

# AMAP1 Final Report

## AMAP1 Project Study Area



Map 1: AMAP1 project Study Area



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Sediment Depth Data derived from BGS and EECMHM

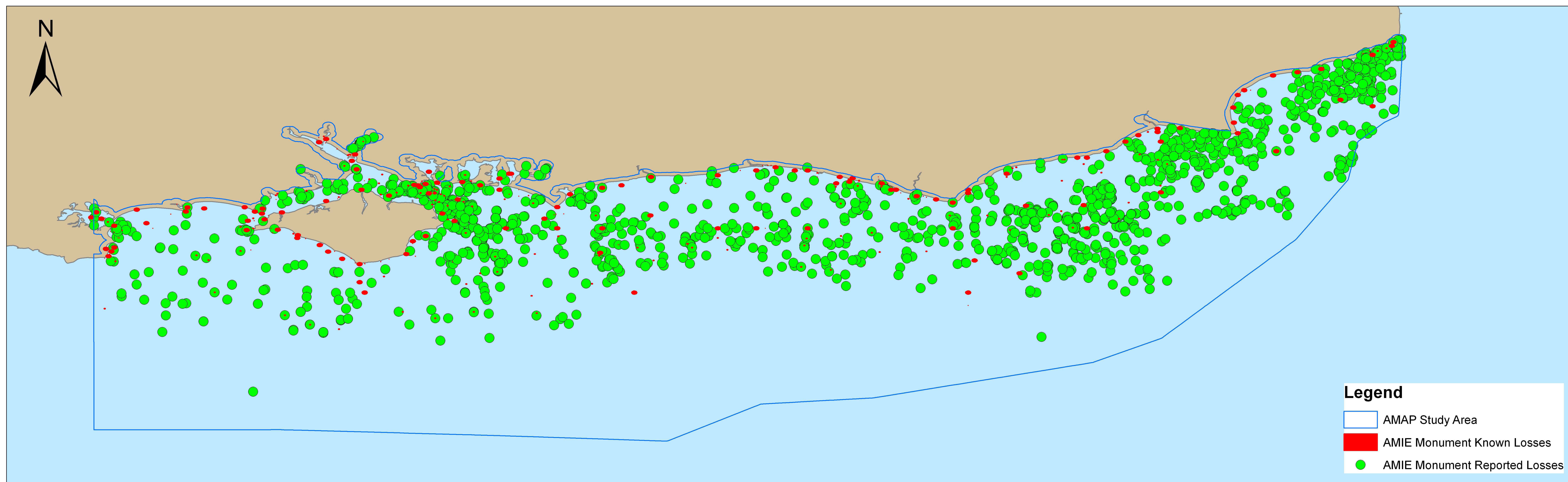
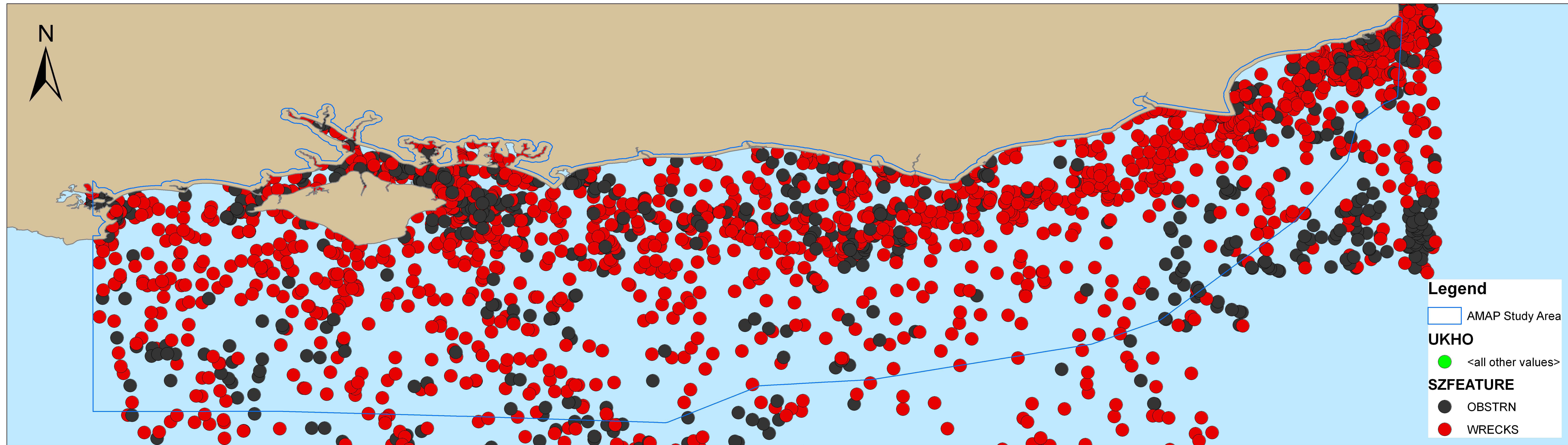
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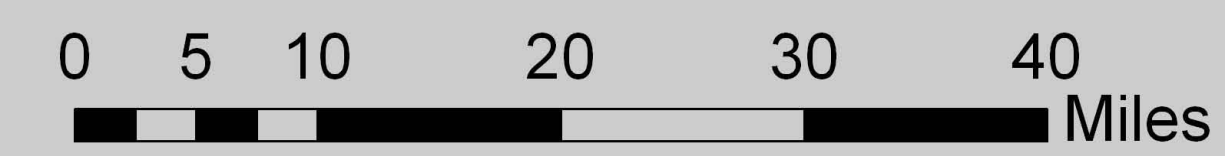
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Data Sources: ALSF Navigational Hazards point data  
and Nodes of Maritime Activity



Map 2a: UKHO Unrestricted Wrecks and Obstructions

Map 2b: AMIE Maritime Monument records comprising known sites and reported losses



