

Paper for Consideration by DQWG

Examples in US ENC's where CATZOC guidance could be useful

<b>Submitted by:</b>	USA (DQWG Vice-Chair)
<b>Executive Summary:</b>	Purpose of this paper is to facilitate discussion to help create a guidance document for CATZOC population. The paper should help start that process through examples from US charts where CATZOC application was not always straightforward.
<b>Related Documents:</b>	S-57: Appendix A Chapter 2 Attribute Catalogue, Appendix B.1, Annex A - Use of the Object Catalogue for ENC – UOC DQWG12/DQWG12-04.4A_USA_CATZOC_project.pdf
<b>Related Projects:</b>	The USA CATZOC project.

**Introduction / Background**

The US is 75% complete with the CATZOC project. The goal of this project is to encode meaningful values of CATZOC in its entire chart suite, which is over 1220 ENC's. During this project, many charting situations arose where it was unclear on how to encode the CATZOC. Below are examples of these situations. Other Hydrographic Offices may have run into the same situations or will shortly do so once they commence encoding CATZOC in their ENC suite. Providing guidance for CATZOC application is one of the tasks for the Data Quality Working Group and providing guidance for these situations is simply the start.

This paper will not cover guidance on what values of CATZOC to use per survey characteristics.

Examples given below are mostly taken from raster charts for viewing clarity.

**Analysis/Discussion**

ENC bands to encode CATZOC on:

US Rules: The US encodes CATZOC on all ENC bands. Vertically integrating the polygons from band 6 to 4 and charting meaningful values of CATZOC on Bands 3 to 1 only where the ENC is the largest scale coverage. Where the ENC is not the largest scale coverage on a Band 3 through 1 CATZOC is encoded with U and the INFORM states to use larger scale ENC's

Attributes	Value	Value name(s)
CATZOC	6	zone of confidence U (unassessed)
INFORM	Use Larger Scale ENC's	
SORDAT	20170920	
SORIND	US,US.repr.L-818-2017	
TXTDSC	US3CA15E.TXT	

DQWG Guidance: To be determined (TBD)

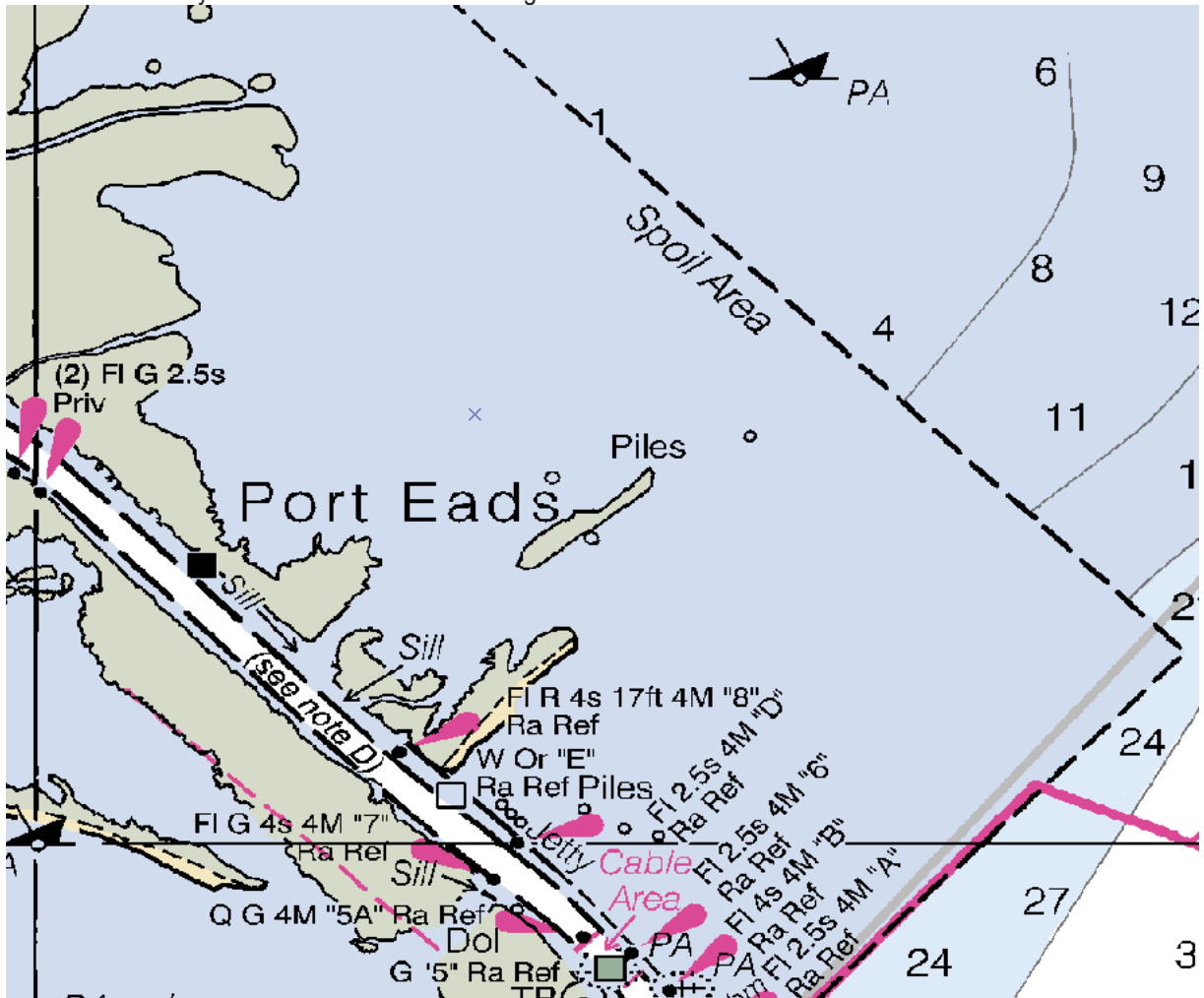
Encoding other attributes other than CATZOC in M\_QUAL objects:

US Rules: The US and encodes only CATZOC, SUREND, and SURSTA on the majority of M\_QUAL objects. The exception to this is the use of INFORM when satellite derived bathymetry is used and for surveys that are conducted by other US Agencies other than the National Ocean Service.

DQWG Guidance: Advised that the use of TECSOU would be also be helpful?

Encoding CATZOC in Dumps sites:

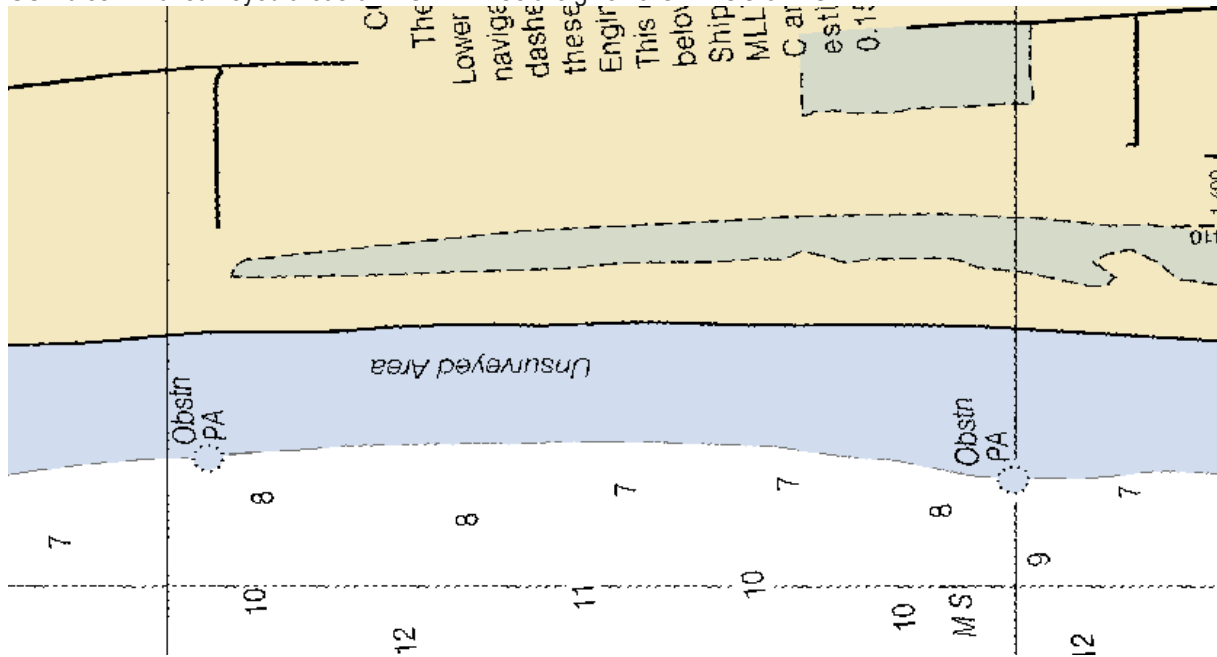
US Rules: All spoil areas or dump sites are encoded as dumping ground with unsurveyed areas below them. All unsurveyed areas on NOAA ENC are given a CATZOC of = U.



