

Guideline

Dredging

Dredging and allocation of quarry material

This document provides guidance on the approval process and assessment requirements for dredging activities (including the disposal of dredged material) for which the Department of Environment and Science (the department) is either the administering authority of the relevant legislation or a technical advice agency to the State Assessment and Referral Agency.

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Version history

Version	Effective date ¹	Comments
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1.01	04/08/2016	Added publication number for reference documents.
2.00	17/11/2016	Adjusted some definitions for consistency; updated Table 2; improved clarity for quarry material allocation and owner's consent; deleted parts of appendices no longer relevant.
3.00	06/03/2017	Updated for Connect and corrected reference to the Great Barrier Reef World Heritage Area in section 3.1.
3.01	03/07/2017	Replaced <i>Sustainable Planning Act 2009</i> with <i>Planning Act 2016</i> .
4.00	01/09/2017	Updated for the Coastal Protection and Management Regulation 2017
5.00	18/06/2018	Updated department titles; updated Table 2 to include details of when a material change of use would apply under the <i>Planning Act 2016</i> ; moved Table 2 from section 3.5 to section 3.1 and renumbered it as Table 1; incorporated information from the deleted guideline <i>Allocation of quarry material</i> (EPP/2016/2104); added section 3.4.1 'What is a reasonable excuse for removing quarry material without an allocation notice?' and section 3.4.2.1 'Information required about the land/activity'; made various minor changes.
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5.02	08/10/2019	Updated for the commencement of Environmental Protection Regulation 2019
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¹ This is the date approved, not the date published.

1. Purpose

Dredging in **tidal waters** can trigger regulation under a suite of both state and commonwealth legislation. This document focuses on the main state government approval processes and requirements associated with dredging activities proposed to be undertaken in **tidal waters**. It provides information on the processes for:

- obtaining relevant approvals for removing quarry material from land below the **high-water mark**;
- environmental authorities (EAs) in so far as they pertain to dredging; and
- operational works approvals associated with **tidal works** under the *Planning Act 2016* (Planning Act).

The assessment criteria and information requirements for EAs with the dredging environmentally relevant activity (ERA) and quarry material allocations (QMAs) are also covered in this guideline. For more detailed information on approval processes or assessment criteria used in assessing EAs for ERAs, please refer to the guideline 'Approval processes for environmental authorities' (ESR/2015/1743²). Similarly, please refer to the guideline, 'Assessment requirements for making a decision for an environmental authority for an environmentally relevant activity' (ESR/2015/1725²) for detailed information on assessment requirements.

2. Background

2.1. *What is dredging?*

Dredging generally refers to the mechanical removal of material from the **bed** of any waterway. Disturbed **bed** material is termed **dredged material**.

There are a number of different types of dredges that could be employed to perform dredging activities. These include hydraulic dredges, such as cutter-suction dredges and trailing suction hopper dredges, and mechanical dredges, including bucket or grab dredges and excavators on barges.

There are three types of dredging activities:

1. Extractive—e.g. for sand or gravel extraction for construction purposes;
2. Capital dredging—involves dredging a site for the first time, for the purpose of navigation. Examples include the creation of new navigation channels (including within existing **tidal waters**), port berths, swing basins, marinas, canal construction and port extensions; and
3. Maintenance dredging—dredging to ensure that existing channels, berths, swing basins, or other port areas are maintained within their designed dimensions or where natural **tidal waters** are maintained for navigation or flood mitigation.

2.2. *What is disposal?*

Disposal refers to the placement of the **dredged material**. **Dredged material** can be disposed of to sea (sea dumping to a designated marine disposal area, including side casting) or to land, such as for environmental enhancement (e.g. beach nourishment) or beneficial reuse (e.g. reuse within a designated land reclamation site or stockpiled for distribution to third parties). Approval for disposal to waterways or land is dependent upon a favourable assessment outcome according to the National assessment guidelines for dredging (NAGD 2009) or the National environment protection (Assessment of site contamination) measure (NEPM 2013) respectively, as a minimum requirement.

2.3. *Impacts of dredging*

Potential environmental impacts from dredging and disposal of **dredged material** include:

² This is the publication number. This document is available at www.qld.gov.au using the publication number as a search term.

- increased turbidity and reduced light availability (i.e. light attenuation);
- ecological impacts (direct and indirect) due to disruption of the **bed** e.g. on benthic fauna communities, sea grasses and corals;
- contaminant release (including impacts associated with extraction or disturbance of acid sulfate soils) impacting on water quality;
- increased sedimentation affecting sessile flora and fauna;
- modifications to physical and habitat processes resulting from changes to **bed** topography (depth, channel profiles), hydrodynamics (current, wave action);
- changes to habitat features and process upon which fisheries depend;
- the introduction or spread of pest species; and
- direct (harm) and indirect (e.g. behavioural) impacts on other aquatic fauna, including migratory species and protected species.

The risk and extent of direct and indirect impacts on environmental values is influenced by a range of factors, such as:

- the volume of material being dredged;
- the sediment characteristics including the presence of elevated levels of contaminants;
- the duration and timing of the dredging campaign;
- the dredging, transport and disposal methods, and
- the proximity of sensitive receptors.

A certain level of additional environmental impact is unavoidable within a capital dredging footprint and new disposal area. This is less of an issue for maintenance dredging activities as the works occur within areas of existing and repeated disturbance. Although it is likely that floral and faunal recolonisation may occur within previously dredged areas between maintenance events, further impacts on these communities are rarely regarded as key considerations in the assessment of maintenance dredging applications. This is primarily due to those impacts being largely unavoidable and that recolonising biota is well-adapted to surviving within dynamic benthic habitats.

3. State approvals and permits involving the department

The activity of dredging may require several approvals, which depend on the nature of the activities being undertaken, the location of the activity and associated impacts.

3.1. Summary of approvals required

Table 1 lists a range of dredging-related activities and the approval types that are likely to be needed under the Planning Act, EP Act and *Coastal Protection and Management Act 1995* (Coastal Act).