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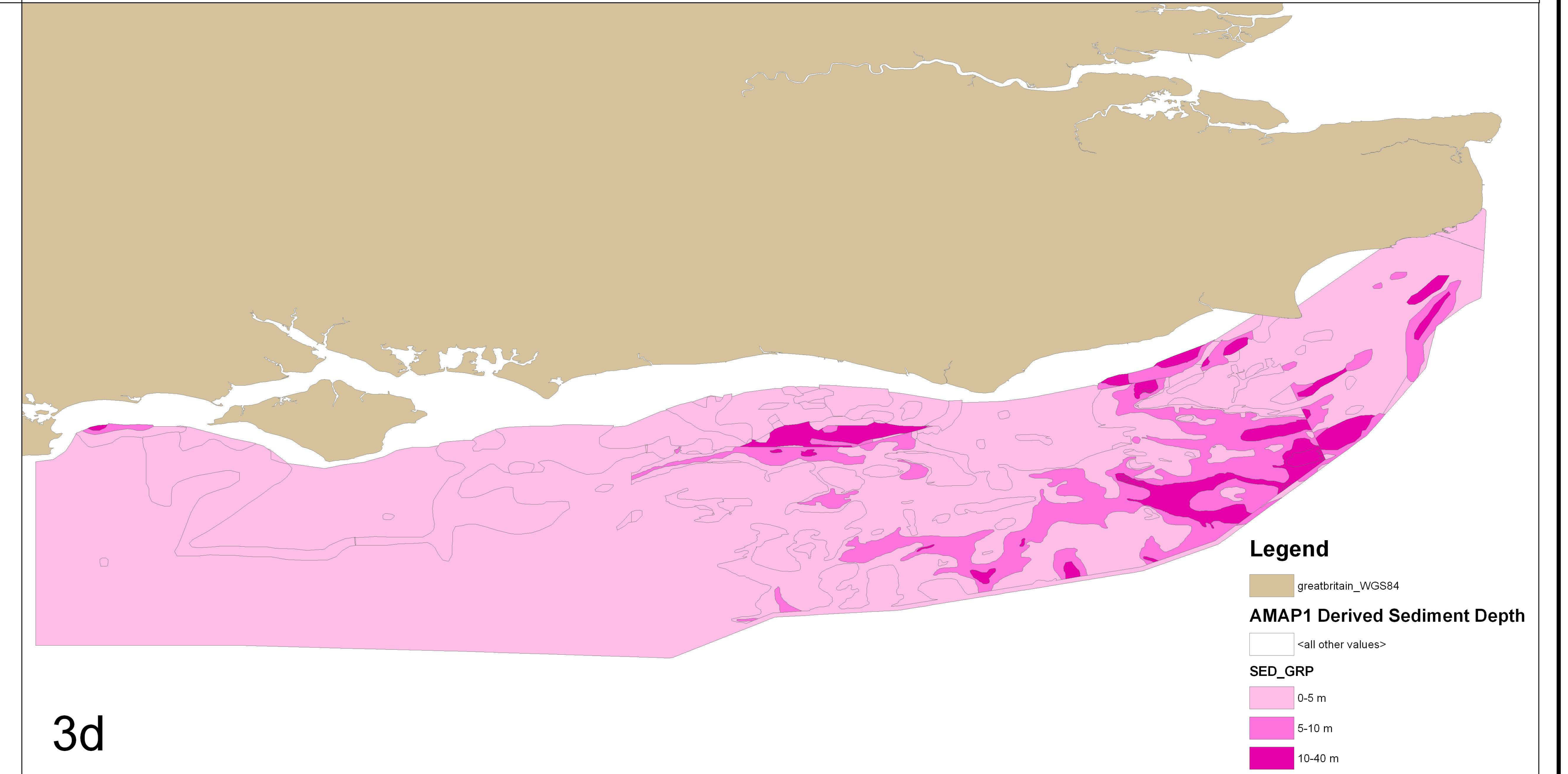
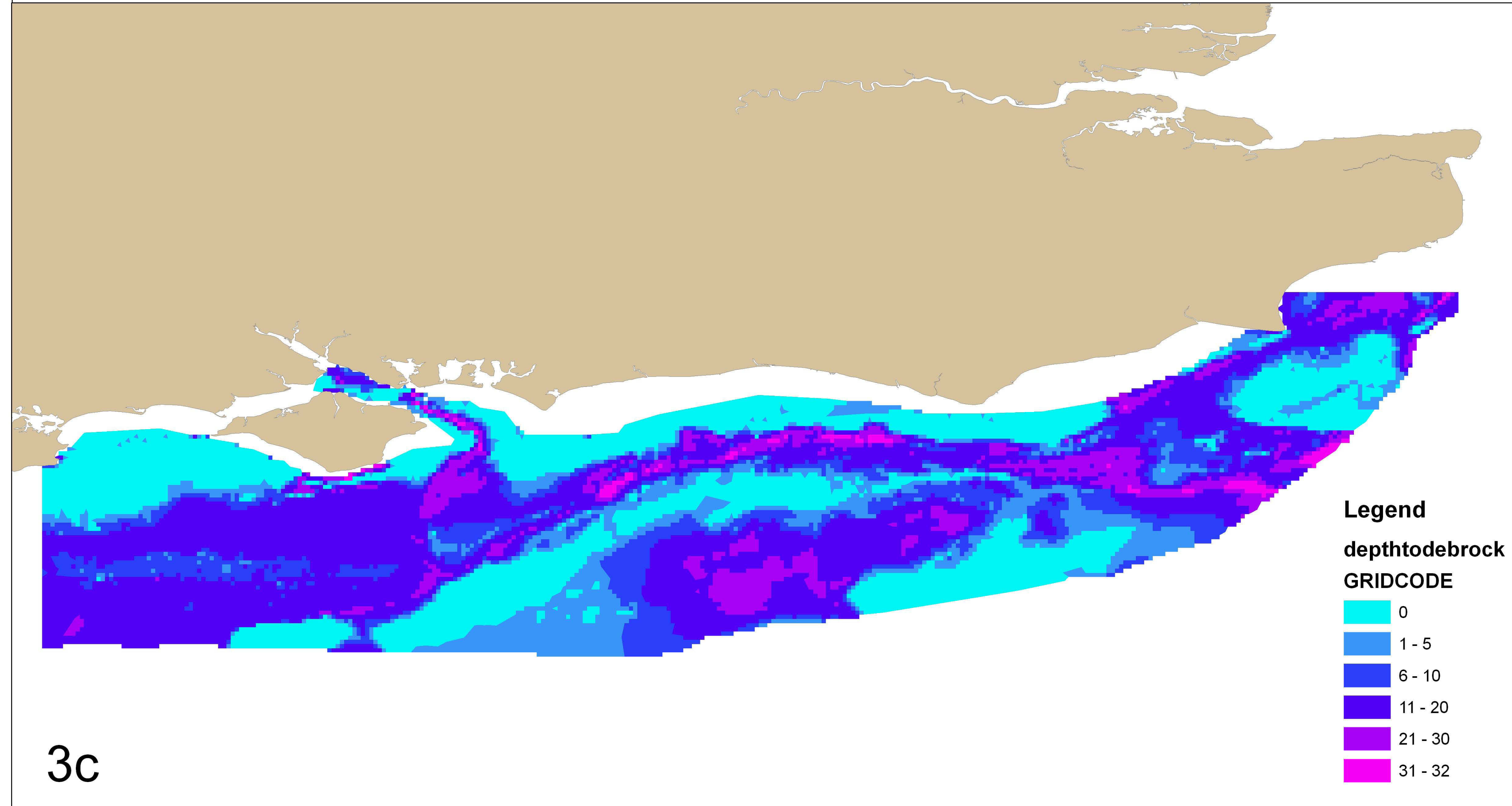
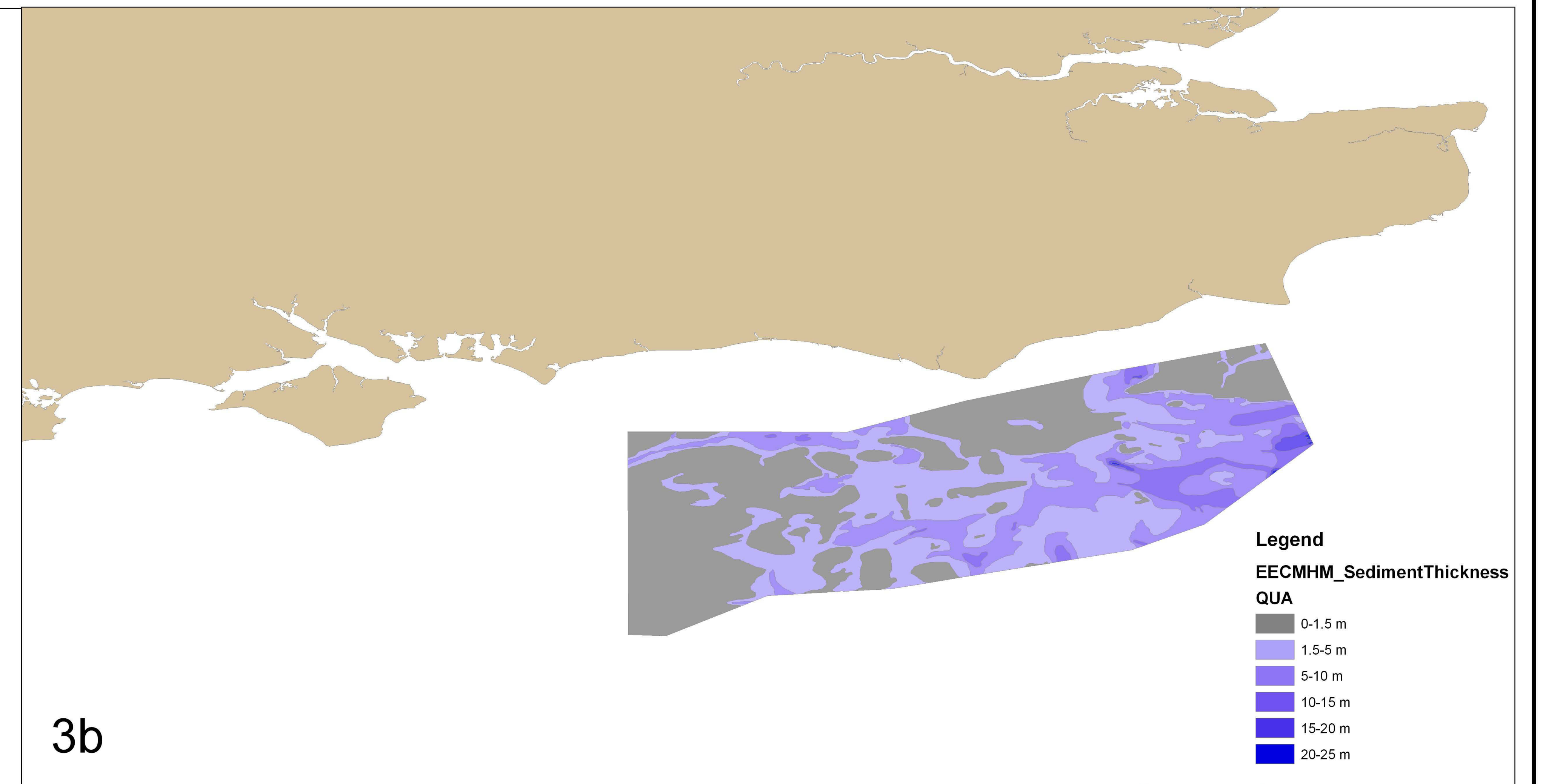
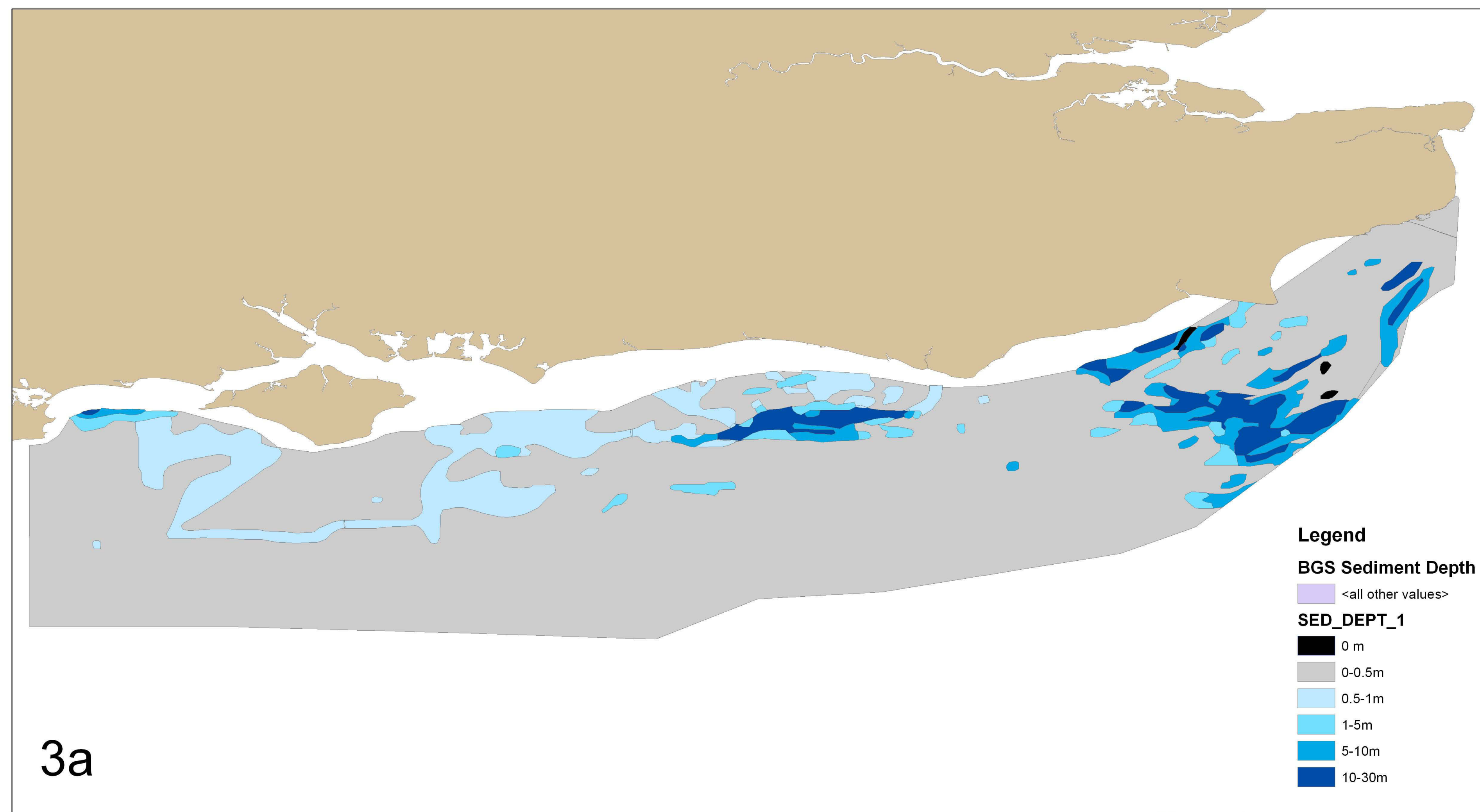
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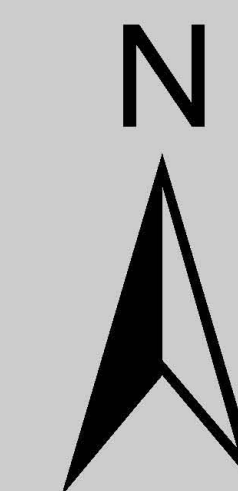
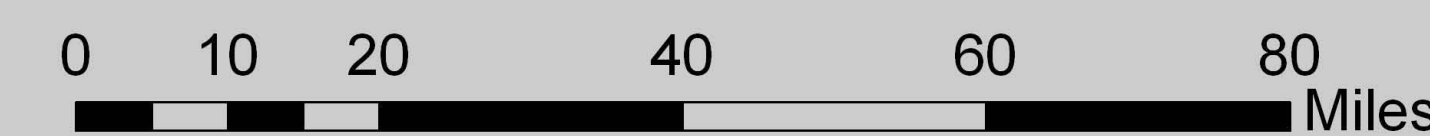
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Data Source: Sediment Depth



Map 3a: Digitisation of BGS sediment depth map  
 Map 3b: Sediment depth data from ALSF Eastern English Channel Marine Habitat Mapping project  
 Map 3c: AMAP sediment depth analysis showing raster results of Seazone gridded bathymetry extracted from BGS depth to bedrock  
 Map 3d: AMAP derived sediment depth layer combining data from Maps a & b.



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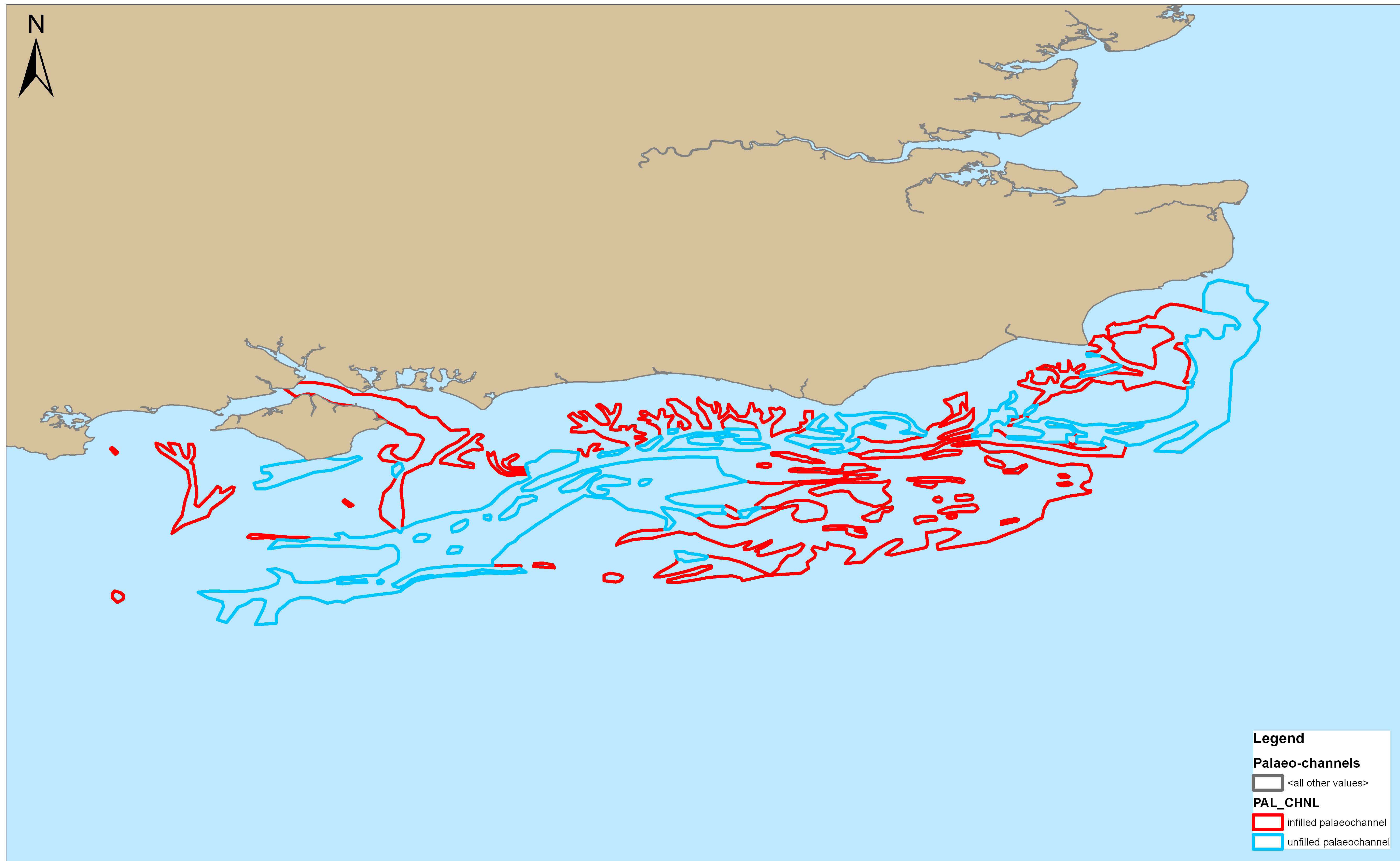
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Data Source: Palaeo-channels



Map 4: Unfilled and infilled palaeochannels digitised and generalised from BGS(1992)

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Palaeo-channels: Derived from BGS data

