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# Morlais Project Environmental Statement

## Chapter 7: Metocean Conditions and Coastal Processes

### Volume II

Applicant: Menter Môn Morlais Limited  
Document Reference: PB5034-ES-007  
Chapter 7: Metocean Conditions and Coastal Processes  
Author: Royal HaskoningDHV



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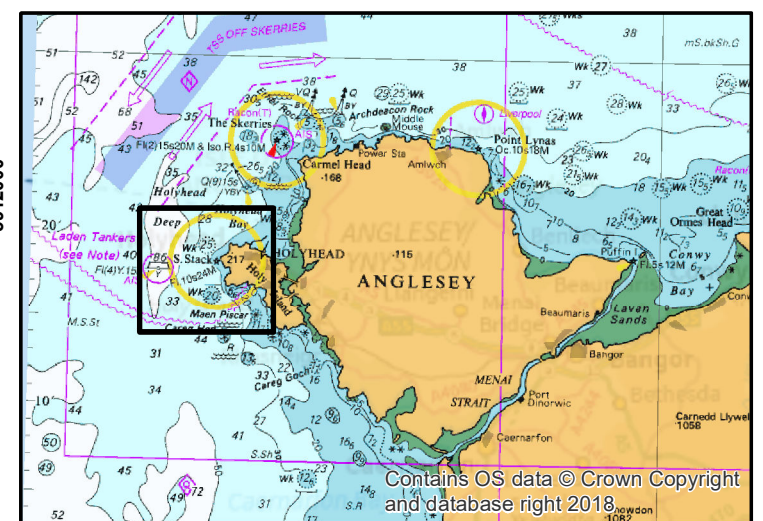
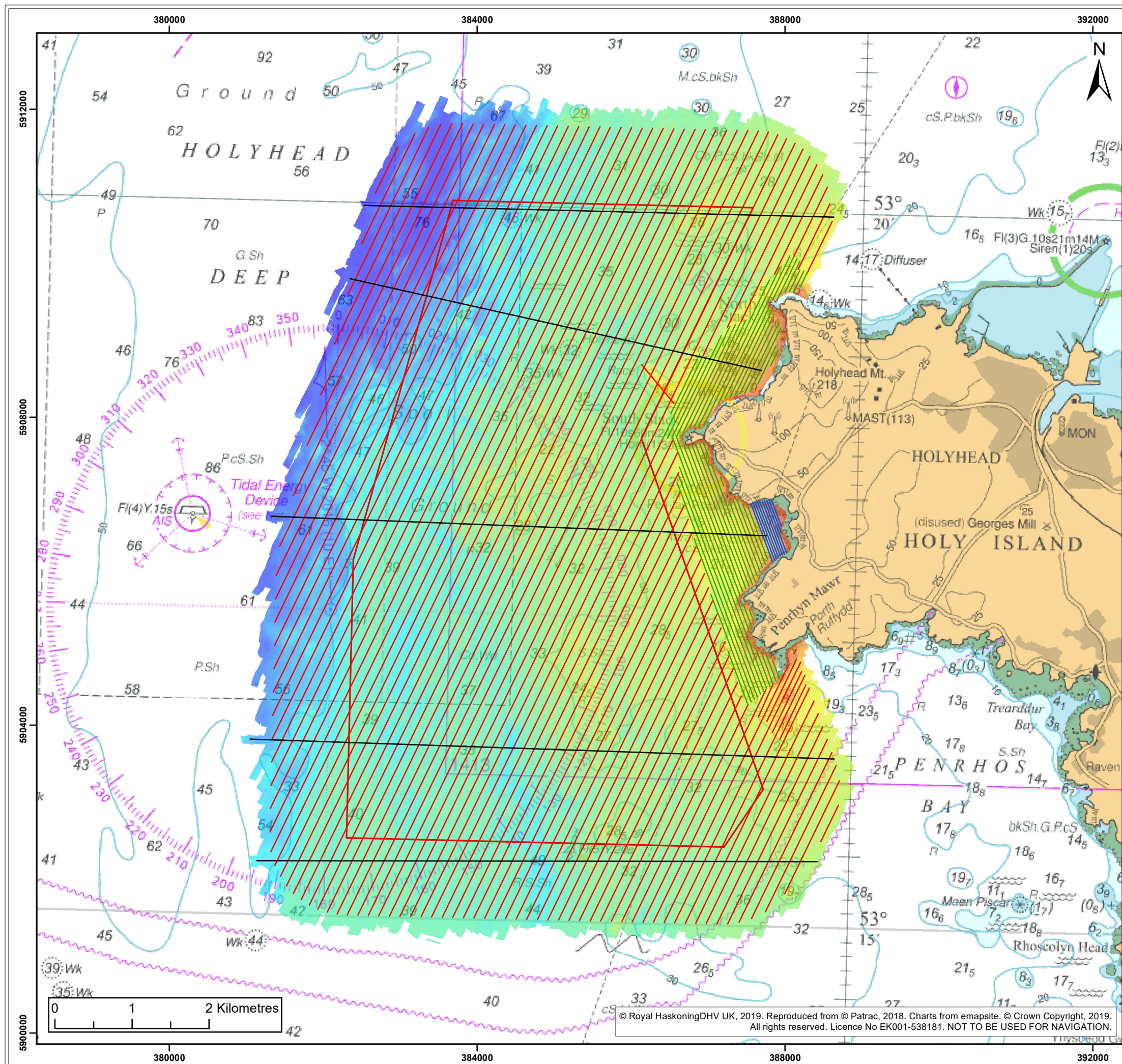
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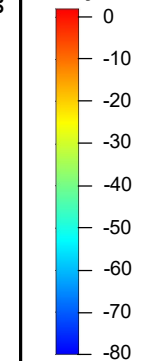


Legend:  
Morlais Demonstration Zone

#### Geophysical Survey Lines

- 30m
- 50m
- 125m
- Crosslines

#### Bathymetry (m)



Client:



Project:



Title:

Location of the geophysical survey lines (2018 survey)

Figure: 7-1

Drawing No: PB5034-ES-007-002

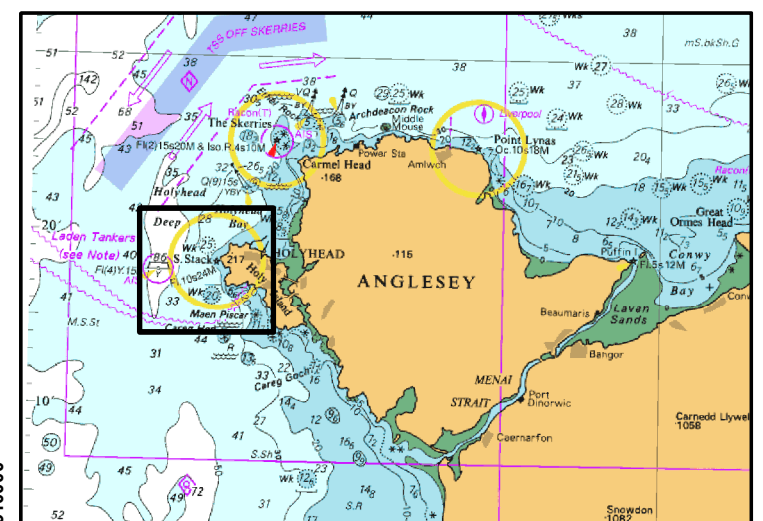
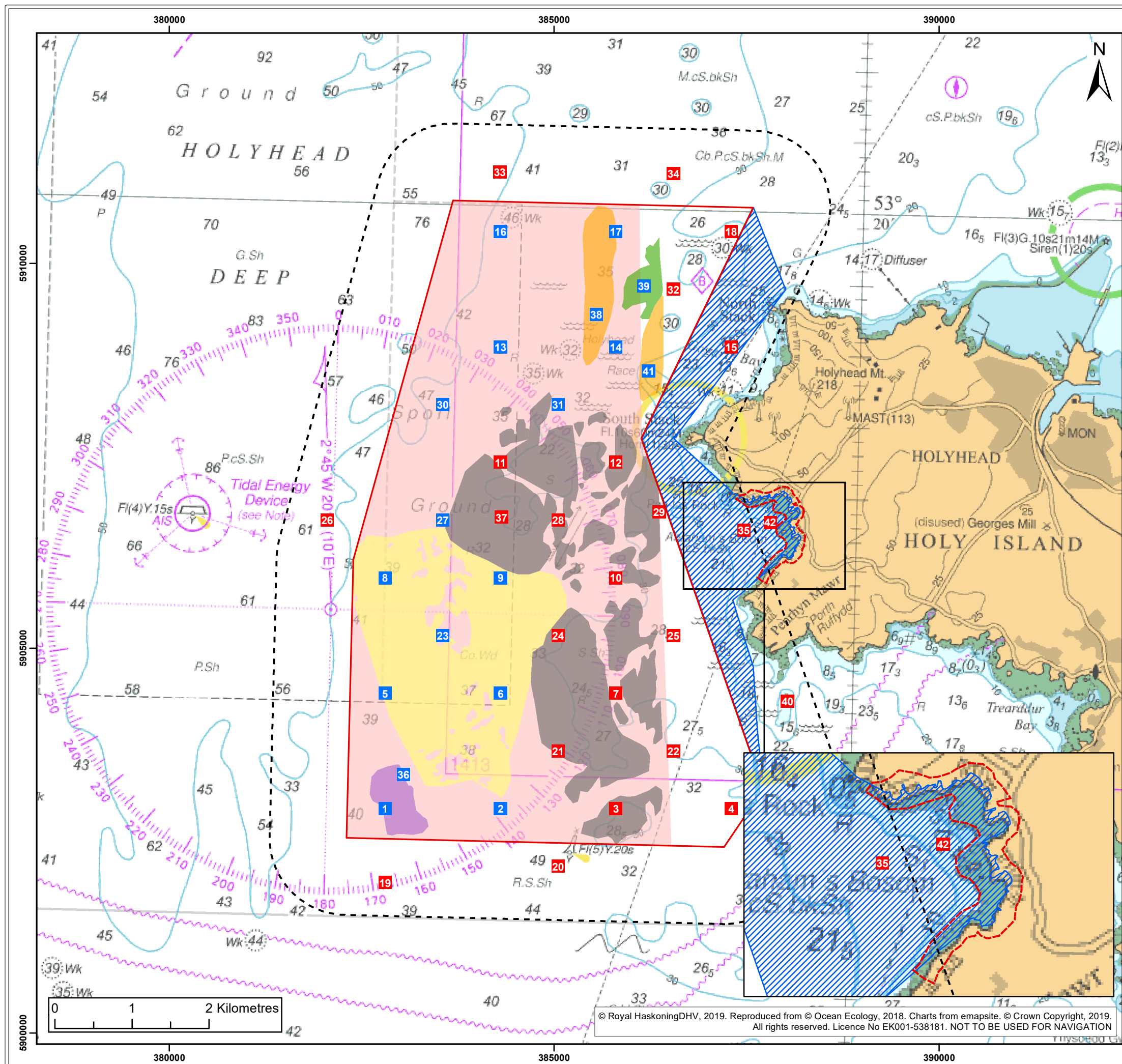
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Co-ordinate system: WGS 1984 UTM Zone 30N



