

Coastal—EIS information guideline

Introduction

This guideline advises proponents about the information and assessment requirements in relation to coastal environment and resources when preparing an environmental impact statement (EIS).

If the project is within, or close to, the coastal zone, the EIS needs to address:

- how the project might impact on the coastal zone
- how the coastal environment might impact on the project (e.g. due to storm surge, or coastal erosion).

The detail required in the EIS will need to be proportional to the project's proximity to, and interaction with, the coastal zone. The EIS must address the following requirements for the project site and its surrounding area extending at least as far as the project's potential adverse or beneficial influence. Where necessary to avoid duplication, cross-reference to other sections of the EIS that address the relevant coastal environment, resources and values, such as ecology, water quality, or scenic amenity. If any requirements of this guideline are not relevant, the EIS should briefly explain why they are not relevant rather than being silent.

What does coastal mean?

The following definitions provide guidance on what 'coastal' means for the EIS's information requirements. The definitions are adapted from the Queensland *Coastal Protection and Management Act 1995, Acts Interpretation Act 1954*, and Commonwealth *Coastal Waters (State Powers) Act 1980*.

Coastal zone means Queensland waters and land within the area shown as the coastal zone on a [coastal zone map](#), which is certified and made available by the chief executive of the Department of Environment and Science. The coastal zone includes the airspace above, and subsoil below, the area. It's landward boundary is defined by the coastal zone inner limit.

Coastal zone inner limit is the imaginary line that joins the most landward of the following points—

- (a) the point that is 5km landward of the high-water mark
- (b) the point nearest the high-water mark where land reaches the height of 10m Australian Height Datum.
(Note: If the imaginary line runs across a lot, the chief executive of the Department of Environment and Science may allow the coastal zone inner limit to follow either the seaward or landward boundary of the lot instead of following the imaginary line.)

Coastal management district is an area within the coastal zone that the Minister considers requires protection and management. The boundaries of coastal management districts are declared under the Coastal Protection and Management Regulation 2017.

Coastal management includes—

- (a) the protection, conservation, rehabilitation and management of the coastal zone and coastal resources
- (b) the ecologically sustainable development of the coastal zone.

Coastal resources means the natural and cultural resources of the coastal zone, including places or objects that have anthropological, archaeological, historical, scientific, spiritual, visual or sociological significance or value, including such significance or value under Aboriginal tradition or Island custom.

Coastal waters means Queensland waters to the limit of the highest astronomical tide.

Coastal waters of the State are defined in Commonwealth legislation, and are typically Queensland coastal waters from the Territorial Sea Baseline to three nautical miles seaward from the baseline.

Coastal wetlands include tidal wetlands, estuaries, salt marshes, melaleuca swamps (and any other coastal swamps), mangrove areas, marshes, lakes or minor coastal streams regardless of whether they are of a saline, freshwater or brackish nature.



Queensland waters means all waters that are—

- (a) within the limits of the State; or
- (b) coastal waters of the State.

Territorial Sea Baseline is the line from which the seaward limits of Australia's Maritime Zones are measured. The normal Territorial Sea Baseline is the level of the Lowest Astronomical Tide. However, it may be drawn differently across deeply incised parts of the coast or bays and river mouths; for example, the baseline is drawn from Caloundra Head to Cape Moreton to enclose the whole of Moreton Bay within State waters even though parts of Moreton Bay are more than three nautical miles from the shore.

Existing environment

Describe the coastal environment, resources and values within the area that the project might impact. Include locations where maritime activities such as transshipping are proposed.

Describe and illustrate the project site in relation to the coastal management district and any local coastal wetland protection areas. Provide a coastal hazard area map for the project site and its surrounding area. Describe any parts of the project site that are in an erosion prone area and/or medium or high storm tide inundation area. If the coastal building line is drawn for the locality, show the coastal building line in relation to the proposed project buildings and infrastructure. Mapping of those coastal regulated areas is available on the Queensland Government's [Development Assessment Mapping System](#).

Show the project site in relation to any nearby State or Commonwealth protected areas, such as national parks, marine parks, and fish habitat areas that are within the coastal zone. Provide details of any matters of state environmental significance (MSES) or matters of national environmental significance (MNES) within the coastal zone that might be impacted by the project (directly or indirectly), and cross-reference to other parts of the EIS that provide a more detailed description and assessment of impacts on MSES and MNES.

