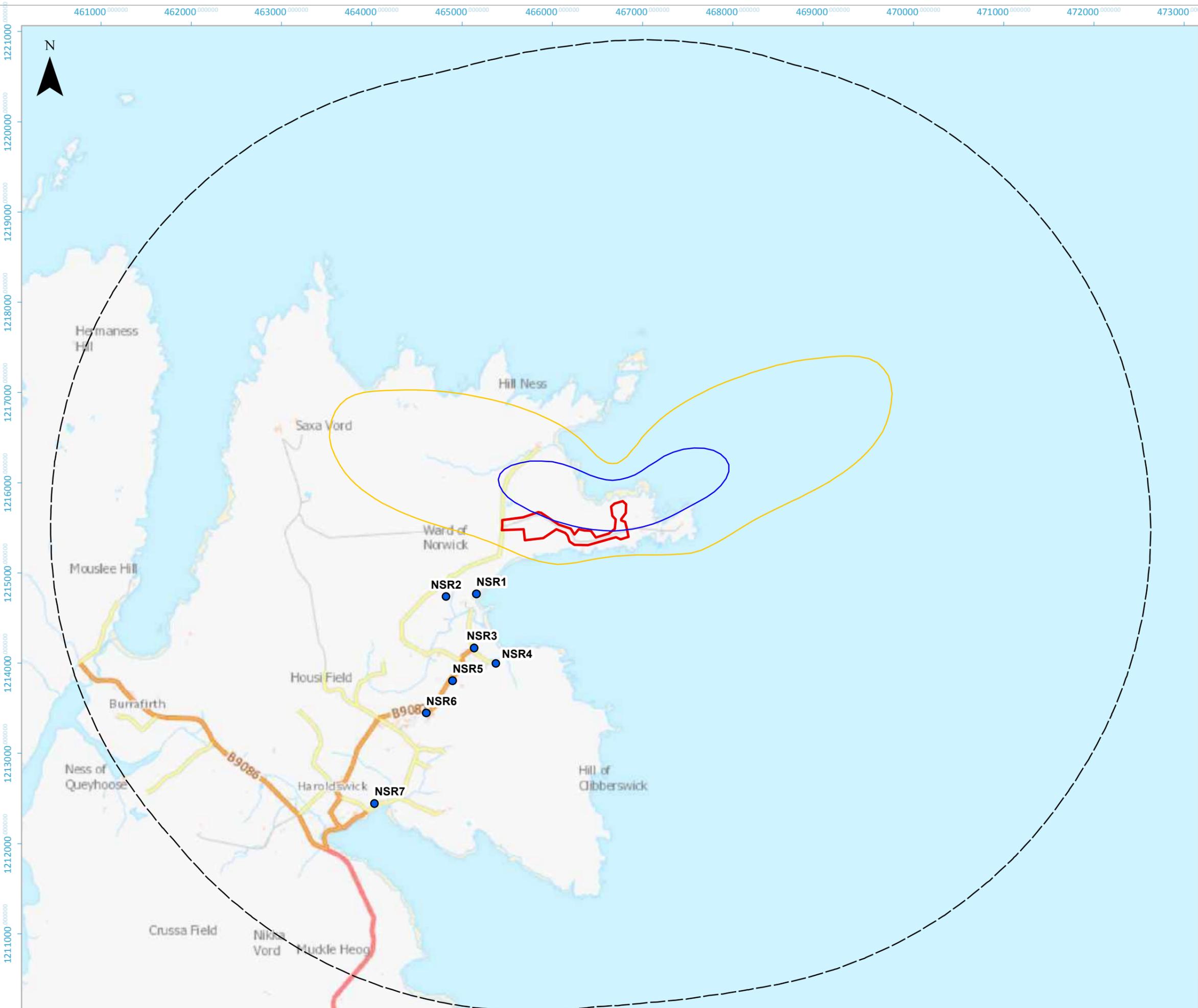
Service Layer Credits: Contains OS data © Crown Copyright and database right 2020
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RFA SaxaVord
 Assessment of Environmental Effects
Drawing 8.4 (Pad 1)
L_{max},1sec Noise Contours - Launches

Date: 08/06/2023	Drawn by: ES	Review: RF	Version: V1
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Chapter 8 Drawing 8.5 Predicted Unweighted LAmax Noise – Static Engine Tests



KEY

- Site Boundary
- NSRs
- 5km Buffer

Pad 1 Static Lmax, dB

- 111
- 120

Coordinate System: British National Grid
 Projection: Transverse Mercator

Service Layer Credits: Contains OS data © Crown Copyright and database right 2020
 Contains OS data © Crown Copyright and database right 2022