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**Legend:**

- Morlais Demonstration Zone
- Export Cable Corridor
- Morlais Demonstration Zone 1km Buffer
- Intertidal Survey Extent
- Grab and Video Drop
- Video Drop

**Seabed Habitat Type**

- Mobile Sands with Features of Possible Biogenic Interest
- Area of Sands and Outcropping Bedrock
- Exposed Bedrock
- Surface Mobile Sands
- Area of Boulders
- Gravelly Sands and Sandy Gravels

Client:   Project:  

Title:  
Location of the Drop-Down Camera Sites and Potential Grab Sample Locations

Figure: 7-2 Drawing No: PB5034-ES-007-003

Revision:	Date:	Drawn:	Checked:	Size:	Scale:
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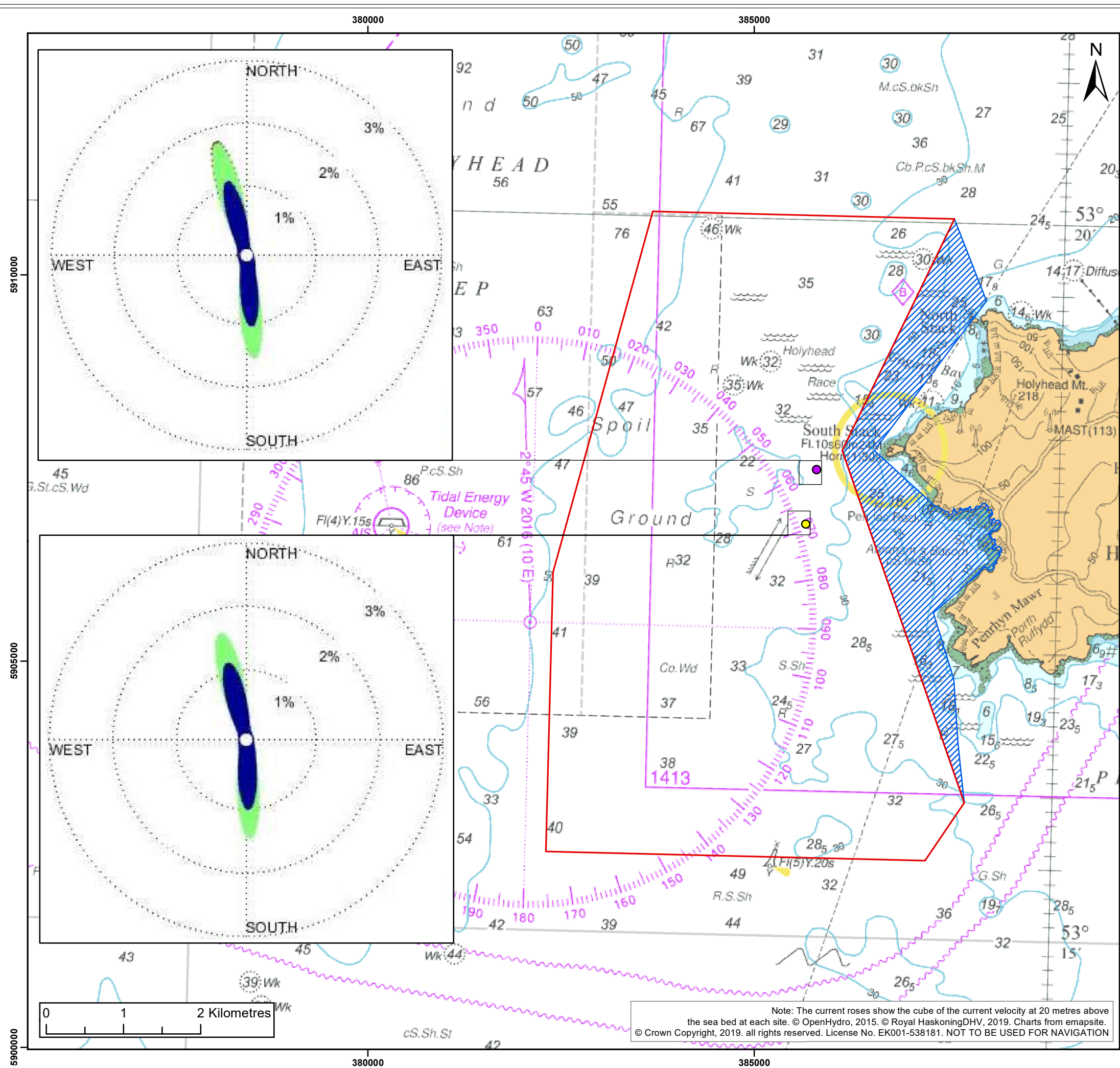
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Legend:

- Morlais Demonstration Zone
- Export Cable Corridor
- Site 1
- Site 2

Current Velocity  $V^3$  [ $m^3/s^3$ ]

- 10 - 15
- 5 - 10
- 0 - 5

Client:

Project:

Client: MENTER 3 MON

Title:

Typical Current Roses within the Morlais Demonstration Zone

Figure: 7-4

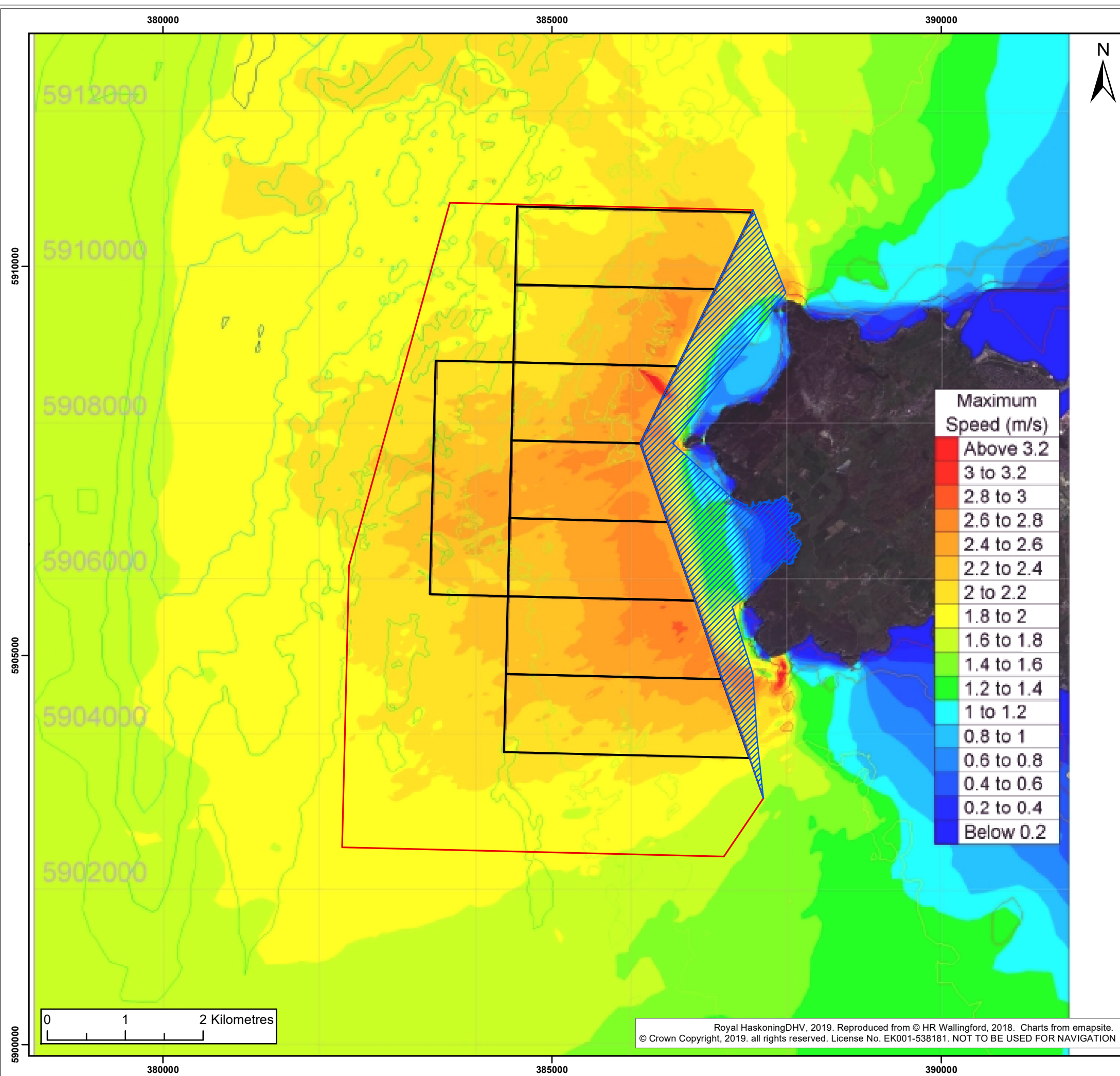
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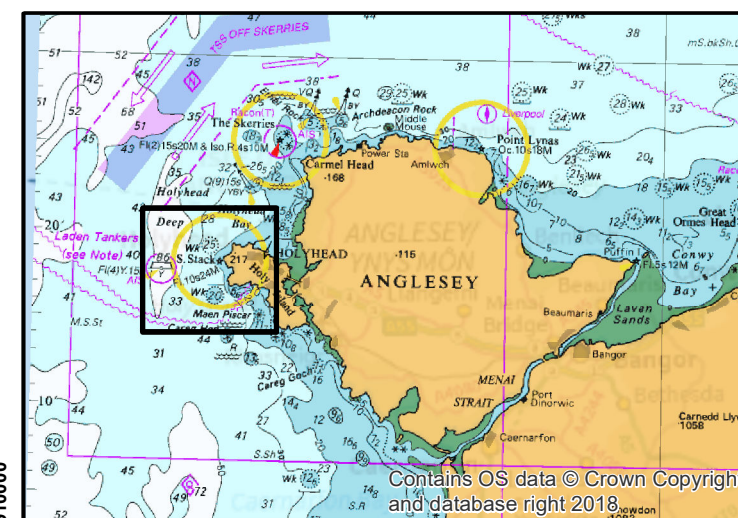
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Legend:

- Morlais Demonstration Zone
- Export Cable Corridor
- Morlais Demonstration Sub-Zones

Client:



Project:



Title:

Baseline Peak Tidal Current Speeds across  
the Morlais Demonstration Zone for a Mean Spring Tide

