

Devon's Shellfish Beds – A Mapping Exercise



Sarah Clark

Marine Environmental Fisheries Officer

Devon Sea Fisheries Committee

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1.0 Introduction and Objective

The Devon SFC district has a coastline on both the North and South coasts of Devon, which includes eight estuaries that have shellfish harvesting areas and shellfish beds, as well as several smaller estuaries that currently do not have shellfish production taking place.

This document has been produced to inform current users, potential users, statutory Authorities County and District authorities and non governmental bodies of the location of shellfish beds. This is particularly relevant when considering actions that may need to be taken in the event of a pollution incident which may impact these shellfish resources. It is important that agencies are aware of these beds when planning emergency procedures and shoreline developments.

2.0 Methodology

Using a hand held Garmin™ GPS the shellfish beds were mapped and locations were recorded. Where possible the beds were distinguished by different species of shellfish although some beds overlap where there are more than one species present. Local knowledge of the estuaries was used to source the beds and also other sources of information as to the location of beds were gathered from local shellfishermen working in the estuaries. Sub-tidal bed information has come from mapping areas whilst on board shellfishermen's vessels, whilst working in the estuaries or from the shellfishermen indicating on the charts where they have laid shellfish or where they have knowledge of beds present. Other references used include Natural England's biotope maps which were provided in GIS format to be used in conjunction with MapInfo mapping programme.

The classified harvesting/production beds were sourced from the Cefas NRL website, the Food Standard Agency website, from annual classification reviews and maps of the classified shellfish harvesting beds. The classified harvesting areas reproduced in this document are for 2009 where possible. In some cases there have been interim changes to the shellfish bed classification since the maps were produced in September 2009 and the charts have been updated incorporating these changes up to the date of production of this report

The information gathered was mapped using MapInfo Professional GIS Package - version 10.

3.0 Results

For each estuary a chart was produced of the shellfish beds and also the classified shellfish harvesting/production areas. The harvesting areas are defined by the classification given. Figures 1-19 show the areas mapped. For the Taw-Torridge Estuary, Figure 18, the chart included in the report only shows the production area. The actual shellfish beds have yet to be mapped using a hand held GPS but the charts will be updated as soon as this data is available. The harvesting areas are included in this document to give an indication of the presence of shellfish areas on this estuary. The classified harvesting area in Brixham shown in Figure 19 indicates the location of a rope grown mussel farm. This farm has just been granted an extension under license from the Marine Management Organisation.

4.0 Conclusion and Recommendations for Future Work

This report has been produced to act as a reference document. Shellfish beds in the many of the estuaries within Devon Sea Fisheries District have been identified and have been mapped using MapInfo. The maps do not show definitively all the shellfish beds in all the estuaries but those that have been identified to date. Therefore it has to be assumed that the extent of shellfish beds is greater than indicated here. Every attempt was made to try and map the shellfish beds accurately. However if further information becomes available the charts will be altered where necessary. Further mapping will take place when additional beds are identified and these maps will be updated. The charts of production areas will be updated annually to keep this document live and current.

