



Department
for Environment
Food & Rural Affairs

**SECRETARY OF STATE FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS
ACTING THROUGH ITS CENTRE FOR ENVIRONMENT FISHERIES AND
AQUACULTURE SCIENCE (CEFAS)**

and

THE ENVIRONMENT AGENCY (EA)

MEMORANDUM OF AGREEMENT

This Memorandum of Agreement (which expression shall include the Annexes) (“MoA”) is dated 24th September 2024.

Between

- (1) The Secretary of State for Environment Food and Rural Affairs of Seacole Building, 2 Marsham Street, London, SW1P 4DF acting through The Centre for Environment, Fisheries and Aquaculture Science (“Cefas”) of Pakefield Road, Lowestoft, Suffolk, NR33 0HT (the “**Authority**”) acting on behalf of the Crown
- (2) The Environment Agency of Environment Agency, Finance Service Centre, Shared Services Connected Ltd, Sortation Ref 601, Phoenix House, Newport, NP10 8FZ. (“EA”) together the “**Parties**” and each a “**Party**”.

Background and Policy Context

There are several legislative and policy drivers which underpin the need to monitor, assess and report upon habitats and species within the marine environment. These drivers (summarised from the “Review of marine biodiversity assessment obligations in the UK” (Hinchin, 2014) range from UK policies/policy instruments to European legislation and international conventions. Marine monitoring activity in Natural England therefore takes place in the context of the wider UK approach under the UK Marine Monitoring and Assessment Strategy. Natural England work directly with several partners, including through bilateral arrangements, to collect data to underpin MPA designation and support condition assessments.

A UK Strategy for marine biodiversity monitoring is summarised in “The UK Marine Biodiversity Monitoring Strategy” (Kröger & Johnston, 2016); this was developed by the SNCBs and endorsed by the UK’s Healthy and Biologically Diverse Seas Evidence Group (HBDSEG). The overarching monitoring strategy describes two main functions of monitoring:

1. to identify state and changes in state for an ecological component of biodiversity, and identify whether changes are due to natural change or as a result of anthropogenic activities,
2. to inform the need for management measures; and to identify if management measures are effective in meeting their objectives.

Due to the anticipated scale of the resources required to meet obligations for assessment and reporting, a programme to develop options for delivery of a UK marine biodiversity monitoring programme intended to cover all reporting obligations was devised (described in Hinchin 2014). The strategy proposed comprises of 5 components; the main element focusses on monitoring a core (or sentinel) suite of locations for each benthic habitat. The strategy is based on the premise that there will be insufficient resources to monitor each habitat within every MPA, but that by effectively monitoring a carefully selected subset of marine habitats at a representative subset of locations, inside and outside of MPAs, not only can detailed information regarding specific habitats at particular locations can be provided, but robust datasets

can be used to inform the understanding of habitats across the broader suite of MPAs and more widely.

Natural England has undertaken a detailed prioritisation process that covers all monitoring habitats across all MCZs and SACs within the MPA suite. This followed the JNCC 'benthic' habitat prioritisation process consisting of three scored themes as follows:

1. Monitoring habitat Risk – a ranked assessment of risk based on the vulnerability of each monitoring habitat in each location to all activities to which it at least moderately exposed and moderately sensitive to.
2. Monitoring habitat Importance – a ranked assessment of importance based on the proportion of a monitoring habitat within each MPA, and the number of legislative drivers that are linked to each habitat location.
3. Monitoring importance – a score per monitoring habitat location based on an assessment of the quantity and quality of historical monitoring data available.

(A) By the terms of this MoA Cefas will undertake the work described in Annex B.
By the terms of this MoA EA will undertake work described in Annex A

(B) This MoA establishes the responsibilities of the Parties and the general principles for their cooperation.

(C) This MoA is legally binding and legal obligations and legal rights shall arise between the Parties from the provisions of the MoA.

NOW THEREFORE the Parties have agreed to cooperate under this MoA as follows:

1. Interpretation

- 1.1. Unless the context otherwise requires, references to this MoA shall be construed as a reference to this MoA as varied or amended in accordance with its terms. Reference to a person includes a legal entity, words importing a gender include all genders and words importing the singular include the plural and vice versa.

“Activities” means agreed activities set out in Annex A and **“Activity”** shall be construed accordingly.

“Crown” means the government of the United Kingdom (including the Northern Ireland Executive Committee and Northern Ireland Departments, the Scottish Executive and the National Assembly for Wales), including, but not limited to, government ministers, government departments, government offices and government agencies.

“Confidential Information” means any information which has been designated as confidential by either Party in writing or that ought to be considered as confidential (howsoever it is conveyed or on whatever media it is stored) including information the disclosure of which would, or would be likely to,

prejudice the commercial interests of any person or trade secrets and all personal data and sensitive personal data within the meaning of applicable legislation. Confidential Information shall not include information which:

- (a) was public knowledge at the time of disclosure (otherwise than by breach of a duty of confidence by either Party);
- (b) was in the possession of the receiving Party, without restriction as to its disclosure, before receiving it from the disclosing Party;
- (c) is received from a third party (who lawfully acquired it) without restriction as to its disclosure; or
- (d) is independently developed without access to the Confidential Information.

