



Guidance note

Benthic habitat assessment guidance for marine developments and activities

Guidance for undertaking benthic marine habitat survey and monitoring

Guidance note: GN030

Document Owner: Marine Programme Planning and Delivery Group

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Spotted a problem? Let us know at
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What is this document about?

This document sets out Natural Resources Wales' (NRW) guidance on methods and approaches for survey and monitoring of benthic marine habitats where such work is required to support environmental and ecological impact assessments for developments and activities in or near Welsh waters.

The content of this guidance is technical information aimed at informing the design of marine benthic habitat surveys and monitoring in relation to maritime developments.

We have prepared this guidance as part of our role as an advisor in the development planning and control system. In this role NRW Advisory provide advice to developers, our staff in the regulatory arms of the organisation (NRW Permitting Service) and other regulatory organisations on likely environmental effects from marine development proposals and activities.

This guidance note does not comprise legal advice and should not be interpreted as such. Project proposers should seek their own independent legal advice on any matters arising in connection with this note in respect of a specific activity or development project.

This guidance does not prejudice any advice that NRW might provide as part of the regulatory control process or during EIA for a specific activity or development project.

Who is this document for?

This guidance is for anyone seeking to undertake marine benthic habitat survey or monitoring in relation to environmental or ecological assessments for a proposed marine development or activity, and NRW staff. The guidance is relevant to both large- and small-scale developments.

Contact for queries and feedback

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Review

This document will be reviewed at regular intervals following publication. Subsequent reviews will take account of any relevant changes arising from new legislation relevant to Wales.

Canllawiau asesiad cynefin benthig ar gyfer gweithgareddau a datblygiadau morol

Canllawiau ar gyfer monitor a chynnal arolwg o gynefinoedd benthig morol

Nodyn cyfarwyddyd: GN030

Perchennog y ddogfen: Grŵp Cyflenwi a Chynllunio Morol

Beth yw diben y ddogfen?

Mae'r ddogfen yn nodi canllawiau Cyfoeth Naturiol Cymru (CNC) ar ddulliau a ffyrdd o fynd ati i gynnal arolwg a monitro cynefinoedd benthig morol lle mae angen gwaith o'r fath i gefnogi asesiadau effaith amgylcheddol ac ecolegol ar gyfer datblygiadau a gweithgareddau yn nyfroedd Cymru neu gerllaw.

Mae'r wybodaeth sy'n cael ei gynnwys yn y canllaw yn dechnegol gyda'r bwriad o gyfrannu at fonitro a dylunio arolygon cynefinoedd benthig morol o ran datblygiadau glan môr.

Rydym wedi paratoi'r canllawiau fel rhan o'n rôl fel cynghorwr yn y system rheoli a datblygu cynlluniau. Yn y rôl hon mae Cynghorwr CNC yn rhoi cyngor i ddatblygwyr, ein staff yn isadran reoleiddio'r sefydliad (Gwasanaethau Trwyddedu CNC) a sefydliadau reoliadau eraill, ar effeithiau amgylcheddol tebygol o weithgareddau a chynlluniau datblygiadau morol.

Nid yw'r nodyn cyfarwyddyd hwn yn cynnwys cyngor cyfreithiol ac ni ddylid ei ddehongli fel y cyfryw. Dylai cynigwyr prosiectau geisio cyngor cyfreithiol annibynnol eu hunain ar unrhyw faterion sy'n codi ynglŷn â'r nodyn hwn o ran prosiect datblygu neu weithgaredd penodol.

Nid yw'r canllawiau hyn yn amharu ar unrhyw gyngor y gallai CNC ei ddarparu fel rhan o'r broses reoleiddiol neu yn ystod AEG ar gyfer prosiect datblygu neu weithgaredd penodol.

Ar gyfer pwy mae'r ddogfen hon?

