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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 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 DfT (including the MCA) and the MOD (including the UKHO).

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

All depths are to Chart Datum, defined using the UKHO VORF Model.

TAIL OF THE FALLS (DWR C1) - 2019

1. SUMMARY

Changes Detected

- 1.1 The 2019 survey of DWR C1 has shown that shoaling continues with migration of sand waves continuing towards the south from the north-east.
- 1.2 There continues to be evidence that sand waves on the western side of the survey area are migrating to the north-east.
- 1.3 Overall there has been greater shoaling on the western side of the survey area in comparison to the east.

Reasons for Continuing to Resurvey the Area

- 1.4 Depths in the area remain changeable and remain hazardous to deep draught vessels navigating the area.

Recommendations

- 1.5 Given the location of the area in relation to the DWR, the draught of vessels navigating the area, the shoaling evidenced annually and the migration of sand waves, DWR C1 should remain on the annual survey interval.
- 1.6 Because of changes agreed to the C1 boundary and the C3 survey interval at the last CHWG no area changes required.

2. LOCATION

- 2.1 Survey interval at time of resurvey: Annual
- 2.2 Area Covered: 8.06 km²

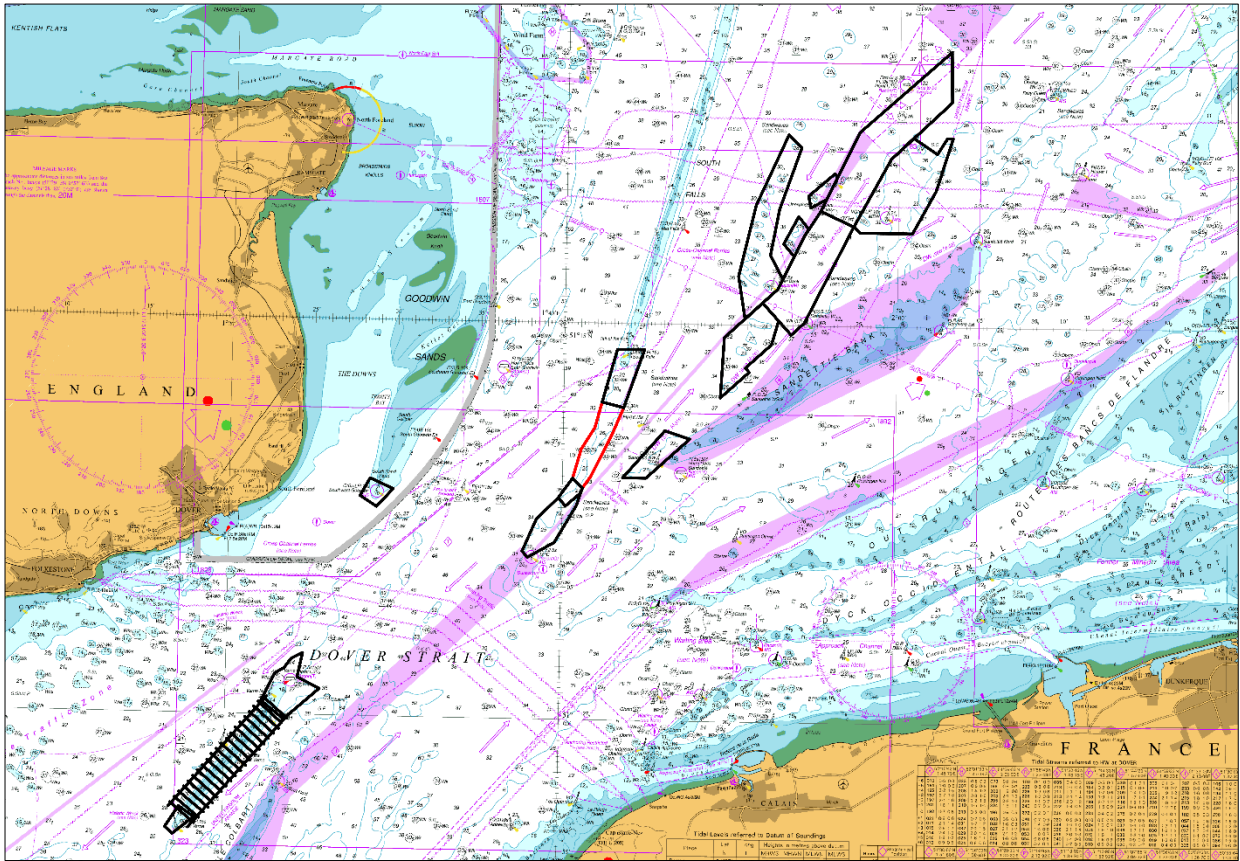


Figure 1 – Areas covered under the 2019 Dover Strait Routine Resurvey overlaid on BA Chart 1610-0 with DWR C1 in Red

