Tender

The Canyons MCZ DY200 eQA drop camera analysis

JNCC SUPPORT CO

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Changes to notice

This notice has been edited. The previous version is still available.

An updated Bidders' Clarification of questions & answers is uploaded for your reference.

Scope

Reference

C25-0878-2137

Description

2. Project Summary

In September 2025, NOC and JNCC conducted a survey aboard the RSS Discovery (DY200) gathering evidence to monitor The Canyons MCZ and inform assessment of the condition of the designated features of the site.

The Canyons MCZ is in the far south-west corner of the UK continental shelf and is unique within the context of England's largely shallow seas due to its depth, sea-bed topography and the coral features it contains. The designated features of The Canyons MCZ are listed in Table 1. More information on The Canyons MCZ can be found in the JNCC site information centre (https://jncc.gov.uk/our-work/the-canyons-mpa/).

Table 1 Designated features of The Canyons MCZ

Protected Feature Feature Type

Deep-sea bed Broadscale marine habitat

Cold-water coral reefs Feature of Conservation Importance

Coral gardens Feature of Conservation Importance

Sea-pen and burrowing megafauna communities Feature of Conservation Importance

Figure 1 Location of The Canyons MCZ in the context of Marine Protected Areas proximal to the site with existing multibeam data from previous surveys to The Canyons MCZ from the MESH 2007, JC125 (2015) and JC237 (2022) surveys, and EMODnet bathymetry.

3. Project Aims

JNCC wishes to commission a contract to undertake the external quality assurance (eQA) analysis of seabed imagery (still images and video) collected on the DY200 survey via drop frame camera.

More detailed metadata will be provided as well as information from logs and the survey report. There are also representative images from the DY200 survey shown in Appendix E.

Table 2 Number of stills and hours of video data to be analysed from DY200.

Data type Quantity

Drop camera video 5 hours video

Drop camera stills 300 images

AUV images 100 images

The following will be supplied to the successful contractor:

• Access to BIIGLE project with all stills, video and label trees.

o Please email the contacts for technical information (see page 1) if you would like to be added as a guest to the BIIGLE project to review the imagery.

• Epibiota Quality Assurance Framework Proforma spreadsheets

4. Original Project Objectives

To meet the overall aims of this project, the objectives for the original analysis were:

1. Analysis of stills and video taken with the drop-camera system

2. Provide substrate and taxonomic image reference collections for each substrate type and taxon identified from imagery.

3. Produce a final analysis report including, at a minimum, sections detailing the methodology, results , and details of all QA work undertaken with any remedial action deemed necessary. The report should be no longer than 10,000 words including all tables and appendices and be provided electronically via email as a Microsoft Word document.

4. Create a subset of stills annotated in a way suitable to act as training data for artificial intelligence.

The contractor must:

• Undertake the analysis as set out below and adhering to the NMBAQC Epibiota interpretation guidelines (Turner et al, 2016). Please note these guidelines are currently being updated by JNCC - the contractor must check with JNCC if the updated guidelines are available when the contract starts.

• Use BIIGLE to annotate video and stills as described below. Alternative image annotation software may be used subject to agreement with the project officer.

• Ensure that stills and video references used in analysis outputs are identical to those used in the naming of the original media to enable future reconciliation between data and

media. If identical naming is not possible, a suitable alternative should be sought with JNCC.

Some information, where specified, may be recorded directly into the proformas provided. The majority will be recorded first into BIIGLE and then used to populate the proforma. No analysis additional to what is described in this document is required. Any deviation from this methodology should be approved in writing by the project officer.

4.1. Analysis of video data from drop-camera

Video should be analysed in BIIGLE using the label trees shown in Table 2. A high-level review should be conducted as described in section 2.1 of Turner et al (2016). Annotations can be added to videos as either tier 1 or tier 2 annotations depending on the label tree used. More details on the video annotation tiers and how they should be applied are provided in Appendix A.

Video will be analysed to extract the following information (all information should be recorded using the provided BIIGLE label trees, unless specified otherwise):

1. Video should be segmented into areas of continuous broadscale seabed habitat type (detailed in step 2) greater than or equal to 5 m along transect distance; JNCC will provide positional information for this purpose. The segment label tree should be used to delineate these segments and labels from other trees should be attached to each segment using the "add label" tool in BIIGLE.

2. The Marine Habitat Classification of Britain and Ireland (v 22.04) will be used, and a new segment should be started if the habitat classification changes.

3. Each segment will be assigned image quality scores using labels from the following two label trees. Further analysis of video segments will be dependent on the image quality score. For example, if a segment is given a score of zero, no further analysis should be carried out for that segment.

a. NMBAQC image quality, a summary of these scores is shown in Table 4 and described in more detail in section 2.1 of Turner et al (2016).

b. JNCC image quality, a summary of these labels is shown in Table 74.

4. Identify evidence of anthropogenic impacts on the seabed:

a. Use the litter label tree to record the presence of litter using the categories listed in Annex 5.1 of the Joint Research Centres Guidance on Monitoring of Marine Litter in European Seas6.

b. Use the Anthropogenic label tree to annotate trawl marks or anthropogenic impacts other than litter. This will not be a complete label tree and new labels may need to be added to the label tree.