Figure: 7-5

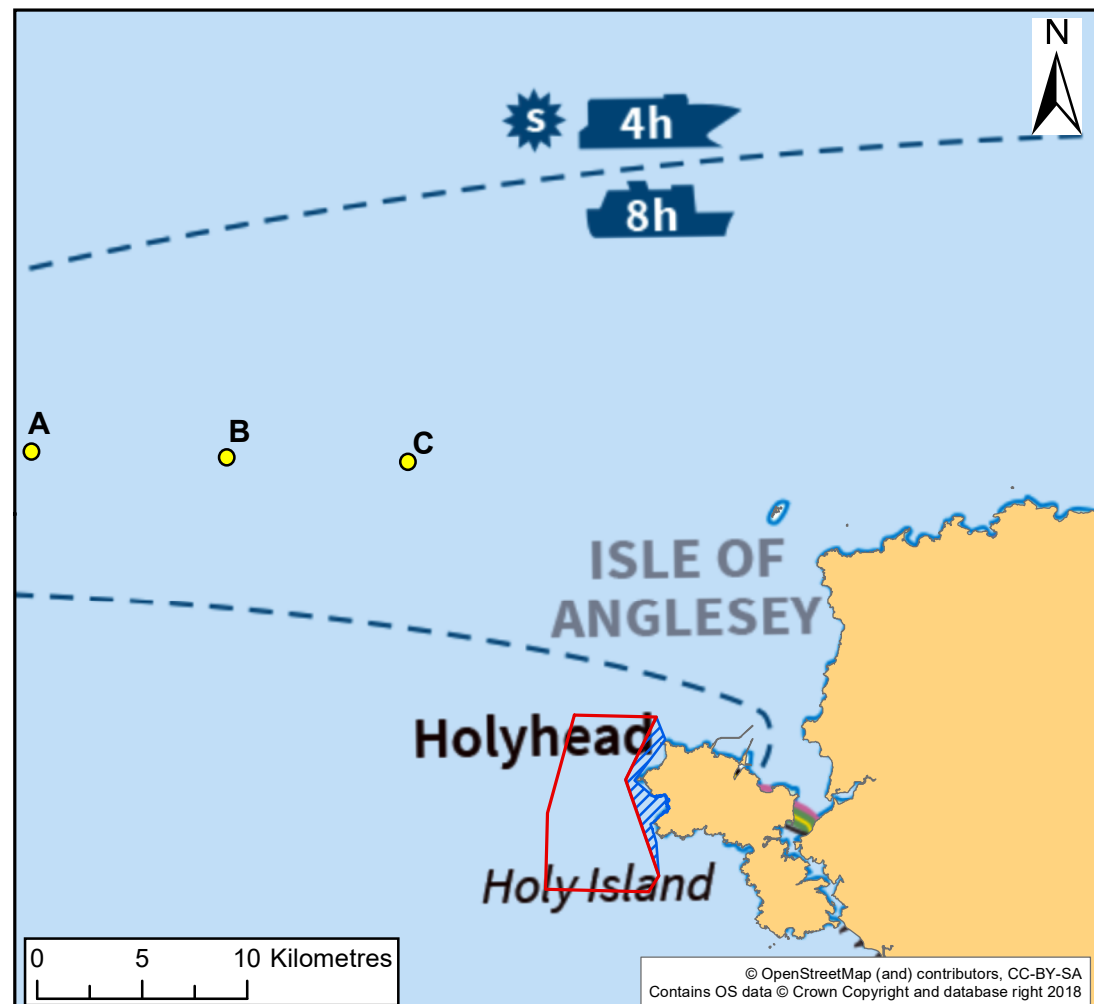
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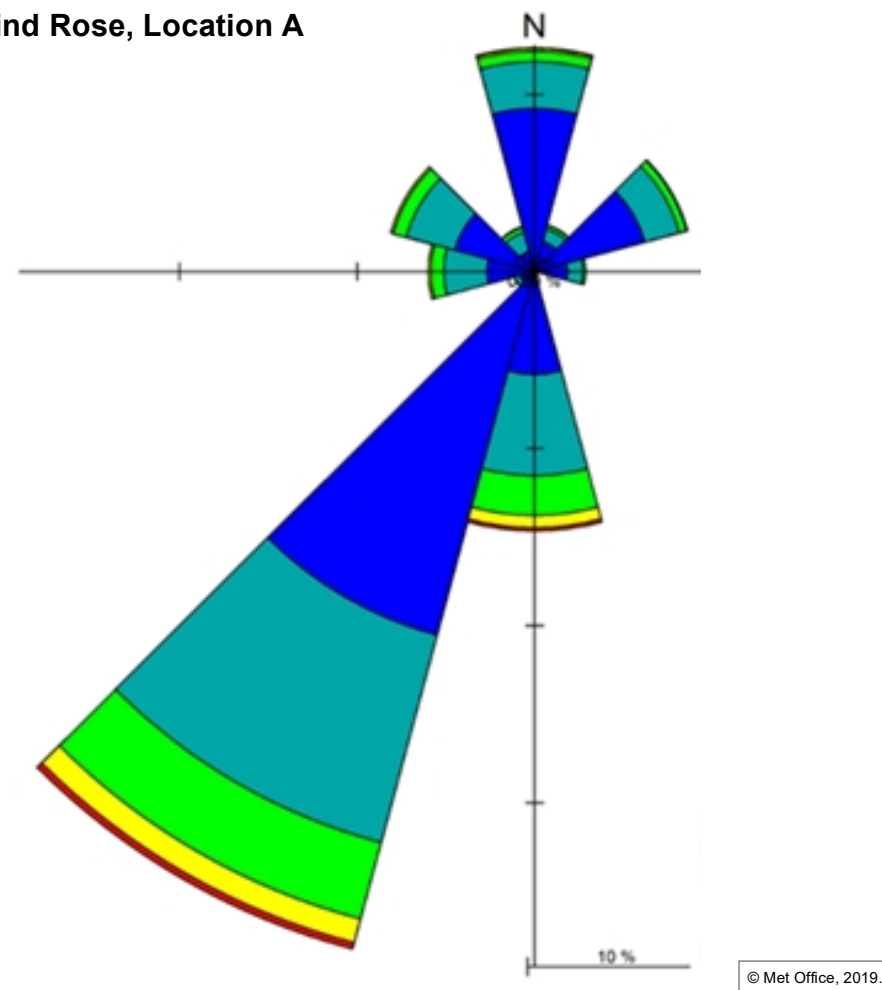
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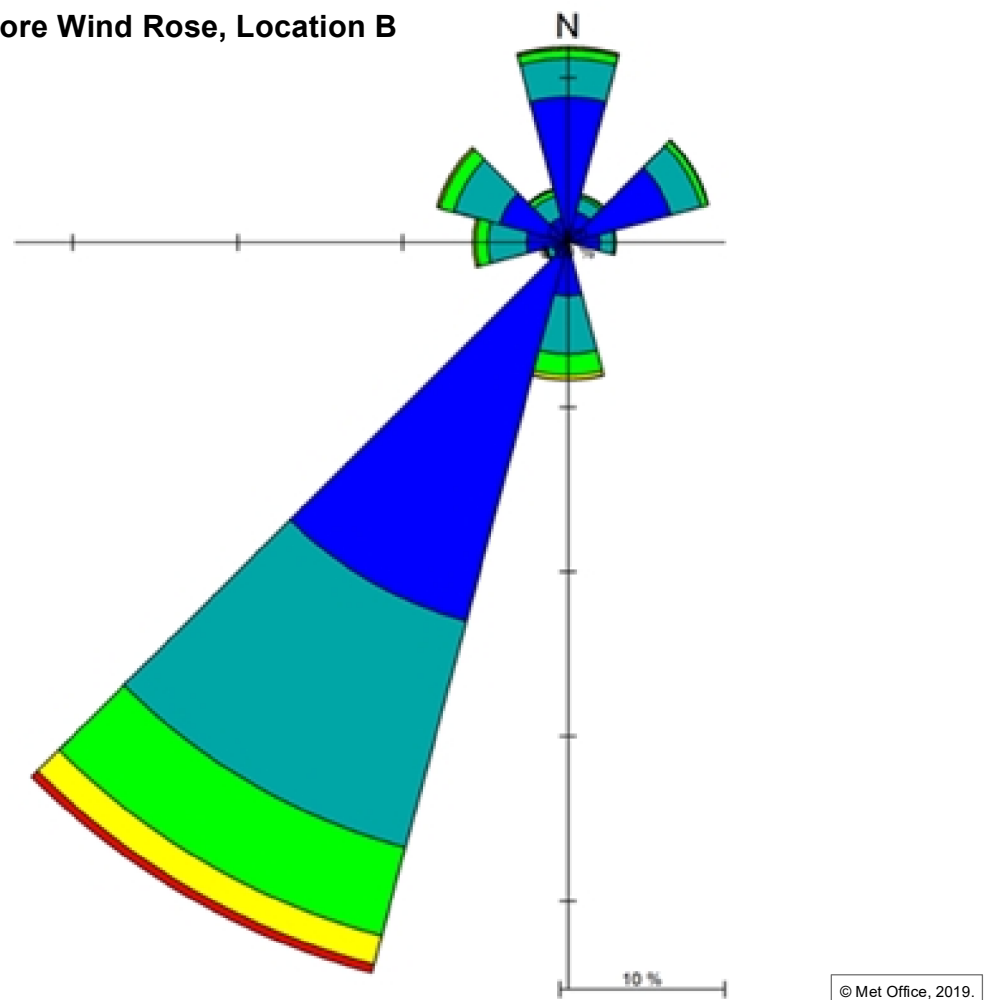
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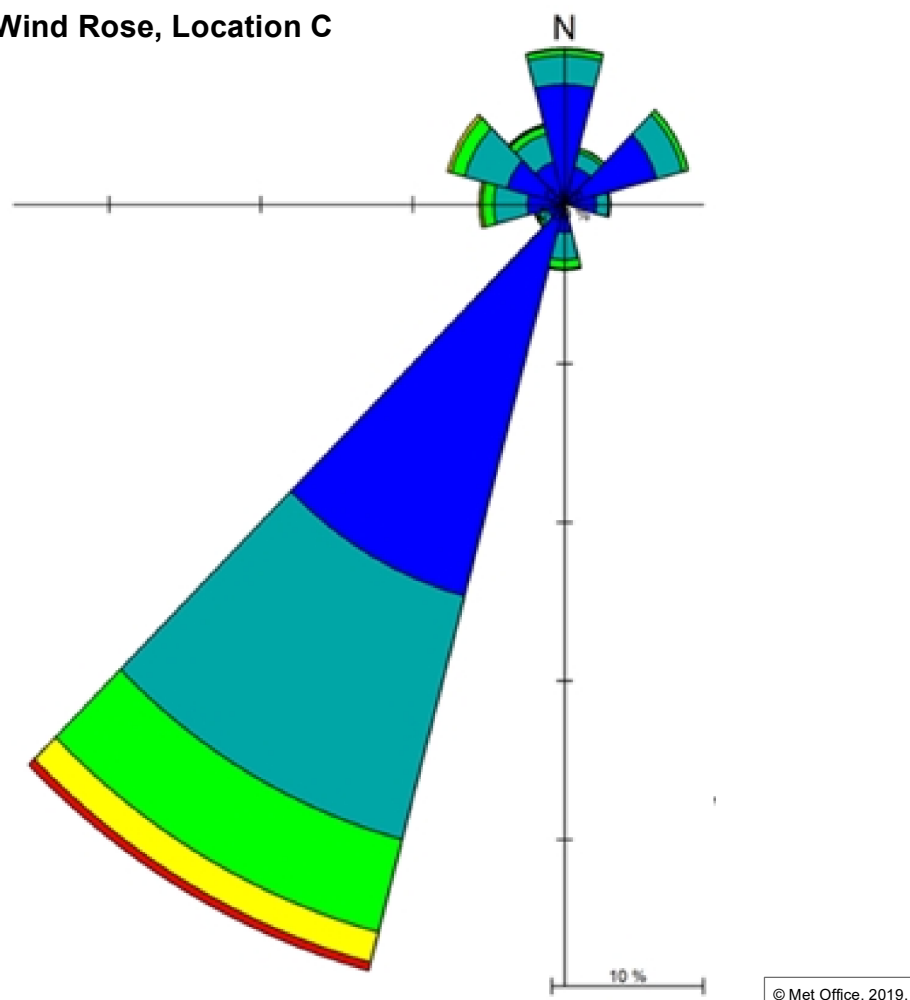
Offshore Wind Rose, Location A



Offshore Wind Rose, Location B



Offshore Wind Rose, Location C



Legend:

□ Morlais Demonstration Zone

▨ Export Cable Corridor

● Location of Offshore Wind Rose

Wave Height (m)

■ Above 4.00

■ 3.00 - 4.00

■ 2.00 - 3.00

■ 1.00 - 2.00

■ 0.25 - 1.00

□ Below 0.25

Client:



Project:



Title:

Location of output points for offshore wave conditions acquired from the Met Office

Figure: 7-6

Drawing No: PB5034-ES-007-013

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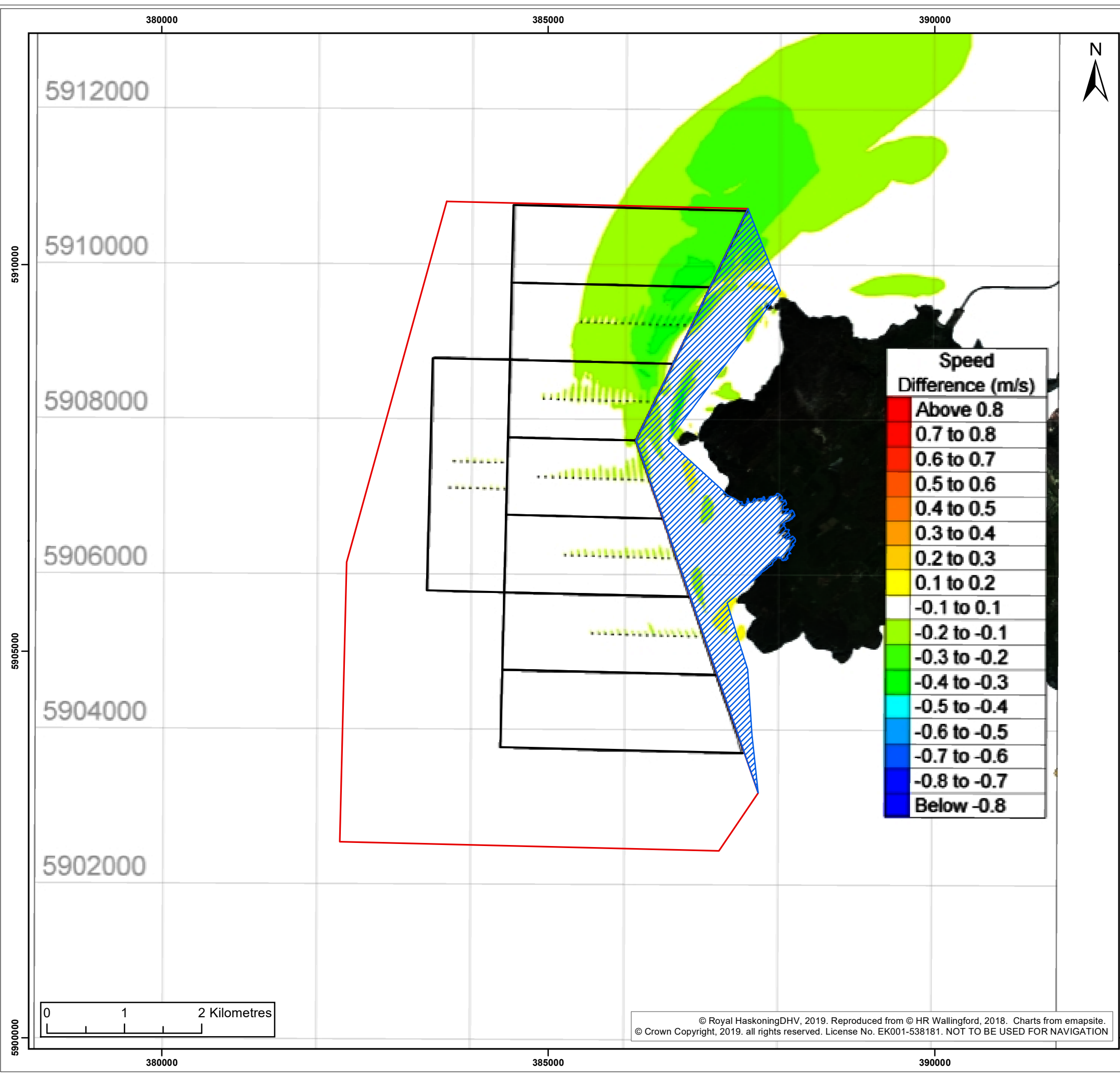
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**Legend:**

