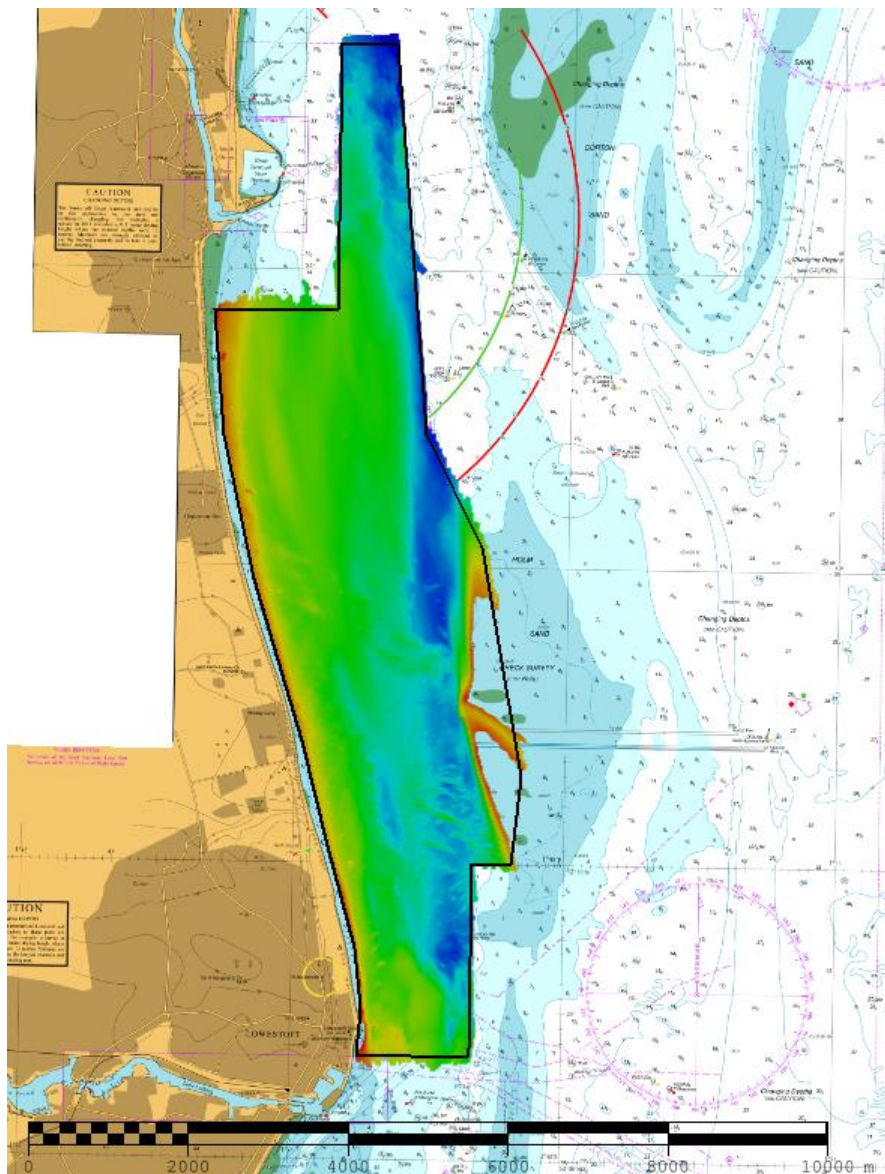




UK Hydrographic
Office

EAST ANGLIA EA8 – THE ROADS 2017 ASSESSMENT

An assessment of the 2017 hydrographic survey of the area: to monitor recent seabed movement; to identify any implications for shipping; and to make recommendations for future surveys.



