Fisheries in EMS Habitats Regulations Assessment for Amber and Green risk categories

European Marine Site: Plymouth Sound & Estuaries

Fishing activities assessed: Static – pots/traps

Gear/feature interactions assessed:

D&S IFCA Interaction ID	Fishing Activity	Sub-feature(s)/ Supporting Habitat(s)/ Annex I Species
HRA_UK0013111_K23	Fishtraps	Intertidal mud
HRA_UK0013111_L23		Intertidal sand & muddy sand
HRA_UK0013111_P23		Intertidal mixed sediments
HRA_UK0013111_AR23		Intertidal coarse sediment
HRA_UK9010141_AO23	Fishtraps	Avocet
HRA_UK9010141_AO23		Little egret
HRA_UK9010141_AT23		Water column
HRA_UK9010141_K23		Intertidal mud
HRA_UK9010141_L23		Intertidal sand & muddy sand
HRA_UK9010141_P23		Intertidal mixed sediments

(V.3 Updated December 2017)

Contents

1. Introduction

1.1 Need for an HRA assessment

In 2012, the Department for Environment, Food and Rural Affairs (Defra) announced a revised approach to the management of commercial fisheries in European Marine Sites (EMS). The objective of this revised approach is to ensure that all existing and potential commercial fishing activities are managed in accordance with Article 6 of the Habitats Directive.

This approach is being implemented using an evidence based, risk-prioritised, and phased basis. Risk prioritisation is informed by using a matrix of the generic sensitivity of the sub-features of EMS to a suite of fishing activities as a decision making tool. These sub-feature-activity combinations have been categorised according to specific definitions, as red, amber, green or blue.

Activity/feature interactions identified within the matrix as red risk have the highest priority for implementation of management measures by the end of 2013 in order to avoid the deterioration of Annex I features in line with obligations under Article 6(2) of the Habitats Directive.

Activity/feature interactions identified within the matrix as amber risk require a site-level assessment to determine whether management of an activity is required to conserve site features. Activity/feature interactions identified within the matrix as green also require a site level assessment if there are “in combination effects” with other plans or projects.

Site level assessments are being carried out in a manner that is consistent with the provisions of Article 6(3) of the Habitats Directive. The aim of this assessment is to determine whether management measures are required in order to ensure that fishing activity or activities will have no adverse effect on the integrity of the site. If measures are required, the revised approach requires these to be implemented by 2016.

The purpose of this site specific assessment document is to assess whether or not in the view of Devon & Severn Inshore Fisheries and Conservation Authority (D&S IFCA) the fishing activities fish traps have a likely significant effect on the ‘intertidal mud’, ‘intertidal sand & muddy sand’, ‘intertidal mixed sediments’, ‘intertidal coarse sediment’, ‘intertidal seagrass beds’ and ‘water column’ of the Plymouth Sound & Estuaries EMS, and on the basis of this assessment whether or not it can be concluded that the fishtraps will not have an adverse effect on the integrity of this EMS.

1.2 Documents reviewed to inform this assessment

- Natural England’s risk assessment Matrix of fishing activities and European habitat features and protected species[1]
- Reference list (Annex 1)
- Natural England’s consultation advice (Annex 2)
- Site map(s) – sub-feature/feature location and extent (Annex 3)
- Fishing activity data (map(s), etc.) (Annex 4)

[1] See Fisheries in EMS matrix: http://www.marinemanagement.org.uk/protecting/conservation/documents/ems_fisheries/populated_matrix3.xls

2. Information about the EMS

The Plymouth Sound & Estuaries EMS is made up of the Plymouth Sound & Estuaries SAC and the Tamar Estuaries Complex SPA (Figure 1, Annex 3). Plymouth Sound and its associated tributaries comprise a complex site of marine inlets. The ria systems entering Plymouth Sound (St John's Lake and parts of the Tavy, Tamar and Lynher), the large bay of the Sound itself, Wembury Bay, and the ria of the River Yealm are of international marine conservation importance because of their wide variety of salinity conditions and sedimentary and reef habitats. The high diversity of habitats and conditions gives rise to communities both representative of ria systems, and some very unusual features, including abundant southern Mediterranean-Atlantic species rarely found in Britain (English Nature, 2000). This site crosses the border between Devon & Severn IFCA and Cornwall IFCA.

2.1 Overview and qualifying features

Plymouth Sound and Estuaries qualifies as a SAC for the following Annex I habitats as listed in the EU Habitats Directive (Natural England, 2015a):

- Large shallow inlets and bays, the key sub-features are:
    - Intertidal rock
    - Circalittoral rock
    - Infralittoral rock
    - Subtidal mud
    - Subtidal sand
    - Subtidal seagrass beds
- Estuaries, the key sub-features are:
    - Circalittoral rock
    - Infralittoral rock
    - Intertidal mixed sediment
    - Intertidal mud
    - Intertidal rock
    - Intertidal seagrass beds
    - Lower-mid saltmarsh
    - Mid-upper saltmarsh
    - Pioneer saltmarsh
    - Subtidal mixed sediments
    - Subtidal mud
    - Subtidal sand
    - Subtidal seagrass beds
    - Transition & driftline saltmarsh
    - Upper saltmarsh
- Sandbanks which are slightly covered by seawater all the time, the key sub-features are:
    - Subtidal coarse sediment
    - Subtidal mixed sediment
    - Subtidal mud
    - Subtidal sand
    - Subtidal seagrass beds
- Atlantic salt meadows
- Mudflats & sandflats not covered by seawater at low tide, the key sub-features are:
    - Intertidal coarse sediment
    - Intertidal mixed sediments
    - Intertidal mud
    - Intertidal sand & muddy sand
    - Intertidal seagrass beds

- Reefs
    - Circalittoral rock
    - Infralittoral rock
    - Intertidal rock

Plymouth Sound and Estuaries qualifies as a SAC for the following Annex II species as listed in the EU Habitats Directive (Natural England, 2015a):

- Allis shad (*Alosa alosa*)
- Shore dock (*Rumex rupestris*)

The Tamar Estuaries Complex qualifies as a SPA under the Birds Directive for (Natural England, 2015b):

- Nationally important populations of regularly occurring Annex 1 species, Avocets (*Recurvirostra avosetta*) and Little egrets (*Egretta garzetta*), the key supporting habitats are:
    - Annual vegetation of driftlines
    - Coastal reedbeds
    - Freshwater & coastal grazing marsh
    - Intertidal mixed sediments
    - Intertidal mud
    - Intertidal sand & muddy sand
    - Intertidal seagrass beds
    - Water column
    - Saltmarsh

2.2 Conservation Objectives

The site's conservation objectives which apply to the **Special Area of Conservation** and the natural habitat and/or species for which the site has been designated are to ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the Favourable Conservation Status of its qualifying features, by maintaining or restoring:

- the extent and distribution of qualifying natural habitats and habitats of the qualifying species
- the structure and function (including typical species) of qualifying natural habitats
- the structure and function of the habitats of qualifying species
- the supporting processes on which qualifying natural habitats and the habitats of qualifying species rely
- the populations of qualifying species
- the distribution of qualifying species within the site

The site's conservation objectives which apply to the **Special Protection Area** and the individual species and/or assemblage of species for which the site has been classified are to ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

- the extent and distribution of the habitats of the qualifying features
- the structure and function of the habitats of the qualifying features
- the supporting processes on which the habitats of the qualifying features rely
- the populations of the qualifying features
- the distribution of the qualifying features within the site

3. Interest feature(s) of the EMS categorised as 'red' risk and overview of management measure(s) (if applicable)

- Subtidal rock and reef communities were categorised as "red" risk against all demersal towed gear and towed dredges. In January 2014 D&S IFCA introduced the Mobile Fishing Permit Byelaw, which prohibits the use of towed gear within this EMS (Map Annex 5).
- Seagrass bed communities were categorised as "red" risk against towed demersal gear, dredges, intertidal handwork, crab tiling, and digging with forks. At that time, only subtidal seagrass beds were considered as a sub-feature of the site which would not be exposed to intertidal handwork, crab tiling or digging with forks. In January 2014 D&S IFCA introduced the Mobile Fishing Permit Byelaw, which prohibits the use of towed gear within this EMS (Map Annex 5).

4. Information about the fishing activities within the site

Fish traps are occurring in Plymouth Sound SAC. An emergent fishery for wild wrasse is developing in Plymouth for use as cleaner fish in salmon aquaculture in Scotland. The species targeted are four out of the five that are common in the south west: Ballan (*Labrus bergylta*), Goldsinny (*Ctenolabrus rupestris*), Corkwing (*Symphodus melops*) and Rock Cook (*Centrolabrus exoletus*). The fishery is thought to have begun in Plymouth around March 2015 and Devon and Severn IFCA were informed of the fishery by Cornwall IFCA in September 2016. There are four known vessels which currently fish for wrasse in D&S IFCAs District. The fishery operates between March and November. The parlour pots used are specifically deigned to catch wrasse (Figure 1), which are lightweight (3.7kg) and fitted with wrasse escape gaps. They measure 72Lx40Wx28H.

Figure 1 – Wrasse pot used by fisherman ©D.Cresswell

In 2016 and the beginning of 2017 the four vessels had 120-200 pots each. The vessels' sizes range from 5m to up to 8m and work to depths of 12m maximum. They mostly work within Plymouth Sound, south of the breakwater and along the shore from Mount Batten Breakwater down to the Mew Stone (see Figure 8 to Figure 11 for areas fished per vessel). Three of these vessels also fish within Cornwall IFCA District from Fort Picklecombe to Rame Head. There is a fifth vessel which began fishing this summer (2017) but it is only working on the Cornish side.

Devon & Severn IFCA undertook a survey within the SAC in May 2016 (prior to the wrasse fishery becoming known to the Authority) to determine the level of activity occurring (Annex 4, Figure 6). A total of 24 buoys/bottles were unmarked and of this, seven located near Batten Bay were thought

to be no longer active as were covered with seaweed and five were located outside the SAC. Commercial vessel three (Annex 4, Figure 6ure 10) was seen potting within the SAC using similar unmarked bottles to those found in the area. However, the vessels fishing for wrasse did not have potting permits at the time and therefore the unmarked buoys may have belonged to them.