“Data Protection Legislation” means (i) the UK GDPR as amended from time to time; (ii) the Data Protection Act 2018 as amended from time to time; (iii) regulations made under the Data Protection Act 2018; (iv) all applicable law about the processing of Personal Data.

“Defra Group” means the Department for Environment, Food and Rural Affairs, and its arms' length bodies, non-departmental public bodies and agencies, including (without limitation) the Environment Agency, the Rural Payments Agency, Natural England, the Animal and Plant Health Agency, and the Marine Management Organisation.

“Intellectual Property Rights” means patents, utility models, inventions, trade marks, service marks, logos, design rights (whether registrable or otherwise), applications for any of the foregoing, copyright, database rights, domain names, plant variety rights, know-how, trade or business names, moral rights and other similar rights or obligations whether registrable or not in any country (including but not limited to the United Kingdom) and the right to sue for passing off.

“MoA Representatives” means the lead representatives of each Party (one to be provided by each Party), as described in paragraph 4.

“Personal Data” and **“Processing”** have the meaning given in the UK GDPR.

“Principles” has the meaning set out in paragraph 3.

“Specially Written Software” any software (including database software, linking instructions, test scripts, compilation instructions and test instructions) created by the Supplier (or by a Sub-contractor or other third party on behalf of the Supplier) specifically for the purposes of this Contract, including any modifications or enhancements to any Background IPR created specifically for the purposes of this MoA.

“UK GDPR” means the General Data Protection Regulation (Regulation (EU)

2016/679) as transposed into United Kingdom national law by operation of section 3 of the European Union (Withdrawal) Act 2018, together with the Data Protection, Privacy and Electronic Communications (Amendments etc.) (EU Exit) Regulations 2019.

2. Parties' Responsibilities:

- 2.1. The EA will perform the Activities described in Annex A. The Authority will perform those activities identified in Annex B and shall make payments to the EA for the completion of Activities as per the funding terms in Annex C.
- 2.2. The EA will ensure it complies with the terms of all applicable laws in carrying out the Activities.

3. Principles of collaboration and the Parties' responsibilities

- 3.1. The Parties will adopt the following principles ("**Principles**") at all times in respect of this MoA. When carrying out the Activities, the Parties will:
 - (a) be accountable to each other for performance of their respective roles and responsibilities as set out in this MoA;
 - (b) share information, experience, materials and skills to learn from each other and develop effective working practices, work collaboratively to identify solutions, eliminate duplication of effort, mitigate risk and reduce cost;
 - (c) comply with the law and best practice, including any relevant Governmental protocols and guidance such as the Ministerial and Civil Service Codes;
 - (d) act in a timely manner;
 - (e) ensure sufficient and appropriately qualified employees and other necessary resources are available and (in the case of employees) authorised to fulfil the responsibilities set out in this MoA;
 - (f) establish and follow the governance structure set out in this MoA to support delivery of the Activities and actions in this MoA as required;
 - (g) perform their respective roles and responsibilities in this MoA in such a manner (where relevant) so as to facilitate the delivering of sustainability objectives for Government;
 - (h) agree a strategy for managing communications with stakeholders;
 - (i) make the contributions detailed in Annex C (Costs) to this MoA; and
 - (j) act in good faith to support achievement of the Activities and compliance with these Principles.

4. Governance and liaison between the Parties

- 4.1. Formal contact between the Parties will be through the MoA Representatives. The MoA Representatives are:

The Authority: [REDACTED]

[REDACTED]

The EA: [REDACTED]

[REDACTED]

Each Party may change their MoA Representative at any time by notifying the other in writing.

- 4.2. The MoA Representatives shall:

- (a) meet monthly at a time and place to be mutually agreed or remotely to review the Activities carried out under, and the operation of, this MoA and to address any issues arising from this MoA;
- (b) provide assurance to the Parties that the Activities agreed between the Parties are being undertaken and that work is proceeding in accordance with the Principles; and
- (c) document key decisions in writing;
- (d) create and execute the Activities plan and deliverables; and
- (e) manage the Activities at workstream level.

5. Charges and liabilities

- 5.1. Except as otherwise provided in this MoA, each Party shall bear its own costs and expenses incurred in complying with its obligations under this MoA.
- 5.2. Pursuant to Paragraph 5.3, each Party shall remain liable for any losses or liabilities incurred due to their own or their employees' actions.
- 5.3. Nothing in this MoA shall be construed to limit or exclude any Party's liability for:
- (a) death or personal injury caused by its negligence or that of its staff, directors, officers, employees, agents, consultants and contractors;
 - (b) bribery, fraud or fraudulent misrepresentation by it or that of its staff, directors, officers, employees, agents, consultants and contractors;
 - (c) breach of any obligation as to title implied by section 12 of the Sale of Goods Act 1979 or section 2 of the Supply of Goods and Services Act 1982; or
 - (d) any other matter which, by law, may not be excluded or limited.