Table 1 Dredging-related activities and likely approval types (within State waters only)

Activity	Operational works (tidal works)	Operational works (other)	Allocation of quarry material	Environmental authority
Capital dredging of less than 1000t per year on land under tidal waters	✓	x	✓	x
Maintenance dredging of less than 1000t per year on land under tidal waters	x	x	✓	x

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Activity	Operational works (tidal works)	Operational works (other)	Allocation of quarry material	Environmental authority
Capital dredging of more than 1000t per year on land under tidal waters	✓	x	✓	✓
Maintenance dredging of more than 1000t per year on land under tidal waters	x ³	x	✓ ⁴	✓
Dredging / removal of quarry material from tidal waters for sale	x	x	✓	✓
Disposal of dredged material in tidal waters within or partly within the CMD	x	✓	x	✓ ⁵
Reclaiming land under tidal waters	✓	x	x	x
Land-based disposal of dredged material above the HWM	x	x ⁶	✓	✓
Beach nourishment above HWM that is State coastal land in a CMD	x	✓	✓ ⁷	x
Beach nourishment below HWM	✓	x	x	x

Table 2 summarises dredging-related approvals that the department either administers or has an interest in as a technical advisory agency⁸.

³ Maintenance dredging falls within the definition of excluded work under Schedule 10, Part 17, Division 1, Item 28 of the Planning Regulation 2017. There will be an existing land use approval for the activity.

⁴ A new allocation of quarry material will only be needed where an existing allocation has expired.

⁵ The dredging ERA involves managing the impacts of removal of bed material and the disposal of **dredged material**.

⁶ An operational works approval may be required if the material is placed on State Coastal Land above high water mark (HWM).

⁷ Only if moving quarry material above the HWM.

⁸ The Department of State Development, Infrastructure, Local Government and Planning (DSDILGP) is the State Assessment and Referral Agency (SARA) for all development applications, where another state agency previously had a decision-making jurisdiction. DSDILGP's role replaces the assessment manager and referral agency roles previously undertaken by other government agencies under the Planning Act, such as the department's previous jurisdiction as the administering authority of the Coastal Act. Under SARA, DSDILGP will coordinate the Queensland Government's response to all development applications and may request advice from another agency (technical agency), regarding a particular development proposal. The department is a technical agency and may be requested to provide advice to DSDILGP when they are assessing coastal development applications.

Table 2 Dredging approval requirements

Legislation	Land tenure/ land type	Trigger	Permit type	The department's role	More information
<i>Environmental Protection Act 1994</i>	Bed of naturally occurring surface waters	Carrying out a prescribed ERA	Environmental authority (Note: an application for a development approval may also be needed where there is no existing land use approval. This will trigger the need for an operational works approval, and may also require a material change of use for an environmentally relevant activity). (Note: An EA is needed for projects greater than 1000t per year.)	Administering authority	<i>ESR/2015/1743² – Guideline – Approval processes for environmental authorities</i> <i>ESR/2015/1725² – Guideline – Assessment requirements for making a decision for an environmental authority or development approval for an environmentally relevant activity</i>
<i>Coastal Protection and Management Act 1995</i>	State coastal land	Removing quarry material from State coastal land under tidal water e.g. taking material for sale, using the dredged material for reclamation or fill above the high-water mark , or removing the material for dewatering or another environmental purpose on a land-based disposal site	Quarry material allocation notice – authorises the taking and use of the quarry material	Administering authority	

Legislation	Land tenure/ land type	Trigger	Permit type	The department's role	More information
<i>Planning Act 2016</i>	Coastal waters	Disposing of dredge spoil or other solid waste material in tidal water, carried out completely or partly within a coastal management district Reclaiming land under tidal water Tidal works Prescribed tidal works	Development approval (operational works)	Technical advice agency	DSDILGP

It is the applicant's responsibility to identify any further approvals, administered by other agencies that may be needed. These may include:

- *Forestry Act 1959*—removal of quarry material from land under **tidal waters** that is trust or leasehold land or is held under a lease or licence issued by the state
- *Fisheries Act 1994*—removal, destruction or damage of marine plants or building or operational works in a declared Fish Habitat Area
- *Marine Parks Act 2004*—permit for activities within a State marine park
- *Great Barrier Reef Marine Park Act 1975*—dredging activities within the Great Barrier Reef Marine Park
- *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*—matters of national environmental significance
- *Environment Protection (Sea Dumping) Act 1981 (Cth)*—sea dumping in Commonwealth waters

3.2. Sustainable Ports Development Act 2015

As part of the Queensland Government's commitment to protection of the Great Barrier Reef World Heritage Area (GBRWHA) and State marine parks from growing resource development and shipping, the *Sustainable Port Development Act 2015* (SPD Act) restricts capital dredging and capital **dredged material** dumping. New capital dredging works for expanding port facilities is restricted to the existing ports of the Port of Gladstone, Port of Hay Point and Mackay, Port of Abbot Point and Port of Townsville.

The SPD Act prohibits sea-based disposal of port-related capital **dredged material** within the GBRWHA and mandates disposal to land where it is environmentally safe to do so. Maintenance dredging for existing infrastructure and disposal of maintenance **dredged material** is not affected by this legislation.

3.3. Environmental authority (EA) under the Environmental Protection Act 1994

The object of the *Environmental Protection Act 1994* (EP Act) is to achieve ecologically sustainable development. A key management tool under the EP Act is the regulation of ERAs. Prescribed ERAs are activities with the potential to release contaminants into the environment that can cause environmental harm.

An EA approves the carrying-out of an ERA and does not approve any environmental harm unless a condition stated by the authority specifically states that an action or event can occur. The conditions of the EA will generally state what is and what is not permitted as part of the activity.

Dredging a total of 1000 tonnes (t) or more from the **bed of naturally occurring surface waters**, in a year is considered an environmentally relevant activity under ERA 16 (1) – Extractive and screening – and requires an EA under the EP Act. The EA seeks to manage the impacts of extraction and development on the marine environment.

ERA 16(1) is broken down into the following thresholds:

- a) dredging 1000t to 10,000t per year (aggregate environmental score (AES) = 11)
- b) dredging more than 10,000t but not more than 100,000t per year (AES = 25)
- c) dredging more than 100,000t but not more than 1,000,000t per year (AES = 44)
- d) dredging more than 1,000,000t per year (AES = 66).