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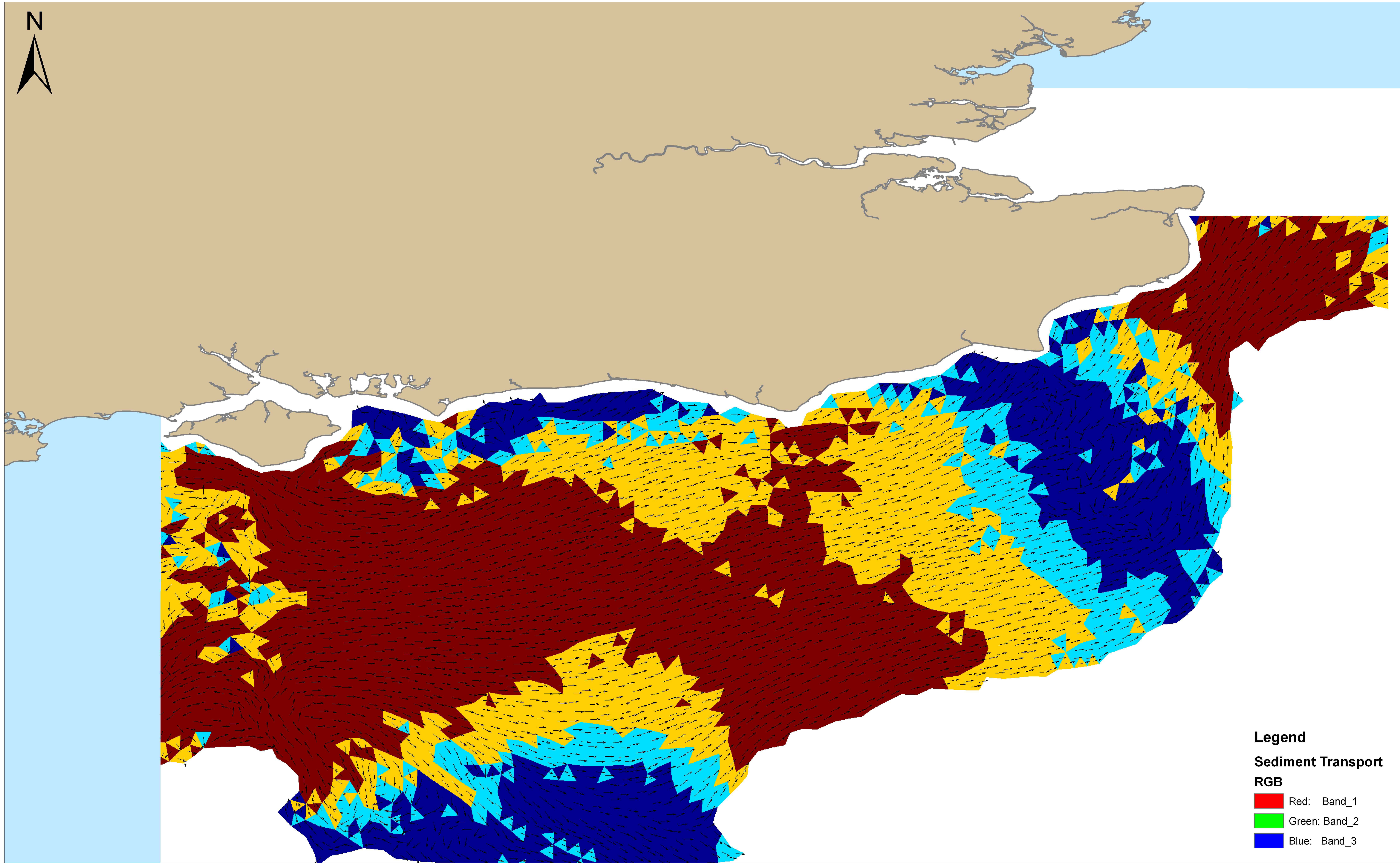
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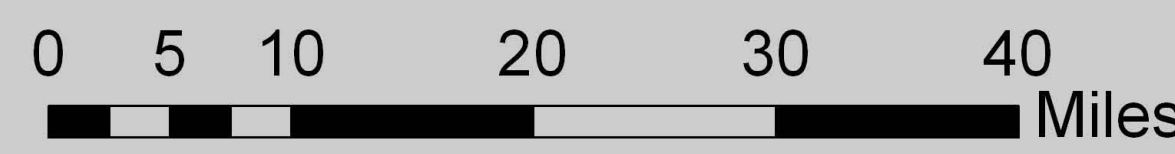
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Data Source: Sediment Transport



Map 5: Sediment Transport model produced as part of the ALSF project "Development of a Regional Sediment-Erosion Model for submerged Archaeological Sites" undertaken by Southampton University.



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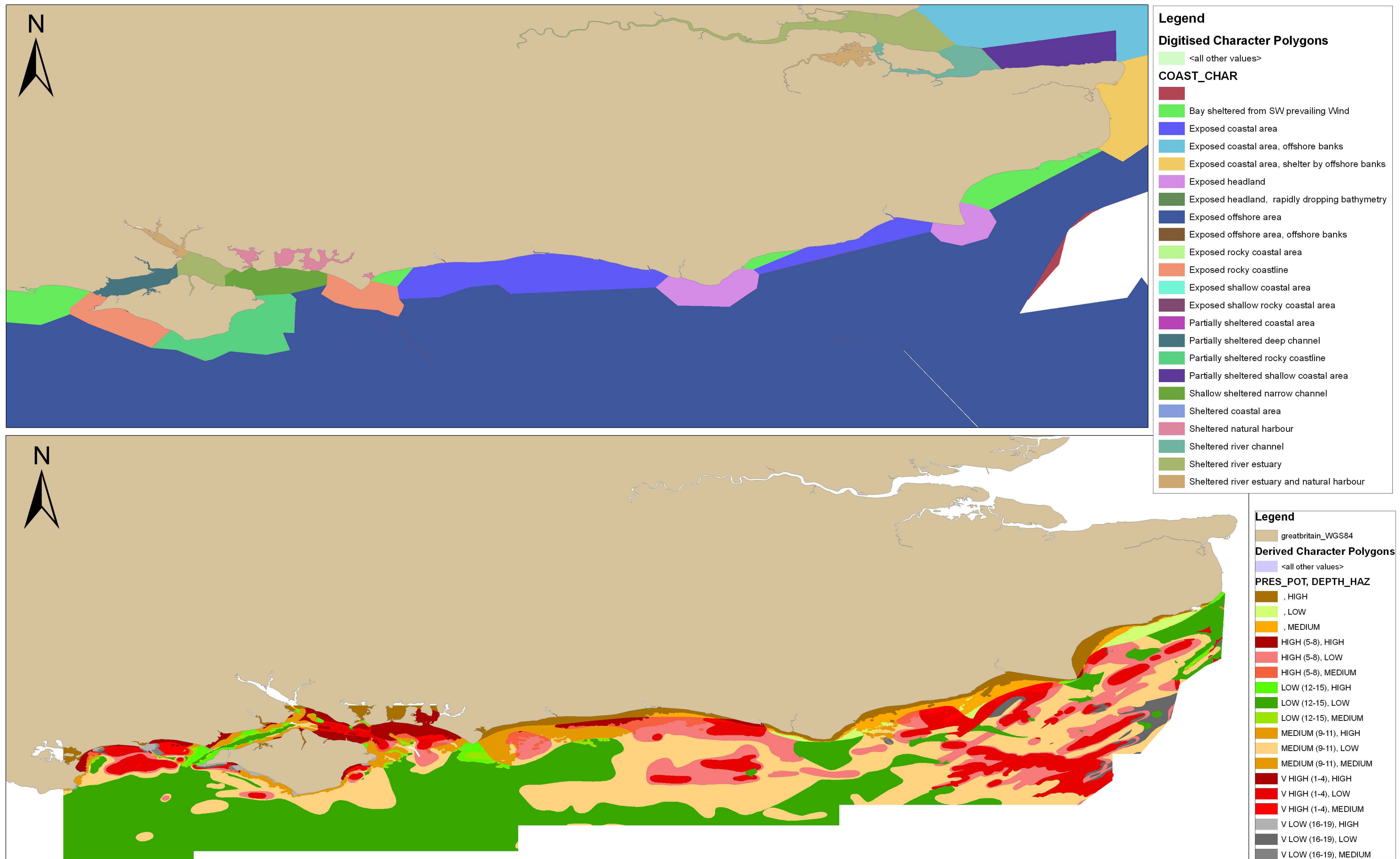
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## Data Source: ALSF Navigational Hazards Project



Map 6a: Digitised results of ALSF Navigational Hazards Project showing characterisation of natural marine environmental hazards

Map 6b: Derived results of ALSF Navigational Hazards Project showing AMAPs where a high risk to navigation coincides with a potential for preservation in surface seabed sediments

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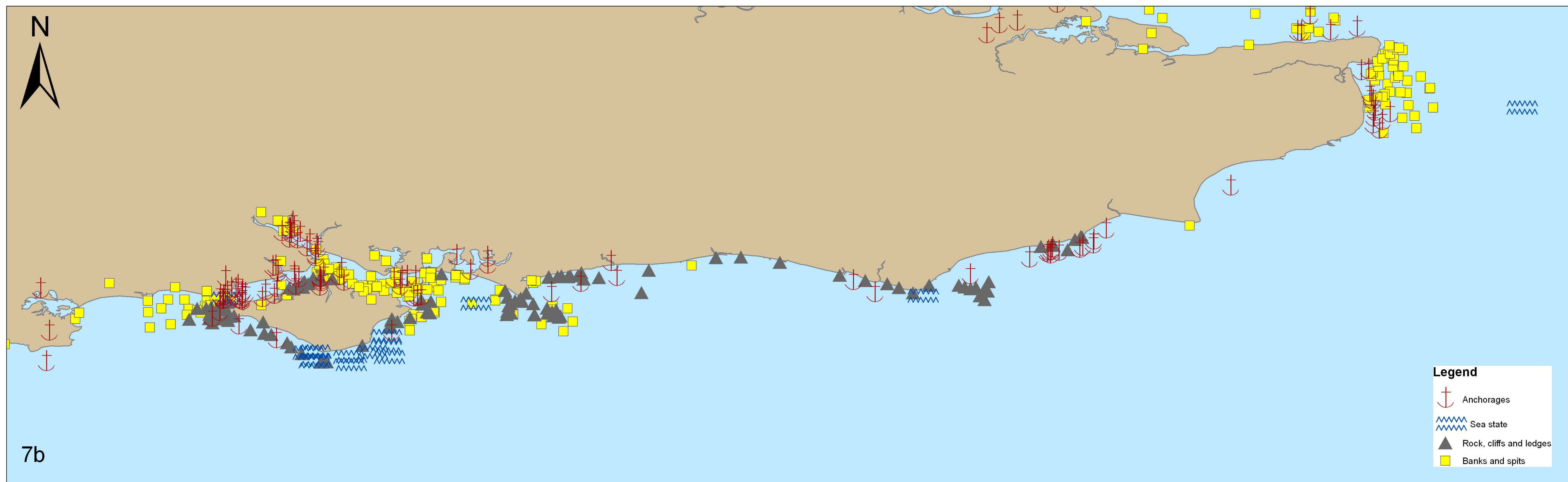
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Data Source: ALSF Navigational Hazards point data  
and Nodes of Maritime Activity



Map 7a: Digitised points showing ports and harbours representing nodes of maritime activity

Map 7b: Point data on natural hazards gathered for the ALSF Navigational Hazards Project



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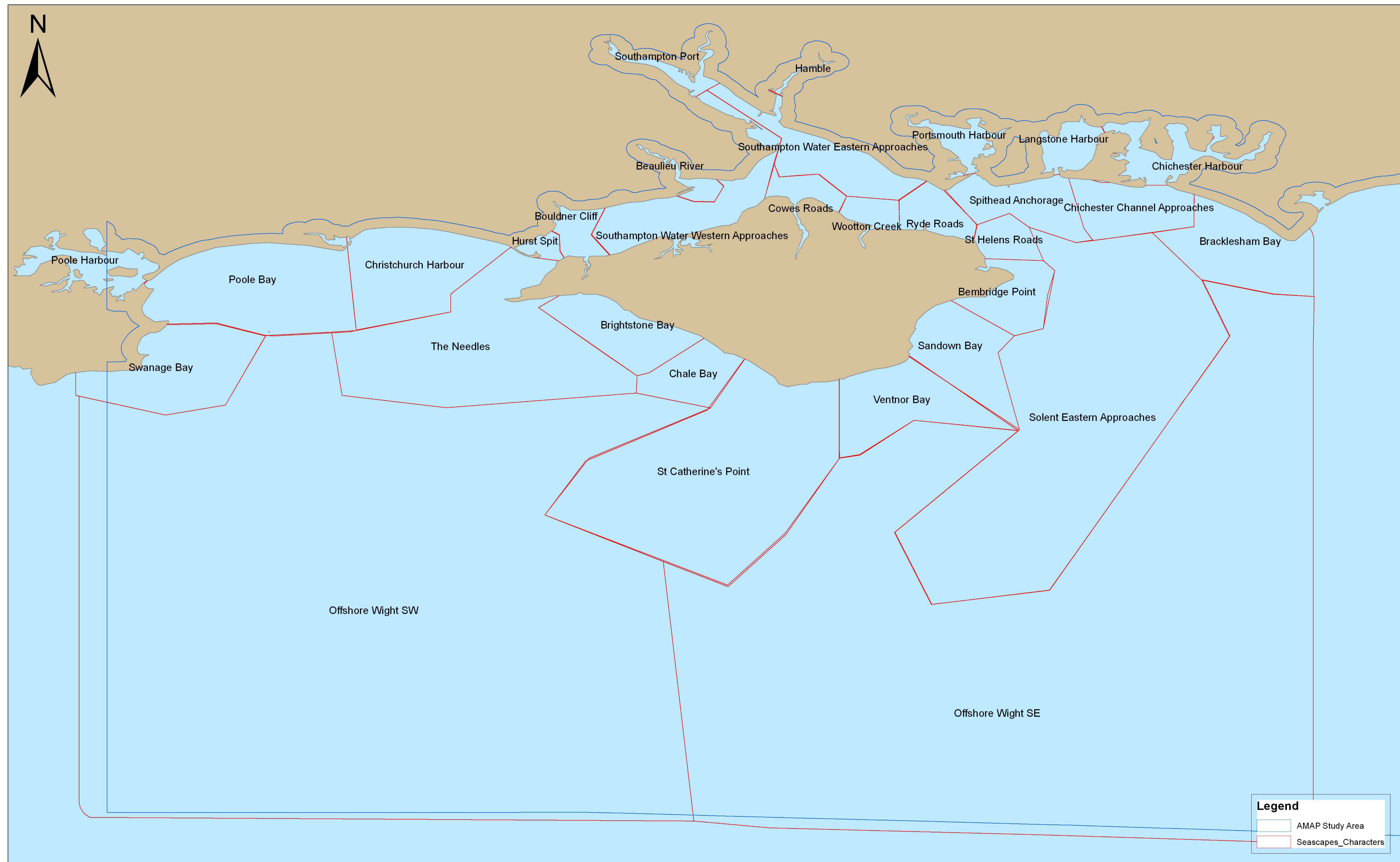
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Source: Solent & Wight Seascapes Marine Historic Landscape Characterisation