5.4. Neither Party shall be responsible for any injury, loss, damage, cost or expense suffered by the other Party if and to the extent that it is caused by the negligence or wilful misconduct of the other Party or by breach by the other Party of its obligations under the MoA.

5.5. Subject always to Paragraph 5.3.

- (a) the aggregate liability of EA in respect of all losses howsoever caused, whether arising from breach of the MoA, misrepresentation (whether tortious or statutory), tort (including negligence), breach of statutory duty or otherwise shall in no event exceed £65,000.00
- (b) neither Party shall be liable to any other Party for any:
 - (a) loss of profits;
 - (b) loss of business;
 - (c) loss of revenue;
 - (d) loss of or damage to goodwill;
 - (e) loss of savings (whether anticipated or otherwise); and/or
 - (f) any indirect, special or consequential loss or damage.

6. Use of Third Parties

6.1. The EA will seek written consent from the Authority before using any third party to perform any of the Activities.

7. Intellectual Property Rights

7.1. All pre-existing Intellectual Property Rights or Intellectual Property Rights developed independently of this MoA ("**Background IPR**") remains the property of the owning Party.

7.2. Any Intellectual Property Rights that arise or are developed in carrying out the requirements of this MoA ("**Foreground IPR**") are vested in and owned the Authority (or, in the case of any Intellectual Property Rights created jointly by employees of both Parties, in the Authority.

7.3. Each Party grants the other Party an irrevocable, royalty free, non-exclusive licence of all jointly developed Intellectual Property Rights owned by it pursuant

to paragraph 7.2 for the other Party's own use and exploitation and for use and exploitation by the wider Defra Group.

- 7.4. Each Party licenses to the other Party on an irrevocable, royalty-free, non-exclusive basis its Foreground IPR and Background IPR to the extent necessary for implementing the Activities.
- 7.5. Both Parties will work together to ensure that in the performance of the Activities the use of any Foreground IPR does not infringe any Intellectual Property Rights belonging to a third party. Where use of Intellectual Property Rights belonging to a third party is required to perform the Activities or to use any Foreground IPR, the EA will use reasonable efforts to secure licences for both Parties and the wider Defra Group to use any such Intellectual Property Rights on an irrevocable, royalty-free, non-exclusive basis. Where this is not possible, the EA will agree with the Authority such other means to procure the performance of the Activities and use of Foreground IPR without infringing such rights, which may include modification of the Activities to avoid infringement.

8. Freedom of Information and Communications to the Public

- 8.1. Each Party will provide to the other Party any information in its possession that may be reasonably requested by the other Party, subject to any confidentiality constraints, safeguards and statutory rules on disclosure. Each Party will consult with the other Party before making to any third party any disclosures of information under the Freedom of Information Act 2000 and/or the Environmental Information Regulations 2004 in relation to this MoA.
- 8.2. The requirements in this paragraph 8 and paragraph 9 (Confidential Information) below are subject to any Government requirements as to transparency which may apply to either or both Parties from time to time.
- 8.3. The Authority will be responsible for handling media inquiries relating to the Activities under this MoA. Each Party will seek the other Party's approval before publishing any information resulting from the use of exchanged data received from the other Party.

9. Confidential Information

- 9.1. Each Party understands and acknowledges that it may receive or become aware of Confidential Information of the other Party (which may include information where the other Party owes a duty of confidence to a third party) whether in the course of performance of the Activities or otherwise. It is the responsibility of each Party to mark any information disclosed to another Party with the appropriate level of security as applicable to that information.
- 9.2. Except to the extent set out in this paragraph 9 or where disclosure is expressly permitted elsewhere in this MoA, each Party shall treat the other Party's

Confidential Information as confidential and safeguard it accordingly (which shall include complying with any protective markings on documents and instructions supplied by the other Party). In particular:

- (a) neither Party will do anything that may place the other Party in breach of a duty of confidence owed to a third party;
- (b) a Party receiving Confidential information shall not disclose Confidential Information to any non-Crown bodies without the prior written consent of the other Party.

9.3. The obligations of confidentiality in this paragraph 9 shall continue in force notwithstanding termination of this MoA.

10. Protection of Personal Data

10.1. The Parties will comply with their responsibilities under the Data Protection Legislation and will not use any Personal Data exchanged under this MoA for any purposes which are incompatible with the Data Protection Legislation. No data or information collated and/or exchanged under this MoA should be used for commercial purposes without the prior written agreement of the supplying Party (which use may be conditioned as the supplying Party sees fit).

10.2. Each Party must ensure that Personal Data collated or exchanged under this MoA is not transferred outside the UK without the prior written agreement of the disclosing Party.