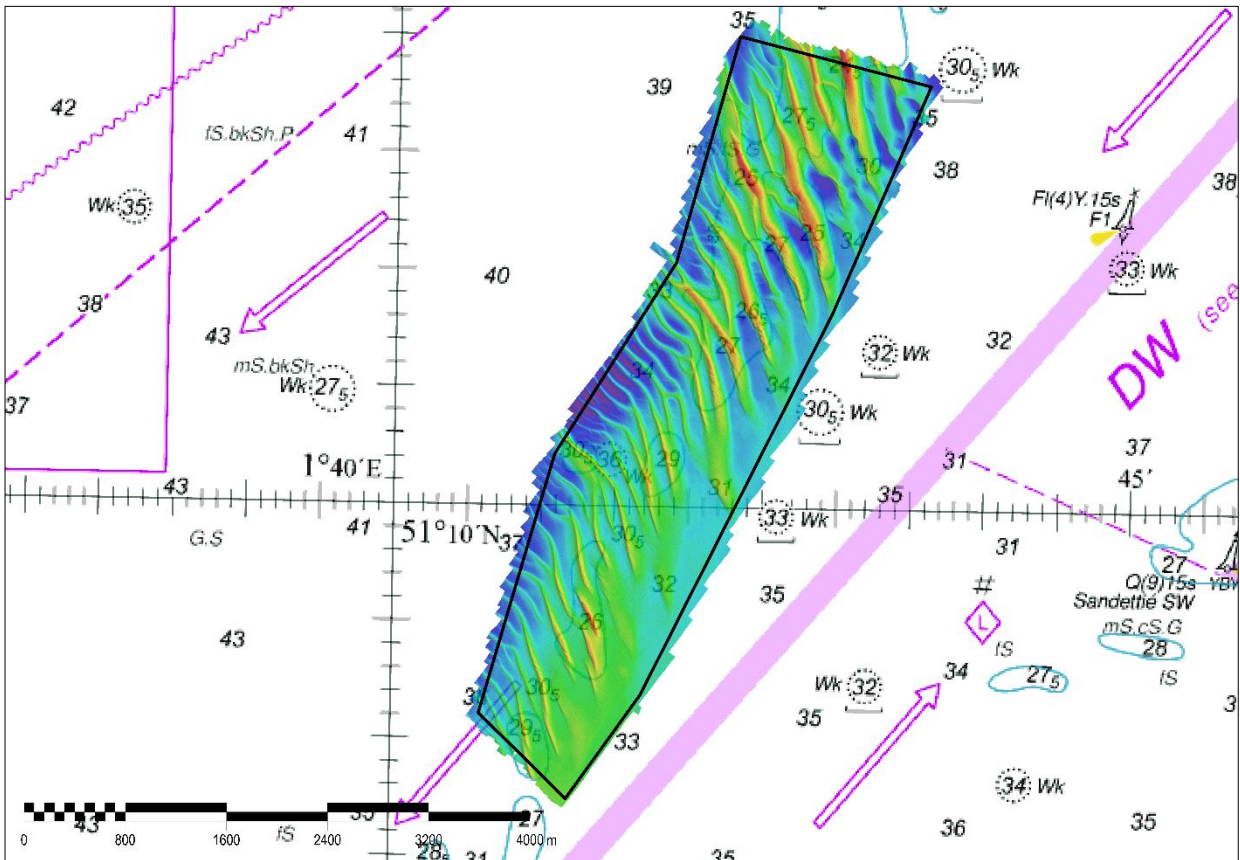


Figure 2 – 2019 DWR C1 survey data sun-illuminated view overlaid on BA Chart 0323-0

3. REFERENCE SURVEY DETAIL

- 3.1 The previous survey conducted as part of the 2018 Routine Resurvey Programme was conducted in January 2019 as part of HI1619.
- 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 the Admiralty Marine Data Portal.

