



APPROVAL

Port of Gladstone Gatcombe and Golding Cutting Channel Duplication Project, Gladstone, Queensland (EPBC 2012/6558)

This decision is made under sections 130(1) and 133(1) of the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*. Note that section 134(1A) of the **EPBC Act** applies to this approval, which provides in general terms that if the approval holder authorises another person to undertake any part of the action, the approval holder must take all reasonable steps to ensure that the other person is informed of any conditions attached to this approval, and that the other person complies with any such condition.

Details

Person to whom the approval is granted (approval holder)	Gladstone Ports Corporation Limited
ACN or ABN of approval holder	96 263 788 242
Action	To duplicate the existing Gatcombe and Golding Cutting shipping channel, disposal of capital dredge spoil to land reclamation, and upgrade associated infrastructure in the Port of Gladstone, Queensland (see EPBC Act referral 2012/6558 received on 26 September 2012 and subject to the variations to the action accepted by the Minister under section 156B on 25 March 2019 and 26 August 2020).

Proposed Approval decision

My decisions on whether or not to approve the taking of the action for the purposes of each controlling provision for the action are as follows.

Controlling Provisions

World Heritage	
Section 12	Approve
Section 15A	Approve

National Heritage values of a National heritage place	
Section 15B	Approve
Section 15C	Approve

Listed Threatened Species and Communities	
Section 18	Approve
Section 18A	Approve

Listed migratory species	
Section 20	Approve
Section 20A	Approve

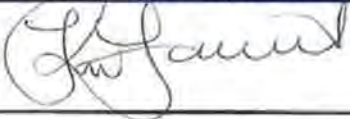
Commonwealth marine areas	
Section 23	Approve

Section 24A	Approve
Great Barrier Reef Marine Park	
Section 24B	Approve
Section 24C	Approve

Period for which the approval has effect

This approval has effect until 24 December 2045.

Decision-maker

<i>Name and position</i>	Kim Farrant Assistant Secretary of Environment Assessments Queensland and Sea Dumping Branch Department of Agriculture, Water and the Environment
<i>Signature</i>	
<i>Date of decision</i>	24/12/2020

Conditions of approval

This approval is subject to the conditions under the EPBC Act as set out in ANNEXURE A.

ANNEXURE A – CONDITIONS OF APPROVAL

Part A – Conditions specific to the action

Compliance with State Conditions

1. To minimise impacts to **protected matters**, the approval holder must comply with the following conditions of **Queensland Coordinator-General's stated conditions** as they relate to **protected matters**:
 - a. G13 (schedules 1 and 2)
 - b. G16 (schedules 1 and 2)
 - c. G17 (schedules 1 and 2)
 - d. G18 (schedules 1 and 2)
 - e. G25 (schedules 1 and 2)
 - f. WT1 (schedules 1 and 2)
 - g. WT2 schedules 1 and 2
 - h. WT3 (schedules 1 and 2)
 - i. WT6 (schedules 1 and 2)
 - j. WT9 (schedules 1 and 2)
 - k. WT14 (schedules 1 and 2)
 - l. L1 (schedules 1 and 2)
 - m. L2 (schedules 1 and 2)
 - n. L3 (schedules 1 and 2)
 - o. L7 (schedules 1 and 2); and
 - p. 8 (schedules 9 and 10 Part A).

Note: In the case of any inconsistency between these conditions and **Queensland Coordinator General's stated conditions** as they relate to **protected matters**, the conditions in this Annexure apply.

2. The approval holder must submit to the **Department** the sediment sampling and analysis plan report required under condition L2 (schedules 1 and 2) of the **Queensland Coordinator General's stated conditions** prior to the **commencement of Project Stage 2** and prior to the **commencement of Project Stage 4**.
3. The approval holder must, within 10 **business days** of providing each of Part A and Part B of the report required under condition G25 of the **Queensland Coordinator General's stated conditions** to the **DTRP** and the **Administering Authority**, submit the same report electronically to the **Department**.
4. The approval holder must notify the **Department** within 2 **business days** of making a request to vary any of the **Queensland Coordinator General's stated conditions** listed in condition 1. Any proposed variation to the **Queensland Coordinator General's stated conditions** that may cause new or increased impacts to **protected matters** must not be undertaken by the proponent, until the **Department** has approved the proposed variation. Where a proposed variation will not result in new or increased impact to **protected matters**, the approval holder must notify the **Department** within 5 **business days** of any of the **Queensland Coordinator General's stated conditions** listed in condition 1 being varied.

Maximum Disturbance Limits and Avoidance

Barge Unloading Facility

5. For the protection of **protected matters**, the approval holder must ensure that the **barge unloading facility** does not exceed 2.1 hectares in area.

Western Basin Expansion (WBE) reclamation area and Western Basin reclamation area

6. For the protection of **protected matters**, the approval holder must ensure that:
 - a. the **WBE reclamation area** does not exceed 276.1 hectares in total area;
 - b. the **southern reclamation area** does not exceed 111.12 hectares in area;
 - c. the **northern reclamation area** does not exceed 164.98 hectares in area;
 - d. a **freeboard** of not less than 1.0 m is always maintained within the **WB reclamation area** and the **WBE reclamation area**;
 - e. there is no **uncontrolled release** from the **WBE reclamation area** or the **WB reclamation area**.
7. The approval holder must not cause any **impact** to the **Friend Point Eastern Curlew** roost site, except for indirect impacts during **construction**, for the duration of the effect of the approval.

Capital Dredging and Navigational Aid Works

8. For the protection of **protected matters**, the approval holder must ensure that **capital dredging** is limited to a total of 12.85 million cubic metres (in situ) of **capital dredge material** over the duration of the effect of the approval, comprising:
 - a. no more than 0.25 million cubic metres of **capital dredge material** as measured in situ being removed from the **barge access channel**;
 - b. no more than 7.25 million cubic metres of **capital dredge material** as measured in situ removed during **Stage 1 capital dredging**; and
 - c. no more than 5.35 million cubic metres of **capital dredge material** as measured in situ removed during **Stage 2 capital dredging**.

The following limits apply to the depth of **capital dredging**:

- d. the **barge access channel** to a depth of no more than -7.0 m **LAT**;
 - e. a depth of no more than -13.5 m **LAT** during **Stage 1 capital dredging**; and
 - f. a depth of no more than -16.1 m **LAT** during **Stage 2 capital dredging**.
9. The approval holder must ensure that all **capital dredge material** is placed within the **WBE reclamation area** and/or the existing **WB reclamation area**.
10. For the protection of **protected matters**, the approval holder must only undertake **navigational aid works** in the locations designated as 'Existing navigational aids', 'Proposed additional navigational aids', 'Proposed removal of navigational aids' and 'Repositioning of existing navigational aids' in [Attachment D](#). Any changes to the locations of these **navigational aid works**, if required by the Gladstone Regional Harbour Master, must have no additional **impact** to **protected matters**, and must be submitted to the **Department** prior to the commencement of any **navigational aid works**.

Baseline Surveys

11. The approval holder must undertake baseline surveys within the 12 months prior to each of the **commencement of Project Stage 1** (in respect of the areas specified in relation to **Project Stage 1**)

and the commencement of **Project Stage 3** (in respect of the areas specified in relation to **Project Stage 3**) to determine:

- a. the location, condition and density of all **seagrass** and **macroalgae** that could be directly impacted by **Project Stage 1** and **Project Stage 3**;
 - b. the location, condition and density of all **seagrass** and **macroalgae** that could be indirectly impacted by **Project Stage 1** and **Project Stage 3**; and
 - c. in accordance with the **Referral Guidelines for the vulnerable water mouse**, the extent and location of **Water Mouse habitat**, including foraging habitat and breeding places and an estimate of the current population present, within the area that could be indirectly impacted by **Project Stage 1** and **Project Stage 3** as determined by a **suitably qualified ecologist**.
12. The approval holder must undertake baseline surveys at a minimum of 12 months prior to each of the commencement of **Project Stage 2** (in respect of the areas specified in relation to **Project Stage 2**) and the commencement of **Project Stage 4** (in respect of the areas specified in relation to **Project Stage 4**) to determine:
- a. the location, condition and density of **seagrass** and **macroalgae** that could be directly impacted by **Project Stage 2** and **Project Stage 4**;
 - b. the location, condition and density of all **seagrass** and **macroalgae** that is within the **high impact zone** and the **medium impact zone** associated with **Project Stage 2** and/or **Project Stage 4**;
 - c. the location, quantity and quality of **Loggerhead Turtle foraging habitat** and the estimated number of **Loggerhead Turtles** using the area directly impacted by **Project Stage 2** and **Project Stage 4**;
 - d. the location, quantity and quality of **Flatback Turtle inter-nesting habitat** and the estimated number of **Flatback Turtles** using the area directly impacted by **Project Stage 2** and **Project Stage 4** during the inter-nesting period.
13. All baseline surveys and survey results required under Conditions 11 and 12 must:
- a. be designed and undertaken in accordance with **recognised guidelines**;
 - b. be undertaken by a person suitably qualified to design and/or implement the specific plan or program and who is a **suitably qualified person**, such as a **suitably qualified field ecologist**, or a **marine sediment expert**;
 - c. inform relevant monitoring programs/plans required by this approval in Conditions 14 and 15; and
 - d. be reported on within 10 **business days** of completion of the survey and the report submitted to the **Department** within 10 **business days** of the completion of the final report of the survey.

Monitoring Programs

Project Stage 1 and Project Stage 3

14. The approval holder must implement, commencing prior to the commencement of each relevant **Project Stage**, the following monitoring programs in respect of **Project Stage 1** and **Project Stage 3**:
- a. a program capable of accurately monitoring any effects of **Project Stage 1** and **Project Stage 3** on the population and **behaviour** of the **Eastern Curlew** within **Eastern Curlew habitat** utilised by the species within the **shorebird area** including at **Friend Point**, the **WB reclamation area** and **South Passage Island** until 2 years following completion of **construction of Project Stage 1** and **Project Stage 3**;

- b. a program capable of accurately monitoring the integrity of all the **WBE reclamation area** bund walls and promptly detecting any failure, including appropriate monitoring locations, methods and frequency, for the period of effect of the approval;
- c. a program capable of accurately monitoring and quantifying the impact of hydrodynamic changes including erosion, sedimentation, and channelisation which occur as a result of either **Project Stage 1, Project Stage 3**, or the combined effects of both, and any resulting **impacts on protected matters**;
- d. if **Water Mouse habitat** is identified during baseline surveys required under condition 11(c), a program capable of accurately monitoring and quantifying any changes to the extent, and location of **Water Mouse habitat**, including foraging habitat and breeding places, until 2 years following completion of **construction of Project Stage 1 and Project Stage 3**;
- e. a program capable of accurately monitoring and quantifying any **sub-lethal** or **lethal impacts** to **seagrass** and **macroalgae** identified in the surveys required under Condition 11(b) during **Project Stage 1 and Project Stage 3** and for a period of 2 years following completion of the **construction of the southern reclamation area and northern reclamation area**; and
- f. a Fine-grained Sediment Validation Monitoring Plan (FSVMP):
 - i. capable of accurately quantifying the amount of **fine-grained sediment** released or returned to the marine environment including from **tailwater** discharge and erosion as a result of each of **Project Stage 1 and Project Stage 3** that was not available for resuspension before the **commencement** of each of **Project Stage 1 and Project Stage 3**;
 - ii. capable of accurately quantifying the amount of **fine-grained sediment** released or returned to the marine environment that was available for resuspension before the **commencement** of each of **Project Stage 1 and Project Stage 3**;
 - iii. which includes an assessment of the effectiveness of the methods specified in the FSVMP for monitoring and measuring **fine-grained sediment** releases and for validating the **fine-grained sediment** release and return modelling; and
 - iv. which includes the findings of a review undertaken by the **Dredge Technical Reference Panel (DTRP)** or other **suitably qualified person** prior to the FSVMP's submission to the **Department**, accompanied by details of how any recommendations from this review have been addressed in the FSVMP.