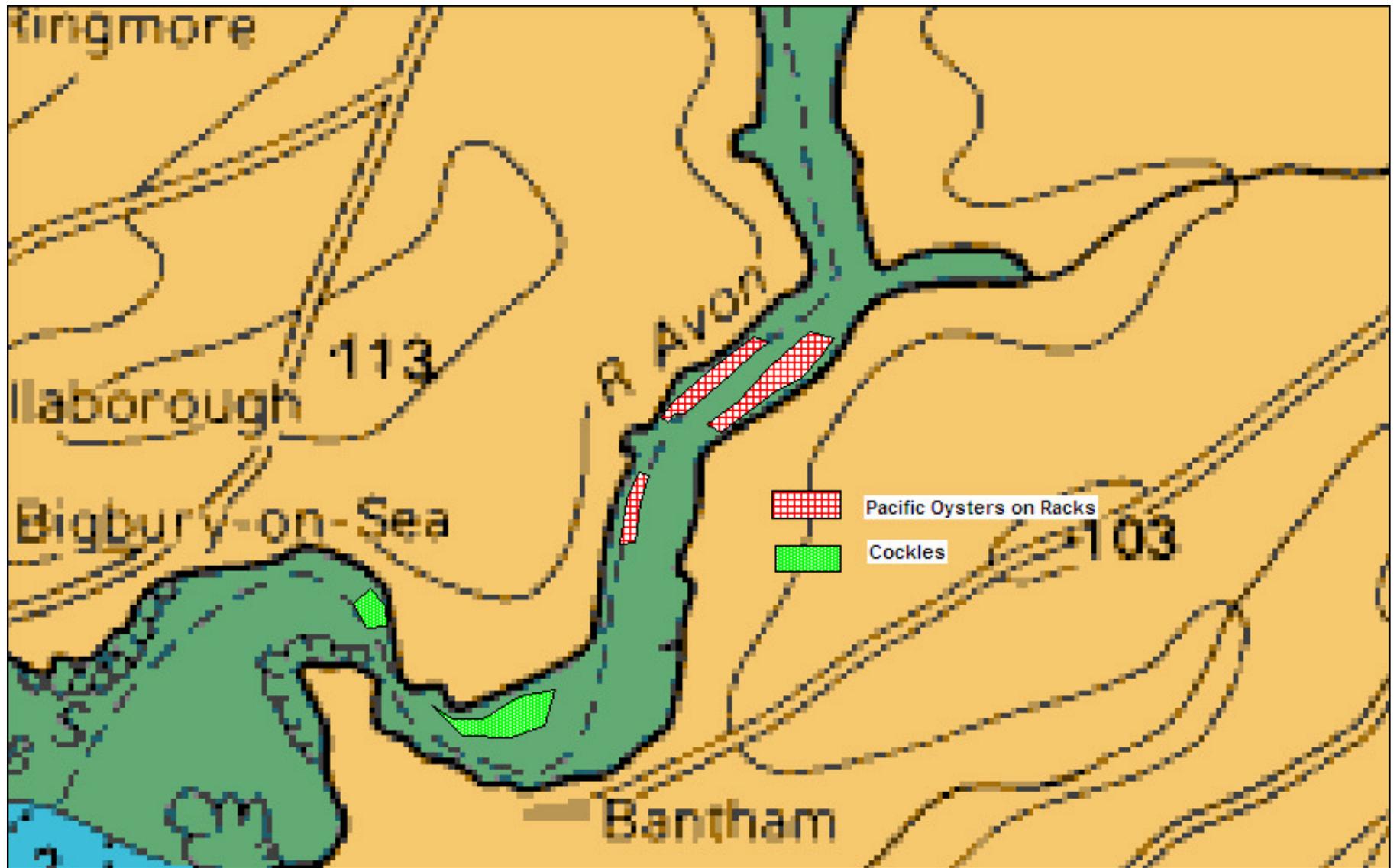


Figure 1. Avon Estuary Shellfish Beds

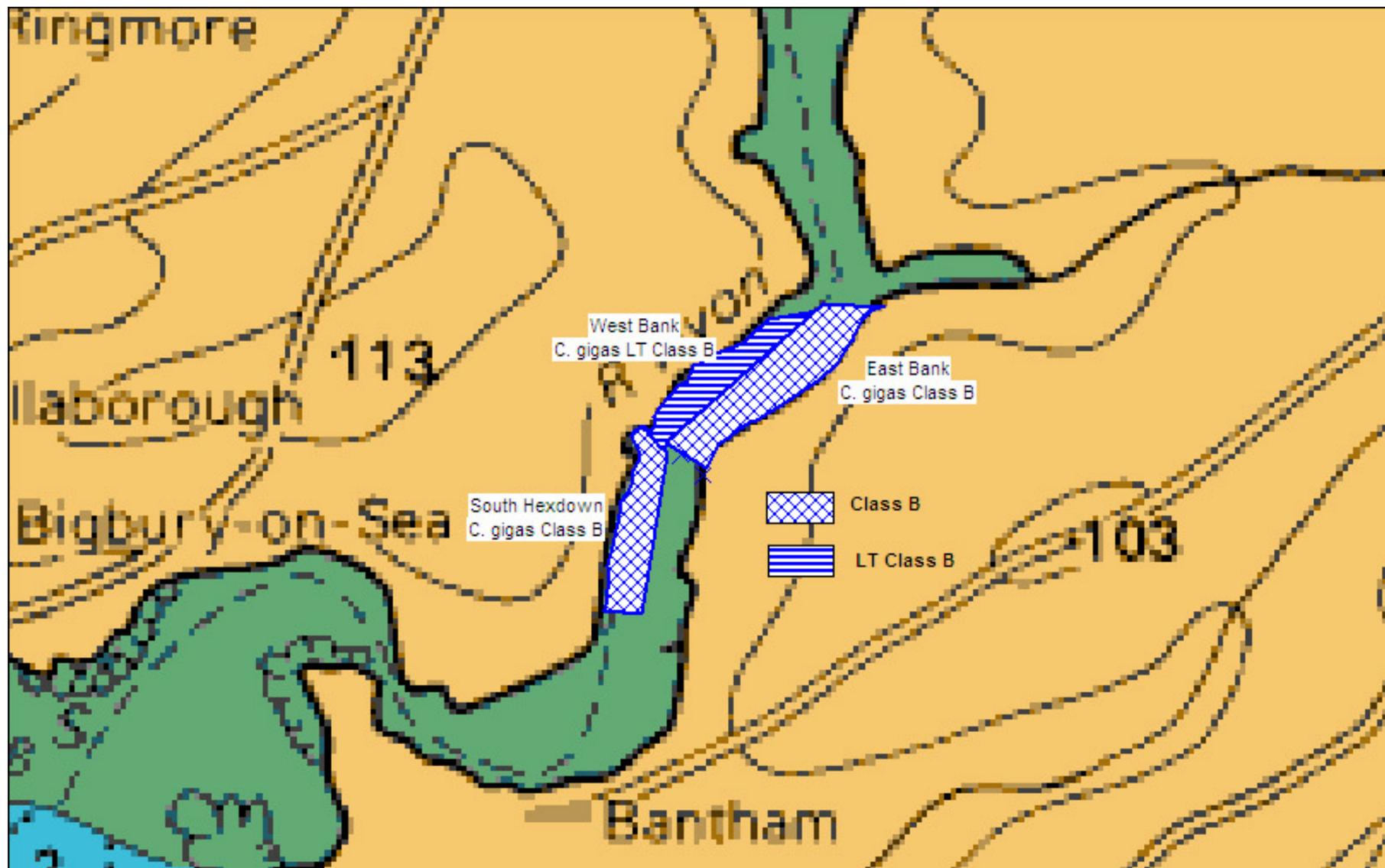


Figure 2. Avon Estuary Shellfish Harvesting Areas

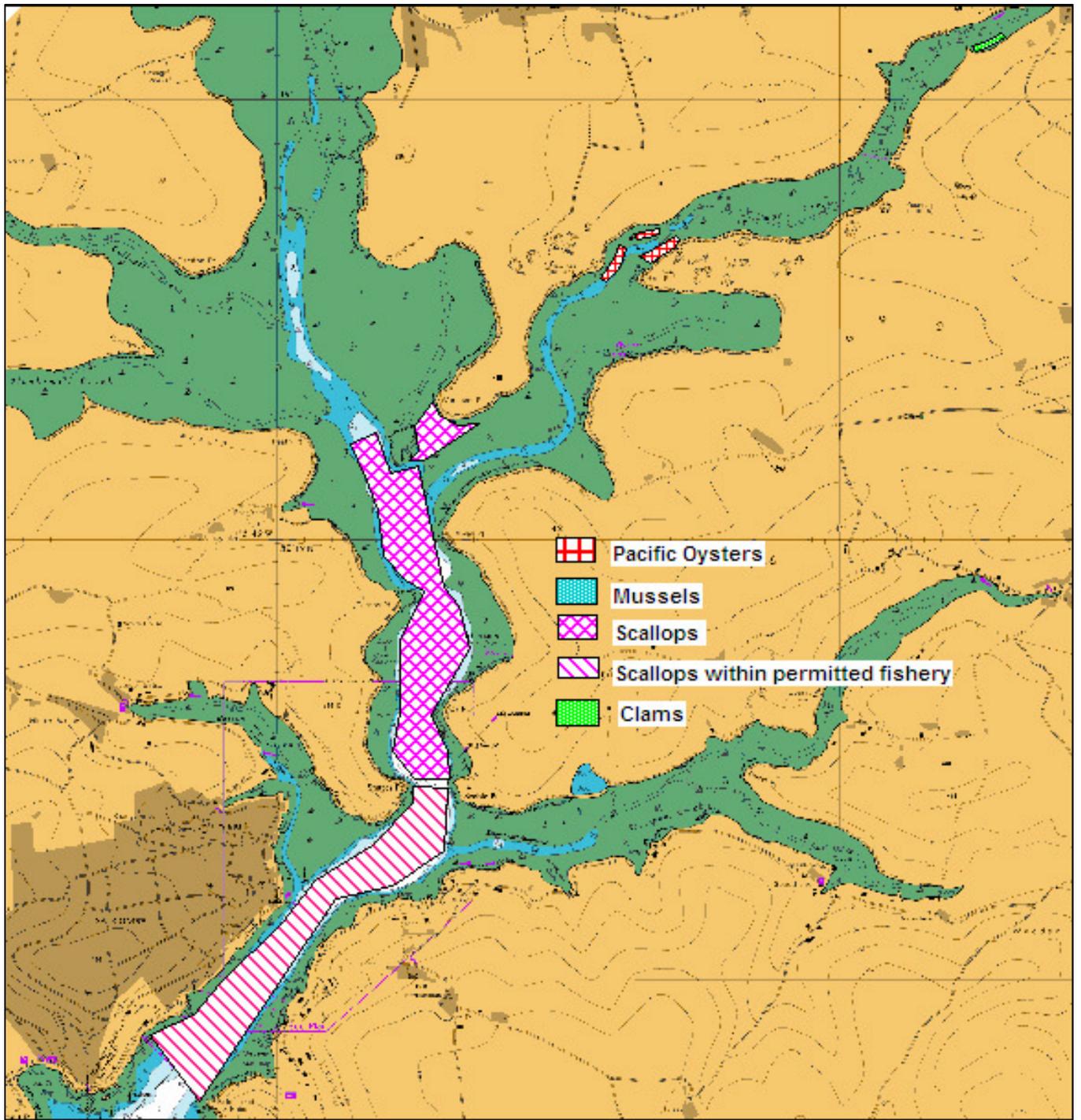


Figure 3. Salcombe and Kingsbridge Estuary Shellfish Beds

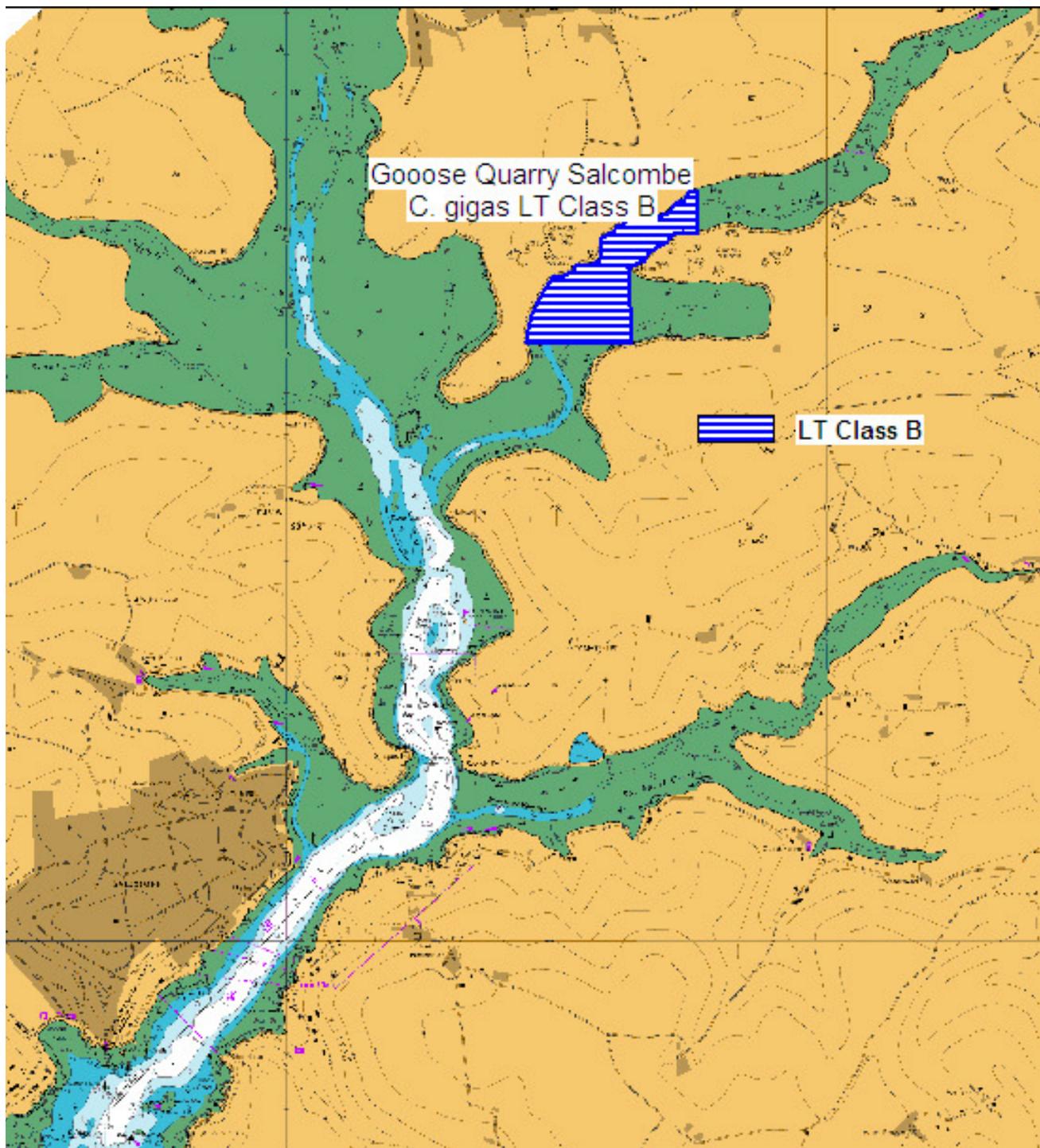