0 400 800 1,200 1,600 2,000
 m

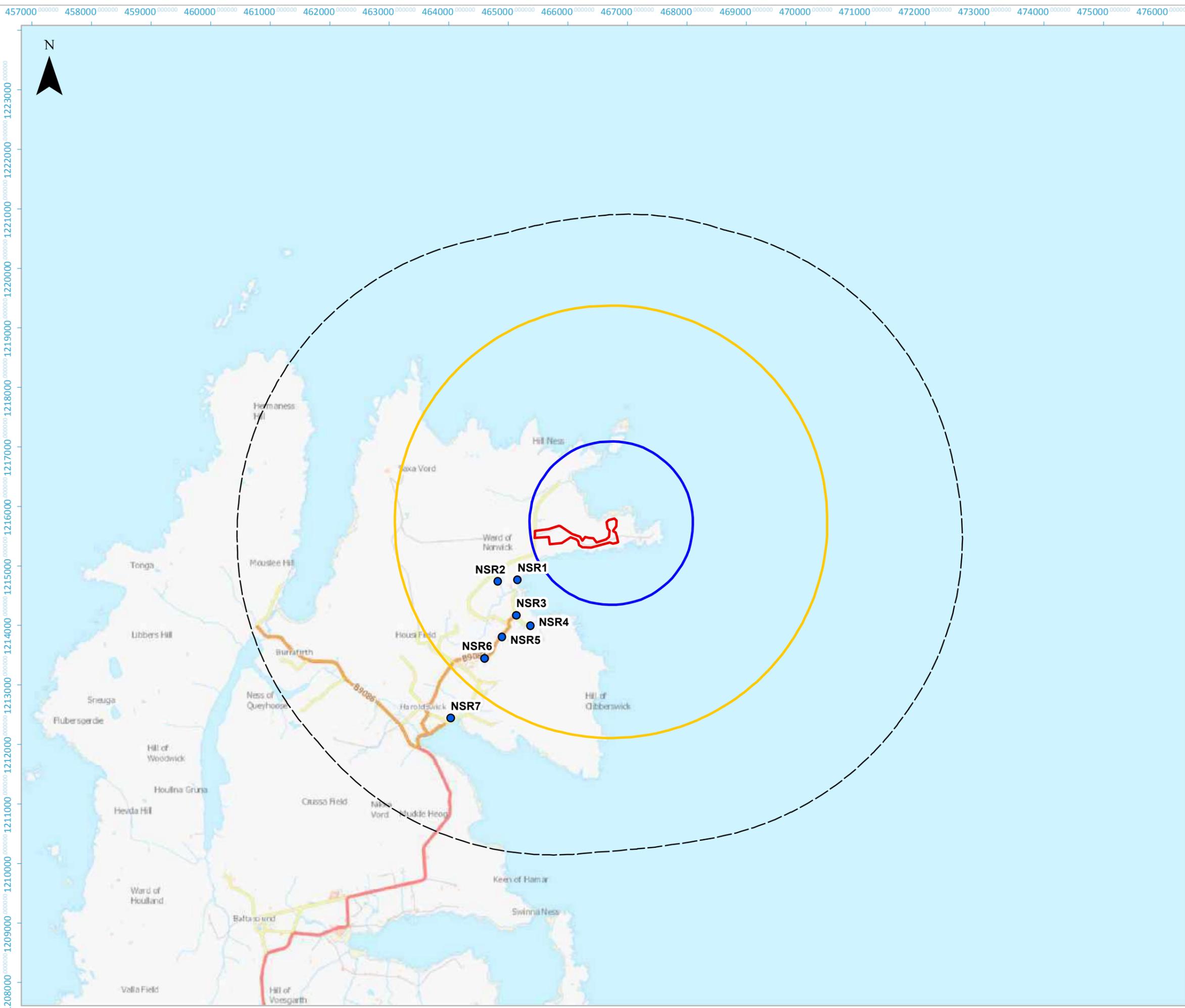
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RFA SaxaVord
 Assessment of Environmental Effects

Drawing 8.5 (Pad 1)
Predicted Unweighted Lmax Noise
Contours for Static Engine Tests

Date: 08/06/2023	Drawn by: ES	Review: RF	Version: V1
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Chapter 8 Drawing 8.6 Predicted Unweighted LAmax Noise - Launches



KEY

- Site Boundary
- NSRs
- 5km Buffer

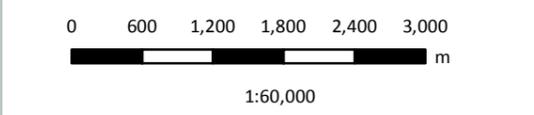
Pad 1 Launch Lmax, dBA

- 111
- 120



Coordinate System: British National Grid
 Projection: Transverse Mercator

Service Layer Credits: Contains OS data © Crown Copyright and database right 2020
 Contains OS data © Crown Copyright and database right 2022