Mae'r canllawiau hyn ar gyfer unrhyw un sy'n awyddus i gynnal arolwg neu fonitro cynefin benthig morol o ran asesiadau amgylcheddol neu ecolegol ar gyfer datblygiad neu weithgaredd morol arfaethedig, a hefyd staff CNC. Mae'r canllawiau'n berthnasol i ddatblygiadau ar raddfa fawr a bach.

Cyswllt ar gyfer ymholiadau ac adborth.

Y Grŵp Dadansoddi Tystiolaeth (Gabrielle.Wyn@cyfoethnaturiolcymru.gov.uk)

Adolygiad

Bydd y ddogfen hon yn cael ei hadolygu'n rheolaidd ar ôl ei chyhoeddi. Bydd adolygiadau dilynol yn ystyried unrhyw newidiadau perthnasol sy'n deillio o ddeddfwriaeth newydd sy'n berthnasol i Gymru.

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This document has been produced by NRW with initial information prepared under contract by APEM Ltd (author Marc Hubble) and Ocean Ecology Limited (author Ross Griffin). Additional contributions and comments made by Lucy Kay and NRW staff.

1. Background and context

1.1 Aim and scope of the guidance

This guidance has been prepared by Natural Resources Wales (NRW) with the technical chapters initially prepared under contract by APEM Ltd and Ocean Ecology Limited. Its aim is to help developers design and plan benthic marine habitat surveys and monitoring, where this is required for ecological impact assessment in support of proposed developments and activities in or near Welsh waters.

Benthic marine habitat surveys and monitoring may be required in order to support your application and to satisfy any subsequent licence conditions. This guidance will help you fulfil any requirements on you to undertake such surveys and monitoring, and it will help us assess proposals for such work.

The guidance aims to help streamline the regulatory review and consultation process by:

- explaining the sort of information that NRW may expect from you if you need to undertake benthic habitat characterisation surveys and monitoring
- providing technical information on methods and approaches for surveys and monitoring to assist you in planning and carrying out this work

The guidance covers habitat characterisation surveys and monitoring of specific intertidal and subtidal benthic marine habitats of conservation importance in Wales. The chapters of the guidance also contain relevant background information on these habitats.

A broader overview of marine habitat survey and monitoring is also presented in the guidance so that the survey and monitoring requirements for any proposed development or activity can be considered in a wider context where necessary. The guidance provides references to further sources of relevant information

The guidance is applicable to all types of developments and activities that may influence benthic marine habitats:

- developments or activities of a nature and scale requiring formal Environmental Impact Assessment (EIA) under EIA regulations
- smaller projects that fall outside of the formal EIA requirements, but where ecological information needs to be provided by the developer to the licensing authority as part of the consenting process.

1.2 Overview of the guidance

This over-arching Guidance Note (GN030) is accompanied by an introductory chapter (GN030-intro) and a series of chapters (GN030a-h) that deal with specific benthic marine habitats of conservation importance in Wales. The individual habitat chapters provide technical information on more habitat-specific methods that build on the over-arching principles provided in the introductory chapter.

- GN030-intro Introductory technical chapter
- GN030a Intertidal rocky shores and rock pools
- GN030b Intertidal sediments

- GN030c *Modiolus Modiolus* (northern horse mussel)
- GN030d *Sabellaria* spp.: *Sabellaria spinulosa* and *S. alveolata*
- GN030e Saltmarsh
- GN030f Seagrass beds
- GN030g Subtidal habitat characterisation surveys
- GN030h Subtidal sediments

The habitat-specific chapters can be used as required, dependent on the habitats present at the location of the proposed development or activity, but they should always be used in conjunction with the introductory chapter and this Guidance Note.

The habitat chapters (GN030a-h) are not intended to be used alone and should always be used in conjunction with this Guidance Note and the Introductory Chapter (GN030-intro).

You are encouraged to consider each habitat chapter in conjunction with the Joint Nature Conservation Committee's report 598: ['Monitoring guidance for marine benthic habitats'](#) (Noble-James *et al.* 2017).