Note: The approval holder may address the requirements of this condition by including monitoring plans required by these conditions in plans as required by the Queensland Government, as long as the requirements of the conditions attached to this approval are clearly and adequately addressed.

Project Stage 2 and Project Stage 4

15. The approval holder must implement, commencing prior to the **commencement** of each relevant **Project Stage**, the following monitoring programs in respect of **Project Stage 2 and Project Stage 4**:
- a. a program capable of accurately monitoring and quantifying any **sub-lethal** or **lethal impacts** to **seagrass** and **macroalgae** within the **high impact zone** and **moderate impact zone** during, and for 2 years following completion of, **capital dredging**;
 - b. a program capable of accurately monitoring the numbers of **Loggerhead Turtles, Flatback Turtles** and **Australian Humpback Dolphins**, commencing prior to the **commencement** of **Project Stage 2 and Project Stage 4**, and continuing until at least 2 years after completion of **Project Stage 2 and Project Stage 4**, to determine if there are any **impacts** of the action on **Loggerhead Turtles, Flatback Turtles** or **Australian Humpback Dolphins**. This program must:
 - i. be effective to establish baseline population demographic information for all species found in and adjacent to the project stage areas;

- ii. utilise a survey methodology appropriate to the biology of the species of interest in terms of behaviour (foraging or inter-nesting), habitat type (including consideration of depth and substrate) and seasonality of habitat use; and
 - iii. for marine turtles, be consistent with the requirements of the **Queensland Marine Turtle Conservation Strategy**.
- c. a Fine-grained Sediment Validation Monitoring Plan (FSVMP):
- i. capable of accurately quantifying the amount of **fine-grained sediment** released or returned to the marine environment as a result of **Project Stage 2** and **Project Stage 4** that was not available for resuspension before the **commencement** of **Project Stage 2** and **Project Stage 4**;
 - ii. capable of accurately quantifying the amount of **fine-grained sediment** released or returned to the marine environment that was available for resuspension before **commencement** of **Project Stage 2** and **Project Stage 4**;
 - iii. which includes an assessment of the effectiveness of the methods specified in the FSVMP for monitoring and measuring **fine-grained sediment** during **capital dredging** and for validating the fine-grained sediment release modelling; and
 - iv. which includes the findings of a review undertaken by the DTRP prior to the FSVMP's submission to the **Department**, accompanied by details of how any recommendations from this review have been addressed in the FSVMP.
- d. a program to monitor, manage and treat **tailwater** before its release into the marine environment for the period of effect of the approval.

Note: The approval holder may address the requirements of this condition by including monitoring plans required by these conditions in plans as required by the Queensland Government, as long as the requirements of the conditions attached to this approval are clearly and adequately addressed.

Hawksbill Turtles and Olive Ridley Turtles

16. The approval holder must either:

- a. offset impacts on **Hawksbill Turtles** and **Olive Ridley Turtles** in accordance with conditions 40 and 52; or
- b. engage a **suitably qualified field ecologist** to develop and implement a program for monitoring the **Hawksbill Turtles** and **Olive Ridley Turtles'** usage of the **Stage 1 capital dredging area** and **Stage 2 capital dredging area**, for the **Minister's** approval. The methodology must:
 - i. be effective to establish detailed baseline population demographic information about the **Hawksbill Turtles** and **Olive Ridley Turtles** found in and adjacent to the project stage areas;
 - ii. utilise a survey methodology appropriate to the biology of the **Hawksbill Turtles** and **Olive Ridley Turtles** including behaviour, habitat extent and type (including consideration of depth and substrate) and seasonality of habitat use;
 - iii. be consistent with the requirements of the **Queensland Marine Turtle Conservation Strategy**; and
 - iv. be implemented for a minimum of 2 years prior to the **commencement** of each of **Project Stage 2** and **Project Stage 4**, and must continue until at least 2 years after **completion** of each of **Project Stage 2** and **Project Stage 4** and provide detailed analysis of changes to the populations consequent to the implementation of the project stages.

Requirements for monitoring programs

17. All monitoring plans and programs required under conditions 14, 15 and 16 must:
- a. be designed and undertaken by a person suitably qualified to design and/or implement the specific plan or program and who is a **suitably qualified person**, such as a **suitably qualified field ecologist**, or a **marine sediment expert**.
 - b. be submitted for the **Minister's** approval prior to the **commencement** of the relevant **Project Stage**;
 - c. include commitments for reporting to the **Department** the relevant findings and outcomes of monitoring, including performance against specified monitoring objectives, and procedures for undertaking periodic reviews of the effectiveness and appropriateness of the monitoring plan/program;
 - d. commit to submit completion reports to the **Department** within 6 months following the completion of each monitoring program (i.e. the completion of the monitoring in respect of the particular **Project Stage** which is the subject of the monitoring plan or program);
 - e. inform relevant management plans required by this approval to adaptively manage and mitigate impacts to **protected matters**; and
 - f. be used to inform the development and delivery of environmental offsets for **protected matters**.
18. The approval holder must not commence any **Project Stage** unless the **Minister** has approved all monitoring programs and plans relevant to that **Project Stage** required under conditions 14, 15 and 16. The approval holder must implement each approved monitoring program and plan as relevant to that **Project Stage**.

Significant Residual Impacts

19. Within 6 months following the completion of each monitoring program required under conditions 14, 15 and 16 for each **Project Stage**, the approval holder must engage a **suitably qualified ecologist** or **marine sediment expert** to prepare a report which quantifies all **significant residual impacts** on **protected matters** for each completed **Project Stage(s)**, for the **Minister's** approval. The report must include:
- a. the quantification of hydrodynamic **impacts** identified as required under condition 14(c);
 - b. **Water Mouse habitat impacted** as determined by monitoring as required under condition 14(d);
 - c. **sub-lethal** and **lethal impacts** to **seagrass** and **macroalgae** determined by monitoring 2 years post completion as required under condition 14(e);
 - d. the amount of **fine-grained sediment** returned to the marine environment that was not previously available for resuspension monitored in condition 14(f);
 - e. **sub-lethal** or **lethal impacts** to **seagrass** and **macroalgae** determined by monitoring required under condition 15(a);
 - f. **significant residual impacts** on **Loggerhead Turtles**, **Flatback Turtles** and **Australian Humpback Dolphins** determined by monitoring required under condition 15(b)
 - g. **significant residual impacts** on **Hawksbill Turtles** and **Olive Ridley Turtles** determined by monitoring required under condition 16; and
 - h. the amount of **fine-grained sediment** returned to the marine environment that was not previously available for resuspension monitored in condition 15(c).

Project EMP

20. The approval holder must submit to the **Department** a separate Project Environmental Management Plan (Project EMP) for each of **Project Stage 1** and **Project Stage 3**. Each Project EMP must include:
- a. details of the design, materials, and methods, that meet best practice and/or recognised industry standards, to be used to construct any of the following if their construction is to be undertaken or altered as part of the **Project Stage** covered by the particular Project EMP: the **barge unloading facility**, the **southern reclamation area** and the **northern reclamation area**;
 - b. clearly defined outcomes, objectives and performance criteria for **protected matters** and the results of baseline monitoring and/or surveys (as required under conditions 11 - 16) for any **protected matters**;
 - c. specific and auditable mitigation and management measures to avoid and minimise impacts to **protected matters** during the **construction** and operation of the relevant **Project Stage**, including for the placement of **capital dredged material** in the **southern reclamation area** and/or **northern reclamation area**, noise, dust, artificial light, controls, performance indicators, early-warning **trigger levels**, risk management, adaptive management strategies, corrective actions, and emergency response measures;
 - d. measures to manage potential and actual acid sulfate soils;
 - e. measures suggested in the *National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds and Migratory Shorebirds, Commonwealth of Australia 2020*, or subsequent current official version;
 - f. measures to maintain the integrity of the **southern reclamation area** and **northern reclamation area** in the case of **extreme weather events**;
 - g. contingency plans should **trigger levels** be exceeded or undesirable or unforeseen **impacts** occur, including as a result of **extreme weather events** that may **impact protected matters**;
 - h. evidence of the involvement of scientific and technical experts in the development of the Project EMP(s), and procedures for the proposed involvement of scientific and technical experts in the further development of management actions;
 - i. mechanisms for the regular review of the performance of the Project EMP in achieving its objectives to support continuous improvement;
 - j. mechanisms for Indigenous stakeholder consultation on, and input into, the implementation of the Project EMP; and
 - k. an outline of the governance structure, including roles and responsibilities, for implementing the Project EMP.
21. Each Project EMP must be submitted to the **Minister** for approval, prior to the **commencement** of the **Project Stage** in respect of which it is submitted. Each Project EMP must be prepared in accordance with the **Department's Environmental Management Plan Guidelines**. The approval holder must not commence any **Project Stage** unless the **Minister** has approved the Project EMP for the relevant **Project Stage**. If the **Minister** approves the Project EMP for a **Project stage**, the approved Project EMP for that **Project stage** must be implemented.

Note: The approval holder may align the plan required under these conditions with the requirements of the Queensland Government, or provide a separate plan, as long as the relevant matters under these conditions are clearly and adequately addressed.