CONTENTS

1. SUMMARY	1
2. LOCATION	1
3. REFERENCE SURVEY DETAIL	3
4. COMPARISON SURVEY DETAIL	4
5. DESCRIPTION OF RECENT BATHYMETRIC CHANGE	4
6. RECOMMENDATIONS FOR FUTURE SURVEYS	7

Notes

This Assessment is produced by the UK Hydrographic Office (UKHO) for the Maritime and Coastguard Agency (MCA). Analysis of the Routine Resurvey Areas forms part of the Civil Hydrography Programme and the reports are made available to through the UKHO website and are presented to the Civil Hydrography Working Group. When approved, the recommendations are incorporated into the Routine Resurvey Programme. The report is governed by a Memorandum of Understanding between the Department for Transport (including the MCA) and the Ministry of Defence (including the UKHO).

The Admiralty Chart extracts, other graphics and tables in this Report are included for illustrative purposes only and are NOT TO BE USED FOR NAVIGATION.

This material is protected by Crown Copyright. It may be downloaded from the UK Hydrographic Office's (UKHO) web site and printed in full for personal or non-commercial internal business use. Extracts may also be reproduced for personal or non-commercial internal business use on the condition that the UK Hydrographic Office is acknowledged as the publisher and the Crown is acknowledged as the copyright owner.

Applications for permission to reproduce the material for any other purpose (including any distribution of the material or extracts to third parties) can be made interactively on the UKHO's web site (www.ukho.gov.uk), by e-mail to intellectualproperty@ukho.gov.uk or in writing to Intellectual Property, UK Hydrographic Office, Admiralty Way, Taunton, Somerset, TA1 2DN.

No analysis of shipping traffic has been included within this report due to no AIS data being supplied by MCA.

All depths are to local chart datum, defined using the UKHO VORF Model.

EA8 – THE ROADS, 2017

1. SUMMARY

Changes Detected

- 1.1 Eastern side of Holm Sand has moved west into Corton Road by approximately 420m.
- 1.2 The western side of Gorleston Road has shoaled with the 10m contour moving approximately 650m to the east into the channel with a controlling depth of 7.8m where it was previously 10.8m in 2005.
- 1.3 There is an increase in depth on the Western side of Corton Road, with the 10m contour moving approximately 350m to the West.

Reasons for Continuing to Resurvey the Area

- 1.4 Depths in the area change and remain potentially hazardous to vessels with a draught of 6m or more navigating the area and therefore require continued monitoring through 12-year resurveys.

Recommendations

- 1.5 The current area limits adequately encompass all areas, from the shoreline out to Holm Sand, including any mobile areas, so require no further revision at this time.
- 1.6 The frequency of 12-year surveys is still adequate to monitor the seabed in this area.
- 1.7 It is recommended that a new focused area (EA8a) be introduced to monitor shoaling depths within Corton Road and Gorleston Road.

2. LOCATION

- 2.1 Survey interval at time of resurvey: 12 years full area
- 2.2 Area Covered: 24.89 km².

