



MORAY WEST

OFFSHORE WINDFARM

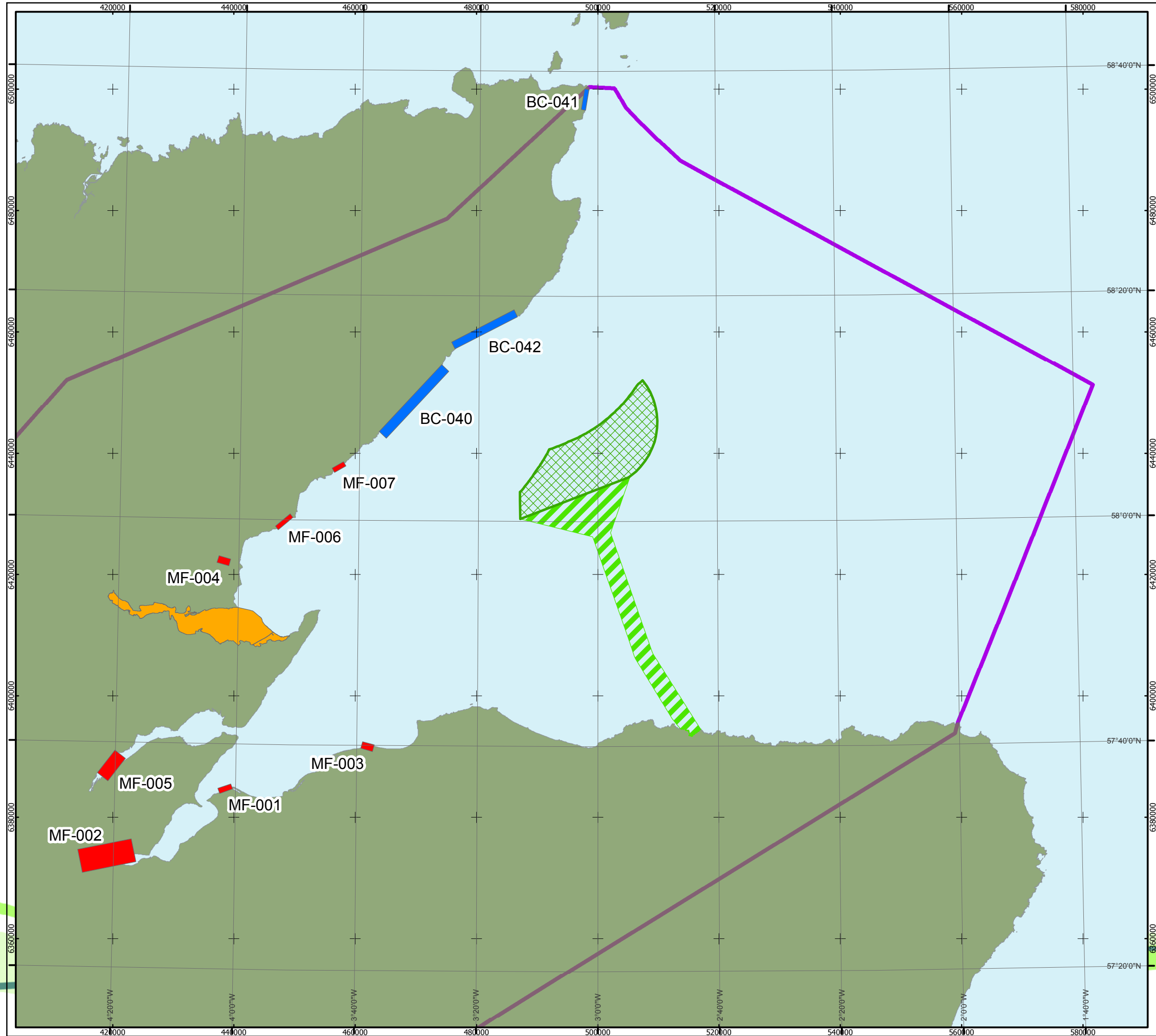


Offshore EIA Report

Moray Offshore Windfarm (West) Limited

Chapter 9 Marine Mammal Ecology – Figures

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MORAY WEST OFFSHORE WINDFARM

KEY

- Moray West Site
- Offshore Export Cable Corridor
- Harbour Seal Designated Haul-outs
- Grey Seal Designated Haul-outs
- Dornoch Firth & Morrich Moore SAC
- Moray Firth Management Unit

Horizontal Scale: 1:600,000 A3 Chart
0 12,000 24,000 Meters

Geodetic Parameters: WGS84 UTM Zone 30N

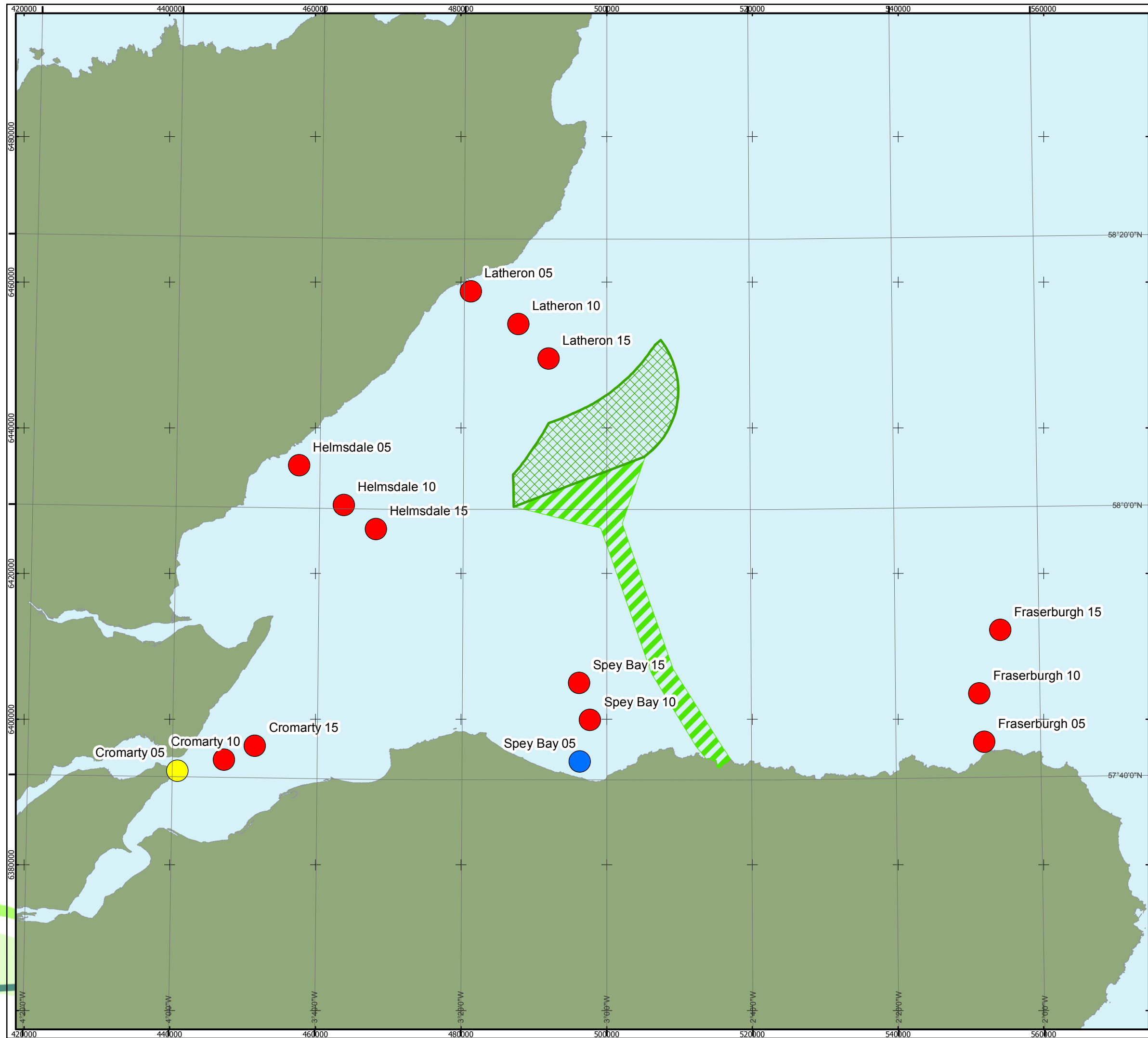
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Reviewed: RC
Approved: FG

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REF: 8460005-PPW0180-GOE-MAP-065

Figure 9.4.1 Seal Designated
Haul-outs, SAC and MU

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MORAY WEST OFFSHORE WINDFARM

KEY

-  Moray West Site
-  Offshore Export Cable Corridor

Proportion of Survey Days with Porpoise Detections (Porpoise Positive Days)

-  0.0 - 0.2
-  0.2 - 0.4
-  0.4 - 0.6
-  0.6 - 0.8
-  0.8 - 1.0

Horizontal Scale: 1:500,000

0 10,000 20,000 Meters



Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
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Approved: FG

Date: 25/06/2018

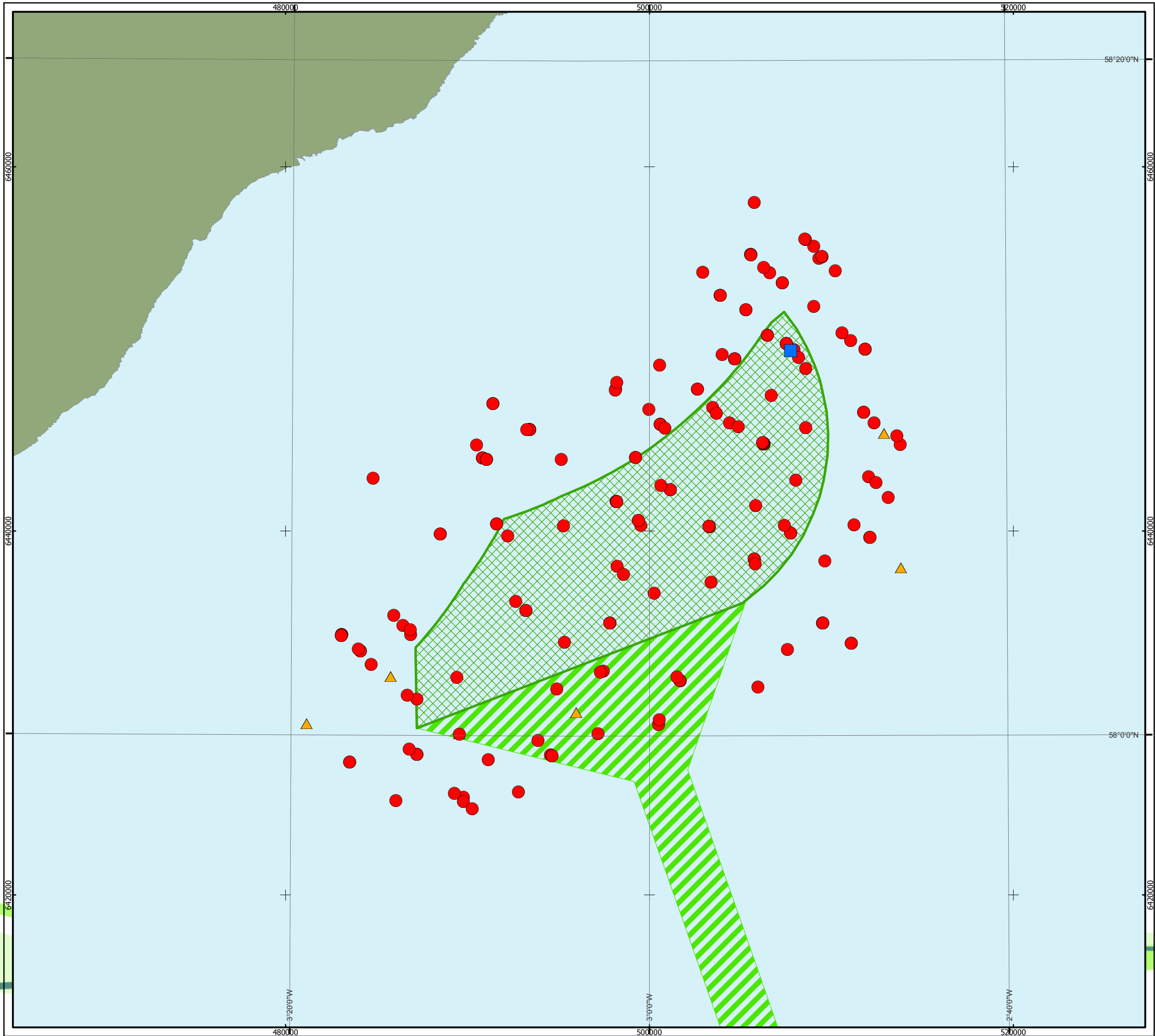
Revision: A

REF: 8460005-PPW0180-GOE-MAP-066

Figure 9.4.2 ECOMMAS
Porpoise Positive Days 2016

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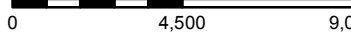
MORAY WEST OFFSHORE WINDFARM

KEY

-  Moray West Site
-  Offshore Export Cable Corridor

Aerial Survey Sightings

-  Harbour Porpoise
-  Cetacean Species
-  Seal/Small Cetacean Species

Horizontal Scale: 1:200,000 A3 Chart
 0 4,500 9,000 Meters 

Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

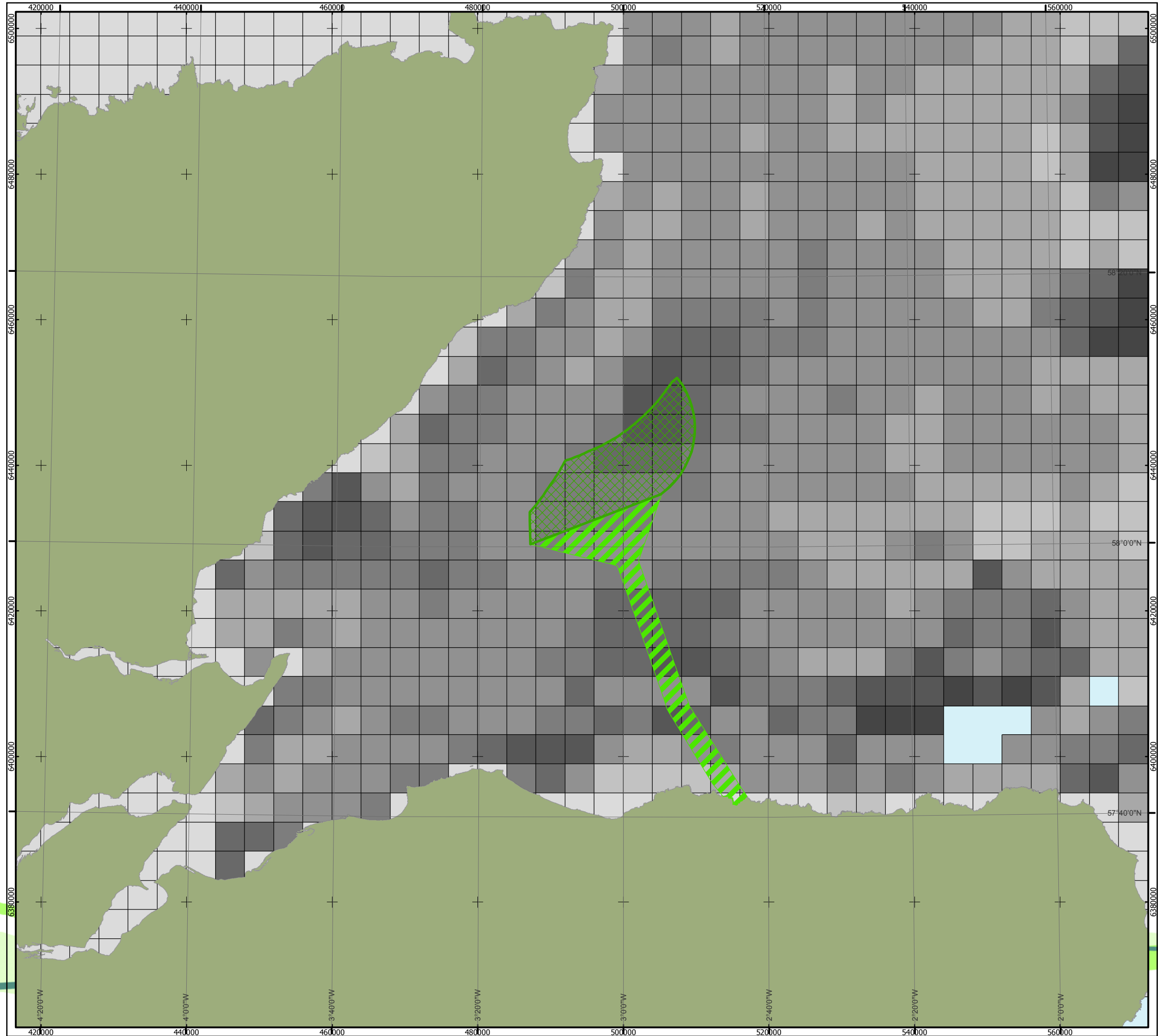
Date: 25/06/2018 Revision: A

REF: 8460005-PPW0180-GOE-MAP-067

Figure 9.4.3 Cetacean
Sightings During HiDef Surveys

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KEY

-  Moray West Site
-  Offshore Export Cable Corridor

Harbour Porpoise Density (#/cell)