4. NEW SURVEY DETAIL

- 4.1 The latest survey as part of the 2019 Routine Resurvey Programme was conducted in July 2019 as part of HI1649.
- 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 the Admiralty Marine Data Portal.

5. DESCRIPTION OF RECENT BATHYMETRIC CHANGE

- 5.1 The least depth remains at 24.5m. However, it was noted that the least depth of the survey is now approximately 50m to the south of the least depth indicated by the 2018 survey.
- 5.2 The difference plot (Figure 4) shows less change than in 2018, however there were only been 7-months the surveys. Sand waves on the eastern side of the area are continuing to migrate southwards from the north-east of the survey area. Contours have shown that the maximum rate of movement was found to be approximately 15m.
- 5.3 There continues to be shoaling on the western edge of the DWR C1 area.
- 5.4 Sand waves on the western side of the survey area are migrating to the north-east at a rate of approximately 5-20m.
- 5.5 The difference plot (Figure 4) and the depth plot (Figure 5) show that the eastern areas, in particular the south-eastern and north-eastern corners show little change and depths are consistent with the 2018 survey.

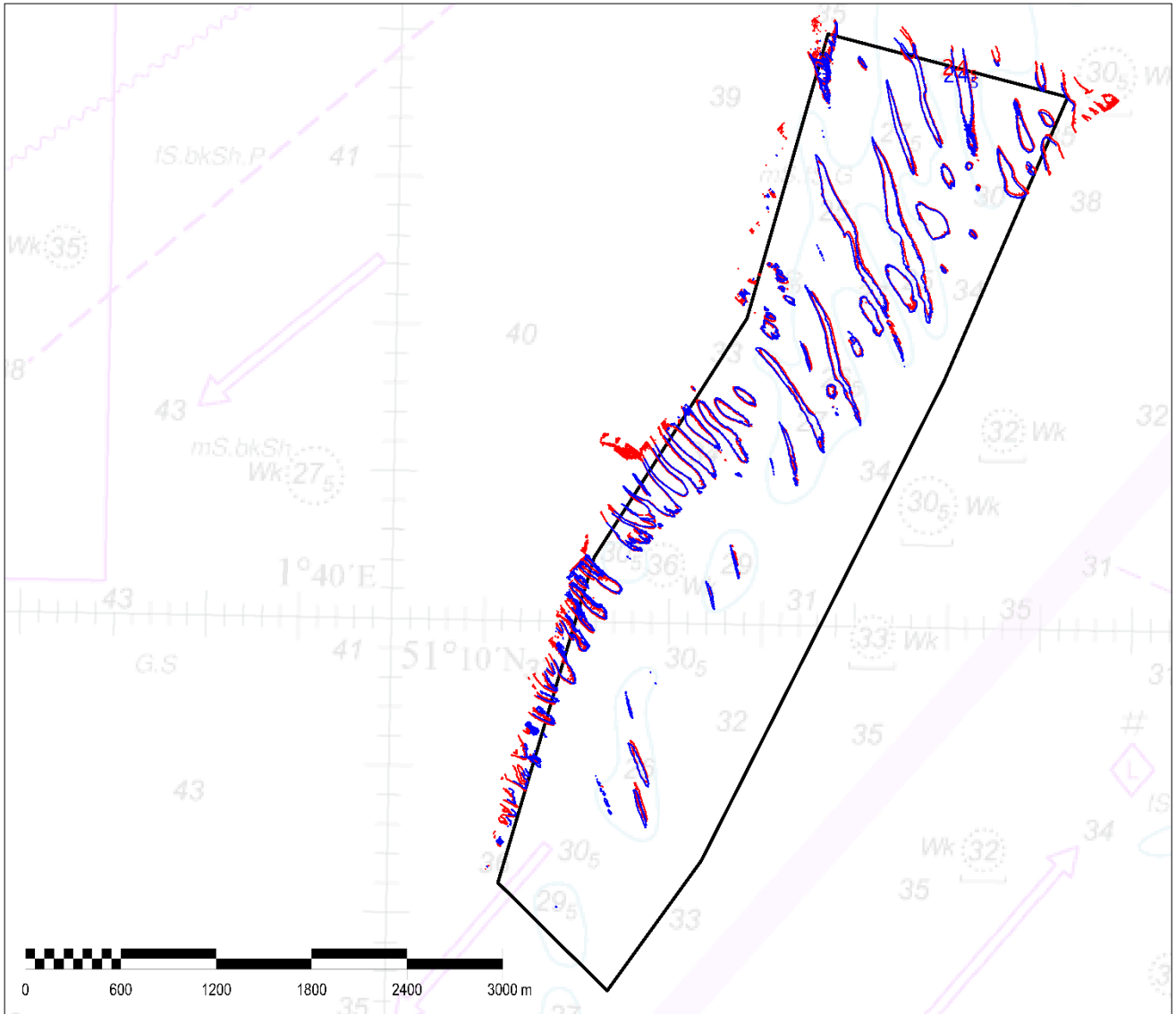


Figure 3 – Least Depth and Contour (20m, 30m and 40m) Diagram (2019 shown in Blue and 2018 shown in Red) overlaid on BA Chart 0323-0