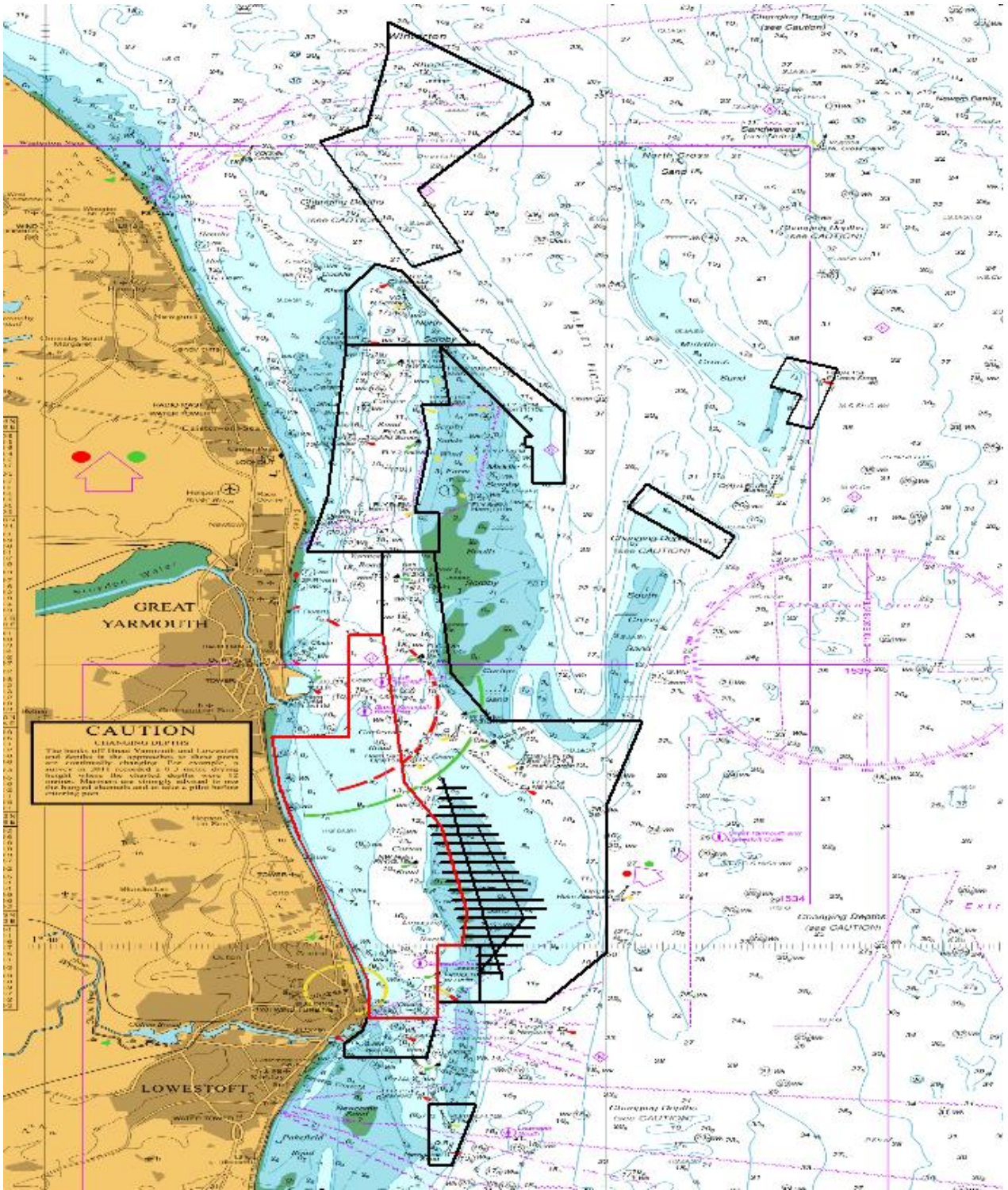


Figure 1 – 2017 East Anglia RRS areas overlaid on BA 1543 with EA8 shown in Red

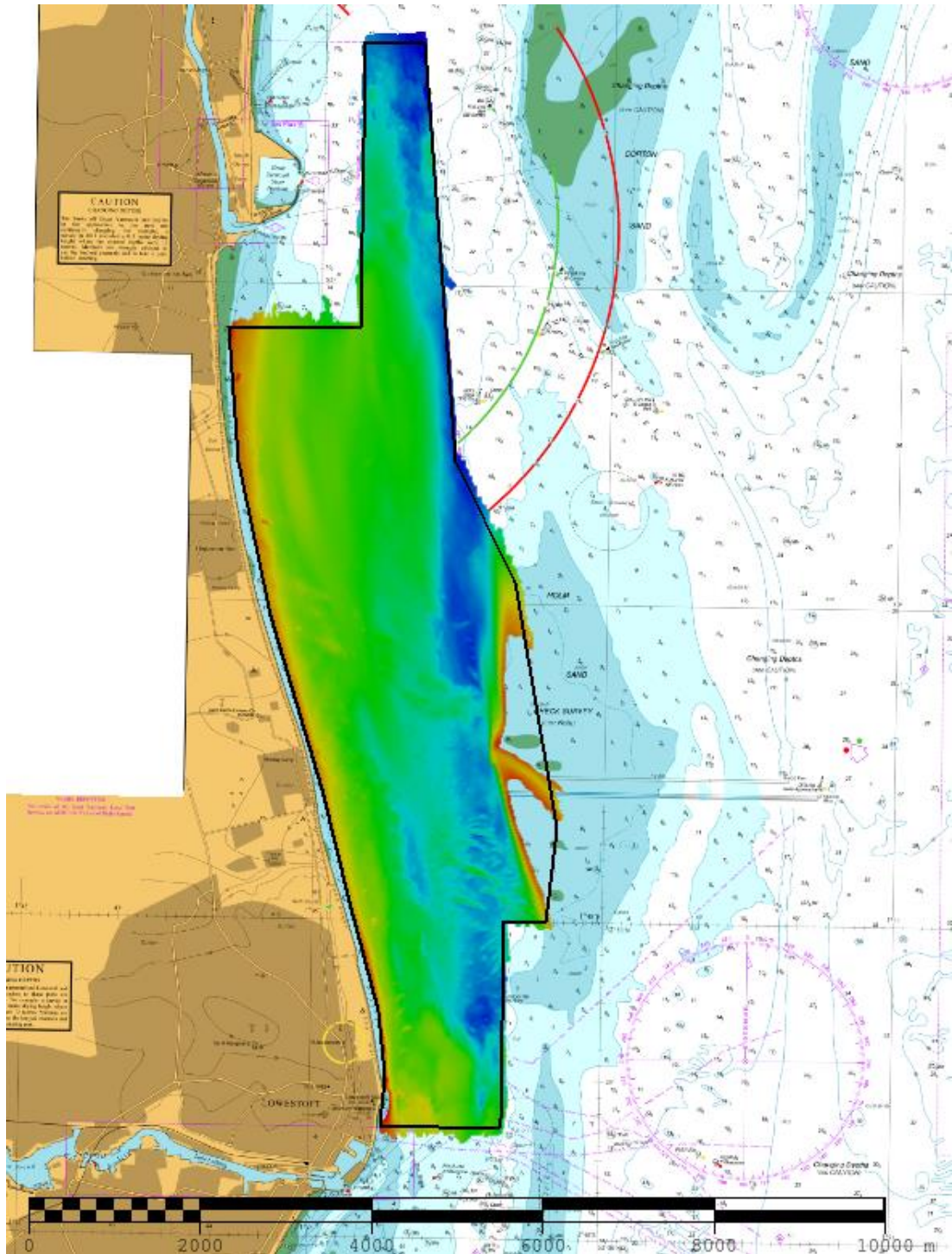


Figure 2 – 2017 survey data sun-illuminated view overlaid on BA Charts 1534 and 1535

3. REFERENCE SURVEY DETAIL

- 3.1 Previous survey conducted in February – April 2005 as part of HI 1111.
- 3.2 The Report of Survey for this survey is available upon request from the UKHO and the validated bathymetric surfaces are available to download from INSPIRE portal and MEDIN Bathymetry Data Archive Centre.

4. COMPARISON SURVEY DETAIL

- 4.1 Focused survey was conducted in July, October and November of 2017 as part of HI 1545.
- 4.2 The Report of Survey for this survey is available upon request from the UKHO and the validated bathymetric surfaces are available to download from INSPIRE portal and MEDIN Bathymetry Data Archive Centre.

5. DESCRIPTION OF RECENT BATHYMETRIC CHANGE

- 5.1 The controlling depths (Figure 3) within EA8 area are 7.8m at Gorleston Road and 9.9m to the south of Corton Road.
- 5.2 The channel leading into Gorleston Road, just before meeting with Holm Channel, is becoming more restricted in width between the north of Holm Sand and the shoreline due to the gradually shoaling depths from the west.
- 5.3 The difference surface (Figure 4) shows the western side of Holm Sand moving westwards encroaching into Corton Road, moving approximately 420m since 2005.
- 5.4 The difference surface (Figure 4) also shows the shoaling of the western side of Gorleston Sand mentioned above in 5.2, with the 10m contour moving approximately 650m east encroaching into the channel. Just to the south the same 10m contour has moved 350m west, causing this side of Corton Road to have become deeper in places.