Map 8: Solent & Wight Seascapes Pilot Characterisation project results



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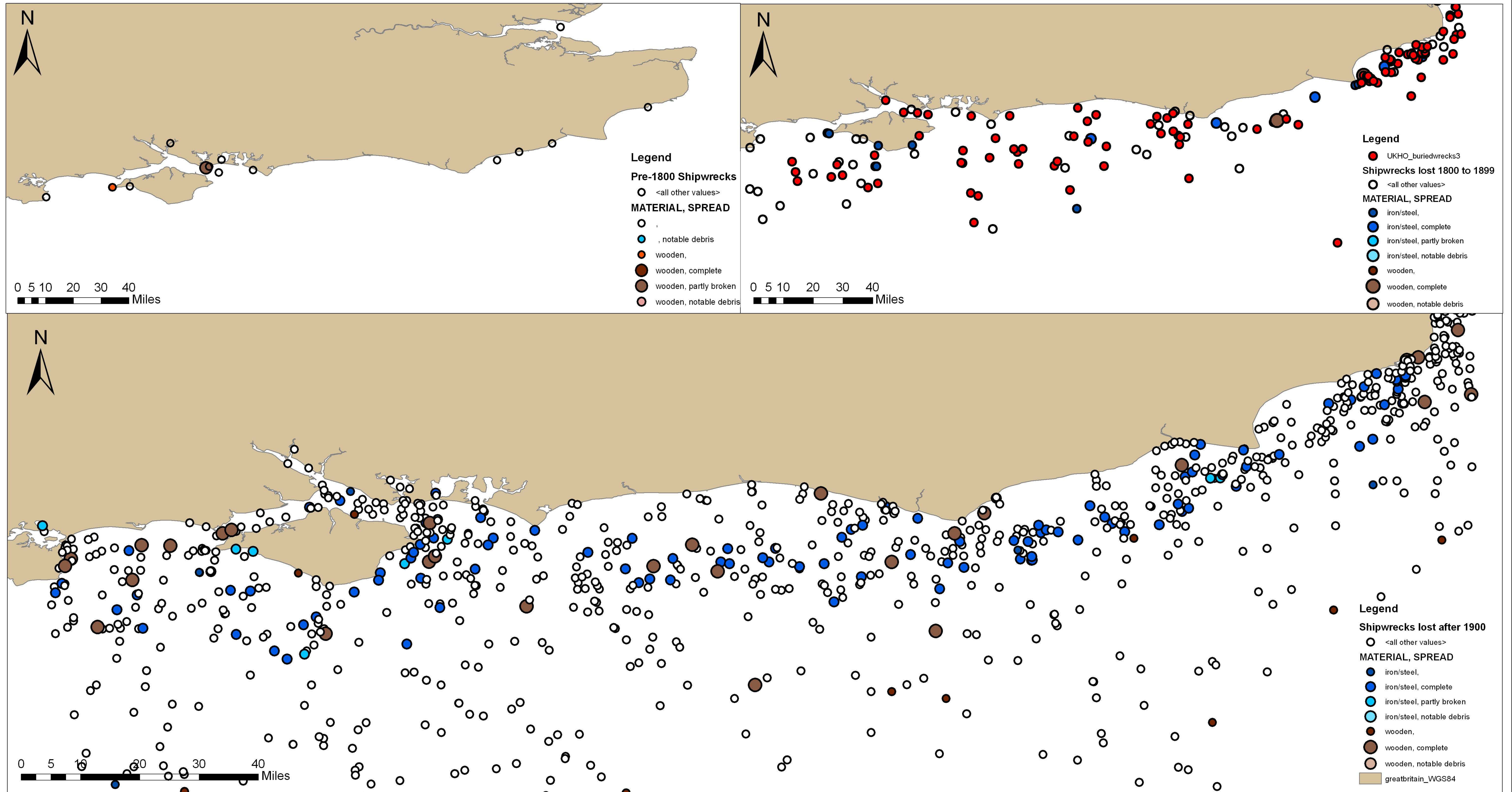
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# AMAP1 Project - Analysis

## Analysis: Wrecks by Period



Map 9a: Shipwrecks recorded as having sunk before 1800, showing predominance of wooden vessels

Map 9b: Shipwrecks recorded as having sunk between 1800 and 1899, showing a mixture of wooden and iron/steel vessels in a range of conditions

Map 9c: Shipwrecks recorded as having sunk after 1900 showing a vast majority of complete iron/steel vessels

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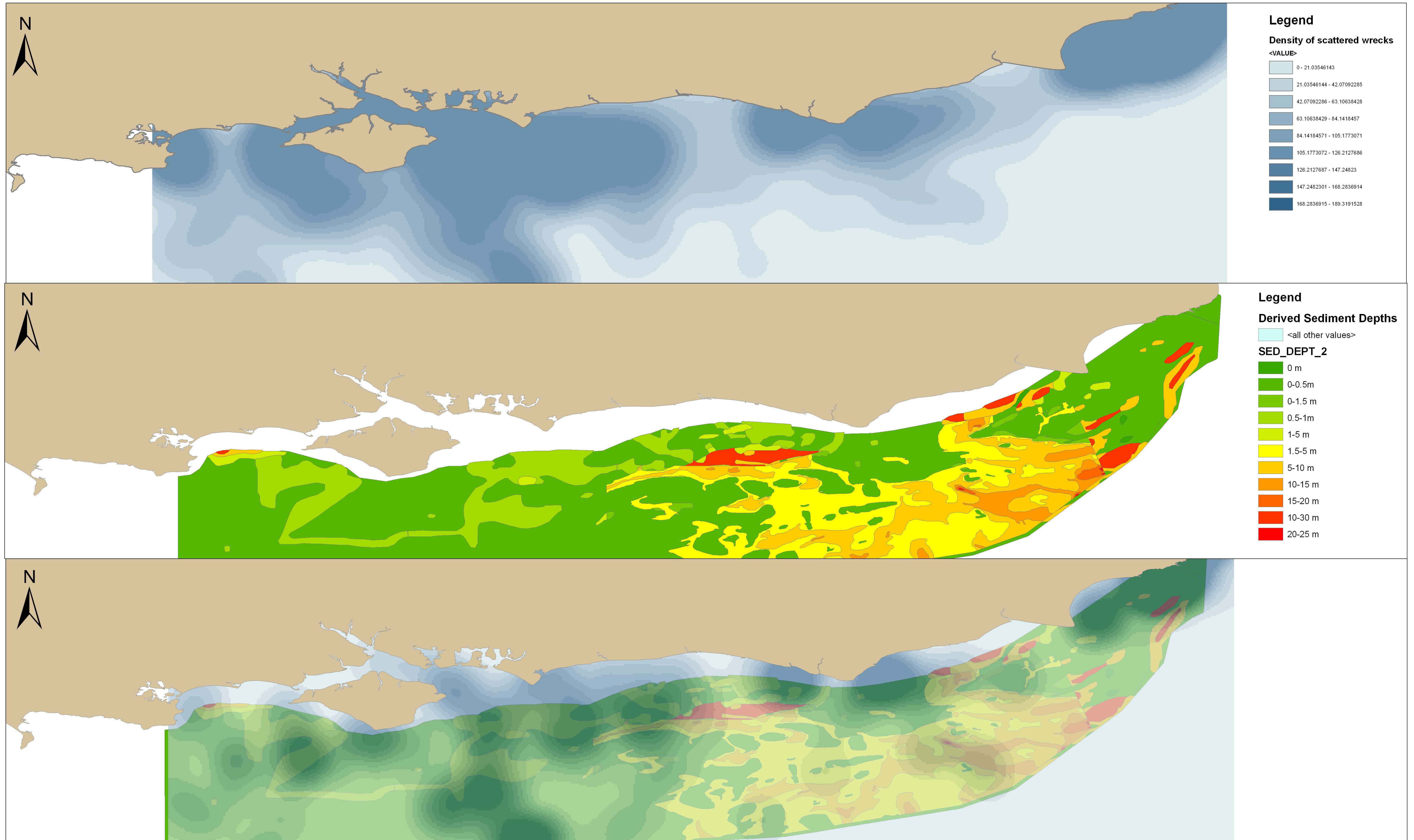
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# AMAP1 - Data Analysis

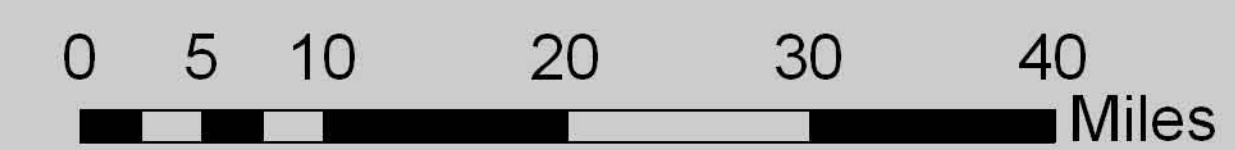
## Data Analysis: Sediment Depth vs. Scattered Shipwrecks



Map 10a: Density Map of Wrecks recorded as broken up or scattered

Map 10b: Sediment Depth Character Polygons derived from BGS and the ALSF Eastern English Channel Marine Habitat Mapping project

Map 10c: Density map of scattered wrecks overlaid with sediment depth



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Sediment Depth Data derived from BGS and EECMHM

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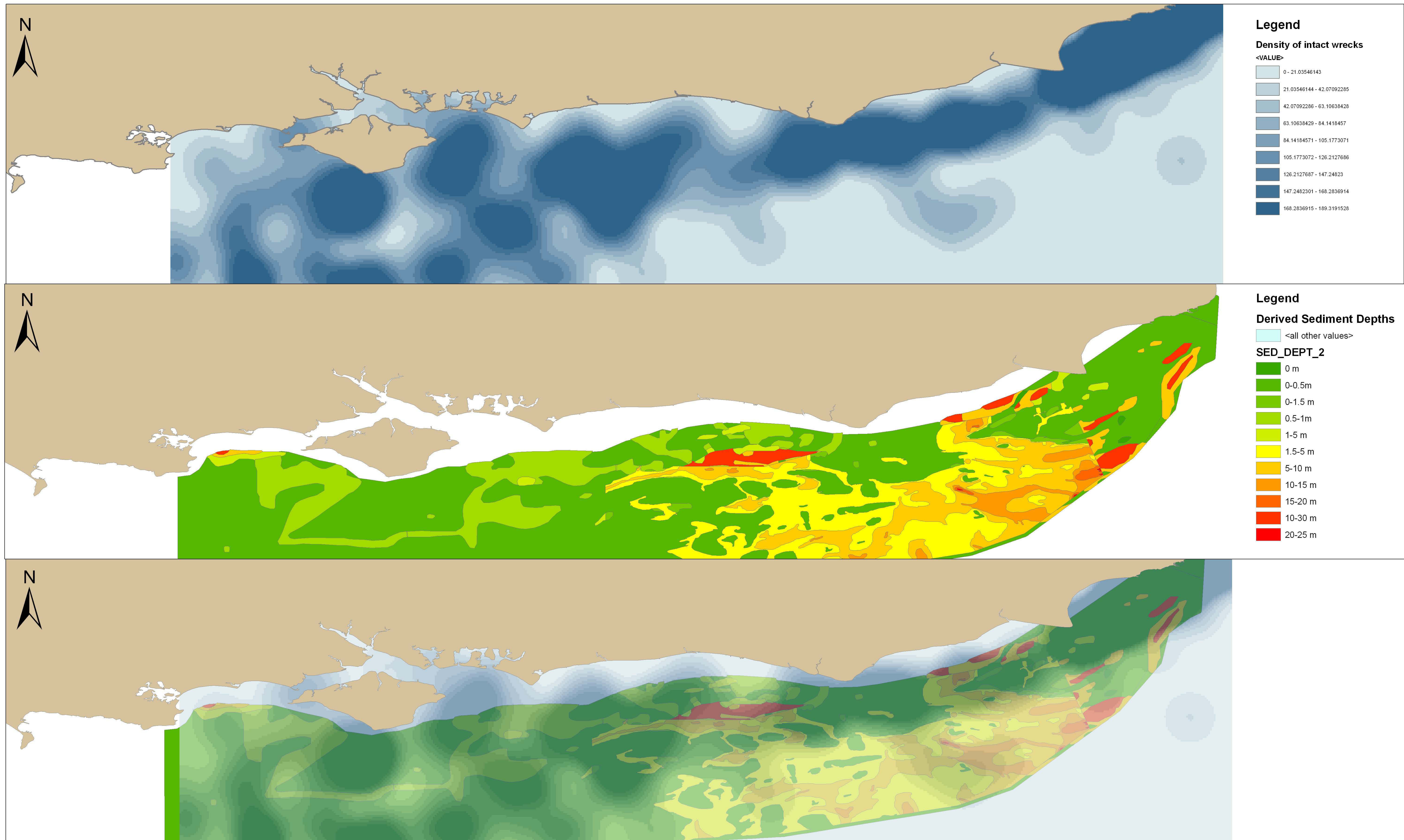
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# AMAP1 - Data Analysis