Figure 4. Salcombe and Kingsbridge Harboring Areas

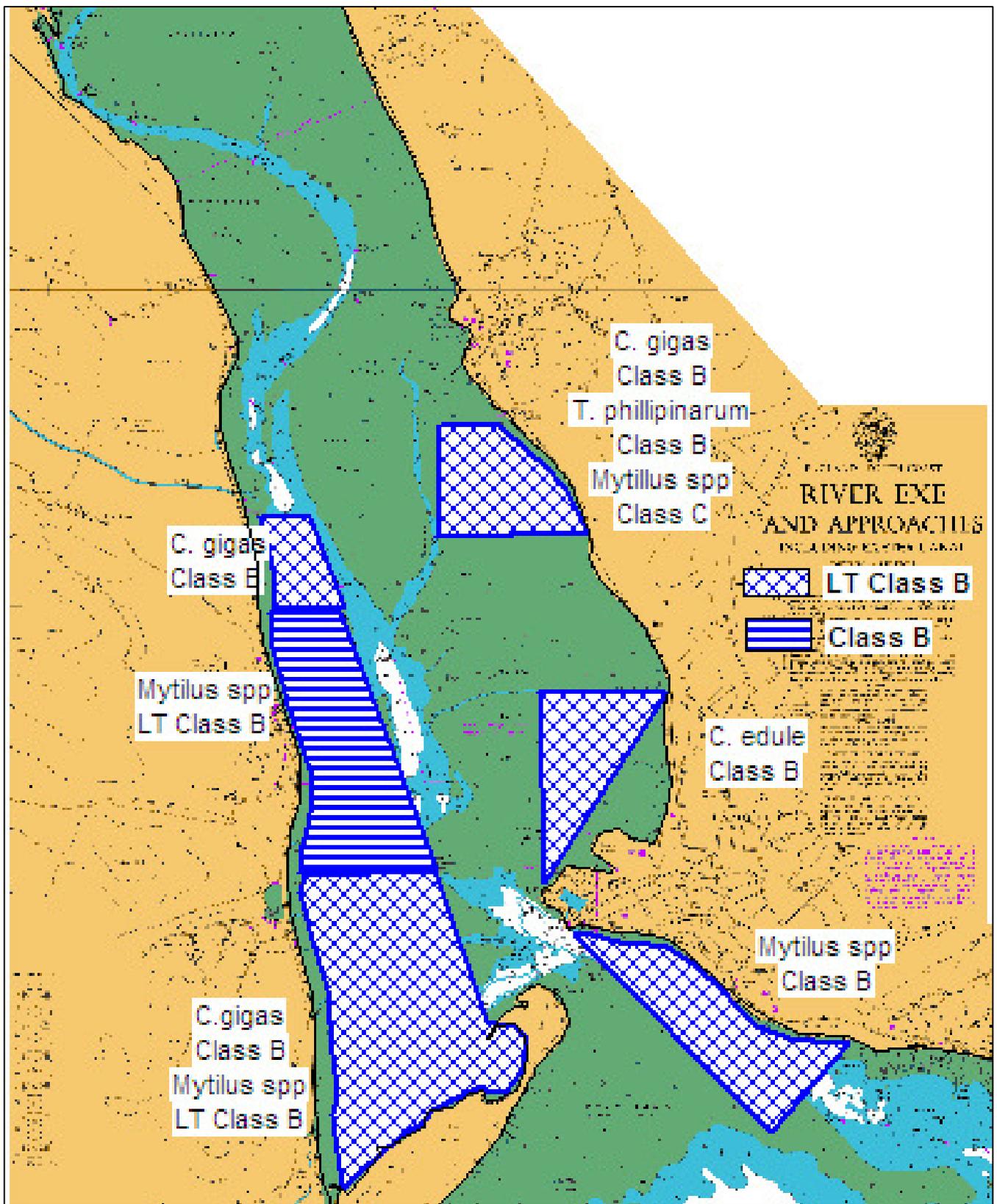


Figure 6. Exe Estuary Harvesting Areas

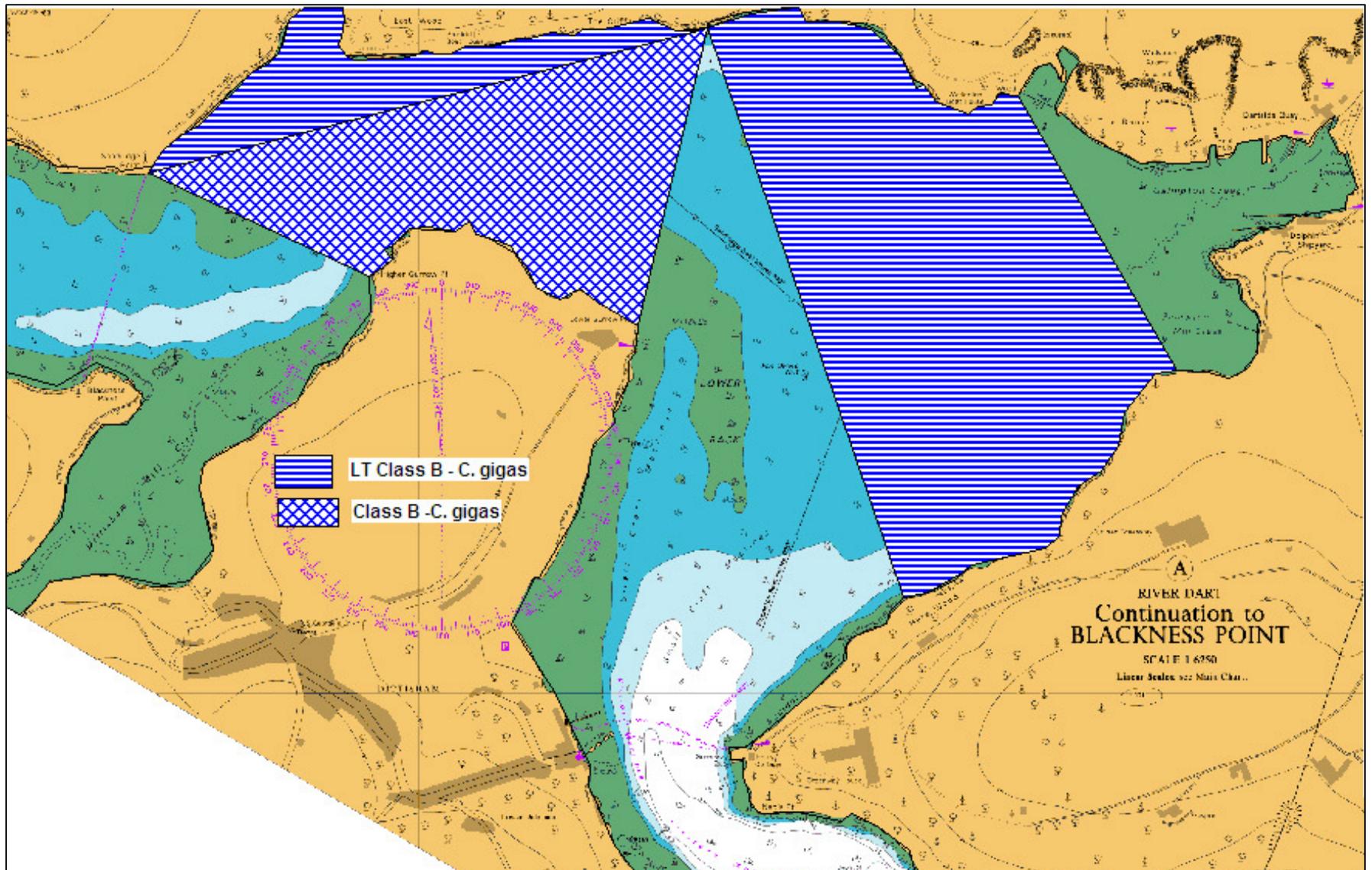


Figure 8a. Dart Estuary / Waddeton Fishery – Pacific Oyster Harvesting Area

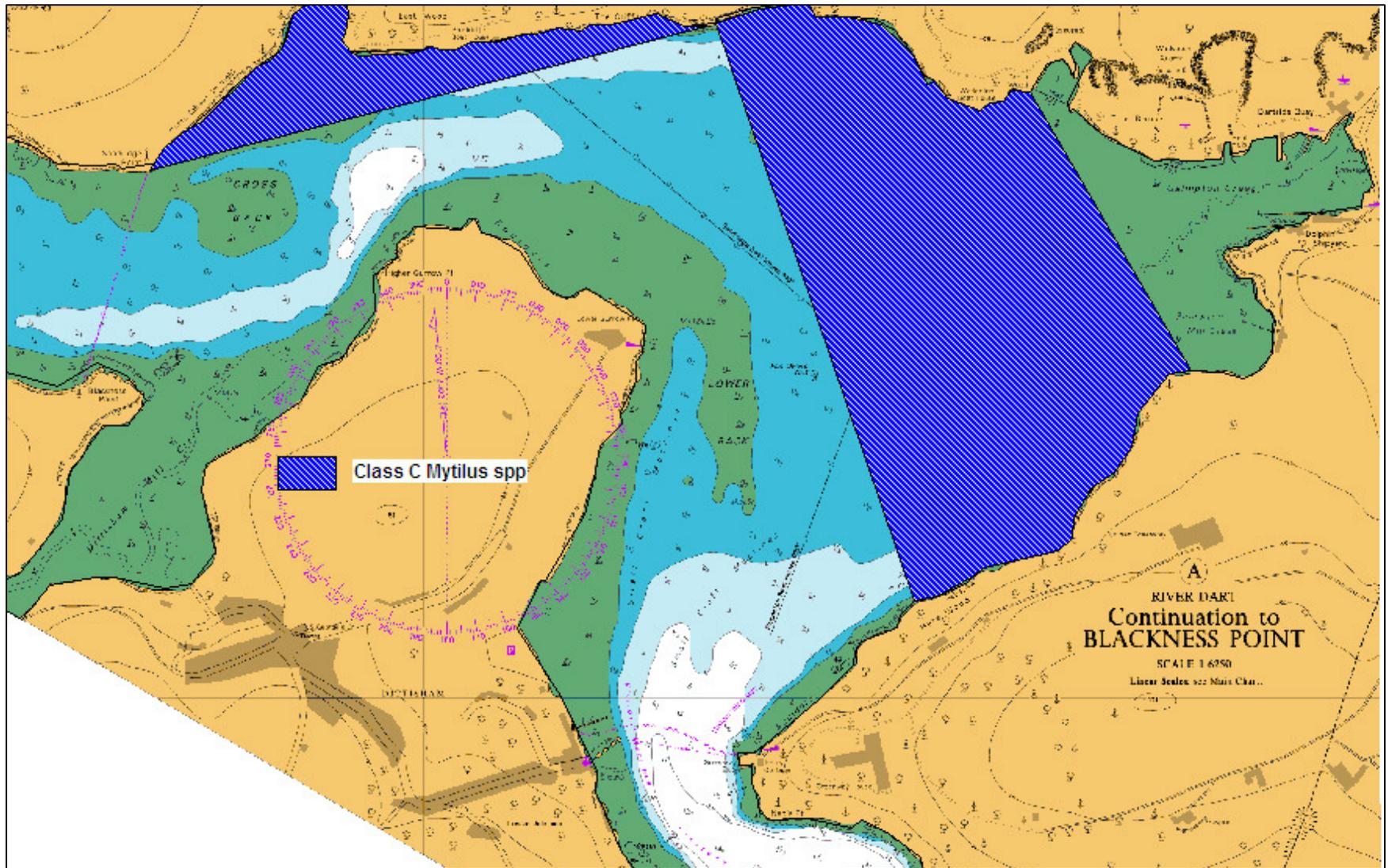