The guidance is not overly prescriptive since the methods and approaches for survey and monitoring will need to be tailored to the specific nature and scale of the proposed development or activity and any associated requirements for ecological assessment. The guidance presents methods and approaches that NRW Advisory considers to constitute best practice. We want you to consider these if you are preparing and carrying out benthic marine habitat surveys to inform an ecological impact assessment, and for any monitoring that may be required pre-, during or post development as part of the regulatory control process.

All chapters of this guidance will be available online from the NRW website and will be updated as required as part of the periodic review of the guidance.

2. Benthic marine habitat survey and monitoring in the context of environmental assessment requirements

2.1. Our role as an advisor and consultee

NRW is a consultee in relation to a number of different consenting, licencing and permitting regimes covering the land and sea area of Wales. In this capacity, we advise both applicants and planning and consenting authorities on the potential impact of development proposals on Wales' environment and natural resources.

You can find more information on [our role in planning and development](#) on our website. The document: 'Development Planning Advice: Our Service Statement for Delivery - our approach in supporting development planning in Wales' can be downloaded from this page via the "Our Service Statement" link.

2.2. When is an environmental assessment required?

A requirement for some degree of environmental assessment applies to all regulated developments and activities in the marine environment. If you need a permit, licence or consent for your development or activity, you will need to provide sufficient information and evidence to the relevant regulator. They need this in order to assess your proposed project, its implications for the natural environment and its compliance with legislation before they can determine whether it can go ahead.

The nature and scale of the information that you will need to provide is proportionate to the proposed work. Larger marine developments, such as significant infrastructure projects, are likely to require a full Environmental Impact Assessment (EIA) under the EIA regulations¹. Smaller developments and activities, if they do not require a full EIA, may still require some form of Ecological Impact Assessment (EclA)² and you will need to provide information to support this process.

The regulator needs to carry out relevant assessments of your application and ensure compliance with all relevant legislation. This may require a separate process of EclA to be completed (see the [Marine Licensing](#) pages on our website for further explanation of this). For example, if the proposed works have implications for the features of a Special Area of Conservation designated under the EU Habitats Directive, then an Appropriate Assessment may be required in accordance with the Conservation of Habitats and Species Regulations 2017. Similarly, for permissions regulated by NRW, all activities need to comply with the Water Framework Directive (WFD) and a WFD assessment³ may be required to determine whether a development or activity will cause or contribute to deterioration of waterbody status or jeopardise the water body achieving good status.

¹ More information about [environmental assessment](#) is available on the NRW website. On the website there is also Information about the [EIA Regulations for marine works](#) and [NRW guidance \(GN013\)](#) on scoping an Environmental Impact Assessment for marine developments.

² "EclA is a process of identifying, quantifying and evaluating potential effects of development-related or other proposed actions on habitats, species and ecosystems." (CIEEM, 2018).

³ Activities that may impact estuarine (transitional) and coastal waters may require a WFD assessment. Information about [the requirement for WFD assessment in relation to marine licenses](#) in Welsh waters is available on the NRW website and links to the gov.uk website and Water Watch Wales pages which provide guidance and information to help you undertake a WFD assessment.

EclA on its own is not a statutory requirement; it is an evaluation process undertaken to support a range of assessments and can be used for the appraisal of projects of any scale, including the ecological component of Environmental Impact Assessment (EIA) (CIEEM, 2018).

Further practical advice for anyone involved with ecological evaluation and assessment for proposed developments in the marine, coastal, freshwater and terrestrial environments is provided in [Guidelines for Ecological Impact Assessment in the UK and Ireland \(2018\)](#) produced by the Chartered Institute of Ecology and Environmental Management (CIEEM). The CIEEM guidelines have been developed to promote good practice in Ecological Impact Assessment and are endorsed by NRW.

2.3. Marine habitat data for environmental assessment

In order to assess your proposed project, one of the things we need to understand, and which is required for EclA, is information about the marine environmental conditions at the location of your application. A key aspect of this is information about what habitats are present.

