

Australian Government

Great Barrier Reef Marine Park Authority

CHECKLIST Dredging activities

(with or without disposal) Application information Version 31 August 2020

The following information is required to be submitted for dredging and/or spoil disposal permit applications.

Background

- 1. The Great Barrier Reef Marine Park Regulations 2019 require specific information to be provided with a Marine Park application before the Great Barrier Reef Marine Park Authority (GBRMPA) considers the application to be properly made.
- 2. The following checklist provides the minimum information requirements to be submitted with any application for Marine Park permission for dredging and/or spoil disposal projects. These checklists are not exhaustive and in some cases, GBRMPA may require further information from the applicant to address specific aspects of the proposal. Please note: information about the applicant (such as ACN if a company, ABN for a trading name, postal address, email address and phone number) is also required when submitting an application.
- 3. Submitting the required minimum information at the time of application reduces the need for GBRMPA to seek further information from applicants during the assessment process. This leads to more efficient assessment timeframes.
- 4. Applicants are also required to obtain a sea dumping permit under the Environment Protection (Sea Dumping) Act 1981 if dredge material is being dumped within the Marine Park and this is also administered by the Authority. If a sea dumping permit is required, all supporting information relating to the Marine Parks permit needs to be provided to the satisfaction of the Authority prior to any sea dumping application being accepted.

Permit requirements

- 5. Permits are necessary to ensure that dredging activities are conducted in manner that minimises harm to the environment and the effects on public appreciation within the Marine Park. In granting a Permit, the Authority must be given sufficient information on the nature and scale of the dredging activity, the sensitivity of the receiving environment and a prediction of the impacts from the activity on the environment. Using this information, the Authority will be able to determine if the dredging activity complies with the Great Barrier Reef Marine Park Regulations and will consider which conditions are necessary when granting a Permit.
- 6. The assessment timeframes depends on the risk involved and the extent and quality of the information provided by the applicant. In general, applicants who provide greater detail in their risk and impact assessment and are proactive in preventing or mitigating those risks and impacts will benefit from a more efficient permit assessment process.
- 7. Applicants may be required to publically advertise their activity depending on the nature and scale of the dredging and/or disposal activity. Applicants will be advised of this requirement after the application has been properly made.

Relevant policy and guideline documents

- 8. Dredging coral reef habitats
- 9. Dredging and Spoil Disposal Policy
- 10. <u>Guidelines for the Use of Hydrodynamic Numerical Modelling for Dredging Projects in the Great</u> <u>Barrier Reef Marine Park</u>

- 11. Reef 2050 Net benefit policy
- 12. Environmental Impact Management Permission System

External reference documents

- 13. National Assessment Guidelines for Dredging (2009) <u>National Assessment Guidelines for Dredging</u> 2009
- 14. Long Term Monitoring and Management Plan Requirements for 10 year Permits to Dump Maintenance Dredge Material at Sea
- 15. Waste Assessment Guidelines under the London Convention and Protocol: 2014 edition <u>http://www.imo.org/Publications/Pages/Home.aspx</u> (sales reference IA531E).

Relevant definitions

Capital dredging – means dredging for navigation, to create new or enlarge existing channel, port, marina and boat harbour areas. Dredging for engineering purposes, to create trenches for pipes, cables, immersed tube tunnels, to remove material unsuitable for foundations and to remove overburden for aggregate.

However, capital dredging does not include dredging carried out for the sole purpose of:

- a. maintaining an existing channel, basin, port, berth or other area for its intended use; or
- b. protecting human life or property

Capital dredge spoil material - means material excavated as a result of dredging:

- a. to create new channels, basins, ports, or other areas; or
- b. to enlarge or deepen existing channels, basins, ports, berths or other areas; or
- c. to remove material unsuitable for foundations; or
- d. to create trenches for pipes, cables or tubes; or
- e. for any other purpose incidental to creating a void.

Maintenance Dredging – means dredging to ensure that channels, berths or other port areas are maintained at their designed dimensions.

Maintenance Dredge Spoil Material - means material excavated as a result of maintenance dredging.

Long-term Management Plan (LTMP) – means a strategic document, which identifies all opportunities to reduce the need to dispose to sea (including land disposal), minimise the impact of dredged material disposal on the aquatic environment and to remove sources of contamination in the dredge material. A LTMP sets performance indicators and monitoring to achieve improvements.