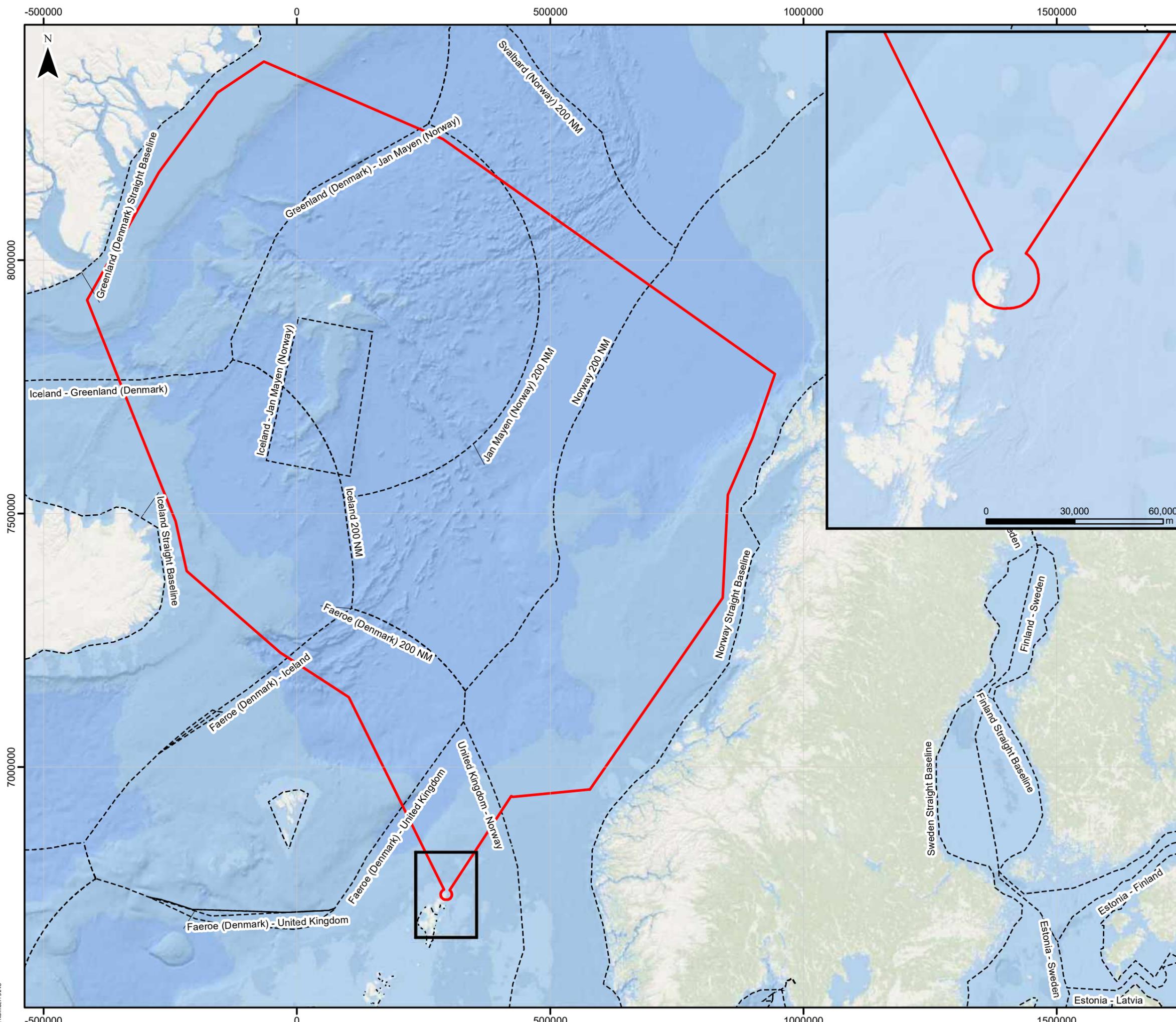
RFA SaxaVord
 Assessment of Environmental Effects
Drawing 8.6 (Pad 1)
Predicted Unweighted Lmax Noise
Contours for Launch Events

Date: 08/06/2023	Drawn by: ES	Review: RF	Version: V1
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Chapter 9 -



Chapter 10 Drawing 10.1 North Atlantic Environmental Zone of Influence



Legend

- North Atlantic Environmental Zone of Influence (EZI)
- - - - EEZ boundaries

0 170,000 340,000 m

Scale 1:7,000,000 @ A3

IRFA Rocket Factory **MarineSpace** an ORN Group Company

Rocket Factory Augsburg
 Assessment of Environmental Effects

Drawing 10.1

North Atlantic Environmental Zone of Influence

Date: 19/09/2023	Drawn by: AN	Checked by: IW	Version: Draft/V1
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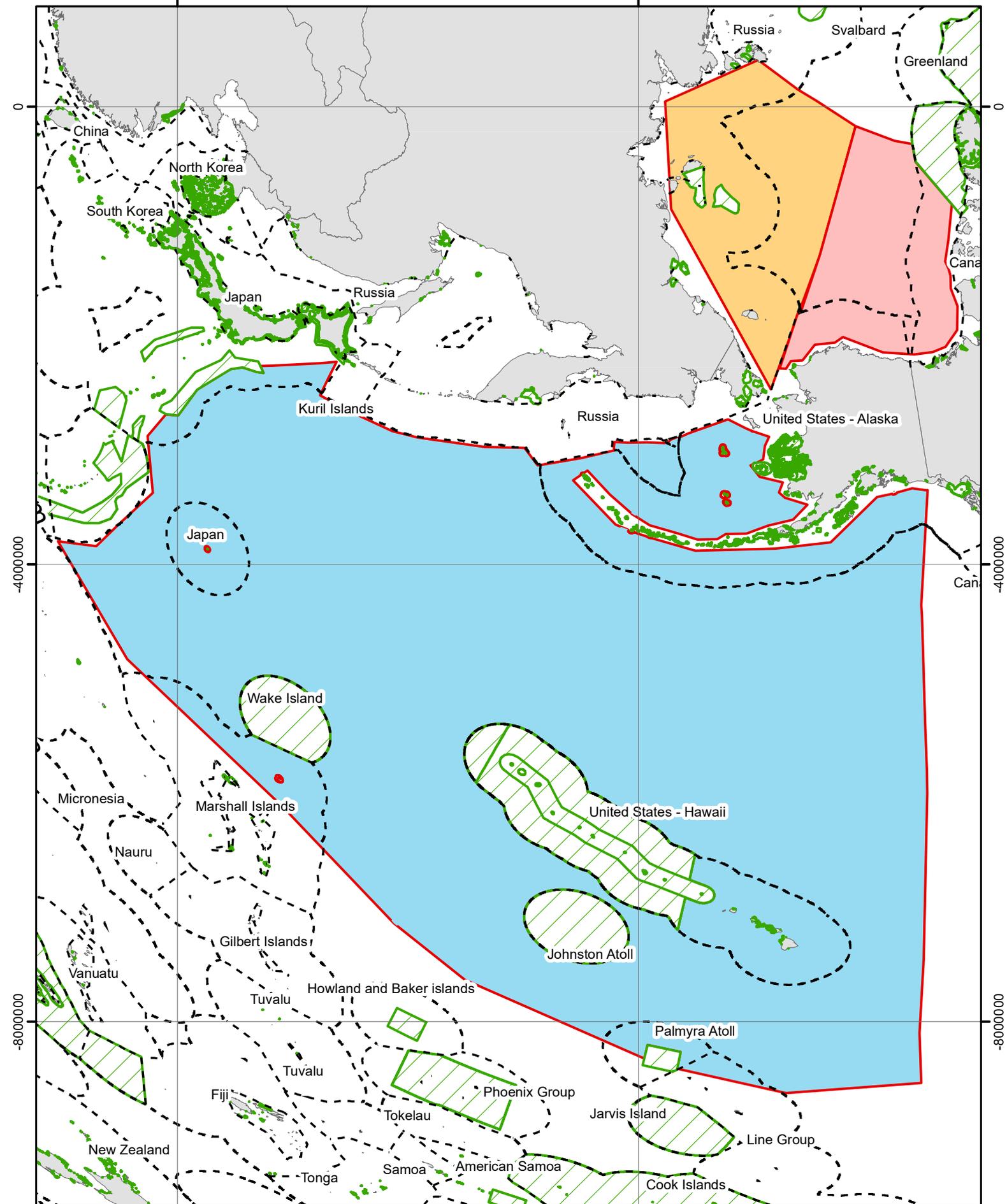
Project Number: 3148
 Service Layer Credits: Esri, Garmin, GEBCO, NOAA NGDC, and other contributors