Describe and illustrate the site in relation to coastal zone topography and bathymetry with contours at suitable intervals. Include the relevant tide levels, such as Mean High Water Springs and Highest Astronomical Tide.

Describe the coastal environment and its various habitats and ecosystems, including:

- regional ecosystems as described in the [Regional Ecosystem Description Database](#)
- beaches and dune systems
- coastal estuaries and waterways, whether natural or artificial
- coral reefs
- wetlands
- heathlands
- mangroves, saltmarshes and mud flats
- seagrass meadows
- rocky foreshores and headlands
- shallows and banks.

Identify and discuss those local coastal areas and features that are fully or largely subject to natural processes and those that are significantly affected by human activity (e.g. due to revetments, groynes, breakwaters, reclaimed land, dredged channels, etc.).

Describe the aquatic processes that affect the morphology and ecology of the site and its surrounding area, including: tides; currents; waves; and sediment transport, deposition, and erosion.

Describe the landward processes and features that also affect the morphology and ecology of the site and its surrounding area, including: dune dynamics, mangrove forests, saltmarshes, and so on.

Use historical aerial and satellite images to describe how the existing coastal features have developed over time.

Describe the existing assets and land uses in the coastal zone that might be impacted by the project, including commercial or recreational activities (such as fishing, or boating) on the shore or on the water.

Impact assessment

Assess whether the project would meet the performance outcomes of [State code 8: Coastal development and tidal works](#). Specifically address each performance outcome. Provide details of any aspects of the project that would not meet the performance outcomes, and assess the consequent potential impacts.

Describe any tidal works (as defined in the Schedule of the *Coastal Protection and Management Act 1995*) that the project would undertake. Include any coastal protection works or beach nourishment. Assess the consequent impacts, both immediate and long-term, of the tidal works.

Assess whether the tidal works would significantly alter the movement of water, including waves, currents and tides, and/or significantly alter the movement of sediment to either increase deposition or cause erosion at any location. Compare the coast, seabed and benthos before and after development.

The EIS should undertake predictive modelling if the project would result in significant impacts or effects on any of the following matters:

- hydrodynamic processes, including tide or wave action
- land reclamation or excavation of the shore
- water quality
- sediment transport processes, including sediment plumes from dredging or excavation
- erosion potential
- stream and river flows into the estuarine or marine environment.

Describe the models used, their assumptions, input data, and results. Any modelling related to dredging in the Great Barrier Reef Marine Park should demonstrate compliance with the Great Barrier Reef Marine Park Authority's guideline [The use of hydrodynamic numerical modelling for dredging projects in the Great Barrier Reef Marine Park](#) (GBRMPA 2012).

Describe and assess the potential impacts of any proposed capital and/or maintenance dredging. Include the location, volume, and chemical and physical characteristics of the dredge material. Describe how and where the dredge material would be placed, including any reuse, and assess the consequent adverse or beneficial impacts. Assess the dispersal and impacts of sediment plumes during both dredging and dredged material placement. If the dredged material would be used for sale, reclamation or fill above the high water mark, or for land-based disposal, the project will need an allocation of quarry material (allocation notice). The EIS should provide sufficient information to assess the application for an allocation of quarry material, and for a development permit if needed. Additional information is available from the Queensland Government's [Dredging and removal of quarry material from under tidal water](#) website. Any proposal to dredge in the Great Barrier Reef Marine Park must assess how it accords with the [Dredging and Dredge Spoil Material Disposal Policy](#) (GBRMPA 2016) and the [Dredging coral reef habitat—operating a facility or carrying out works for the development of marine infrastructure](#) (GBRMPA 2016).

Assess the impacts of removing any vegetation, particularly marine plants, on coastal ecology and stability.

Describe any discharge pipes, outlets and/or diffusers, and cross-reference to the sections of the EIS that model and assess the impacts of the discharge on coastal waters.

Show proposed buildings or other constructions in relation to the erosion prone area and the coastal building line (if the line is drawn for that part of the coast). Assess the potential impacts of any excavations or constructions above the high water mark but within a coastal management district, erosion prone area, and/or medium or high storm tide inundation area. Assess whether any building or earthworks of the project would impact on the aquatic or landward coastal environment or resources.