## Data Analysis: Sediment Depth vs. Intact Shipwrecks



Map 11a: Density Map of Wrecks recorded as intact

Map 11b: Sediment Depth Character Polygons derived from BGS and the ALSF Eastern English Channel Marine Habitat Mapping project

Map 11c: Density map of intact wrecks overlaid with sediment depth



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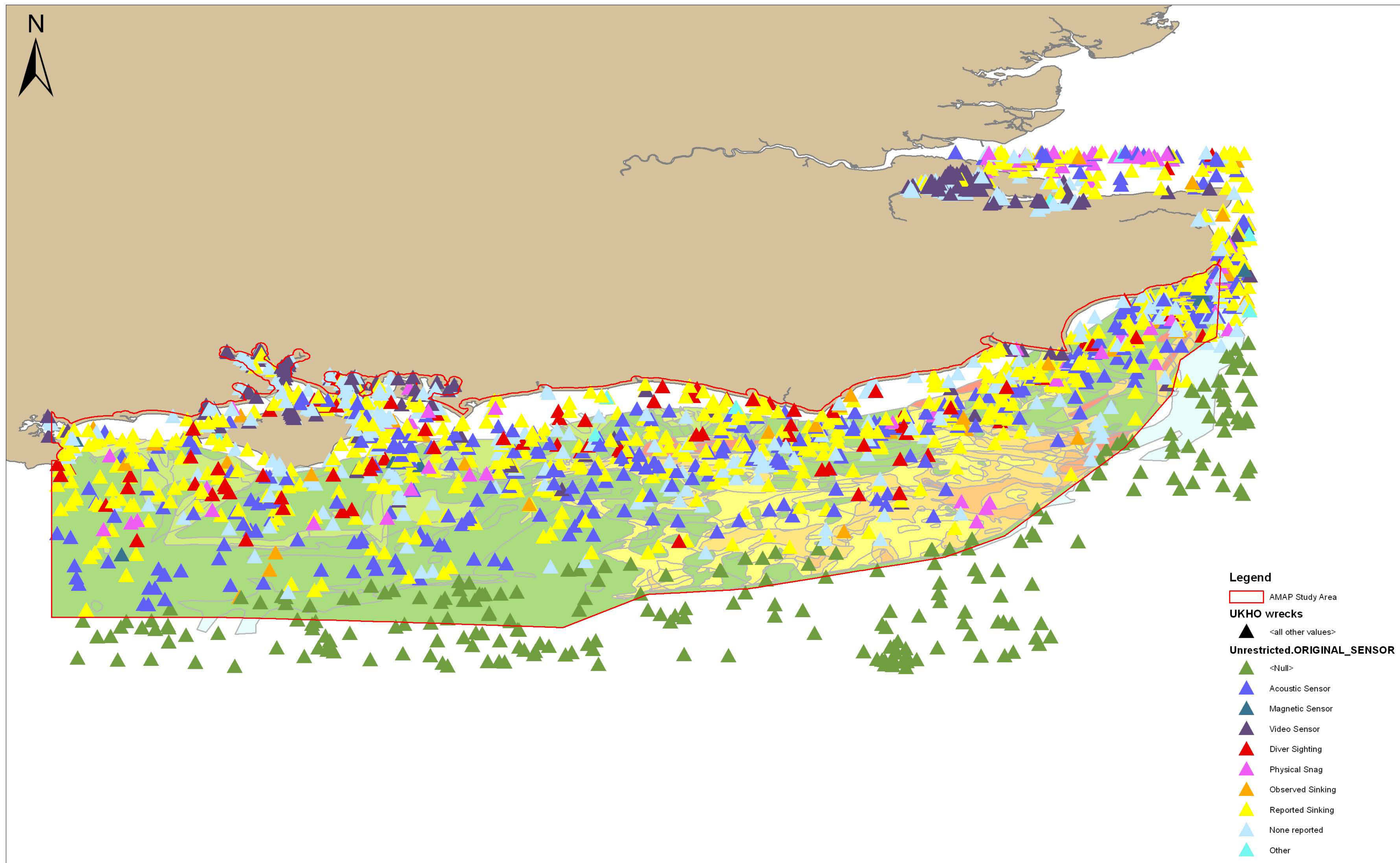
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## Data Analysis: Identification of UKHO wrecks



Map 12: UKHO wrecks queried by their method of identification

0 5 10 20 30 40  
Miles

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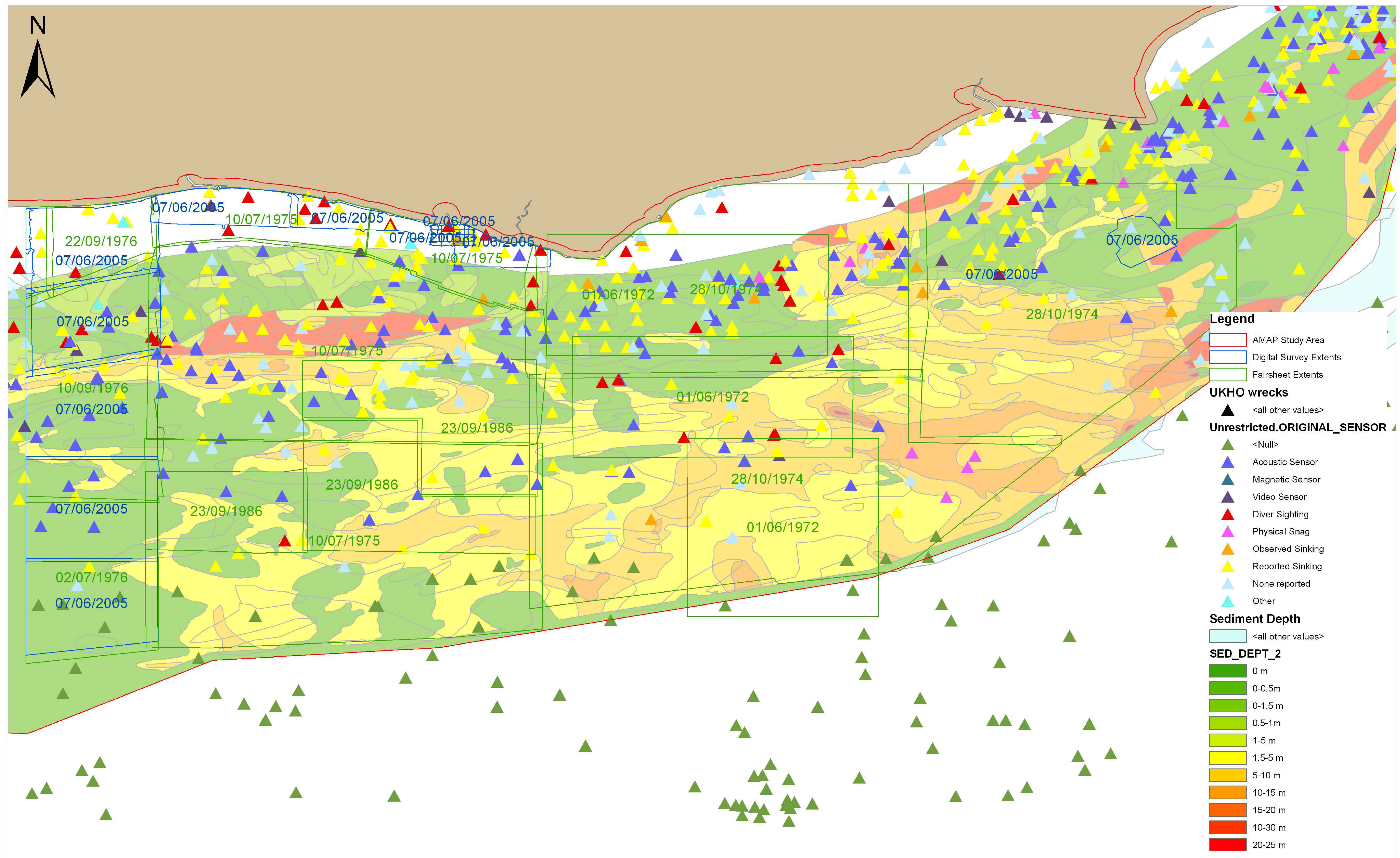
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## Data Analysis: Survey Metadata vs. Identification Method



Map 13: UKHO wrecks queried by their method of identification overlaid with hydrographic survey areas and sediment depth

0 2.5 5 10 15 20 Miles

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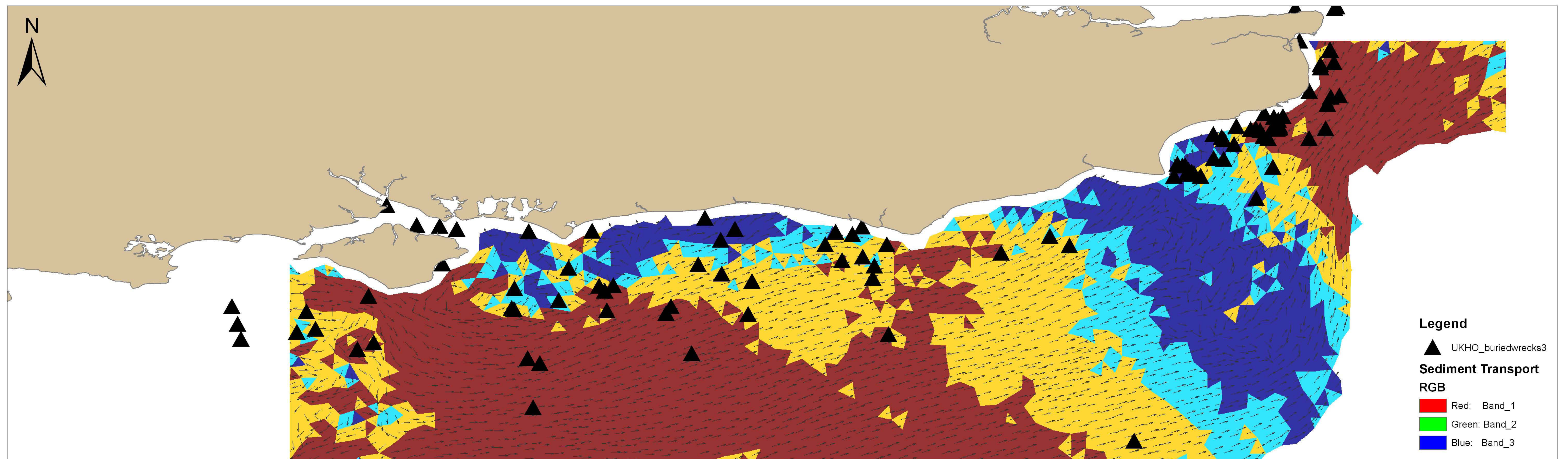
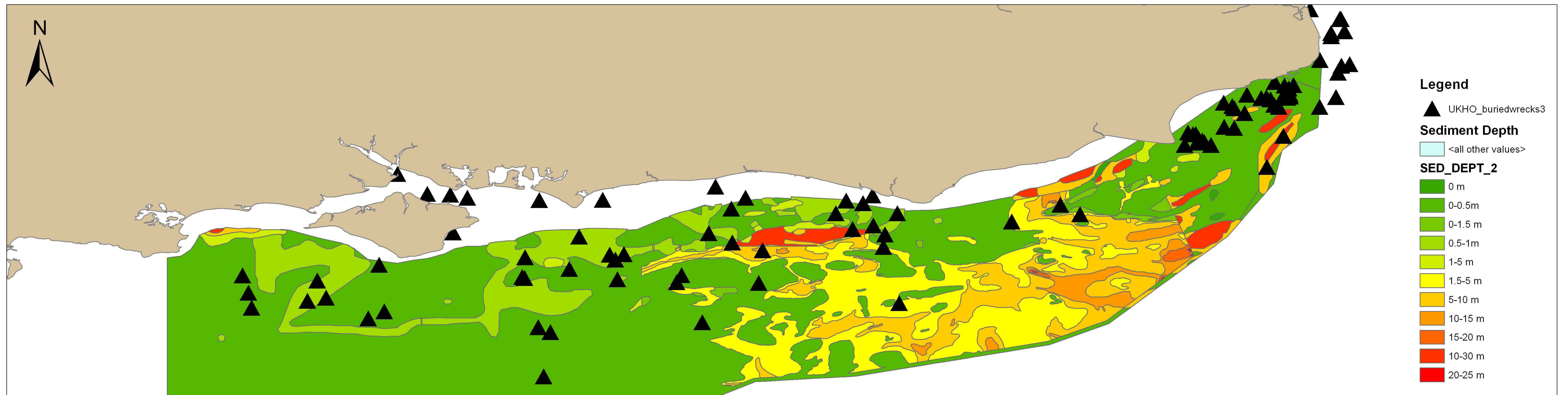
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# AMAP1 - Data Analysis