Figure 9b. Dart Estuary / Waddeton Fishery – Mussel Harvesting Area

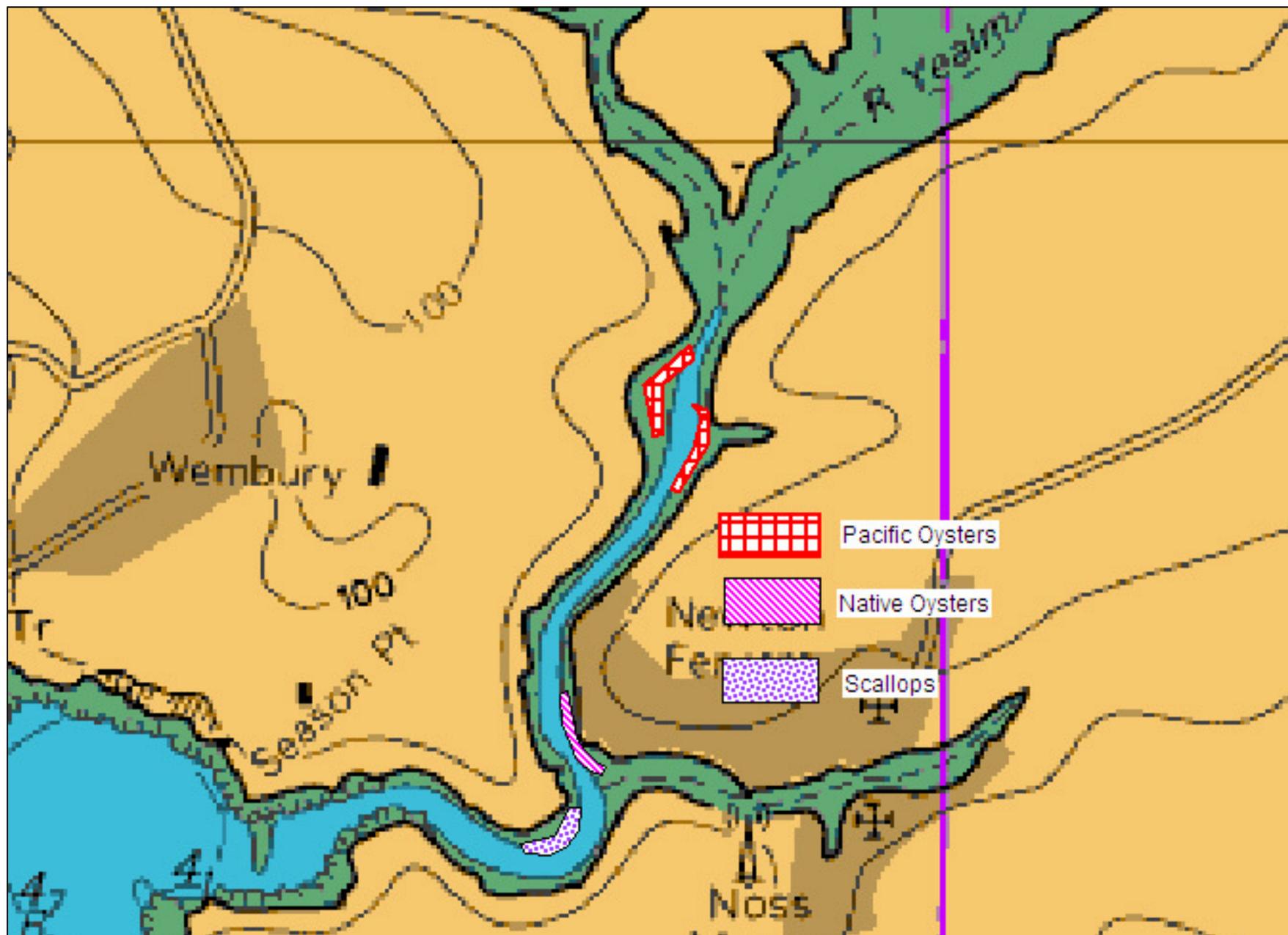


Figure 10. Yealm Estuary Shellfish Beds

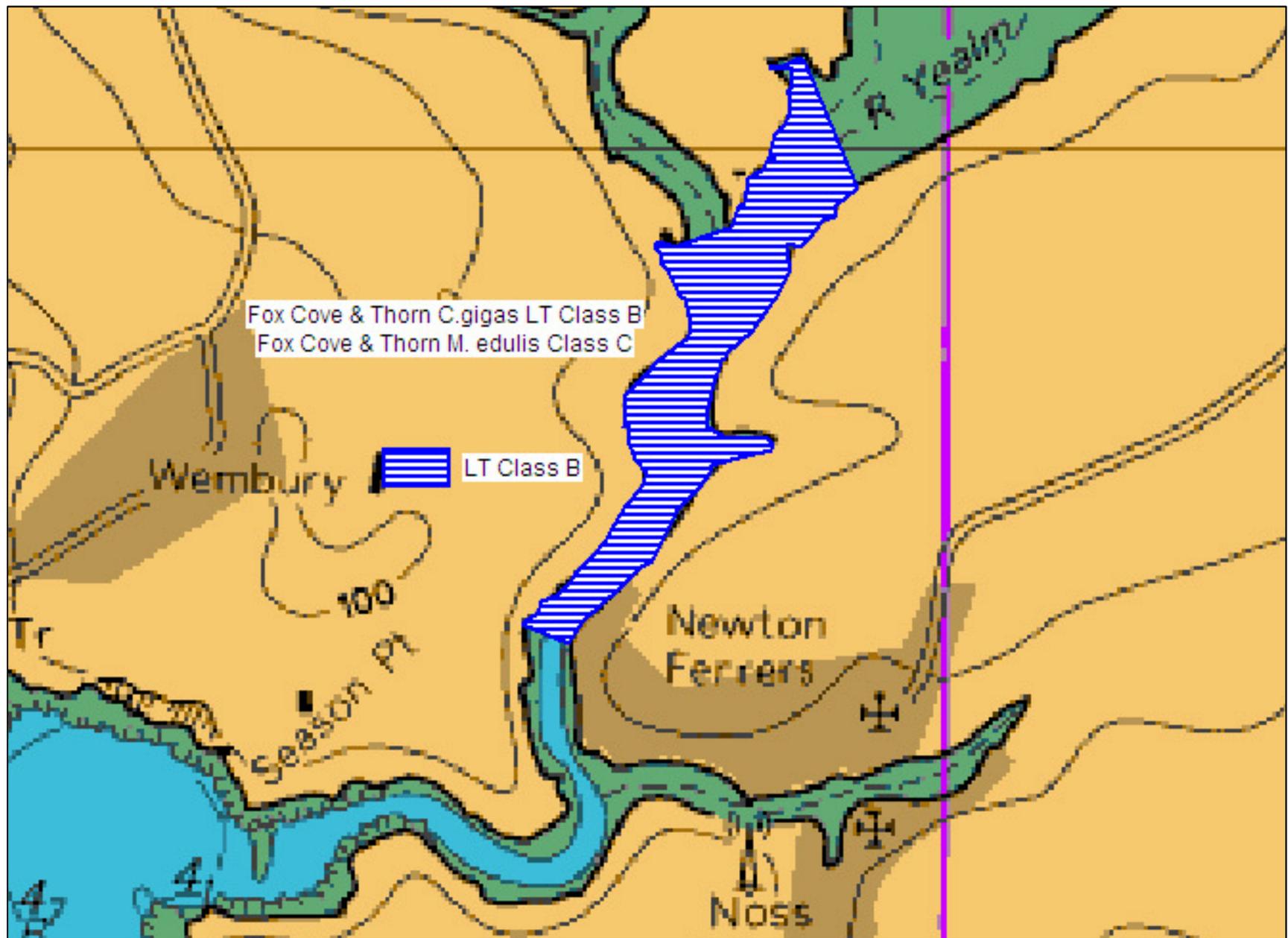


Figure 11. Yealm Estuary Harvesting Areas

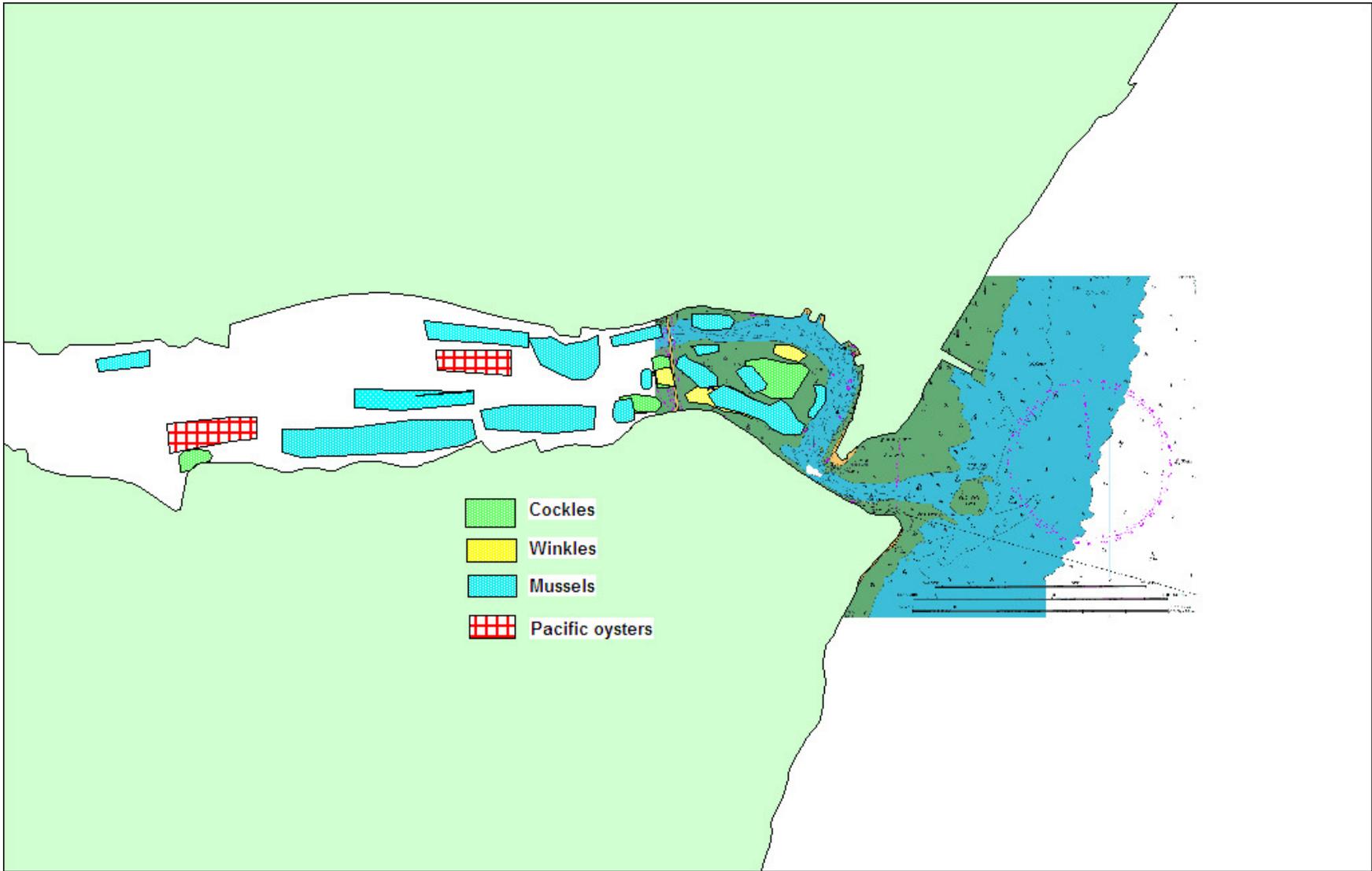


Figure 12. Teign Shellfish Beds