Dredge Management Plan and Receiving Environment Management Plan

22. The approval holder must prepare a Dredge Management plan (DMP) in accordance with **Queensland Coordinator General's stated condition G17**, for **Project Stage 2** and **Project Stage 4**. Each DMP must include:
 - a. the results of baseline monitoring or surveys for any **protected matters** required under conditions 11 - 16; and
 - b. clearly defined objectives and performance criteria for **protected matters**.
23. The approval holder must submit each DMP to the **Minister** for approval prior to the **commencement** of the relevant **Project Stage**. The approval holder must not commence **capital dredging** for the relevant **Project Stage** unless the **Minister** has approved the DMP for that **Project Stage**. The approval holder must implement each DMP approved by the **Minister**.
24. In addition to implementing the **Queensland Coordinator General's stated conditions** WT1, WT2 and WT3, the approval holder must include in each **Receiving Environment Management Plan (REMP)**:
 - a. clearly defined objectives, outcomes and performance criteria for **protected matters** in relation to the undertaking of the action in the marine environment;
 - b. details of how the **DTRP** and/or other scientific and technical experts have contributed, or will contribute, to the development, implementation and review of the REMP, and the development of specific management measures;
 - c. specific and auditable mitigation and management measures to avoid and minimise impacts to **protected matters** from noise, artificial light, vessel strike, invasive marine species, storm-water run-off, chemical and fuel management, acid sulfate soils and accidental release of waste and/or other contaminant spills into the marine environment, including: objectives, controls, performance indicators, early-warning **trigger levels**, risk management, adaptive management strategies, corrective actions, and emergency response measures;
 - d. contingency plans, should undesirable or unforeseen impacts occur, including as a result of **extreme weather events** or any additional pressures that may **impact protected matters**;
 - e. mechanisms for reviewing and modifying mitigation and management measures to avoid or minimise impacts to **protected matters**;
 - f. measures recommended by the *National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds and Migratory Shorebirds, Commonwealth of Australia 2020* or any subsequent official version;
 - g. mechanisms for the regular review of the performance of the REMP in achieving its objectives and to support continuous improvement;
 - h. procedures for reporting to the **Department** on outcomes of monitoring, performance monitoring, and periodic reviews of the REMP;
 - i. mechanisms for Indigenous stakeholder consultation on and input into the implementation of the REMP; and
 - j. an outline of the governance structure, including roles and responsibilities, for implementing the REMP.
25. The approval holder must submit each REMP to the **Minister** for approval prior to the **commencement** of the relevant **Project Stage**. Each REMP must be prepared in accordance with the **Department's Environmental Management Plan Guidelines**. The approval holder must not commence any **Project Stage** unless the REMP relevant to that **Project Stage** has been approved by the **Minister** in writing. The approval holder must implement the REMP approved by the **Minister**.

Piling

26. For the protection of protected **marine fauna** the approval holder must:
- a. establish an **exclusion zone** and **observation zone** around all **piling** operations;
 - b. ensure that pre-start visual observations for **marine fauna** are undertaken by a **suitably qualified marine observer** for at least 30 minutes immediately preceding the **soft start procedures** and continue during **piling** operations; and are capable of detecting the presence of **marine fauna** in the entire **exclusion zone** and **observation zone**;
 - c. not commence **piling** operations unless no **marine fauna** have been sighted within the **exclusion zone** at the completion of the 30 minute pre-start visual observations;
 - d. initiate **soft start procedures** at the start of all of **piling** operations and after any break of 30 minutes or more in **piling** operations;
 - e. implement stand-by procedures to prepare to shut down **piling** equipment if **marine fauna** are sighted within the **observation zone** during **soft start procedures** or normal **piling** operations;
 - f. cease **piling** operations if **marine fauna** are observed in, or about to enter, the **exclusion zone**;
 - g. not start **piling** operations again after they have been ceased due to **marine fauna** being observed in, or about to enter, the **exclusion zone**, until:
 - i. all **marine fauna** are observed to have moved outside the **exclusion zone**; or
 - ii. 30 minutes have passed since the last sighting of **marine fauna** within the **exclusion zone**;
 - h. cease **piling** operations if prevailing visibility conditions prevent the **suitably qualified marine observer** confidently detecting the presence of **marine fauna** in the entire **exclusion zone** and **observation zone** and not start **piling** operations again until the **suitably qualified marine observer** can confidently detect the presence of **marine fauna** in the entire **exclusion zone** and **observation zone**; and
 - i. not conduct **piling** operations between 6:30pm and 6:30am.
27. The **observation zone** must be specified based on noise modelling and relevant scientific evidence about the **impact** of noise on **marine fauna** likely to be present and the specification of the **observation zone** included in the REMP and Project EMP(s).
28. The approval holder may undertake an alternative procedure to that required under conditions 26 and 27, if the alternative procedure provides equivalent or better protection for **marine fauna** from **piling** operations. The alternative procedure must be specified in the REMP, peer reviewed by a **suitably qualified expert**, and accompanied in the REMP by the review, name and qualifications of the **suitably qualified expert**.
29. For the protection of protected **marine fauna**, unless otherwise agreed in advance by the **Minister** in writing, the approval holder must not undertake **piling** for **navigational aid works** during the following periods:
- a. **Humpback Whale** migration season from 1 June to 31 August of any year;
 - b. **listed turtle species'** peak nesting period, being the entire months of November, December, January and February of any year.

Offsets and Offset Management Strategy

30. The approval holder must submit an Offset Strategy for approval by the **Minister** for each **Project Stage**. The approval holder must not commence each **Project Stage** until the Offset Strategy for that **Project Stage** has been approved in writing by the **Minister**. The approval holder must implement the Offset Strategy approved by the **Minister** in respect of the relevant **Project Stage**.

31. Each **Project Stage** Offset Strategy must propose offsets for that **Project Stage** and include the following:
- a. details of how the proposed offsets align with the broader strategies and programs for the Great Barrier Reef, including but not limited to the **Reef 2050 Long-term Sustainability Plan** and will provide a net benefit to the Great Barrier Reef World Heritage Area (GBRWHA);
 - b. details to demonstrate how the proposed offsets will compensate for **significant residual impacts** on the relevant **protected matters** in accordance with the principles of the **Environmental Offsets Policy**;
 - c. evidence of how the proposed offsets take into account relevant **approved conservation advices**, relevant **recovery plans** and **threat abatement plans**, or other relevant contributions to species recovery and conservation;
 - d. a process to update the Offset Strategy and confirm the offset requirements for **protected matters** based on the report prepared under condition 19;
 - e. a process for, at the minimum, a biannual review of the Offset Strategy and the performance of offsets for the period of effect of the approval including timeframes for conducting the reviews and for publishing the findings of each review on the **website**;
 - f. where direct offsets are proposed, **offset information** for each offset site must be provided in the offset strategy;
 - g. if indirect compensatory measures such as research are proposed, details of how the proposed offsets will be developed, the timeframe over which they would be undertaken and the expected outcomes of the compensatory measures. Indirect compensatory measures must be prepared in accordance with the **Environmental Offsets Policy**; and
 - h. if a financial contribution is proposed (e.g. for the amount of **fine-grained sediment** returned to the marine environment that was not previously available for resuspension before **commencement** of any **Project Stage**, and/or for lethal or **sub-lethal impacts** to **seagrass** and **macroalgae**), the Offset Strategy must:
 - i. explain the purpose of the financial contribution and demonstrate how it will result in a net benefit to the **protected matter(s)**;
 - ii. provide details of and justification for the organisation(s) to which a contribution will be made;
 - iii. explain how the financial contribution will be calculated;
 - iv. specify the proportion of the offset obligation that would be met by any financial contribution; and
 - v. specify the proposed amount of the financial contribution (where known).

Project Stage 1 Environmental Offset Requirements

32. To compensate for impacts to **Eastern Curlew habitat**, the approval holder must provide an environmental offset consistent with the **Environmental Offsets Policy**. This offset must be in accordance with the approved Project Stage 1 Offset Strategy and implemented within 12 months from the date that the Project Stage 1 Offset Strategy is approved in writing by the **Minister**. The quantum of **impacts** to **Eastern Curlew habitat** must be confirmed in the Project Stage 1 Offset Strategy and based on the detailed design for the **southern reclamation area**.

33. The environmental offset to compensate for impacts to **Eastern Curlew habitat** must deliver direct on-ground benefits to the species and must include at a minimum:
 - a. activities to create or improve foraging habitat for the **Eastern Curlew** within the Port Curtis area;
 - b. on-the-ground activities to aid the long-term conservation of areas of foraging habitat for the **Eastern Curlew**, which may be within the entirety of the GBRWHA and/or within the Australian range of the species;
 - c. creation of a migratory shorebird roost, appropriate for the **Eastern Curlew**, on part of the **WB reclamation area** and/or **WBE reclamation area**. The design and construction of the migratory shorebird roost must be undertaken with advice from a **suitably qualified ecologist**, and the roost must be maintained for the period of the effect of the approval; and
 - d. management of threats to the **Eastern Curlew** within the Port of Gladstone area, such as invasive plant and animal control within or adjacent to **Eastern Curlew habitat** as part of a regionalised approach to threat abatement.
34. To compensate for **significant residual impacts** to **seagrass** and **macroalgae** within the **Project Stage 1** direct impact area (based on survey results undertaken in accordance with condition 11(a), the approval holder must provide an environmental offset proportionate to the condition and density of **seagrass** and **macroalgae impacted**, consistent with the **Environmental Offsets Policy**. This offset must be in accordance with the approved Project Stage 1 Offset Strategy and provided or commenced within 12 months from the date that the Project Stage 1 Offset Strategy is approved in writing by the **Minister**.
35. To compensate for any **significant residual impacts** of the action on **protected matters**, and to achieve a net benefit to the outstanding universal value of the **GBRWHA**, the approval holder must provide an environmental offset consistent with the **Environmental Offsets Policy** for the amount of **fine-grained sediment** returned to the marine environment that was not previously available for resuspension before **commencement** of **Project Stage 1**, as determined in accordance with condition 19(d). This offset must be in accordance with the approved Project Stage 1 Offset Strategy and implemented within 12 months of submitting the report required under condition 19.
36. If a **significant residual impact** to **Water Mouse habitat**, **seagrass** and/or **macroalgae** is identified in the report required under condition 19(b), or 19(c), the approval holder must provide an environmental offset for these **protected matters** in accordance with the **Environmental Offsets Policy**. The environmental offset must be consistent with the Project Stage 1 Offset Strategy and be provided to the **Minister** for approval within 12 months of submitting the report required under condition 19.
37. To compensate for **significant residual impacts** to **Green Turtle foraging habitat**, **Dugong habitat** and **Australian Humpback Dolphin habitat** in **Project Stage 1**, the approval holder must provide an additional offset in accordance with **Environmental Offsets Policy**, unless the **Minister** is satisfied that the offsets provided under Conditions 34 and 36 will adequately compensate for **impacts** to these species. Any offset must be in accordance with the approved Project Stage 1 Offset Strategy and be provided to the **Minister** for approval within 12 months of submitting the report required under Condition 19.

Project Stage 2 Environmental Offset Requirements

38. To compensate for the **significant residual impacts** on **seagrass** and/or **macroalgae** during **Project Stage 2** as determined by the monitoring undertaken in accordance with Condition 12(a) the approval holder must provide an environmental offset consistent with the **Environmental Offsets Policy**. This offset must be in accordance with the approved Project Stage 2 Offset Strategy and implemented within 12 months from the date that the Project Stage 2 Offset Strategy is approved in writing by the **Minister**.