Prohibited dumping – means dumping in the Marine Park, an amount of capital dredge spoil material that prior to its excavation was, *in situ*, more than 15, 000 cubic metres in volume. **Prohibited dumping** does not include burying a pipe, cable or tube with capital dredge spoil material if the material had been excavated to create the trench in which the pipe, cable or tube was laid.

Application information checklist

Application information requirements vary depending on the type of activities. Please refer to the relevant section below.

Carrying out works – dredging and spoil disposal (new or continuation application)

- 1. Capital Dredging with dredge spoil ocean disposal
- 2. Capital Dredging without dredge spoil ocean disposal
- 3. Maintenance Dredging with dredge spoil ocean disposal
- 4. Maintenance Dredging without dredge spoil ocean disposal

NOTE: All hydrodynamic modelling must meet the minimum requirements of the Authority's Guidelines for the Use of Hydrodynamic Numerical Modelling for Dredging Projects in the Great Barrier Reef Marine Park.

1. Capital Dredging – with dredge spoil ocean disposal

1.1 Capital with Medium to Large-scale dredge spoil disposal (more than 15,000 cubic metres in situ)

Application cannot be accepted.

Disposal of more than 15,000 cubic metres *in situ* of Capital Dredge Spoil within the Marine Parks is prohibited dumping and cannot be permitted (Section 104 Great Barrier Reef Marine Park Regulations, 2019) and <u>Dredging and Dredge Spoil Material Disposal Policy</u>.

1.2 Small-scale capital dredging and disposal (less than 15,000 cubic metres *in situ*)

- 1. Whether there are any alternatives to dredging and spoil disposal including the justification for dredging and spoil disposal. Why must dredging and dredge material disposal occur in the Marine Park? What feasible and prudent alternatives or avoidance measures to dredging have been considered, and why have they been ruled out?
- 2. Describe what management or engineering measures have been considered that could prevent or minimise risks and impacts to the Marine Park values.
- 3. Description of the proposed activity, including at a minimum:
 - a. Location ESRI files (preferred) or Global Positioning System co-ordinates, map of proposed dredge footprint and spoil disposal site. Any map provided needs to be overlaid on a current satellite image using the highest resolution imagery possible.
 - b. Estimate of total volume of sediment to be removed/placed. All volumes must be provided in cubic metres (*in situ*).
 - c. Duration and timing of the proposed activity, including a predicted schedule.
 - d. The type(s) of dredges/excavator and ancillary equipment to be used.
 - e. Details of any other supporting activities such as barge/hopper movements, crew vessel movements, pipeline installation and other relevant activities within the Marine Park, if applicable.
- 4. Description of the existing environment, including at a minimum:
 - a. Detailed bathymetry of the seabed within the proposed area to be dredged and the proposed spoil disposal site. The bathymetry must be less than 12 months old, unless a severe weather event occurred then it must have been undertaken post-severe weather event, whichever is most recent.
 - b. Geomorphological and hydrodynamic characteristics based on testing and modelling of the proposed area to be dredged and the proposed disposal site.
 - c. Water quality characteristics of the proposed area to be dredged and proposed disposal site. Any water quality information supplied must be collected, analysed and synthesised according to contemporary standards. Any water quality data supplied must not be more than 12 months old and must describe tidal and seasonal characteristics.
 - d. Sediment characteristics of the material proposed to be removed and disposed of at sea. Sediment characteristics must include quality of material and particle size. Any sediment quality information supplied must be collected, analysed and synthesised according to contemporary standards, for example National Assessment Guidelines for Dredging 2009. Any sediment data supplied must not be more than 5 years old, unless a significant contamination event has occurred, then the sediment data must be post-contamination event.

- e. Sensitive habitats within or near (identified by the extent that above background rates of turbidity and sedimentation may occur) the proposed area to be dredged and the proposed spoil disposal site. Sensitive habitats may include coral communities, seagrass and macroalgae.
- f. Marine fauna and infauna that inhabit the dredge area and any dredge material disposal site, if applicable.
- g. Marine megafauna and avifauna that inhabit the dredge area and any dredge material placement site, if applicable.
- h. Social and heritage values and sensitivities of the potentially affected area.
- 5. If the activity is located within a Traditional Use of Marine Resources Agreement (TUMRA) location that has agreed Traditional Owner Heritage Assessment Guidelines, then written evidence from the TUMRA Steering Committee that consultation has been undertaken or is being undertaken according to the consultation protocols will be required.