The AES represents the relative risk to the environment from the activity. The application and annual fees are related to the AES.

3.3.1. Making an EA application

As there are no ERA standards for dredging activities, only a site specific application can be made to the department for dredging activities. To make a site specific application:

- Complete an application online through Online Services (register online at <https://www.business.qld.gov.au/running-business/environment/online-services>); or
- complete a site specific application for a new environmental authority for a prescribed ERA (ESR/2015/1792²) and submit it to the department at the postal details supplied in the form.

Appendix 1 outlines the information that should typically accompany an EA application. Information on the identification of environmental values which could be potentially impacted by the activity is included in the following guidelines (located at www.qld.gov.au using publication numbers indicated as search terms):

- Application requirements for activities with impacts to air (ESR/2015/1840²);
- Application requirements for activities with impacts to land (ESR/2015/1839²);
- Application requirements for activities with noise impacts (ESR/2015/1838²);
- Application requirements for activities with impacts to water (ESR/2015/1837²); and
- Application requirements for activities with impacts to waste (ESR/2015/1836²).

Appendix 2 outlines the information that should accompany a quarry material allocation application.

3.3.2. Assessment requirements

Section 176 of the EP Act sets out the decision criteria for a site specific application for an ERA. These include the regulatory requirements⁹ that apply when making environmental management decisions and the standard criteria.

⁹ See Chapter 4 of the Environmental Protection Regulation 2019 for further information.

In making the environmental management decision, the department must carry out an environmental objective assessment against the environmental objective and performance outcomes mentioned in Schedule 5, Part 3, Table 1 for the operational aspect of the dredging activity. These are outlined in Appendix 3.

The standard criteria are a series of considerations defined in the Schedule 4 Dictionary of the EP Act. These are outlined in full at Appendix 4.

The applicant may be asked to provide further information about the application to allow the department to decide the application. The information request period is 20 business days. The applicant needs to respond within the response period stated in the notice. This response period is at least six months after the notice is given, however the applicant can ask for an extension providing the request is made at least 10 business days before the response period is due to end. If the department does not receive a response to an information request within the period stated in the notice or further agreed period, the application lapses.

A decision about the application must be made by the department within 20 business days after the decision stage starts, although this period may be extended once by written notice from the department or further extended by agreement with the applicant.

For more detailed information about the broader assessment requirements for an EA, please refer to the guideline, 'Assessment requirements for making a decision for an environmental authority for an environmentally relevant activity' (ESR/2015/1725²).

3.3.3. ERA 16 model operating conditions

Model operating conditions have been developed for ERA 16 and provide a framework of conditions that will apply to all new EAs where a site specific application is made. While model conditions are the starting point for conditioning all EAs, the department acknowledges that for some sites (e.g. where specific environmental values may be impacted) they may not be suitable or comprehensive and site-specific conditions will be required. For further information, please refer to the document 'Model operating conditions – extractive and screening activities' (ESR/2015/1666²).

3.3.4. Fees

For information on the processes and fees involved in applying for, or making a change to, a permit for undertaking an ERA in accordance with the provisions of the Planning Act and EP Act please refer to the document 'Fees for permits for environmentally relevant activities (ERAs)' (ESR/2015/1721²).

3.4. *Quarry material allocation under the Coastal Act*

A **quarry material** allocation is needed where dredging activity results in the removal of material from land under **tidal waters** owned by the State¹⁰ and where the material is disposed of above the **high-water mark**. While an allocation notice provides a right to the quarry material, an EA may be required to authorise the removal activities and a development approval (DA) may be required to use the land for that purpose. Such removal can involve:

- taking the material for sale;
- using the dredged material for reclamation or fill above the **high-water mark**; and
- removing the material for land-based disposal.

¹⁰ If quarry material is being removed from land under **tidal waters** that is freehold land or is held under a lease or licence issued by the State, the allocation of quarry material is not regulated by the Coastal Act. Instead, the *Forestry Act 1959* applies, or the *Water Act 2000* where material is removed from a watercourse or lake as defined under the *Water Act 2000*.

If **quarry material** is removed from land under **tidal water** and moved or otherwise placed to another location below the **high-water mark**, then that activity does not require a quarry material allocation but is deemed operational works and requires a DA, due to the material being disposed of in **tidal waters**.

It is an offence under s. 101 of the Coastal Act for a person to remove quarry material from tidal water without reasonable excuse unless the person is the holder of an allocation notice for the resource.

3.4.1. What is a reasonable excuse for removing quarry material without an allocation notice?

The following two circumstances are considered to constitute a reasonable excuse for removing quarry material without an allocation notice—

1. The material is removed as a necessary part of the construction of an approved tidal work (e.g. excavation or boring of footings), **and**
 - is of no commercial value or commercial benefit, **and**
 - is not required for maintaining coastal processes in adjacent areas and cannot be returned to tidal water.
2. The material is removed as part of an investigative process (coring, sediment sampling, bulk sampling), **and**
 - the quantity of material removed is less than 10m³ per site/project, **and**
 - will be analysed for its chemical, physical or stratigraphic properties, **and**
 - a Pre-work notification form (ESR/2018/4175²) is lodged with Permit and Licence Management (PALM) palm@des.qld.gov.au prior to commencement of the work.

Please contact PALM palm@des.qld.gov.au if there is any doubt about whether an allocation of quarry material is required.

3.4.2. Making an application

Any person may apply to the department for an allocation of **quarry material** in **tidal water** under s. 73 of the Coastal Act. For information about the process for applying for a quarry material allocation, please also refer to the Business Queensland website: www.business.qld.gov.au. Use 'quarry material allocation' as a search term. To apply for an allocation of **quarry material**:

- complete an application online through Online Services (register online at <https://www.business.qld.gov.au/running-business/environment/online-services>); or
- complete a form 'Application for the allocation of **quarry material**' (ESR/2015/1577²) and submit it with the application form 'Part A - General details for all applications' (ESR/2015/1663²) to the department at the postal details supplied in the form.