39. To compensate for the quantum of **significant residual impact** through **sub-lethal** or **lethal impacts** to **seagrass** and/or **macroalgae** in the **Project Stage 2 high** and **medium impact zones**, as identified in accordance with condition 19(e), the approval holder must provide an environmental offset consistent with the **Environmental Offsets Policy**. This offset must be in accordance with the approved Project Stage 2 Offset Strategy and implemented within 12 months of submitting the report required under condition 19.
40. To compensate for **significant residual impacts** during **Project Stage 2** to **Hawksbill Turtles** and **Olive Ridley Turtles**, the following will apply:
 - a. If a monitoring program cannot be developed, as per condition 16, the approval holder must provide an environmental offset consistent with the **Environmental Offsets Policy** for the loss of **Hawksbill Turtle foraging habitat** and **Olive Ridley Turtle foraging habitat** as determined by the habitat extent and type monitoring required under condition 16(b). This offset must be in accordance with the approved Project Stage 2 Offset Strategy and implemented within 12 months from the date that the Project Stage 2 Offset Strategy is approved in writing by the Minister.
 - b. If an approved monitoring program can be developed and implemented (under condition 16), and **significant residual impacts** are identified to **Hawksbill Turtles** and/or **Olive Ridley Turtles** in the report required under condition 19(g), the approval holder must provide an environmental offset consistent with the **Environmental Offsets Policy**. The environmental offset must be consistent with the Project Stage 2 Offset Strategy and be provided to the **Minister** for approval within 12 months of submitting the report required under condition 19.
41. If **significant residual impacts** to **Loggerhead Turtles**, **Flatback Turtles** and/or **Australian Humpback Dolphins**, are identified in the report required under condition 19(f), the approval must provide an environmental offset for these **protected matters** in accordance with the **Environmental Offsets Policy**. The environmental offset must be consistent with the Project Stage 2 Offset Strategy and be provided to the **Minister** for approval within 12 months of submitting the report required under condition 19.
42. To compensate for any **significant residual impacts** of the action on **protected matters**, and to achieve a net benefit to the outstanding universal value of the **GBRWHA**, the approval holder must provide an environmental offset consistent with the **Environmental Offsets Policy** for the amount of **fine-grained sediment** returned to the marine environment that was not previously available for resuspension before **commencement** of **Project Stage 2**, as determined in accordance with condition 19(d). This offset must be in accordance with the approved Project Stage 2 Offset Strategy and implemented within 12 months of submitting the report required under condition 19.
43. To compensate for **significant residual impacts** to **Green Turtle foraging habitat**, **Dugong habitat** and **Australian Humpback dolphin habitat** in **Project Stage 2**, the approval holder must provide an additional offset in accordance with **Environmental Offsets Policy**, unless the **Minister** is satisfied that the offset provided under conditions 38 and 39 will also compensate for impacts to these species. Any offset must be in accordance with the approved Project Stage 2 Offset Strategy and implemented within 12 months of submitting the report required under condition 19.

Project Stage 3 Environmental Offset Requirements

44. To compensate for **impacts** to **Eastern Curlew habitat** at **Project Stage 3**, the approval holder must provide an environmental offset consistent with the **Environmental Offsets Policy**. This offset must be in accordance with the approved Project Stage 3 Offset Strategy and implemented within 12 months from the date that the Project Stage 3 Offset Strategy is approved in writing by the **Minister**. The quantum of **impacts** to **Eastern Curlew habitat** must be confirmed in the Project Stage 3 Offset Strategy and based on the detailed design for the **northern reclamation area**.

45. The environmental offset to compensate for impacts to **Eastern Curlew habitat** must deliver direct on-ground benefits to the species and must address the requirements specified under condition 33.
46. To compensate for **significant residual impacts** to **seagrass** and/or **macroalgae** within the **Project Stage 3** direct impact area identified by surveys undertaken in accordance with condition 11(a), the approval holder must provide an environmental offset proportionate to the condition and density of **seagrass** and **macroalgae impacted**, consistent with the **Environmental Offsets Policy**. This offset must be in accordance with the approved Project Stage 3 Offset Strategy and implemented within 12 months from the date that the Project Stage 3 Offset Strategy is approved in writing by the **Minister**.
47. To compensate for any **significant residual impacts** of the action on **protected matters**, and to achieve a net benefit to the outstanding universal value of the **GBRWHA**, the approval holder must provide an environmental offset consistent with the **Environmental Offsets Policy** for the amount of **fine-grained sediment** returned to the marine environment that was not previously available for resuspension before **commencement** of **Project Stage 3**, as determined in accordance with condition 19(d). This offset must be in accordance with the approved Project Stage 3 Offset Strategy and implemented within 12 months of submitting the report required under condition 19.
48. If a **significant residual impact** to **Water Mouse habitat, seagrass** and **macroalgae** is identified in the report required under condition 19, the approval holder must provide an environmental offset for these **protected matters** in accordance with the **Environmental Offsets Policy**. The environmental offset must be consistent with the Project Stage 3 Offset Strategy and be provided to the **Minister** for approval within 12 months of submitting the report required under condition 19.
49. To compensate for the **significant residual impacts** to **Green Turtle habitat, Dugong habitat** and **Australian Humpback Dolphin habitat** in **Project Stage 3**, the approval holder must provide an additional offset in accordance with **Environmental Offsets Policy**, unless the **Minister** is satisfied that the offsets provided under conditions 46 and 48 will adequately compensate for **impacts** to these species. Any offset must be in accordance with the approved Project Stage 3 Offset Strategy and be provided to the **Minister** for approval within 12 months of submitting the report required under condition 19.

Project Stage 4 Environmental Offset Requirements

50. To compensate for the **significant residual impacts** on **seagrass** and **macroalgae** during **Project Stage 4**, as determined by the monitoring undertaken in accordance with condition 12(a), the approval holder must provide an environmental offset taking into account the condition and density of **seagrass** and **macroalgae** impacted, consistent with the **Environmental Offsets Policy**. This offset must be in accordance with the approved Project Stage 4 Offset Strategy and implemented within 12 months from the date that the Project Stage 4 Offset Strategy is approved in writing by the **Minister**.
51. To compensate for the quantum of **significant residual impact** through **sub-lethal** or **lethal impacts** to **seagrass** and **macroalgae** within the **Project Stage 4 high impact zone** and **medium impact zone** as identified in accordance with condition 19(e) the approval holder must provide an environmental offset consistent with the **Environmental Offsets Policy**. This offset must be in accordance with the approved Project Stage 4 Offset Strategy and implemented within 12 months of submitting the report required under condition 19.
52. To compensate for **significant residual impacts** during **Project Stage 4** to **Hawksbill Turtles** and **Olive Ridley Turtles**, the following will apply:
 - a. If a monitoring program cannot be developed, as per condition 16, the approval holder must provide an environmental offset consistent with the **Environmental Offsets Policy** for the loss of **Hawksbill Turtle foraging habitat** and **Olive Ridley Turtle foraging habitat** as determined by

the habitat extent and type monitoring required under condition 16(b). This offset must be in accordance with the approved Project Stage 4 Offset Strategy and implemented within 12 months from the date that the Project Stage 4 Offset Strategy is approved in writing by the Minister.

- b. If an approved monitoring program can be developed and implemented (under condition 16), and **significant residual impacts** are identified to **Hawksbill Turtles** and/or **Olive Ridley Turtles** In the report required under condition 19(g), the approval holder must provide an environmental offset consistent with the **Environmental Offsets Policy**. The environmental offset must be consistent with the Project Stage 4 Offset Strategy and be provided to the **Minister** for approval within 12 months of submitting the report required under condition 19.
53. If **significant residual impacts** to **Loggerhead Turtles, Flatback Turtles, and Australian Humpback Dolphins**, are identified in the report required under Condition 19(f), the approval holder must provide an environmental offset for these **protected matters** in accordance with the **Environmental Offsets Policy**. The environmental offset must be consistent with the approved Project Stage 4 Offset Strategy and be proposed in writing to the **Minister** for approval within 12 months of submitting the report required under condition 19.
54. To compensate for any **significant residual impacts** of the action on **protected matters**, and to achieve a net benefit to the outstanding universal value of the **GBRWHA**, the approval holder must provide an environmental offset consistent with the **Environmental Offsets Policy** for the amount of **fine-grained sediment** returned to the marine environment that was not previously available for resuspension before **commencement** of **Project Stage 4**, as determined in accordance with condition 19(d). This offset must be in accordance with the approved Project Stage 4 Offset Strategy and implemented within 12 months of submitting the report required under condition 19.
55. To compensate for **significant residual impacts** to **Green Turtle foraging habitat, Dugong habitat and Australian Humpback Dolphin habitat** the approval holder must provide an additional offset in accordance with the **Environmental Offsets Policy**, unless the **Minister** is satisfied that the offset provided under conditions 50 and 51 will also compensate for impacts to these species. Any offset must be in accordance with the approved Project Stage 4 Offset Strategy and implemented within 12 months of submitting the report required under condition 19.

Independent Review Requirements

56. Unless otherwise stated or agreed in writing by the **Minister**, each **plan** which requires the approval of the **Minister** must be peer reviewed by an **independent suitably qualified person** before submission to the **Minister** for approval.
57. The reviews required under conditions 20, 22 and 24 must include an analysis of the effectiveness of the avoidance and mitigation measures in meeting the outcomes, targets or management measures proposed in the **plan** being reviewed.
58. Unless otherwise specified in these conditions or notified in writing by the **Minister**, the approval holder must provide to the **Minister** a copy of all advice and recommendations made by the **independent** peer reviewer(s) with the **plan**, and an explanation of how the advice and recommendations will be implemented, or an explanation of why the approval holder proposes not to implement certain recommendations of the **independent** peer reviewer(s).

Part B – Standard administrative conditions

Notification of date of commencement of the action

59. The approval holder must notify the **Department** in writing of the date of **commencement of the action** within 10 **business days** after the date of the **commencement of the action**.

60. If the **commencement of the action** does not occur within 5 years from the date of this approval, then the approval holder must not **commence the action** without the prior written agreement of the **Minister**.
61. The approval holder must notify the **Department** in writing of the date of the **commencement** of each **Project Stage** within 10 **business days** after the date of the **commencement** of that **Project Stage**.

Compliance records

62. The approval holder must maintain accurate and complete **compliance records**.
63. If the **Department** makes a request in writing, the approval holder must provide electronic copies of **compliance records** to the **Department** within the timeframe specified in the request.

Note: **Compliance records** may be subject to audit by the **Department** or an **independent** auditor in accordance with section 458 of the **EPBC Act**, and or used to verify compliance with the conditions. Summaries of the result of an audit may be published on the **Department's** website or through the general media.