11. Resolution of disputes

11.1. Any dispute between the Parties arising out of or in connection with this MoA shall in the first instance be resolved amicably between the Parties through the MoA Representatives and, if no resolution is reached, referred to the following senior personnel:

(a) **For the Authority:** [REDACTED]

(b) **For the EA:** [REDACTED]

11.2. If the matter cannot be resolved by the senior personnel specified in Paragraph 11.1 within thirty (30) calendar days, the matter may be escalated to the CEO (or equivalent) in each organisation.

12. Term and Termination

12.1. This MoA shall commence on 5th August 2024, or as soon as possible after Award, and (subject to earlier termination on the terms of this MoA) shall continue until 31st March 2025 which period may be extended by the written agreement of the Parties.

12.2. This MoA may be terminated by either Party at any time by giving written notice to the other Party.

12.3. A Party terminating this MoA further to this paragraph 12 will give as much notice as reasonably possible minimum (30) days calendar and will offer all reasonable assistance to ensure:

(a) an effective handover of Activities if required, and to mitigate the effects of termination on the other Party. In particular, a Party terminating this MoA shall take reasonable steps to ensure the other Party is not put at risk of action for breach of any statutory or other legal obligations as a result of terminating this MoA. This will include compliance with the further specific handover requirements set out below.

(b) mitigation of the effects of the termination of the other Party but fully co-operating with the other Party to achieve an effective transition without disruption to operational requirement.

12.4. If for any reason this MoA is terminated the Authority may:

(a) give such directions to the Partner for the purpose of making arrangements for the handover of Activities (whether the Authority will continue the Activities itself or seek to agree replacement services with a third party); and/or

(b) authorise another party to take over all or part of the Activities as the Authority may specify.

12.5. The Partner shall co-operate fully with the Authority during any handover arising from the expiry or termination of this MoA. Such co-operation shall extend to allowing full access to, and providing copies of, all documents, reports, summaries and any other information necessary, within legal constraints, to the Authority or such other third party (or parties) authorised to take over all or part of the Activities in order to achieve an effective transition without disruption to routine operational requirements.

12.6. On termination of this MoA, the Parties will endeavour to ensure that any and all assets contributed by each Party (as detailed in Annex D) and which remain unused at the time of termination will, so far as possible, be transferred back to that Party.

13. Financial Consequences on termination or on exit from the MoA by an individual Party

13.1. On termination of this MoA, a financial adjustment will be agreed according to the principle that the Authority will only be obliged to pay for Activities performed, or contractually committed, in accordance with the provisions of this MoA up to the date of termination (and upon termination the EA shall provide a final report detailing the Activities it has performed). Provided that the EA uses reasonable endeavours to terminate any contractual committed and mitigate any associated costs.

- 13.2. Where the Authority has paid any sums in advance, the EA will promptly arrange for repayment of amounts it has received for Activities it has not performed or contractually committed (such amounts to be agreed with the Authority based on the final report provided further to the above paragraph 13.1). Provided that the EA uses reasonable endeavours to terminate any contractual committed and mitigate any associated costs.

14. Review and audit of the MoA

- 14.1. In addition to the regular review meetings to discuss performance in accordance with paragraph 4.2, the Parties will review this MoA at least annually and whenever substantial changes occur to the policies, external relationships and structures of the Parties concerned. Any resulting changes to this MoA will only be effective if set out in writing and signed by both Parties.
- 14.2. Each Party shall keep and maintain until six (6) years after termination of this MoA, full and accurate records of the Activities and all sums received in respect thereof. Each Party shall on request afford the other Party or their representatives such access to those records as may be requested in connection with the MoA or as otherwise required in connection with audit requirements (including, without limitation, audit by the National Audit Office).

15. Miscellaneous

- 15.1. This MoA does not confer any rights on any third party. Nothing in this MoA shall be interpreted as limiting, superseding, or otherwise affecting any Party's normal operations in carrying out its statutory, regulatory or other duties. This MoA does not limit or restrict either Party from participating in similar activities or arrangements with other entities.
- 15.2. The Authority reserves the right to vary the requirements of the MoA should this become necessary at any time, following discussion with the Partner. The Authority will confirm all such variations in writing.
- 15.3. If any such variations require an adjustment to the Activities or the fees payable then the Parties will seek to reach an agreement on how these variations should be managed and documented. The Authority shall have no obligation to incur any further costs under this MoA, nor shall the Partner be required to perform additional Activities unless and until this has been agreed in writing.
- 15.4. A person who is not a party to the MoA shall have no right to enforce any of its provisions which, expressly or by implication, confer a benefit on him, without the prior written agreement of the Parties. No third parties may use the Contracts (Rights of Third Parties) Act ("**CRTPA**") to enforce any term of the MoA.
- 15.5. Any waiver or relaxation either partly, or wholly of any of the terms and conditions of the MoA shall be valid only if it is communicated to the other

Party in writing and expressly stated to be a waiver. A waiver of any right or remedy arising from a breach of contract shall not constitute a waiver of any right or remedy arising from any other breach of the MoA.