A literature review and desk top research of wrasse and live wrasse fisheries was undertaken in late 2016/early 2017 (see embedded document) and the findings were reported to the D&S IFCA Byelaw and Permitting Sub-committee. The sub-committee considered options for monument of the Live Wrasse Pot Fishery and on 24th February 2017 Devon and Severn IFCA went out to consultation on a review of the Potting Permit Byelaw permit conditions to include management of the Live Wrasse Fishery within the IFCA district.

A review of wrasse ecology and fisherie

4.1 Management

Five management measures were considered, these are listed below:

1. **Fully Documented Fishery**
   Under Paragraph 17 of the Potting Permit Byelaw, those permit holders who wish to engage in the live wrasse pot fishery will be required to provide relevant fishery information to the Authority. This information will be provided in two formats:
   a. Permit holders will provide fisheries data through daily logbooks, to include the following information:
      a. Date and time of deployment and recovery of each string
      b. Start and end latitude and longitude of each string of pots hauled
      c. Number of strings fished
      d. Number of pots per string
      e. Number of times per day pots are hauled
      f. Number of each species of wrasse retained on board
      g. Number of live wrasse supplied direct to Salmon Farm Industry/Agent
   b. D&S IFCA officers will undertake on board catch surveys on a regular basis to observe the total catches. Fishermen will enable this data collection by allowing D&S IFCA officer on board their vessels.

2. **Pot limitations**
   A limit on the number of pots per vessel should be set at 60 pots

3. **Marking of gear**
   a. Every pot used for the capture of live wrasse must be marked with a tag that is issued by D&S IFCA, to allow for identification of the wrasse pots and aid compliance of the effort restrictions.
   b. All strings of wrasse pots to be used to capture live wrasse must be marked with a buoy or dahn, and each buoy or dahn must be marked the letter ‘W’ together with the vessels PLN. This is for identification purposes to differentiate wrasse pots from other potting gear used for the capture of Crustacea and Molluscs.
   c. Strings of pots used for the capture of live wrasse must be used solely for that purpose.

4. Closed season

The period between 1st April and 31st July will be closed to the live wrasse pot fishery.

5. Minimum and Maximum Conservation Reference Sizes

Species of Wrasse	Minimum Conservation Reference Size mm	Maximum Conservation Reference Size mm
Rock Cook	120	230
Goldsinny	120	230
Corkwing	120	230
Ballan	150	230
Cuckoo	150	230

The deadline for responses was 7th April 2017. IFCA officers collated responses and produced an impact assessment on the proposed management measures. The Byelaw and Permitting Sub-Committee met on 15th May 2017 and recommended that the Full Authority consider and agree the revised proposals. The Full Authority approved the recommendations on 15th June 2017 and these were introduced to the live wrasse pot fishery for the remainder of the 2017 season, through changes to the Potting Permit conditions**.** Amended permits were circulated in July 2017. The new conditions are as follows:

Management Measures:

- To have a fully documented Live Wrasse Fishery
- To limit the number of pots used by each vessel in the Live Wrasse Fishery to 120 pot limit per permit holder
- To mark all strings of pots used in the Live Wrasse Fishery with 'WRA' and Vessel's PLN
- To mark each pot used in the Live Wrasse Fishery with a tag supplied by D&S IFCA
- To have a closed season from 1st April to 30th June
- To introduce minimum and maximum conservation reference sizes for five species of wrasse:
    - Ballan and cuckoo wrasse less than 150mm or greater than 230mm
    - Corkwing, rock cook and goldsinny wrasse less than 120mm or greater than 230mm

Under Paragraph 17 of the Potting Permit Byelaw, D&S IFCA can request relevant information to discharge its duties. In order to manage the Live Wrasse Fishery and as part of the fully documented fishery the following information is required:

1. The name and contact details of the Salmon Farm company, agent or associated company who the fishermen are supplying live wrasse to.
2. Name and contact details of transport company.
3. Transport documents for all those consignments sent to the Salmon Farm company.
4. Number of pots actively being used in the Live Wrasse Fishery.
5. Completion of weekly returns including information on the dates and times of hauling, location of strings, number of strings hauled, number of pots hauled, and the number of wrasse retained on board per day.

Other Requirements:

Fishermen will also be required to allow D&S IFCA officers on board their vessels to collect catch data for the fishery.

Management Review Process:

- The Authority has decided that if there is an increase in the number of vessels entering the Live Wrasse Fishery this will trigger a review of the permit conditions for the Live Wrasse Fishery, and may lead to further changes to the permit conditions, which may include a reduction in the number of pots per vessel.
- The Authority has decided that a review of the management of the Live Wrasse Fishery will be undertaken in November 2017. Data collected from fishermen and on-board surveys will inform the review of the permit conditions for the Live Wrasse Fishery, and may lead to changes to these conditions.
- Failure to meet all conditions set out in this policy statement may also trigger a review of the permit conditions.
- In addition to formal management under the Potting Permit conditions, the Authority may introduce further voluntary measures to support the management of the Live Wrasse Fishery. Failure to adhere to these voluntary measures may lead to a review of the permit conditions.

Guidance for the Live Wrasse Fishery:

Further to the regulatory conditions, D&S IFCA has developed additional guidance to support these measures and the fishery. This guidance is in the form of voluntary measures to be adopted by those fishermen participating in the Live Wrasse Fishery.

1. A series of small closed zones to the live wrasse pot fishery or 'No Wrasse Pot Zones' have been identified through discussions with the fishermen. These areas lie within the fishery area in the Plymouth Sound and associated area and include reef habitat known to be favoured by the wrasse species fished. Figure 7 (Annex 4) shows the areas closed to the Live Wrasse Fishery.
2. Mount Batten Breakwater is known to be a popular angling mark and in order to remove any conflict with anglers in this area, fishermen are requested to keep their pots 30m from the pier.

4.2 Data Analysis

In November 2017 a report on the analysis of the wrasse fishery data collected from on-board surveys and returns data from the fishermen (see link to PDF below) was presented to the Byelaw and Permitting Sub-Committee on 13th November 2017. At this meeting, the Byelaw and Permitting Sub-Committee recommended proposed changes to management measures for the Live Wrasse Fishery. D&S IFCA is going out to consultation to amend the current permit conditions. The recommended changes are:

- **to amend the slot size for corkwing to 140mm to 180mm**
- **to change the closed season to May 1st to 15th July.**

Live Wrasse Fishery Data Analysis Novem

The Byelaw and Permitting Sub-committee suggested further monitoring of the areas where the fishermen are shooting and hauling their pots to demonstrate adherence to the voluntary closed areas. This may involve putting GPS locators on the vessels to monitor the vessel movements. This will be discussed as a voluntary measure with the fishermen involved in the fishery.

Other fishing activities within the Plymouth Sound and Estuaries EMS are described in the Fishing Activity Report (Gray, 2015).

5. Test for Likely Significant Effect (LSE)

5.1 Table 1: Assessment of LSE

1. Is the activity/activities directly connected with or necessary to the management of the site for nature conservation?	**No**	
2. What pressures (such as abrasion, disturbance) are potentially exerted by the gear type(s)	**SAC** • Abrasion/disturbance of the substrate on the surface of the seabed **SPA** • Above water noise • Abrasion/disturbance of the substrate on the surface of the seabed • Underwater noise • Visual disturbance **See Annex 6 for pressures audit trail**	
3. Is the feature potentially exposed to the pressure(s)?	**Yes,** D&S IFCA has a potting permit byelaw and through this can gauge where any future changes or developments in this activity occur within Plymouth Sound and Estuaries EMS. D&S IFCA have brought in management measures for the wrasse fishery (see section 4). The Dockyard Port of Plymouth Order 1999 prohibits fishing in some areas of the SAC.	
4. What are the potential effects/impacts of the pressure(s) on the feature, taking into account the exposure level?	Four commercial vessels are currently known to pot for wrasse within the SAC. Disturbance and abrasion of the substrate could occur from landing of deployed pots on the seabed and movement/recovery of the pots (Coleman et al. 2013). Potting is not thought to be currently occurring on the sub-features assessed. Potting for wrasse generally occurs on rocky reef and seaweed covered areas. Therefore it is unlikely that potting would occur in the intertidal sediments in the future. This activity is not thought to be occurring in the SPA, therefore disturbance to birds and impact on supporting habitats is thought to be negligible.	
5. Is the potential scale or magnitude of any effect likely to be significant?	**Alone**	**No**, there is no likelihood of significant adverse effect on the interest features, as a stand-alone project.
	In-combination	**See section 8 for more information.**
6. Have NE been consulted on this LSE test? If yes, what was NE's advice?	**No**, not at this stage.	

6. Appropriate Assessment

An Appropriate Assessment is not required as the TLSE concluded that this activity would not have a significant effect, either alone or in-combination.

6.1 Potential risks to features

Table 2: Summary of Impacts

Feature/Sub feature(s)	**Conservation Objective**	**Potential pressure (such as abrasion, disturbance) exerted by gear type(s)**	**Potential ecological impacts of pressure exerted by the activity/activities on the feature** *(reference to conservation objectives)*	**Level of exposure of feature to pressure**	**Mitigation measures**

7. Conclusion

N/A

8. In-combination assessment

8.1 Other fishing activities

The following fishing activities are either occurring or have not been able to have been ruled out as occurring in the Plymouth Sound and Estuaries EMS.

Handworking – There are no records of this activity taking place commercially but it has not been able to be ruled out. Therefore no in-combination effect thought to be possible.

Crab tiling – Activity is occurring within Plymouth Sound and Estuaries EMS. Crab tiling has not yet been assessed by D&S IFCA, however, due to the activity not occurring in the intertidal, no in-combination effect thought to be possible.

Digging with forks - Activity is occurring within Plymouth Sound and Estuaries EMS. Digging with forks has not yet been assessed by D&S IFCA, however, due to the activity not occurring in the intertidal, no in-combination effect thought to be possible.

Shrimp push nets - There are no records of this activity taking place but it has not been able to be ruled out. Therefore no in-combination effect thought to be possible.