Preparation and publication of plans

64. The approval holder must:
 - a. submit **plans** electronically to the **Department**;
 - b. unless otherwise agreed to in writing by the **Minister**, publish each **plan** on its **website** within 20 **business days** of the date of:
 - i. this approval, if the approved version of the **plan** is specified in these conditions; or
 - ii. the date a **plan** is submitted to the **Department**, if the **plan** does not require the approval of the **Minister** and is not finalised before the date of this approval; or
 - iii. the date a **plan** has been approved by the **Minister** in writing, if the **plan** requires the approval of the **Minister**;
 - c. exclude or redact **sensitive ecological data** from **plans** published on the **website** or provided to a member of the public; and
 - d. keep **plans** published on the **website** for the duration of this approval.

Annual compliance reporting

65. The approval holder must prepare a **compliance report** for each 12 month period following the date of **commencement of the action**, or otherwise as agreed to in writing by the **Minister**. The approval holder must:
 - a. publish each **compliance report** on the **website** within 60 **business days** following the relevant 12 month period;
 - b. notify the **Department** by email that a **compliance report** has been published on the **website** and provide the weblink for the **compliance report** within five **business days** of the date of publication;
 - c. keep all **compliance reports** publicly available on the **website** until this approval expires;
 - d. exclude or redact **sensitive ecological data** from **compliance reports** published on the **website**; and
 - e. where any **sensitive ecological data** has been excluded from the version published, submit the full **compliance report** to the **Department** within 5 **business days** of publication.

Note: **Compliance reports** may be published on the **Department's** website.

Reporting non-compliance

66. The approval holder must notify the **Department** in writing of any: **incident**; non-compliance with the conditions; or non-compliance with the commitments made in **plans**. The notification must be given as soon as practicable, and no later than two **business days** after becoming aware of the **incident** or non-compliance. The notification must specify:
- any condition which is or may be in breach;
 - a short description of the **incident** and/or non-compliance; and
 - the location (including co-ordinates), date, and time of the **incident** and/or non-compliance. In the event the exact information cannot be provided, provide the best information available.
67. The approval holder must provide to the **Department** the details of any **incident** or non-compliance with the conditions or commitments made in **plans** as soon as practicable and no later than 10 **business days** after becoming aware of the **incident** or non-compliance, specifying:
- any corrective action or investigation which the approval holder has already taken or intends to take in the immediate future;
 - the potential impacts of the **incident** or non-compliance; and
 - the method and timing of any remedial action that will be undertaken by the approval holder.

Independent audit

68. The approval holder must ensure that **independent audits** of compliance with the conditions are conducted as requested in writing by the **Minister**.
69. For each **independent audit**, the approval holder must:
- provide the name and qualifications of the **independent** auditor and the draft audit criteria to the **Department**;
 - only commence the **independent audit** once the audit criteria have been approved in writing by the **Department**; and
 - submit an audit report to the **Department** within the timeframe specified in the approved audit criteria.
70. The approval holder must publish the audit report on the **website** within 10 **business days** of receiving the **Department's** approval of the audit report and keep the audit report published on the **website** until the end date of this approval.

Revision of management plans, program or strategy

71. The approval holder may at any time, apply to the **Minister** for a variation to a management plan, program or strategy approved by the **Minister** by submitting an application in accordance with the requirements of section 143A of the **EPBC Act**. If the **Minister** approves a revised management plan, program or strategy then, from the date specified, the approval holder must implement the revised management plan, program or strategy in place of the previous action management plan.

Completion of the action

72. Within 30 days after the **completion** of each **Project Stage**, the approval holder must notify the **Department** in writing and provide **completion data**.

Part C - Definitions

In these conditions, except where contrary intention is expressed, the following definitions are used:

Administering Authority means the Queensland Department of Environment and Science or its successors or predecessors.

Approved conservation advice/s mean a conservation advice approved by the **Minister** under section 266B(2) of the **EPBC Act**.

Australian Humpback Dolphin means the species *Sousa sahalensis*.

Australian Humpback Dolphin habitat means areas that are frequented by Australian Humpback Dolphin (*Sousa sahalensis*) for foraging, breeding and calving, as follows:

- including but not limited to shallow intertidal waters and subtidal waters associated with river mouths, mangroves, tidal channels and inshore reefs.
- areas containing suitable prey resources including but not limited to coastal, estuarine and reef-associated fishes and crustaceans, in both pelagic and benthic habitats.

Barge access channel means the areas subject to **capital dredging** marked with green cross hatching designated 'Initial dredging works for barge access channel' and shaded blue designated 'Material to be dredged' in the map at Attachment A.

Barge unloading facility means the new structure to be constructed from sheet piles or similar earth retaining structure, rock bund and fill material attached to the existing **WB reclamation area** as shown by the map at Attachment B.

Behaviour means the spatial pattern of foraging and roosting habitat use across the tidal cycle.

Business day(s) means a day that is not a Saturday, a Sunday or a public holiday in the state or territory of the action.

Capital dredging has the same meaning as in the **NAGD**, being 'dredging for navigation, to enlarge or deepen existing channels and port areas or to create new ones' but does not include maintaining an existing channel or port area by removing sediments deposited subsequent to the capital dredging undertaken to create the channel or port area.

Capital dredge(d) material means material removed from the sea floor (such as clays, silts, sands, gravel, earth and other material) in the course of **capital dredging** for the **barge access channel, Stage 1 capital dredging** and **Stage 2 capital dredging**.

Commencement of the action means the date on which physical work associated with **capital dredging** of the **barge access channel** or the **Gatcombe and Golding Cutting shipping channels, piling, or construction** of the **WBE reclamation area, or barge unloading facility** is first undertaken.

Commencement of the action does not include minor physical disturbance necessary to:

- a. undertake pre-clearance surveys or monitoring programs;
- b. install temporary signage and/or fencing;
- c. install temporary site facilities for persons undertaking pre-commencement activities so long as these are located where they have no **impact** on the **protected matters**; and
- d. sediment or geotechnical investigations so long as these cause only minor physical disturbance and are required in advance of **commencement** of a **Project Stage** to inform planning and/or design.

Commencement of a specified **Project Stage** means the date on which physical work associated with the particular **Project Stage** is first undertaken. **Commencement** does not include minor physical disturbance necessary to:

- a. undertake pre-clearance surveys or monitoring programs;
- b. install temporary signage and/or fencing;

- c. install temporary site facilities for persons undertaking pre-commencement activities so long as these are located where they have no **impact** on the **protected matters**; and
- d. sediment or geotechnical investigations so long as these cause only minor physical disturbance and are required in advance of **commencement** of a **Project Stage** to inform planning and/or design.

Completion means completion of **construction** or completion of **capital dredging**.

Completion data means an environmental report and spatial data clearly detailing how the conditions of this approval in respect of that **Project Stage** have been met. The **Department's** preferred spatial data format is **shapefile**.

Compliance records means all documentation or other material in whatever form required to demonstrate compliance with the conditions of approval in the approval holder's possession or that are within the approval holder's power to obtain lawfully.

Compliance reports means written reports:

- a. providing accurate and complete details of compliance, **incidents**, and non-compliance with the conditions and the **plans**;
- b. consistent with the Department's Annual Compliance Report Guidelines (2014);
- c. include a **shapefile** of any clearance of any **protected matters**, or their habitat, undertaken within the relevant 12 month period; and
- d. annexing a schedule of all **plans** prepared and in existence in relation to the conditions during the relevant 12 month period.

Construction means the building of the **barge unloading facility**, and the bund walls for the **WBE reclamation area** and removal and installation of navigational aids. **Construction** does not include **preliminary works**, or **capital dredging** for the **barge access channel**, **Stage 1 capital dredging** and **Stage 2 capital dredging**.

Department means the Australian Government agency responsible for administering the **EPBC Act**.

Department's Environmental Management Plan Guidelines means the *Environment Management Plan Guidelines*, Australian Government Department of the Environment (2014), or the current officially amended or substituted version.

Dredge Technical Reference Panel / DTRP means an assembly of qualified and experienced experts in various scientific fields, formed to be capable of assessing sediment plume associated monitoring data and presenting advice relevant to conducting **capital dredging** and protecting sensitive marine environments and **protected matters** as required by the **Queensland Coordinator-General's stated condition G18**.

Dugong means the species *Dugong dugon*.

Dugong habitat means intertidal and marine areas that provide foraging opportunities for the species including **seagrass** meadows, **macroalgae** and benthic areas.

Eastern Curlew means the species *Numenius madagascariensis*.

Eastern Curlew habitat means roosts such as claypans, sandbars, islands, creek banks, mangroves, beaches and ash ponds or foraging habitat such as inter-tidal mudflats, sandflats, salt flats, saltmarsh, rock pools, coral reefs, and beaches identified as being utilised by **Eastern Curlew** at any time.

Environmental Impact Statement (EIS) means the *Port of Gladstone Gatcombe and Golding Cutting Duplication Channel Environmental Impact Statement*, Gladstone Ports Corporation, dated 26 March 2019 and the *Port of Gladstone Gatcombe and Golding Cutting Channel Duplication Project Additional*

Information to the Environmental Impact Statement, Gladstone Ports Corporation, dated 25 September 2019 both prepared by Aurecon Australasia Pty Ltd.

Environmental Offsets Policy means the *EPBC Act Environmental Offsets Policy (2012)*, or subsequent published revisions, including the **Offset Assessment Guide**.

EPBC Act means the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*.

Exclusion zone means a zone comprising the area within a radius of 300 m from the centre of each **piling** location for **marine fauna** and 250 m from the centre of each **piling** location for **Eastern Curlew**, established to ensure that the risk of physiological impacts to **marine fauna** and **Eastern Curlew** from **piling** operations is minimised.

Extreme weather events includes but is not limited to cyclones and periods of extremely high rainfall (including in catchments affecting Gladstone Harbour), strong winds and high tides.

Flatback Turtle(s) means the species *Natator depressus*.

Flatback Turtle inter-nesting habitat means those areas of the seabed or seafloor that are used by gravid female Flatback turtles during the inter-nesting period.

Fine-grained sediment means sediment grains <15.6 µm.

Freeboard means the minimum vertical distance that the top of the bund wall is above both the highest point of all dredge spoil and other similar material that has been placed within the reclamation area and the highest level of any water within the reclamation area.

Friend Point means the shoreline, mangroves and claypan where **Eastern Curlews** are known to roost at high tide in the vicinity of where an orange dot marks Friend Point in Attachment H.

Gatcombe and Golding Cutting channel duplication area means the area where the existing **Gatcombe and Golding Cutting shipping channels** will be widened and deepened within the Port of Gladstone, shown in Attachment C.

Gatcombe and Golding Cutting shipping channels means the existing Gatcombe and Golding Cutting bypass shipping channels within the Port of Gladstone.

GBRWhA means the Great Barrier Reef World Heritage Area.

Green Turtle means the species *Chelonia mydas*.

Green turtle foraging habitat means habitat used by **Green Turtles** to feed and includes algae, seagrass meadows, mangroves as well as habitat containing pelagic crustaceans and molluscs, which may be used by the species in its pelagic juvenile stage.