3.4.2.1. Information required about the land/activity

The application must include information about the land/activity. The following would be a minimum:

1. Two copies of a plan drawn to a suitable scale to show:
 - the boundaries of the area to be dredged and adjacent areas within 50m, the line of mean high water spring tide, the limit of vegetation and any other significant features including beaches and river banks
 - a hydrographic survey of that area on lines not more than 20m apart or as agreed with the department
 - the proposed area(s) where the quarry material will be taken ashore or transported over, and the proposed location of any stockpile, reclamation, disposal or fill areas
 - adjacent real property boundaries, roads and any esplanade
 - navigation channels, navigation aids, pipelines, cables, wharves and any other structures or

harbour works located in or adjacent to the area to be dredged

- The tenure of the land (e.g. State coastal land as defined under s. 17 of the Coastal Act, or freehold; or under a lease or licence held by the State).
2. Plans showing the depth of dredging and the anticipated final alignment and slope of batters, together with an indication as to whether this work will result in a stable alignment or if recurrent maintenance dredging will be required.
 3. Characteristics of quarry material to be removed. The results of the sediment analysis sufficient to quantify the characteristics of the sediment over the site should be submitted with the application.
 4. Intended use of the quarry material.
 5. Methods of extraction and transport of the quarry material and (including equipment to be used).
 6. Maximum anticipated extraction rate of quarry material in cubic metres/year.
 7. Details of the tenure of the land (e.g. State coastal land¹¹ as defined under s. 17 of the Coastal Act; or freehold; or under a lease or licence held by the State).

3.4.3. Assessment requirements

A **quarry material** allocation application is assessed against criteria listed in s. 75 (this is outlined in full at Appendix 5) of the Coastal Act. Many of these considerations are linked to the impact that the removal of the **quarry material** may have on coastal management, including the proposed method of extraction or the placement of dredged material. If **quarry material** is to be placed in a **coastal management district** (CMD), the department must consider the physical and chemical characteristics of the quarry material and the intended receiving environment.

If the removal or placement of **quarry material** has the potential to impact environmental values or water quality objectives identified in Schedule 1, Column 1 of the Environmental Protection (Water and Wetland Biodiversity) Policy 2019 (EPP Water), the impacts must be assessed according to the ecosystem condition and management intent (Column 2) for those waters.

The impacts on fish habitat areas, marine parks and protected areas must also be considered¹².

Other matters relevant to consideration of the application include:

- fair and equitable access to, and the need to ensure the economic use of, state resources;
- economic and social implications of a decision to grant or refuse the application;
- the views of a local government about the removal of the **quarry material** or placement of dredged material;
- the views of a harbour master about the effect the removal or placement may have on marine safety in **tidal water**; and
- if the removal or placement happens on land within the limits of a port—the views of the port authority or port operator for the land about the removal or placement.

The applicant may be asked to provide further information about the application by a reasonable date. Appendix 2 outlines the information that should accompany a **quarry material** allocation application. This includes, but is not limited to, information about the potential impact the removal of **quarry material** may have on coastal processes. The application lapses if this information is not provided.

¹¹ State coastal land means land in a coastal management district other than land that is (a) freehold land or land contracted to be granted in fee simple by the State (b) a State forest or timber reserve under the *Forestry Act 1959* (c) in a watercourse or lake as defined under the *Water Act 2000* (d) subject to a lease or licence issued by the State (where 'licence' includes a permit or other authority issued under an Act relating to mining but does not include a permit issued under the *Land Act 1994*, section 177(1))

¹² Note, other agencies assess these components and the department considers their comments.

The applicant must be given an allocation notice within 30 business days after deciding the application. The allocation notice is effective from the day stated in the notice and remains in force, unless cancelled sooner or suspended, for a period of not more than six years.

An EA is required when the dredging is also an ERA. The EA will contain conditions that aim to manage environmental impacts and the **quarry material** allocation will contain conditions that aim to ensure the sustainability of the resource. Where the dredging activity is under 1000t per year (and therefore not an ERA), the **quarry material** allocation will contain conditions that both aim to ensure the sustainability of the resource allocation and manage the environmental impacts where the risk of the activity warrants such conditions.

Once an allocation notice is obtained, the proponent can initiate applications for approvals under other relevant legislation.

All or part of an allocation notice can be transferred to another person. For further information, please refer to the document 'Part B – Transferring all or part of an allocation of quarry material' (ESR/2015/1583²).

3.4.4. Model conditions for allocation of quarry material

Model conditions for the allocation of **quarry materials** have been developed to provide the basis for conditioning allocations of **quarry materials**. They include guidance on the condition 'intent' and 'how to comply'. While the model conditions are a starting point for conditioning the allocation notice, the department acknowledges that for some sites (e.g. where specific environmental values may be impacted), site-specific conditions will be required.

For further information, please refer to the document 'Model conditions – Allocation of quarry materials' (ESR/2015/1600²).

3.4.5. Fees and royalties

A royalty may be payable to the State for material removed under an allocation notice. For information on fees and royalties payable under the Coastal Act, please refer to the document 'Fees and royalties payable under the *Coastal Protection and Management Act 1995*' (ESR/2015/1854²).

3.5. *Development approval under the Planning Act 2016*

Under the Planning Act, coastal development is declared as 'assessable development' and requires a DA. This includes operational work¹³ that is **tidal works**, or works within a **coastal management district**. The State Assessment and Referral Agency (SARA) is the recommended point of contact for development applications where the state has jurisdiction under the Planning Act (for further information please refer to the SARA website at <https://planning.dilgp.qld.gov.au/planning/resources>).

An operational works approval (**tidal works**) is needed for capital dredging undertaken in land under **tidal water**. It is not required where material (e.g. sand or gravel) is extracted solely for sale, to reclaim land, or for maintenance dredging which falls under the definition of excluded work under Schedule 10, Part 17 of the Planning Regulation 2017.

Tidal works generally refers to the construction or extension of a basin, boat ramp, breakwater, bridge, dam, dock, dockyard, embankment, groyne, jetty, pipeline, pontoon, power line, seawall, slip, small craft facility, training wall or wharf constructed within or near **tidal waters**.

Beach nourishment falls within the definition of **tidal works** as such works are designed to prevent, mitigate or repair the erosion of land by the sea. Capital dredging may constitute a material change of use for an

¹³ For full definition please refer to schedule 2 of the *Planning Act 2016*.

environmentally relevant activity under the Planning Act. Further information regarding if the activity constitutes a material change of use should be attained from DSDILGP.

