

NMBAQC - Terms of Reference 2010 Final

Terms of Reference

The NMBAQC scheme was initiated in order to assure and improve the quality of data collected for the UK National Marine Monitoring Programme (NMMP), which commenced in 1993 and focused on benthic sedimentary habitats. In 2006 the NMMP was renamed CSEMP (Clean Seas Environment Monitoring Programme). Further EU monitoring programmes have been established, such as the Water Framework Directive and Habitats Directive (and in future the Marine Strategy Framework Directive) which aim to assess a wider scope of marine ecological communities. These all require good data quality to enable their use as evidence towards measuring the state of the marine environment. Hence the NMBAQC scheme remit has now broadened to include additional ecological elements required to assess marine communities. The NMBAQC scheme currently operates within the EU BEQUALM (Biological Effects and Quality Assurance in Monitoring) and it reports to HBDSEG (Healthy and Biologically Diverse Seas Evidence Group) under the UK's Marine Monitoring and Assessment Strategy (UKMMAS).

NMBAQC scheme is not an accreditation scheme.

The NMBAQC Scheme mission statement:

“Promoting Quality Assurance for Marine Biological Monitoring”

The NMBAQC scheme's **principal objectives** are to:

1. Develop appropriate Quality Assurance (QA) components for relevant ecological elements of marine communities: epibiota, infaunal invertebrates (and associated particle size analysis), fish, phytoplankton, marine plants (macroalgae, angiosperms).
2. Develop Analytical Quality Control (AQC) exercises with appropriate standards of accuracy and quality for production of Quality Assured marine biological data.
3. Assure and improve the quality of data provided by marine biological monitoring programmes as evidence for the Healthy & Biologically Diverse Seas Evidence Group (HBDSEG) under the auspices of the UK Marine Monitoring Assessment Strategy (UKMMAS) as described in (1).
4. Provide guidance on appropriate procedures or protocols for collecting, processing, analysing and data recording for marine biological (and particle size) samples.

5. Identify gaps in knowledge or expertise, and areas of improvement in relevant field and laboratory methods and address these through the creation of new external QA components (e.g. ring tests, taxonomic or methodological workshops), or drive the production and/or dissemination of new procedures, taxonomic keys and literature.
6. To promote an awareness and commitment among marine ecologists and their managers of the requirement for QA in marine biological monitoring. The importance of quality is implicit in EC WFD Annex V, clause 1.3.4. and data quality is a priority of the UKMMAS.

ROLE OF THE NATIONAL MARINE BIOLOGICAL ANALYTICAL QUALITY CONTROL COMMITTEE (NMBAQC)

The functions and role of the committee for the National Marine Biological AQC scheme are as follows:

Committee Structure

The NMBAQC scheme committee is a group made up of marine scientists who represent the UK's (and Irish) Competent Monitoring Authorities (CMAs), Conservation Agencies and commercial consultancies (contractors).

The committee is comprised of:

Chair

Technical secretary

Finance managers:

- Invertebrate, PSA, Fish, and Marine Plants (excluding phytoplankton) components
- Epibiota component
- Phytoplankton component

Contract managers:

- Invertebrate and PSA component
- Fish component
- Marine Plants component
- Phytoplankton component

General technical advisors

(to ensure scheme objectives are met)

Contractors Representative

(who presents the concerns, comments and suggestions of all NMBAQC scheme participants. This is a voluntary position.)

The committee meets on a quarterly basis, in person, or via video conference, but at least one meeting per year is held face to face. The NMBAQC website details who holds which position on the committee (www.nmbaqcs.org).

Role of the NMBAQC Committee to implement NMBAQC Scheme

1. Develop, document, and implement an overall plan for the scheme which should be reviewed annually.
2. Establish managed marine biological quality assurance components for different ecological elements.
3. Instruct finance and contract managers to set up contracts (to administrate scheme exercises) and to manage collection of fees and provide payments. Finances will adhere to the contracting bodies financial control systems and audit procedures.
4. Instruct contract managers to liaise with a relevant contract administrator on the operation of the component exercises.
5. Review and agree the funding requirements for different components of the scheme, ensuring each is financially viable and set the costs or fees to participants.
6. Establish a yearly timetable for scheme exercises, workshops, and reports.
7. Establish sample AQC auditing exercises for different components and develop appropriate quality targets and standards to enable application of pass/fail quality flags.
8. Determine appropriate remedial action procedures for sample audits and promote the completion of such actions. Advise laboratories on achieving improvements where quality falls short of targets.
9. Receive and review reports from the contract administrators on participation and performance.
10. Receive and respond to any problems, complaints, queries or issues arising from participants about the operation of the scheme.
11. Promote a positive approach to the utilisation of scheme exercises; workshops and web pages as an aid to training, learning, and development through feedback and information exchange.
12. Plan and organise workshops for participants on relevant field sampling techniques, analytical procedures, or taxonomic groups.

13. Develop new procedural guidelines, standard operating procedures or taxonomic keys to ensure best practice and comparable methods are being used by laboratories involved in generating data for marine monitoring programmes.
14. Establish links and stimulate collaboration with international inter-comparison exercises e.g. commenting on ISO/CEN standards.

Responsibilities of NMBAQC Committee to HBDSEG and BEQUALM

1. Produce an annual report that will be presented to HBDSEG and BEQUALM for information on the progress of the quality assurance scheme.
2. Other than the annual attendance at HBDSEG meetings, all other representation will be as and when NMBAQC wish to raise issues or are specifically requested to attend by HBDSEG. If NMBAQC Chair is unable to attend a deputy should be appointed to attend.
3. Provide advice to CSSEG through HBDSEG, on biological sampling strategies, sampling and analysis procedures and data archiving for the purposes of their role in overseeing the CSEMP.
4. Annual report to MERMAN manager on CSEMP benthic invertebrate quality control flag.
5. Establish links in the UKMMAS Marine Protocols database for best practice guides with regards to quality assurance of the components covered.
6. Support HBDSEG on the standardisation of species lists for marine fauna and plants ensuring compliance with the WoRMS database.