Chapter 10 Drawing 10.2 Pacific Environmental Zone of Influence



-6000000

-2000000



-4000000

-4000000

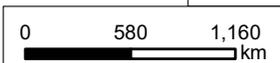
-8000000

-8000000

Legend

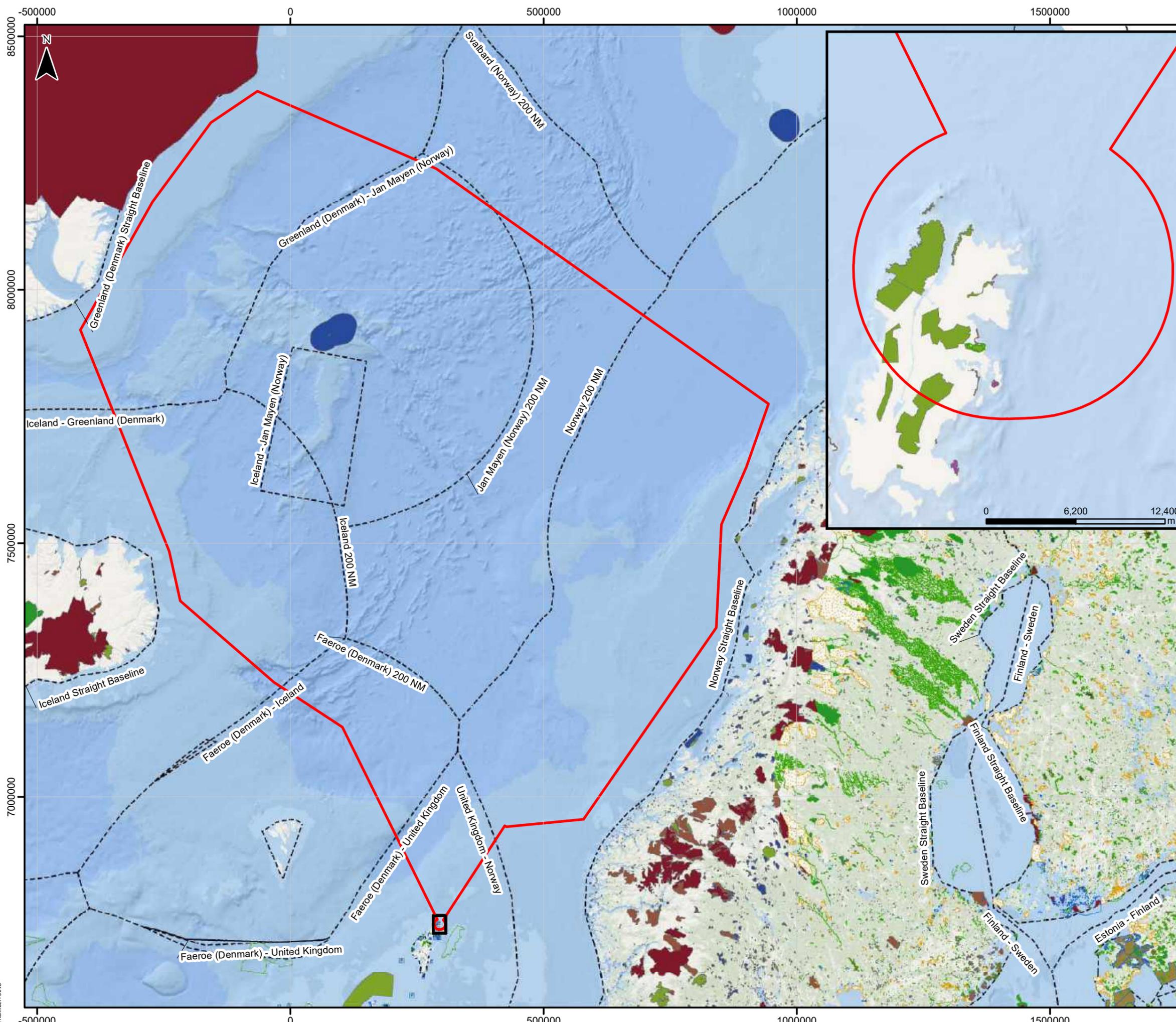
- MPA
- EEZ
- Pacific EZI Section a
- Pacific EZI Section b
- Pacific EZI Section c