Hawksbill Turtle means the species *Eretmochelys imbricata*.

Hawksbill Turtle foraging habitat means areas used by **Hawksbill Turtle** to feed including marine and benthic areas containing macroalgae, sponges, soft corals and other soft-bodied invertebrates.

High impact zone means the modelled zone of high impacts (from **Project Stage 2** and **Project Stage 4** if undertaken as one single dredging campaign) to water quality, identified in the **EIS** coloured yellow and designated as 'High impact' Zone of impact in Attachment G or the modelled High impact zone included in the approved DMP for **Project Stage 2** and **Project Stage 4**.

Humpback Whale means the species *Megaptera novaeangliae*.

Impact(s) means any measurable direct or indirect disturbance or harmful change as a result of any part of the action. **Impacted** means subject to any measurable direct or indirect disturbance or harmful change as a result of any part of the action.

Incident means any event which has the potential to, or does, impact on one or more **protected matter(s)**.

Independent means a person(s) that does not have any individual, or by employment or family affiliation, conflicting or competing interest(s) with the approval holder; the approval holder's staff, representatives or associated persons; or the action, including any personal, financial, business or employment relationship, other than receiving payment for undertaking the role for which the condition requires an **independent** person.

Independent audit means an audit conducted by an **independent** and **suitably qualified person** as detailed in the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines* (2019)

LAT means the lowest astronomical tide, which can be predicted to occur under average meteorological conditions and under any combination of astronomical conditions.

Leatherback Turtle means the species *Dermochelys coriacea*.

Legally secured/ing means to provide ongoing conservation protection on the title of the land, under an enduring protection mechanism, such as a voluntary declaration under the *Vegetation Management Act 1999* (Qld) or another enduring protection mechanism agreed to in writing by the **Department**.

Loggerhead Turtle means the species *Caretta caretta*.

Loggerhead Turtle foraging habitat means areas used by **Loggerhead turtle** to feed and includes habitats containing benthic invertebrates ranging from near shore to approximately 55 m deep, as well as areas used by the species during their post-hatchling stage, and which areas of habitat contain algae, pelagic crustaceans and molluscs.

Listed dolphin species means Australian Snubfin Dolphin (*Orcaella heinsohni*), Australian Humpback Dolphin (*Sousa sahalensis*) and Indian Ocean Bottlenose Dolphin (*Tursiops aduncus*).

Listed turtle species means Green Turtle (*Chelonia mydas*), Hawksbill Turtle (*Eretmochelys imbricata*); Flatback Turtle (*Natator depressus*); Loggerhead Turtle (*Caretta caretta*); Olive Ridley Turtle (*Lepidochelys olivacea*); and Leatherback Turtle (*Dermochelys coriacea*).

Macroalgae means seaweeds and other benthic marine algae that are visible to the naked eye including but not limited to *Halimeda* algae.

Marine fauna means **listed dolphin species**, **listed turtle species**, Dugong (*Dugong dugon*); Humpback Whale (*Megaptera novaeangliae*) and all other cetaceans.

Marine sediment expert means a person who has professional qualifications and at least three (3) years of work experience studying the measurement of the suspension and deposition of sediments as a result of dredging, including at least one year measuring **fine-grained sediment**, and can give an authoritative assessment and advice on the suspension and deposition of **fine-grained sediment** as a result of dredging using relevant protocols, standards, methods and/or literature.

Medium impact zone means the modelled zone of medium impacts (from **Project Stage 2** and **Project Stage 4** if undertaken as one single dredging campaign) to water quality, identified in the EIS coloured mustard and designated as 'Medium impact' Zone of impact in Attachment G or the modelled Medium impact zone included in the approved DMP for **Project Stage 2** and **Project Stage 4**.

Monitoring data means the data required to be recorded under the conditions of this approval.

Minister means the Australian Government Minister administering the **EPBC Act** including any delegate thereof.

NAGD means the *National Assessment Guidelines for Dredging*, Commonwealth of Australia, 2009 (or the current officially amended or substituted version).

Navigational aid works means any and all of the removal of two navigational aids, relocation of five existing navigational aids and installation of five new navigational aids as shown marked on the map in Attachment D.

Northern reclamation area means the northern portion of the **WBE reclamation area** designated as the 'Western Basin Expansion northern reclamation area' in Attachment B.

Observation zone means a zone surrounding each **exclusion zone** where the movement of **marine fauna** can be monitored to detect any approaching **marine fauna** so as to be prepared to cease **piling** if any **marine fauna** enters the **exclusion zone**.

Offset Assessment Guide means the guidance document titled *How to use the Offsets assessment guide*, published by the **Department** to assist users of the **Environmental Offsets Policy**.

Offset information means the information requirements described in Attachment I.

Offset attributes means an '.xls' file capturing relevant attributes of the environmental offset, including:

- a. EPBC reference number
- b. Physical address of the environmental offset
- c. Coordinates of the boundary points in decimal degrees
- d. **Protected matters** that the offset compensates for
- e. Any additional **protected matters** that are benefitting from the offset; and
- f. Area of the offset in hectares.

Olive Ridley Turtle means the species *Lepidochelys olivacea*.

Olive Ridley Turtle foraging habitat means areas used by **Olive Ridley Turtle** to feed including benthic areas containing soft-bodied invertebrates such as sea pens, soft corals, bêche-der-mer (sea cucumbers) and jellyfish in depths between 15-200 m.

Performance indicator(s) means specific evidence-based parameters, measured at a specific time and place that will be monitored. **Plan(s)** means any of the documents required to be prepared, approved by the **Minister**, implemented by the approval holder and/or published on the **website** in accordance with these conditions (includes management plans and/or strategies).

Piling means works undertaken to drive a pile into the sea floor using a pile hammer.

Plan means the Project Environmental Management Plan (Project EMP), Dredge Management Plan (DMP) and Receiving Environmental Management Plan (REMP).

Preliminary works means works of a temporary nature necessary to undertake investigations and to plan and otherwise prepare for **commencement of the action** including the installation of temporary fences and signage, provided they do not **impact protected matters**.

Project Stage(s) means any or several of the four project stages defined below:

- a. **Project Stage 1** means any aspect of the **construction** of the **barge unloading facility** and the **southern reclamation area**.
- b. **Project Stage 2** means **Stage 1 capital dredging works** and **navigational aid works** and the on-going operation of the **barge unloading facility** and **southern reclamation area** and existing **WB reclamation area** for the receipt of **capital dredge material**.
- c. **Project Stage 3** means the **construction** of the **northern reclamation area**.
- d. **Project Stage 4** means the **Stage 2 capital dredging works** and **navigational aid works** and the on-going operation of the **barge unloading facility** and the whole of the **WBE reclamation area** and existing **WB reclamation area** for the receipt of **capital dredge material** and stabilisation works on the **WBE reclamation area**.

Protected matter(s) means a matter protected under a controlling provision in Part 3 of the EPBC Act for which this approval has effect and includes:

The following attributes of the Great Barrier Reef World Heritage Area Outstanding Universal Values:

- a. coral reefs (criteria vii, viii, ix, x)
- b. marine water quality (criteria ix, x)
- c. marine megafauna (criterion x) – Dugong, species of whales, species of dolphins, migratory whales
- d. marine turtles (criteria vii and x) Green Turtle (*Chelonia mydas*), Flatback Turtle (*Natator depressus*); Loggerhead Turtle (*Caretta caretta*).
- e. seagrass and macroalgae (criteria vii, ix and x) - seagrass meadows and beds of *Halimeda* algae
- f. shorebirds and migratory seabirds, (criterion vii, ix, x) including threatened migratory shorebird species, shorebird habitat and important roost sites
- g. flora, fauna and ecological communities (criteria vii, x, ix)
- h. diversity supporting marine fauna species (criteria vii ix, x) coral reefs
- i. total species diversity (criteria vii, ix, x).

The following listed threatened species:

- a. Loggerhead Turtle (*Caretta caretta*) – endangered
- b. Olive Ridley Turtle (*Lepidochelys olivacea*) - endangered
- c. Flatback Turtle (*Natator depressus*) – vulnerable
- d. Green Turtle (*Chelonia mydas*) – vulnerable
- e. Hawksbill Turtle (*Eretmochelys imbricata*) - vulnerable
- f. Water Mouse (*Xeromys myoides*) – vulnerable.

The following listed migratory species;

- a. Eastern curlew (*Numenius madagascariensis*)
- b. Australian humpback dolphin (*Sousa sahalensis*)
- c. Dugong (*Dugong dugon*).

Queensland Marine Turtle Conservation Strategy means the *Queensland Marine Turtle Conservation Strategy* prepared by the Conservation and Biodiversity Operations Branch Department of Environment and Science, Queensland, May 2018 or any subsequent strategy for this purpose.

Queensland Coordinator General's stated condition(s) means the Queensland Coordinator-General's stated conditions attached to Schedules 1, 2, 9 and 10 of the *Coordinator-General's evaluation report on the environmental impact statement for the Port of Gladstone Gatcombe and Golding Cutting Channel Duplication Project*, dated July 2020 or conditions that reflect the conditions in Schedules 1, 2, 9 and 10 in subsequent approvals under the *Queensland Environmental Protection Act 1994*, *Queensland Fisheries Act 1994* and *Queensland Planning Act 2016*.

Receiving Environment means surface water quality, marine water quality, water flows, aquatic flora and fauna, corals and any receiving waters associated with the **Project Stages**, and relevant for the preparation and implementation of the Receiving Environment Management Plan.

Recognised guidelines mean Commonwealth or state endorsed survey and assessment guidelines relevant to the **protected matter**, or as otherwise approved by the **Minister**.

Recovery plan means a recovery plan made or adopted by the **Minister** under the **EPBC Act**.

Reef 2050 Long-Term Sustainability Plan means the *Reef 2050 Long-Term Sustainability Plan* prepared by the Commonwealth of Australia in 2015 or any subsequent official Australian Government plan for this purpose.

Referral Guidelines for the vulnerable water mouse means the *Referral guideline for the vulnerable water mouse Xeromys myoides* EPBC Policy Statement, Commonwealth of Australia 2015.

Seagrass means seagrass meadows and species of seagrass including, but not limited to, *Zostera muelleri* subsp. *capricorni*, *Halodule uninervis*, *Cymodocea serrulata*, *Halophila spinulosa*, *Halophila ovalis* and *Halophila decipiens*.

Sensitive ecological data means data as defined in the Australian Government Department of the Environment (2016) *Sensitive Ecological Data – Access and Management Policy V1.0*.

Sensitive receptor(s) means coral reefs, seagrass, macroalgae and/or mangroves

Shapefile means location and attribute information of the action provided in an Esri shapefile format. Shapefiles must contain '.shp', '.shx', '.dbf' files and a '.prj' file that specifies the projection/geographic coordinate system used. Shapefiles must also include an '.xml' metadata file that describes the shapefile for discovery and identification purposes.