DQWG Guidance: To be determined (TBD)

Encoding CATZOC in unsurveyed areas:

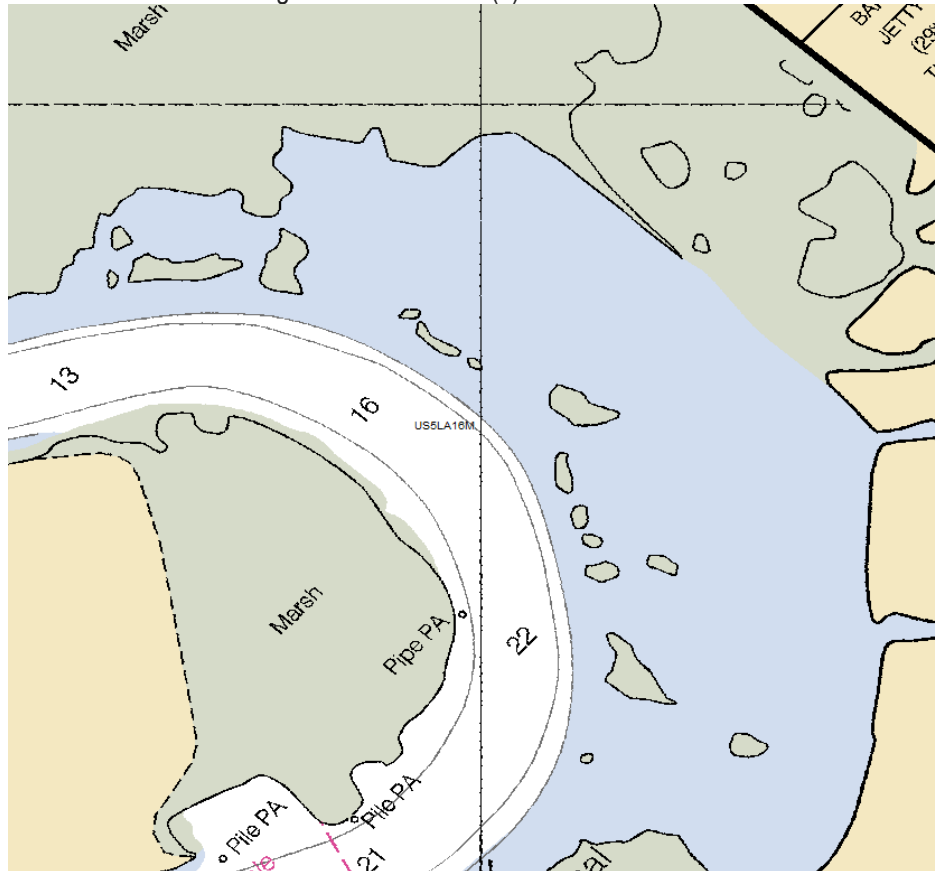
US Rules: All unsurveyed areas on NOAA ENC are given a CATZOC of = U.



DQWG Guidance: To be determined (TBD)

Encoding CATZOC in areas that may be considered unsurvey due to sparseness of soundings but are not encoded with unsurveyed areas:

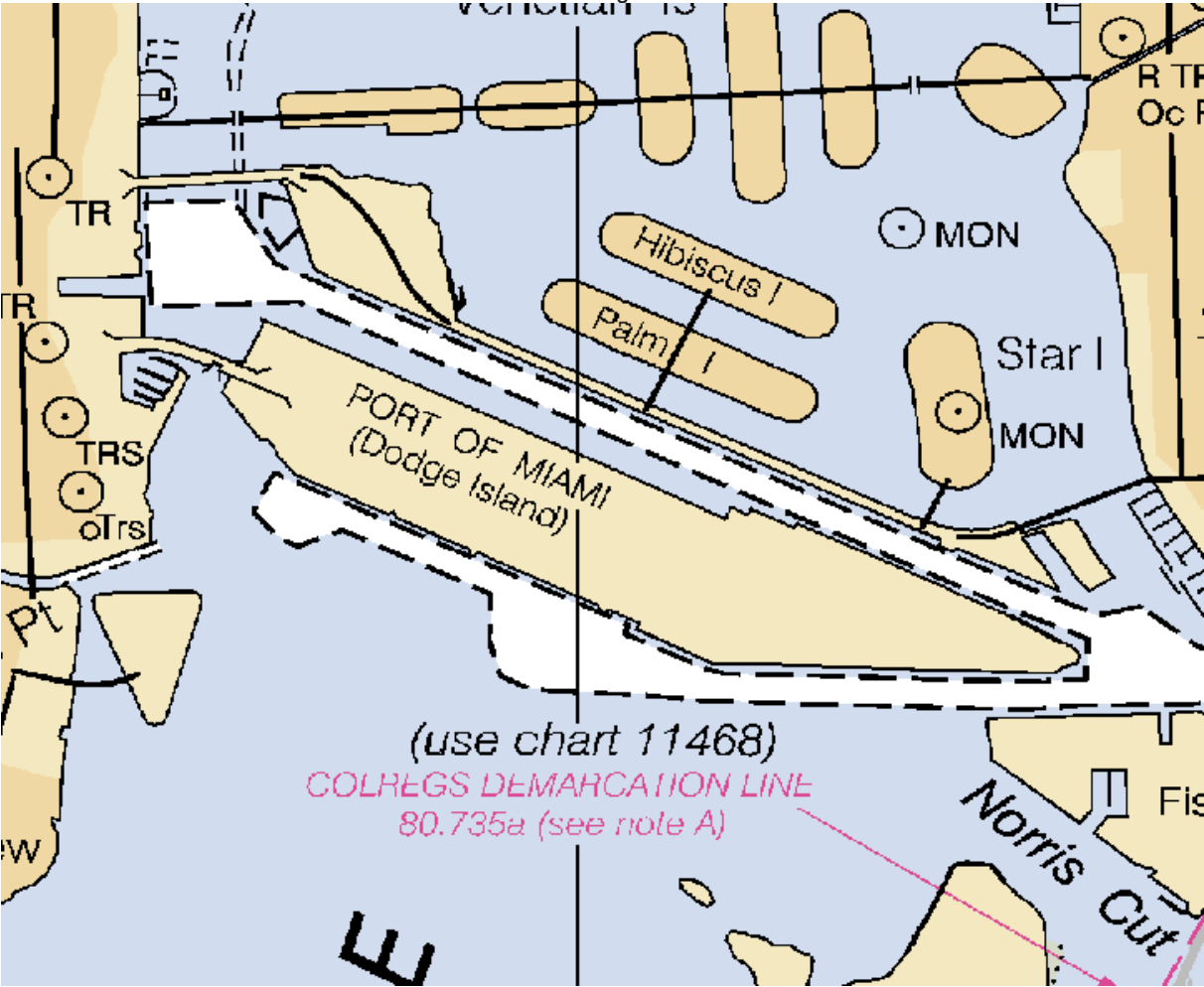
US Rules: The area in is given CATZOC = D (5)



DQWG Guidance: To be determined (TBD)

Encoding CATZOC in areas with minimal depiction of data but larger scale coverage exists in larger scale ENCs:

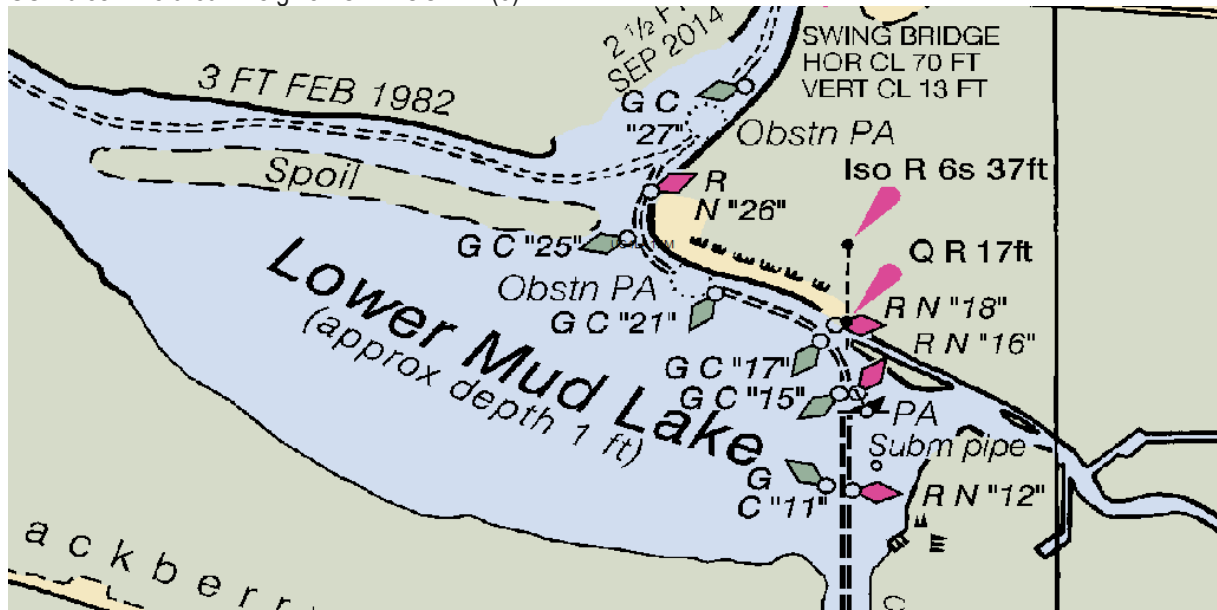
US Rules: CATZOC of areas is U with INFORM = Use Larger Scale ENC's



DQWG Guidance: To be determined (TBD)

Encoding CATZOC in areas area with minimal depiction of data but no larger scale coverage exists:

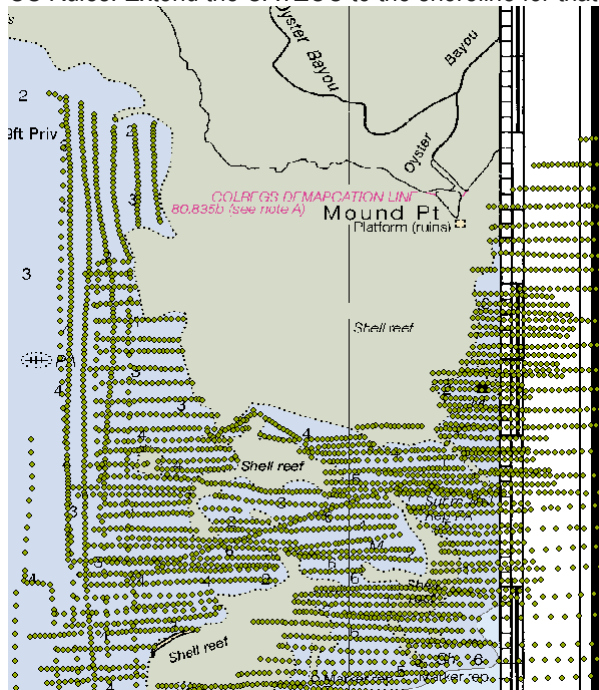
US Rules: The area in is given CATZOC = D (5)



DQWG Guidance: To be determined (TBD)

Encoding CATZOC in areas where surveys do not reach the shoreline:

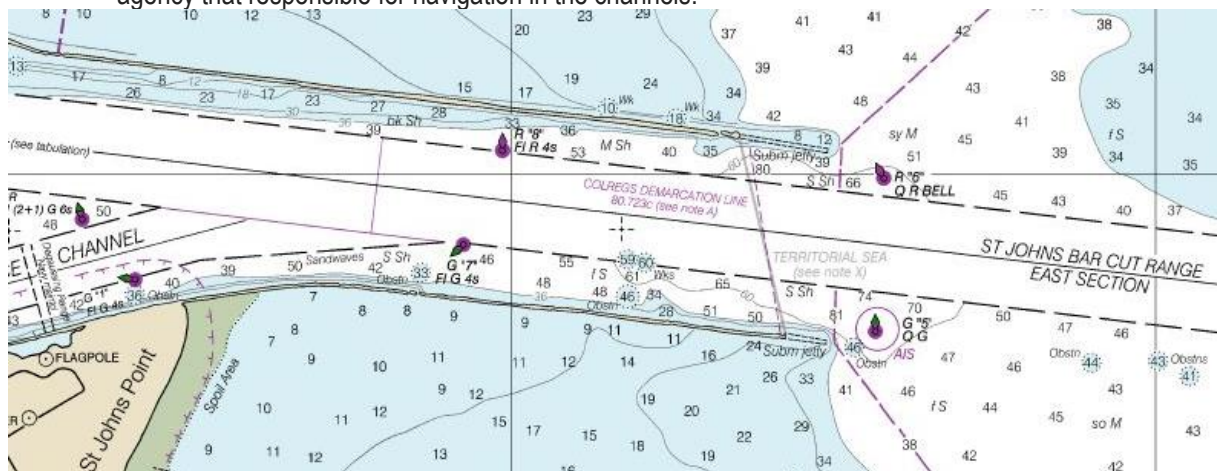
US Rules: Extend the CATZOC to the shoreline for that survey, particularly if that survey noted the low water line.