- Morlais Demonstration Zone
- Export Cable Corridor
- Morlais Demonstration Sub-Zones

Client:

Project: **morlais**  
ANGLESEY MARINE ENERGY

**Title:**  
Change in Mean Spring Tide Peak Tidal Currents for Flood Flow (Scenario 1)

Figure: 7-8      Drawing No: PB5034-ES-007-019

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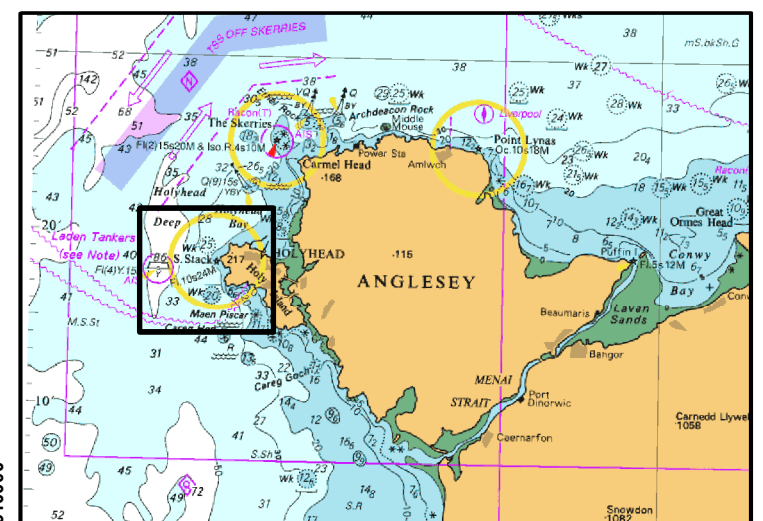
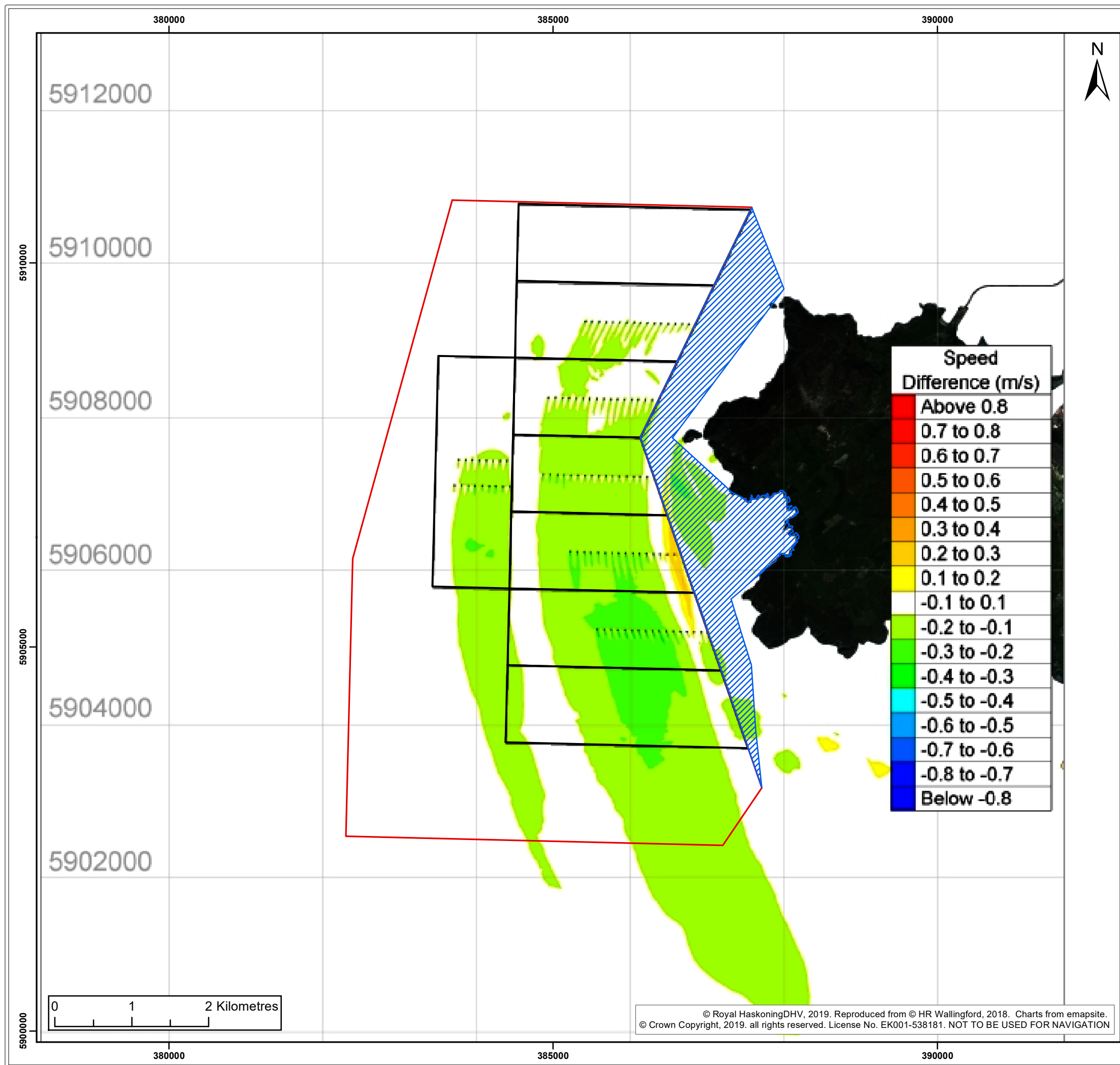
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- Legend:
- Morlais Demonstration Zone
  - Export Cable Corridor
  - Morlais Demonstration Sub-Zones

Client:   Project:  

