

**Paper for Consideration by NCWG**  
**Depiction of areas of Seaweed Cultivation**

<b>Submitted by:</b>	UK Hydrographic Office
<b>Executive Summary:</b>	Considerations for depiction of areas of seaweed cultivation
<b>Related Documents:</b>	S-447 (Aquaculture)
<b>Related Projects:</b>	-

### Introduction / Background

UK Government's Marine Management Organisation has recently received a number of Marine Licence applications for very large-scale seaweed farms off the English coast. These have ranged from 200 square metre pilot sites up to one site of 14 square kilometres, equivalent in size to some Offshore Wind Farms.

### Analysis / Discussion

Our Maritime & Coastguard Agency is consulted on such licence applications; their view is that they could pose significant risks to the safety of navigation.

There will be a requirement to include such features on nautical charts.

There is currently no specific reference to seaweed cultivation in S-4; the relevant section is B-447: Aquaculture is the term used to describe the cultivation of aquatic fauna and flora.

UK suggests that the seaweed cultivation will be similar to marine farms - they may obstruct navigation, are likely to be marked by buoys and possibly lights but they will not always be confined to inshore locations.

There is already provision for capture of seaweed cultivation areas in S-57: Feature Object MARCUL (Marine farm/culture) has an attribute 'Category of marine farm/culture' – Value 4 is for seaweed.

### Conclusions

UK has concluded that depiction of seaweed cultivation on paper charts should be similar to that for marine farms, using symbol K48.1:

- Small marine farm symbol within the area limit *or*
- Combined with the symbol for weed (J13.2) instead of a fish within a general maritime limit:



### Recommendations

NCWG to consider whether it would be useful to include an explanation of seaweed cultivation in S-4 at Section B-447, along with an update to symbols K48.1 and K48.2.

### Justification and Impacts

Use of the same symbology will result in consistency of depiction between different nations' products.

Reference to seaweed cultivation in S-4 will improve guidance.

### Action required of NCWG

The NCWG is invited to:

- a. note the possible requirement to include an explanation of seaweed cultivation in S-4 at Section B-447.
- b. note the possible requirement to update the symbol and/or description of symbols K48.1 and K48.2 in INT 1 'Symbols, Abbreviations and Terms used on charts'.