Rocket Factory Augsburg
 Assessment of Environmental Effects
Drawing 10.2
Pacific Environmental Zone
of Influence



Scale : 1:42,000,000 @ A3 Date: 20/09/2023
 Drawn by: AN Checked by: IW Version: Draft/V1

Chapter 10 Drawing 10.3 North Atlantic Protected Areas



Legend

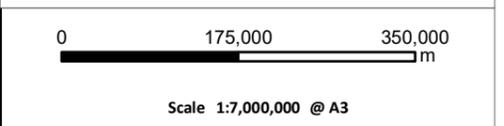
- North Atlantic Environmental Zone of Influence (EZI)

Protected Site Type (Natura 2000)

- SPA
- SAC
- SCI

Protected Site Type (IUCN)

- Habitat/Species Management Area
- National Park
- Natural Monument or Feature
- Protected Landscape/ Seascape
- Protected area with sustainable use of natural resources
- Strict Nature Reserve
- Wilderness Area
- EEZ boundaries



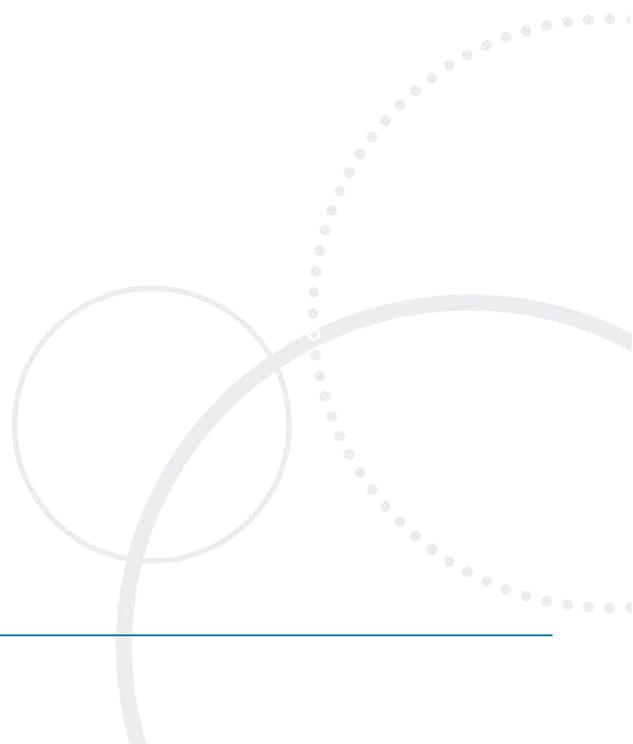
Rocket Factory Augsburg
 Assessment of Environmental Effects