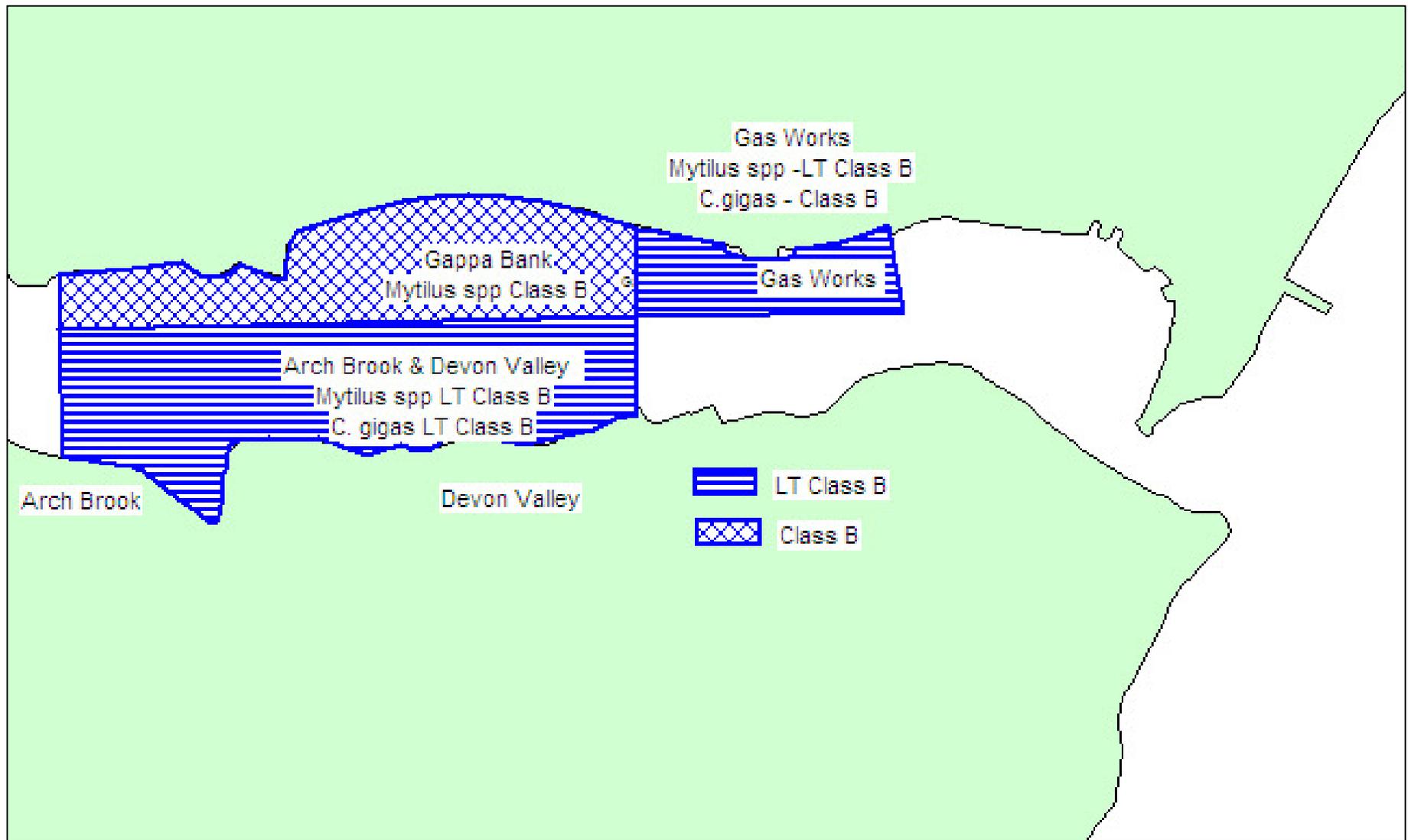


Figure 13. Teign Harvesting Areas

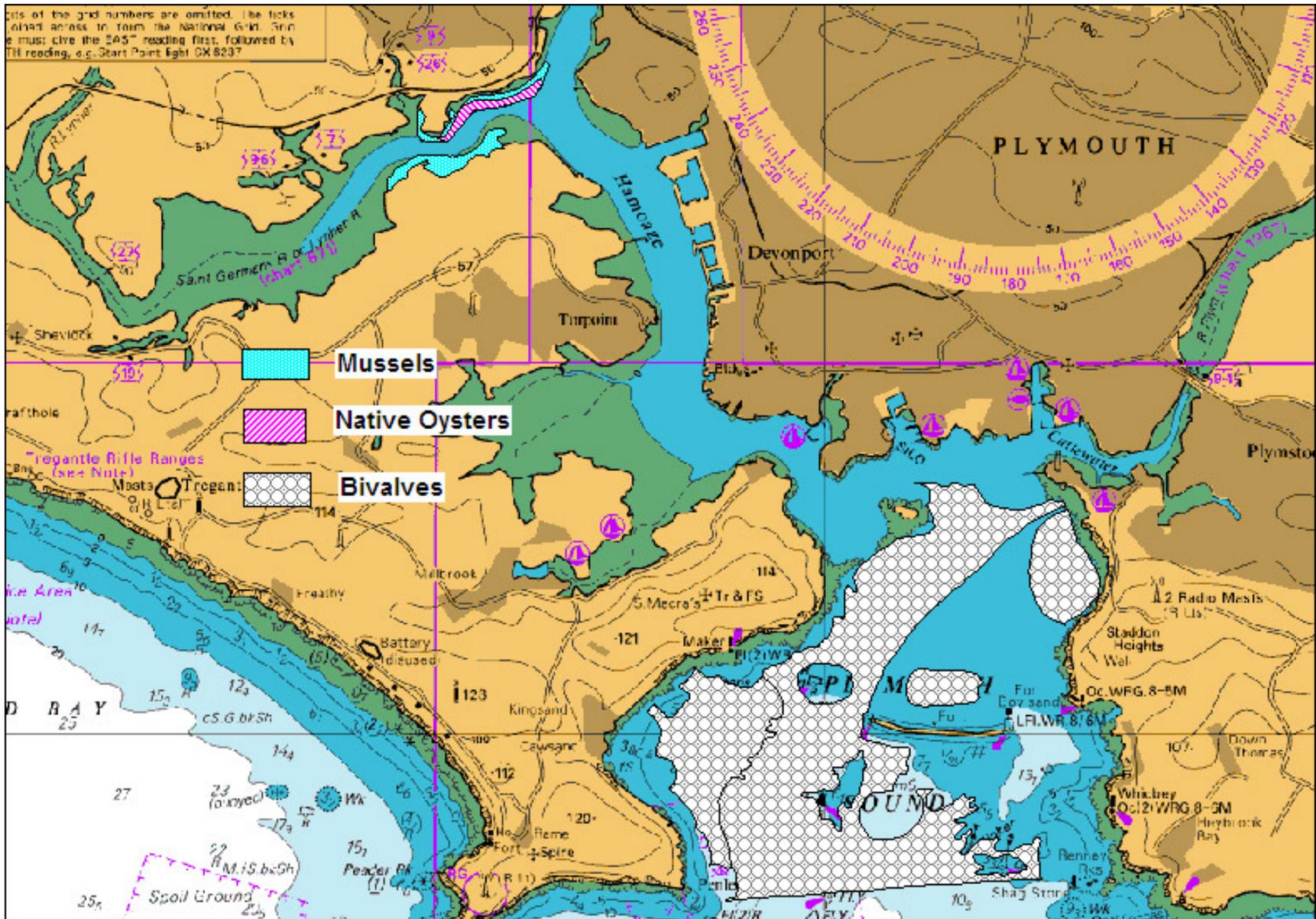


Figure 14. Plymouth Sound Shellfish Beds

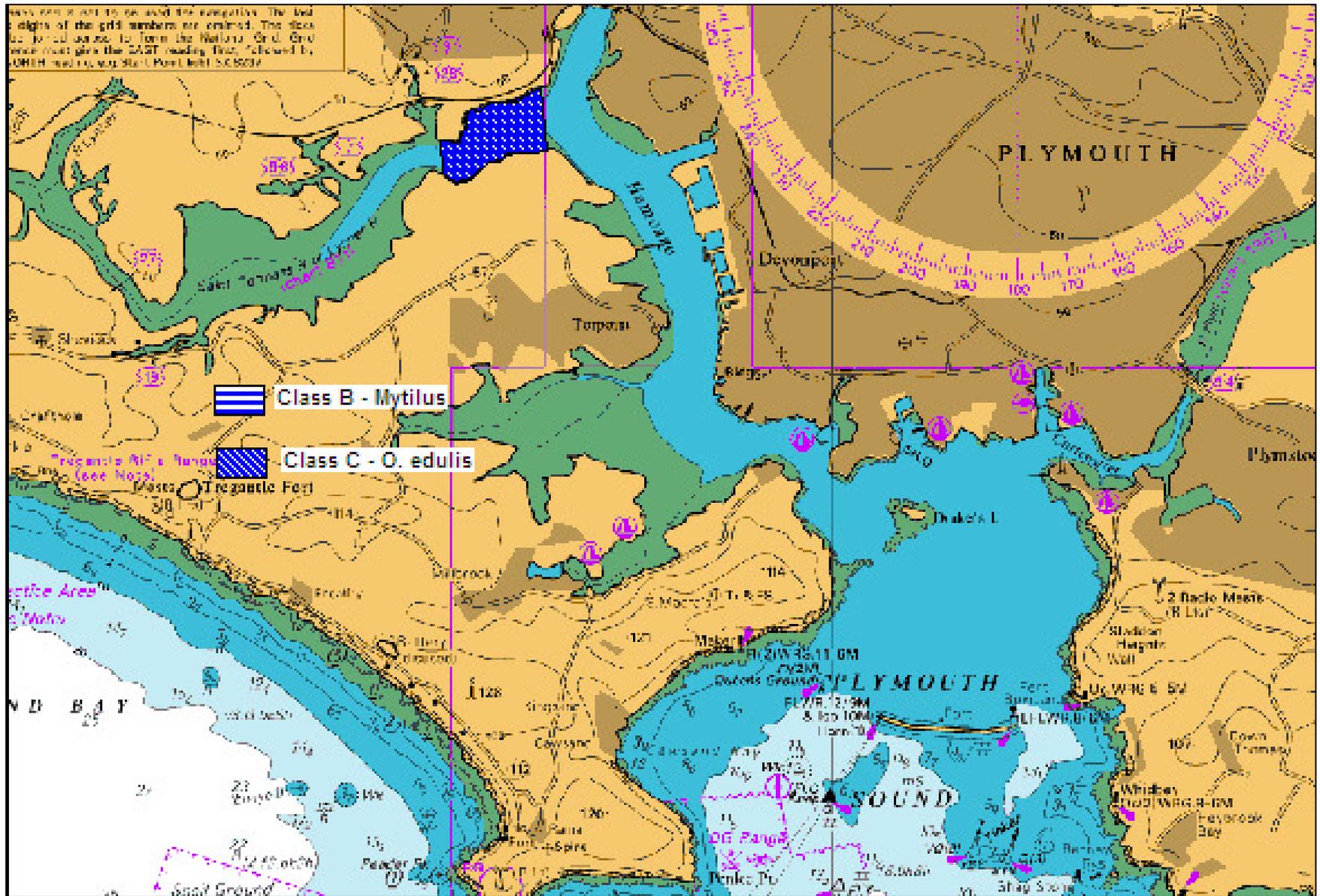


Figure 15. Plymouth Sound Harvesting Areas

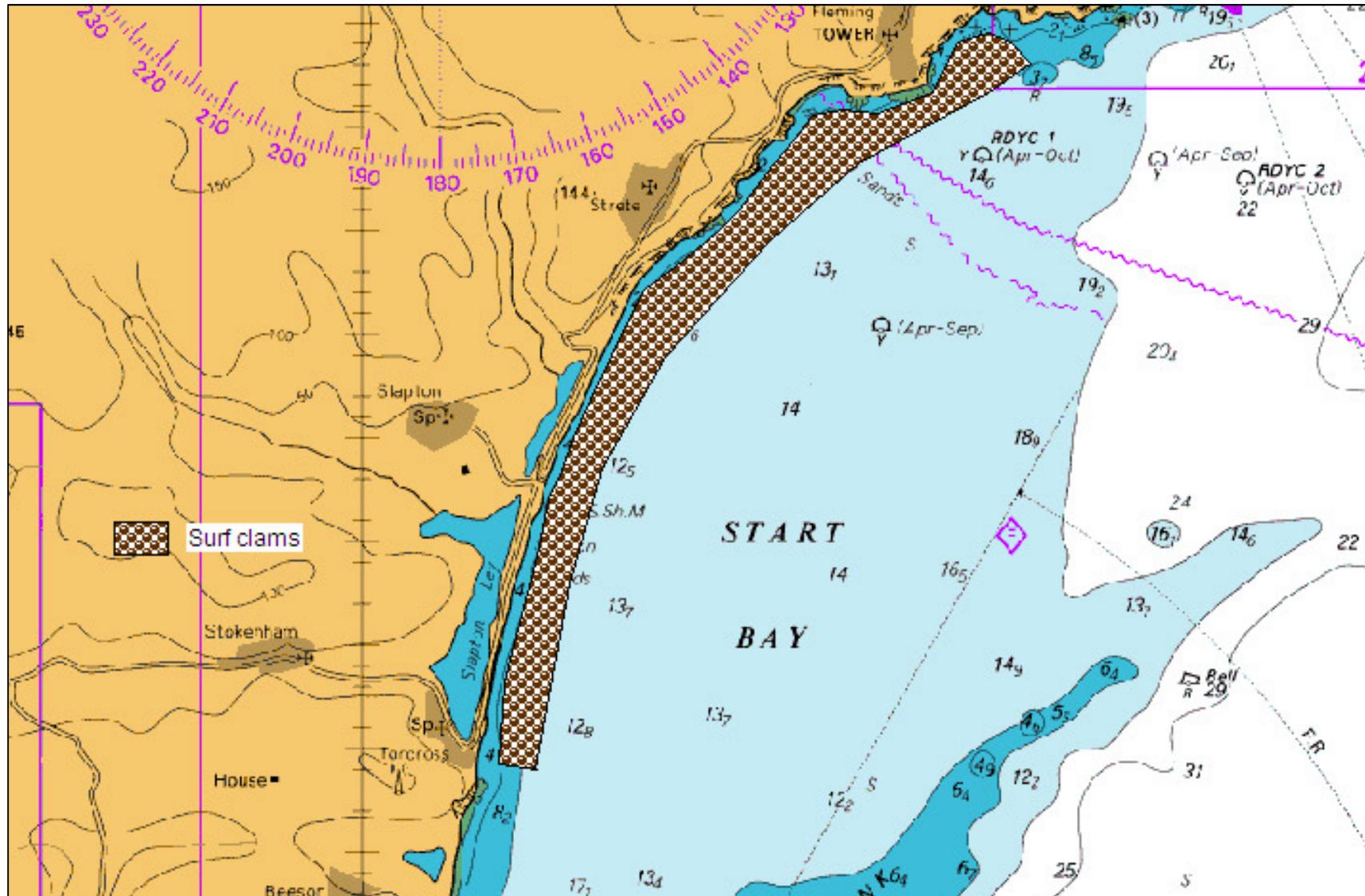