The DA deals with land use assessment such as the suitability of the proposed activity in relation to the adjacent land uses, and preserving local amenity. The department's role is to provide technical advice and recommend conditions for the DA to SARA.

The EA focuses on ensuring the relevant environmental objective is met (e.g. protecting the environmental values of waters). For further information on the difference between land use assessment and ERA assessment, please refer to the guideline, 'Assessment requirements for making a decision for an environmental authority for an environmentally relevant activity' (ESR/2015/1725²).

Disposal of **dredged material** or other solid waste material in **tidal water** and reclaiming land under **tidal water** are also types of operational works.

Coastal management district means a part of the coastal zone declared under the Coastal Act as a **coastal management district**. Only **coastal management districts** declared by regulation are recognised under the Planning Act.

Assessment manager and concurrence agency roles differ depending on the category of development.

3.5.1. Assessment requirements

The DSDILGP as the assessment manager (or concurrence agency) uses the State Development Assessment Provisions (SDAP) to inform their assessment of a DA. The SDAP incorporates 'state codes' in a module for each of the 'matters of interest' to SARA. In accordance with the relevant State codes for coastal matters in the SDAP, the department provides technical advice on the information provided with a DA and may recommend conditions to include in the DA.

For information on DA processes, please refer to the DSDILGP website.

3.5.2. Fees

For information on DA fees, see Schedule 10, Part 17, Divisions 2 and 3 of the Planning Regulation 2017 or contact SARA.

3.5.3. Owner's consent

The Planning Act requires that when certain development applications are made they have the authorisation of the owner in writing (owner's consent). In relation to unallocated State land, the proposed development must be an appropriate use of the State land or resource. The State issues owner's consent for works on unallocated State land below the **high-water mark** (HWM) and outside a canal as defined under the Coastal Act. This includes works that are:

- disposing of stockpiled **dredged material** into **tidal water**;
- taking quarry material from below the HWM; and
- dredging as defined by ERA16.

If the applicant does not have the required owner's consent, a decision by the assessment manager is unlikely to be valid in law and may be open to legal challenge.

Owner's consent should be obtained prior to the lodgement of the DA. In many cases owner's consent will need to be sought from the Department of Resources.

4. Definitions

Bed of any waters includes an area covered, permanently or intermittently by tidal or non-tidal waters. It does not include land adjoining or adjacent to the bed that is from time to time covered by floodwater.

Coastal management district means a part of the coastal zone declared under the Coastal Act as a coastal management district. (For more information see www.qld.gov.au/environment/coasts-waterways/plans/hazards/about)

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

Dredged material means mud, sand, coral, shingle, gravel, clay, earth and other material removed by dredging. Dredged material includes dredge spoil and extracted quarry material.

High-water mark means the ordinary high-water mark at spring tides.

Naturally occurring surface waters includes artificial waterways that are directly connected to naturally occurring surface waters, for example, a canal connected to naturally occurring surface waters.

Prescribed tidal work¹⁴ is tidal work that is completely or partly within a local government tidal area and includes integral parts of the structure that extends onto land above high-water mark.

Quarry material includes stone, gravel, sand, rock, clay, mud, silt and soil, unless it is removed from a culvert, stormwater drain or other drainage infrastructure as waste material. It does not include a mineral related to mining. For quarry allocations under the Coastal Act quarry material means material on State coastal land.

Tidal waters means:

- the sea and any part of a harbour or watercourse ordinarily within the ebb and flow of the tide at spring tides, or
- the water downstream from a downstream limit as defined under the *Water Act 2000*.

In terms of coastal dredging operations, tidal waters predominantly relates to waters below the high-water mark.

Tidal works means any of the following:

- (a) works in, on or above:
 - (i) land under tidal water, or
 - (ii) land that will or may be under tidal water because of development on or near the land;
- (b) works that are:
 - (i) an integral part of works mentioned in paragraph (a) (the principal works), and
 - (ii) carried out in, on or above land directly adjacent to the land in, on or above which the principal works are carried out;
- (c) works designed to be exposed to tidal water because of shoreline fluctuations;
- (d) works designed to prevent the erosion of land by the sea (whether or not within the ebb and flow of the tide at spring tides), and
- (e) works within the boundaries of a canal, whether above or below high-water mark.

Tidal works includes:

- (a) the construction or demolition of a basin, boat ramp, breakwater, bridge, dam, dock, dockyard, embankment, groyne, jetty, pipeline, pontoon, power line, seawall, slip, small craft facility, training wall or wharf;

¹⁴ This is a paraphrase. The full statutory definition of **prescribed tidal work** is in s. 15 of the Coastal Protection and Management Regulation 2017.

- (b) works in tidal water necessarily associated with the construction or demolition mentioned in paragraph (a), and
- (c) the reclamation of land under tidal water.

Tidal works does not include:

- (a) the erection of a sign or other structure, including, for example, a navigational aid or sign for maritime navigation, under a direction made under another Act;
- (b) the construction of an open drain that:
 - (i) is less than 1m deep, and
 - (ii) has a cross sectional area less than 2.5m²;
- (c) works that are assessable development, carried out within a coastal management district, of any of the following types:
 - (i) the disposal of dredge spoil or other solid waste material in tidal water;
 - (ii) the construction of an artificial waterway.
- (d) the removal of **quarry material** that has accumulated within the boundaries of, or in an area adjoining, a previously approved tidal work to allow the work to be used for the function for which it was approved
- (e) the removal of **quarry material** from land under tidal water, if the removal is for no other purpose than the sale of the material or use of the material to reclaim land, and
- (f) the construction of buoy moorings.