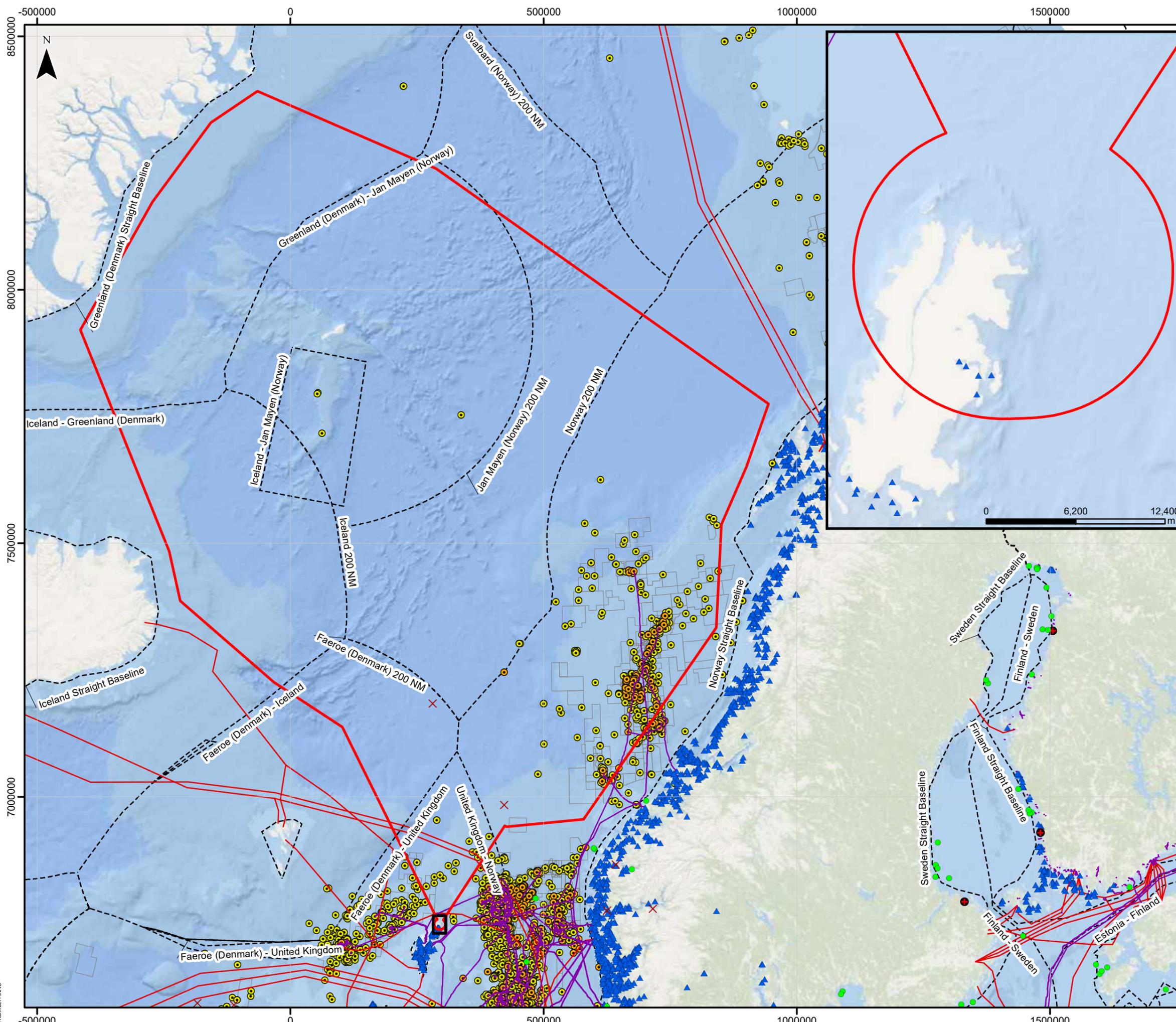
Drawing 10.3

**Protected Areas - Natura 2000 and IUCN Sites
 North Atlantic**

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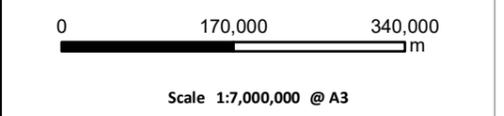
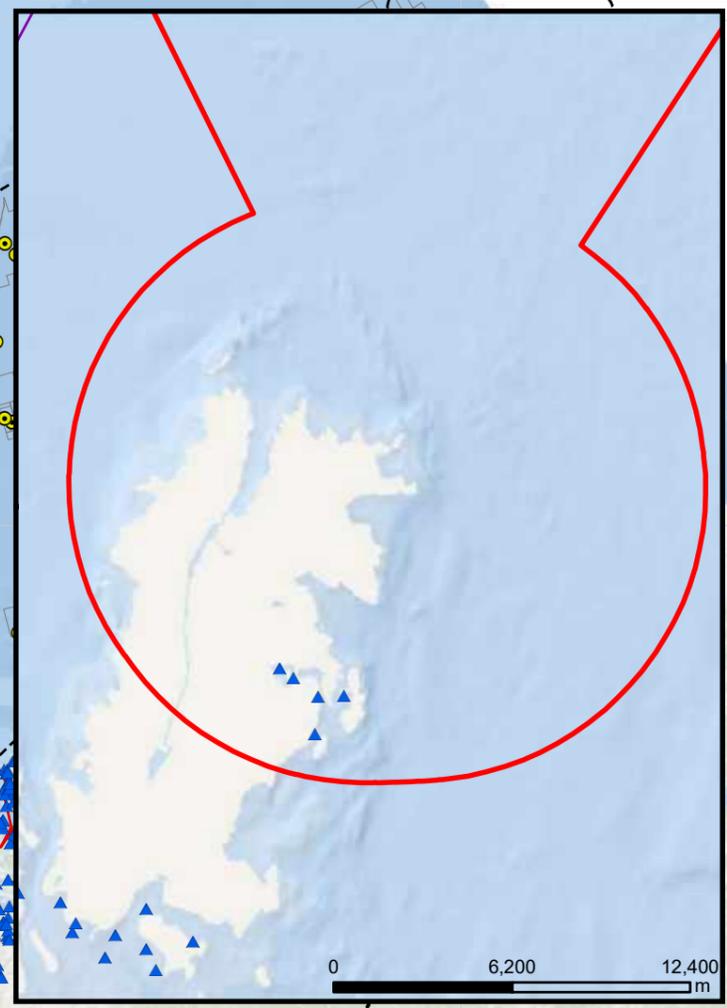
Chapter 10 Drawing 10.4 North Atlantic Other Marine Users





Legend

- ▭ North Atlantic Environmental Zone of Influence (EZI)
- Wind Farms
- × Waste Disposal sites
- Nuclear Power plants
- ▲ Aquaculture sites
- Pipelines
- Cables
- Offshore Installations
- Boreholes
- Hydrocarbon licences
- EEZ boundaries