Figure 16. Start Bay Shellfish Beds

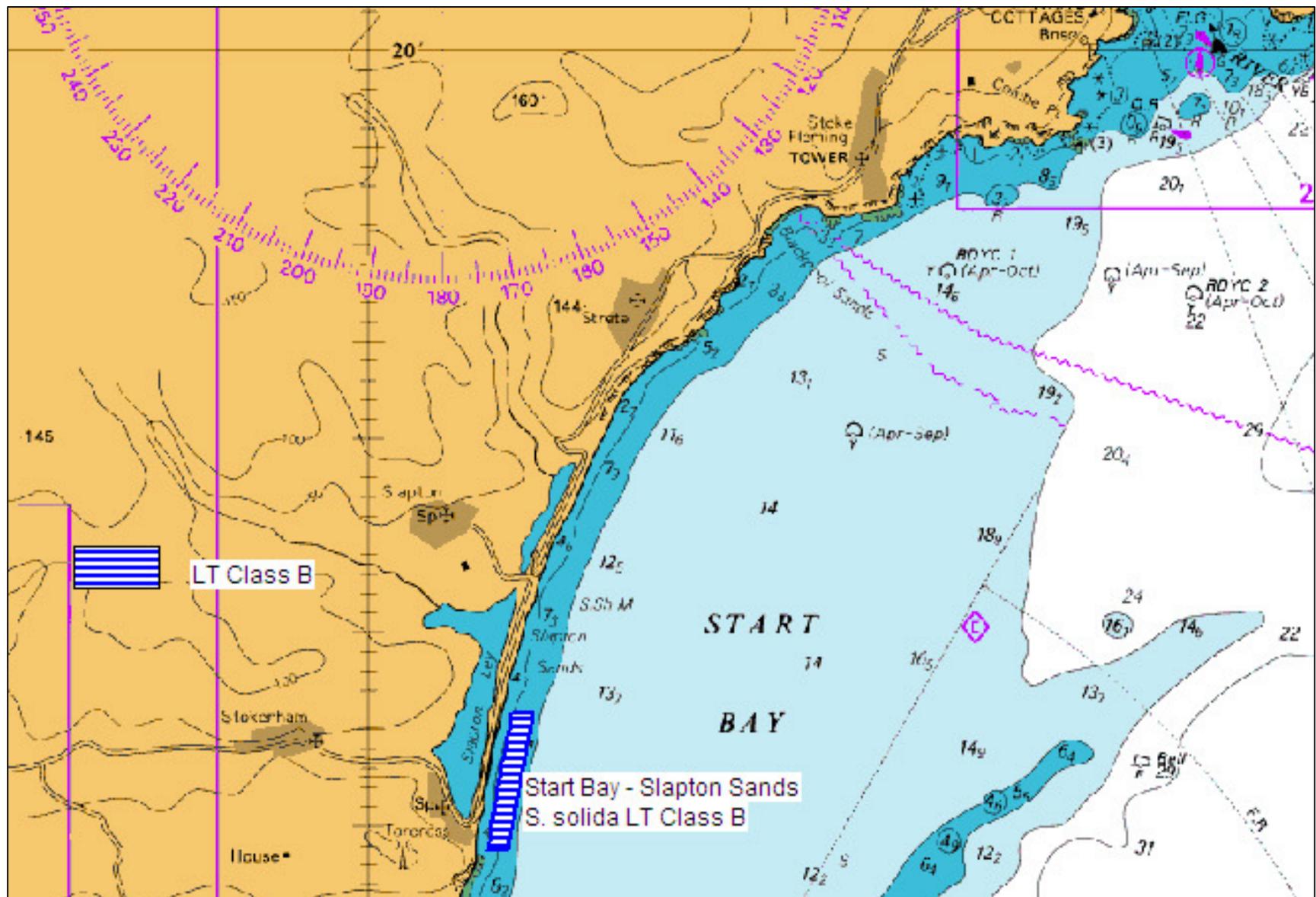


Figure 17. Start Bay Harvesting Areas

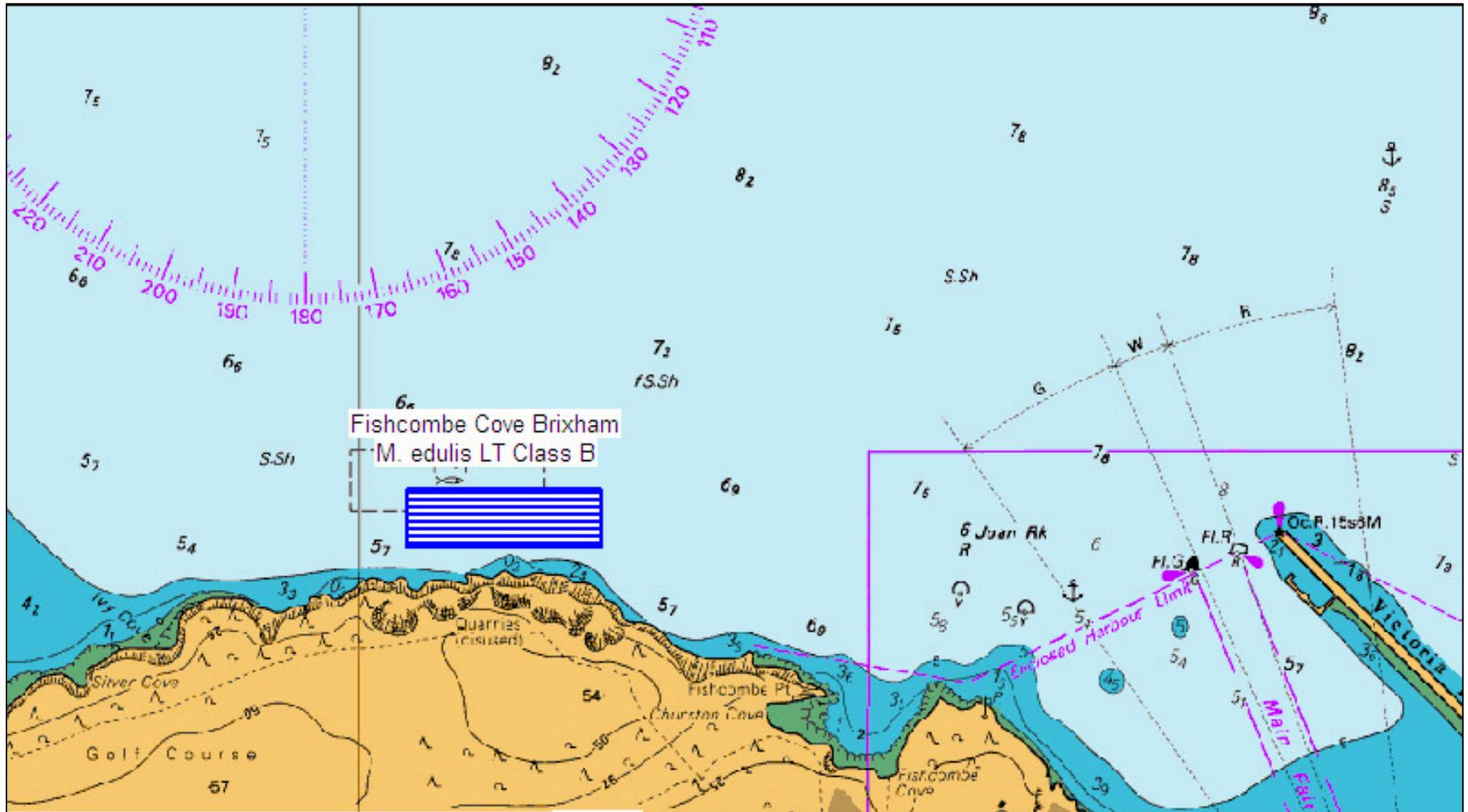


Figure 19. Brixham Harvesting Area

Abbreviations

Cefas	- Centre for Environment, Fisheries and Aquaculture Science
DSFC	- Devon Sea Fisheries Committee
GIS	- Geographical Information System
GPS	- Global Positioning System
NRL	- National Reference Library
SFC	- Sea Fisheries Committee

References

GB000283_AreaSumm08_S_NE_edit Map – MapInfo Layer defining habitats, BAP species and Biotopes

<http://www.nrlcefas.org/> Cefas NRL website Information Centre

<http://www.food.gov.uk/>

Annual Review Of Classification Of Shellfish Production Areas In England And Wales:
1 September 2009 – 31 August 2010 - Reference FSH/0010 21st August 2009

Updated Classifications of the Bivalve Mollusc Production Areas in England and Wales for
2009-2010 – Reference FSH0012 16th December 2009