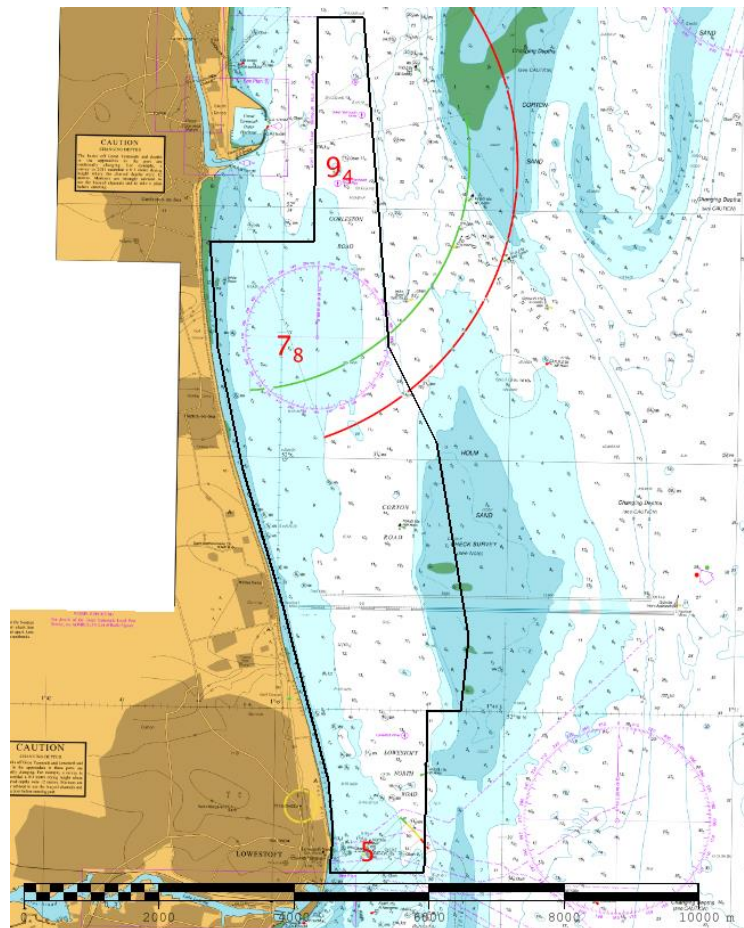


Figure 3 Controlling depths from 2017 survey (shown in red) overlaid on BA Charts 1534 & 1535