Appendix 1 – Information requirements recommended for a dredging ERA application

SUMMARY OF OPERATION
Briefly describe the activity which has been applied for including volumes of material to be removed, processes employed, duration and timing. Describe any previous land uses.
LOCATION
<p>Provide plans drawn to a suitable scale to show:</p> <ul style="list-style-type: none"> • The boundaries of the area to be dredged (including coordinates), adjacent river banks, sand banks and shorelines, showing the line of mean high-water spring tide, the limit of vegetation and any other details to permit the identification of the tidal land on the ground • A hydrographic survey of that area on lines not more than 20m apart • Proposed location of any stockpile, reclamation, disposal or fill areas. Include information about area, slope, soil characteristics, flood potential, erosion potential and vegetation. Proximity of any such area to any, drains, watercourses, dams, soaks and springs • Details of any biological sensitive receptors (e.g. coral or seagrass meadows) or other sensitive receptors (e.g. residential or schools) or protected areas (e.g. wetlands, fish habitat areas) • Adjacent real property boundaries, roads and any esplanade • Navigation channels, navigation aids, pipelines, cables, wharves and any other structures or harbour • Works located in or adjacent to the area to be dredged • The depth of dredging and the anticipated final alignment and slope of batters, together with an indication as to whether this work will result in a stable alignment or if recurrent maintenance dredging will be required.
ENVIRONMENTAL RISKS AND EMISSIONS
<p>List ALL the environmental risks, proposed discharges and emissions</p> <p>Below are examples of the type of information typically needed to assess a dredging application:</p> <p>1) WATER RELATED RISKS AND EMISSIONS</p> <p>What are the characteristics of the sediment being removed?</p>

- Acid sulfate soils
 - What is the risk of water disturbance and release and leaks and spills during transport of acid sulfate soils? Note: the risks are generally higher with capital dredging as opposed to maintenance dredging.
- Total suspended solids
 - What grain size of sediment (sand or mud) is being removed?
 - What is the risk of light attenuation, smothering of seagrass or coral?
- Contaminants
 - What types of contaminants are likely to be present within the bed material to be dredged and what is their expected concentration (include mean, 95% Upper Confidence Level of the mean, range)?
 - What is the risk of mobilisation of contaminants given the sediment characteristics and proposed dredging and disposal location?
 - Note that assessment as per the latest version of the National Assessment Guidelines for Dredging must be undertaken for proposals involving unconfined ocean based disposal. Where applicable, also consult the assessment methodology advocated in the latest edition of the Queensland Acid Sulfate Soil Technical Manual and referenced material.
- Disturbance of sensitive receptors and waters
 - Are biological or non-biological sensitive receptors likely to be encroached upon?
 - What is the ecosystem condition or management intent of the waters e.g. slightly disturbed moderately disturbed or high ecological value waters?
 - What is the risk of disturbance of seagrasses or corals?

2) LAND RELATED RISKS AND EMISSIONS

- Acid sulfate soils
 - What risks to land are associated with transport, stockpiling or disposal of material containing acid sulfate soils? What is the potential for acidic runoff?

- Contaminants
 - What risks to land are associated with transport, stockpiling or disposal of material containing acid sulfate soils? What is the potential for contaminated runoff?
 - Note, for land based disposal, the characterisation of sediments and suitability for disposal must be undertaken in accordance with the methodology provided in the latest edition of the National Environment Protection (Assessment of Site Contamination) Amendment Measure. Where applicable, also follow the methodology provided in the latest edition of the Queensland Acid Sulfate Soil Technical Manual.
- Disturbance of flora and fauna
 - What is the risk of disturbance of land based flora or fauna associated with the dredging activity, including disposal?
- Ecological disturbance
 - What interaction will there be between the activity and other ecosystems, including wetlands, groundwater systems etc.?

3) AIR-RELATED RISKS AND EMISSIONS

What is the risk that air emissions (particulates) will be generated from dredging plant and equipment or during transport?

4) WASTE-RELATED RISKS AND EMISSIONS

Are there any waste releases associated with the dredging activity? What types of wastes, volumes and concentrations?

5) NOISE-RELATED RISKS AND EMISSIONS

Are there sensitive places likely to be impacted by noise emissions?

ENVIRONMENTAL VALUES (refer to section 35 of the Environmental Protection Regulation 2019 (EP Reg) along with quality objectives under an EPP)

Describe the environmental values both on and offsite that may be impacted by the dredging activity.

- What is the background quality of surface water, specifically in relation to contaminants of concern? When collecting reference data for background data seasonal influences should be taken into account. The latest version of the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC & ARMCANZ 2000) provides the methodology to collect such reference data.

- What are the environmental values of surface waters on or adjacent to the site and water quality objectives to protect or enhance these? The water quality objectives in EPP Water – long-term objectives and management intent need to be considered. (Refer to Technical Guideline for wastewater releases to Queensland Waters (ESR/2015/1654²) for further guidance on how to consider the Water objectives and management intent.)
- What flora and fauna is present including protected animal breeding places, species of conservation interest, pest species, plants or animals and their habitats, including threatened wildlife, near threatened wildlife and rare wildlife under the relevant legislation including *Nature Conservation Act 1992*. Flora and fauna identification will likely require detailed studies to be undertaken to allow the applicant to accurately describe these environmental values.
- Are there areas with high ecological significance values including, but not necessarily limited to, wetlands, nationally threatened ecological communities, large tracts of remnant vegetation, corridors, special biodiversity areas

MITIGATION MEASURES (As per section 35 of the EP Reg address any management hierarchy e.g. emissions, contamination and generation of waste must be avoided first. The applicant must meet the environmental objectives and performance outcomes in Schedule 8, Part 3 Division 1 of the EP Reg.

How will the dredge plume be monitored to prevent or minimise impacts on sensitive receptors, or the environmental values of surface waters?

Note: where the dredging operation does pose a risk to sensitive receptors or environmental values, from the commencement of the activities authorised under the environmental authority, a Dredge Management Plan must be implemented.

The Dredge Management Plan must contain information about:

- The dredging operation including:
 - type of equipment to be used, volume of bed material to be removed, duration and timing of the dredging campaign
 - methods to be used for transporting **dredged material**
 - **dredged material** disposal methods
- Maps to scale showing all relevant places (boundaries of dredging operation; estimated or modelled zone of influence of sediment plumes; location of designated disposal sites, sensitive receptors and all monitoring locations)
- A detailed description of sediment plume-associated monitoring program including the:

- sampling regime and methods
- monitoring sites
- A detailed description of the assessment methodology to provide data in relation to trigger values that will define alert levels
- Clearly set out data handling and evaluation procedures that demonstrate how exceedance of alert levels will be determined
- Management actions to be initiated if alert levels are exceeded
- How will any noise and air impacts (if relevant) be minimised?