-  0-1
-  1-2
-  2-5
-  5-10
-  10-15
-  15-20
-  20-25
-  25-30

Horizontal Scale: 1:500,000

0 10,000 20,000 Meters



Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

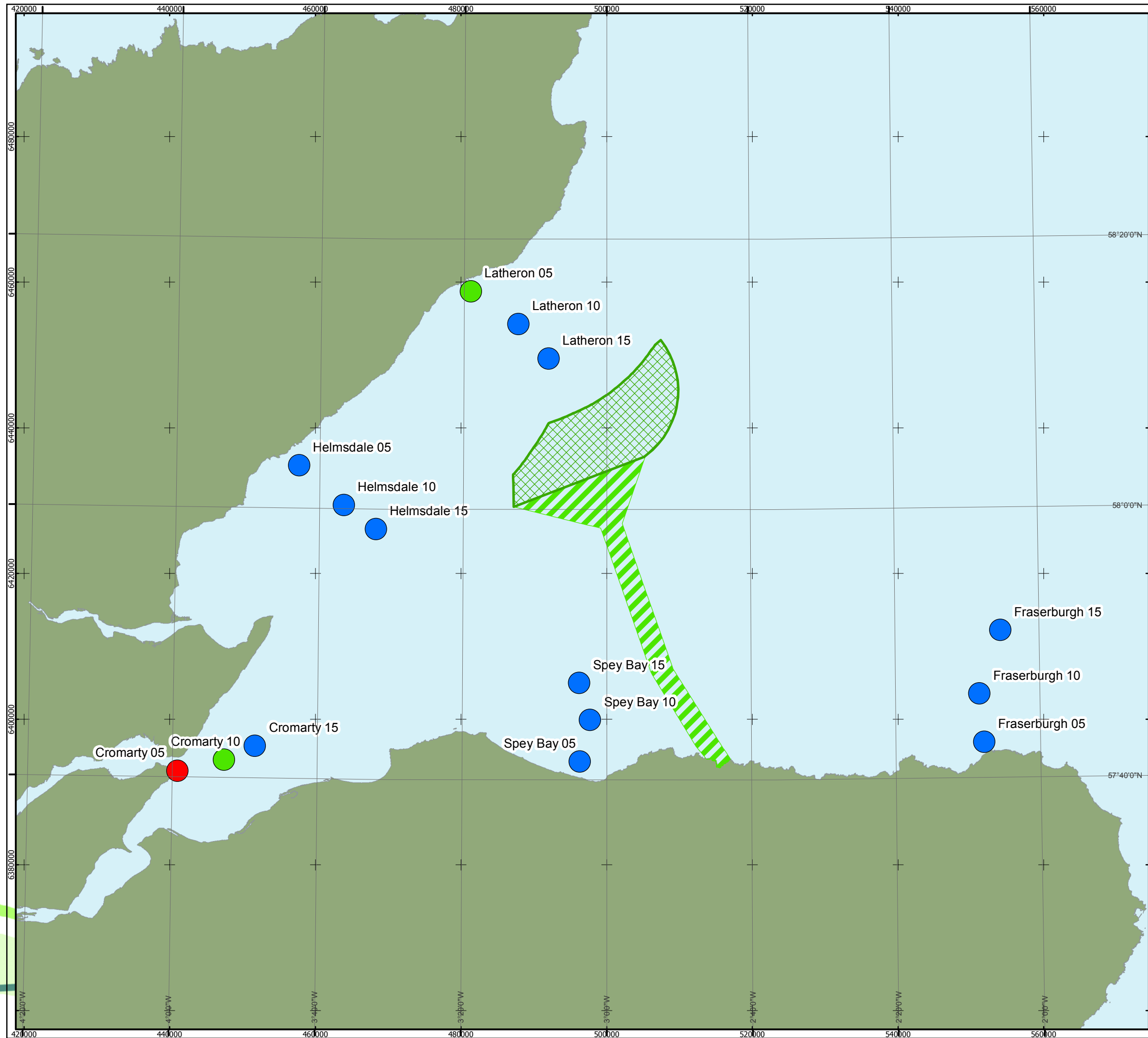
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Figure 9.4.4 Harbour Porpoise
Predicted Density (#/cell)

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MORAY WEST OFFSHORE WINDFARM

KEY

-  Moray West Site
-  Offshore Export Cable Corridor

Proportion of Survey Days with Dolphin Detections (Dolphin Positive Days)

-  0.0 - 0.2
-  0.2 - 0.4
-  0.4 - 0.6
-  0.6 - 0.8
-  0.8 - 1.0

Horizontal Scale: 1:500,000

0 10,000 20,000 Meters



Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

Date: 25/06/2018

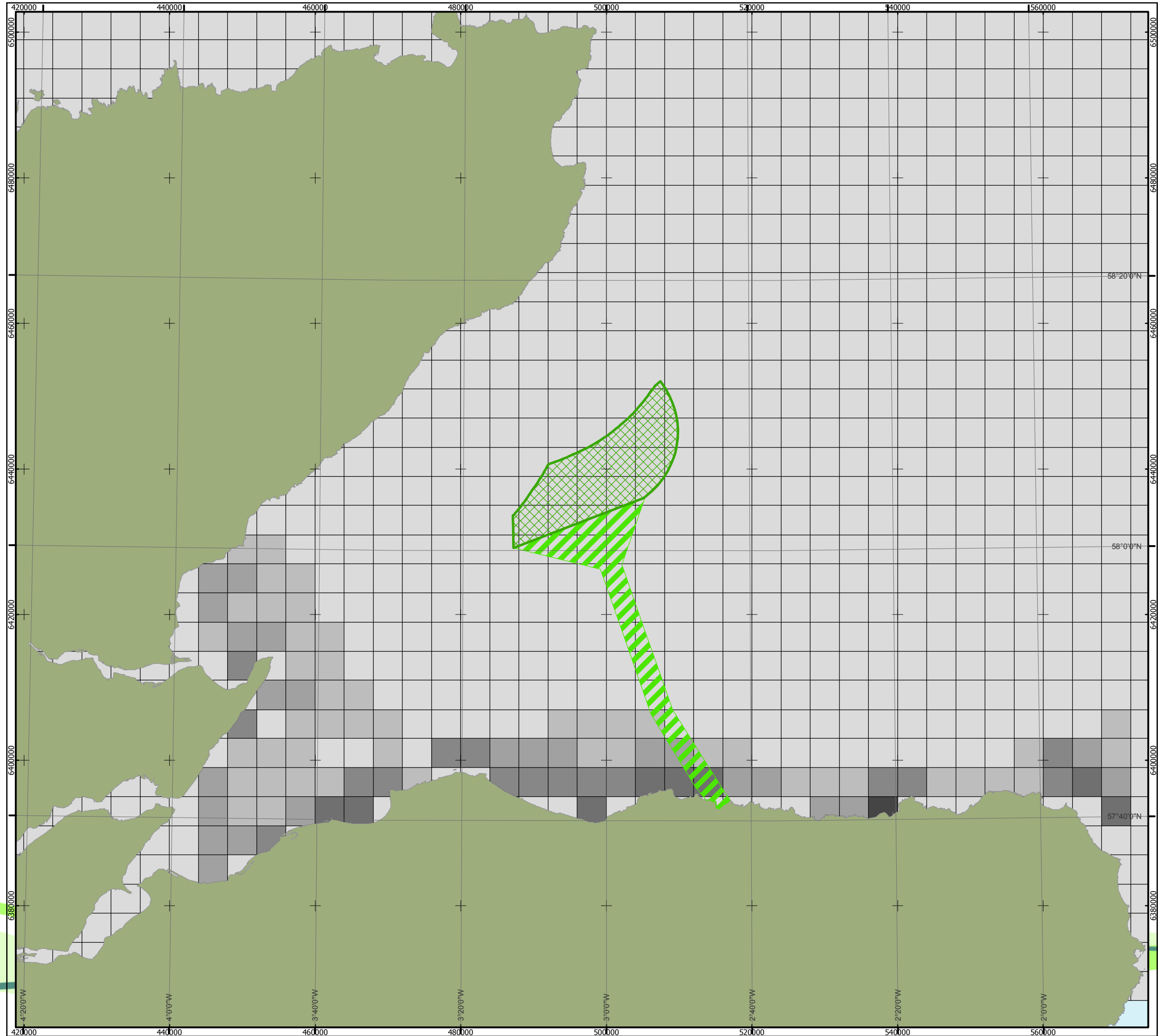
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Figure 9.4.5 ECOMMAS
Dolphin Positive Days 2016

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MORAY WEST

OFFSHORE WINDFARM

KEY

-  Moray West Site
-  Offshore Export Cable Corridor

Bottlenose Dolphin Density (#/cell)

-  0.0 - 0.1
-  0.1 - 0.5
-  0.5 - 1.0
-  1.0 - 2.0
-  2.0 - 5.0
-  5.0 - 10.0
-  >10.0

Horizontal Scale: 1:500,000

0 10,000 20,000 Meters

A3 Chart

N

Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

Date: 25/06/2018

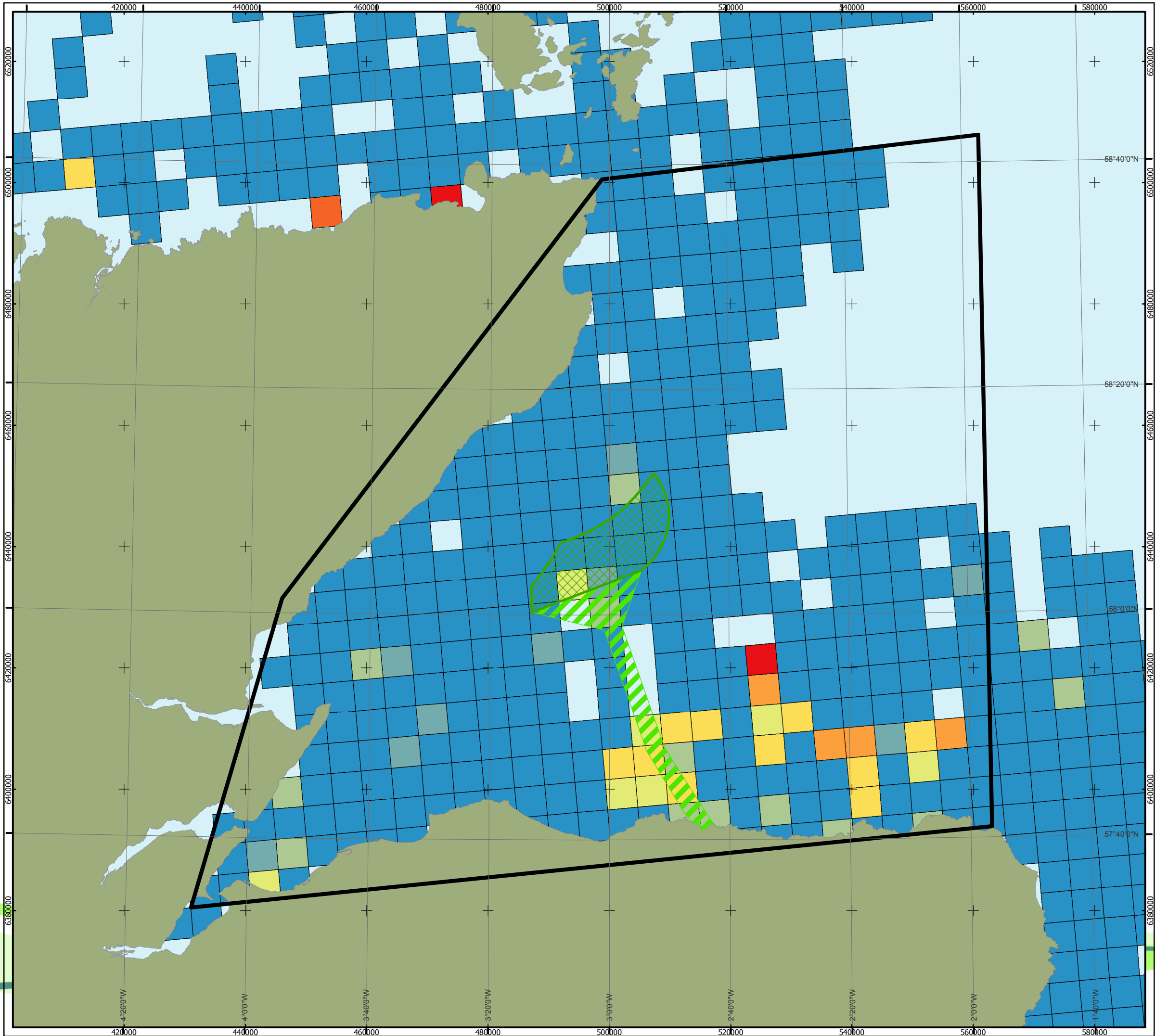
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REF: 8460005-PPW0180-GOE-MAP-070

Figure 9.4.6 Bottlenose
Dolphin Density (#/cell)

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MORAY WEST OFFSHORE WINDFARM

KEY

-  Moray West Site
-  Offshore Export Cable Corridor
-  Moray Firth Boundary

Minke Whale Density (#/km²)

-  0.0 - 0.1
-  0.1 - 0.2
-  0.2 - 0.5
-  0.5 - 1.0
-  1.0 - 2.0
-  2.0 - 5.0
-  5.0 - 10.0
-  >10.0

Horizontal Scale: 1:600,000
0 12,500 25,000 Meters
A3 Chart
N

Geodetic Parameters: WGS84 UTM Zone 30N

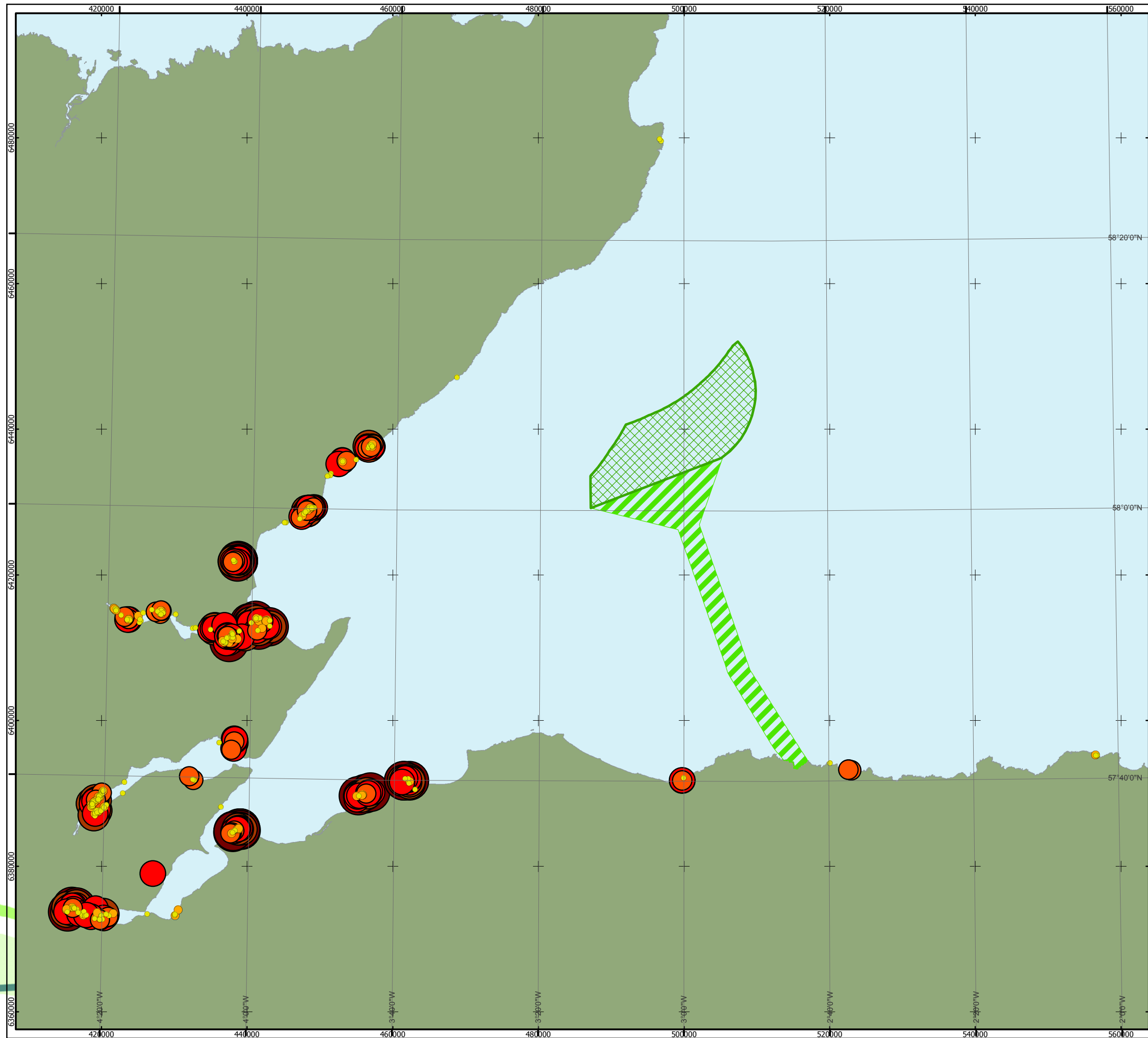
Produced: RP
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Date: 25/06/2018
Revision: A
REF: 8460005-PPW0180-GOE-MAP-071

Figure 9.4.7 Minke Whale
Density (#/km²)

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MORAY WEST OFFSHORE WINDFARM

KEY

-  Moray West Site
-  Offshore Export Cable Corridor

Harbour Seal Count (#/site)

-  1-5
-  6-10
-  11-15
-  16-50
-  51-100
-  >100

Horizontal Scale: 1:500,000

A3 Chart

0 10,000 20,000 Meters

Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

Date: 25/06/2018

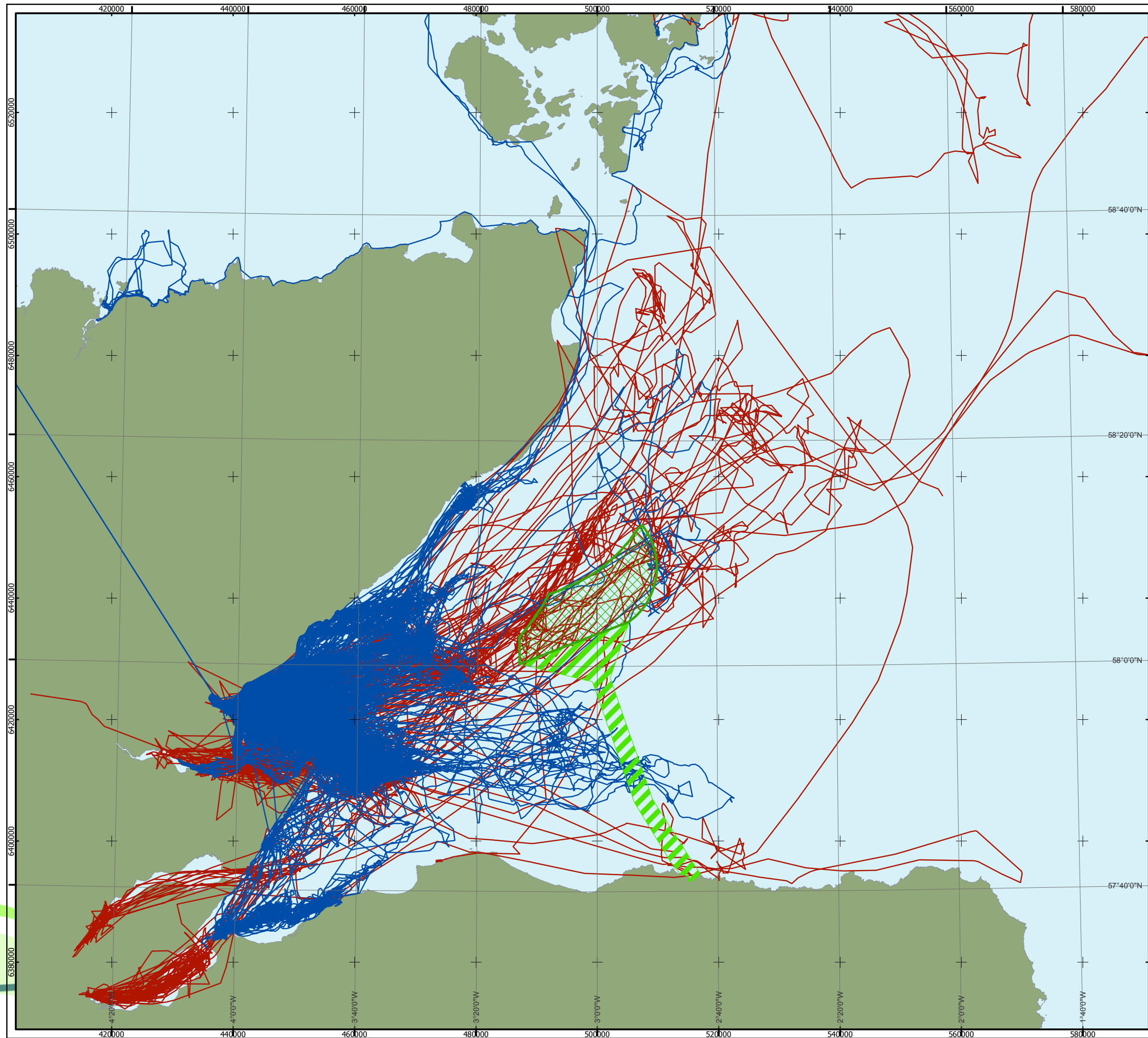
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Figure 9.4.8 Harbour Seal
August Haul-out Counts

