



Australian Government

Department of Climate Change, Energy,
the Environment and Water

Long-Term Management Plan Template for an artificial reef permit

Background

This template is intended to be used in conjunction with the National artificial reef guidelines and artificial reef placement permit application form on the department's [Sea Dumping webpage](#). The National artificial reef guidelines set out a framework for permit applications under the [Environment Protection \(Sea Dumping\) Act 1981](#) (the Sea Dumping Act). The guidelines will help an applicant to fill out the application form and provide the department with adequate information on their application. This template cannot be used without first reading the National artificial reef guidelines and artificial reef placement permit application form.

After a sea dumping permit has been issued, applicants are responsible for safe placement and long-term monitoring and management of the artificial reef. A detailed outline of the monitoring and management procedures must be included in a Long-Term Management Plan (LTMP). The LTMP commences where the activities outlined in a Placement Plan finish, that is, once the reef is verified to be placed as per the reef design. A template is also available for an artificial reef Placement Plan on the department's [Sea Dumping webpage](#).

About this template

This template should be used by applicants for an artificial reef LTMP. The LTMP is to be attached to the application form as a separate standalone document for approval. The application form is to provide an overview of the more detailed information provided in the LTMP.

The LTMP must detail the procedures that will be undertaken to monitor compliance with the permit (should it be granted), monitor the performance of the reef (to determine whether project goals and objectives are being met and risks are being appropriately managed), and to outline the end-of-life decommissioning plan and allow for rehabilitation in the event of damage to the marine environment.

The applicant is required to populate the information under each of the headings and delete all instructional text (including all text including and above 'Template for use by applicants starts on next page') before submission. The LTMP should also include a cover page, document version control details including contact details for applicant, table of contents including table of tables, table of figures, table of abbreviations and a reference list where specified.

Template for use by applicants starts on next page

Applicant to delete this text and insert cover page

Applicant to delete this text and insert document version control details including contact details for applicant

Applicant to delete this text and insert table of contents including table of tables and table of figures

Applicant to delete this text and insert table of abbreviations

The following questions must be detailed in the LTMP. This template outlines the minimum requirements only and the applicant is to include additional relevant information as required depending on the nature of the artificial reef application. The National artificial reef guidelines provide further information regarding what should be considered for inclusion.

1. Introduction

The LTMP should provide a brief introduction to the artificial reef project that is the subject of the permit application.

The introduction should provide a brief overview of:

- the purpose of the LTMP
- the key elements of the reef including reef design and any repurposing of materials
- the location of the reef including proximity to protected areas
- the main potential impacts relevant to the long-term monitoring and management of the reef impacts
- procedures that will be undertaken to monitor compliance with the permit
- procedures that will be undertaken to monitor the performance of the reef
- the end-of-life decommissioning plan.

2. Goals and objectives

Describe the goals and objectives of the artificial reef proposal including:

- demonstrating how the reef will be fit for the intended purpose
- outlining how the objectives of the reef will be measured
- outlining any key issues or reporting areas identified during the investigation and planning phase.

3. Long-term monitoring and adaptive management

Describe the monitoring objectives and adaptive management measures that reflect the key impacts of the proposed reef including:

- clearly state the objectives to help determine whether the artificial reef is achieving its objectives
- describe the key impacts of the artificial reef on the marine environment, both at the proposed site and surrounding areas, and socio-economically and culturally (linked to the outcomes of the comprehensive impact assessment undertaken as part of the application)
- provide timelines for monitoring (frequency and duration of monitoring)

- provide full details on roles and responsibilities (i.e., who will undertake the monitoring)
- present the long-term monitoring and adaptive management in a summary table to clarify how it will be undertaken including for:
 - stability and structural integrity to ensure that the artificial reef does not create a hazard to the marine environment or other users over time
 - physical and chemical environment
 - marine plants and animals at the artificial reef (e.g., protected species, target species for restoration or recreation, pest species) and/or in surrounding areas, depending on the scope, scale and risk of the project.

Long-term monitoring and adaptive management must be presented in a summary table to clarify how it will be undertaken. Insert a table with the column headings: aspect (reporting area), impacting pathway, objective, monitoring method, monitoring frequency, data type, responsibility, threshold to trigger mitigation and mitigative action(s) (see Attachment 1 for an example table).

4. Financial assessment

Demonstrate the ability to make a long-term commitment to ongoing management and monitoring of the proposed reef over the whole-of-life of the project, including:

- cost estimate and evidence of ongoing funding to complete the project
- details of proposed suitably qualified person(s) that will undertake the monitoring.

5. Modifications, repairs and decommissioning

Describe modification, repair or removal procedures, including:

- mitigative measures to protect the marine environment or users of the area
- an emergency and incident response plan if the artificial reef becomes unsafe
- a decommissioning decision-making framework and plan in case trigger values are exceeded and for the end of permit life
- demonstrated resources, both financial and personnel, to undertake modifications or repairs.

Decommissioning is the default option at the end of the life of the permit, however a reef can be proposed to be left in place for perpetuity where it does not pose any risk (for example, to the environment, navigation or the safety of users) and is meeting its objectives. The permit holder would need to survey and assess the reef and submit a report outlining whether they wish to leave the reef in place, partly remove the reef, or remove the whole reef. The report would need to be submitted during the second last year of the permit, that is, reporting during year 28 for a 30-year permit.

6. Reporting

Describe reporting requirements including:

- a summary of the reporting commitments associated with the LTMP, which may include:
 - a list of required reports (e.g., monitoring, environmental incidents, auditing)
 - a description of report content for each required report
 - the schedule for preparing a report including recipient(s)
- the audit and review process that will be used to ensure ongoing compliance and adjust monitoring as required
- availability of the LTMP (that is, where it will be accessible, such as online access).

Applicant to insert reference list

Attachment 1 Example LTMP table

Aspect (or Reporting area)	Impacting pathway	Objective	Monitoring method	Monitoring frequency	Data type	Responsibility	Threshold to trigger mitigation	Mitigative action(s)
Threatened marine species	Increased aggregation, encounters, entanglement, incidental capture, or death of a threatened species or protected species.	Reduce the likelihood of impacts on any threatened species, including incidental capture and observing aggregation and interactions	i) Survey by specialist ii) Reports by fishermen or reef users	i) Monthly during breeding season ii) Monthly boat ramp surveys during breeding season	i) Quantitative (video transects) ii) Qualitative (anecdotal reports)	Permit holder	2 confirmed grey nurse sharks sighted on any single occasion during monitoring, or 5 or more confirmed individuals are consistently found on the artificial reef throughout the year OR 2 or more incidental deaths of marine turtles in one year	Build awareness of grey nurse sharks presence through social media posts and Fisheries advisory activities AND Review residency data (number of individuals, duration of visit, season etc.) against risk of impacts on grey nurse sharks with key grey nurse shark experts (as agreed with DCCEEW), and DCCEEW. If agreed experts deem risk of recreational fishing impacts have increased and may result in significant impacts to the threatened shark population, introduce gear restrictions (e.g., no bottom fishing) and/or fishing closure (e.g., during breeding season).