5. Use the biotope label tree to assign biotopes, up to level 6 of the Marine habitat classification of Britain and Ireland hierarchy and in accordance with Parry (2019)7.

A reference collection of representative images must be provided for each discreet habitat and biotope identified.

Table 3 Label trees for video annotation and the annotation type which should be used for each label tree

Video analysis label tree Video annotation type

Segment Tier 1

Marine habitat classification of Britain and Ireland (v 22.04) Tier 1

JNCC image quality Tier 1

NMBAQC image quality Tier 1

Biotope Tier 1

Coral Gardens (Henry and Roberts, 2014) (See Appendix D)

Tier 1

Seapen and Burrowing Megafauna

(please note the definition of this FOCI currently being updated by JNCC - see Appendix B) Tier 1

Deep Sea Sponge Aggregations (Henry and Roberts, 2014)

Tier 1

Coral Reef (if present) Tier 1

Burrows Tier 1

Litter Tier 2

Anthropogenic Tier 2

Table 4 Summary of NMBAQC image quality categories (Turner et al., 2016)

Table 5 JNCC image quality categories

• Imagery quality level • Description

• Fauna • Most fauna can be identified (e.g. including smaller taxa such as brittlestars etc.)

• Conspicuous fauna • Large and conspicuous fauna can be identified (e.g. sponges, soft corals etc.)

• Substrate • The substrate type can be identified, but the fauna cannot (e.g. the water column is obscured / the camera is too high off the seabed)

• Zero • No visibility of the seabed, substrate cannot be identified.

4.2. Analysis of stills data from drop-camera

Stills should be analysed in BIIGLE using the label trees shown in Table 5. Annotations should be added to stills as either tier 1 or tier 2 labels depending on the label tree used. Some tier 1 labels may be added directly into the proforma (see below). More details on the still annotation types and how they should be applied are provided in Appendix A.

Table 6 Label trees for stills annotation and the annotation type which should be used for each label tree

Stills analysis label tree Stills annotation type

NMBAQC image quality Tier 1

JNCC image quality Tier 1

Substrate Tier 1

Biota Tier 2

Laser points Tier 2

Litter Tier 2

Anthropogenic Tier 2

Stills will be analysed to extract the following information:

1. Each still will be assigned image quality scores using labels from the following two label trees. Further analysis of the still image will be dependent on the image quality score. For example, if a still image is given a score of 'very poor' and 'substrate', no taxonomic identification should be carried out for that still image.

a. NMBAQC image quality, a summary of these scores is shown in Table 3 and described in more detail in section 2.1 of Turner et al 2016.

b. JNCC image quality, a summary of these labels is shown in Table 74.

2. Identification and enumeration of epifauna, JNCC will provide a reference collection built from images previously taken in these sites. Annotations made using the Biota label tree. For each still image being analysed, identify, and quantify all8:

a. Solitary and/or erect epifaunal species present.

b. Bioturbation traces using counts (achieved by using the point annotation tool within BIIGLE).

c. Colonial and/or encrusting epifaunal species present as far as possible (using percentage cover (achieved by using the polygon, magic wand, or brush tools within BIIGLE).

3. Record substrate type and Faunal Turf cover to nearest 10% directly to proforma.

Total value (estimated)

- £16,500 excluding VAT
- £19,800 including VAT

Below the relevant threshold

Contract dates (estimated)

- 5 January 2026 to 27 February 2026
- 1 month, 23 days

Main procurement category

Services

CPV classifications

- 71354500 - Marine survey services
- 71620000 - Analysis services
- 90711500 - Environmental monitoring other than for construction

Contract locations

- UK - United Kingdom

Participation

Particular suitability

Small and medium-sized enterprises (SME)

Submission

Enquiry deadline

8 December 2025, 9:00am

Tender submission deadline

15 December 2025, 9:00am

Submission address and any special instructions

Please submit your return by email to the following address: TenderResponse@jncc.gov.uk.

Tenders may be submitted electronically

No

Award criteria

Name	Type	Weighting
Quality of Bid	Quality	50%
Cost	Price	30%
Details of Contractor	Quality	20%

Procedure

Procedure type

Below threshold - open competition

Documents

Associated tender documents

C25-0878-2137.zip

You are invited by JNCC Support Co (JNCC) to submit a tender for the supply of works or services required under the above project. If interested, you should download and carefully read the documents contained within the zip file.

Copy of Questions and Answers Log V1_C25-0878-2137.xlsx

The Bidders' Clarification of questions & answers log_V1 is added for your reference.

Copy of Questions and Answers Log V2_C25-0878-2137.xlsx

Updated Bidders' Clarification of questions & answers log_ V2 for your reference.

Contracting authority

JNCC SUPPORT CO

- Companies House: 05380206
- Public Procurement Organisation Number: PRPL-6981-TDJT

QUAY HOUSE, 2 EAST STATION ROAD, FLETTON QUAYS

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Region: UKH11 - Peterborough

Organisation type: Public authority - central government

Devolved regulations that apply: Scotland