Pots/ creels - Potting occurs on a medium level within Plymouth Sound and Estuaries SAC. There are no records of potting activities taking place in the intertidal sediments but they have not been able to be ruled out. Therefore no in-combination effect thought to be possible.

Cuttlepots – Activity not occurring, therefore no in-combination effect thought to be possible.

Commercial diving - Activity not believed to be occurring/ occurring at a very low level. Therefore no in-combination effect thought to be possible.

Beach seine/ ring nets - There are no records of beach seine nets but it has not been able to be ruled out. Ringnets occur in the subtidal and not believed to interact with features assessed. Therefore no in-combination effect thought to be possible.

Purse seine - Activity occurs in the subtidal and not believed to interact with features assessed. There are no records of this activity taking place but it has not been able to be ruled out. Therefore no in-combination effect thought to be possible.

Drift, gill, trammel & entangling nets - Activity thought to only occur in the subtidal and not believed to interact with features assessed. Therefore no in-combination effect thought to be possible.

Fyke and stakenets - There are no records of these activities taking place but they have not been able to be ruled out. Therefore no in-combination effect thought to be possible.

Longlines - There are no records of these activities taking place in the intertidal but they have not been able to be ruled out. Therefore no in-combination effect thought to be possible.

Handlines, Jigging and trolling - There are no records of these activities taking place in the intertidal but they have not been able to be ruled out. Therefore no in-combination effect thought to be possible.

D&S IFCA conclude there is no likelihood of significant adverse effect on the interest features from in-combination effects with other fishing activities addressed within section 8.1.

8.2 Other activities

Plymouth Sound and Estuaries EMS is a busy site, with other commercial ongoing plans/projects from different sectors where impacts could combine.

Currently there are no known proposed plans or projects in Plymouth Sound and Estuaries EMS which could theoretically interact with the intertidal sub-features addressed. However, there are plans/ projects which could theoretically interact with SPA features assessed, see below.

Description: Drake's Island hotel development including conversion of Grade II listed Island House, Barracks & Ablutions Blocks, Scheduled Ancient Monument casemated battery & landscaping, refurbishment of jetty & infrastructure works.
Pressures:

- Abrasion/disturbance of the substrate on the surface of the seabed
- Litter
- Penetration and/or disturbance of the substrate below the surface of the seabed, including abrasion
- Removal of target species
- Above water noise
- Visual disturbance

In-combination assessment: The application has since been refused by Plymouth City Council. Therefore, no in-combination effect thought to be possible.

Description: Kinterbury Helicopter site includes construction of helicopter landing pad, demolition of three buildings, construction of a new building and modifications of one building.
Pressures:

- Above water noise
- Visual disturbance

In-combination assessment: Potting thought to only occur in the subtidal and not believed to interact with features assessed. Therefore no in-combination effect thought to be possible.

Description: Trevol Jetty refurbishment, Torpoint.
Pressures:

- Abrasion/disturbance of the substrate on the surface of the seabed
- Litter
- Penetration and/or disturbance of the substrate below the surface of the seabed, including abrasion
- Above water noise
- Visual disturbance

In-combination assessment: Potting thought to only occur in the subtidal and not believed to interact with features assessed. Therefore no in-combination effect thought to be possible.

Other*:* The impact of future plans or projects will require assessment in their own right, including accounting for any in-combination effects, alongside existing activities.

D&S IFCA conclude there is no likelihood of significant adverse effect on the interest features from in-combination effects with other plans or projects addressed within section 8.2.

9. Summary of consultation with Natural England

The original assessment (version 1) was formally signed off by Natural England on 03/05/2016. The activities (cuttlepots and fishtraps) were not believed to be occurring at that time. However, new information has revealed an emergent fishery for wrasse using fish traps and has therefore prompted a re-assessment of the fishing activity. Cuttlepots have been assessed in a separate HRA. A re-assessment for fishtraps was sent for informal advice to Natural England in April 2017 (version 2) and this assessment (version 3) contains amendments from the advice received and updated management measures.

10. Integrity test

Conclusion of adverse effect/non-adverse effect either alone or in-combination. This will be reliant on the consideration of mitigation measure(s) documented in the AA and summarised here in conclusion.

Annex 1: Reference list

Coleman, R.A., Hoskin, M.G., von Carlshausen, E. and Davis, C.M. (2013) Using a no-take zone to assess the impacts of fishing: sessile epifauna appear insensitive to environmental disturbances from commercial potting. Journal of Experimental Marine Biology and Ecology. 440: 100-107.

English Nature (2000) PLYMOUTH SOUND AND ESTUARIES: European Marine Site. English Nature's advice given under Regulation 33(2) of the Conservation (Natural Habitats &c.) Regulations 1994

Gray, K (2015) Fishing Activities Currently Occurring in the Plymouth Sound and Estuaries European Marine Site (SAC and SPA), Devon and Severn IFCA Report

MAGIC (2015) Multi-Agency Geographic Information for the Countryside interactive map http://magic.defra.gov.uk/magicmap.aspx?startTopic=magicall&chosenLayers=sacIndex&sqgridref=SX472506&startscale=500000

Natural England (2015a) Marine conservation advice for Special Area of Conservation: Plymouth Sound and Estuaries (UK0013111)

Natural England (2015b) Marine conservation advice for Special Protection Area: Tamar Estuaries Complex (UK9010141)

Annex 2: Natural England’s consultation advice

N/A

Annex 3: Site Map

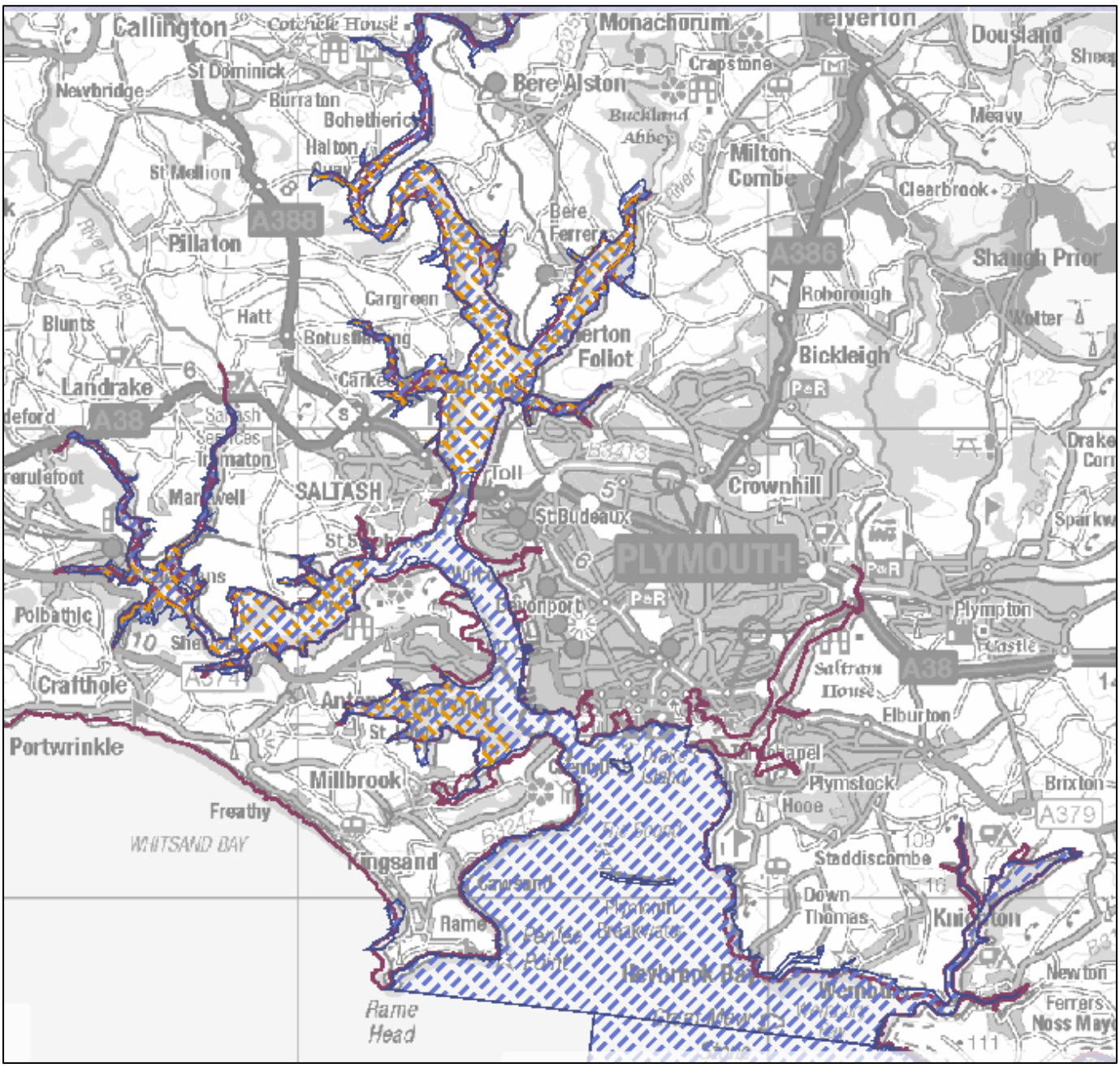


Figure 2 - Area of SAC (blue hatched) and SPA (Orange hatched) (MAGIC, 2015)