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MORAY WEST OFFSHORE WINDFARM

KEY

-  Moray West Site
-  Offshore Export Cable Corridor
-  Telemetry Tracks 2014-15 (n=25)
-  Telemetry Tracks 2004-07 (n=12)

Horizontal Scale: 1:600,000

A3 Chart

0 12,500 25,000 Meters



Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

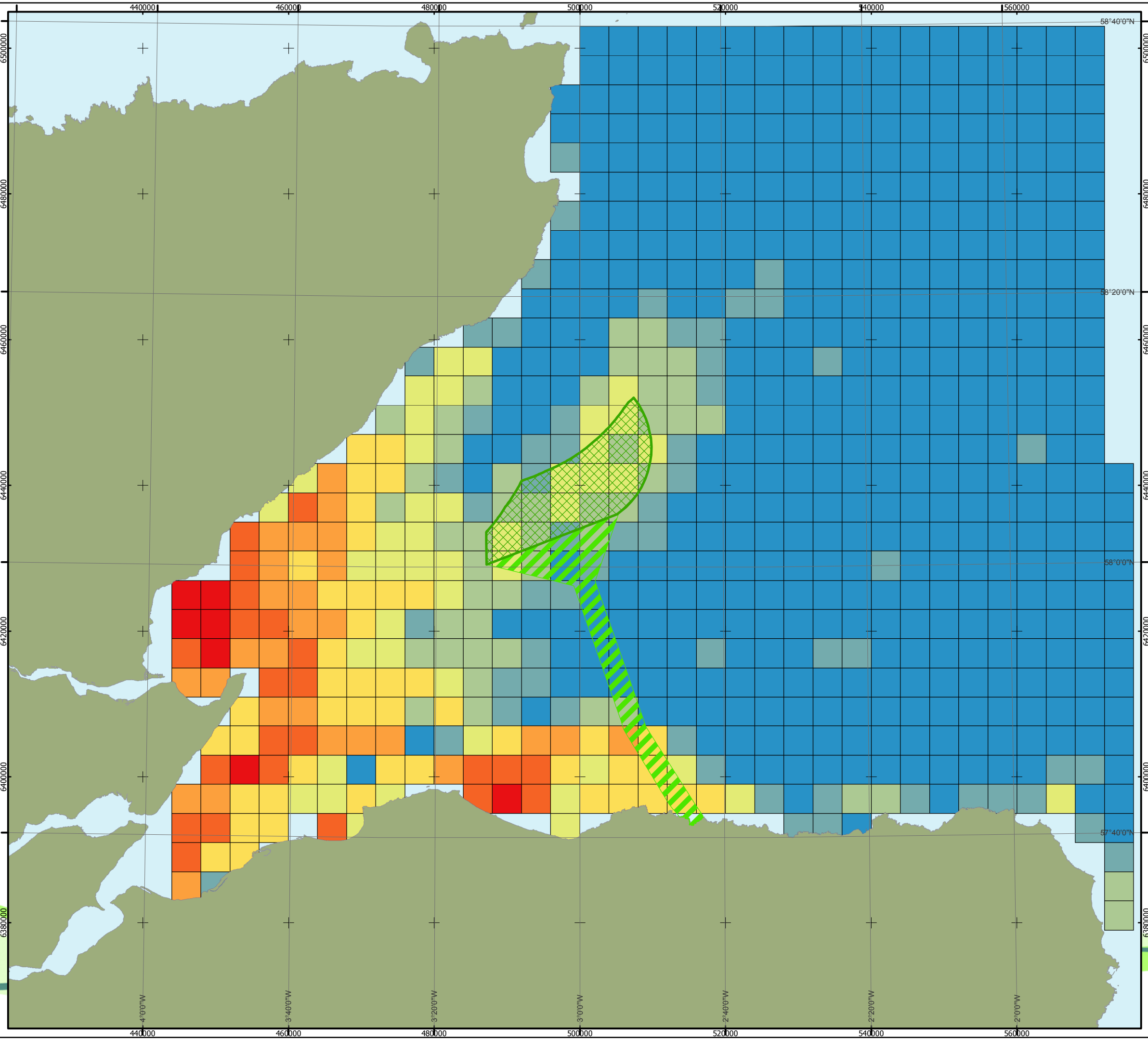
Date: 25/06/2018 Revision: A

REF: 8460005-PPW0180-GOE-MAP-073

Figure 9.4.9 Harbour Seal
Telemetry Tracks (n=37)

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MORAY WEST OFFSHORE WINDFARM

KEY

- Moray West Site
- Offshore Export Cable Corridor

Harbour Seal Density (#/cell)

- 0.0 - 0.5
- 0.5 - 1.0
- 1.0 - 2.0
- 2.0 - 4.0
- 4.0 - 8.0
- 8.0 - 12.0
- 12.0 - 16.0
- 16.0 - 21.0

Horizontal Scale: 1:500,000
A3 Chart
0 10,000 20,000 Meters

Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

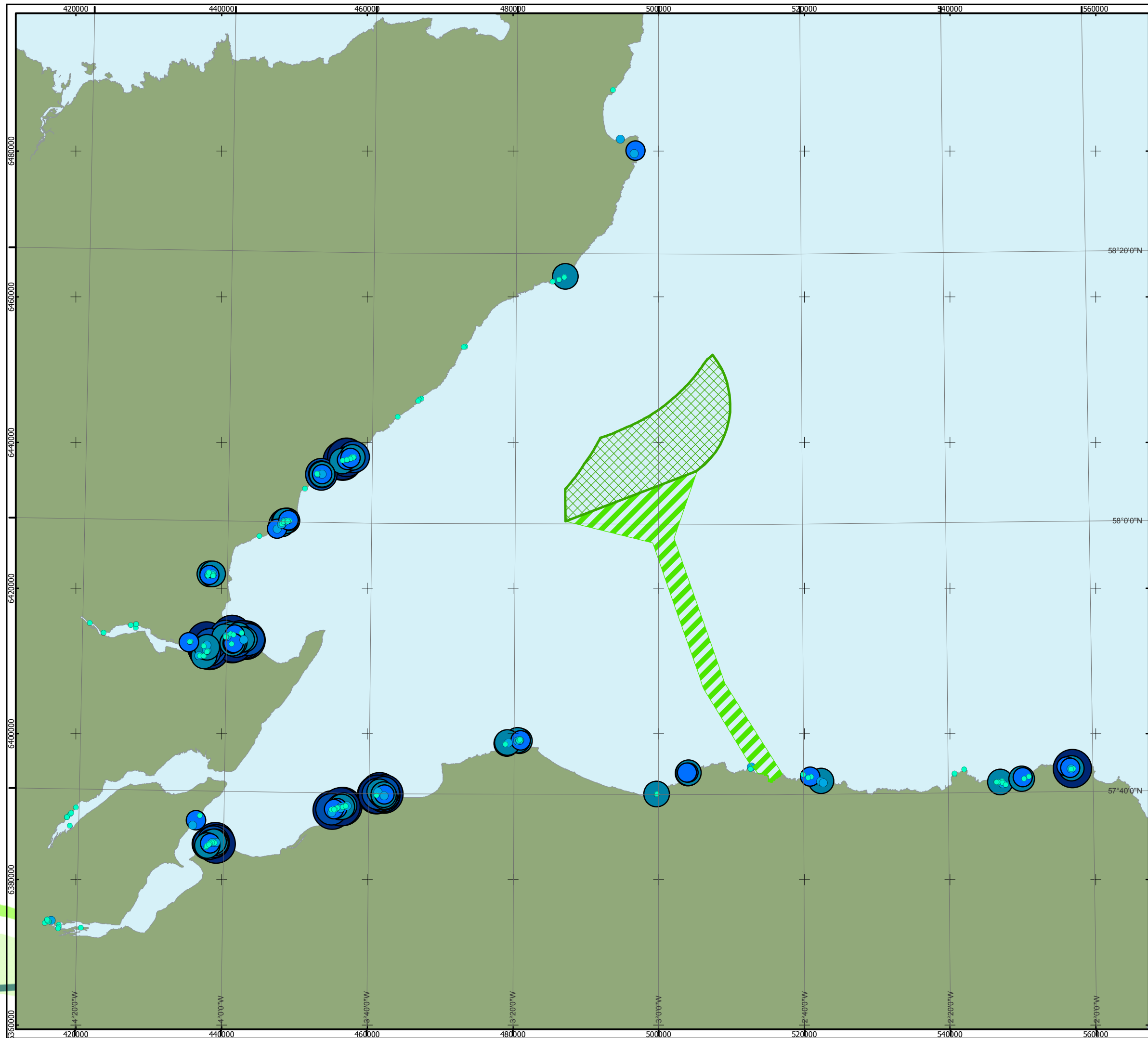
Date: 25/06/2018
Revision: A

REF: 8460005-PPW0180-GOE-MAP-074

Figure 9.4.10 Harbour Seal
Density Surface (#/cell)

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MORAY WEST OFFSHORE WINDFARM

KEY

-  Moray West Site
-  Offshore Export Cable Corridor

Grey Seal Count (#/site)

-  1-5
-  6-10
-  11-15
-  16-50
-  51-100
-  >100

Horizontal Scale: 1:500,000
A3 Chart
0 10,000 20,000 Meters

Geodetic Parameters: WGS84 UTM Zone 30N

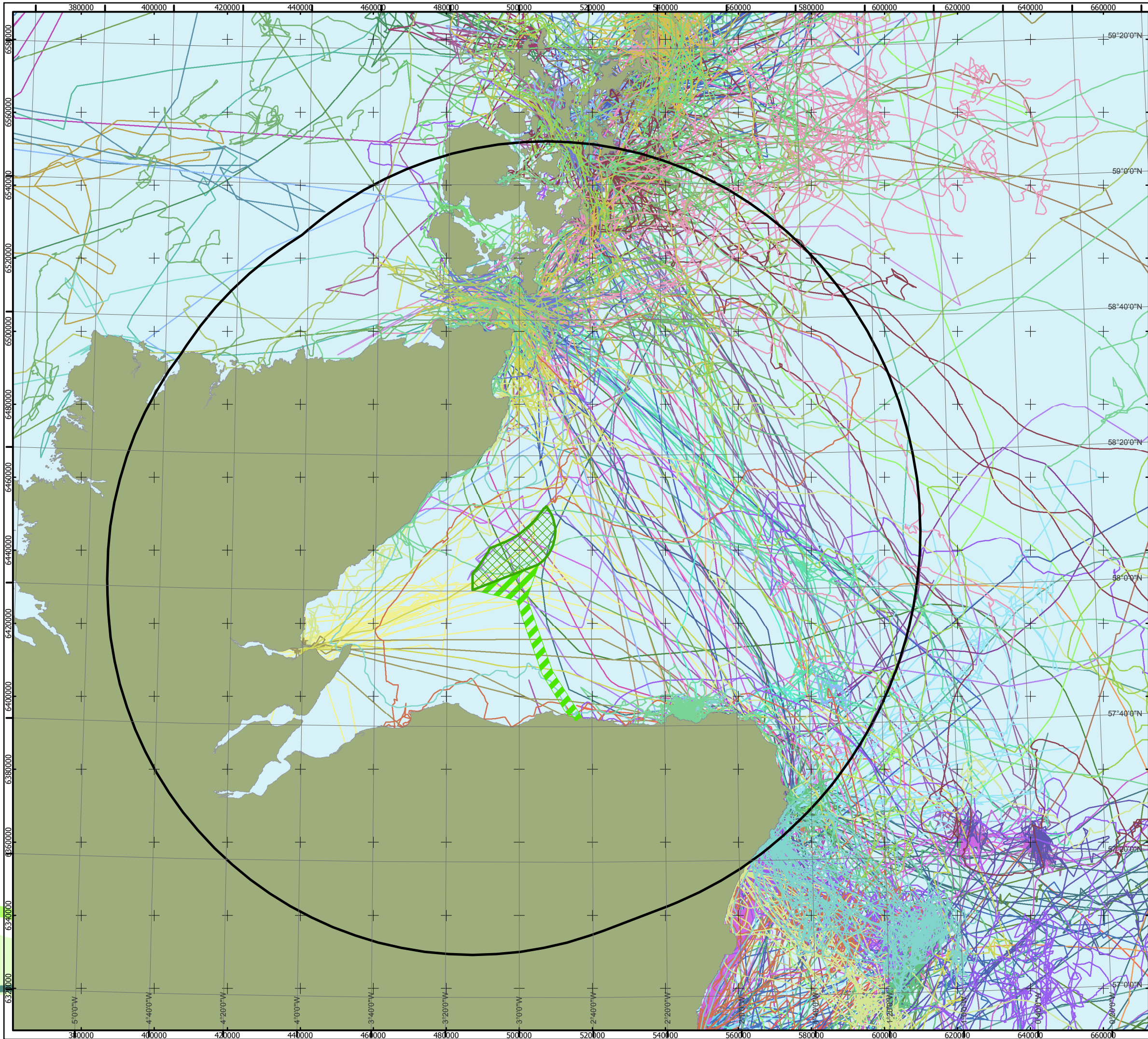
Produced: RP
Reviewed: RC
Approved: FG

Date: 25/06/2018 Revision: A
REF: 8460005-PPW0180-GOE-MAP-075

Figure 9.4.11 Grey Seal
August Haul-out Counts

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MORAY WEST OFFSHORE WINDFARM

KEY

-  Moray West Site
-  Offshore Export Cable Corridor
-  100 km Buffer

Grey Seal Tracks

Colours represent individual seals

Horizontal Scale: 1:1,000,000 A3 Chart
0 20,000 40,000 Meters

Geodetic Parameters: WGS84 UTM Zone 30N

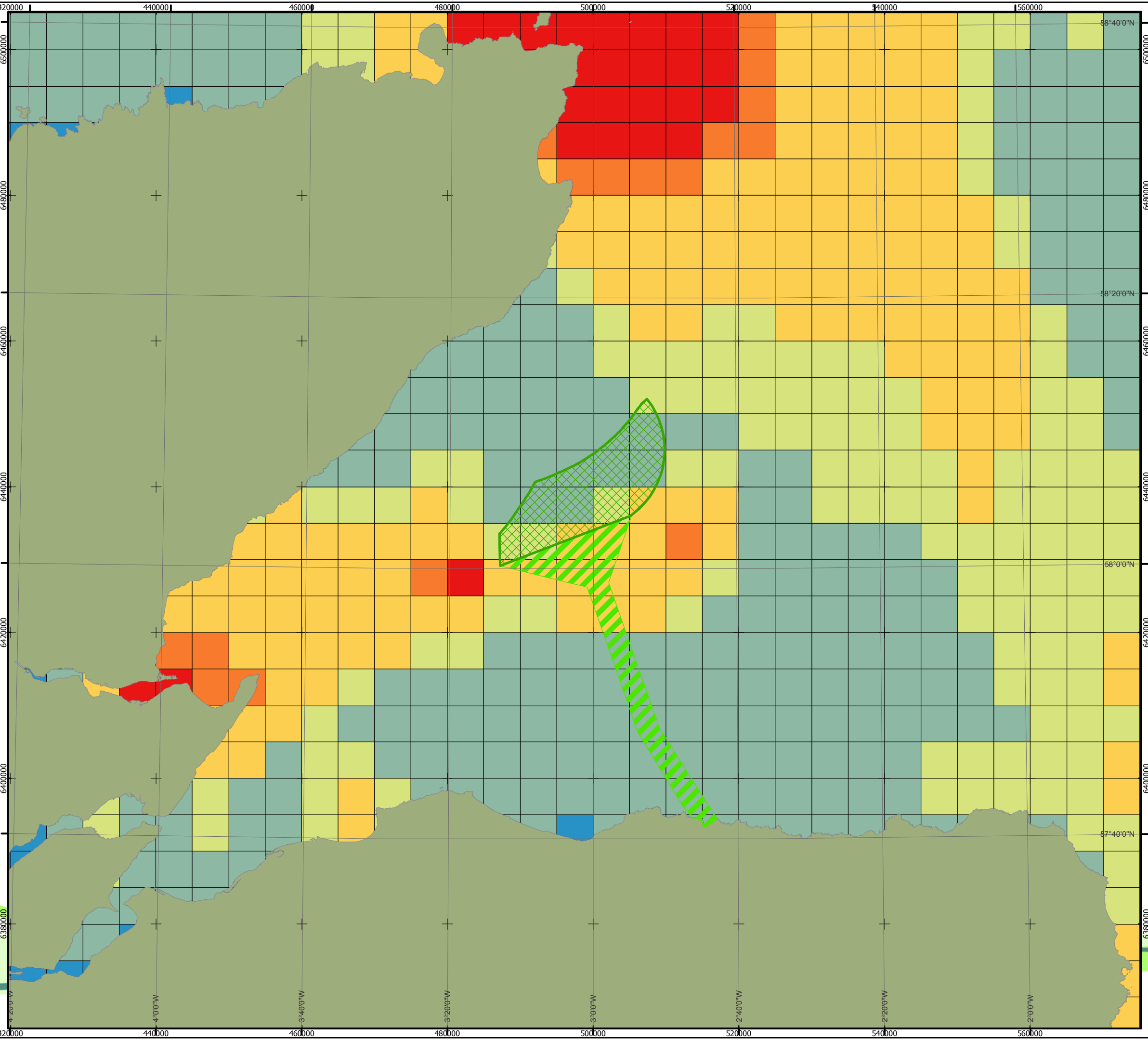
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Figure 9.4.12 Grey Seal
Telemetry Tracks

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MORAY WEST OFFSHORE WINDFARM

KEY

Moray West Site

Offshore Export Cable Corridor

Grey Seal Usage (#/cell)