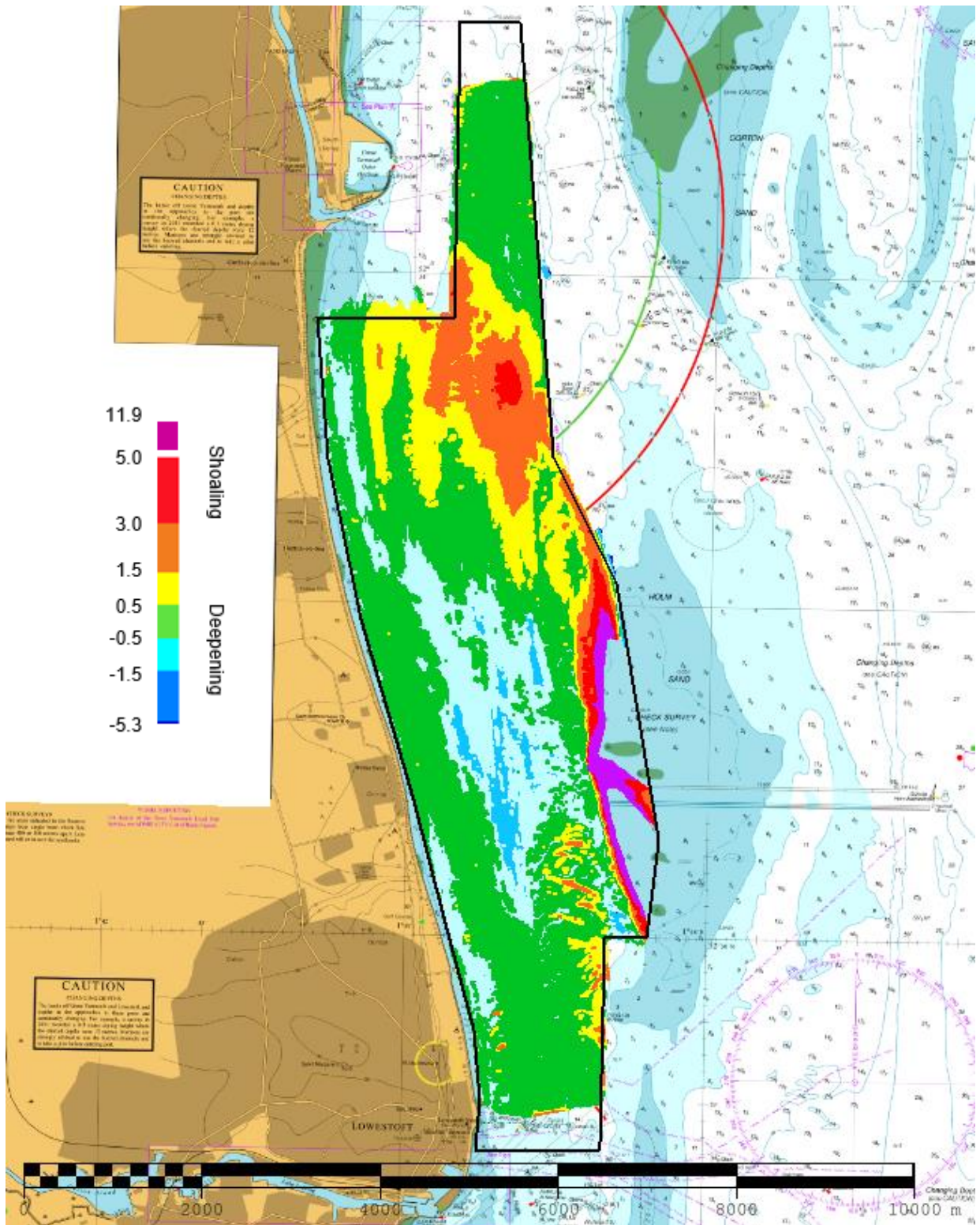