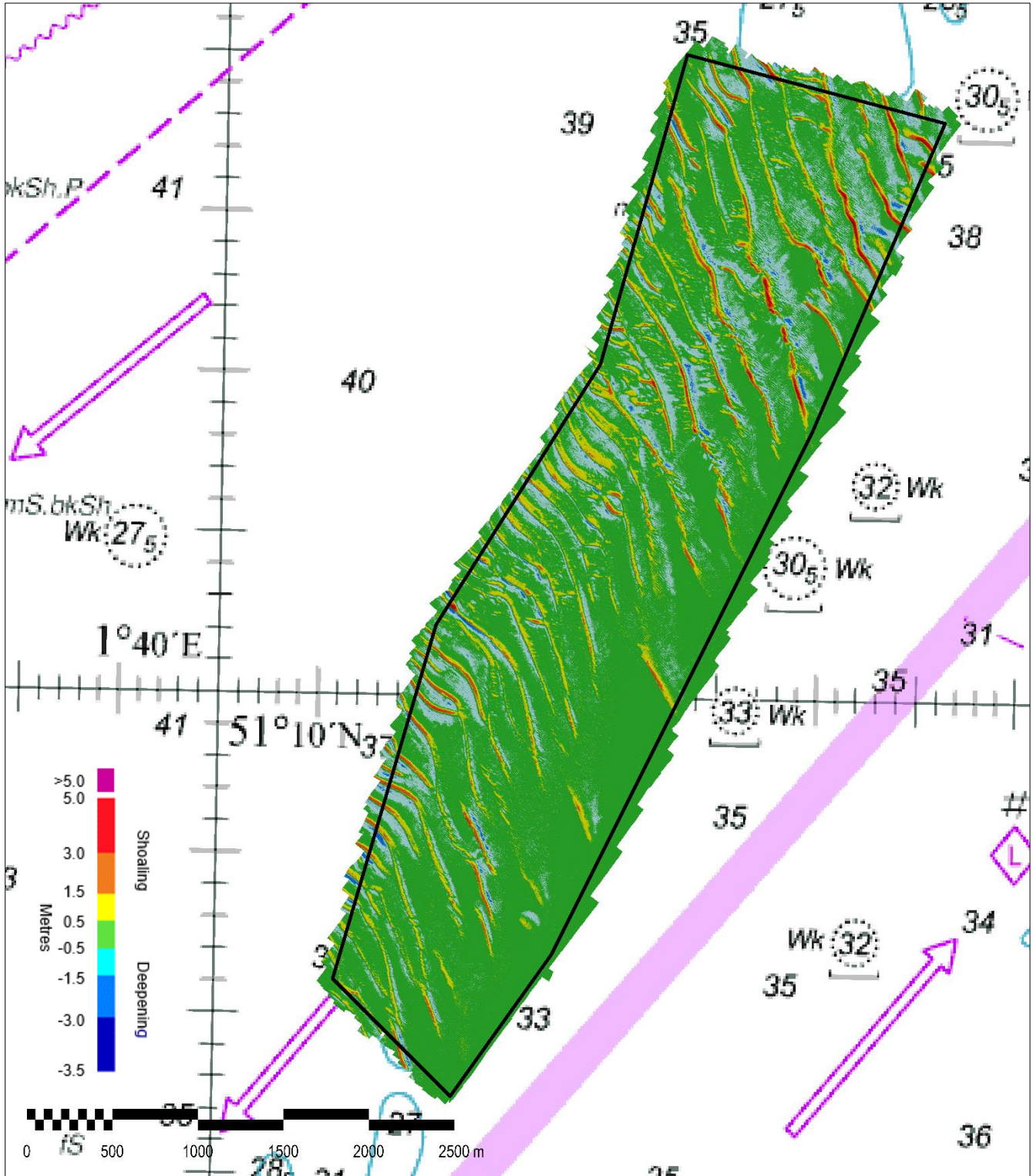
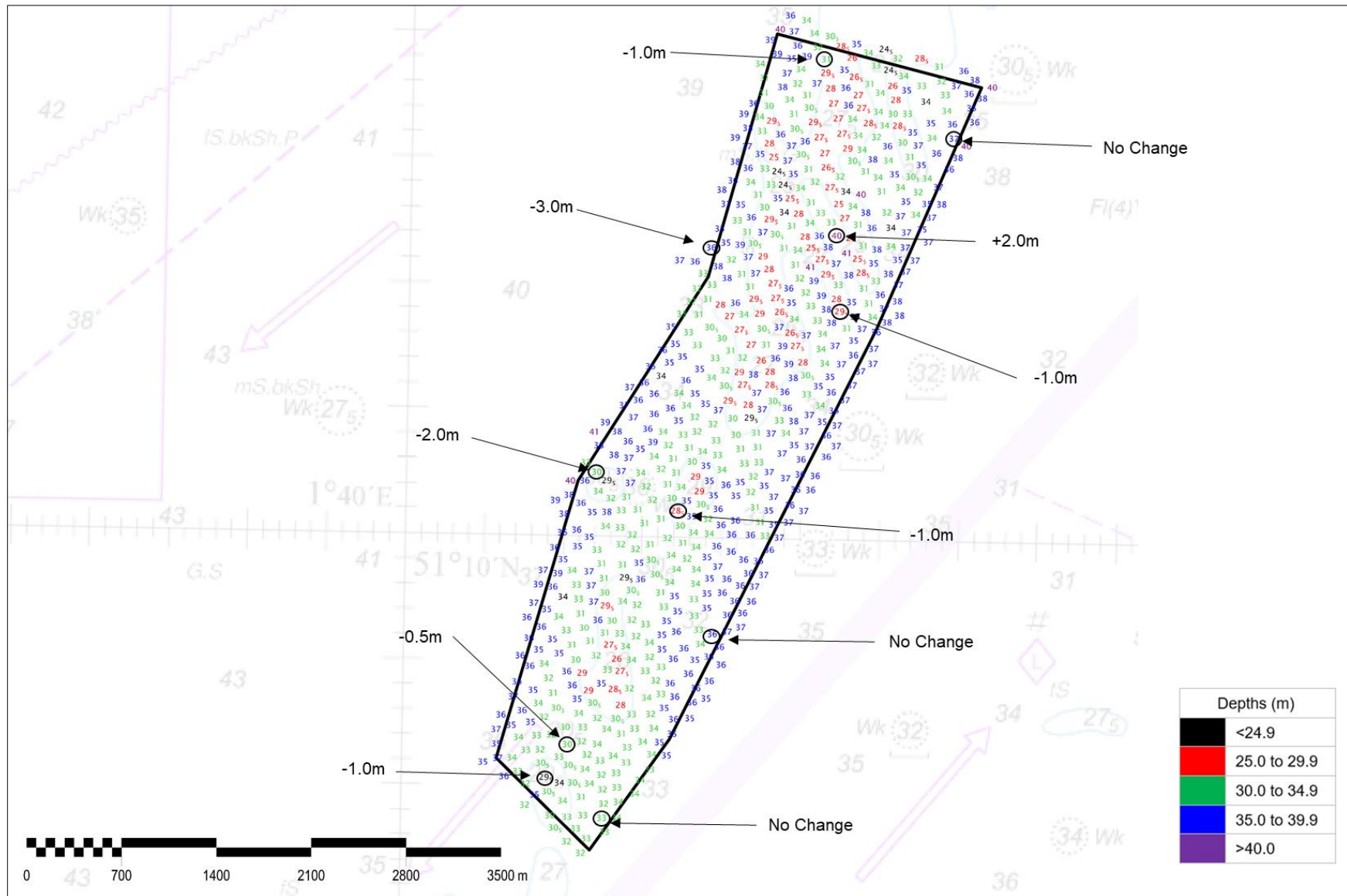


Figure 4 – Difference Plot 2019 RRS vs 2018 RRS overlaid on BA Chart 0323-0



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

Figure 5 – Colour Banded Depth Plot from the 2019 Survey with selected depth changes since the 2018 Survey overlaid on BA Chart 0323-0

6. RECOMMENDATIONS FOR FUTURE SURVEYS

Survey Interval

6.1 Given the location of the area in relation to the DWR, the draught of vessels navigating the area, the shoaling evidenced annually and the continued migration of sand waves, DWR C1 should remain on the annual survey interval.