Shorebird area means the geographic area that has been used by the same group of shorebirds over the main non-breeding period of these species, that is the home range of the local population when present. This may include multiple roosting and feeding habitats where there is evidence of regular movement of shorebirds between these areas, as determined by a **suitably qualified field ecologist**.

Significant residual impact(s) means the residual impact on **protected matters** after avoidance and mitigation measures are applied.

Soft start procedures means a gradual increase in **piling** impact energy from zero to no more than 50% of full impact energy after at least 10 minutes.

South Passage Island means the island identified in the vicinity of where an orange dot marks South Passage Island in Attachment H where **Eastern Curlews** and other migratory shorebirds are known to roost at high tide.

Southern reclamation area means the southern portion of the **WBE reclamation area** designated as the 'Western Basin Expansion southern reclamation area' in Attachment B.

Stage means any component of the action and includes the **barge access channel, barge unloading facility, southern reclamation area, northern reclamation area, Stage 1 capital dredging, Stage 2 capital dredging** and **navigational aid works**.

Stage 1 capital dredging means the first campaign of **capital dredging** (to a depth of -13.5 m LAT) in the area shaded light blue designated as 'Stage 1 area to be dredged' in Attachment E and **capital dredging** for the **barge access channel**.

Stage 2 capital dredging means the second campaign of **capital dredging** (to a depth of -16.1 m LAT) in the area shaded orange designated as 'Stage 2 area to be dredged' in Attachment F.

Sub-lethal means to have an **impact** that reduces the viability of a **sensitive receptor** such that the **sensitive receptor** is considered by a **suitably qualified expert** unable or unlikely to recover to its baseline condition or to the condition of a comparable **sensitive receptor** at a non-impacted control site.

Suitably qualified ecologist means a person who has professional qualifications and at least three (3) years of work experience designing and implementing surveys for the **protected matter** and their habitat, and can give an authoritative assessment and advice on the presence and habitat requirements for the **protected matter** using relevant protocols, standards, methods and/or literature.

Suitably qualified expert means a person who has professional qualifications and at least three (3) years of work experience studying the effects of turbidity and sediments on **sensitive receptors** and

can give an authoritative assessment and advice on the effects of turbidity and sediments on sensitive receptors using relevant protocols, standards, methods and/or literature.

Suitably qualified field ecologist means a person who has professional qualifications and at least three (3) years of work experience designing and implementing surveys for all of the following species relevant to the work required: **Eastern Curlew, Water Mouse, Flatback Turtle, Green Turtle, Loggerhead Turtle, Hawksbill Turtle, Olive Ridley Turtle or Australian Humpback Dolphin**; and can give an authoritative assessment and advice on the presence behaviour, habitat type (including depth and substrate) and seasonality of habitat use of all of the above species relevant to the work required using relevant protocols, standards, methods and/or literature.

Suitably qualified marine observer means a dedicated and suitably trained person, with demonstrated experience in **marine fauna** observation, identification and monitoring of **marine fauna**, distance estimation and reporting. The marine observer must only be tasked with undertaking visual observations for **marine fauna** whilst they are engaged to do so, and must not have any other duties while engaging in visual observations.

Suitably qualified person means a person who has professional qualifications, training, skills and/or experience related to the nominated subject matter and can give authoritative **independent** assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods and/or literature.

Tailwater means water discharged from licenced points at the **WB reclamation area** and **WBE reclamation area** and water discharged from the dredging vessels.

Threat abatement plan(s) means a threat abatement plan made or adopted by the **Minister** under the **EPBC Act**.

Trigger levels means levels of water quality or other parameters specified such that, upon their detection, activities related to dredging and/or placement of dredge material can be ceased or altered, or corrective actions taken, so as to prevent **sub-lethal** and **lethal impacts** to **sensitive receptors**.

Uncontrolled release means the release of placed dredge material from the **WB reclamation area** or **WBE reclamation area** (including via **tailwater** or flooding) or any release to the marine environment otherwise than in accordance with the **DEMP** or **Project Environmental Management Plan** or any approvals or permits under Queensland legislation.

Water Mouse habitat means all mangrove communities, intertidal communities, and coastal freshwater wetlands with one or more of the following features:

- intact hydrology
- prey resources (Crustaceans, marine polyclads and marine pulmonates and bivalves)
- active Water Mouse nest structures
- a defined supralittoral bank that could enable the construction of nests.

as defined in the *Referral guideline for the vulnerable water mouse Xeromys myoides*, Commonwealth of Australia, 2015.

Website means a set of related web pages located under a single domain name attributed to the approval holder and available to the public.

Western Basin Expansion (or WBE) reclamation area means both the **southern reclamation area** and the **northern reclamation area**, designated as the 'Western Basin Expansion reclamation area' enclosed by two yellow lines in Attachment B.

Western Basin (or WB) reclamation area means the area designated as the 'Existing Western Basin Reclamation Area', enclosed by the black line in Attachment B.

ATTACHMENTS

- 1. Attachment A Barge Unloading facility and barge access channel**
- 2. Attachment B Western Basin Expansion Reclamation Area**
- 3. Attachment C Gatcombe and Golding Cutting Channel Duplication Area**
- 4. Attachment D Navigational Aids**
- 5. Attachment E Stage 1 Capital Dredging Area**
- 6. Attachment F Stage 2 Capital Dredging Area**
- 7. Attachment G Water Quality zones of Impacts**
- 8. Attachment H Shorebird Roost Sites**
- 9. Attachment I Offset information requirements**

Attachment A: Barge Unloading facility and barge access channel



Figure 2.17: Proposed area to be dredged for barge access channel and barge unloading facility

Attachment B: Western Basin Expansion Reclamation Area



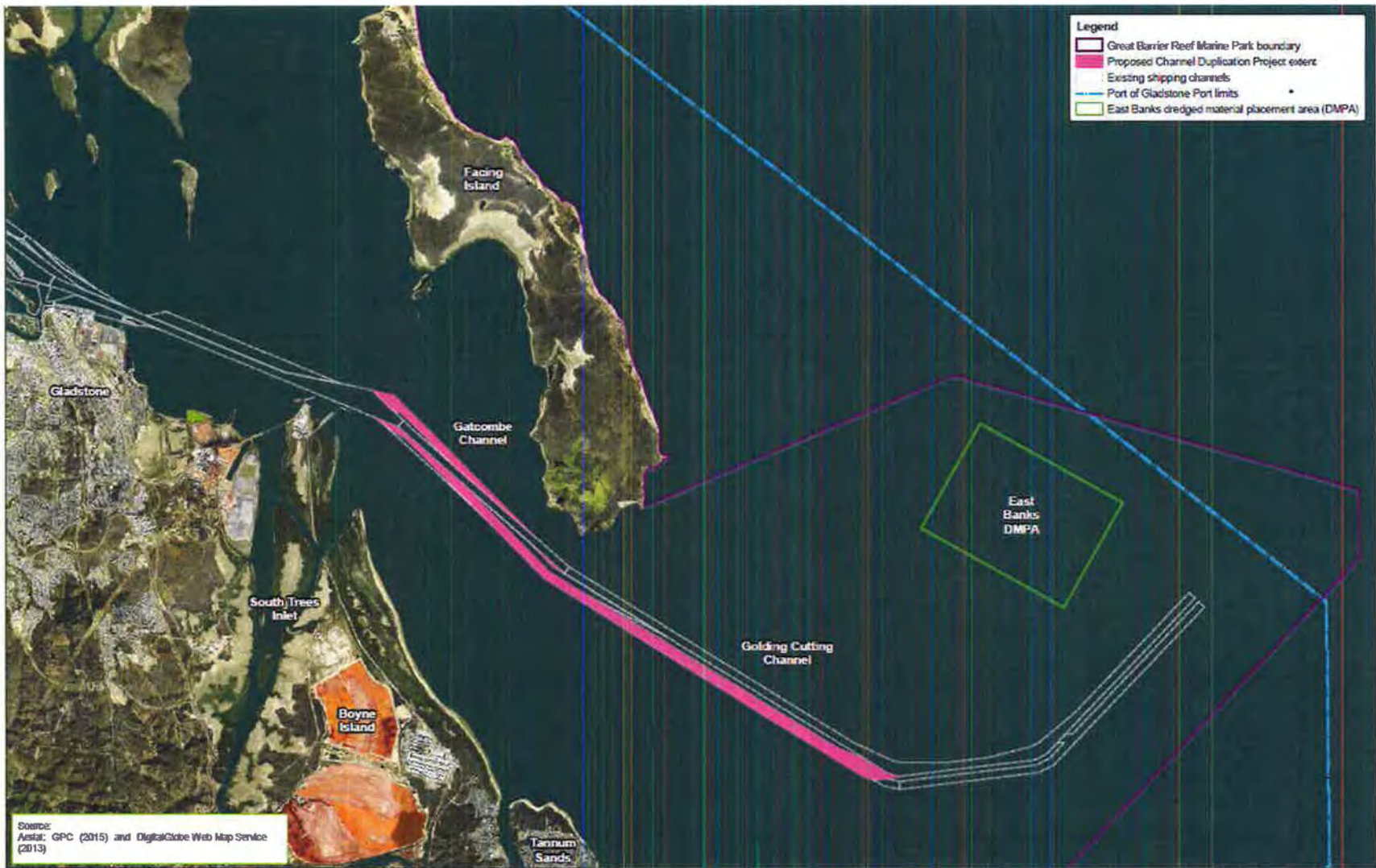
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Date: 26/09/2020 Version: 1 Job No: 237374
 Coordinate system: ODA_1994_MGA_Zone_54