- 15.6. The Agreement shall not constitute or imply any partnership, joint venture, agency, fiduciary relationship or other relationship between the Parties other than the contractual relationship expressly provided for in the MoA. Neither Party shall have, nor represent that it has, any authority to make any commitments on the other Party's behalf.
- 15.7. If any provision of the MoA is prohibited by law or judged by a court to be unlawful, void or unenforceable, the provision shall, to the extent required, be severed from the MoA and rendered ineffective as far as possible without modifying the remaining provisions of the MoA and shall not in any way affect any other circumstances of or the validity or enforcement of the MoA.
- 15.8. Each Party will do all things which may be reasonably necessary to give effect to the meaning of this MoA.
- 15.9. Nothing in this MoA shall prejudice, conflict with or affect the exercise by any Party of its statutory functions, powers, rights, duties, responsibilities or obligations arising or imposed under any law, legislative provision enactment, bye-law or regulation whatsoever, nor shall it fetter the exercise of any discretion any Party may have.
- 15.10. This MoA may be executed in any number of counterparts, each of which shall constitute a duplicate original, but all the counterparts shall together constitute the one agreement.
- 15.11. The MoA contains the whole agreement between the Parties and supersedes and replaces any prior written or oral agreements, representations or understandings between them. The Parties confirm that they have not entered into the MoA on the basis of any representation that is not expressly incorporated into the MoA. Nothing in this clause shall exclude liability for fraud or fraudulent misrepresentation.
- 15.12. The validity, construction and performance of the MoA, and all contractual and non contractual matters arising out of it, shall be governed by English law and shall be subject to the exclusive jurisdiction of the English courts to which the Parties submit.

16. Notices

- 16.1. Any notice to be given under the MoA shall be in writing and may be served by personal delivery, first class recorded or, subject to clause 16.3, e-mail to the

address of the relevant Party, or such other address as that Party may from time to time notify to the other Party in accordance with this paragraph.

- 16.2. Notices served as above shall be deemed served on the working day of delivery provided delivery is before 5.00pm on a working day. Otherwise delivery shall be deemed to occur on the next working day. An email shall be deemed delivered when sent unless an error message is received.
- 16.3. This paragraph 16 does not apply to the service of legal proceedings or any documents in any legal action, arbitration or dispute resolution.

Signed for and on behalf of
CEFAS

Signature

Name:

Position:

Date: 24th September 2024

Signed for and on behalf of
THE ENVIRONMENT AGENCY

Signature:

Name:

Position:

Date: 24th September 2024

Annex A - The EA's Activities

Aims and Objectives

The SAC hosts the following qualifying habitats which are the subject of the sentinel monitoring program:

- Large shallow inlets and bays
- Mudflats and sandflats not covered by seawater at low tide. (Intertidal mudflats and sandflats)
- Sandbanks which are slightly covered by sea water all the time. (Subtidal sandbanks); and
- Reefs

The relevant Broadscale Habitats (BSH) that will be included within the 2024 surveys are: Subtidal coarse sediment (A5.1), Subtidal sand (A5.2), Subtidal mud (A5.3), Subtidal mixed sediments (A5.4), Circalittoral Rock (A4.2), Subtidal biogenic reef (Sabellaria) (A5.6), and Subtidal stony reef (A5.14/A4.13). The 2024 sentinel monitoring surveys are intended to meet Five predominant objectives, these are:

- Objective 1: Acquire high quality biological and sediment granulometry data, of suitable resolution to allow temporal and spatial variability in the sediment BSH extent, distribution, and community structure to be determined, in order highlight any significant changes.
- Objective 2: Identify and map Sabellaria spinulosa reef using drop-down video (DDV) methods to verify acoustic data; and compare with previous data in order highlight any significant changes.
- Objective 3: Identify and record the abundance and location of Invasive Non-Native Species (INNS) wherever encountered during surveys.

Survey Design

In order to meet objective 1, A total of 45 day-grab stations are planned to be sampled using a standard 0.1m² day grab (Figure 1). At 10 of those stations, triplicate grabs will be taken, making a total of 65 grabs. All station locations will match those previously sampled (+/- 10 m accuracy). If this is not possible, assuming the failure is not as a result of mechanical/grab error, then the reason for any deviation should be recorded – specifically a description of any sediments observed in the recovered grab should be noted. All samples should be sieved on board, using a 0.5mm sieve, and analysed by a laboratory listed on the macrobenthic analysis framework. Each fraction should be analysed for abundance, biomass (of each major taxonomic group) and biotope classification, in accordance with NMBAQCS protocols/guidelines. PSA samples will be analysed by the EA's laboratory.

Contaminants sampling is proposed at 7 of the stations. Contaminant analysis should include: (heavy metals, PAHs, PCBs, TBT).