2. Capital Dredging – without dredge spoil ocean disposal

2.1 Small-scale dredging (less than 15,000 cubic metres in situ)

- 6. Whether there are any alternatives to dredging including the justification for dredging. Why must dredging occur in the Marine Park? What feasible and prudent alternatives or avoidance measures to dredging have been considered, and why have they been ruled out?
- 7. Describe what management or engineering measures have been considered that could prevent or minimise risks and impacts to the Marine Park values.
- 8. Description of the proposed activity, including at a minimum:
 - a. Location ESRI files (preferred) or Global Positioning System co-ordinates, map of proposed dredge footprint. Any map provided needs to be overlaid on a current satellite image using the highest resolution imagery possible.
 - b. Estimate of volume of sediment to be removed including any proposed contingency volumes. All volumes must be provided in cubic metres (*in situ*).
 - c. Duration and timing of the proposed activity, including a predicted schedule.
 - d. The type(s) of dredges/excavator and ancillary equipment to be used.
 - e. The location of disposal site or use of material to be removed from the Marine Park.
 - f. Details of any other supporting activities such as barge/hopper movements, crew vessel movements, pipeline installation and other relevant activities within the Marine Park, if applicable.
- 9. Description of the existing environment, including at a minimum:
 - a. Detailed bathymetry of the seabed within the proposed area to be dredged. The bathymetry must be less than 12 months old, unless a severe weather event occurred then it must have been undertaken post-severe weather event, whichever is most recent.
 - b. Hydrodynamic and geomorphological characteristics based on modelling and testing of the proposed area to be dredged.
 - c. Water quality characteristics of the proposed area to be dredged. Any water quality information supplied must be collected, analysed and synthesised according to contemporary standards. Any water quality data supplied must not be more than 12 months old and must describe tidal and seasonal characteristics.
 - d. Sediment characteristics of the material proposed to be removed. Sediment characteristics must include quality of material and particle size. Any sediment quality information supplied

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- e. Sensitive habitats within or near (identified by the extent that above background rates of turbidity and sedimentation may occur) the proposed area to be dredged. Sensitive habitats may include coral communities, seagrass and macroalgae.
- f. Marine fauna and infauna that inhabit the dredge area, if applicable.
- g. Marine megafauna and avifauna that inhabit the dredge area, if applicable.
- h. Social and heritage values and sensitivities of the potentially affected area.
- 10. If the activity is located within a Traditional Use of Marine Resources Agreement (TUMRA) location that has agreed Traditional Owner Heritage Assessment Guidelines, then written evidence from the TUMRA Steering Committee that consultation has been undertaken or is being undertaken according to the consultation protocol(s) will be required.

2.2 Medium-scale dredging (between 15,000 cubic metres in situ and 250,000 cubic metres in situ)

- 11. Each application must include all the information as required for small-scale capital dredging outlined in items six to 10 above.
- 12. In addition, medium scale dredging application will require the following information:
 - a. Summary of proposed public and/or other stakeholder engagement and consultation process to be undertaken, if volume is more than 50,000 cubic metres *in situ*.
 - b. Communication strategy to be implemented for the project.

2.3 Large-scale dredging (more than 250,000 cubic metres in situ)

- 13. Each application must include all the information as required for small-scale dredging outlined in items six to 10 above.
- 14. In addition, large-scale dredging application will require the following information:
 - a. Description of sediment budget, including sources of siltation and options to manage over the short (one to three years) and long-term (more than five years). Including analysis of accumulation areas and how this integrates with operations, for example berth operation, swing basins.
 - b. Analysis of no net loss and net benefit to the Marine Park values as a result of the proposed activities.
 - c. Describe the administration procedures and ongoing mitigation and/or monitoring measures that will be used to manage the identified risks and impacts over the short (one to three years) and long-term (more than five years). These measures need to include a continual improvement process to include changing environments, management measures and technologies.
 - d. Summary of proposed public and/or other stakeholder engagement and consultation process to be undertaken.
 - e. Communication strategy to be implemented for the project.