Identify whether in addition to the environmental authority for a resource activity the project would need other approvals, permits or allocations for development in the coastal zone. Provide sufficient information and assessment for the relevant authorities to decide whether to grant the approvals, permits or allocations.

Assess the impacts of the project on land uses in the coastal zone, including recreational activities such as beach access, coastal paths, fishing, etc. Also, assess any increased risk of hazards to people accessing the coast and its waters, whether from physical or chemical effects.

Describe and assess the potential impacts of any proposal to tranship material in coastal waters or a Commonwealth marine area.

Assess potential hazards and risks of operating within the coastal zone. For example, assess the risk of a storm tide flooding a store of hazardous material.

Mitigation measures

Demonstrate that the design of the project will avoid or minimise impacts and risks related to the coastal environment, resources and values, not only within the project site, but also in nearby areas. Propose objectives and practical measures to avoid or minimise impacts and risks. All mitigation measures must be measurable and auditable. Consequently, propose suitable indicators and benchmarks that would be used to evaluate the success of mitigation measures. Such indicators might include water quality parameters, species diversity, vegetation coverage, seagrass density, coastal morphology, and so on.

Propose measures to minimise impacts and risks related to human health and safety, and commercial and recreational activities.

Describe the proposed management of any dredging activities and dredge material. Propose measures to minimise the dispersion and impacts of dredge plumes. If the use or disposal of dredge material will require an allocation for quarry material, base the management measures on the [Model conditions—Allocation of quarry materials](#) (DES 2015), and provide details of any proposed measures that vary, or do not accord with, the model conditions.

Describe the management of acid sulfate soils, not only if they will be disturbed, but also if they will be exposed to air by lowering of the water table. The department's guideline [Land—EIS information guideline](#) (DES 2020) provides advice about this matter.

References

Note: These references were correct at the time of publication. Where more recent versions are available, these must be used. For all Department of Environment and Science publications, the latest version of a publication can be found by using the publication number as a search term at the [Queensland Government website](#) <www.qld.gov.au>.

Department of Environment and Science 2015, *Model conditions—Allocation of quarry materials*, ESR/2015/1600, Department of Environment and Science, Brisbane, viewed April 2020, <https://environment.des.qld.gov.au/__data/assets/pdf_file/0025/89404/cpm-co-allocation-quarry-material.pdf>.

Department of Environment and Science 2020, *Regional ecosystem descriptions*, viewed April 2020, <<https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/descriptions>>.

Department of Environment and Science 2022, *Land—EIS information guidelines*, ESR/2020/5303, Queensland Government, Brisbane, viewed April 2022, <<https://www.qld.gov.au/environment/pollution/management/eis-process/about-the-eis-process/developing-an-eis>>.

Department of Infrastructure, Local Government and Planning, *State code 8: Coastal development and tidal works*, Department of Local Government, Racing and Multicultural Affairs, Brisbane, viewed April 2020, <<https://www.dlgrma.qld.gov.au/resources/policy/sdap/v2-1/state-code-8.pdf>>.

Great Barrier Reef Marine Park Authority 2016, *Dredging and dredge spoil material disposal policy*, Townsville.

Great Barrier Reef Marine Park Authority 2016, *Dredging coral reef habitat—operating a facility or carrying out works for the development of marine infrastructure*, Townsville.

Great Barrier Reef Marine Park Authority 2012, *The use of hydrodynamic numerical modelling for dredging projects in the Great Barrier Reef Marine Park*, Townsville.

Queensland Government 2012, Queensland Spatial Catalogue—Qspatial, *Coastal plan coastal zone*, viewed April 2020, <<http://qldspatial.information.qld.gov.au/catalogue/custom/index.page>>.

Queensland Government 2015, *Development Assessment Mapping System*, Department of State Development, Manufacturing, Infrastructure and Planning, viewed April 2020, <<https://dams.dsdipt.au/online.com.au/damappingsystem/?accordions=SARA%20DA%20Mapping>>.

Simpson, S, Batley, G, Mosley, L, Shand, P 2018, *National acid sulfate soils guidance: Guidelines for the dredging of acid sulfate soil sediments and associated dredge spoil management*, Department of Agriculture and Water Resources, Canberra, viewed April 2020, <<https://www.waterquality.gov.au/issues/acid-sulfate-soils/dredge-spoil-management>>.