## Data Analysis: Buried Wrecks vs. Sediment Depth and Sediment Transport



Map 14a: Buried wrecks shown to correlate primarily with areas of sediment depth under 1.5m

Map 14b: Buried wrecks shown to correlate primarily with areas of medium or high sediment transport



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Sediment Depth Data derived from BGS

Sediment Transport: © Southampton University

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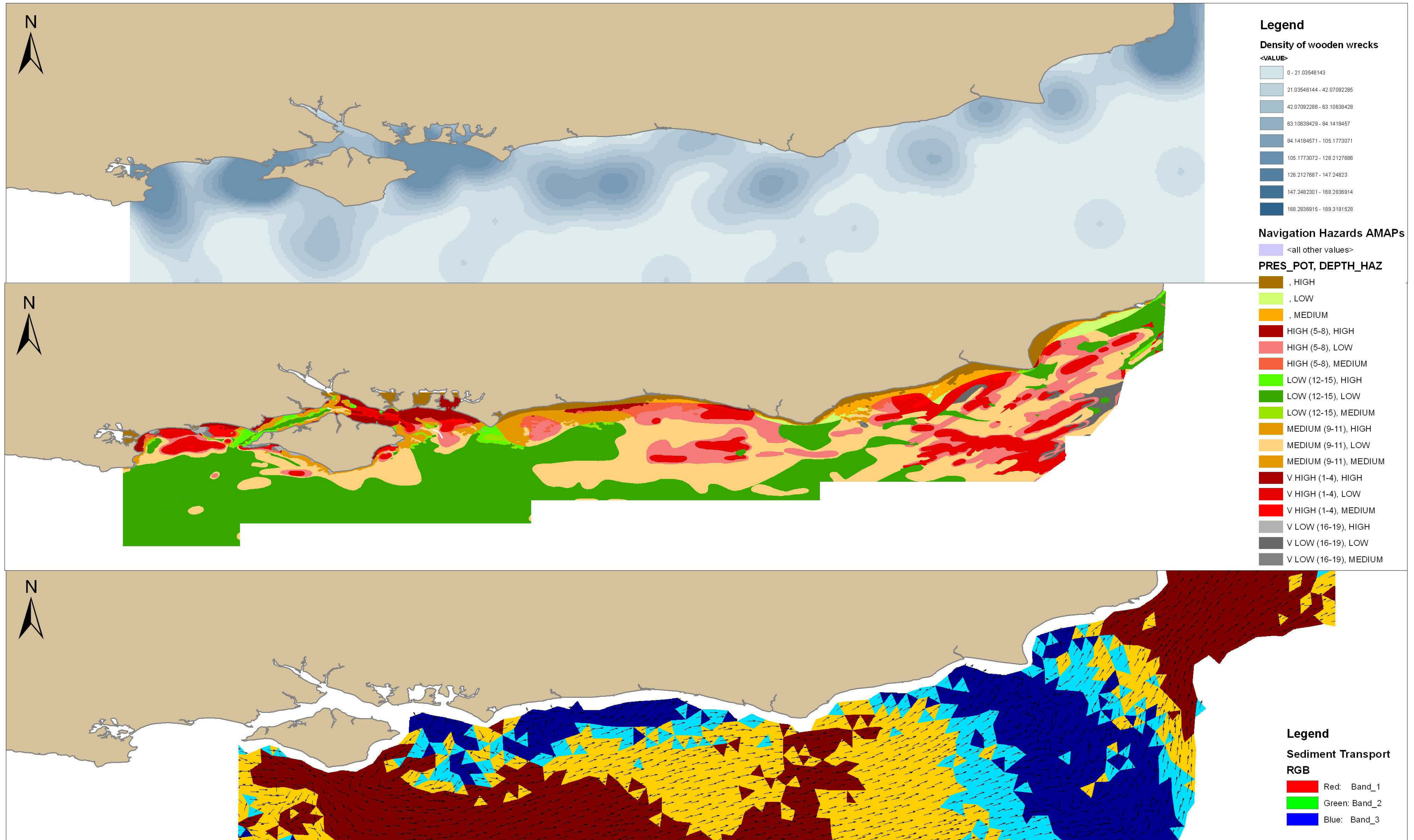
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# AMAP1 - Data Analysis

## Analysis: Wooden wrecks vs. AMAPs and Sediment Transport



Map 15a: Density raster of wrecks recorded as constructed of wood

Map 15b: Navigational Hazards project AMAP polygons

Map 15c: Sediment transport model produced by Southampton University



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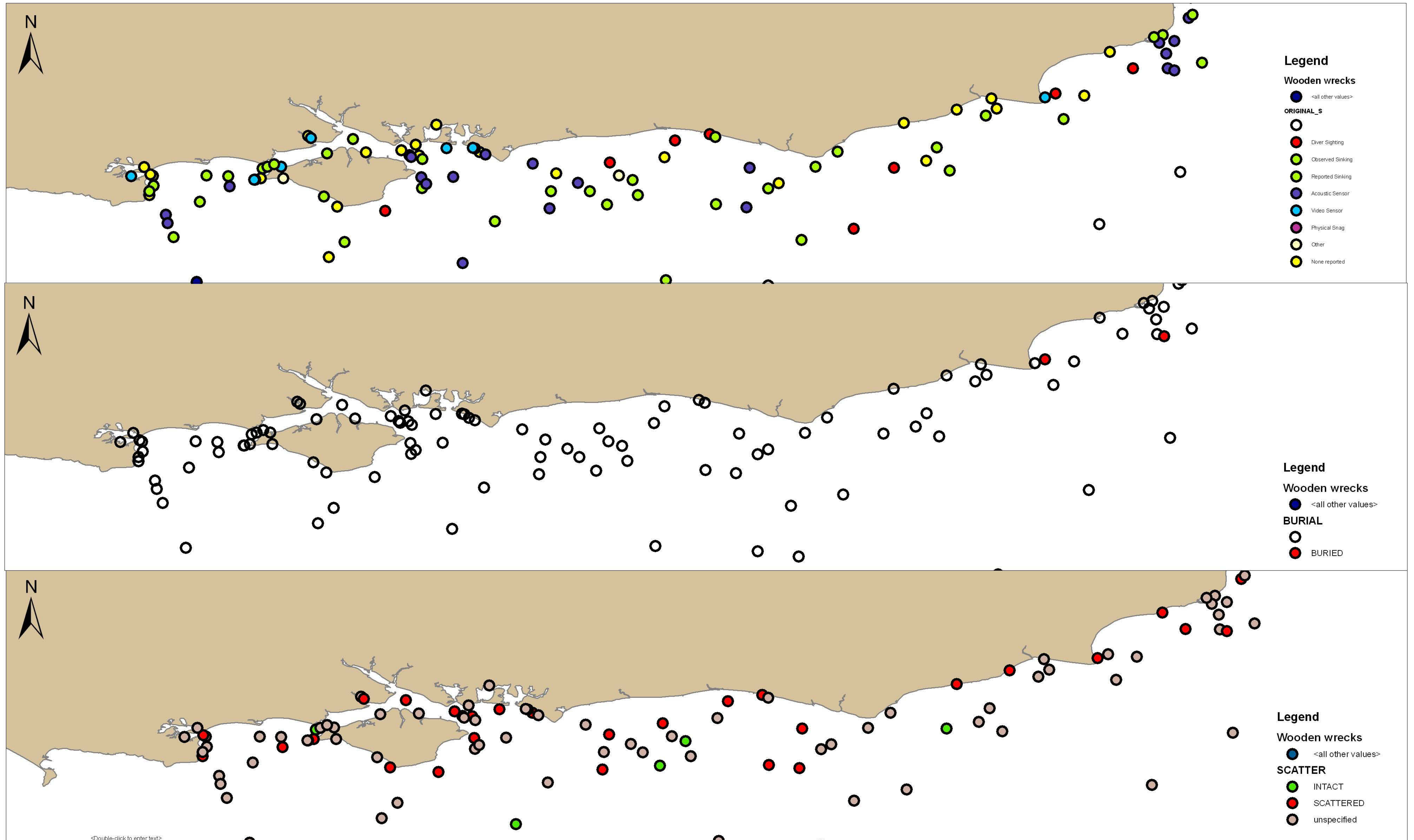
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# AMAP1 - Data Analysis

## Wooden wrecks - Point Data Analysis



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Map 16a: Wooden wrecks showing method of identification

Map 16b: Wooden wrecks showing buried sites

Map 16c: Wooden wrecks showing scattered and intact sites



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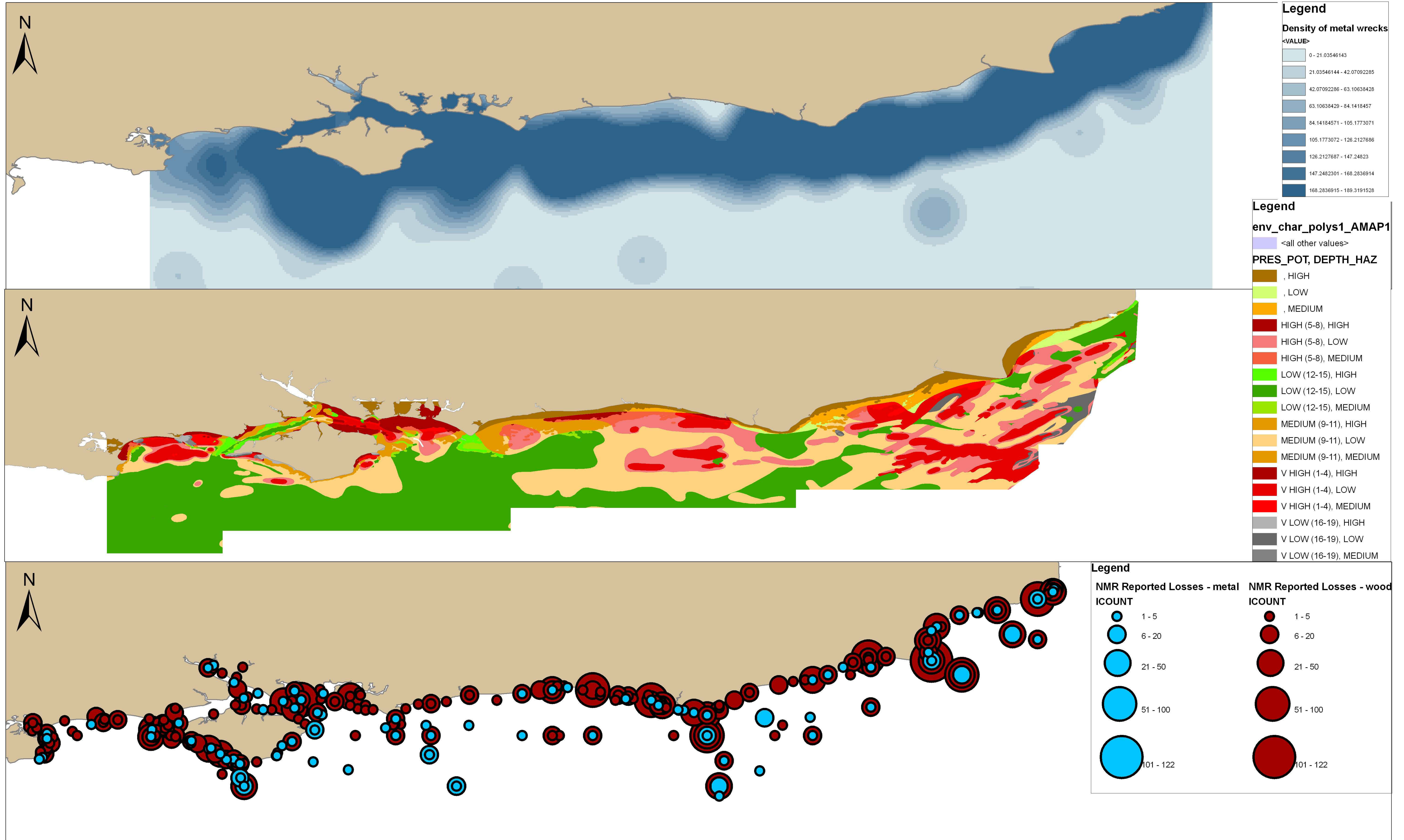
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# AMAP1 - Data Analysis

## Analysis: Iron/steel wrecks vs. AMAPs and NMR Reported Losses



Map 17a: Density raster analysis of Wrecks recorded as constructed of iron or steel

Map 17b: AMAPs produced through the ALSF Navigational Hazards project to reflect a high risk to navigation and high potential for preservation.

