

**Invitation to Tender (ITT):** **Northeast Intertidal Rocky Shore Condition and Impacts Assessment**

**SPECIFICATION OF REQUIREMENTS**

This section sets out the project requirements.

**1. Introduction**

## This project will provide important data on intertidal reef community assemblages (rock platform and underboulder communities) within the Berwick and North Northumberland Coast Special Area of Conservation (SAC). Within this protected site there are a number of overlapping European sites, Marine Conservation Zones (MCZ) and underpinning Sites of Special Scientific Interest (SSSIs), all of which have reef habitat as either a listed feature or a supporting habitat.

## This project is a continuation of a condition monitoring project that was completed in 2021 and it comprises of three different parts:

* **Part 1 (survey A) is an expert detailed monitoring of the community composition, using transects and quadrats on rock platforms and underboulder communities with an assessment of this data against the condition monitoring baseline and production of a condition monitoring report to inform condition assessments.**
* Part 2 (survey B) is a targeted indicator species search, carried out by volunteer citizen scientists with varying knowledge of marine species, focusing on species that are subject to recreational and commercial harvesting (e.g. periwinkles and crabs) and indicators of condition (e.g. opportunistic macroalgae).
* Part 3 is coordination of citizen scientists/volunteers to undertake the B surveys

 **THIS IS AN INVITATION FOR TENDER FOR PART 1**

## Natural England is seeking to procure a Contractor to deliver **part 1 of the project (survey A)** to include:

## Pre-planning of A surveys, in collaboration with the overall Natural England project manager to ensure that collated data can robustly inform the condition assessment(s) of specific attributes along the coast.

## Work with expert Natural England in-house staff to carry out condition monitoring surveys (A)

## Survey of existing transects within the Berwick and North Northumberland Coast SAC.

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## Have one meeting with contractor from part 2 of the project, about the condition monitoring surveys in the Berwick and North Northumberland Coast SAC (survey A).

## Produce a condition monitoring report for the intertidal reef attributes for the Berwickshire and North Northumberland SAC, this should include:

## Associated data products

## Analysing data from A surveys

## Consideration of historic data from condition monitoring/condition assessments reports where available in the resultant analyses.

## The Contractor is expected to begin work as soon as possible after the contract start date.

## Potential Contractors are requested to provide costings (including VAT) for:

## Pre-planning of survey A within the Berwick and North Northumberland Coast SAC,

## Completion of the field surveys (A),

## Processing and analyses of field survey data (A)

## Provide survey A data and have meeting with contractor (B), to facilitate the assessment of how B surveys inform A condition monitoring surveys (this will be analysed in Part 2 of the contract, not this contract).

## 5) Write up of final report and provision of data (see section 5).

## The contractor will be expected to undertake quality assurance on work delivered and ensure it is compliant with the requirements of the Joint Code of Practice for Research

## (see: <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/413154/pb13725-research-code-practice.pdf>) and section 5.2 of this document.

**2. Background**

**2.1 Site details**

The project aims to survey condition monitoring intertidal transects within the Berwick and North Northumberland Coast SAC. Table 1 provides protected site details and outlines the feature or supporting habitat of the site that Natural England is interested in surveying. For additional context, we have outlined the attributes and targets of the features, supporting habitats and the conservation objectives of the site. For more information, we have included the links to the designated site system, which has more in-depth information about the chosen sites.

Table 1. Berwick and North Northumberland Coast Special Area of Conservation reef attributes and targets

|  |  |
| --- | --- |
| **Designated site** | **Feature, attributes and targets Natural England is interested in**  |
| Berwick and North Northumberland Coast Special Area of Conservation  | **Reefs**:* **Distribution**: Maintain the presence and spatial distribution of reef communities.
* **Extent and Distribution**: Maintain the total extent, spatial distribution and types of reef (and each of its sub-features)
* **Structure and Function**: Maintain, Recover or Restore the abundance of listed species, to enable each of them to be a viable component of the habitat.
* **Structure**: Restrict the introduction and spread of non-native species and pathogens, and their impacts.
* **Structure**: Maintain the surface and structural complexity, and the stability of the reef structure.
* **Structure**: Maintain the species composition of component communities.
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**2.2 The issue**

Monitoring within the protected sites along the Northumbria Coast varies. Historically, intertidal rocky reef condition monitoring has been carried out in the Berwickshire and North Northumberland SAC.

Periodic monitoring of protected sites is needed to understand their condition and for Natural England to be able to produce accurate and detailed conservation advice packages on these sites. This combined method of data collection will provide robust monitoring of areas and will produce valuable data that can be used in condition assessments and future management.

**3. Objectives**

**3.1 Project objectives**

The objectivesfor this contract are:

* Use the new data collected to understand the intertidal community assemblages in protected sites for the appropriate attributes (table 1) on rock platforms and underboulder communities where appropriate (Survey A).
* If successful, the project will help modify Natural England’s current in-house condition monitoring methodology for intertidal rocky reefs by identifying how less detailed surveys could, in tandem with more intensive work in a smaller number of areas, significantly increase survey coverage.
* Use the existing CSM and developed underboulder community field-based survey methodology for Part 1 [A] quantified condition monitoring to inform a condition assessment of protected sites’ reef attributes.
* Produce a condition monitoring report of the reef attributes presenting and analysing the results of the [A] quantified condition monitoring against baseline

**4. Methods**

**4.1 Survey methodology**

Note that historical quantified Berwick and North Northumberland Coast SAC intertidal reef condition monitoring which is CSM compliant has been carried out within the Berwick and North Northumberland Coast SAC, which should be used to help inform the 2022 reef-attribute condition monitoring(s), and allow statistically robust analyses. Please see Annex 1 for more information on the previous surveys.