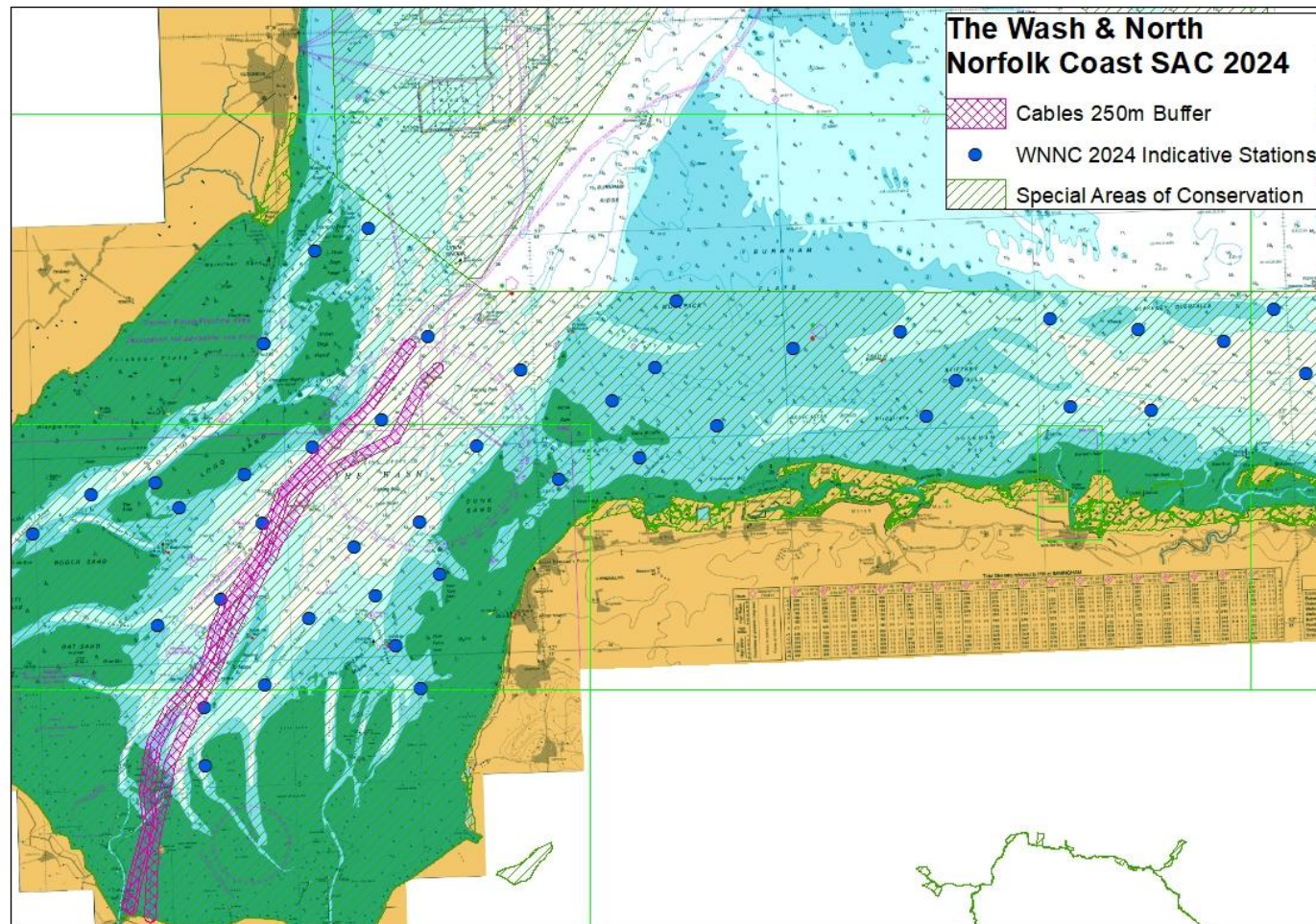


Figure 1. Map showing indicative grabbing stations within The Wash and North Norfolk Coast SAC.

Data and Sample Collection

- Day grab sampling for biotic and abiotic analysis should be undertaken according to the relevant guidelines¹, ². Any proposed deviation from the guidance will be highlighted and reasons provided. Where appropriate, Cefas should also suggest their own specialist techniques, to help contribute to the on-going research and development in this field.

General Positioning:

- During surveys the position of the specified vessel and any sampling gear deployed should be resolved using differential GPS to a minimum accuracy of ± 10 m. Positioning systems shall be installed, calibrated and operated in accordance with manufacturers' instructions in order to supply sufficient accurate positioning information to control the survey. Its use will follow the guidelines published by the UKOOA Surveying and Positioning Committee (1994), in particular the recommendations on quality monitoring and acceptance criteria.
- Prior to deployment, receiver tests and calibrations will be carried out at a point with known coordinates, to verify the normal operation of the receiver. Data relating to these checks will be available on the vessel. Full back-up of all operational equipment will be made.
- Data from the positioning, orientation, measurement and computational systems shall be checked or self-checked in such a way that coordinates of the vessel datum points are provided correctly and are demonstrated to be correct. All calibration corrections, adjustments, offsets and changes to positioning data shall be recorded and displayed during the execution of the survey.
- Annotation relating to any set of co-ordinates shall indicate the location being positioned, the system utilised for positioning and the nature of adjustments applied during computation. Data generated by positioning equipment should be rectified using the appropriate projection, datum and spheroid for the region of the works.