3. Maintenance Dredging – with dredge spoil ocean disposal

3.1 Small-scale maintenance dredging and disposal (less than 15,000 cubic metres in situ)

- 15. Whether there are any alternatives to dredging including the justification for dredging and spoil disposal. Why must dredging and disposal occur in the Marine Park? What feasible and prudent alternatives or avoidance measures to dredging have been considered, and why have they been ruled out?
- 16. Describe what management or engineering measures have been considered that could prevent or minimise risks and impacts to the Marine Park.
- 17. Description of the proposed activity, including at a minimum:
 - a. Location ESRI files (preferred) or Global Positioning System co-ordinates, map of proposed dredge footprint and spoil disposal site. Any map provided needs to be overlaid on a current satellite image using the highest resolution imagery possible.
 - b. Estimate of volume of sediment to be removed, including any proposed contingency volumes. All volumes must be provided in cubic metres (*in situ*).
 - c. Duration, timing and frequency (for example, how many dredge campaigns) of the proposed activity, including a predicted schedule.
 - d. The type(s) of dredge/excavator and ancillary equipment to be used.
 - e. Details of any other supporting activities such as barge/hopper movements, crew vessel movements, pipeline installation and other relevant activities within the Marine Park, if applicable.
- 18. Overview of previous dredge campaigns, if applicable, including any incidents.
- 19. Description of the existing environment, including at a minimum:
 - a. Detailed bathymetry of the seabed within the proposed area to be dredged and proposed disposal site. The bathymetry must be less than 12 months old, unless a severe weather event occurred then it must have been undertaken post-severe weather event.
 - b. Geomorphological and hydrodynamic characteristics based on testing and modelling of the proposed area to be dredged and the proposed disposal site.
 - c. Water quality characteristics of the proposed area to be dredged and proposed disposal site. Any water quality information supplied must be collected, analysed and synthesised according to contemporary standards. Any water quality data supplied must not be more than 12 months old and must describe tidal and seasonal characteristics.
 - d. Sediment characteristics of the material proposed to be removed and of the proposed disposal site. Sediment characteristics must include quality of material and particle size. Any sediment quality information supplied must be collected, analysed and synthesised according to contemporary standards, for example National Assessment Guidelines for Dredging 2009. Any sediment data supplied must not be more than five years old, unless a significant contamination event has occurred, then the sediment data must be post-contamination event. Laboratory analysis reports must be supplied with the application.
 - e. Sensitive habitats within or near (identified by the extent that above background rates of turbidity and sedimentation may occur) the proposed area to be dredged and the proposed disposal site. Sensitive habitats may include coral communities, seagrass and macroalgae.
 - f. Marine fauna and infauna that inhabit the dredge area and the proposed disposal site.
 - g. Marine megafauna and avifauna that inhabit the dredge area and the proposed disposal site.
 - h. Social and heritage values and sensitivities of the potentially affected areas.

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3.2 Medium-scale maintenance dredging and disposal (between 15,000 cubic metres *in situ* and 250, 000 cubic metres *in situ*)

- 21. Each application must include all the information as required for small-scale maintenance dredging outlined in items 15 to 20 above.
- 22. In addition, a medium scale maintenance dredging application will require the following information:
 - a. Summary of proposed public and/or other stakeholder engagement and consultation process to be undertaken, if volume is more than 50,000 cubic metres *in situ*.
 - b. Communication strategy to be implemented for the project.

3.3 Large-scale maintenance dredging and disposal (more than 250,000 cubic metres in situ)

- 23. Each application must include all the information as required for small-scale dredging outlined in items 15 to 20 above.
- 24. In addition, a large-scale maintenance dredging application will require the following information:
 - a. Description of sediment budget, including sources of siltation and options to manage over the short (one to three years) and long-term (more than five years). Including analysis of accumulation areas and how this integrates with operations, for example berth operation, swing basins.
 - b. Analysis of no net loss and net benefit to the Marine Park values as a result of the proposed activities.
 - c. Describe the administration procedures and ongoing mitigation and/or monitoring measures that will be used to manage the identified risks and impacts over the short (one to three years) and long-term (more than five years). These measures need to include a continual improvement process to include changing environments, management measures and technologies.
 - d. Summary of proposed public and/or other stakeholder engagement and consultation process to be undertaken.
 - e. Communication strategy to be implemented for the project.