DQWG Guidance: To be determined (TBD)

Encoding CATZOC in Dredged channels with or with project depths:

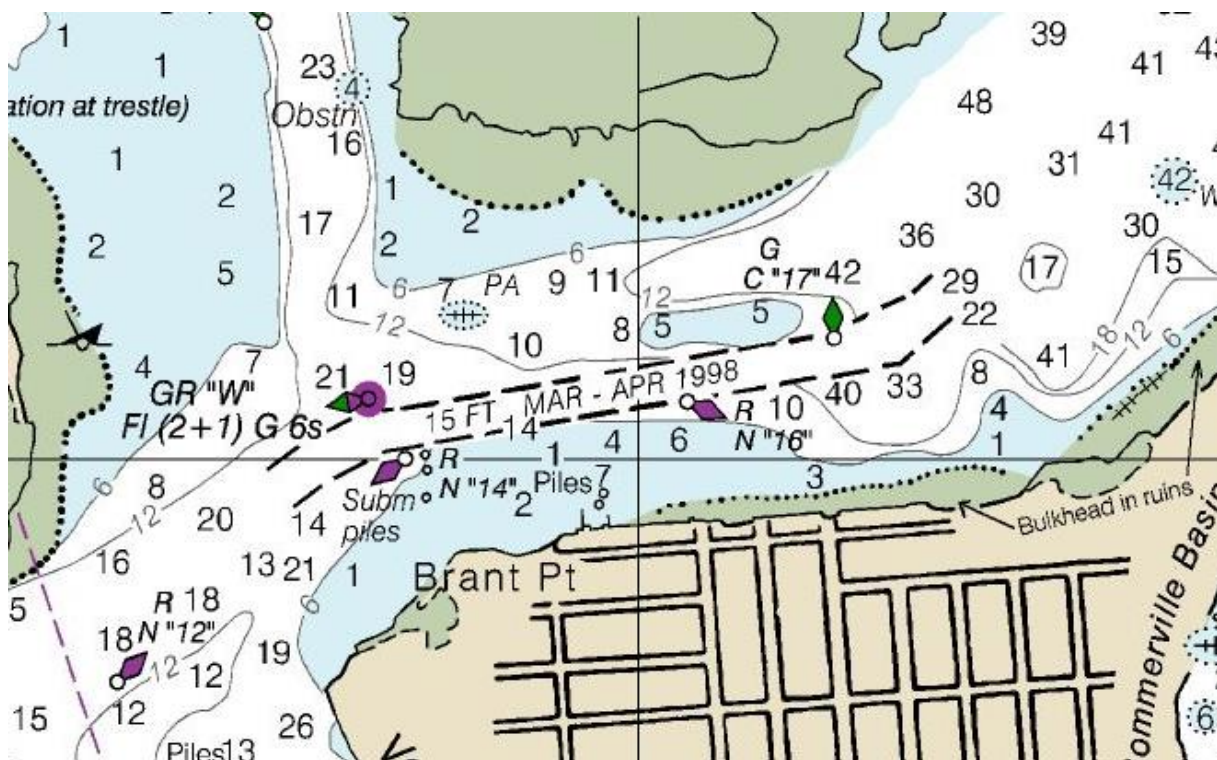
US Rules: The US gives all dredged channels a CATZOC of B. This is due to a special situation with another US agency that responsible for navigation in the channels.