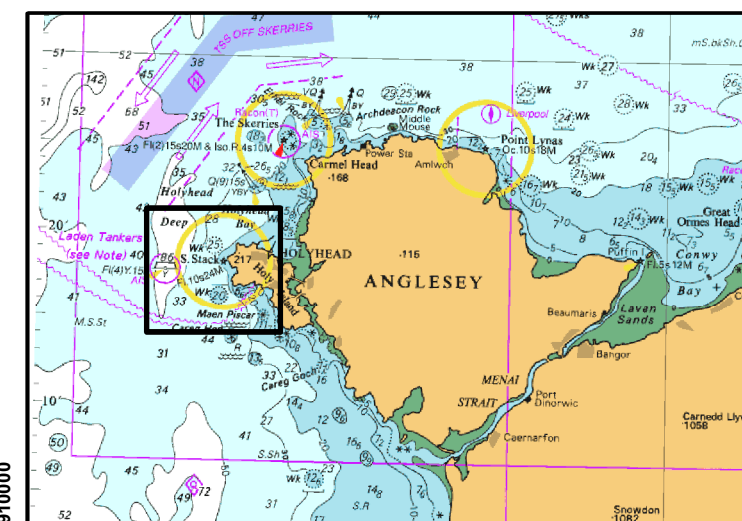
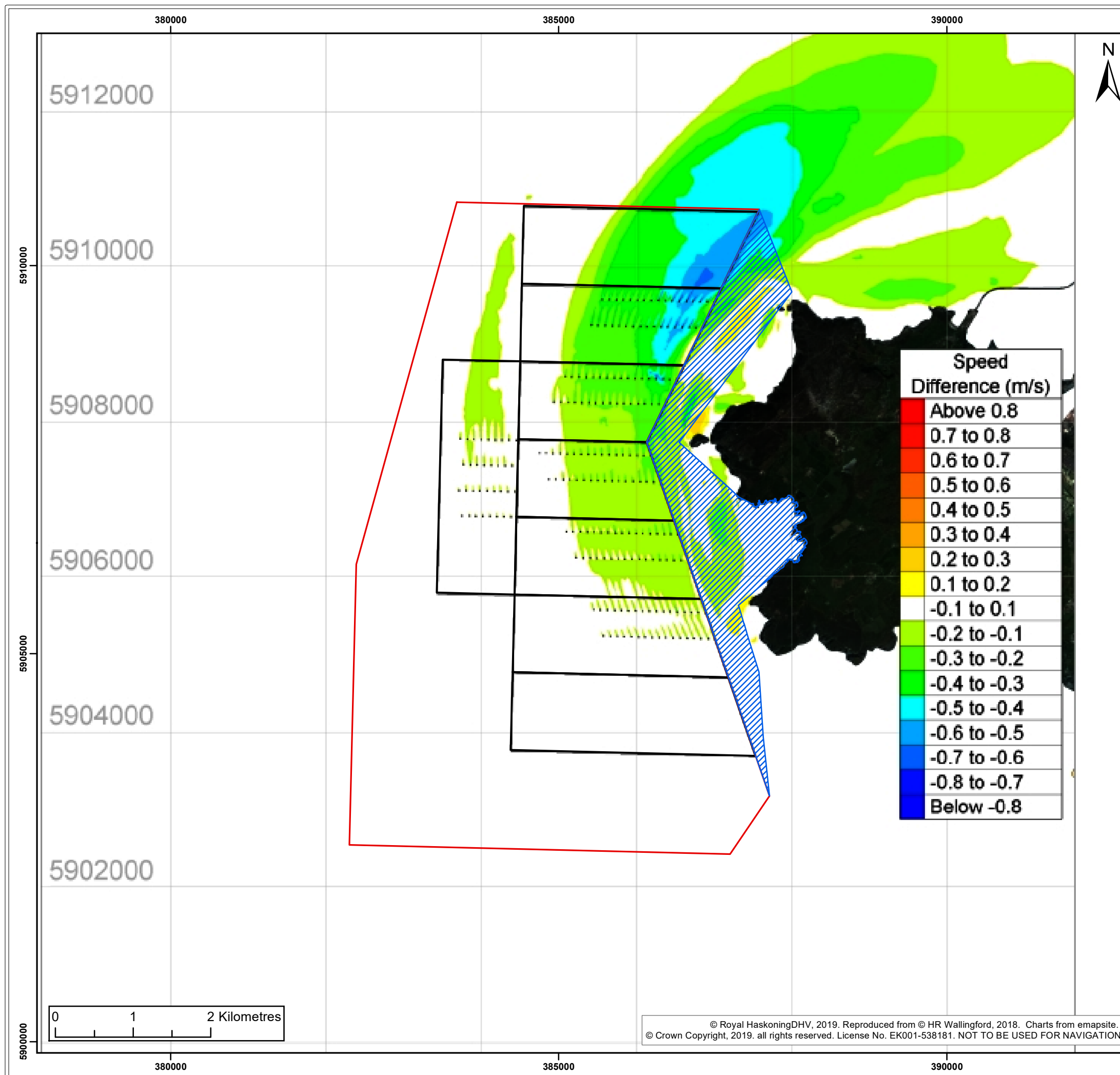
Title:  
Change in Mean Spring Tide Peak Tidal Currents for Ebb Flow (Scenario 1)

Figure: 7-9 Drawing No: PB5034-ES-007-020





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  - Morlais Demonstration Sub-Zones

Client:   Project:  

Title:  
Change in Mean Spring Tide Peak Tidal Currents for Flood Flow (Scenario 2)

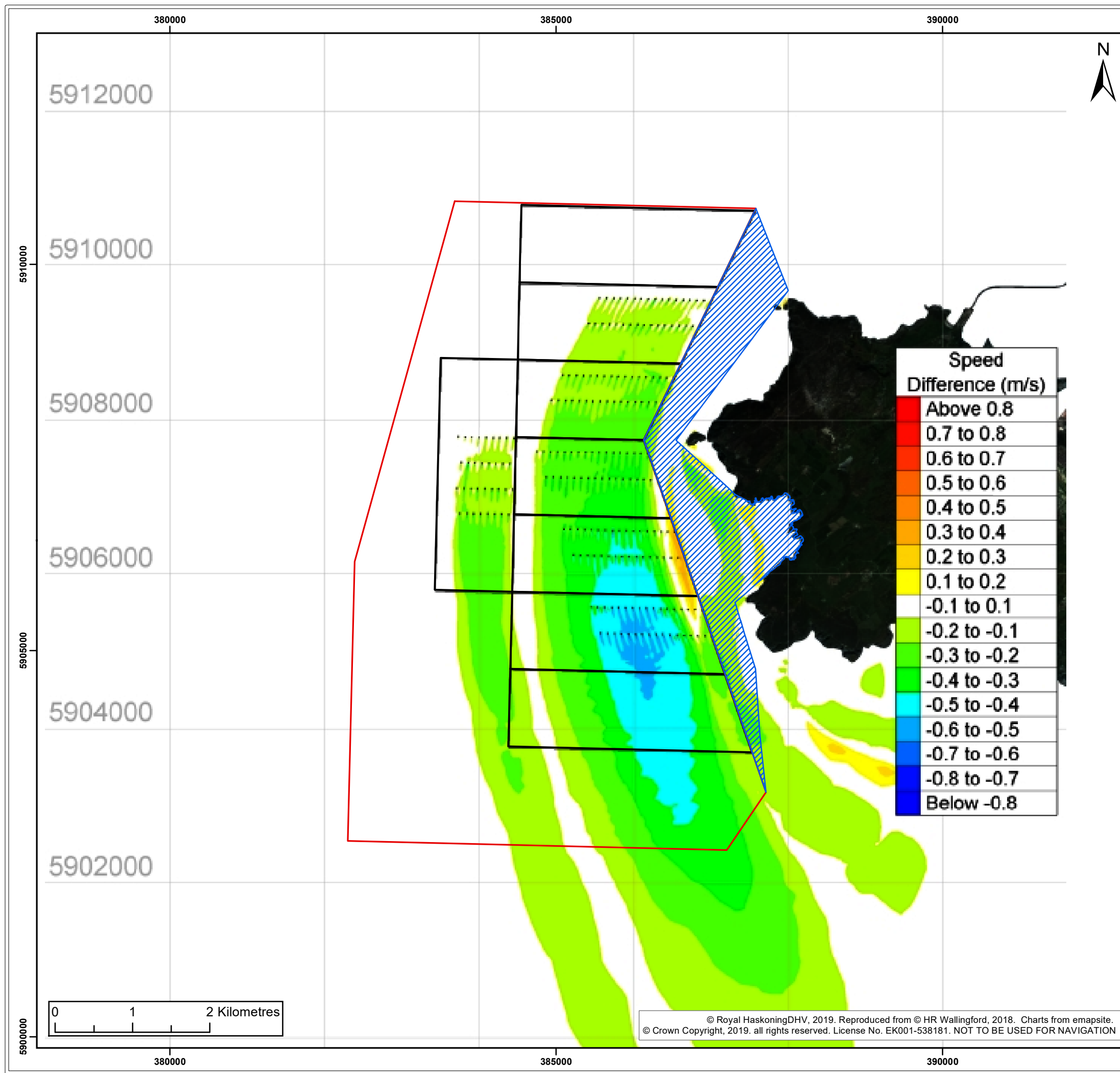
Figure: 7-10 Drawing No: PB5034-ES-007-021

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- Morlais Demonstration Sub-Zones

Client:   Project:  


Title:

Change in Mean Spring Tide Peak Tidal Currents for Ebb Flow (Scenario 2)