4. Maintenance Dredging – without dredge spoil ocean disposal

4.1 Small-scale dredging (less than 15,000 cubic metres in situ)

- 25. Whether there are any alternatives to dredging including the justification for dredging. Why must dredging occur in the Marine Park? What feasible and prudent alternatives or avoidance measures to dredging have been considered, and why have they been ruled out?
- 26. Describe what management or engineering measures have been considered that could prevent or minimise risks and impacts to the Marine Park.
- 27. Description of the proposed activity, including at a minimum:
 - a. Location ESRI files (preferred) or Global Positioning System co-ordinates, map of proposed dredge footprint. Any map provided needs to be overlaid on a current satellite image using the highest resolution imagery possible.
 - b. Estimate of volume of sediment to be removed, including any proposed contingency volumes. All volumes must be provided in cubic metres (*in situ*).

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- c. Duration and frequency (for example, how many dredge campaigns) of the proposed activity, including a predicted schedule.
- d. The type(s) of dredges/excavator and ancillary equipment to be used.
- e. The location of disposal site or use of material to be removed from the Marine Park.
- f. Details of any other supporting activities such as barge/hopper movements, crew vessel movements, pipeline installation and other relevant activities within the Marine Park, if applicable.
- 28. Overview of previous dredge campaigns, if applicable, including any incidents.
- 29. Description of the existing environment, including at a minimum:
 - a. Detailed bathymetry of the seabed within the proposed area to be dredged. The bathymetry must be less than 12 months old, unless a severe weather event occurred then it must have been undertaken post-severe weather event.
 - b. Geomorphological and hydrodynamic characteristics based on testing and modelling of the proposed area to be dredged.
 - c. Water quality characteristics of the proposed area to be dredged. Any water quality information supplied must be collected, analysed and synthesised according to contemporary standards. Any water quality data supplied must not be more than 12 months old and must describe tidal and seasonal characteristics.
 - d. Sediment characteristics of the material proposed to be removed. Sediment characteristics must include quality of material and particle size. Any sediment quality information supplied must be collected, analysed and synthesised according to contemporary standards, e.g National Assessment Guidelines for Dredging 2009. Any sediment data supplied must not be more than five years old, unless a significant contamination event has occurred, then the sediment data must be post-contamination event. Laboratory analysis reports must be supplied with the application.
 - e. Sensitive habitats within or near (identified by the extent that above background rates of turbidity and sedimentation may occur) the proposed area to be dredged. Sensitive habitats may include coral communities, seagrass and macroalgae.
 - f. Marine fauna and infauna that inhabit the dredge area.
 - g. Marine megafauna and avifauna that inhabit the dredge area.
 - h. Social and heritage values and sensitivities of the potentially affected areas.
- 30. If the activity is located within a Traditional Use of Marine Resources Agreement (TUMRA) location that has agreed Traditional Owner Heritage Assessment Guidelines, then written evidence from the TUMRA Steering Committee that consultation has been undertaken or is being undertaken according to the consultation protocol(s) will be required.

4.2 Medium-scale maintenance dredging (between 15, 000 cubic metres *in situ* and 250, 000 cubic metres *in situ*)

- 31. Each application must include all the information as required for small-scale dredging outlined in items 25 to 30 above.
- 32. In addition, medium scale dredging application will require the following information:
 - a. Summary of proposed public and/other stakeholder engagement and consultation process to be undertaken, if volume is more than 50, 000 cubic metres *in situ*.
 - b. Communication strategy to be implemented for the project.

4.3 Large-scale maintenance dredging (more than 250, 000 cubic metres in situ)

- 33. Each application must include all the information as required for small-scale dredging outlined in items 25 to 30 above.
- 34. In addition, large-scale maintenance dredging application will require the following information:
 - a. Description of sediment budget, including sources of siltation and options to manage over the short (one to three years) and long-term (more than five years). Including analysis of accumulation areas and how this integrates with operations, for example berth operation, swing basins.
 - b. Analysis of no net loss and net benefit to the Marine Park values as a result of the proposed activities.
 - c. Describe the administration procedures and ongoing mitigation and/or monitoring measures that will be used to manage the identified risks and impacts over the short (one to three years) and long-term (more than five years). These measures need to include a continual improvement process to include changing environments, management measures and technologies.
 - d. Summary of proposed public and other stakeholder engagement and consultation process to be undertaken.
 - e. Communication strategy to be implemented for the project.