	0 - 1
	1 - 5
	5 - 10
	10 - 50
	50 - 100
	>100

Horizontal Scale: 1:500,000

A3 Chart

0 10,000 20,000 Meters

Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

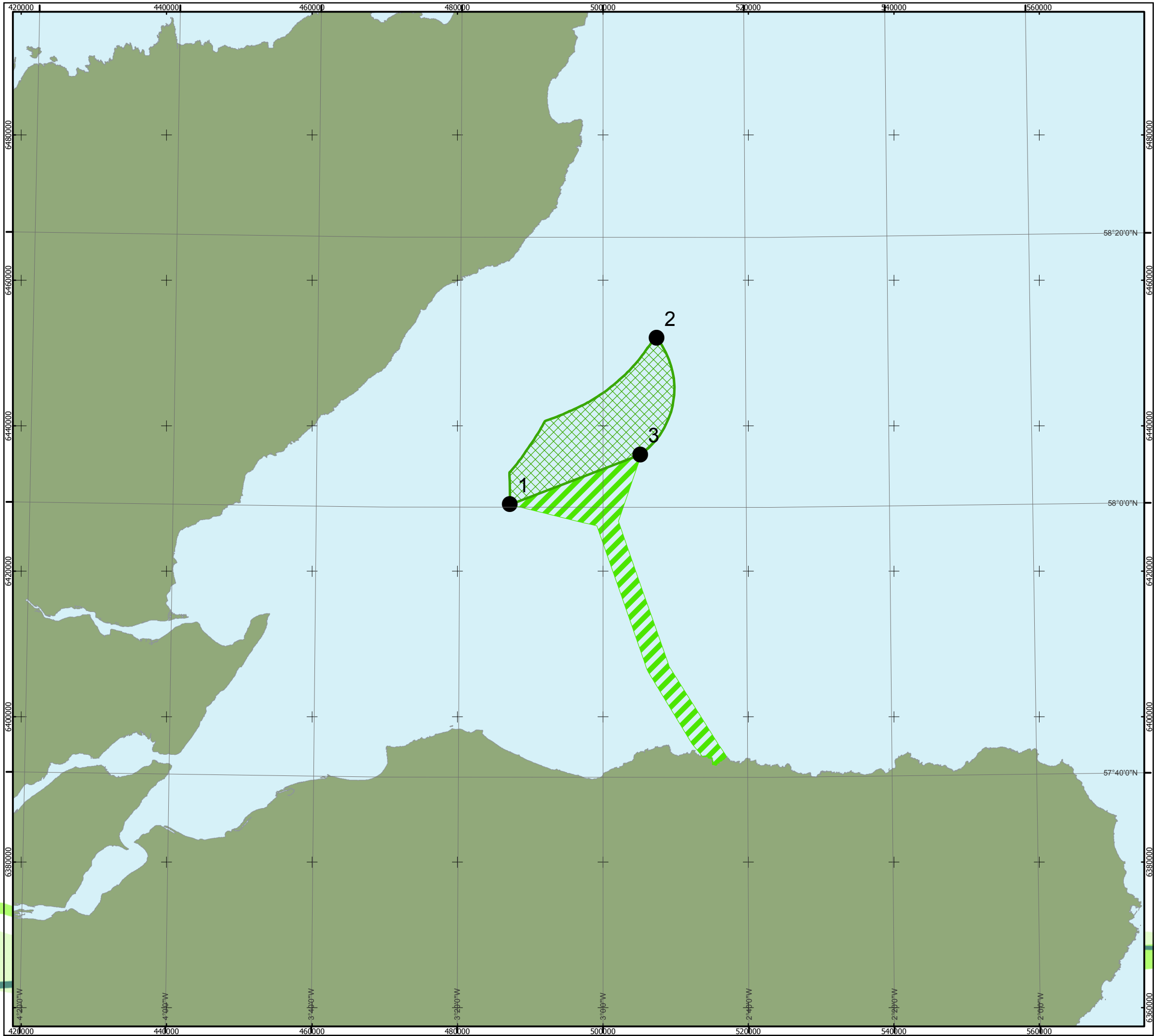
Date: 25/06/2018 Revision: A

REF: 8460005-PPW0180-GOE-MAP-077

Figure 9.4.13 Grey Seal
Density Surface (#/cell)

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MORAY WEST

OFFSHORE WINDFARM

KEY

-  Moray West Site
-  Offshore Export Cable Corridor
-  Model Location

Horizontal Scale: 1:500,000

0 10,000 20,000 Meters

A3 Chart

N

Geodetic Parameters: WGS84 UTM Zone 30N

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Approved: FG

Date: 25/06/2018

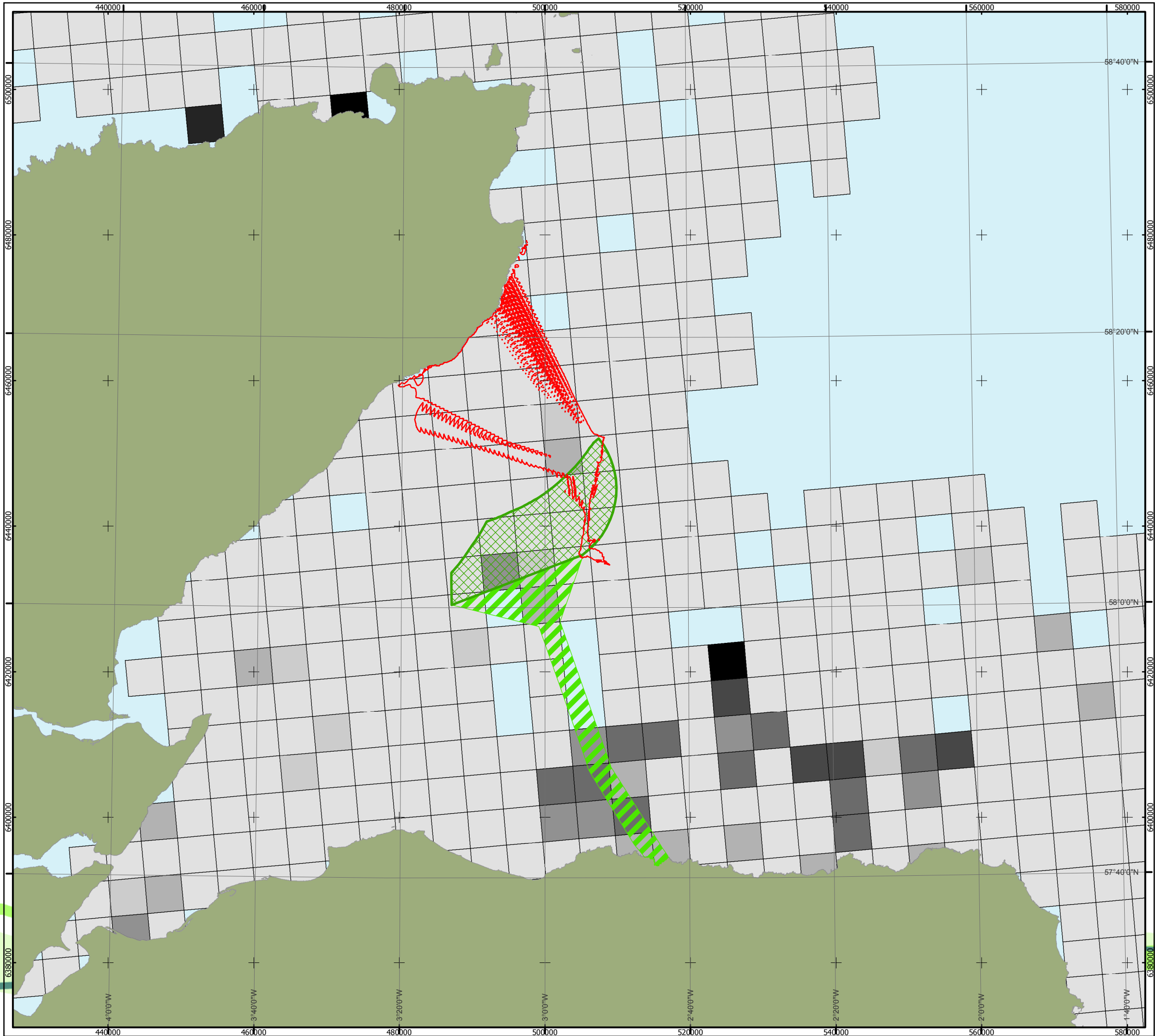
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Figure 9.7.1 Noise Modelling
Locations

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MORAY WEST OFFSHORE WINDFARM

KEY

- Moray West Site
- Offshore Export Cable Corridor
- NOAA-LF SELcum 183 dB

Minke Whale Density (#/km²)

- 0.0 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- >10.0

Horizontal Scale: 1:500,000

0 10,000 20,000 Meters



Geodetic Parameters: WGS84 UTM Zone 30N

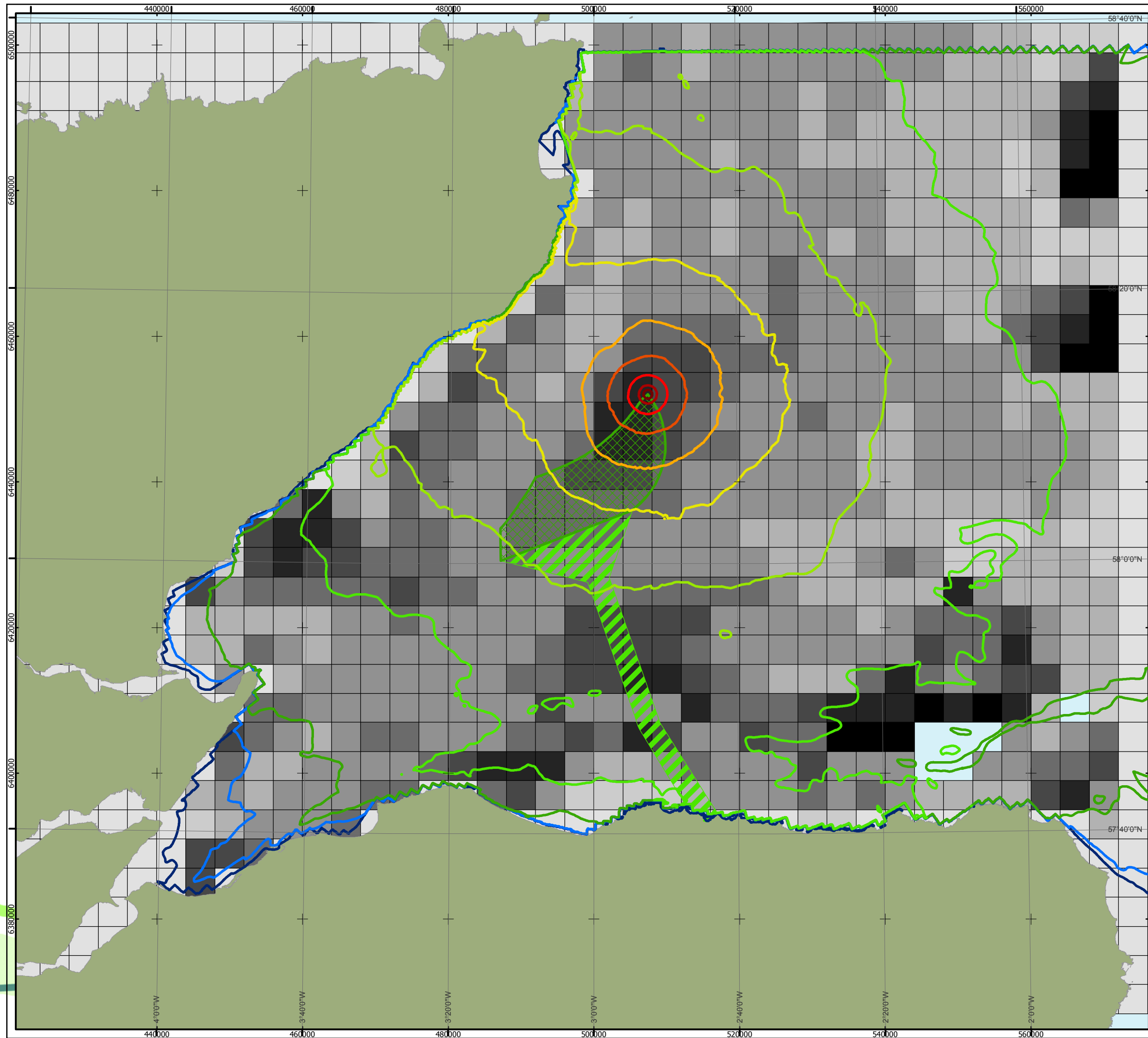
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Date: 25/06/2018 Revision: A
REF: 8460005-PPW0180-GOE-MAP-079

Figure 9.7.2 Minke Whale
PTS Impact Range
Concurrent Pin Pile 3,000 kJ

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MORAY WEST OFFSHORE WINDFARM

KEY

- Moray West Site
- Offshore Export Cable Corridor

Unweighted SELss Noise Contours

- 120 dB re 1µPa²s
- 125 dB re 1µPa²s
- 130 dB re 1µPa²s
- 135 dB re 1µPa²s
- 140 dB re 1µPa²s
- 145 dB re 1µPa²s
- 150 dB re 1µPa²s
- 155 dB re 1µPa²s
- 160 dB re 1µPa²s
- 165 dB re 1µPa²s
- 170 dB re 1µPa²s

Harbour Porpoise Density (#/cell)

- 0-1
- 1-2
- 2-5
- 5-10
- 10-15
- 15-20
- 20-25
- 25-30

Horizontal Scale: 1:500,000

0 10,000 20,000 Meters



Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

Date: 25/06/2018

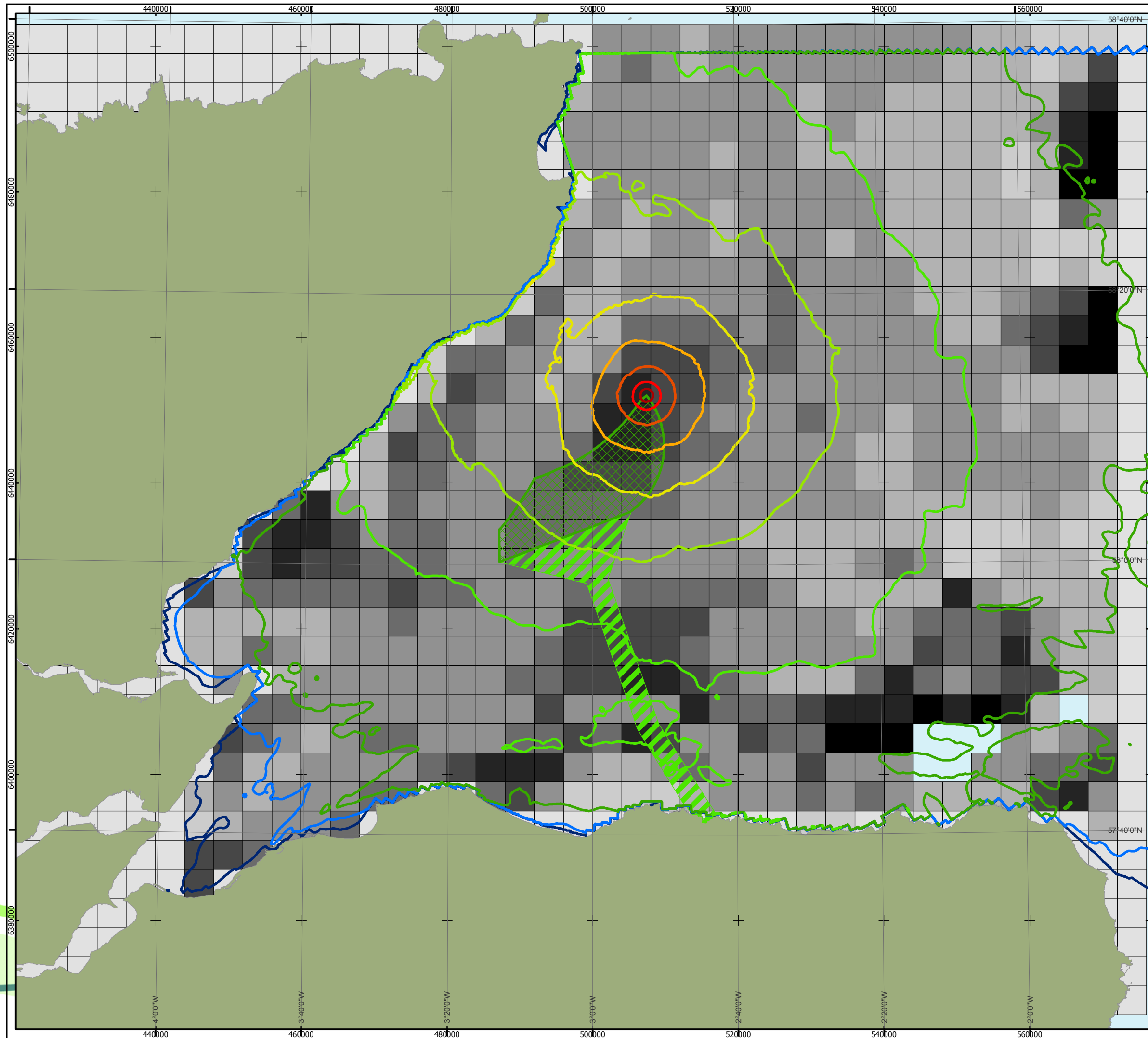
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REF: 8460005-PPW0180-GOE-MAP-080

Figure 9.7.3 Porpoise Density
Noise Level Contours
Monopile 5,000 kJ

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MORAY WEST OFFSHORE WINDFARM

KEY

- Moray West Site
- Offshore Export Cable Corridor

Unweighted SELss Noise Contours

- 120 dB re 1µPa²s
- 125 dB re 1µPa²s
- 130 dB re 1µPa²s
- 135 dB re 1µPa²s
- 140 dB re 1µPa²s
- 145 dB re 1µPa²s
- 150 dB re 1µPa²s
- 155 dB re 1µPa²s
- 160 dB re 1µPa²s
- 165 dB re 1µPa²s
- 170 dB re 1µPa²s

Harbour Porpoise Density (#/cell)