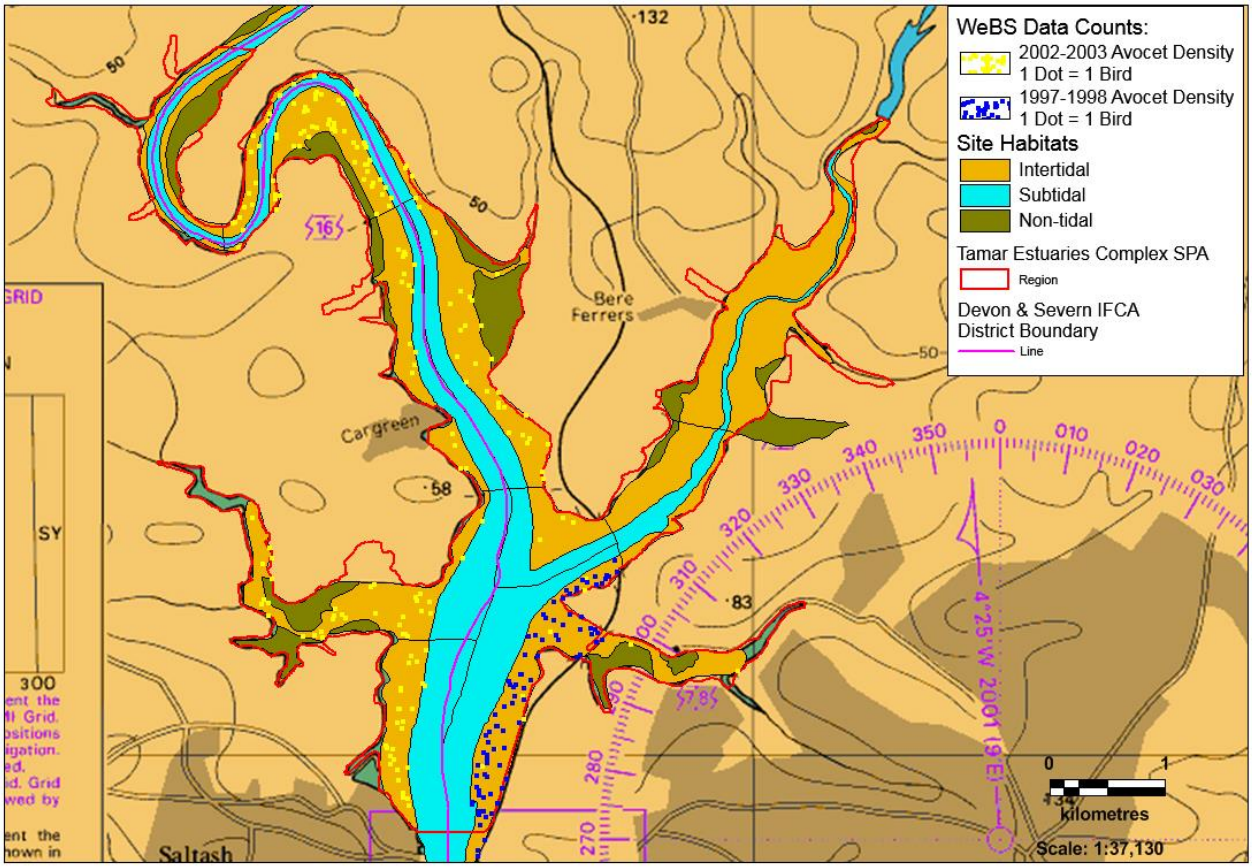


Figure 3 - Tamar Estuaries Complex SPA and WeBS data for Avocet density (in November, December, January and February 1997-1998 & 2002-2003).

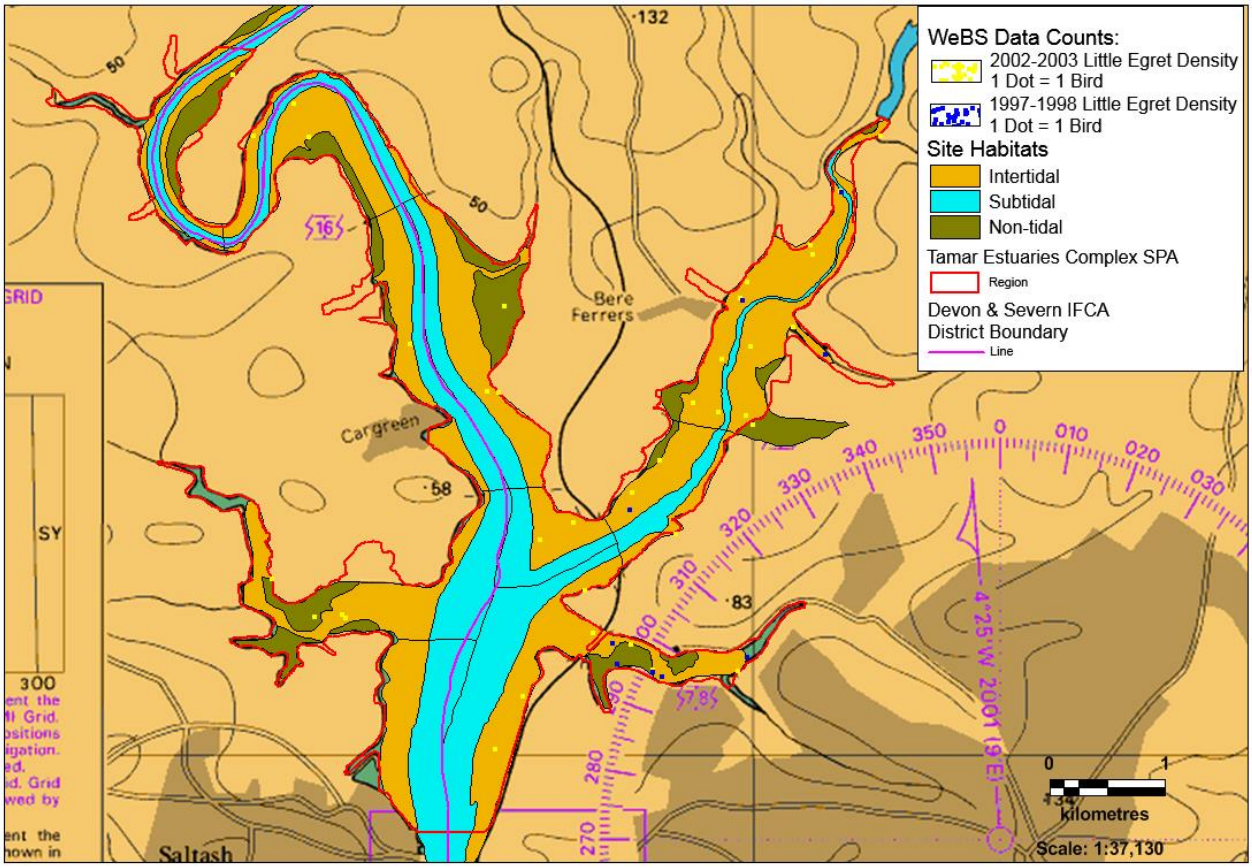


Figure 4 - Tamar Estuaries Complex SPA and WeBS data for Little Egret density (in November, December, January and February 1997-1998 & 2002-2003).