Map 17c: Density map of NMR reported losses represented using named locations, showing a far higher number of reported losses of wooden ships than iron or steel vessels



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Wreck data: derived from UKHO and NMR databases

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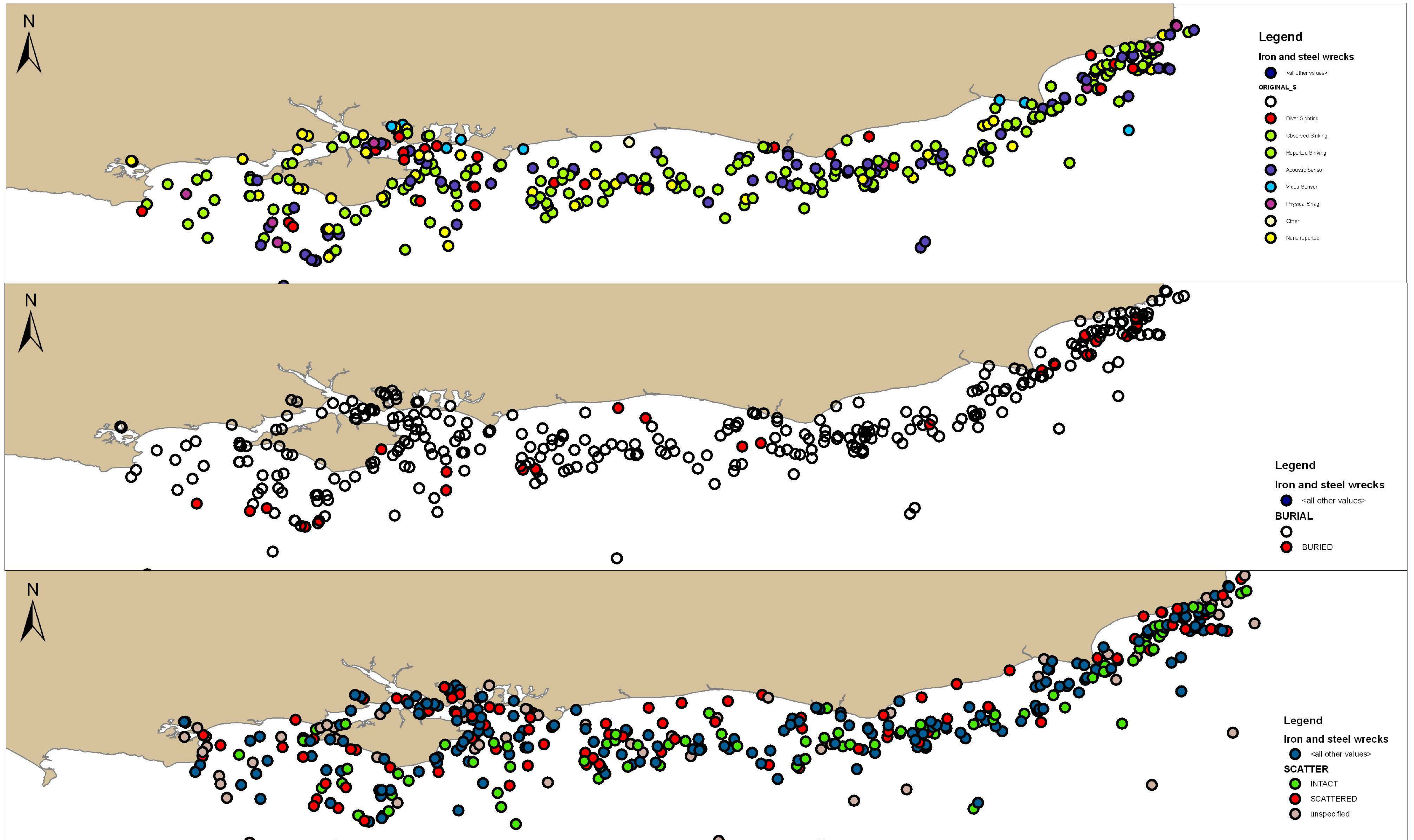
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# AMAP1 - Data Analysis

## Analysis: Iron/steel wrecks - Point Data Analysis



Map 18a: Iron and steel wrecks displayed by their method of identification

Map 18b: Iron and steel wrecks displayed by their degree of burial

Map 18c: Iron and steel wrecks displayed by their degree of scatter

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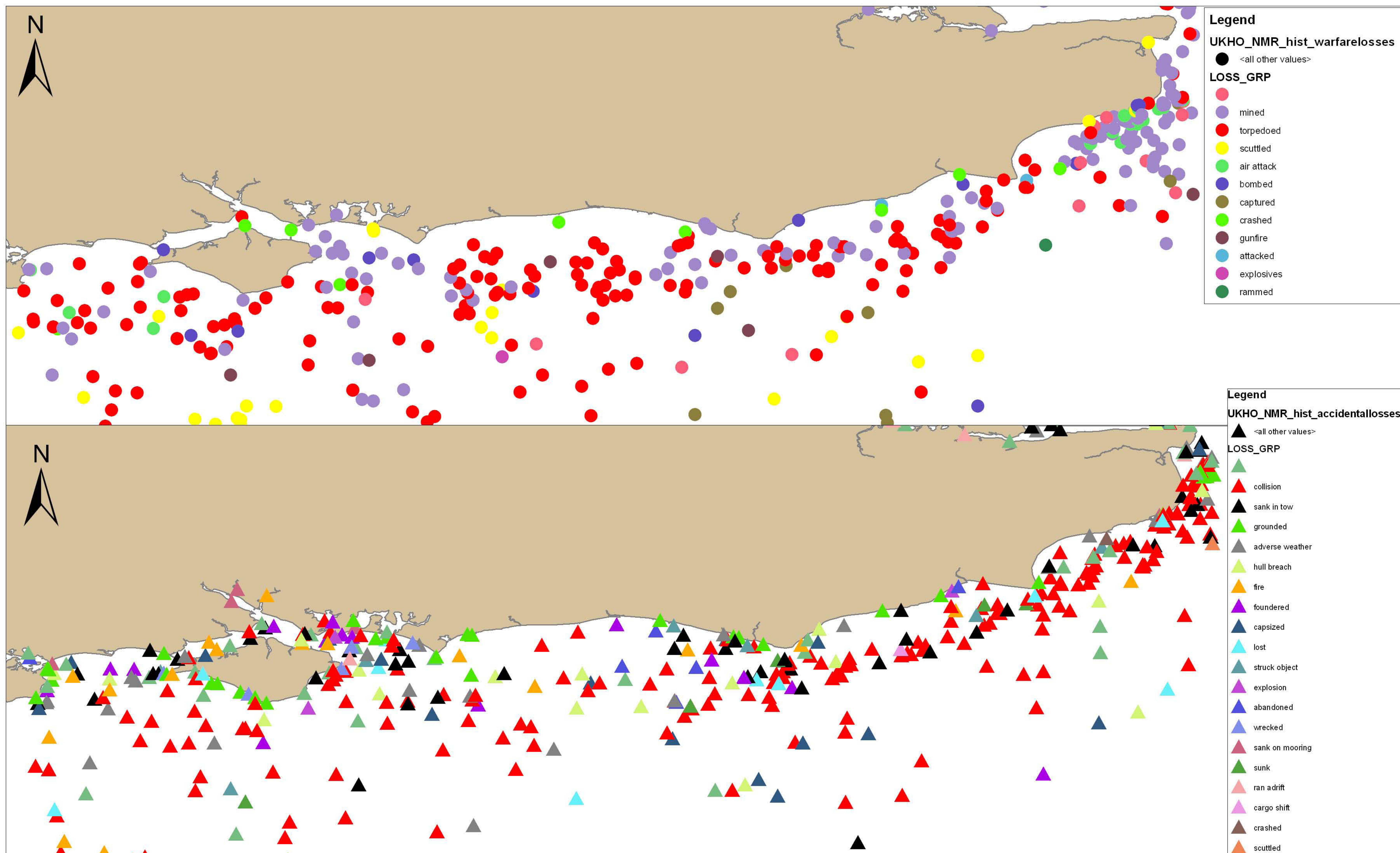
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## Data Analysis: Wrecks Analysed by Manner of Loss



Map 19a: Wrecks lost through accidental circumstances

Map 19b: Wrecks lost through military action

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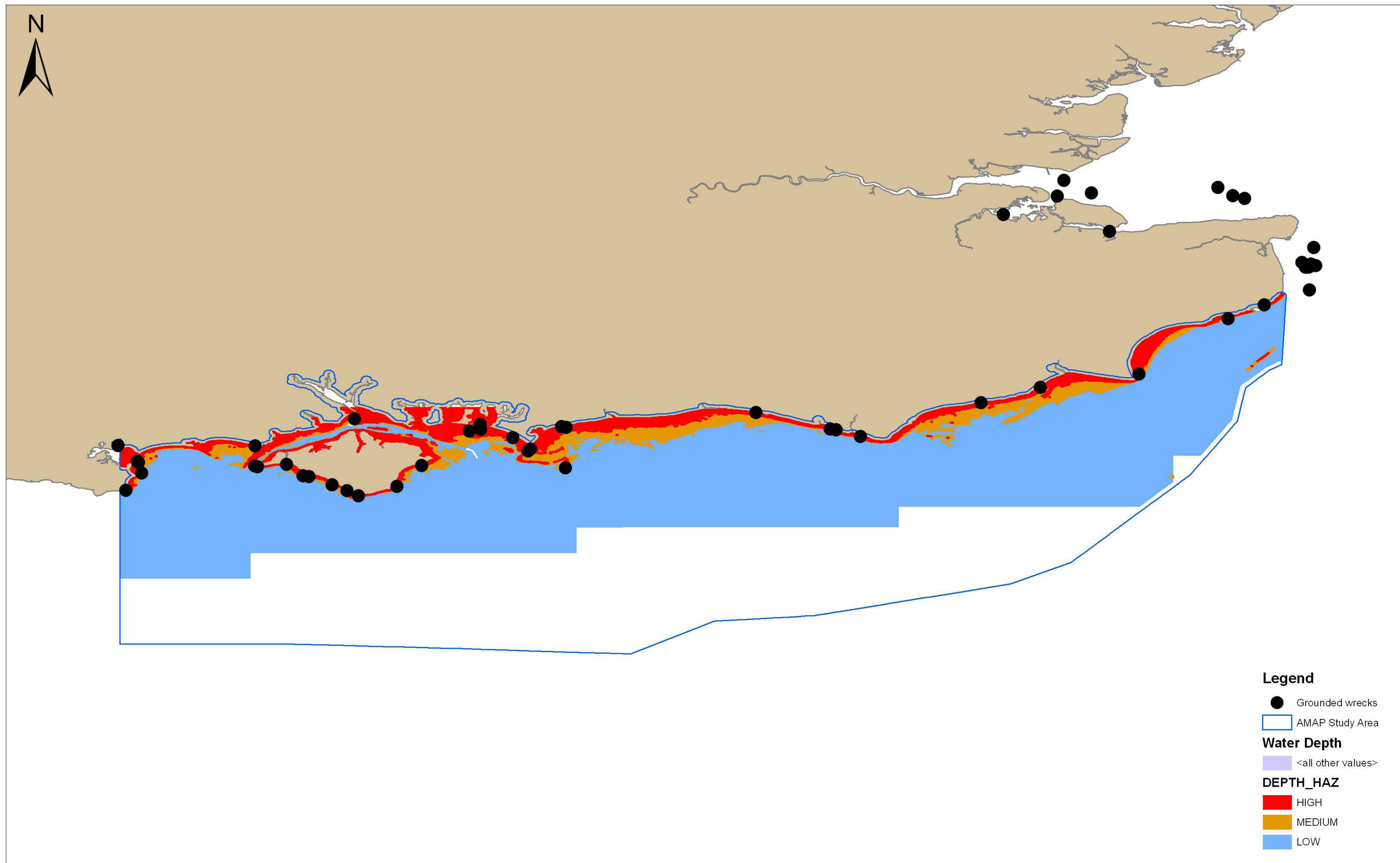
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## Analysis: Wrecks lost due to grounding