- 0-1
- 1-2
- 2-5
- 5-10
- 10-15
- 15-20
- 20-25
- 25-30

Horizontal Scale: 1:500,000

A3 Chart

0 10,000 20,000 Meters

Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

Date: 25/06/2018

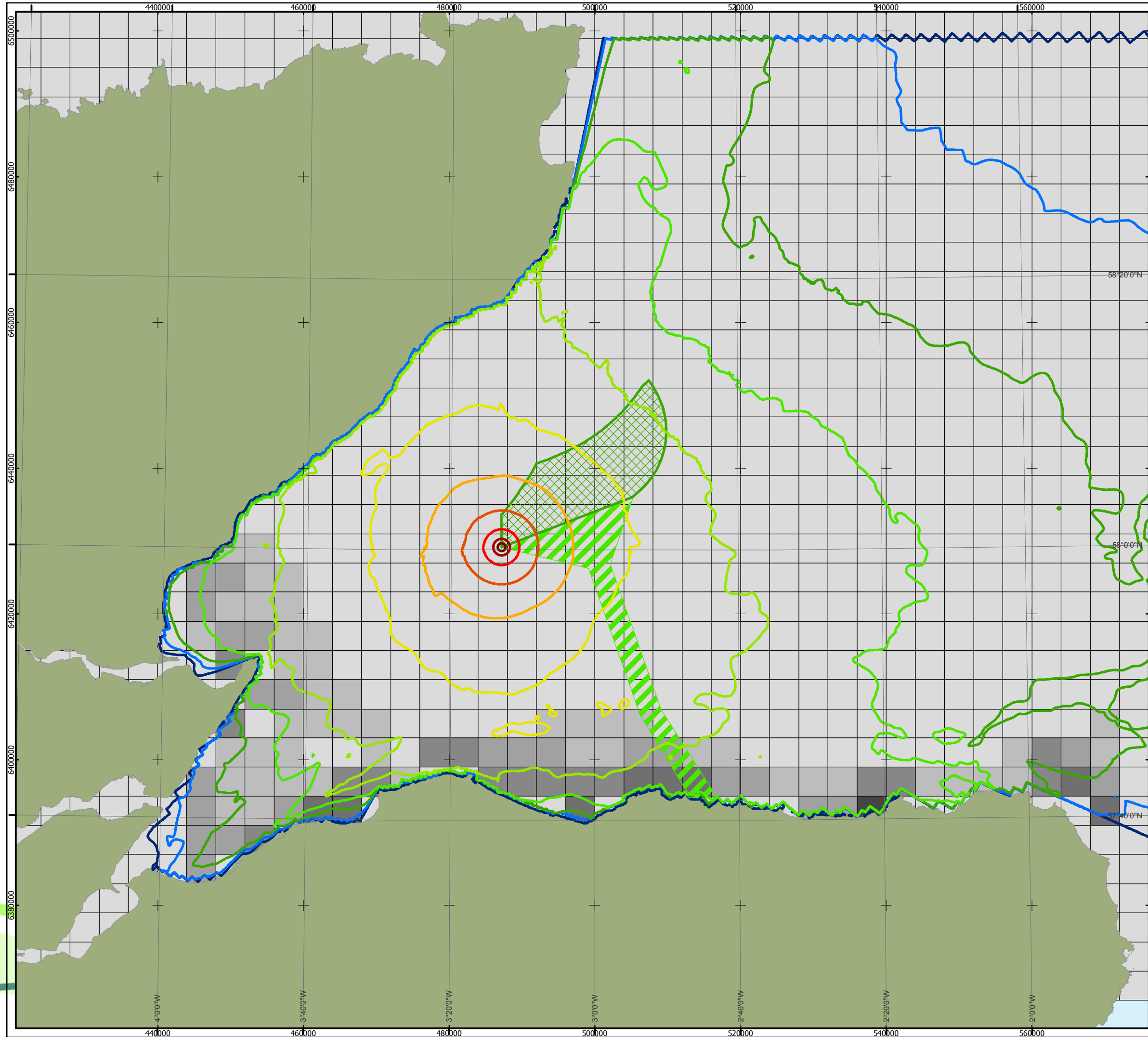
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Figure 9.7.4 Porpoise Density
Noise Level Contours
Pin Pile 3,000 kJ

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MORAY WEST OFFSHORE WINDFARM

KEY

- Moray West Site
- Offshore Export Cable Corridor

Unweighted SELss Noise Contours

- 120 dB re 1µPa²s
- 125 dB re 1µPa²s
- 130 dB re 1µPa²s
- 135 dB re 1µPa²s
- 140 dB re 1µPa²s
- 145 dB re 1µPa²s
- 150 dB re 1µPa²s
- 155 dB re 1µPa²s
- 160 dB re 1µPa²s
- 165 dB re 1µPa²s
- 170 dB re 1µPa²s

Bottlenose Dolphin Density (#/cell)

- 0.0 - 0.1
- 0.1 - 0.5
- 0.5 - 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- >10.0

Horizontal Scale: 1:500,000

0 10,000 20,000 Meters



Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

Date: 25/06/2018

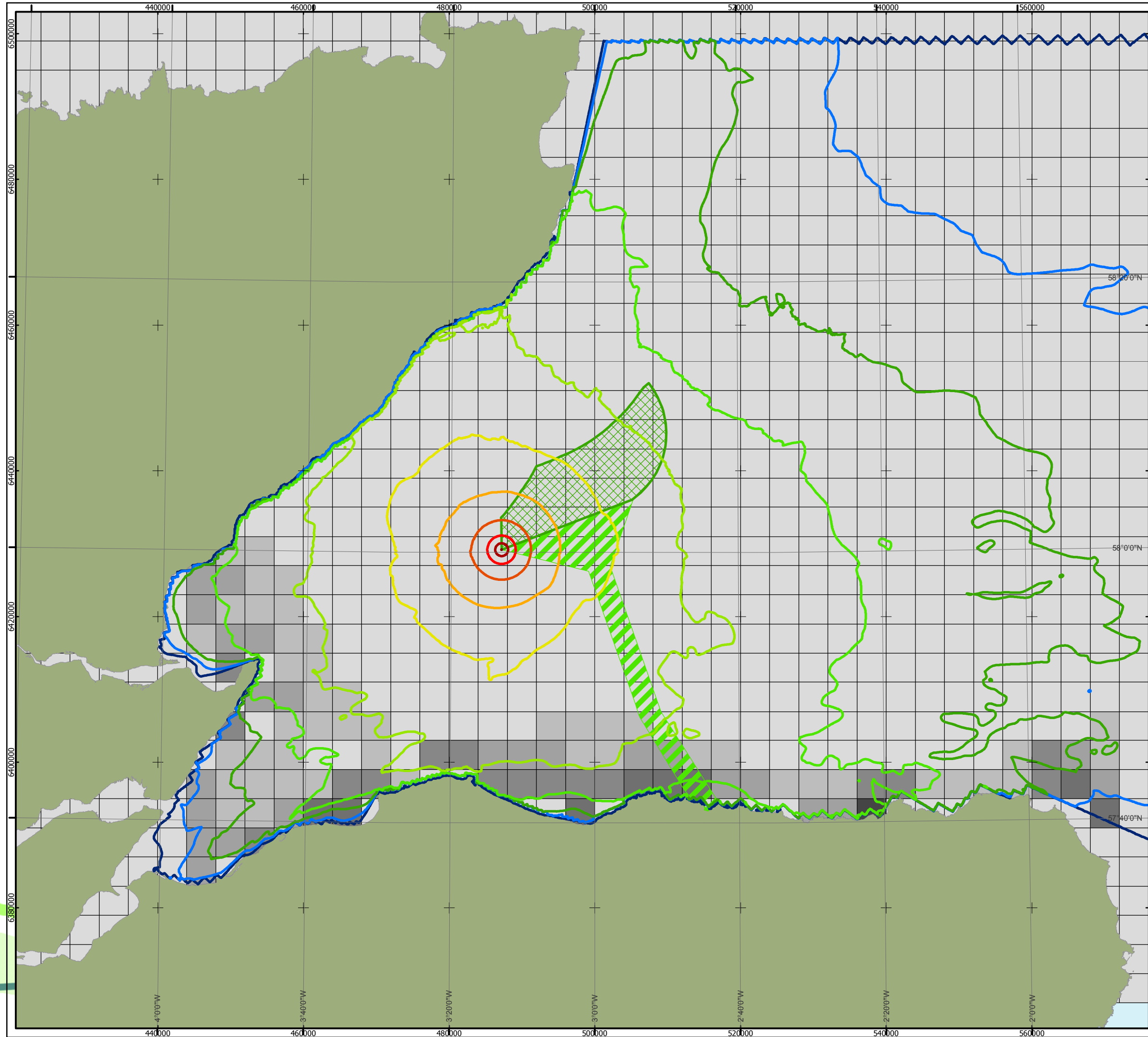
Revision: A

REF: 8460005-PPW0180-GOE-MAP-082

Figure 9.7.5 Dolphin Density
Noise Level Contours
Monopile 5,000 kJ

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MORAY WEST

OFFSHORE WINDFARM

KEY

- Moray West Site
- Offshore Export Cable Corridor

Unweighted SELss Noise Contours

- 120 dB re 1µPa²s
- 125 dB re 1µPa²s
- 130 dB re 1µPa²s
- 135 dB re 1µPa²s
- 140 dB re 1µPa²s
- 145 dB re 1µPa²s
- 150 dB re 1µPa²s
- 155 dB re 1µPa²s
- 160 dB re 1µPa²s
- 165 dB re 1µPa²s
- 170 dB re 1µPa²s

Bottlenose Dolphin Density (#/cell)

- 0.0 - 0.1
- 0.1 - 0.5
- 0.5 - 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- >10.0

Horizontal Scale: 1:500,000

0 10,000 20,000 Meters



Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
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Approved: FG

Date: 25/06/2018

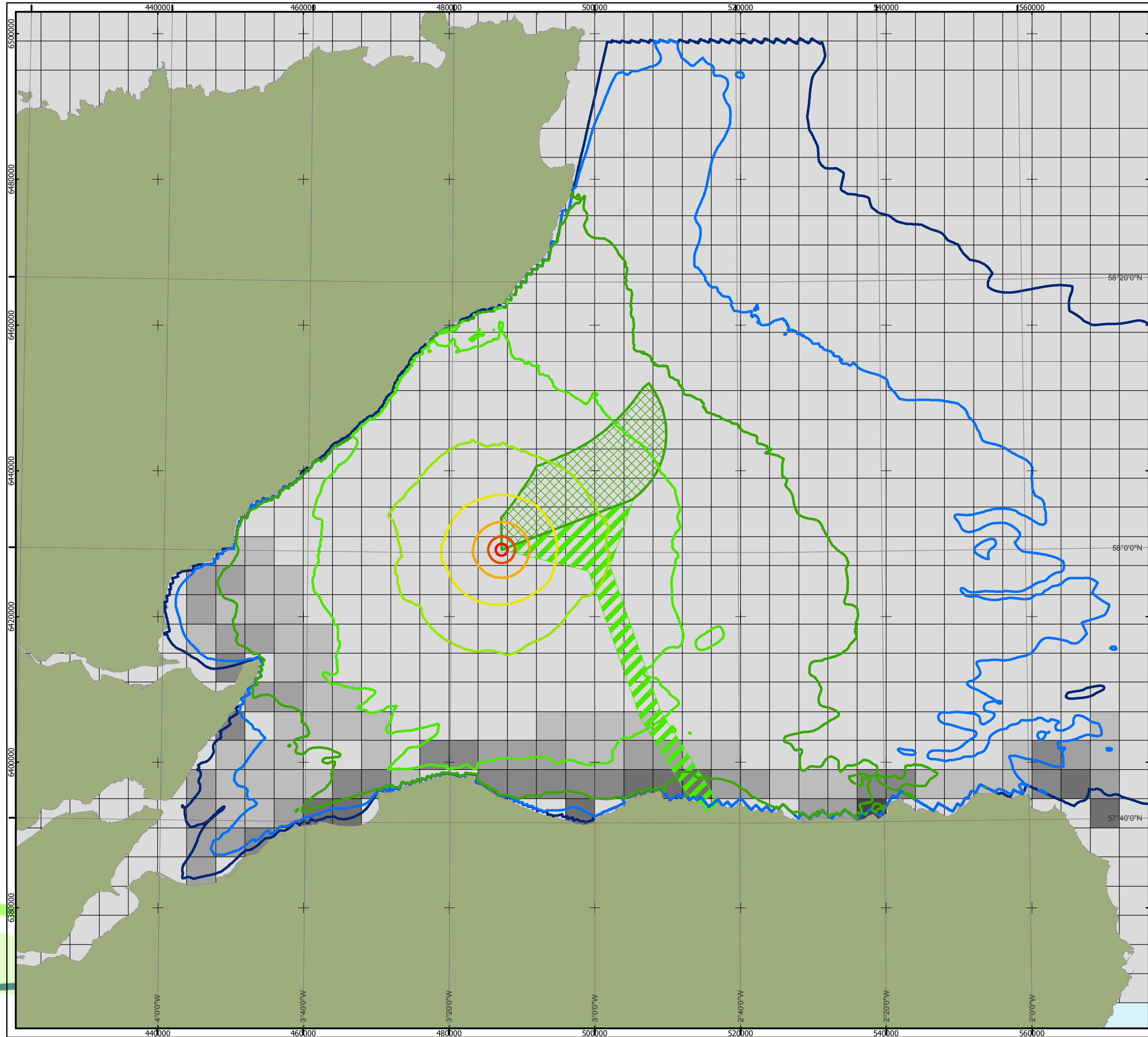
Revision: A

REF: 8460005-PPW0180-GOE-MAP-083

Figure 9.7.6 Dolphin Density
Noise Level Contours
Monopile 3,500 kJ

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MORAY WEST

OFFSHORE WINDFARM

KEY

- Moray West Site
- Offshore Export Cable Corridor

Unweighted SELss Noise Contours

- 120 dB re 1µPa²s
- 125 dB re 1µPa²s
- 130 dB re 1µPa²s
- 135 dB re 1µPa²s
- 140 dB re 1µPa²s
- 145 dB re 1µPa²s
- 150 dB re 1µPa²s
- 155 dB re 1µPa²s
- 160 dB re 1µPa²s
- 165 dB re 1µPa²s
- 170 dB re 1µPa²s

Bottlenose Dolphin Density (#/cell)

- 0.0 - 0.1
- 0.1 - 0.5
- 0.5 - 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- >10.0

Horizontal Scale: 1:500,000

0 10,000 20,000 Meters



Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

Date: 25/06/2018

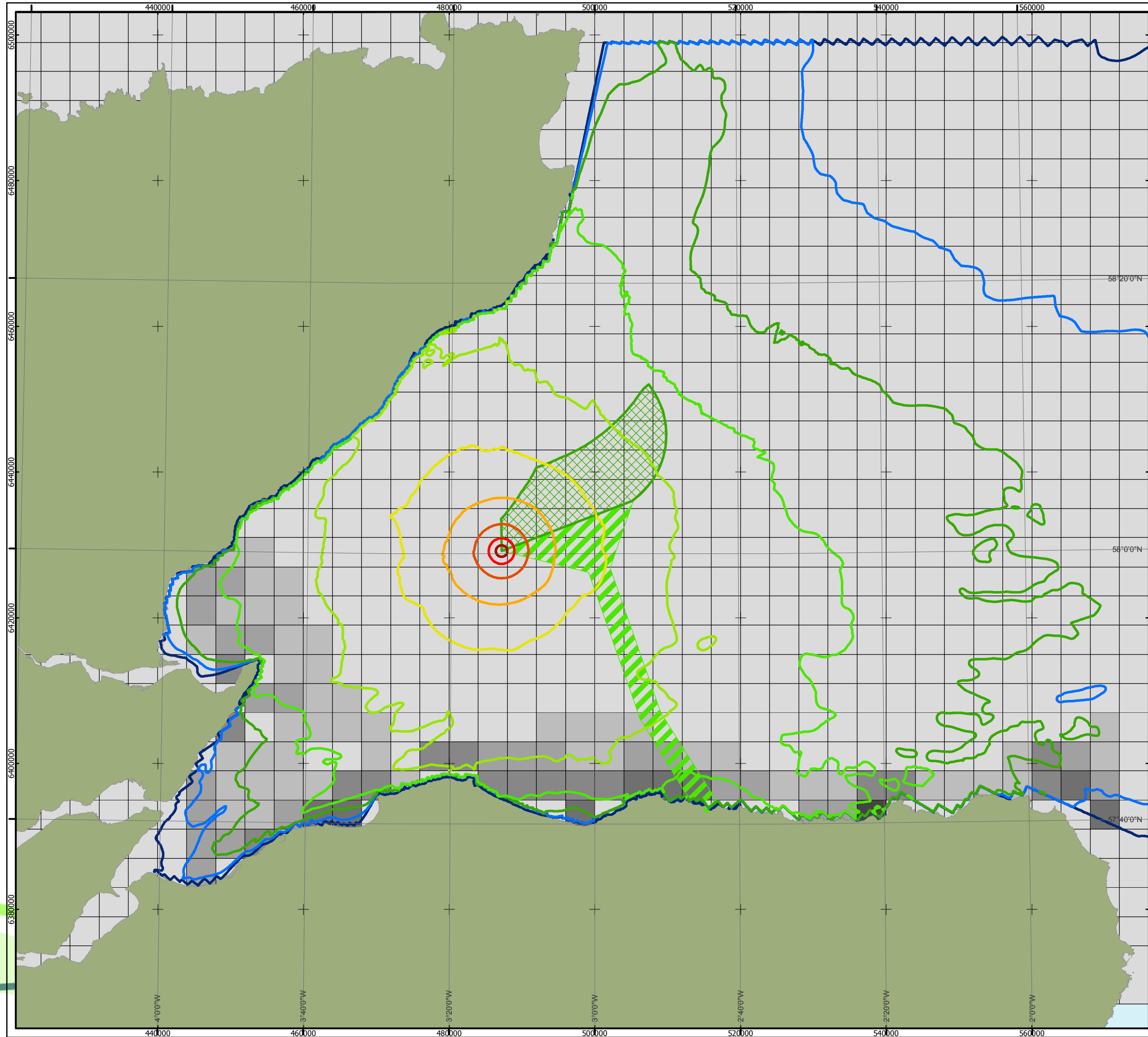
Revision: A

REF: 8460005-PPW0180-GOE-MAP-084

Figure 9.7.7 Dolphin Density
Noise Level Contours
Monopile 1,000 kJ

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MORAY WEST OFFSHORE WINDFARM