Sample Processing

- All macrofauna sample processing (including biomass determination) should be undertaken in accordance with the latest NMBAQCS guidelines³ and associated quality assurance methods, as should all Particle Size Analysis (PSA)⁴.

¹ISO 16665:2014 Water quality — Guidelines for quantitative sampling and sample processing of marine soft-bottom macrofauna

² CSEMP Green Book 2012

³ National Marine Biological Analytical Quality Control Scheme (NMBAQCS). Guidelines for processing marine macrobenthic invertebrate samples: a Processing Requirements Protocol
<http://www.nmbaqcs.org/media/1175/nmbaqc-inv-prp-v10-june2010.pdf>

⁴ National Marine Biological Analytical Quality Control Scheme NMBAQCS Best Practice Guidance Particle Size Analysis (PSA) for Supporting Biological Analysis.
http://www.nmbaqcs.org/media/1255/psa-guidance_update18012016.pdf

- On completion of the analysis, 5 % (or 3 samples, whichever is greater) of the infauna samples will be sent for AQC by a different contractor on the EA-NE Macrobenthic Analysis Framework Contract.
- The abundance and biomass data matrices should be provided in the template format. An additional column to include the species directory code for each species in the taxon list should be provided, and the taxa list should be ordered by major taxonomic group.
- Species nomenclature should be the accepted name as per the most recent update of the World Register of Marine Species.
- PSA samples are to be processed by the EA.
- Metadata, compliant with MEDIN/ISO standards will accompany all data and samples delivered that describe the methods of acquisition, equipment settings and configuration, date/times, onboard/post-acquisition processing undertaken and relevant charts and figures describing the location of survey operations.
- All survey data should be supplied in a format as agreed by MEDIN to expedite archiving within the MEDIN Data Archive Centres (DACs). This may require completion of metadata spreadsheet templates for onward supply to the DACs.

Reporting

Progress Reports

Daily progress reports will be provided to Natural England and Cefas during the field survey.

Cruise Report

A cruise report will be produced within one month after the completion of the survey.

Final Report

A final report will be produced in the Natural England report template provided.

Fuel / Carbon Equivalent Emissions Report

The EA is responsible for providing Cefas with a report which includes; the vessel engine capacity, distance travelled and fuel used. This is to be used by the Cefas environmental Team to calculate our environmental footprint.

Deliverables, delivery format, and timescales

Completion of this Plan of Action will include the following deliverables:

- Survey work suitable to meet the overarching aims and objectives.
- Provision of detailed 'standard operating protocols' for the work undertaken to ensure that these can be repeated as required in the future.
- Daily Progress Reports (DPRs)

- Final report addressing each of the main objectives listed above. An evaluation of the methods should also be carried out and include techniques such as species accumulation plots which could be used to determine how well the sampling carried out represented the communities present. Power analysis should also be carried out on the univariate statistics to inform future sampling design.
- Fuel / Carbon Equivalent Emissions Report – The EA is responsible for providing Cefas with a report which includes; the vessel engine capacity, distance travelled and fuel used. This is to be used by the Cefas environmental Team to calculate our environmental footprint.
- Appropriate GIS outputs, Marine Recorder files, MEDIN compliant metadata including a confidence assessment of the data outputs. The GIS files will contain all the data relating to extent and distribution of subtidal sediment habitat types (to the highest EUNIS classification possible), species and habitats of conservation importance, indicator species, INNS and anthropogenic influences.
- Media catalogue.
- Benthic Sampling Spreadsheets.
- Cruise Report.
- Provision of all raw data inc. benthic taxa, abundance, biomass data and PSA data

Milestone/ Deliverable	Completion Date	Lead
Draft Survey Plan including sampling design	31 st Jan 2024	EA
Final Survey Plan	16 th Feb 2024	EA
Survey completion	31 st Oct 2024	EA
Benthic Sampling Spreadsheet	1 month after completion of survey	EA
Cruise Report & Fuel / Carbon Equivalent Emissions Report	1 month after completion of survey	EA
Data analysis completed: PSA data (NLS) Contaminants data (NLS) Infauna data (third party lab)	31 st March 2025	EA / Contractor under macrobenthic analysis framework

Project management and managers responsible for delivery

All partners will nominate a single person (and deputy if appropriate) who shall be the key point of contact for this Plan of Action delivery. They will also be responsible for ensuring that the project is completed satisfactorily and to time. These persons should maintain regular contact with each other providing updates highlighting any problems or anticipated difficulties and give account of how these can be resolved.

Vessel Assurance

As part of the vessel safety assessment, on award the EA is required to liaise with Cefas Scientist in Charge (SIC) to complete the 'Cefas Vessel Safety Assessment & Inspections Document - VSAID' This assessment will seek to assure Cefas that the vessel is fit for purpose, suitably crewed, registered and licensed to operate within the scope of the tender. Evidence will be sought to confirm these details. Where the vessel will be carrying out lifting or fishing/trawling procedures as part of the contracted work the VSAID will require them to demonstrate the safe operation, effective maintenance and compliance of the equipment in line with any relevant maritime legislation.