DQWG Guidance: To be determined (TBD)

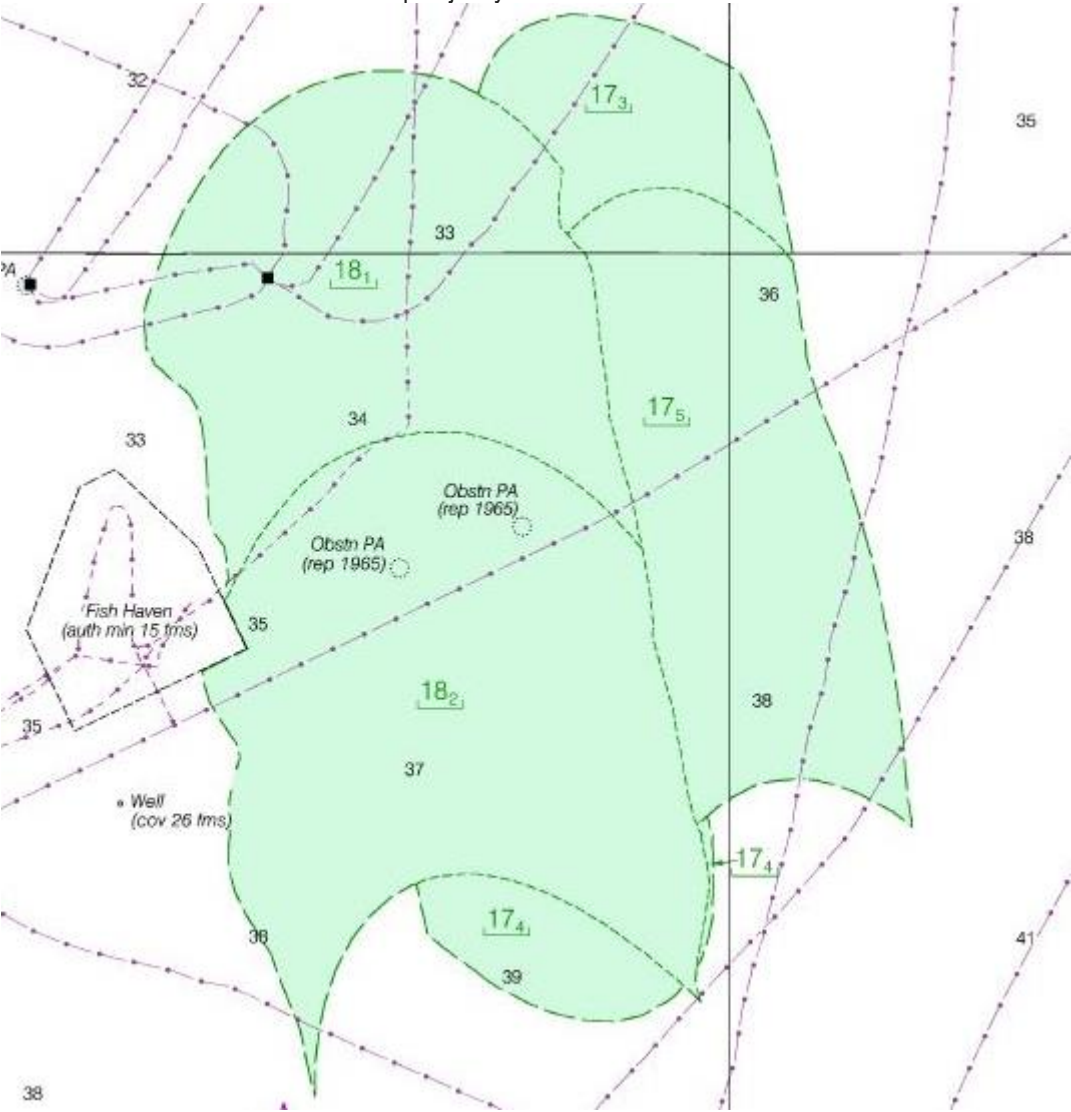
Encoding CATZOC in dredged channels that depths or dredging has not be reported in over 20 years:

US Rules: No rules have been developed just yet.



DQWG Guidance: To be determined (TBD)

Encoding CATZOC in areas of wire drag with full bathymetry below the wire drag depth:  
US Rules: No rules have been developed just yet.



DQWG Guidance: To be determined (TBD)