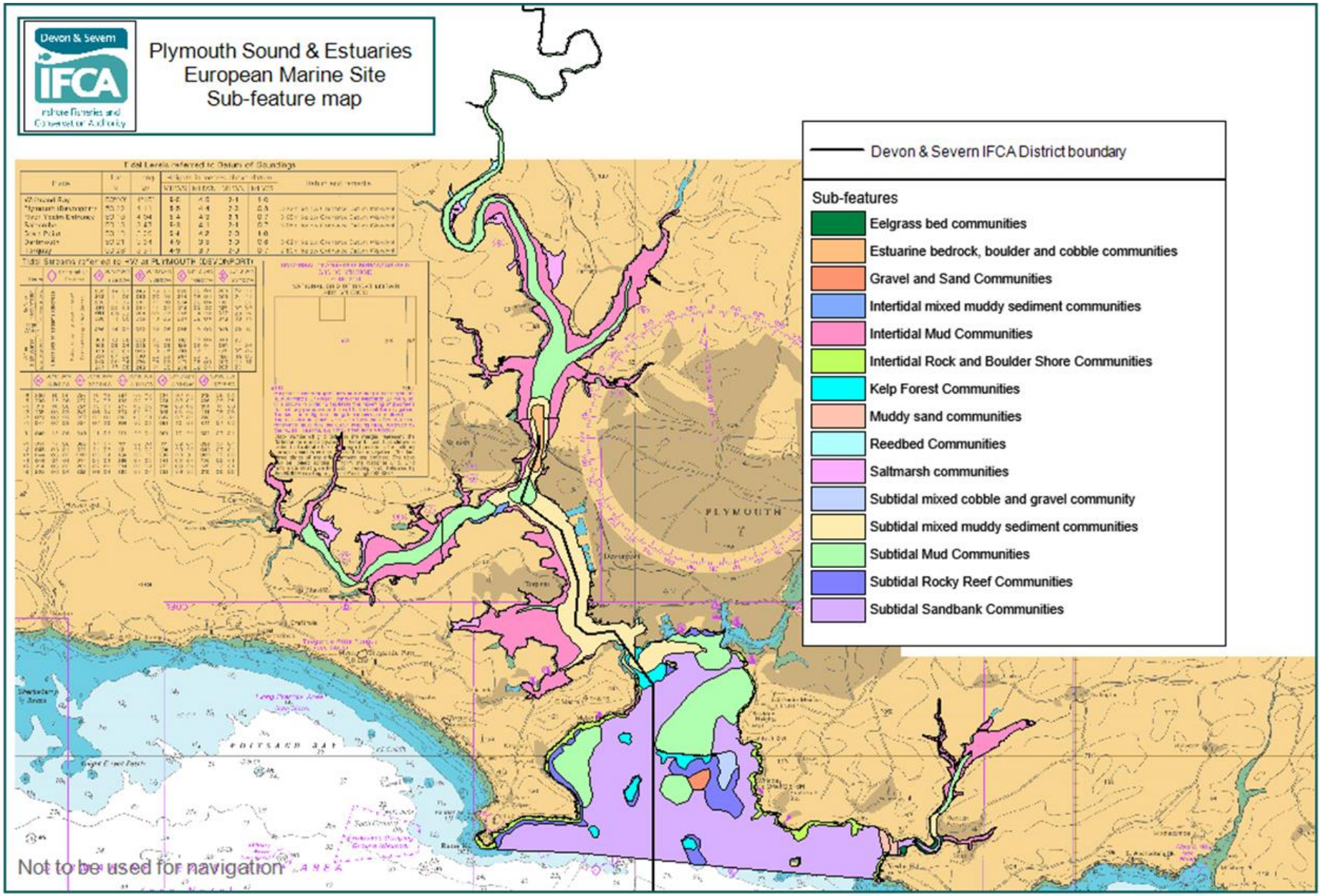


Figure 5 - Plymouth Sound & Estuaries EMS sub-features

Annex 4: Fishing activity maps

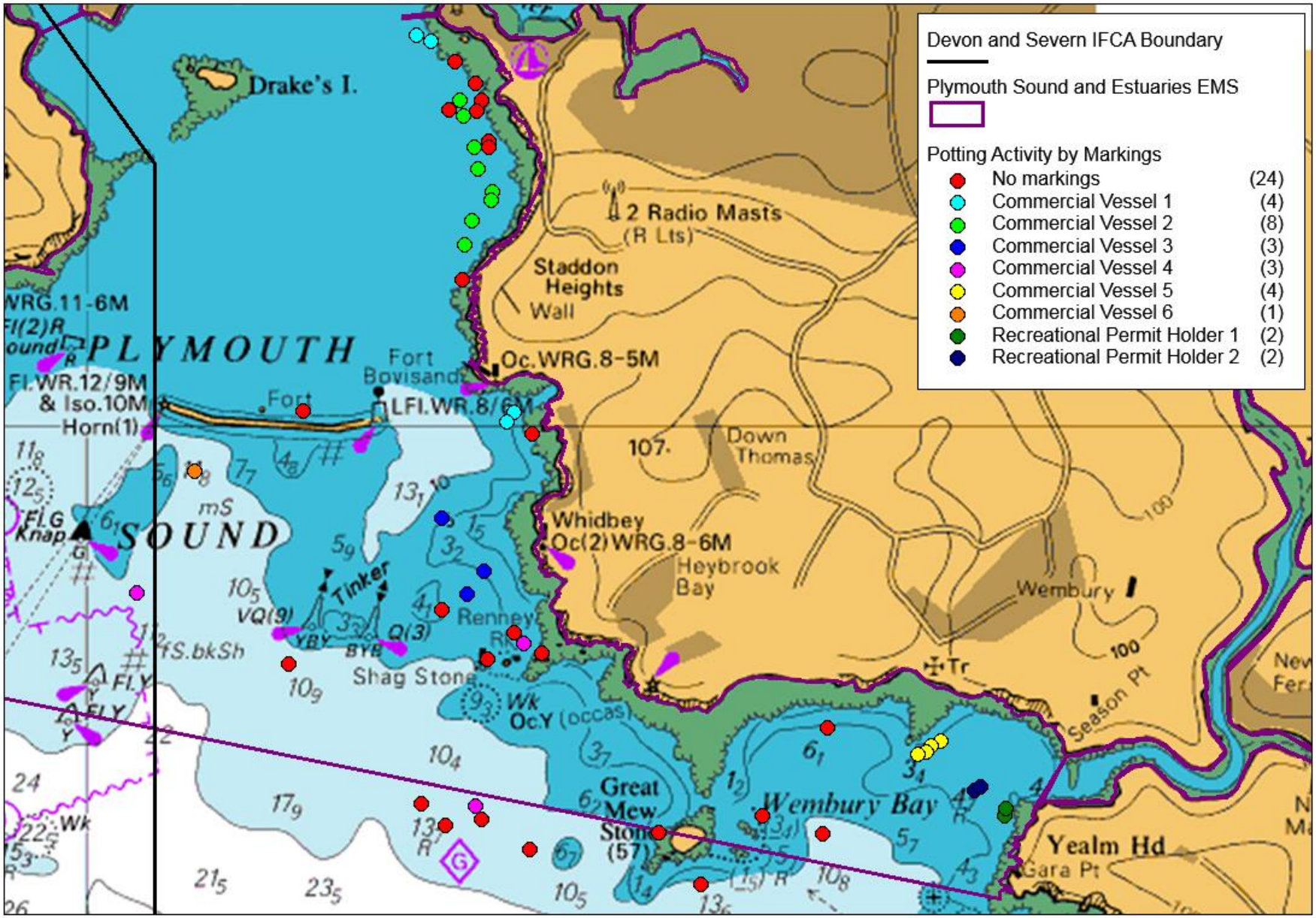


Figure 6 - Potting activity (markings on buoys) recorded within and near Plymouth Sound and Estuaries EMS in May 2016.

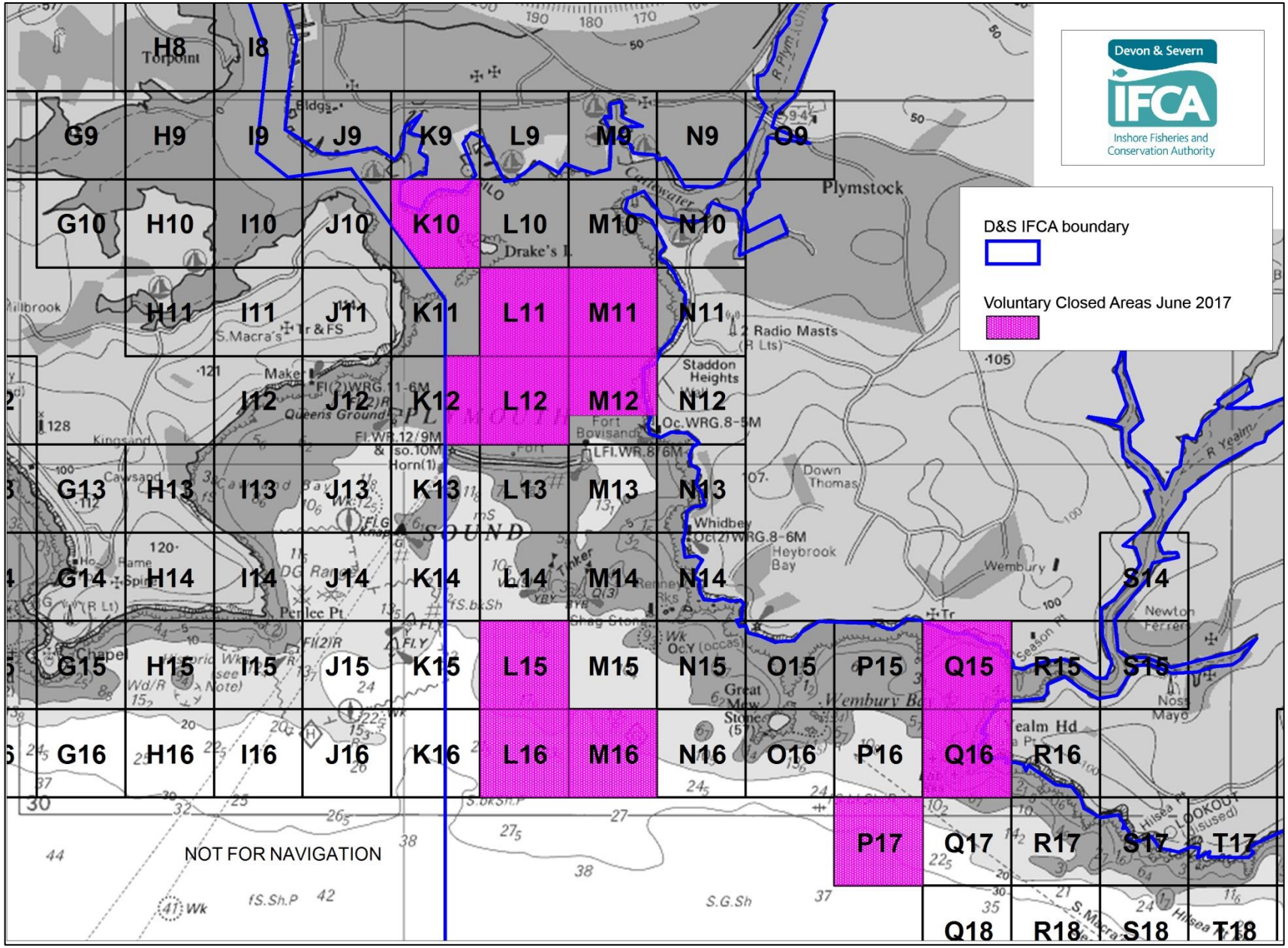


Figure 7 - Voluntary closed areas to the Live Wrasse Fishery (implemented end of June 2017)

