



Generic Benthic Habitat Survey Scope

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Prepared for Department of Transport and Major Infrastructure (DTMI)

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Version control

Version No.	Date	Prepared by	Revision or issue descriptions	Issues to
Draft	10/04/2025	M P Rogers & Associates	Combined Draft for DoT review.	DoT
0	15/05/2025	M P Rogers & Associates	Updated with Client comments and issued for Client use.	DoT
1	19/06/2025	DoT	Additional updates from internal review	DTMI

Amendment record

This guidelines document is reviewed to ensure its continuing relevance to the systems and process that it describes. A record of contextual revisions is listed in the following table.

Page No.	Context	Revision	Date

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Note

[Benthic habitat surveys are generally used to consider the impacts of maritime activities, including construction and dredging, although may also be used to assess items such as possible offshore sediment locations or movements. Depending on the requirements of the LGA, benthic habitat surveys can have use for coastal monitoring.

There are free sources available that map many benthic habitats along the WA coast and these resources are generally appropriate to inform most coastal monitoring. Benthic habitat surveys should be undertaken if the LGA is considering work that may affect benthic habitats such as dredging, clearing and smothering. This may require a permit from the Department of Water and Environmental Regulation (DWER) under part V of the *Environmental Protection Act 1986* (EP Act). Depending on the scale of impact and the type of habitat affected, the proposal could also require assessment by the Environmental Protection Authority (EPA) under the *EP Act* and/or the federal Department of Climate Change, Energy, the Environment and Water (DCCEEW) under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Guidance on EPA environmental factors is available at:

[SEA | EPA Western Australia](#)

Technical Guidance on the Protection of Benthic Communities and Habitats is available at:

[TechnicalGuidance ProtectionOfBenthicCommunitiesAndHabitats-131216.pdf](#)

Technical Guidance on Flora Surveying is available at:

[EPA Technical Guidance - Flora and Vegetation survey Dec13.pdf](#)

Index of Marine Surveys (IMSA) is available at:

[Project Finder | Index of Marine Surveys for Assessments \(IMSA\)](#)

WA Marine Geospatial Data is available at:

[Marine geospatial data | DTMI](#)

Formatting Key

[Throughout this template three text colours have been used to distinguish between the following items.]

1. Recommended content.
2. [Guidance notes for the user to be deleted prior to use.]
3. Example text to be edited by the user prior to use.

Conditions of Use

The Maritime Directorate of DTMI provides this coastal monitoring template for use by coastal managers subject to the following Conditions of Use:

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Aim / Objectives

[A benthic habitat survey aims to determine the location and habitat type of the seafloor over a determined area. This information can be used to assess changes over time or assist with determining or forecasting potential impacts of any maritime works, notably dredging and nourishment. The LGA should determine its need for a benthic habitat survey and include the required outcomes within this section. All information should be collected in a manner that can be integrated into the IMSA database in accordance with [EPA Instructions for IMSA data packages.pdf](#).]

A benthic habitat survey aims to identify the location and habitat type of the seafloor over a determined area. This information can then be used to provide the following outcomes:

- Identify potential offshore sediment sources.
- Identify sensitive habitats inclusive of any threatened species and ecological communities.
- Identify areas of sediment movement.
- Assist in determining or forecasting potential impacts of any coastal work on the offshore environment.

[The LGA is to include and remove objectives as required.]

Extent

[Provide a map outlining the area to be surveyed, coordinates of the extents could also be included.

It is expected that surveys be undertaken across the majority of an LGA and be tailored to any identified or proposed works and monitoring requirements.]

The LGA manages approximately XX km of coast, stretching from XX to XX. As part of the proposed management of the coast, the LGA is considering sand nourishment of XX from offshore sources. A benthic habitat survey is required to determine possible locations to source material and to assist with determining any effects of the placement turbidity. The following figure shows the extent of the survey (i.e. Local Assessment Unit) and identifies the area to be nourished.