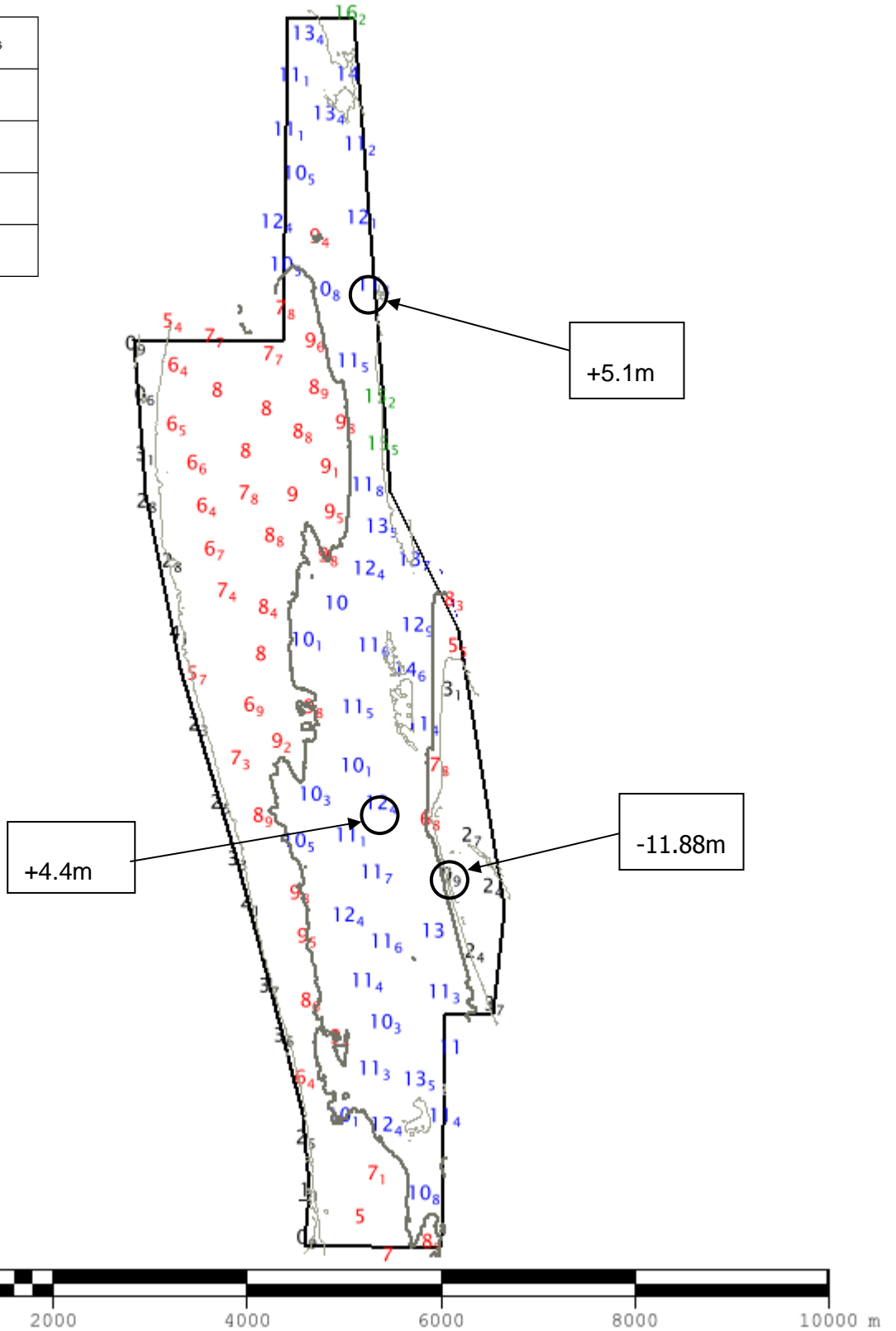