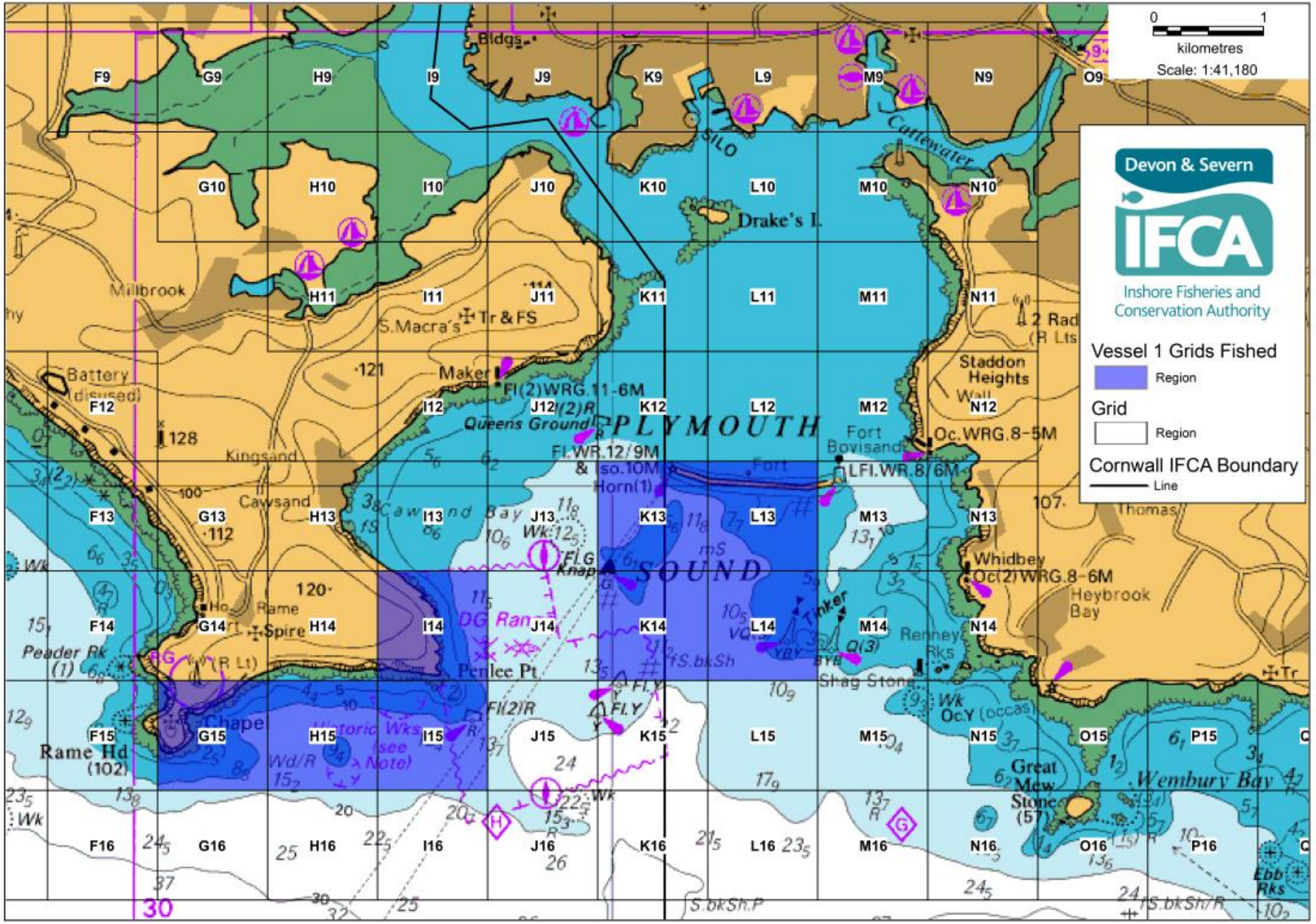


Figure 8 - Vessel 1 areas fished (April 2017 to August 2017)

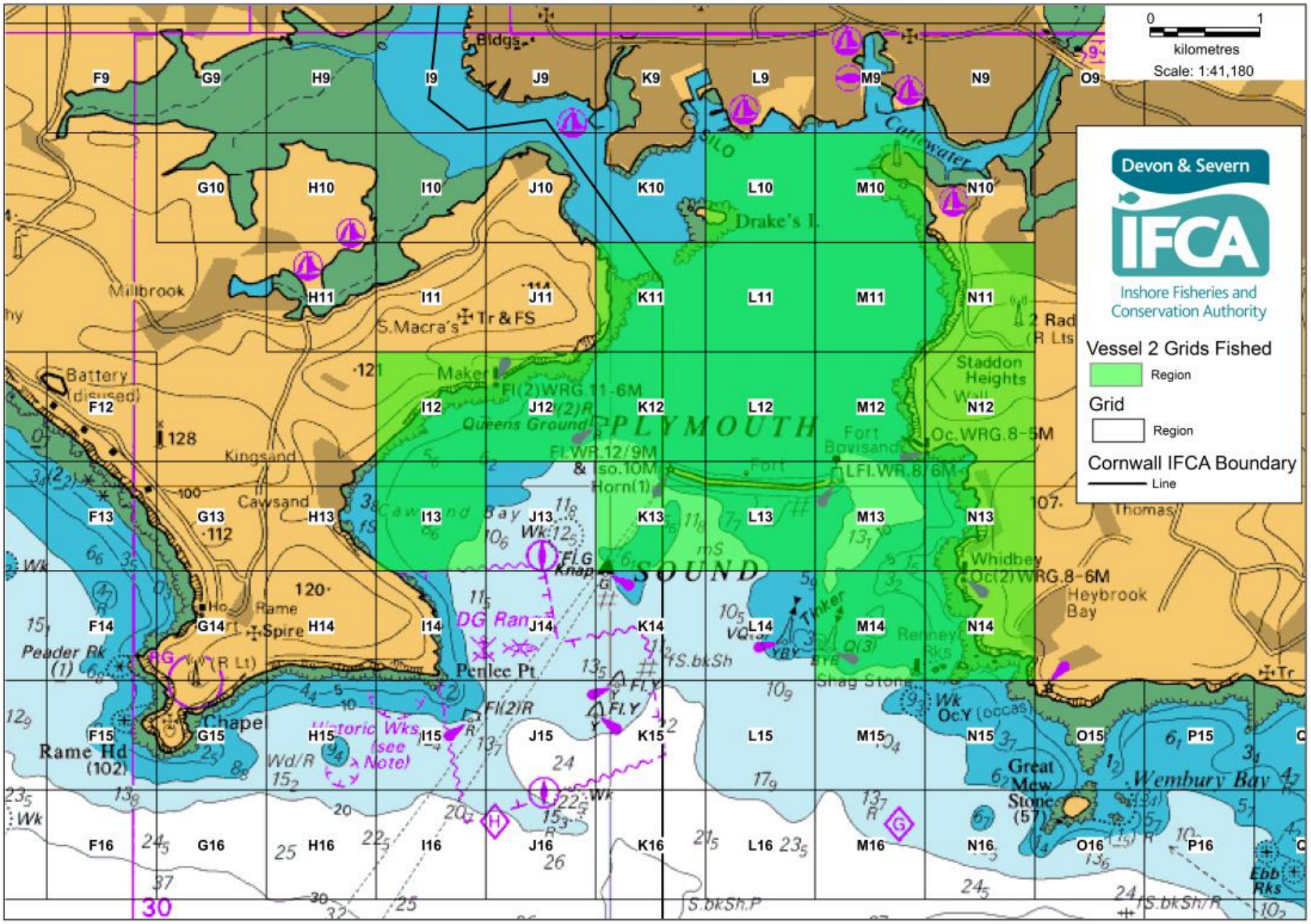


Figure 9 - Vessel 2 areas fished (May 2017 to August 2017)

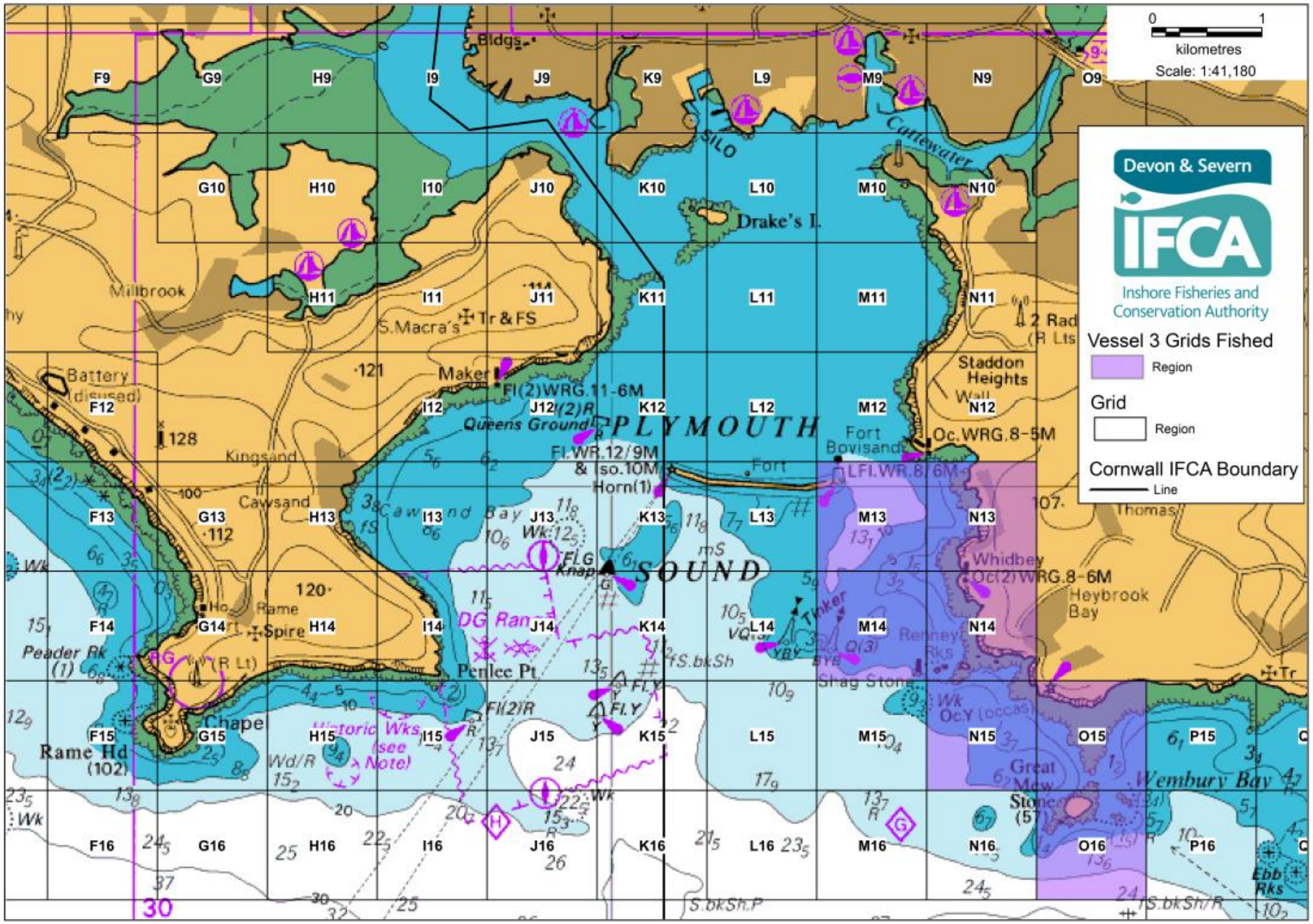


Figure 10 - Vessel 3 areas fished (April 2017 to August 2017)