KEY
 Moray West Site
 Offshore Export Cable Corridor

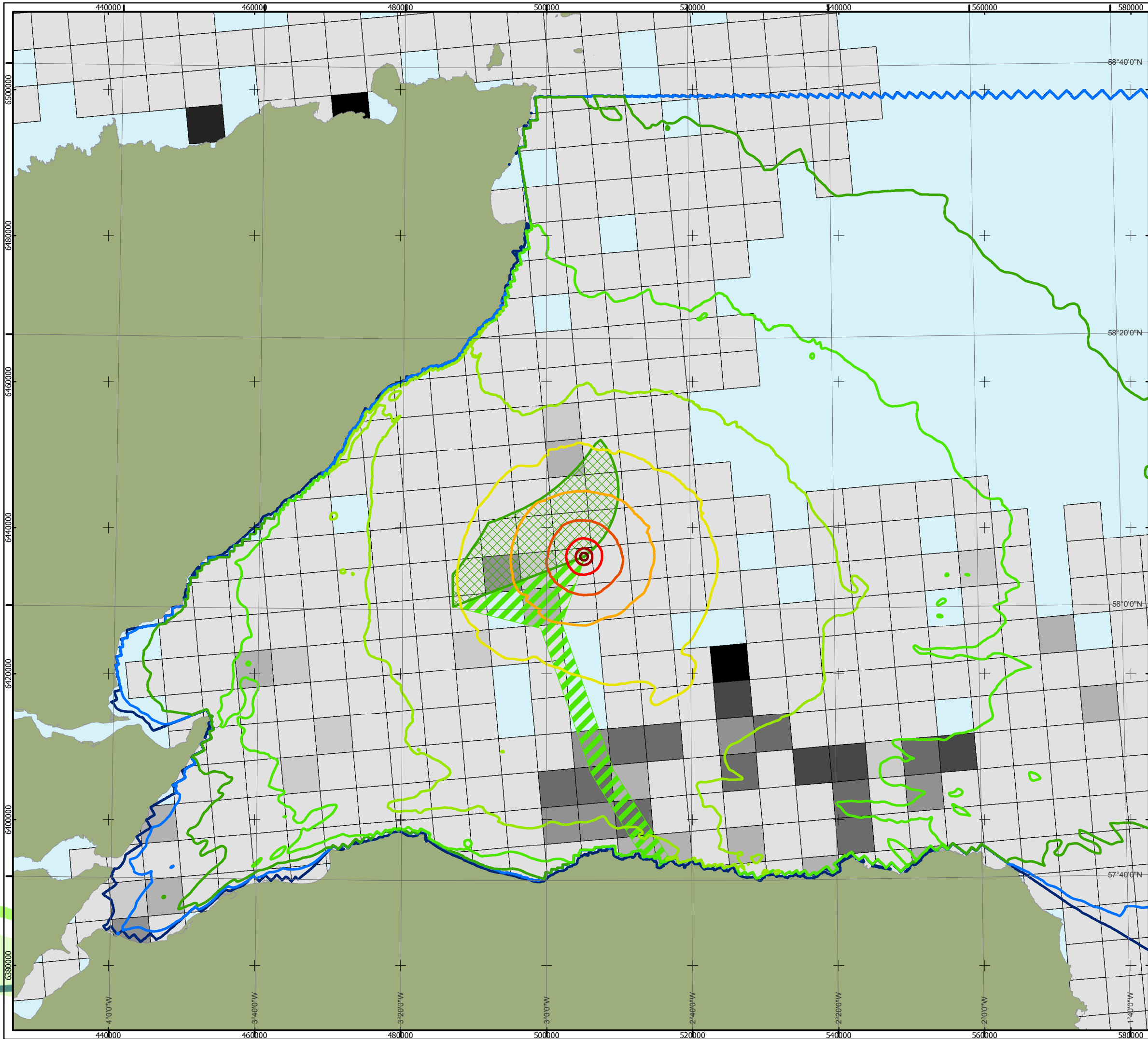
Unweighted SELss Noise Contours
 120 dB re 1µPa²s
 125 dB re 1µPa²s
 130 dB re 1µPa²s
 135 dB re 1µPa²s
 140 dB re 1µPa²s
 145 dB re 1µPa²s
 150 dB re 1µPa²s
 155 dB re 1µPa²s
 160 dB re 1µPa²s
 165 dB re 1µPa²s
 170 dB re 1µPa²s

Bottlenose Dolphin Density (#/cell)
 0.0 - 0.1
 0.1 - 0.5
 0.5 - 1.0
 1.0 - 2.0
 2.0 - 5.0
 5.0 - 10.0
 >10.0

Horizontal Scale: 1:500,000
 0 10,000 20,000 Meters
A3 Chart
Geodetic Parameters: WGS84 UTM Zone 30N
Produced: RP
Reviewed: RC
Approved: FG
Date: 25/06/2018
Revision: A
REF: 8460005-PPW0180-GOE-MAP-085

Figure 9.7.8 Dolphin Density
Noise Level Contours
Pin Pile 3,000 kJ
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MORAY WEST OFFSHORE WINDFARM

KEY

- Moray West Site
- Offshore Export Cable Corridor

Unweighted SELss Noise Contours

- 120 dB re 1µPa²s
- 125 dB re 1µPa²s
- 130 dB re 1µPa²s
- 135 dB re 1µPa²s
- 140 dB re 1µPa²s
- 145 dB re 1µPa²s
- 150 dB re 1µPa²s
- 155 dB re 1µPa²s
- 160 dB re 1µPa²s
- 165 dB re 1µPa²s
- 170 dB re 1µPa²s

Minke Whale Density (#/km²)

- 0.0 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- >10.0

Horizontal Scale: 1:500,000

0 10,000 20,000 Meters



Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

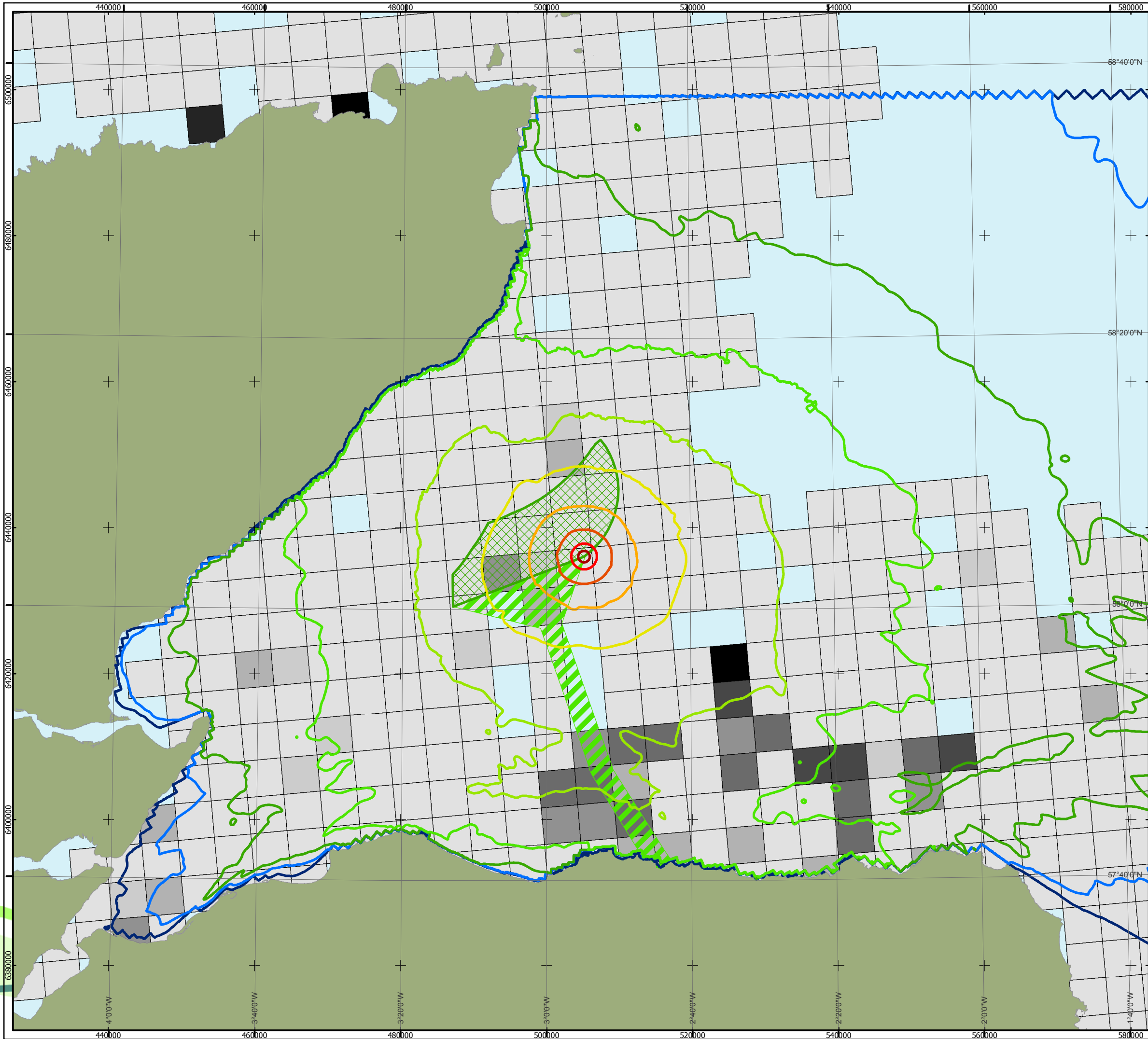
Date: 25/06/2018 Revision: A

REF: 8460005-PPW0180-GOE-MAP-086

Figure 9.7.9 Minke Whale
Noise Level Contours
Monopile 5,000 kJ

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MORAY WEST

OFFSHORE WINDFARM

KEY

- Moray West Site
- Offshore Export Cable Corridor

Unweighted SELss Noise Contours

- 120 dB
- 125 dB
- 130 dB
- 135 dB
- 140 dB
- 145 dB
- 150 dB
- 155 dB
- 160 dB
- 165 dB
- 170 dB

Minke Whale Density (#/km²)

- 0.0 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- >10.0

Horizontal Scale: 1:500,000

0 10,000 20,000 Meters



Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

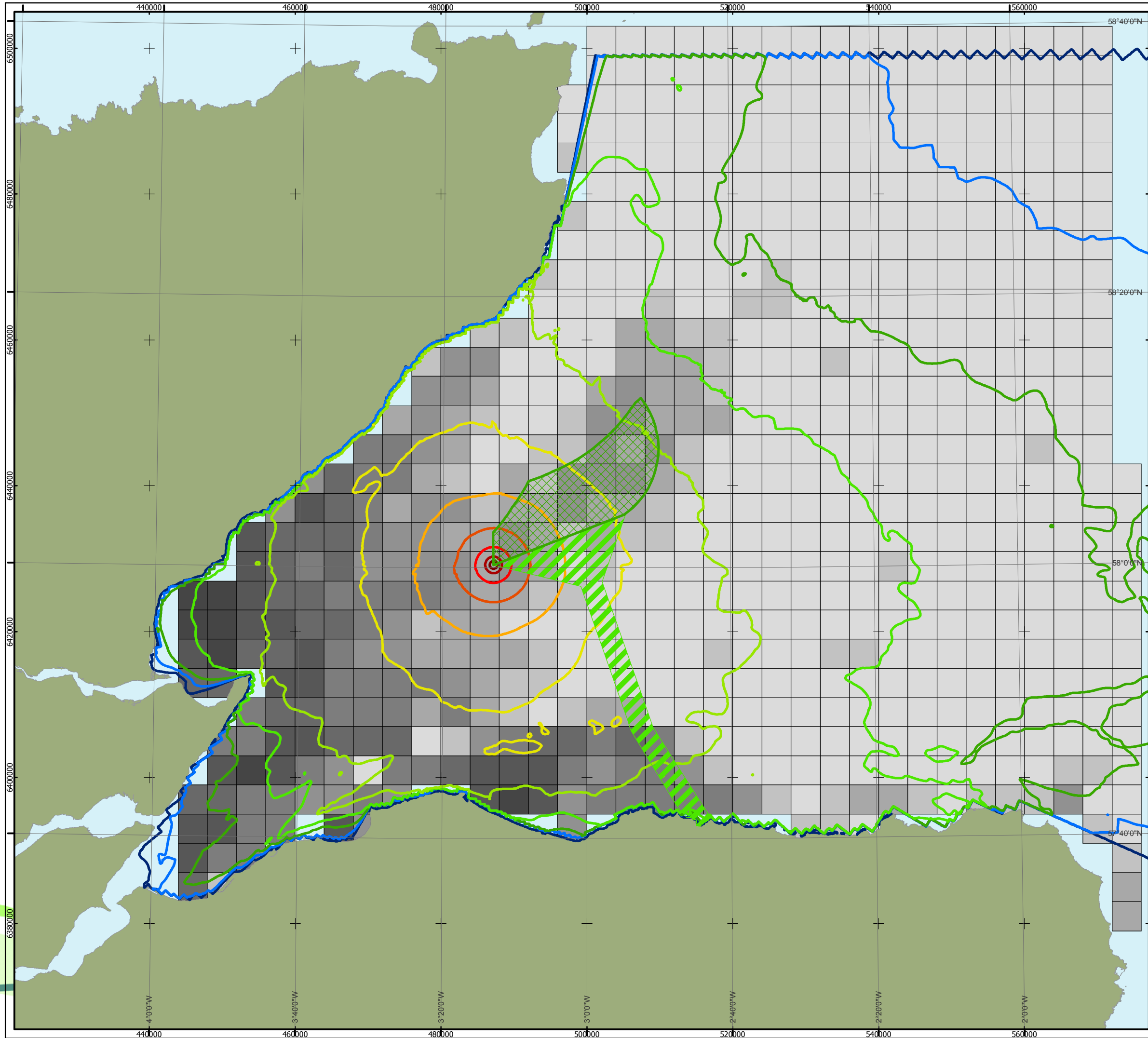
Date: 25/06/2018 Revision: A

REF: 8460005-PPW0180-GOE-MAP-087

Figure 9.7.10 Minke Whale
Noise Level Contours
Pin Pile 3,000 kJ

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MORAY WEST

OFFSHORE WINDFARM

KEY

- Moray West Site
- Offshore Export Cable Corridor

Unweighted SELss Noise Contours

- 120 dB re 1µPa²s
- 125 dB re 1µPa²s
- 130 dB re 1µPa²s
- 135 dB re 1µPa²s
- 140 dB re 1µPa²s
- 145 dB re 1µPa²s
- 150 dB re 1µPa²s
- 155 dB re 1µPa²s
- 160 dB re 1µPa²s
- 165 dB re 1µPa²s
- 170 dB re 1µPa²s

Harbour Seal Density (#/cell)

- 0.0 - 0.5
- 0.5 - 1.0
- 1.0 - 2.0
- 2.0 - 4.0
- 4.0 - 8.0
- 8.0 - 12.0
- 12.0 - 16.0
- 16.0 - 21.0

Horizontal Scale: 1:500,000

0 10,000 20,000 Meters



Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

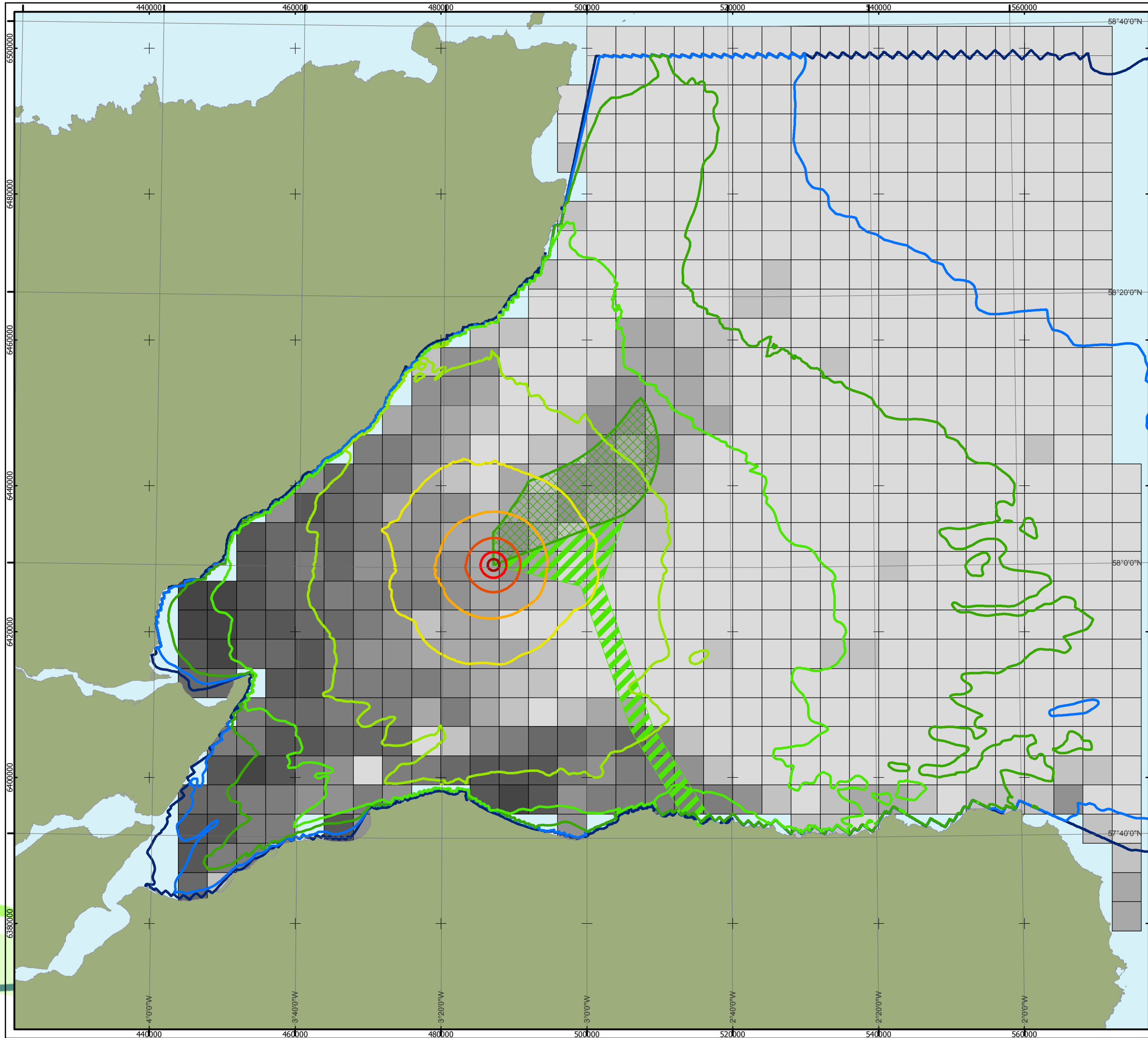
Date: 25/06/2018 Revision: A

REF: 8460005-PPW0180-GOE-MAP-088

Figure 9.7.11 Harbour Seal
Noise Level Contours
Monopile 5,000 kJ

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MORAY WEST

OFFSHORE WINDFARM

KEY

- Moray West Site
- Offshore Export Cable Corridor

Unweighted SELss Noise Contours

- 120 dB re 1µPa²s
- 125 dB re 1µPa²s
- 130 dB re 1µPa²s
- 135 dB re 1µPa²s
- 140 dB re 1µPa²s
- 145 dB re 1µPa²s
- 150 dB re 1µPa²s
- 155 dB re 1µPa²s
- 160 dB re 1µPa²s
- 165 dB re 1µPa²s
- 170 dB re 1µPa²s

Harbour Seal Density (#/cell)

- 0.0 - 0.5
- 0.5 - 1.0
- 1.0 - 2.0
- 2.0 - 4.0
- 4.0 - 8.0
- 8.0 - 12.0
- 12.0 - 16.0
- 16.0 - 21.0