Cefas reserve the right not to progress with the MoA if the proposed vessel(s) fails to meet the requirements of the Cefas vessel assurance standards. Where other external inspection certificates such as the IMCA Common Marine Inspection Document (CMID) and Marine Inspection for Small Workboats (MISW) or similar are held and current, this may support efficient assurance processes.

References

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NMBAQCS (2010) National Marine Biological Analytical Quality Control Scheme (NMBAQCS). Guidelines for processing marine macrobenthic invertebrate samples: a Processing Requirements Protocol <http://www.nmbaqcs.org/media/1175/nmbaqcs-inv-prp-v10-june2010.pdf>

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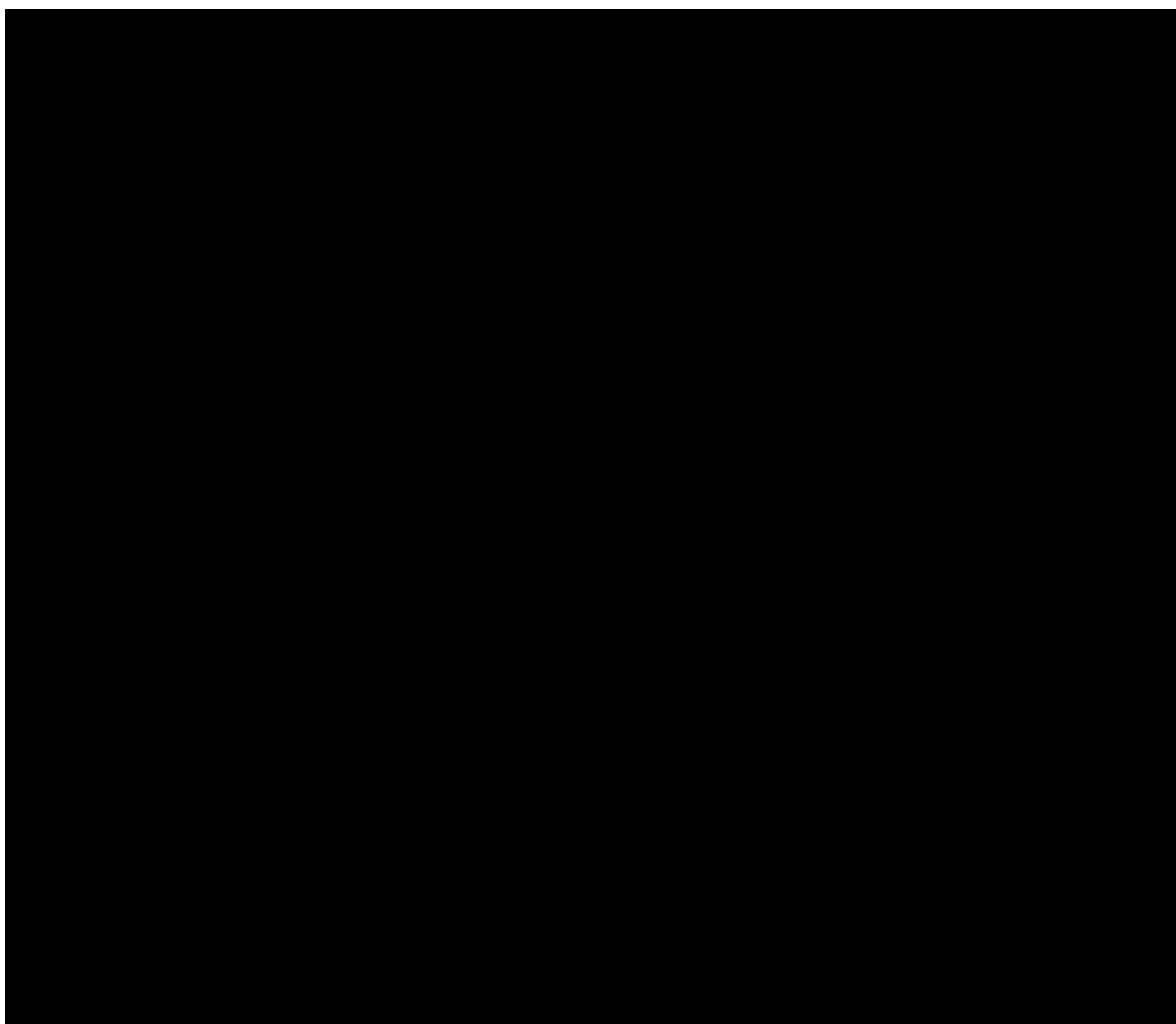
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Ware, S.J. & Kenny, A.J. (2011) Guidelines for the Conduct of Benthic Studies at Marine Aggregate Extraction Sites (2nd Edition). Marine Aggregate Levy Sustainability Fund, 80 pp.

Annex B - The Authority's commitments

Not Applicable

Annex C - Costs



Annex D - Assets

Not Applicable