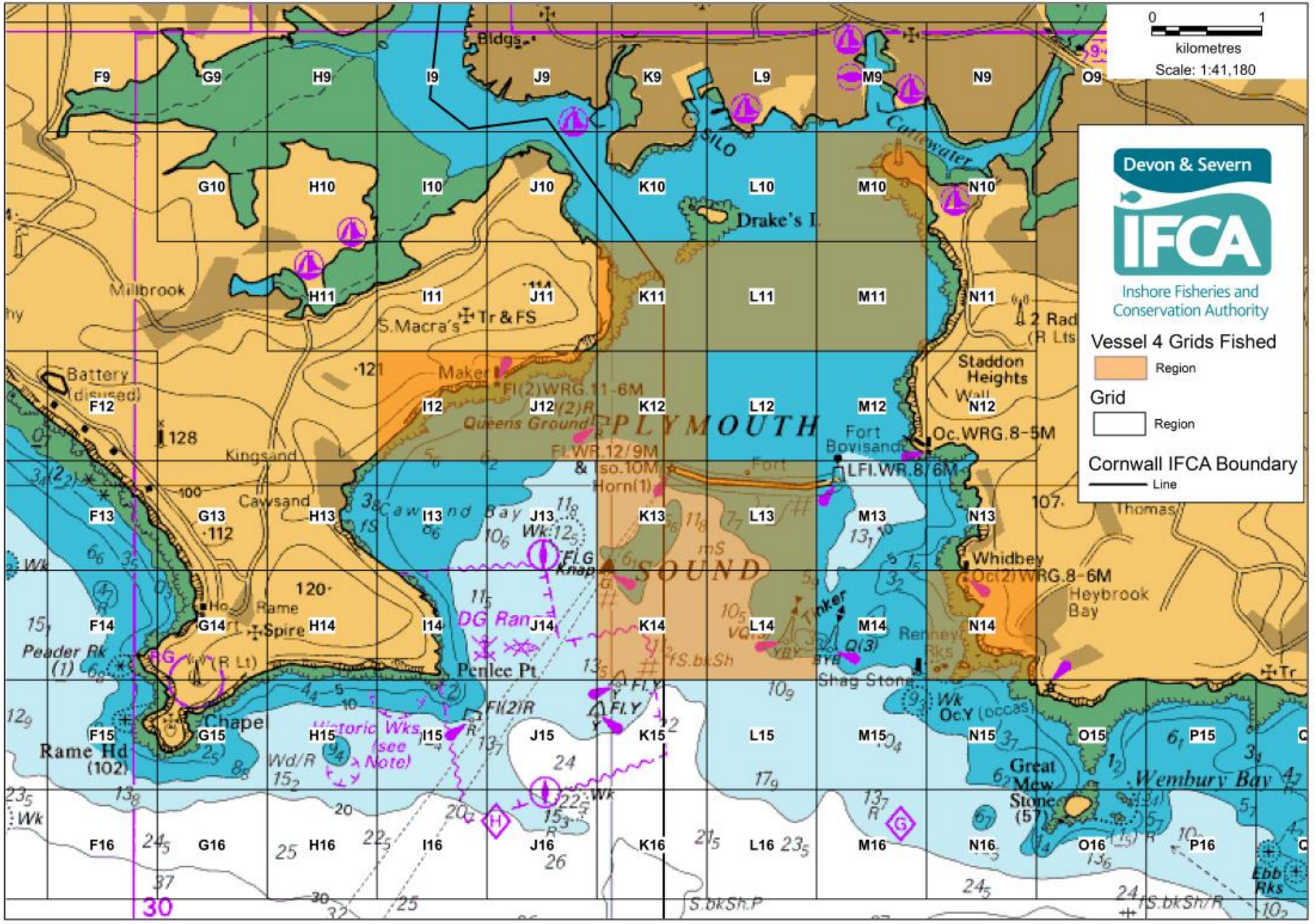


Figure 11 - Vessel 4 areas fished (June 2017 to August 2017)

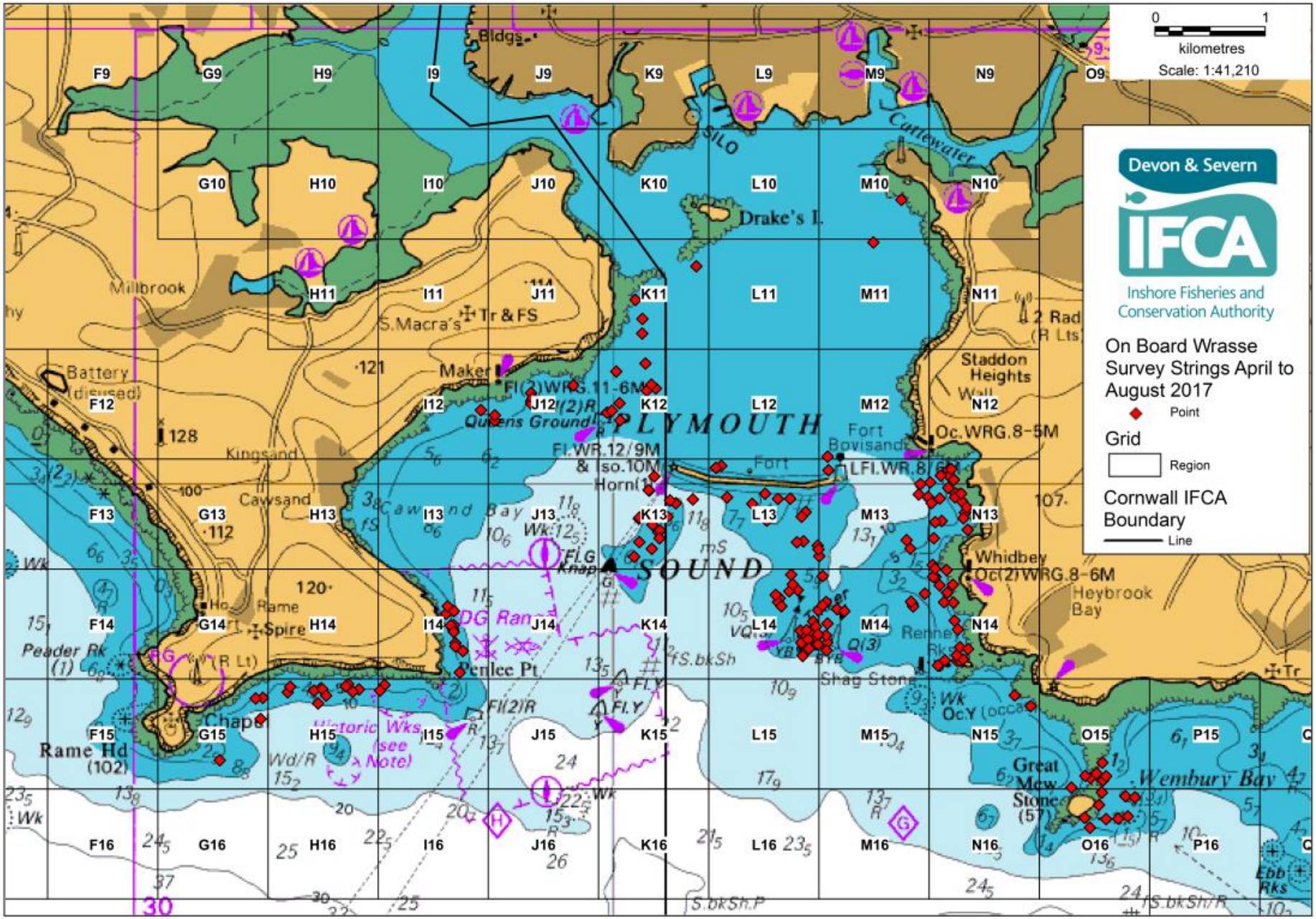
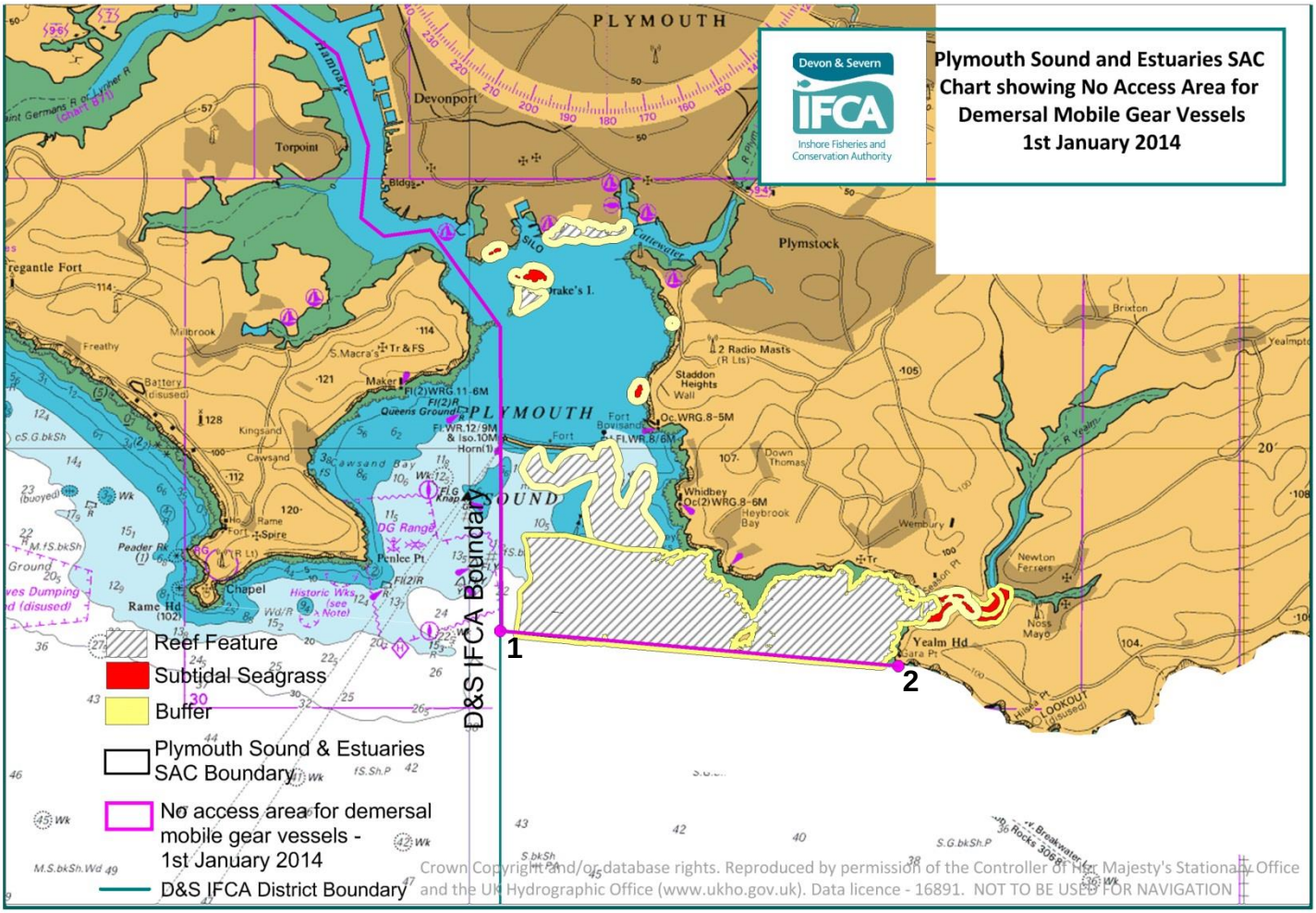