Horizontal Scale: 1:500,000

A3 Chart

0 10,000 20,000 Meters

Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

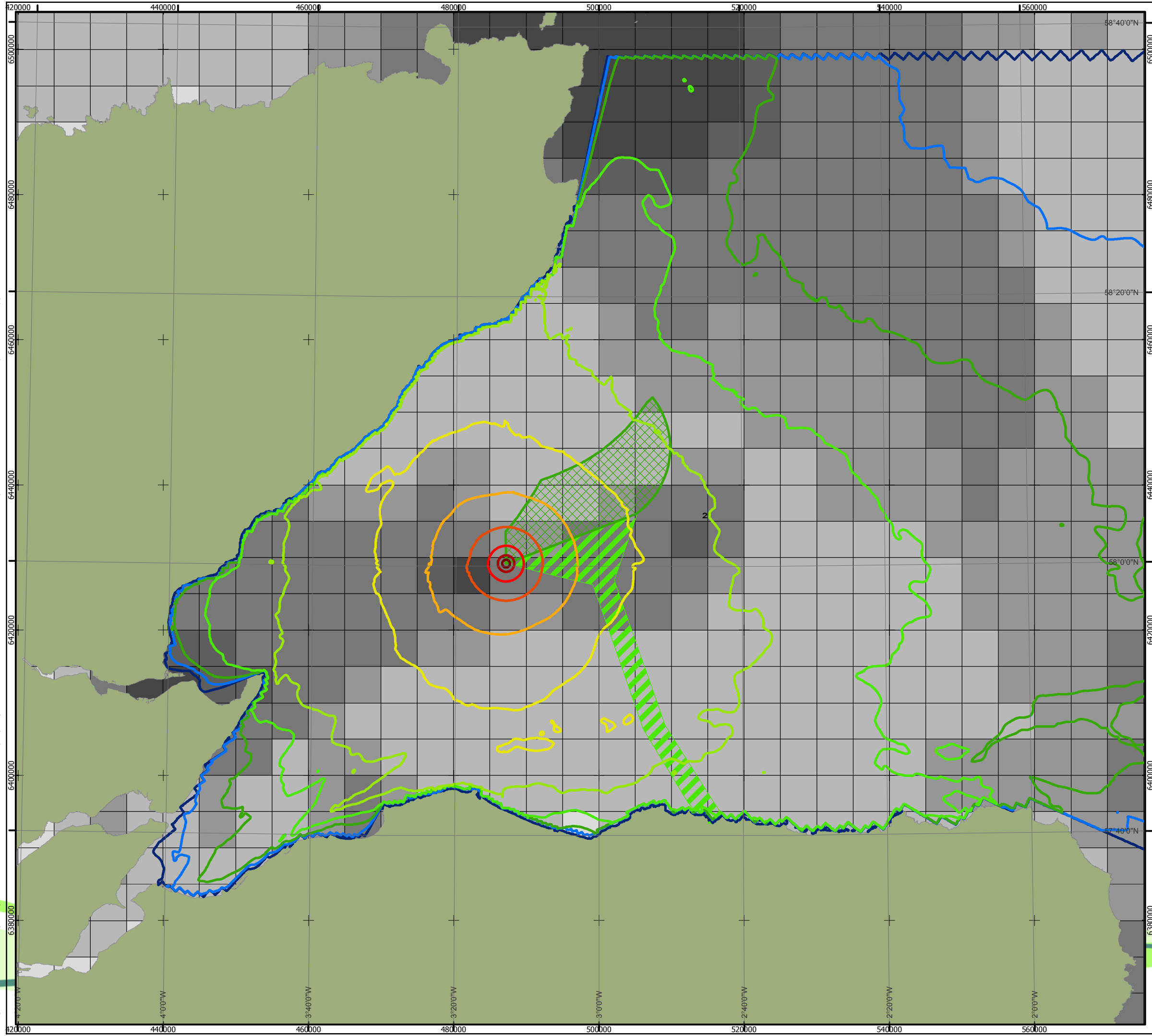
Date: 25/06/2018 Revision: A

REF: 8460005-PPW0180-GOE-MAP-089

Figure 9.7.12 Harbour Seal
Noise Level Contours
Pin Pile 3,000 kJ

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MORAY WEST

OFFSHORE WINDFARM

- KEY**
- Moray West Site
 - Offshore Export Cable Corridor
- Unweighted SELss Noise contours**
- 120 dB re 1 μ Pa²s
 - 125 dB re 1 μ Pa²s
 - 130 dB re 1 μ Pa²s
 - 135 dB re 1 μ Pa²s
 - 140 dB re 1 μ Pa²s
 - 145 dB re 1 μ Pa²s
 - 150 dB re 1 μ Pa²s
 - 155 dB re 1 μ Pa²s
 - 160 dB re 1 μ Pa²s
 - 165 dB re 1 μ Pa²s
 - 170 dB re 1 μ Pa²s
- Grey Seal Usage (#/cell)**
- 0 - 1
 - 1 - 5
 - 5 - 10
 - 10 - 50
 - 50 - 100
 - >100

Horizontal Scale: 1:500,000 A3 Chart N

0 10,000 20,000 Meters

Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

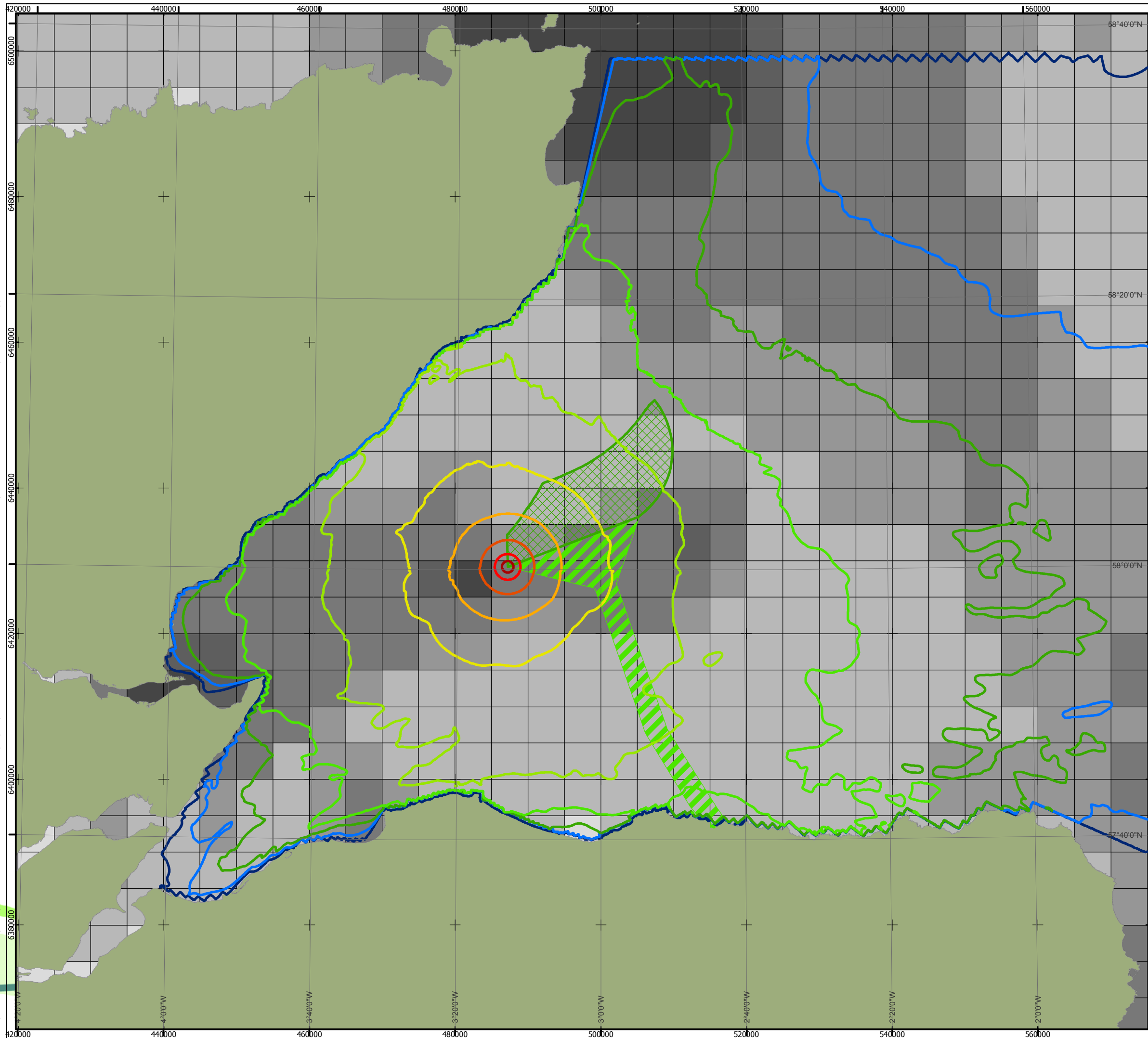
Date: 25/06/2018 Revision: A

REF: 8460005-PPW0180-GOE-MAP-090

Figure 9.7.13 Grey Seal Density
Noise Level Contours
Monopile 5,000 kJ

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MORAY WEST

OFFSHORE WINDFARM

KEY

- Moray West Site
- Offshore Export Cable Corridor

Unweighted SELss Noise Contours

- 120 dB re 1µPa²s
- 125 dB re 1µPa²s
- 130 dB re 1µPa²s
- 135 dB re 1µPa²s
- 140 dB re 1µPa²s
- 145 dB re 1µPa²s
- 150 dB re 1µPa²s
- 155 dB re 1µPa²s
- 160 dB re 1µPa²s
- 165 dB re 1µPa²s
- 170 dB re 1µPa²s

Grey Seal Usage (#/cell)

- 0 - 1
- 1 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- >100

Horizontal Scale: 1:500,000
A3 Chart
0 10,000 20,000 Meters

Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

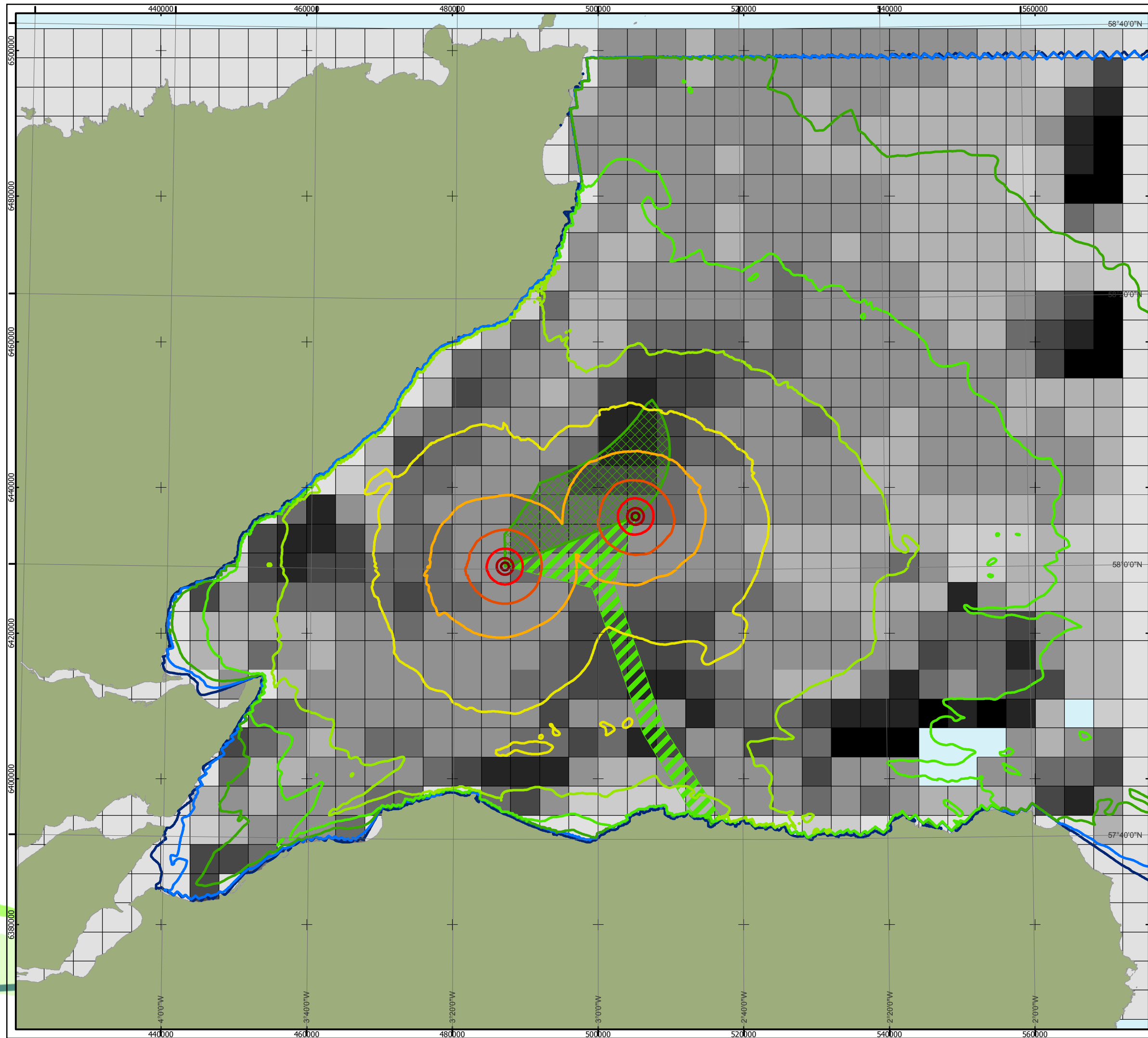
Date: 25/06/2018 Revision: A

REF: 8460005-PPW0180-GOE-MAP-091

Figure 9.7.14 Grey Seal Density
Noise Level Contours
Pin Pile 3,000 kJ

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MORAY WEST OFFSHORE WINDFARM

KEY

- Moray West Site
- Offshore Export Cable Corridor

Unweighted SELss Noise Contours

- 120 dB re 1µPa²s
- 125 dB re 1µPa²s
- 130 dB re 1µPa²s
- 135 dB re 1µPa²s
- 140 dB re 1µPa²s
- 145 dB re 1µPa²s
- 150 dB re 1µPa²s
- 155 dB re 1µPa²s
- 160 dB re 1µPa²s
- 165 dB re 1µPa²s
- 170 dB re 1µPa²s

Harbour Porpoise Density (#/cell)

- 0-1
- 1-2
- 2-5
- 5-10
- 10-15
- 15-20
- 20-25
- 25-30

Horizontal Scale: 1:500,000

A3 Chart

0 10,000 20,000 Meters

Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

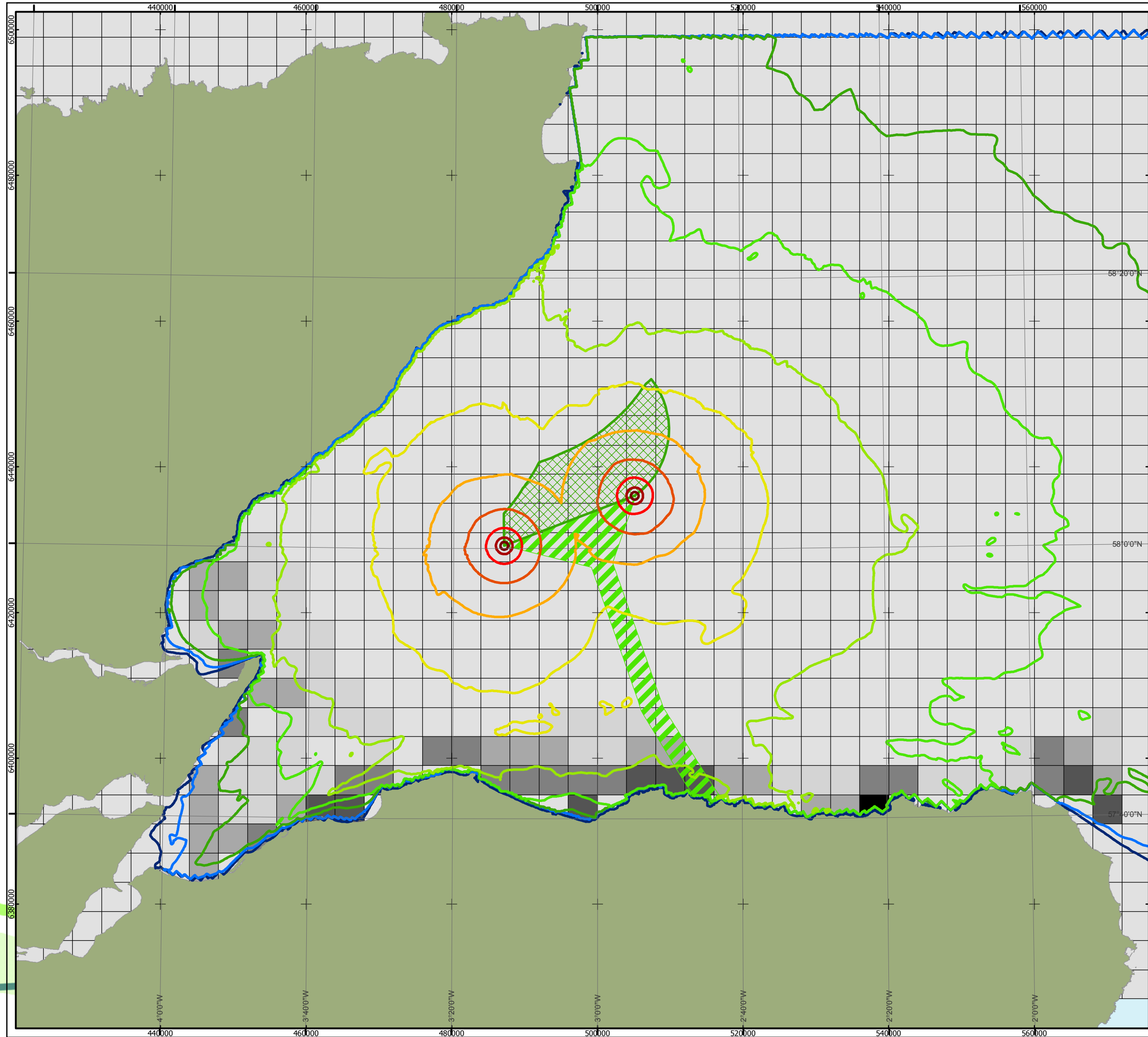
Date: 25/06/2018 Revision: A

REF: 8460005-PPW0180-GOE-MAP-092

Figure 9.7.15 Porpoise Density
Noise Level Contours
Concurrent Monopile 5,000 kJ

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KEY

- Moray West Site
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Unweighted SELss Noise Contours

- 120 dB re 1µPa²s
- 125 dB re 1µPa²s
- 130 dB re 1µPa²s
- 135 dB re 1µPa²s
- 140 dB re 1µPa²s
- 145 dB re 1µPa²s
- 150 dB re 1µPa²s
- 155 dB re 1µPa²s
- 160 dB re 1µPa²s
- 165 dB re 1µPa²s
- 170 dB re 1µPa²s

Bottlenose Dolphin Density (#/cell)

- 0.0 - 0.1
- 0.1 - 0.5
- 0.5 - 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- >10.0