There may already be sufficient existing marine habitat data⁴ for the proposed location of your development or activity. Or, the size and nature of your development may not require you to provide habitat information. However, if this is not the case, you may need to design and carry out a benthic habitat characterisation survey in order to identify the marine habitats and their associated species assemblages. Benthic habitat monitoring may also be required depending on your proposed project and the requirements of the regulator

Depending on the location and nature of your proposed development or activity you may also need to provide other information about the environmental conditions in the relevant area, such as presence of marine mammal and bird species, water quality parameters and sediment transport.

2.4. Do you need to carry out a benthic marine habitat characterisation survey and monitoring?

The requirements for habitat survey and monitoring will depend on the nature, scale and location of your proposed development and activity and will need to be determined on a case by case basis.

We recommend that you refer to the CIEEM Ecological Impact Assessment Guidelines (CIEEM, 2018) referred to in section 2 above. These explain where, within the EclA process, habitat characterisation surveys and monitoring may be required. This will help you understand why this information is needed and will help you determine what is required for your own application.

If benthic marine habitat survey and monitoring is needed in support of your application for a proposed development or activity, the technical chapters of this guidance will help you understand the information that will be required and will help you plan and design your survey and monitoring.

⁴ The NRW Guidance Note [GN006 Marine ecology datasets for marine developments and activities](#) provides information on the marine ecology datasets both held and routinely used by NRW

2.4.1. What does the regulator require?

The regulator (i.e. the relevant permitting or licensing authority) will expect sufficient evidence to be submitted with your application in order for them to be able to assess your proposed project. Depending on the nature, size and location of your development different permissions may be required from NRW and also from other regulatory organisations (such as planning permission from the local planning authority). The process of identifying and agreeing the requirements for survey and monitoring may extend through various stages of the development and regulatory control process. Details of [how to apply for licenses and permits regulated by NRW](#) are provided on the relevant pages of our website.

You should discuss your proposals with the relevant regulators to determine the permits, licences or consents that you need and to clarify the information that they will require you to submit with your application.

Many projects that have works in marine and coastal areas will at least need a marine licence which is regulated by the Marine Licence Team of NRW. Further information about marine licences, how to apply for a marine licence, the information you will need to submit, the environmental assessment processes and exempted activities are provided on the [Marine Licence pages](#) of the NRW website. There is also guidance about marine licence [Band 1 low risk activities](#) which are activities considered to be of a lower environmental risk where, depending on the nature and scale of the proposed development or activity, habitat data does not necessarily need to be submitted in support of an application.

2.4.2. How we provide advice

NRW Advisory provide advice to both:

- **regulators** through the regulatory control process. Here our consultee role is triggered by the nature, scale and location of a proposed development and activity; and
- **developers** in the form of pre-application advice. Pre-application advice is any advice you may request from NRW before submitting an application to the relevant planning or consenting authority.

We are streamlining the way in which we provide pre-application advice. We have established a Discretionary Advice Service for development planning and marine advice. This is aimed at developers who are in the process of preparing an application for consent for specific types of development, including marine developments, and want our advice before submitting the application to the appropriate authority.

Certain aspects of our service fall under our statutory duties in the development planning system and are provided for free, whereas other aspects of our advice service are optional and available for a fee.

There is more information about [NRW's Discretionary Planning Advice Service](#) available on our website, where you can download a copy of our 'Guide to our discretionary advice service for development planning and marine advice'. The guide explains how advice can be sought, what types of advice are available free of charge and what types of advice will be charged for.

In relation to marine developments, advice provided through our Discretionary Planning Advice Service can include advice on pre-application survey requirements and advice on monitoring specifications where these are relevant. There will be a charge for this advice if it is outside of the scope of what we have to provide as part of our statutory duty. Therefore, if you are seeking pre-application advice on your proposed survey and monitoring work it will benefit you to have prepared your draft plan beforehand with any queries or questions clearly set out.

References

CIEEM. 2018. Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.

Noble-James, T., Jesus, A., Fionnuala, M. 2017. Monitoring guidance for marine benthic habitats. JNCC Report No: 598:119

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