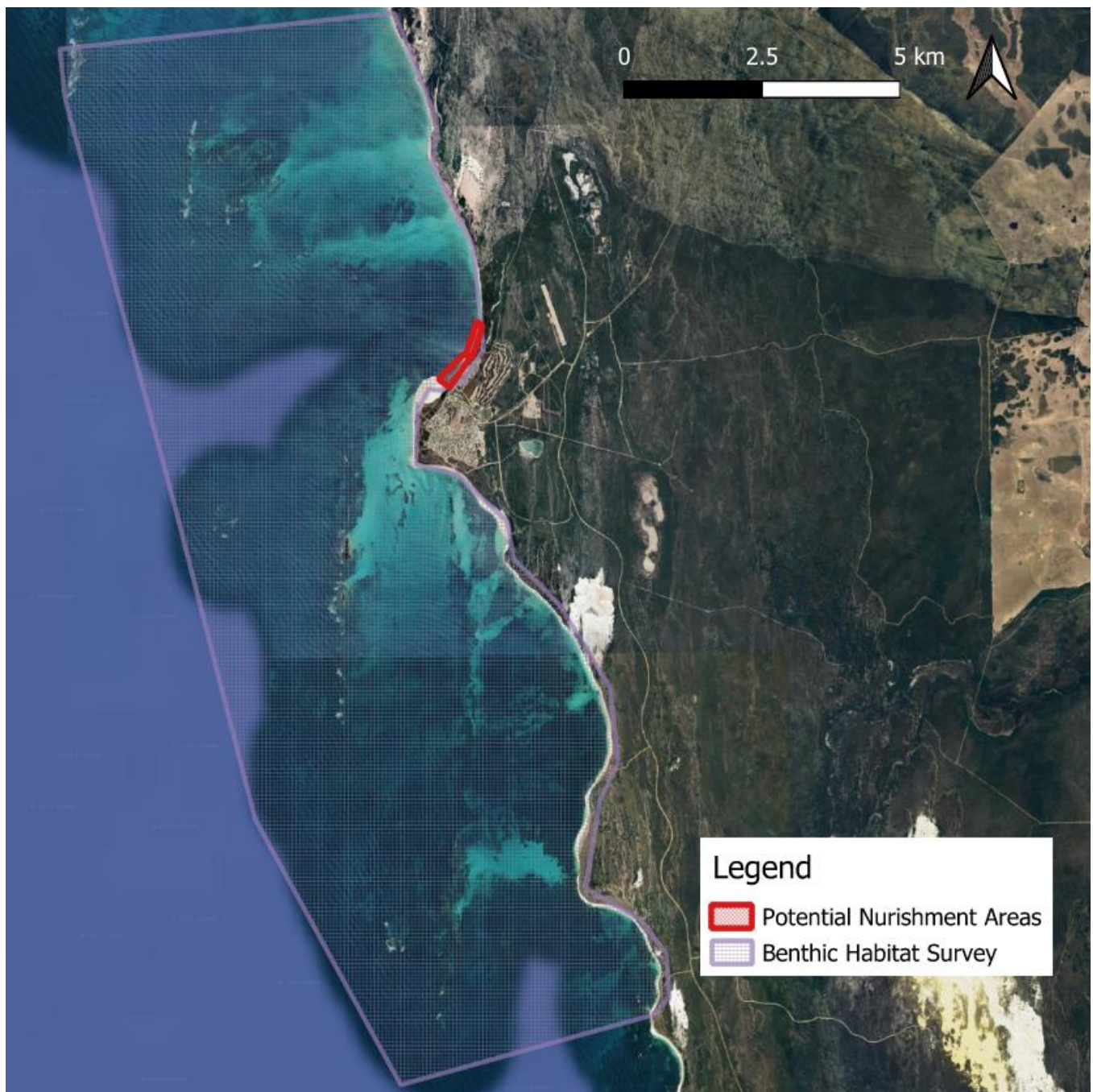


Figure 1 Benthic Habitat Survey Extent. [Example location is generic].

Background

[Provide brief background of the area, including information such as previous surveys, existing CHRMAPs, possible sand source locations, possible plume extents and any other relevant information the LGA can provide.]

The fictional background of an example area is included below.]

The Shire of Dandaragan is considering sand nourishment from an offshore sediment source. The nearby area is to be assessed for local flora and fauna to identify potential source locations. Further to this, the location of seagrass will assist with assessing offshore sediment feeds adjacent to Cervantes and the additional information will be available to assist with ongoing management of the coastline.

Tasks

[The tasks outlined in this section detail the required components of the surveys.]