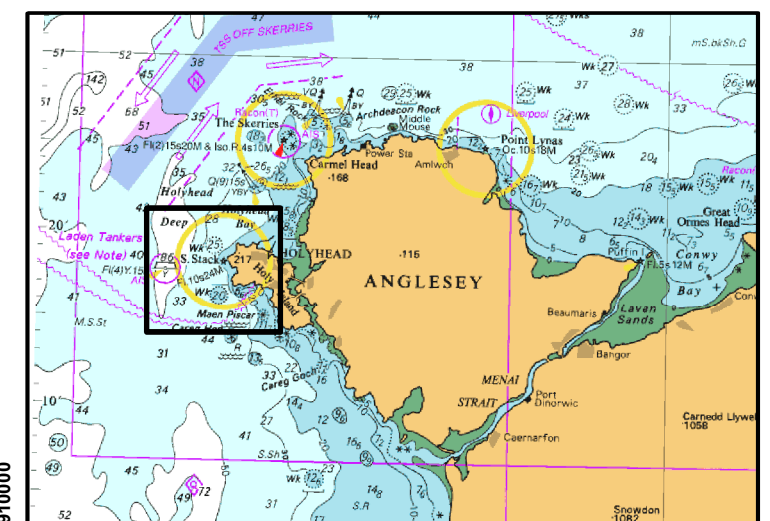
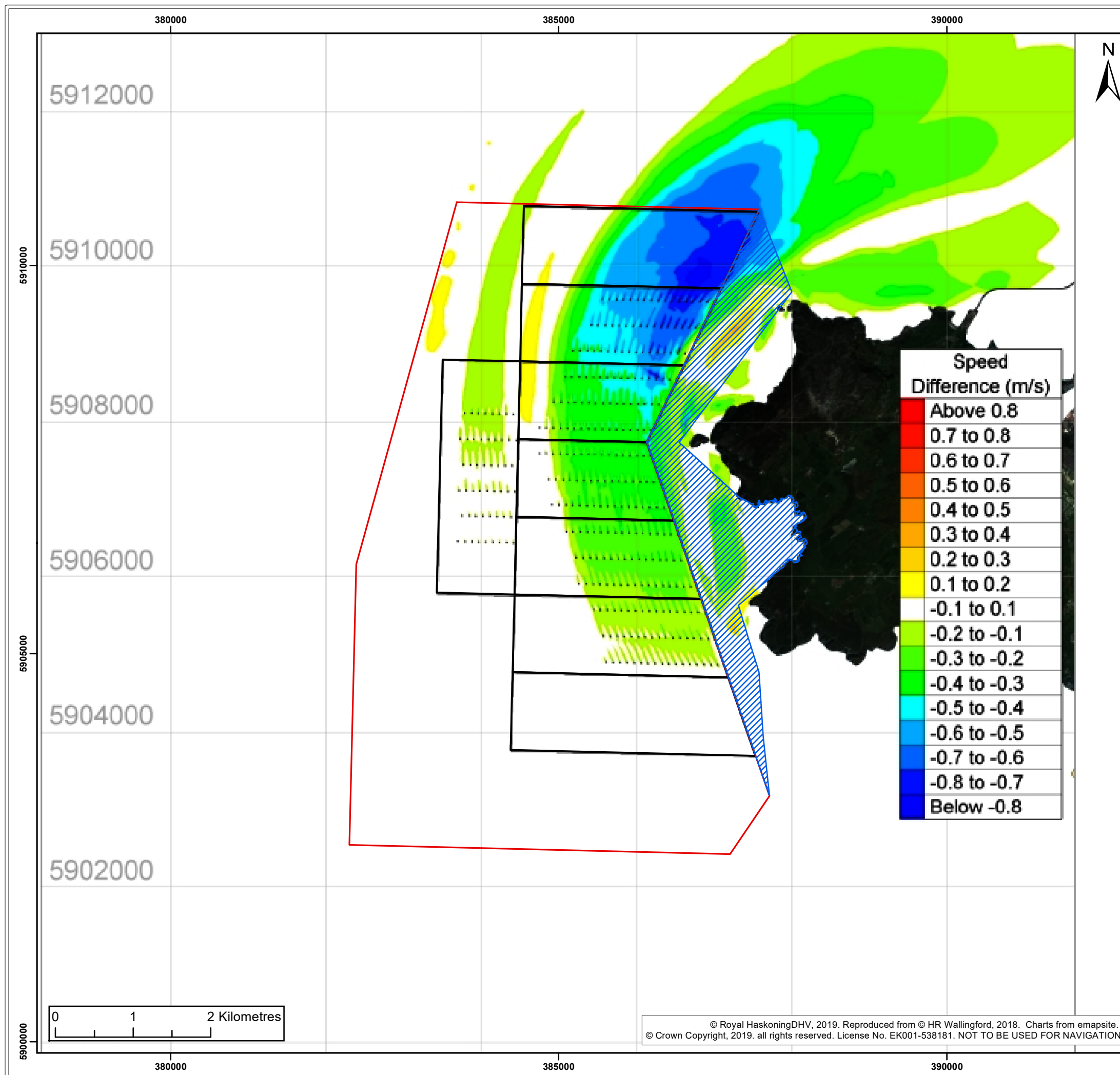
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  - Morlais Demonstration Sub-Zones

Client:   Project:  

Title:  
Change in Mean Spring Tide Peak Tidal Currents for Flood Flow (Scenario 3)

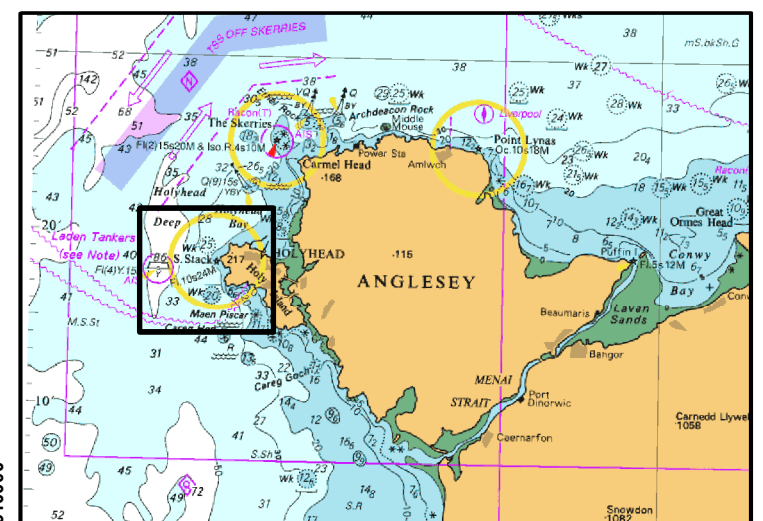
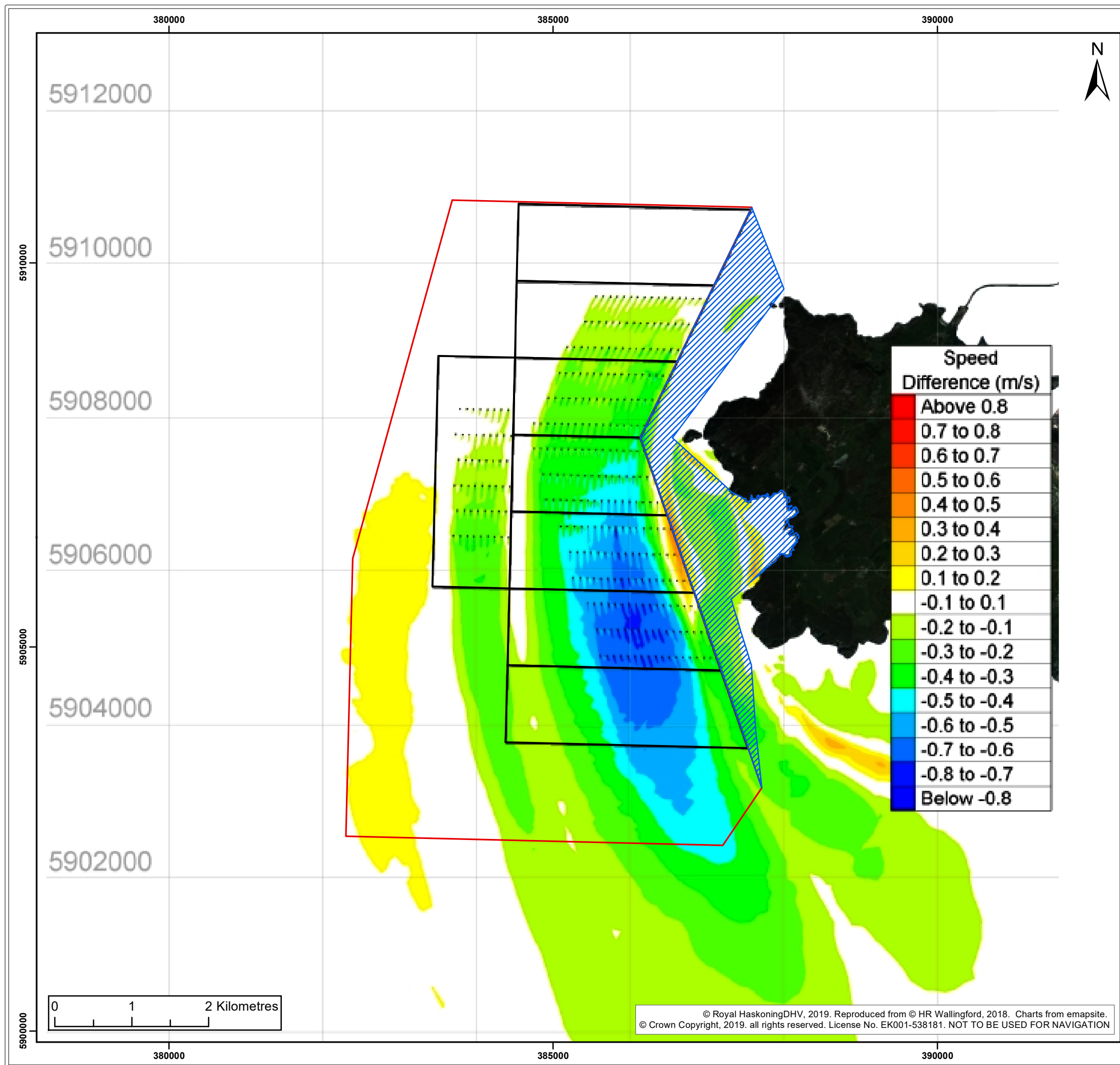
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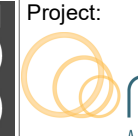

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  - Export Cable Corridor
  - Morlais Demonstration Sub-Zones

Client:   Project:  