Map 20: Wrecks lost due to grounding



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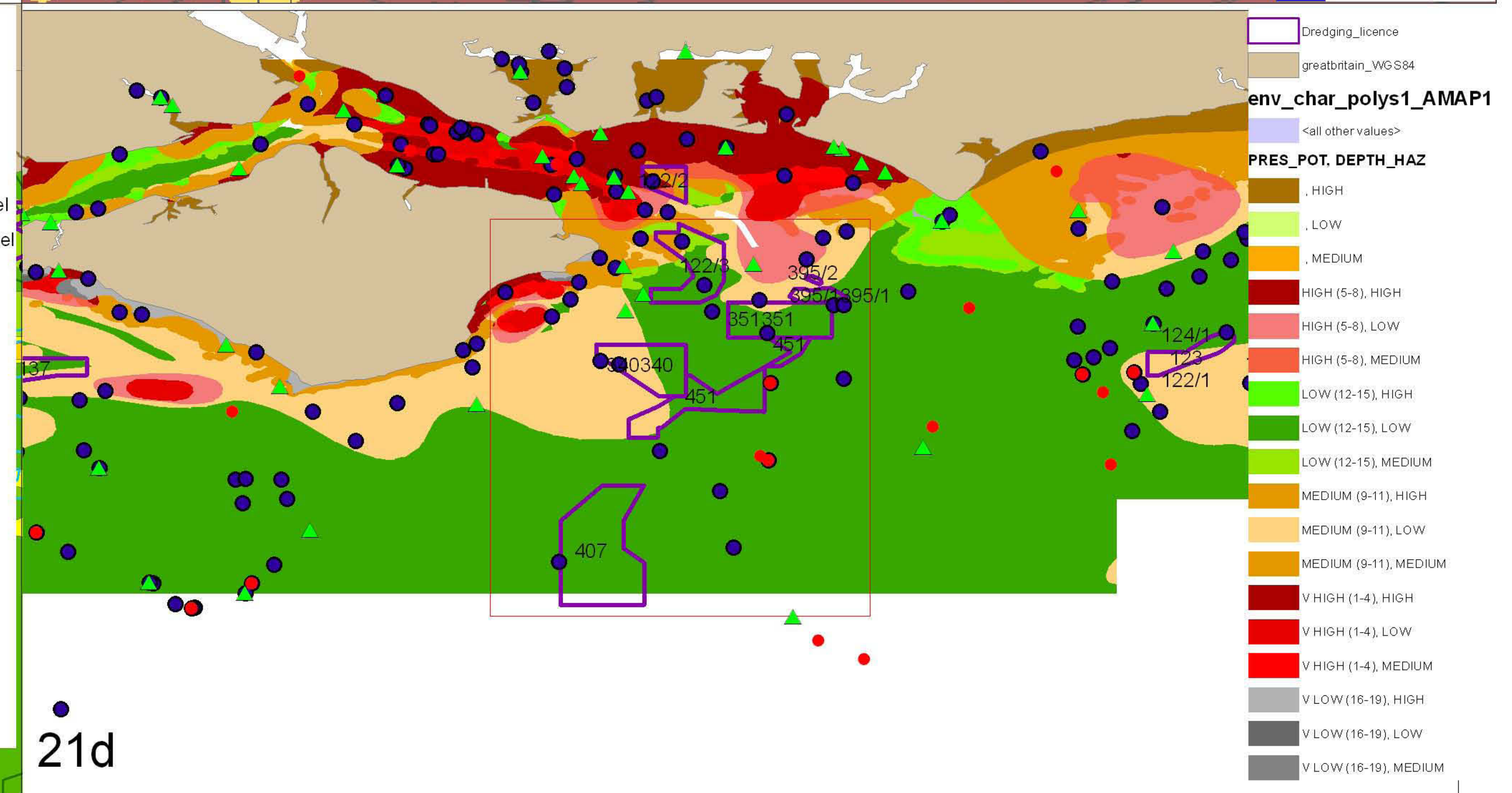
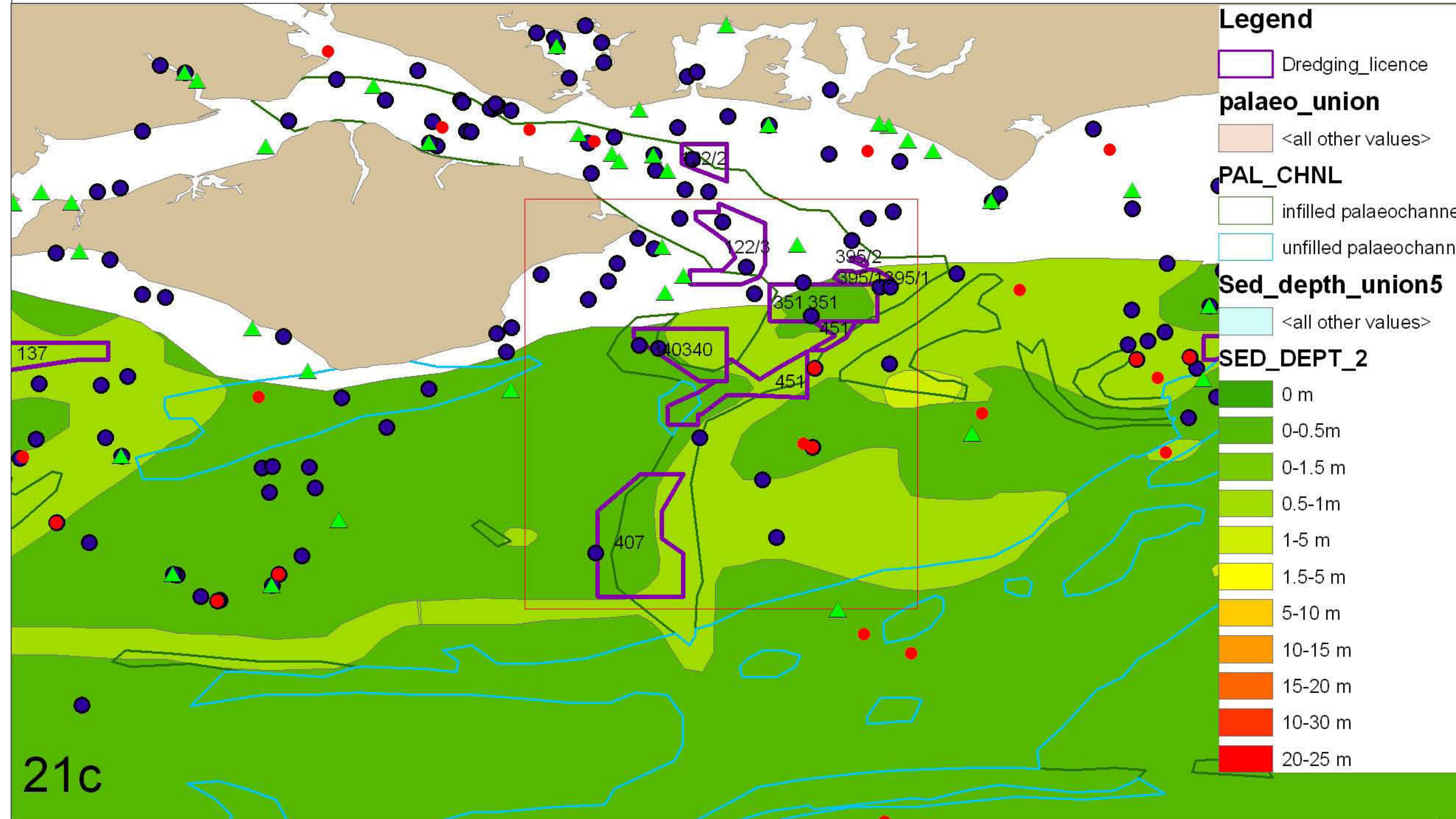
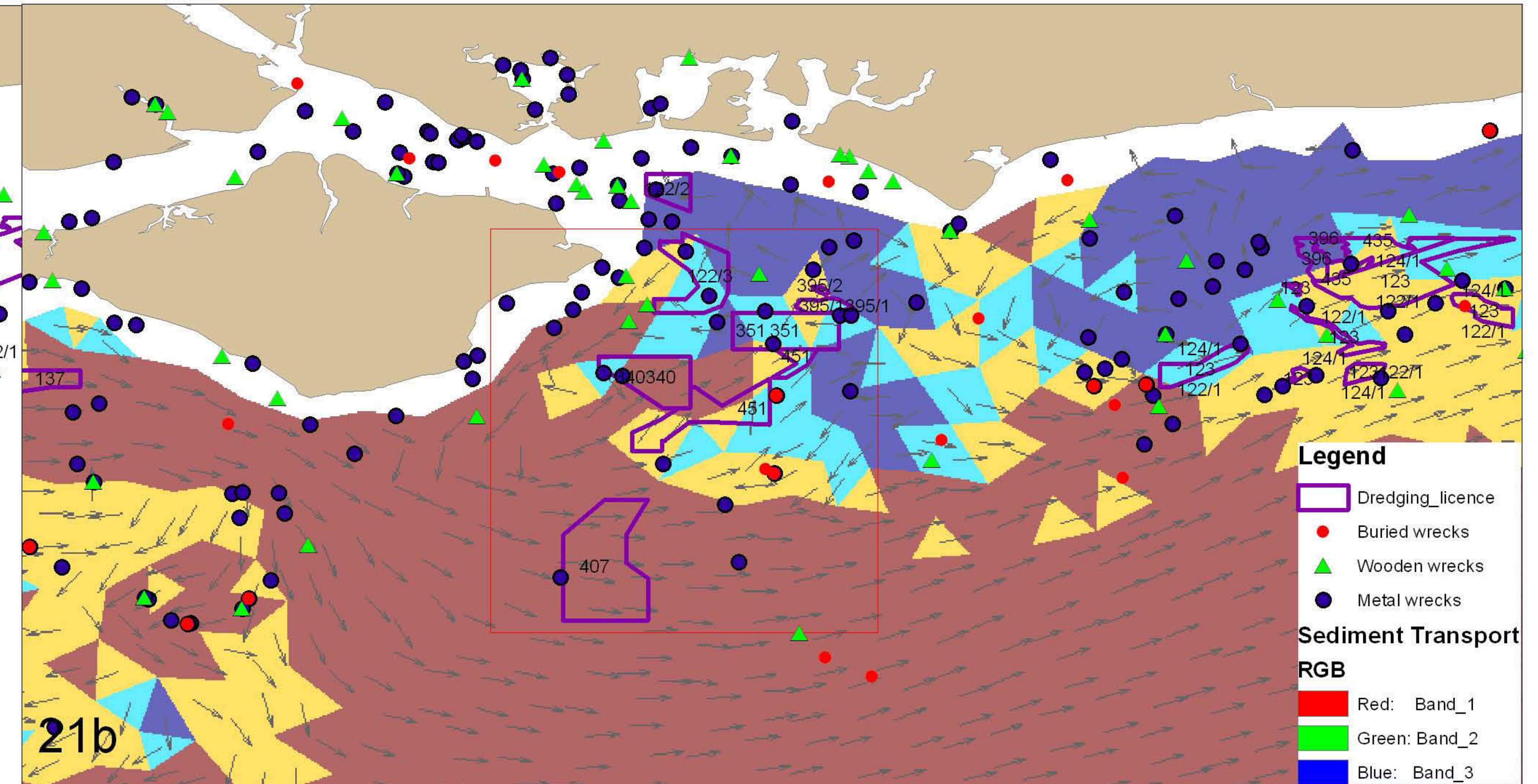
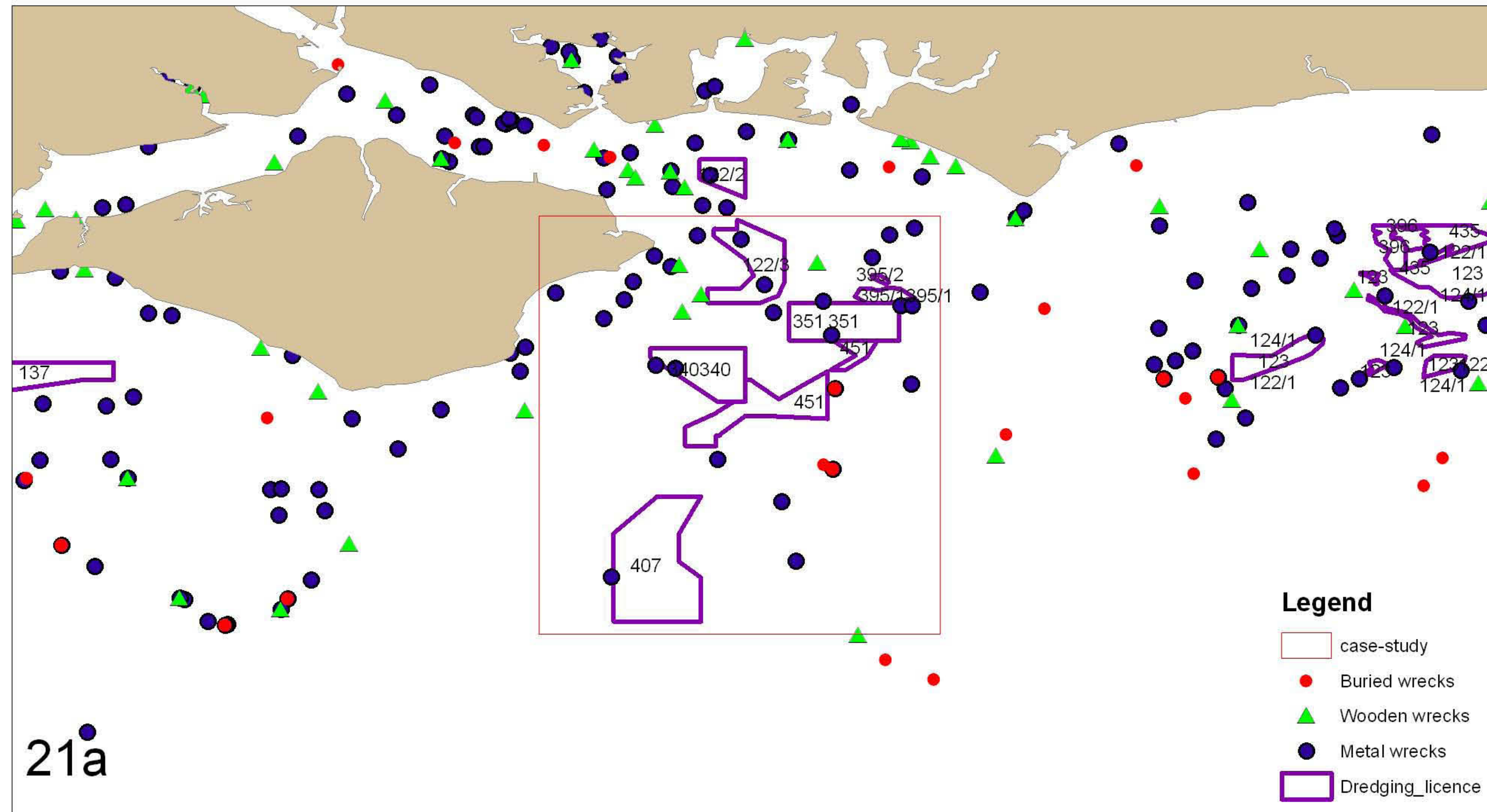
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# AMAP1 Final Report

Data Source: Sediment Depth



Map 21a: Case-study area showing locations of aggregate licence areas, and wooden, metal and buried wrecks  
 Map 21b: Case-study wreck data overlaid with sediment transport model  
 Map 21c: Case-study wreck data overlaid with sediment depth map and palaeo-channels  
 Map 21d: Case-study wreck data overlaid with Navigational Hazards AMAP



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