Figure 4 Difference plot 2005 survey vs 2017 survey overlaid on BA Charts 1534 & 1535

Depths in Metres	
	0.0 to 4.9
	5.0 to 9.9
	10.0 to 14.9
	15.0 to 19.9



Positive values (+) represent deepening. Negative values (-) represent seabed depths becoming shallower.

Figure 5 – Colour Banded Depth Plot from the 2017 Survey with selected depth changes since the 2005 survey

6. RECOMMENDATIONS FOR FUTURE SURVEYS

Survey Interval

- 6.1 The survey interval of 12 years is currently adequate to monitor the changes in this area.
- 6.2 It is recommended that a focused area is introduced every 6 years to monitor the shoaling depths encroaching into Corton Road and Gorleston Road.

Survey Area

- 6.3 The existing full survey area is currently adequate to monitor seabed change.
- 6.4 It is recommended that a new focused area (EA8a) be introduced to monitor shoaling depths within Corton Road and Gorleston Road.

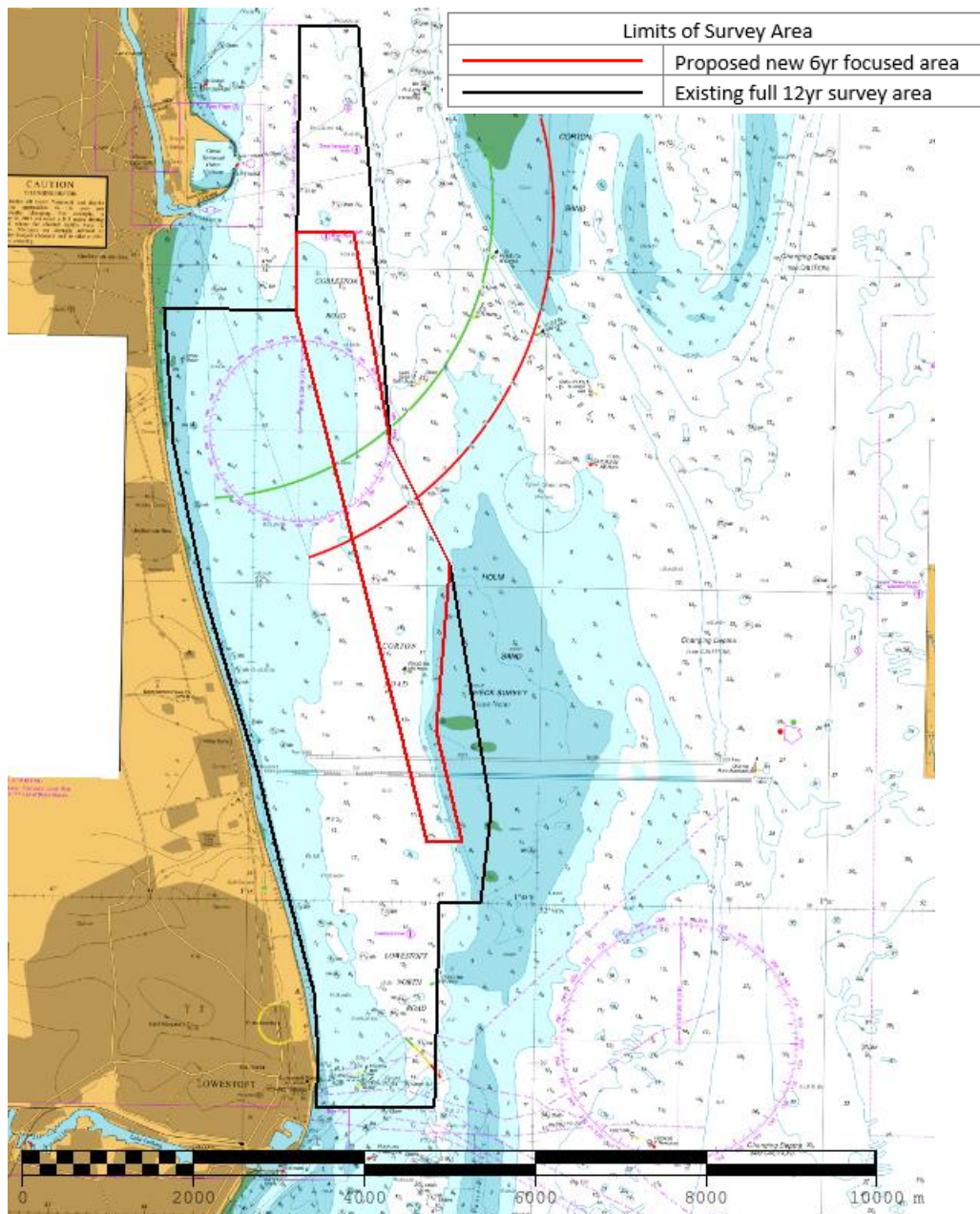


Figure 6 – Future survey limits of area DWR-C1 (current full area limits given in Black; future focused area limits given in red)

The WGS'84 coordinates of the recommended for the new focused survey area EA8a are shown below:

EA8a total area: 5.19 km²

A	52.56210	1.75655
B	52.57023	1.75655
C	52.57033	1.76633
D	52.54833	1.77333
E	52.53572	1.78401
F	52.51820	1.78218
G	52.50640	1.78680
H	52.50638	1.78084
I	52.51836	1.77566