Survey Area

6.2 Due to continued evidence of shoaling on the western edge of C1, the western limit extension recommended in 2018 and agreed at the 2019 CHWG still applies and will be implemented into the 2020 Routine Resurvey Programme. No further changes are required.

6.3 There continues to be migration northwards of some sand waves. However, as at the July 2019 CHWG it was agreed that DWR C3 (to the north of DWR C1) will also be conducted annually there is no need to extend C1 to the north as changes will be captured in the C3 survey and subsequent analysis.

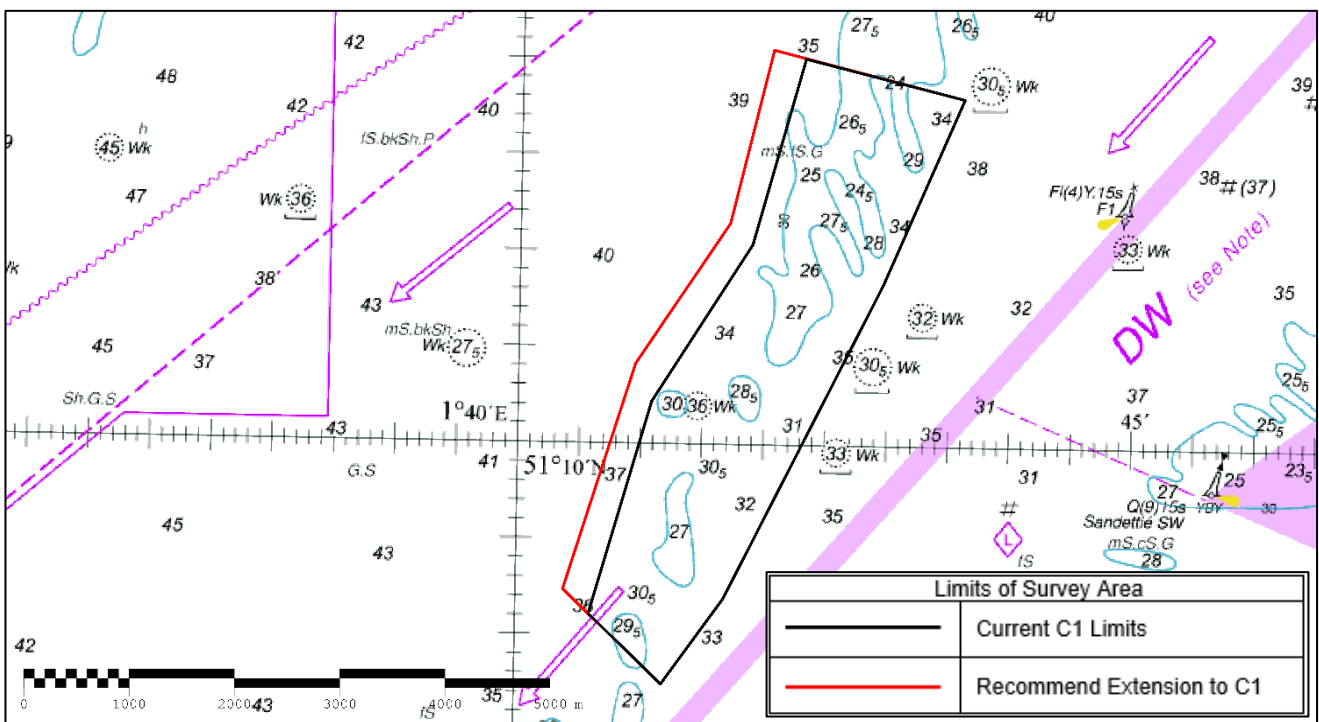


Figure 6 –Agreed New C1 Limits with Extended Western Edge overlaid on BA Chart 0323-0 (from 2018 Report)