Horizontal Scale: 1:500,000

0 10,000 20,000 Meters



Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

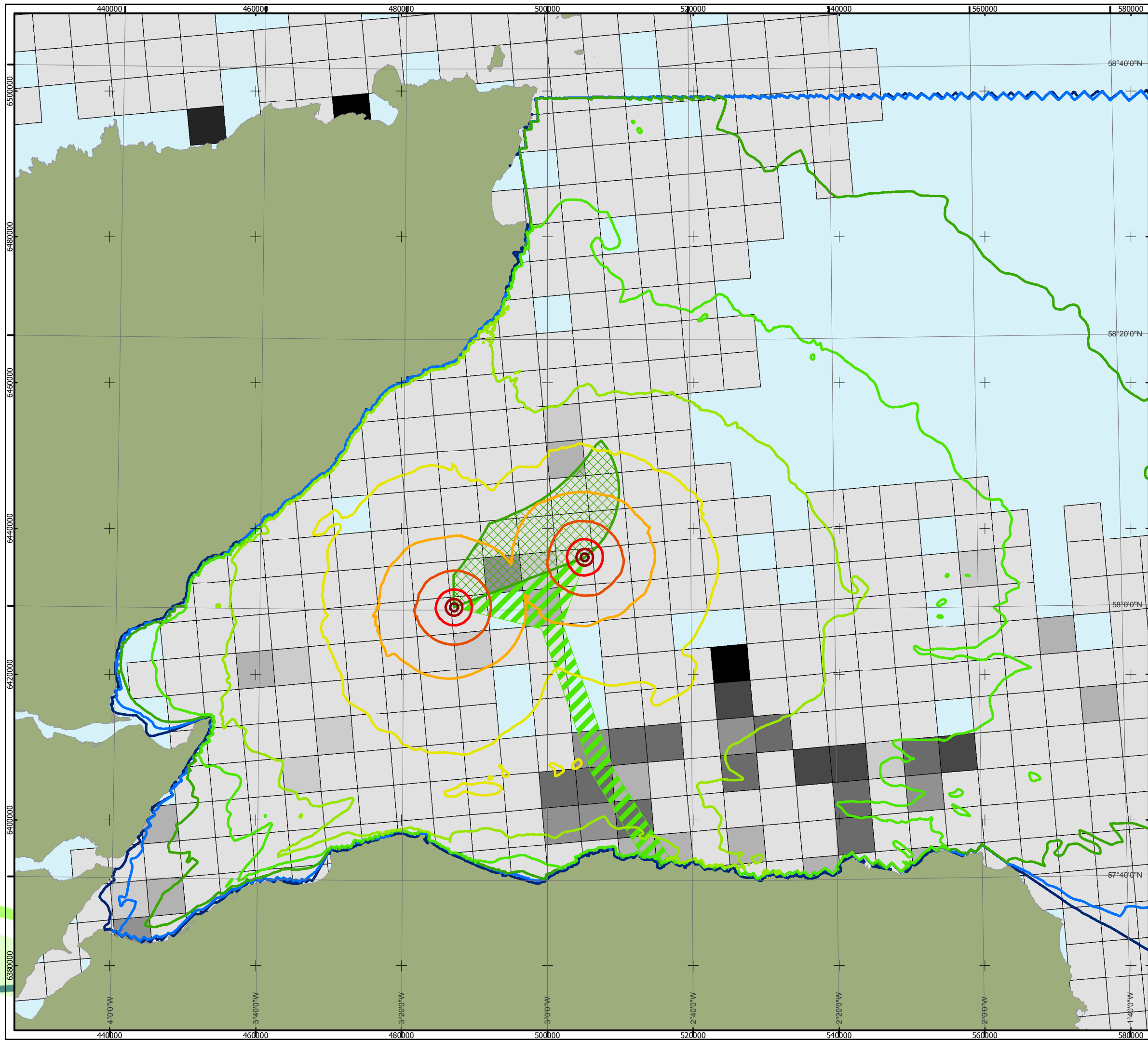
Date: 25/06/2018

Revision: A

REF: 8460005-PPW0180-GOE-MAP-093

Figure 9.7.16 Dolphin Density
Noise Level Contours
Concurrent Monopile 5,000 kJ

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MORAY WEST

OFFSHORE WINDFARM

KEY

- Moray West Site
- Offshore Export Cable Corridor

Unweighted SELss Noise Contours

- 120 dB
- 125 dB
- 130 dB
- 135 dB
- 140 dB
- 145 dB
- 150 dB
- 155 dB
- 160 dB
- 165 dB
- 170 dB

Minke Whale Density (#/km²)

- 0.0 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- >10.0

Horizontal Scale: 1:500,000

A3 Chart

0 10,000 20,000 Meters

Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

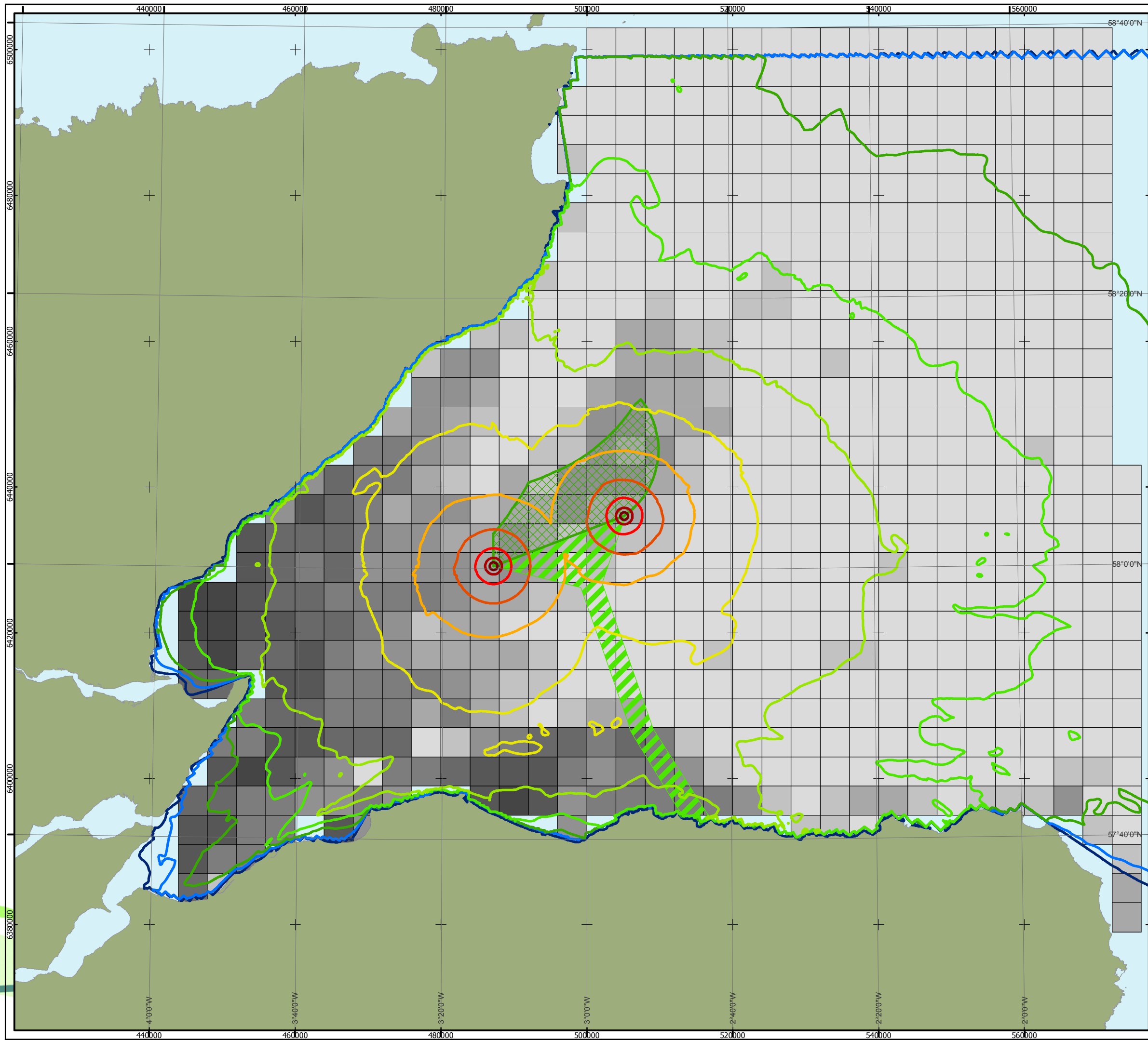
Date: 25/06/2018 Revision: A

REF: 8460005-PPW0180-GOE-MAP-094

Figure 9.7.17 Minke Whale
Noise Level Contours
Concurrent Monopile 5,000 kJ

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MORAY WEST OFFSHORE WINDFARM

KEY

- Moray West Site
- Offshore Export Cable Corridor

Unweighted SELss Noise Contours

- 120 dB re 1µPa²s
- 125 dB re 1µPa²s
- 130 dB re 1µPa²s
- 135 dB re 1µPa²s
- 140 dB re 1µPa²s
- 145 dB re 1µPa²s
- 150 dB re 1µPa²s
- 155 dB re 1µPa²s
- 160 dB re 1µPa²s
- 165 dB re 1µPa²s
- 170 dB re 1µPa²s

Harbour Seal Density (#/cell)

- 0.0 - 0.5
- 0.5 - 1.0
- 1.0 - 2.0
- 2.0 - 4.0
- 4.0 - 8.0
- 8.0 - 12.0
- 12.0 - 16.0
- 16.0 - 21.0

Horizontal Scale: 1:500,000

0 10,000 20,000 Meters



Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

Date: 25/06/2018

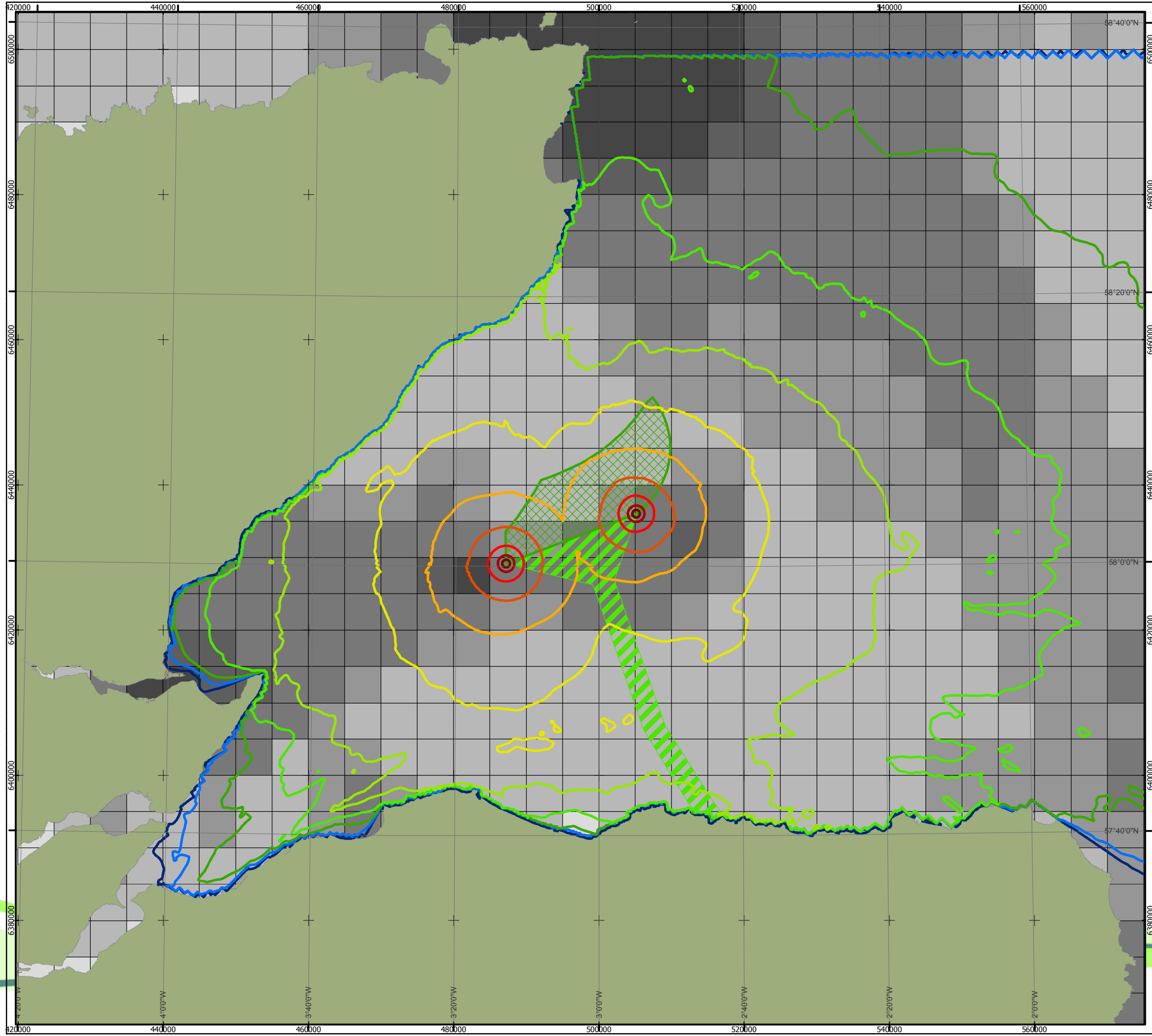
Revision: A

REF: 8460005-PPW0180-GOE-MAP-095

Figure 9.7.18 Harbour Seal
Noise Level Contours
Concurrent Monopile 5,000 kJ

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MORAY WEST

OFFSHORE WINDFARM

- KEY**
- Moray West Site
 - Offshore Export Cable Corridor
- Unweighted SELss Noise Contours**
- 120 dB re 1µPa²s
 - 125 dB re 1µPa²s
 - 130 dB re 1µPa²s
 - 135 dB re 1µPa²s
 - 140 dB re 1µPa²s
 - 145 dB re 1µPa²s
 - 150 dB re 1µPa²s
 - 155 dB re 1µPa²s
 - 160 dB re 1µPa²s
 - 165 dB re 1µPa²s
 - 170 dB re 1µPa²s
- Grey Seal Usage (#/cell)**
- 0 - 1
 - 1 - 5
 - 5 - 10
 - 10 - 50
 - 50 - 100
 - >100

Horizontal Scale: 1:500,000 A3 Chart N

0 10,000 20,000 Meters

Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
Approved: FG

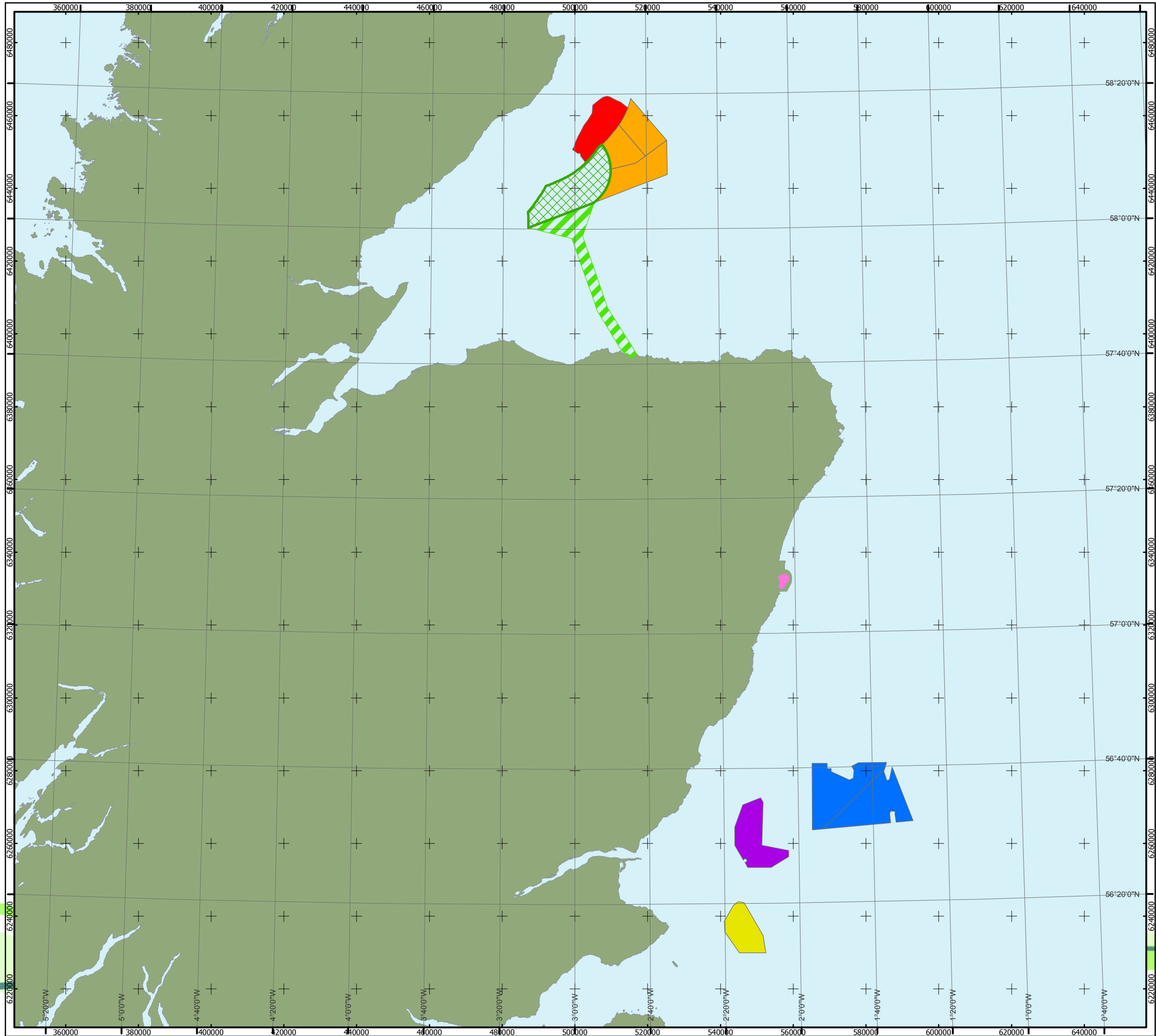
Date: 25/06/2018 Revision: A

REF: 8460005-PPW0180-GOE-MAP-096

Figure 9.7.19 Grey Seal Density
Noise Level Contours
Concurrent Monopile 5,000 kJ

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MORAY WEST

OFFSHORE WINDFARM

KEY

-  Moray West Site
-  Offshore Export Cable Corridor
-  Beatrice
-  Moray East
-  Aberdeen Harbour Expansion
-  Neart na Gaoithe
-  Inch Cape
-  Seagreen

Horizontal Scale: 1:1,000,000 A3 Chart N
0 20,000 40,000 Meters

Geodetic Parameters: WGS84 UTM Zone 30N

Produced: RP
Reviewed: RC
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Date: 25/06/2018 Revision: A

REF: 8460005-PPW0180-GOE-MAP-097

Figure 9.8.1 Projects
Included Quantitatively in the
Cumulative Impact Assessment

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