IRFA Rocket Factory
MarineSpace
 an ORNL Energy Company

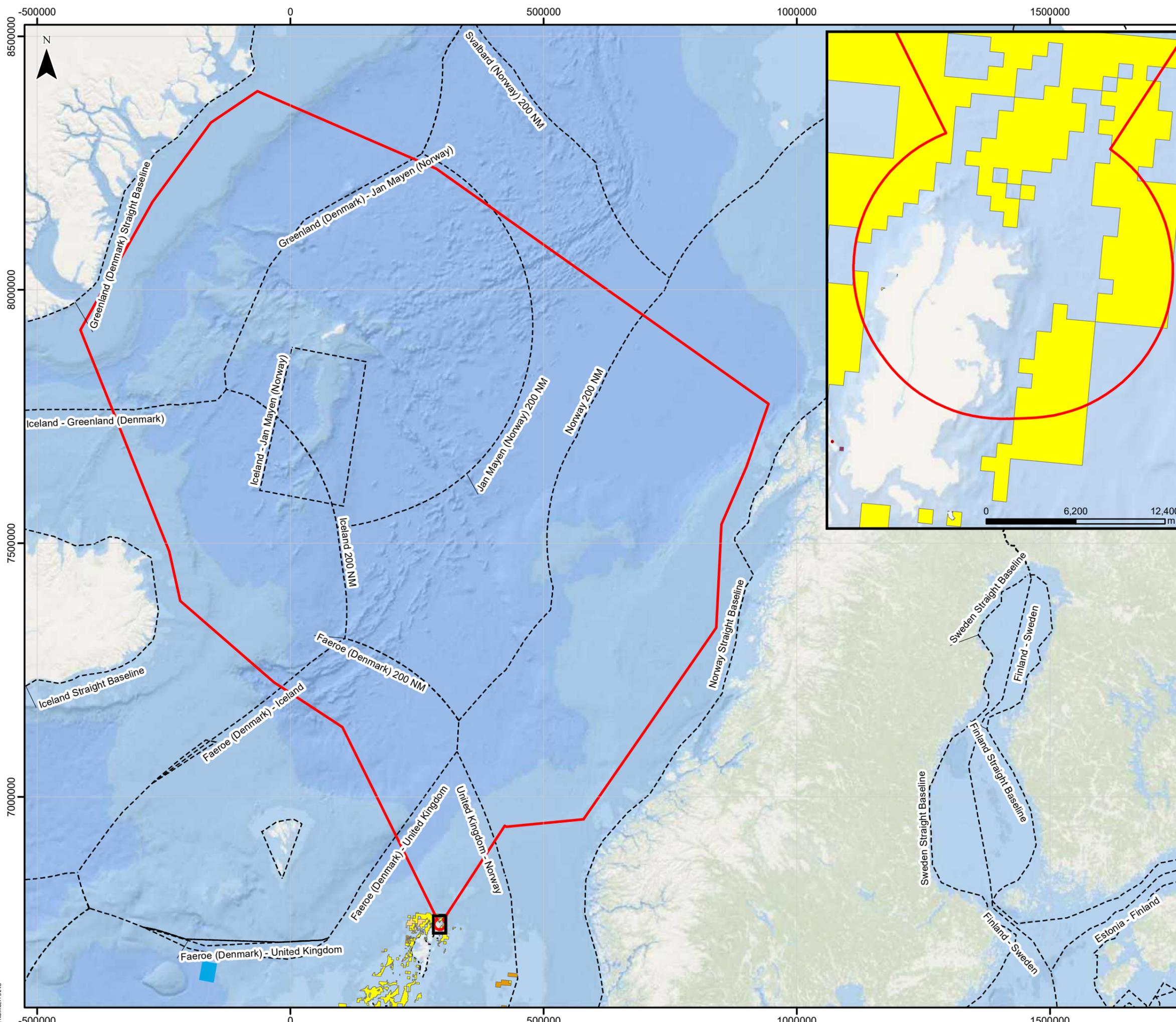
Rocket Factory Augsburg
 Assessment of Environmental Effects

Drawing 10.4
Other Marine Users
North Atlantic

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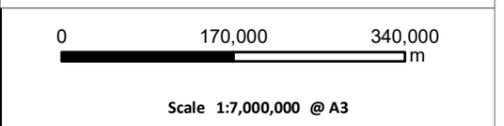
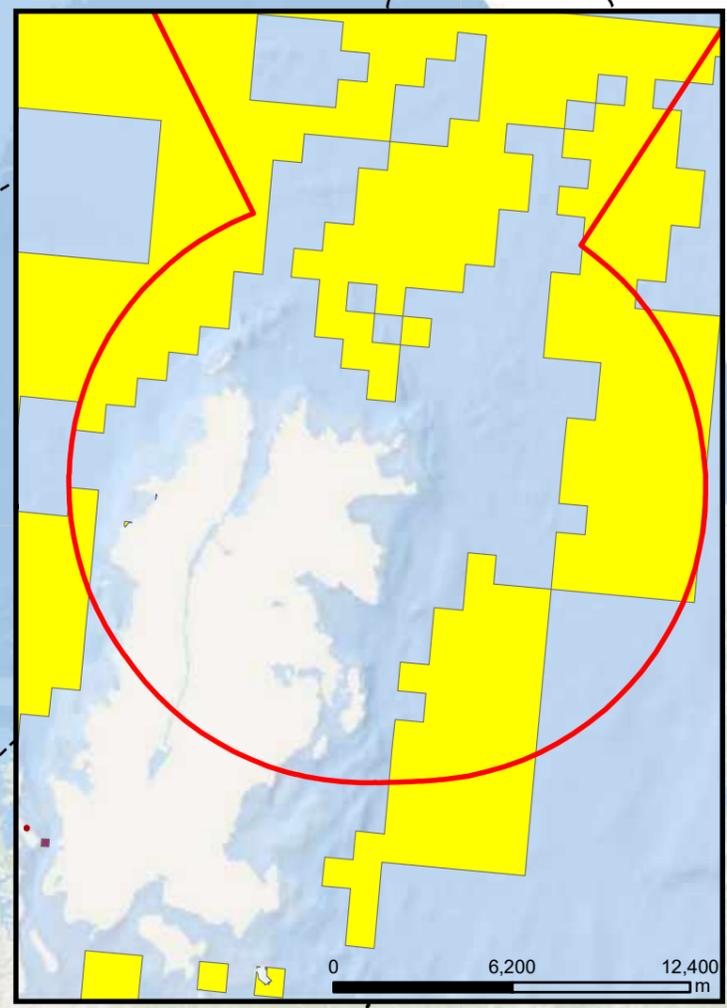
Project Number: 3148
 Service Layer Credits: Esri, Garmin, GEBCO, NOAA NGDC, and other contributors