The following tasks are required to be completed by the Consultant as part of the surveys.

1. Task 1 – Review background and plan survey.
2. Task 2 – Conduct survey.
3. Task 3 – Processing and reporting.

Task 1 – Review Background and Plan Survey

[The Consultant is required to review all available previous benthic data and studies regarding the study area for use in designing the survey. The Consultant should aim to use existing data to identify the existing habitat classifications and distributions. Using this information the survey process can be developed.]

In some areas there may be limited background or existing data, this will likely lead to a more extensive survey process.

The LGA and coastal manager (and project manager, if directly relating to a project) should review the proposed method and survey design to confirm the required information will be gathered with an appropriate level of detail and quality control.]

The Consultant is to review any and all available previous benthic and relevant data and studies within the study area. The Consultant should use this information to determine existing habitat classifications and distributions in alignment with guidance. The information found shall be used to plan the survey, including required processes, equipment and methods.

(If limited background information is available, this task could be updated to solely a “Plan Survey” section).

Task 2 – Conduct Survey

[The process for conducting the survey depends on the requirements and existing information available, it is recommended that the Consultant devises an optimum approach. Further, the LGA may want to specify any specific requirements again here.]

The Consultant is to conduct the benthic habitat survey in line with the approved method proposed in Task 1. The Consultant is to ensure that all requirements of the survey are met.

Task 3 – Processing and Reporting

[Background and survey should be processed to provide the distribution and extent of benthic habitats. This benthic habitat survey should be accompanied with a report that details methods, processes and results. The LGA should consider requesting the map in a shapefile format or similar for future use and/or comparison.]

The LGA should have a clear understanding of required outcomes and include any specific requirements within this section.]

The Consultant is to process relevant background information/data and all survey results to develop a map detailing the distribution and extent of benthic habitats within the study area. A detailed report should accompany this map.

Any mapping should be supplied in PDF and shapefile formats that will allow for ease of future use. If the data or outputs are being used for any assessment under the EP Act (Part IV or V), these must also be reported to the Index of Marine Surveys for Assessments (IMSA).

Methodology

[Provide a brief overview of a benthic habitat survey methodology. The LGA should be cautious when prescribing a methodology as it may lead to additional costs and complications. The LGA should request a methodology from the Consultant for review and approval.]

The following methodology should be used as a guide and includes some common methods and techniques, though the Consultant may propose other options to obtain required results.]

The Consultant is to develop a methodology for benthic habitat surveying to be approved by the LGA.

It is expected that the methodology follows the key tasks outlined above. The LGA has included possible methods for conducting the survey below, the Consultant is to propose the optimum method to obtain required results and best outcomes for the LGA.

The following techniques can be used to derive a benthic habitat map, these techniques are to be used as a guideline only.

- Aerial imagery.
- Underwater photography and video.
- Divers' inspections.
- Bathymetric surveys.

These techniques may be used in combination to provide the best results and outcomes.

As part of the methodology, the consultant should include any equipment, access, and WHS requirements.

Deliverables

[In this section the LGA should consider the requirements of this survey to ensure they are met within the deliverables.]

The LGA is to confirm requirements of the survey and adjust the deliverables as required.]

The Consultant is required to provide the following deliverables.

1. A proposed method for conducting the survey.
2. A detailed report containing:
 - Background review.
 - Details of the benthic habitats.
 - Detailed methodology.
 - Results of the survey.
 - Benthic habitat map.
3. A benthic habitat map in required formats.
4. (Include any requirements specific to the LGA).

Timeframe

[Use this section to request an estimate of the project's timeline or include a deadline if required.]

The Consultant is to provide a detailed timeline to complete the works.

Documents and Files to be Provided

[This is where the LGA can provide details of any documents and files that will assist the Consultant conducting the survey. Examples of these documents are included below.]

The following files (and documents) will be provided to the Consultant on the award of the works.

- Previous surveys.
- Previous studies or investigations.
- Details of known or proposed sediment source locations.
- Details of proposed nourishment locations.
- Details of any specific labelling requirements.
- Any relevant documents the LGA has access to.

It is expected that the Consultant will also access known online and internal sources to complete the work.

Appendices

[Include any required documents, these could include any files containing the required extent of the surveys, details of proposed works or the CMAP.]