Appendix 2 – Information requirements recommended for allocation of quarry material

SUMMARY OF OPERATION

- For what purpose is the **quarry material** to be used?
- What is the total quantity of material (cubic metres) to be removed?
- What verifiable methodology has been used to quantify this amount?
- What is the maximum quantity (cubic metres) to be removed in any 12 month period?
- What depth will you be removing quarry material down to?
- What is the time period required for the allocation?
- What is the type of **quarry material** to be removed?
- What equipment and its design capacity (cubic metres/year) will be used to remove and dispose of the **quarry material**?
- What methodology will be used to measure the volume of quarry material to be removed?
- What waste products will be generated and how will they be treated or recycled?
- How much **quarry material** is available at the location?
- Has agreement of the owner(s) of land on which material is to be deposited or stockpiled been obtained?

<ul style="list-style-type: none"> • Has agreement from owner(s) of land over which land will be transported either by pipeline or truck been obtained?
LOCATION
<p>Is the land or part of the land that the quarry material is being removed from State coastal land as defined under section 17 of the Coastal Act</p> <p>Is the land or part of the land that the quarry material is being removed from not State coastal land but another form of tenure (specify tenure)?</p> <p>Provide a plan drawn to a suitable scale to show:</p> <ul style="list-style-type: none"> • The boundaries of the land to be dredged (including coordinates), adjacent river banks, sand banks and shorelines, showing the line of mean high-water spring tide, the limit of vegetation and any other details to permit the identification of the tidal land on the ground • The name of the tidal waters where the quarry material is to be removed from • A hydrographic survey (e.g. using light detection and ranging) of that land on lines not more than 20m apart • Proposed location of any stockpile, reclamation, disposal or fill areas. Include information about area, slope, soil characteristics, flood potential, erosion potential and vegetation. Proximity of any such area to any streams, drains, watercourses, dams, soaks and springs • Details of any biological sensitive receptors (e.g. coral or seagrass meadows) or other sensitive receptors (e.g. residential or schools) or protected areas (e.g. wetlands, declared Fish Habitat Areas) • Adjacent real property boundaries, roads and any esplanade • Navigation channels, navigation aids, pipelines, cables, wharves and any other structures or harbour works located in or adjacent to the land to be dredged • The depth of dredging with respect to the low tide channel, mean sea level and high-water mark • The anticipated final alignment and slope of batters, together with an indication as to whether this work will result in a stable alignment or if recurrent maintenance dredging will be required
COASTAL PROTECTION AND MANAGEMENT ACT 1995
<p>1) Section 75 requirements</p> <ul style="list-style-type: none"> • What impact will the removal of quarry material, including the proposed method of extraction, or placement of spoil have on coastal management including:

- the supply of sediments to estuaries and the sea
- the physical integrity of the land, including stability of **beds** and banks of watercourses
- the **quarry material** available on the land and any existing allocations for the land
- the ecologically sustainable development of the land and watercourses on the land
- What are the impacts on waters? (Refer to the EPP Water, Schedule 1, column 1 – the impact on the removal or placement may have on the environmental values and water quality objectives stated in a document mentioned in column 2 of that schedule for waters¹⁵) Note: the same information can be used for the allocation of **quarry material** application and EA application.
- If placing material in the coastal management district, what is the nature of the material including contaminants in the material? Assessment as per the *National Assessment Guidelines for Dredging 2009* must be undertaken.
- Include information on acid sulfate soils (refer to the latest edition of the Queensland Acid Sulfate Soil Technical Manual Soil Management).
- What are the characteristics of the material's receiving environment? (refer to the 'Environmental values' section of EA application information in Appendix 1)
- Are there any impacts on the management of declared Fish Habitat Areas under the *Fisheries Act 1994*; marine parks under the *Marine Parks Act 2004*; or protected areas under the *Nature Conservation Act 1992*?
- Does the proposed allocation of **quarry material** support fair and equitable access to state resources?
- What are the economic and social implications of a decision to refuse or accept the application?
 - Have the views of the Department of Agriculture and Fisheries, local government, harbour master or relevant port authority about the removal or placement been obtained?

¹⁵ For particular waters not mentioned in Schedule 1, column 1, the indicators and water quality guidelines for an environmental value are decided using site specific documents for the water; the Queensland Water Quality guidelines; the Australian Water Quality guidelines; and other relevant documents published by a recognised entity (see ss. 6-9 of the EPP Water).

Appendix 3 – Environmental Protection Act 1994 – Environmental objectives and performance outcomes for environmental authority application

Part 3 Environmental objectives and performance outcomes

Table 1 Operational assessment

Air
<p>Environmental Objective</p> <p>The activity will be operated in a way that protects the environmental values of air</p>
<p>Performance Outcomes</p> <ol style="list-style-type: none"> 1) There is no discharge to air of contaminants that may cause an adverse effect on the environment from the operation of the activity 2) All of the following: <ol style="list-style-type: none"> a) fugitive emissions of contaminants from storage, handling and processing of materials and transporting materials within the site are prevented or minimised b) contingency measures will prevent or minimise adverse effects on the environment from unplanned emissions and shut down and start up emissions of contaminants to air c) releases of contaminants to the atmosphere for dispersion will be managed to prevent or minimise adverse effects on environmental values.
Water
<p>Environmental Objective</p> <p>The activity will be operated in a way that protects environmental values of waters.</p>
<p>Performance Outcomes</p> <ol style="list-style-type: none"> 1) There is no actual or potential discharge to waters of contaminants that may cause an adverse effect on an environmental value from the operation of the activity. 2) All of the following—

- a) the storage and handling of contaminants will include effective means of secondary containment to prevent or minimise releases to the environment from spillage or leaks
- b) contingency measures will prevent or minimise adverse effects on the environment due to unplanned releases or discharges of contaminants to water
- c) the activity will be managed so that stormwater contaminated by the activity that may cause an adverse effect on an environmental value will not leave the site without prior treatment
- d) the disturbance of any acid sulfate soil, or potential acid sulfate soil, will be managed to prevent or minimise adverse effects on environmental values
- e) acid producing rock will be managed to ensure that the production and release of acidic waste is prevented or minimised, including impacts during operation and after the environmental authority has been surrendered
- f) any discharge to water or a watercourse or wetland will be managed so that there will be no adverse effects due to the altering of existing flow regimes for water or a watercourse or wetland
- g) for a petroleum activity, the activity will be managed in a way that is consistent with the coal seam gas water management policy, including the prioritisation hierarchy for managing and using coal seam gas water and the prioritisation hierarchy for managing saline waste
- h) the activity will be managed so that adverse effects on environmental values are prevented or minimised.