Chapter 10 Drawing 10.5 North Atlantic Current and Potential Use of Marine Environment



Legend

- North Atlantic Environmental Zone of Influence (EZI)
- Tidal lease sites
- Dredge spoil disposal site**
 - Closed
 - Disused
 - Open
- Sand and Gravel resources**
 - Construction aggregate - Coarse
 - Construction aggregate - Fine (Coarse Sand)
 - Construction aggregate - Fine (Fine Sand)
 - Fill aggregate
 - EEZ boundaries



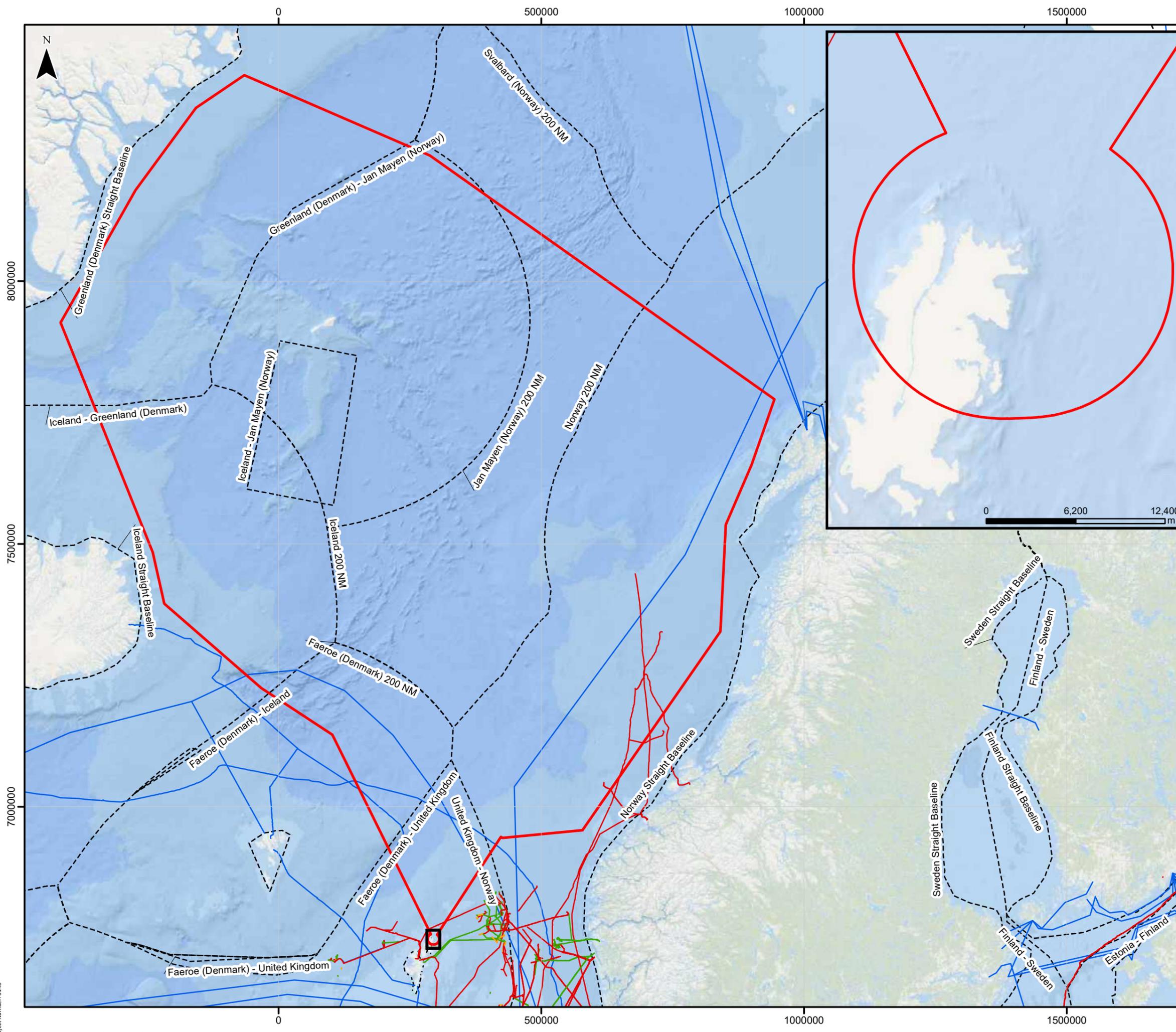
Rocket Factory Augsburg
Assessment of Environmental Effects

Drawing 10.5
Current & potential use of marine environment
North Atlantic

Date: 19/09/2023	Drawn by: AN	Checked by: IW	Version: Draft/V1
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Chapter 10 Drawing 10.6 North Atlantic Oil and Gas Telecoms Infrastructure





Legend

- ▭ North Atlantic Environmental Zone of Influence (EZI)
- Gas pipelines
- Mixed Hydrocarbons pipelines
- Oil pipelines
- Telecommunication cables
- - - EEZ boundaries

0 160,000 320,000 m

Scale 1:6,746,692 @ A3

Rocket Factory Augsburg
 Assessment of Environmental Effects

Drawing 10.6

**Oil, Gas and Telecoms Infrastructure
 North Atlantic**

Date: 19/09/2023	Drawn by: AN	Checked by: IW	Version: Draft/V1
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 Service Layer Credits: Esri, Garmin, GEBCO, NOAA NGDC, and other contributors

Chapter 11 -