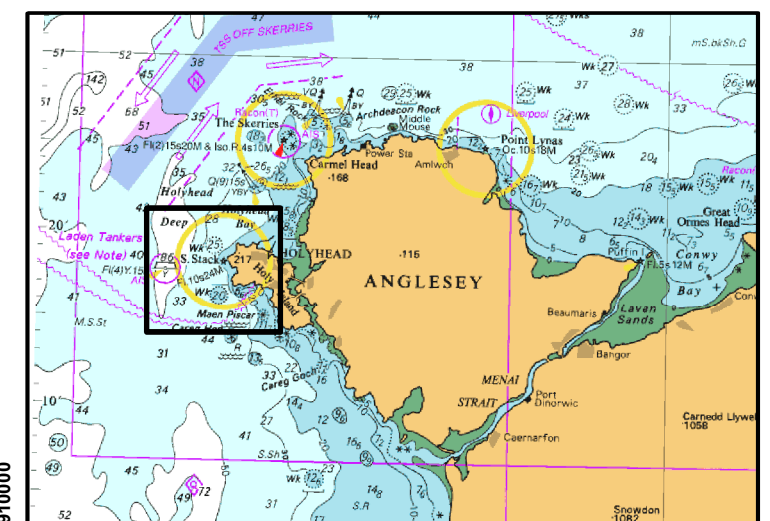
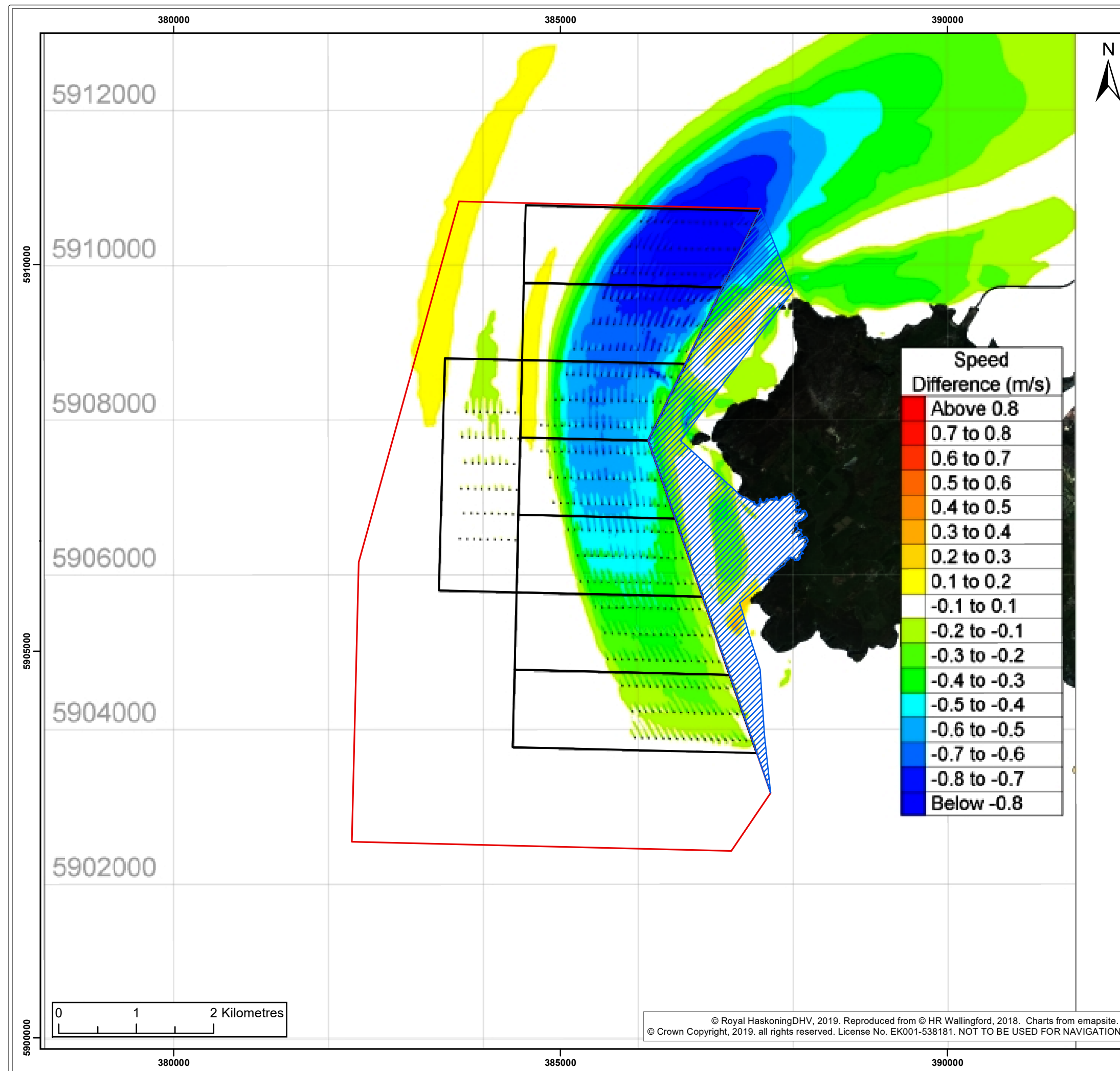
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Change in Mean Spring Tide Peak Tidal Currents for Ebb Flow (Scenario 3)

Figure: 7-13 Drawing No: PB5034-ES-007-024





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  - Morlais Demonstration Sub-Zones

Client:   Project:  

Title:  
Change in Mean Spring Tide Peak Tidal Currents for Flood Flow (Scenario 4)

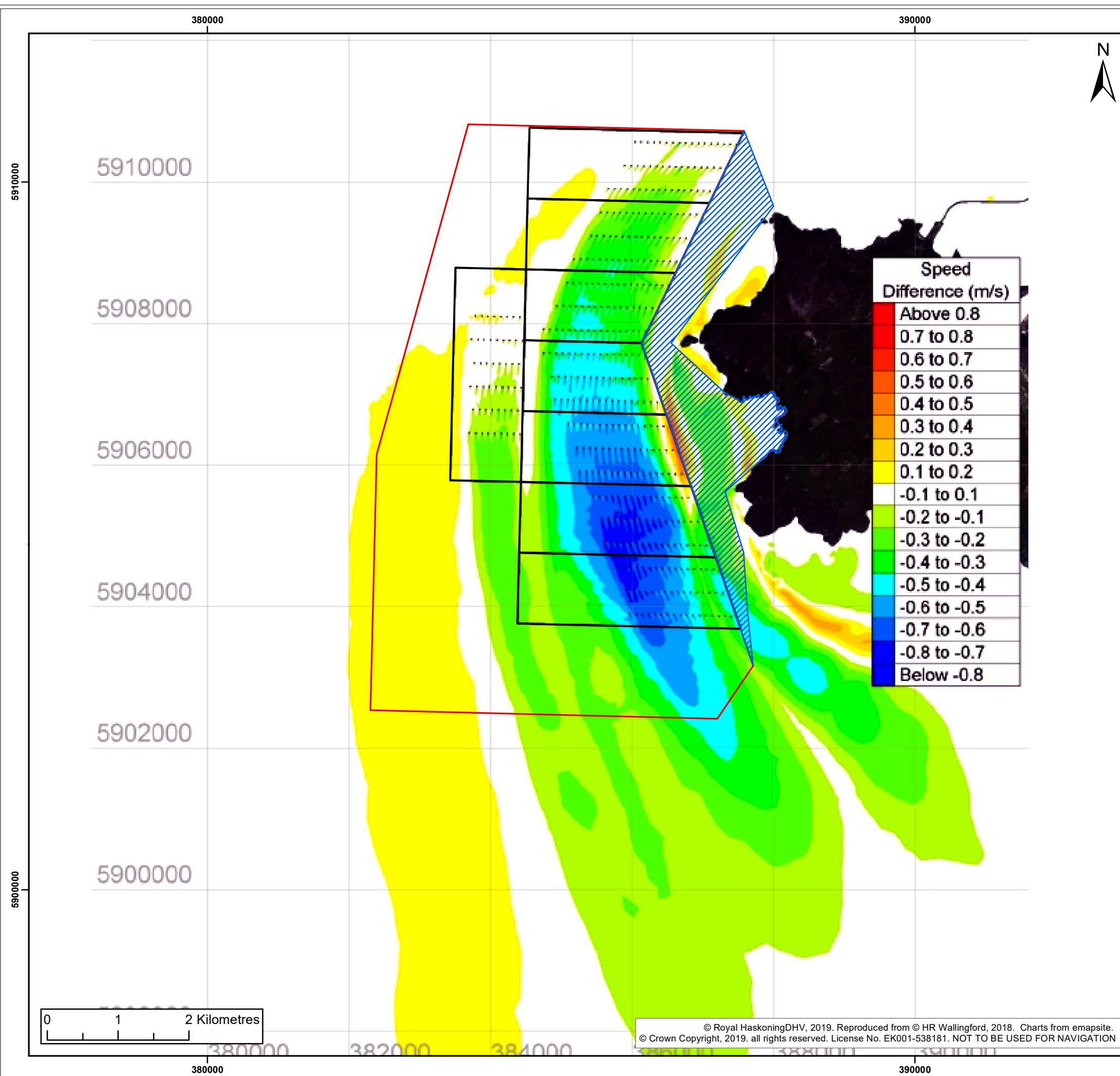
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Legend:

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- Export Cable Corridor
- Morlais Demonstration Sub-Zones

Client:



Project:



**morlais**  
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Title:

Change in Mean Spring Tide Peak Tidal Currents for Ebb Flow (Scenario 4)


Figure: 7-15

Drawing No: PB5034-ES-007-026

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