**4.2 Survey Area**

Ideally, surveys will be carried out on multiple transects within the Berwick and North Northumberland Coast SAC.

Due to the presences of Avian Flu on our coast, there is some restricted access to different transects (e.g. on the Farne Islands). Natural England and other bodies are monitoring the risks and status of the virus, however, currently the situation is variable and as such, some survey locations cannot be confirmed yet.

*Data analyses*

Natural England does not wish to prescribe a particular form of data analyses. However, Natural England requires that robust and appropriate analyses are employed, with consideration of the previously collected data and methods. Potential contractors are required to describe, as part of their tender, the nature of the analytical approach which they will apply to these data to address the objectives of this contract.

# **5. Requirements and Timescales.**

**5.1 COVID related information.**

This work is ideally scheduled to begin as soon as possible, whilst the following guidance may change, it is still pertinent and was needed at the time of drafting the invitation to tender.

Assurance that contractors will work within government guidance on working outdoors will be required: <https://www.gov.uk/guidance/working-safely-during-coronavirus-covid-19/construction-and-other-outdoor-work>

Coronavirus specific risk assessments, in addition to other H&S risk assessments, will be required and submitted by the contractor.

It will be necessary that landowners/occupiers of sites concerned are made aware of the survey and agree to surveyors being on each site involved – surveys will not proceed without landowner/occupier agreement.

**5.2 Products and deliverables**

To enable successful delivery, ideally the Contractor is expected to:

* Plan with Natural England a field survey programme to collect necessary quantified data for the A surveys
* Undertake the surveys with Natural England’s assistance at the agreed locations.
* Process all new field data and acquire any additional datasets required to inform statistical analyses.
* Conduct statistical analyses of the data.
* Have one meeting with part B contractors and share data form Survey A with them for their work
* Submit a draft final report of the findings.
* Submit a revised final report (in light of comments received from Natural England). In addition to reporting on the project’s objectives (3.1)
	+ This report should also include the raw data, processed databases and associated analytical code and any associated GI products to Natural England.

Timelines for delivery of draft final and revised final reports, and associated products, are detailed in section 5.3.

All data should be supplied to MEDIN standard (see guidance at [www.oceannet.org](http://www.oceannet.org)). Any GIS datasets need to be provided in ESRI ArcGIS format compatible with ArcGIS 9.3.1, have attached metadata and be clean of any topology errors. If relevant, any point and polygon data should be supplied to us with the final analysis.

**5.3 Timeline for project delivery:**

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| **Timeline** | **Date** |
| Project inception meeting between contractor and Natural England staff via video conferencing | asap |
| Finalise analytical approach(es) and advise Natural England of these. | asap |
| Contractor to plan data survey, collate all necessary data and finalise analytical approach(es) and advise Natural England of these. | asap |
| Teleconference between contractor and Natural England to discuss datasets and planned analyses. | asap |
| Field work to collect the data sets | Mid October 2022 at the earliest |
| Telecall to discuss interim report and provide A survey data to part 2 contractor | mid December |
| Draft interim report to be provided by contractor to Natural England with a tele call with Natural England  | End of January 2023 |
| Draft final report to be provided by the contractor to Natural England  | February 2023 |
| Comments on draft final report to be provided to contractor by Natural England. | Beginning March 2023 |
| Final report and associated products to be delivered by contractor to Natural England incorporating additions/ amendments in light of comments received from Natural England.  | End March 2023 |

Any delays to this timetable should be immediately discussed with NE project lead.

# **6. Other considerations**

In support of this contract, Natural England will provide the contractor with:

* Project support from dedicated project lead.
* Relevant available data held by Natural England.
* Opportunity to feedback and discuss progress with the project leads.

**Annex 1.**

Previous surveys include, but are not limited to:

**BNNC SAC**

Brazier, D.P., Davies, J., Holt, R.H.F., Murray, E., 1996. Marine nature conservation review sector 5. South-east Scotland and north-east England: Biotope classification. Peterborough.

Foster-Smith, R.L., 1998. Broadscale mapping of the reefs of the Berwickshire and Northumberland. University of Newcastle.

Foster-Smith, J.L., Foster-Smith, R.L., Hills, J.M., 2010. Condition Monitoring of the Intertidal Reefs Feature: Berwickshire and North Northumberland Coast Special Area for Conservation (European Marine Site). Envison.

Foster-Smith, R.L., Sotheran, I., Foster-Smith, J.L., Bunker, F., 1996. Mapping survey of the sublittoral and littoral biotopes of the Berwickshire coast: Appendix. BioMar Programme.

Moore, J., 2003. Berwickshire and North Northumberland Coast cSAC, Rocky shore monitoring sites Coastal Assessment , Liaison & Monitoring

Mieszkowska, N., Sugden, H. (2014) . Berwickshire Intertidal Rocky Reefs. Report to Natural England.