Figure 12 - Strings surveyed during on board wrasse surveys April to August 2017

Annex 5: Mobile Fishing Permit Byelaw map

No demersal mobile gear is permitted landward (up to High Water Mark) of a line following the western extent of the Devon and Severn IFCA district boundary and drawn between points 1 and 2 across Plymouth Sound.

Point Number	Latitude			Longitude		
1	50^0	18.484'	N	004^0	09.600'	W
2	50^0	18.192'	N	004^0	04.458'	W



Annex 6: Pressures Audit Trail

Traps Pressure(s)	SAC Sub-feature(s) & Screening Justification			
	Intertidal coarse sediment	Intertidal mixed sediments	Intertidal mud	Intertidal sand and muddy sand
Abrasion/disturbance of the substrate on the surface of the seabed	**Sensitivity: NS** **IN** – Need to consider spatial scale/intensity of activity to determine likely magnitude of pressure	**Sensitivity: S** **IN** – Need to consider spatial scale/intensity of activity to determine likely magnitude of pressure	**Sensitivity: S** **IN** – Need to consider spatial scale/intensity of activity to determine likely magnitude of pressure	**Sensitivity: S** **IN** – Need to consider spatial scale/intensity of activity to determine likely magnitude of pressure
Genetic modification & translocation of indigenous species				**Sensitivity: IE** **OUT** - the fleet operates in local area only so risk considered extremely low
Hydrocarbon & PAH contamination. Includes those priority substances listed in Annex II of Directive 2008/105/EC.	**Sensitivity: NS** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: NS** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: NS** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: NS** **OUT** - Insufficient activity levels to pose risk of large scale pollution event
Introduction of other substances (solid, liquid or gas)	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose risk of large scale pollution event
Introduction or spread of non-indigenous species	**Sensitivity: IE** **OUT** - Fleet operates in local area only so risk considered extremely low	**Sensitivity: S** **OUT** - Fleet operates in local area only so risk considered extremely low	**Sensitivity: IE** **OUT** - Fleet operates in local area only so risk considered extremely low	**Sensitivity: S** **OUT** - Fleet operates in local area only so risk considered extremely low
Litter	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose significant risk	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose significant risk	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose significant risk	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose significant risk
Penetration and/or disturbance of the substrate below the surface of the seabed, including abrasion	**Sensitivity: NS** **OUT** – Penetration of the substrate from anchoring when potting, occurs on such an infrequent basis that the impact would be minimal.	**Sensitivity: S** **OUT** – Penetration of the substrate from anchoring when potting, occurs on such an infrequent basis that the impact would be minimal.	**Sensitivity: S** **OUT** – Penetration of the substrate from anchoring when potting, occurs on such an infrequent basis that the impact would be minimal.	**Sensitivity: S** **OUT** – Penetration of the substrate from anchoring when potting, occurs on such an infrequent basis that the impact would be minimal.
Removal of non-target species				**Sensitivity: S** **OUT** – selectivity of pots results in low incidental by-catch
Synthetic compound contamination (incl. pesticides, antifoulants, pharmaceuticals). Includes those priority substances listed in Annex	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: NS** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: NS** **OUT** - Insufficient activity levels to pose risk of large scale pollution event

II of Directive 2008/105/EC.				
Transition elements & organo-metal (e.g. TBT) contamination. Includes those priority substances listed in Annex II of Directive 2008/105/EC.	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: NS** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: NS** **OUT** - Insufficient activity levels to pose risk of large scale pollution event

Pressure(s): No advice on operations for traps so anchored nets/lines used instead.	**Bird features & Screening Justification**		**SPA Supporting habitat(s) & Screening Justification**			
	Avocet	Little egret	Intertidal mixed sediments	Intertidal mud	Intertidal sand and muddy sand	Water column
Above water noise	**Sensitivity: S** **IN** – Need to consider spatial scale/intensity of activity to determine likely magnitude of pressure	**Sensitivity: S** **IN** – Need to consider spatial scale/intensity of activity to determine likely magnitude of pressure				
Abrasion/disturbance of the substrate on the surface of the seabed			**Sensitivity: S** **IN** – Need to consider spatial scale/intensity of activity to determine likely magnitude of pressure	**Sensitivity: S** **IN** – Need to consider spatial scale/intensity of activity to determine likely magnitude of pressure	**Sensitivity: S** **IN** – Need to consider spatial scale/intensity of activity to determine likely magnitude of pressure	
Barrier to species movement	**Sensitivity: S** OUT – Insufficient activity levels to pose risk at level of concern	**Sensitivity: S** OUT – Insufficient activity levels to pose risk at level of concern				**Sensitivity: S** OUT – Insufficient activity levels to pose risk at level of concern
Collision ABOVE water with static or moving objects not naturally found in the marine environment	**Sensitivity: S** **OUT** – Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: S** **OUT** – Insufficient activity levels to pose risk of large scale pollution event				
Genetic modification & translocation of indigenous species					**Sensitivity: IE** **OUT** – the fleet operates in local area only so risk considered extremely low	**Sensitivity: S** **OUT** – the fleet operates in local area only so risk considered extremely low
Hydrocarbon & PAH contamination. Includes those priority substances listed in Annex II of Directive 2008/105/EC.	**Sensitivity: IE** **OUT –** Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: IE** **OUT –** Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: NS** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: NS** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: NS** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: S** **OUT** - Insufficient activity levels to pose risk of large scale pollution event

Introduction of light	**Sensitivity: S** OUT – Insufficient activity levels to pose risk at level of concern	**Sensitivity: S** OUT – Insufficient activity levels to pose risk at level of concern				**Sensitivity: S** OUT – Insufficient activity levels to pose risk at level of concern
Introduction of other substances (solid, liquid or gas)	**Sensitivity: IE** **OUT** – Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: IE** **OUT** – Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: S** **OUT** - Insufficient activity levels to pose risk of large scale pollution event
Introduction or spread of non-indigenous species	**Sensitivity: NS** **OUT** – Fleet operates in local area only so risk considered extremely low	**Sensitivity: NS** **OUT** – Fleet operates in local area only so risk considered extremely low	**Sensitivity: S** **OUT** - Fleet operates in local area only so risk considered extremely low	**Sensitivity: NS** **OUT** - Fleet operates in local area only so risk considered extremely low	**Sensitivity: S** **OUT** - Fleet operates in local area only so risk considered extremely low	**Sensitivity: S** **OUT** - Fleet operates in local area only so risk considered extremely low
Litter	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose significant risk	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose significant risk	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose significant risk	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose significant risk	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose significant risk	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose significant risk
Organic enrichment			**Sensitivity: IE** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: NS** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: S** **OUT** - Insufficient activity levels to pose risk of large scale pollution event
Penetration and/or disturbance of the substrate below the surface of the seabed, including abrasion			**Sensitivity: S** **OUT** – Penetration of the substrate from anchoring occurs on such an infrequent basis that the impact would be minimal.	**Sensitivity: S** **OUT** – Penetration of the substrate from anchoring occurs on such an infrequent basis that the impact would be minimal.	**Sensitivity: S** **OUT** – Penetration of the substrate from anchoring occurs on such an infrequent basis that the impact would be minimal.	
Removal of non-target species	**Sensitivity: S** **OUT –** Pot selectivity results in very low incidental by-catch	**Sensitivity: S** **OUT –** Pot selectivity results in very low incidental by-catch	**Sensitivity: S** **OUT** – Pot selectivity results in very low incidental by-catch and mortality	**Sensitivity: S** **OUT** – Pot selectivity results in very low incidental by-catch and mortality	**Sensitivity: S** **OUT** – Pot selectivity results in very low incidental by-catch and mortality	**Sensitivity: S** **OUT** – Pot selectivity results in very low incidental by-catch and mortality
Synthetic compound contamination (incl. pesticides, antifoulants, pharmaceuticals). Includes those priority substances listed in Annex II of Directive	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: IE** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: NS** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: NS** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: NS** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: S** **OUT** - Insufficient activity levels to pose risk of large scale pollution event

2008/105/EC.						
Transition elements & organo-metal (e.g. TBT) contamination. Includes those priority substances listed in Annex II of Directive 2008/105/EC.	**Sensitivity: S** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: S** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: NS** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: NS** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: NS** **OUT** - Insufficient activity levels to pose risk of large scale pollution event	**Sensitivity: S** **OUT** - Insufficient activity levels to pose risk of large scale pollution event
Underwater noise changes						**Sensitivity: S IN** – Need to consider spatial scale/intensity of activity to determine likely magnitude of pressure
Visual disturbance	**Sensitivity: S** **IN** - Need to consider spatial scale/intensity of activity to determine likely magnitude of pressure	**Sensitivity: S** **IN** - Need to consider spatial scale/intensity of activity to determine likely magnitude of pressure				**Sensitivity: S** **IN** - Need to consider spatial scale/intensity of activity to determine likely magnitude of pressure