Wetlands

Environmental Objective

The activity will be operated in a way that protects the environmental values of wetlands.

Performance Outcomes

- 1) There will be no potential or actual adverse effect on a wetland as part of carrying out the activity
- 2) The activity will be managed in a way that prevents or minimises adverse effects on wetlands.

Groundwater
Environmental Objective The activity will be operated in a way that protects the environmental values of groundwater and any associated surface ecological systems.
Performance Outcomes <ol style="list-style-type: none">1) Both of the following apply—<ol style="list-style-type: none">a) there will be no direct or indirect release of contaminants to groundwater from the operation of the activityb) there will be no actual or potential adverse effect on groundwater from the operation of the activity.2) The activity will be managed to prevent or minimise adverse effects on groundwater or any associated surface ecological systems. <p><i>Note</i>— Some activities involving direct releases to groundwater are prohibited under section 41 of the Reg.</p>
Noise
Environmental Objective The activity will be operated in a way that protects the environmental values of the acoustic environment.
Performance Outcomes <ol style="list-style-type: none">1) Sound from the activity is not audible at a sensitive receptor2) The release of sound to the environment from the activity is managed so that adverse effects on environmental values including health and wellbeing and sensitive ecosystems are prevented or minimised.
Waste
Environmental Objective Any waste generated, transported, or received as part of carrying out the activity is managed in a way that protects all environmental values.

Performance Outcomes

- 1) Both of the following apply—
 - a) waste generated, transported or received is managed in accordance with the waste and resource management hierarchy in the *Waste Reduction and Recycling Act 2011*
 - b) if waste is disposed of, it is disposed of in a way that prevents or minimises adverse effects on environmental values.

Land

Environmental Objective

The activity is operated in a way that protects the environmental values of land including soils, subsoils, landforms and associated flora and fauna.

Performance Outcomes

- 1) There is no actual or potential disturbance or adverse effect to the environmental values of land as part of carrying out the activity
- OR
- 2) All of the following—
 - a) activities that disturb land, soils, subsoils, landforms and associated flora and fauna will be managed in a way that prevents or minimises adverse effects on the environmental values of land
 - b) areas disturbed will be rehabilitated or restored to achieve sites that are—
 - i. safe to humans and wildlife
 - ii. non-polluting
 - iii. stable
 - iv. able to sustain an appropriate land use after rehabilitation or restoration.
 - c) the activity will be managed to prevent or minimise adverse effects on the environmental values of land due to unplanned releases or discharges, including spills and leaks of contaminants
 - d) the application of water or waste to the land is sustainable and is managed to prevent or minimise adverse effects on the composition or structure of soils and subsoils.

Appendix 4 - *Environmental Protection Act 1994* – Standard criteria for environmental authority application

Standard criteria as defined in Schedule 4 means (all of the following)—

- a) the following principles of environmental policy as set out in the Intergovernmental Agreement on the Environment—
 - i. the precautionary principle
 - ii. intergenerational equity
 - iii. conservation of biological diversity and ecological integrity
- b) any Commonwealth or State government plans, standards, agreements or requirements about environmental protection or ecologically sustainable development
- d) any relevant environmental impact study, assessment or report
- e) the character, resilience and values of the receiving environment
- f) all submissions made by the applicant and submitters
- g) the best practice environmental management for activities under any relevant instrument, or proposed instrument, as follows—
 - i. an environmental authority
 - ii. a transitional environmental program
 - iii. an environmental protection order
 - iv. a disposal permit
 - v. a development approval.
- h) the financial implications of the requirements under an instrument, or proposed instrument, mentioned in paragraph (g) as they would relate to the type of activity or industry carried out, or proposed to be carried out, under the instrument
- i) the public interest
- j) any relevant site management plan
- k) any relevant integrated environmental management system or proposed integrated environmental management system
- l) any other matter prescribed under a regulation.

Appendix 5 – Coastal Protection and Management Act 1995 – Criteria for deciding allocation of quarry material applications

- 1) In deciding whether to grant the allocation or refuse the application, or what should be the conditions of the allocation, the chief executive must consider the following:
 - a) the coastal plan
 - b) the impact the removal of the **quarry material**, including the proposed method of extraction, or the placement of spoil may have on coastal management including the following—
 - i. the supply of sediments to estuaries and the sea
 - ii. the physical integrity of the land, including stability of **beds** and banks of watercourses
 - iii. the **quarry material** available on the land and any existing allocations for the land
 - iv. the ecologically sustainable development of the land and watercourses on the land.
 - c) if the chief executive is satisfied the removal of the **quarry material** or the placement of **spoil** may impact on waters identified in the Schedule 1 of the EPP Water
 - d) the impact the removal of the **quarry material** or placement of spoil may have on the management of—
 - i. fish habitats under the *Fisheries Act 1994*
 - ii. marine parks under the *Marine Parks Act 2004*
 - iii. protected areas under the *Nature Conservation Act 1992*.
- 2) Also, in deciding an application that involves placement of **quarry material** in a coastal management district, the chief executive must consider—
 - a) the nature of the material including contaminants in the material
 - b) the characteristics of the material's receiving environment.
- 3) Subsections (1) and (2) do not stop the chief executive from considering other matters relevant to the application, including, for example—
 - a) fair and equitable access to, and the need to ensure the economic use of, State resources

- b) economic and social implications of a decision to grant or refuse the application
- c) the views of a local government about the removal of the **quarry material** or placement of spoil
- d) the views of a harbour master about the effect the removal or placement may have on marine safety in **tidal water**
- e) if the removal or placement happens on land within the limits of a port—the views of the port authority or port operator for the land about the removal or placement.