Gatcombe and Golding Cutting Channel Duplication Project

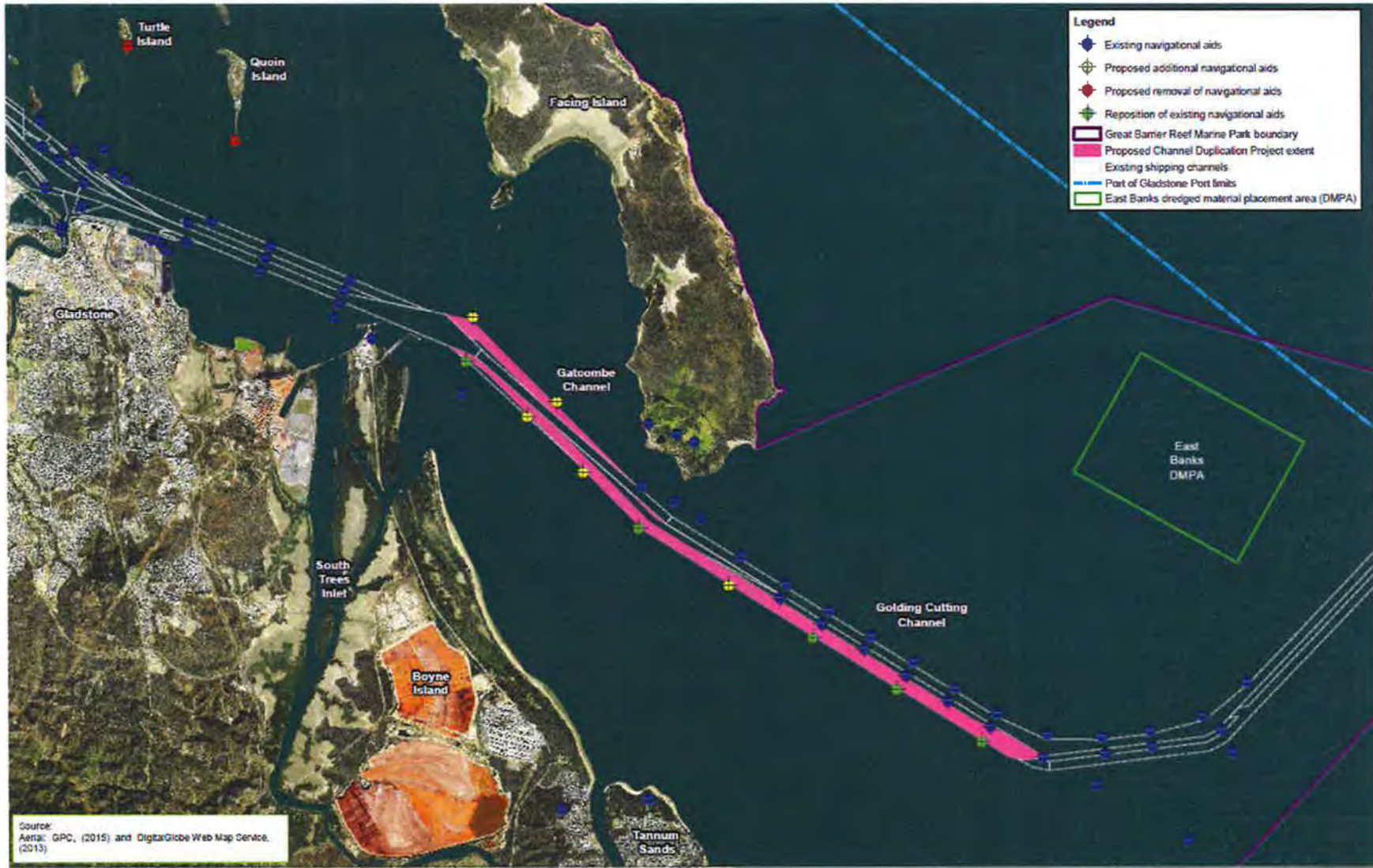
Figure 1: Western Basin Expansion reclamation area, barge unloading facility and existing Western Basin reclamation area

Attachment C: Gatcombe and Golding Cutting Channel Duplication Area



Gatcombe and Golding Cutting Channel Duplication Project
Figure 2.9: Gatcombe and Golding Cutting Channel Duplication Area

Attachment D: Navigational Aids



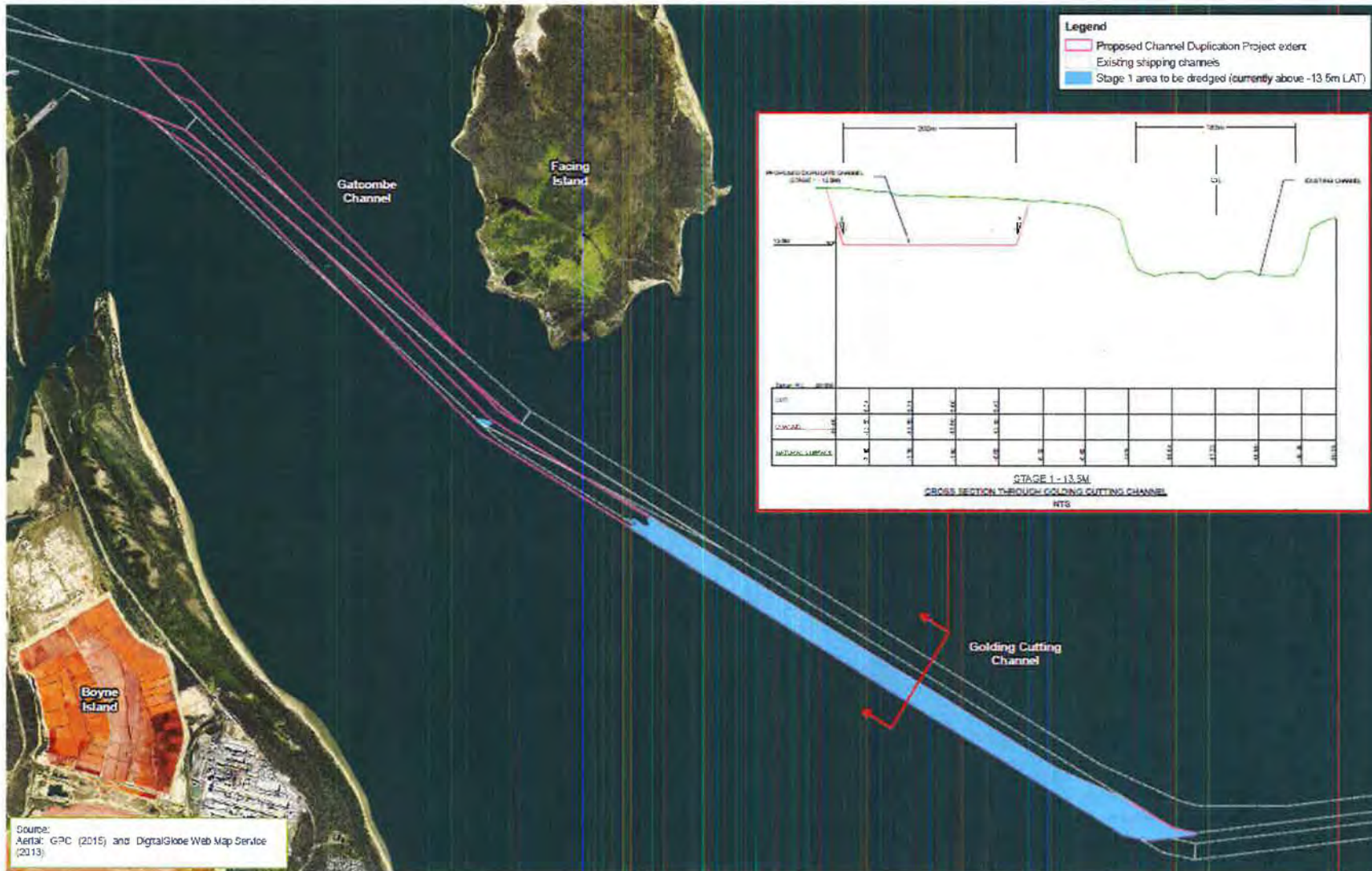
0 875 1,750 Meters

Date: 23/11/2016 Version: 7 Job No: 237374
Coordinate system: CDA_1984_UCA_27mz_30

Gatcombe and Golding Cutting Channel Duplication Project

Figure 2.24: Proposed changes to navigational aids

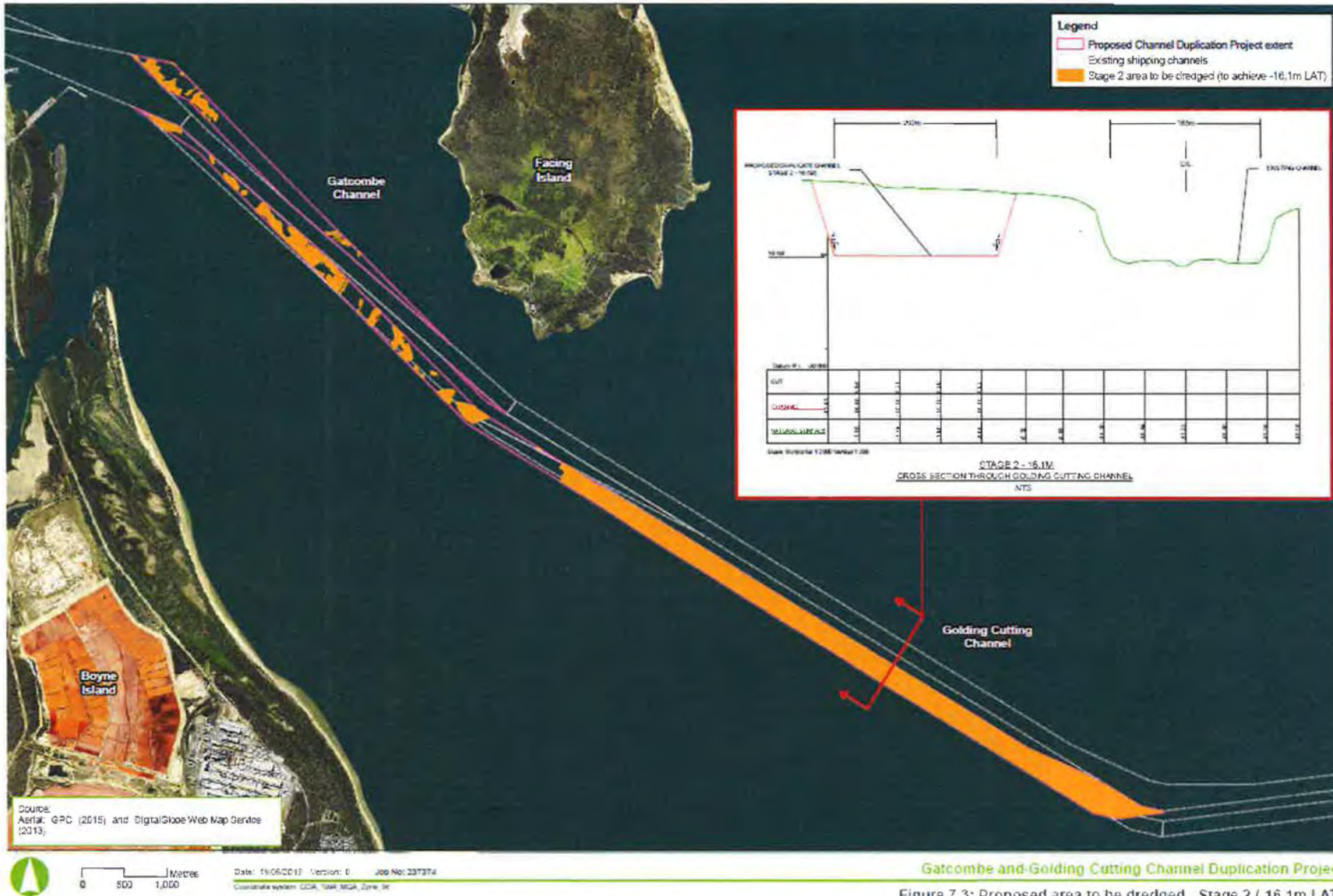
Attachment E: Stage 1 Capital Dredging Area



Gatcombe and Golding Cutting Channel Duplication Project

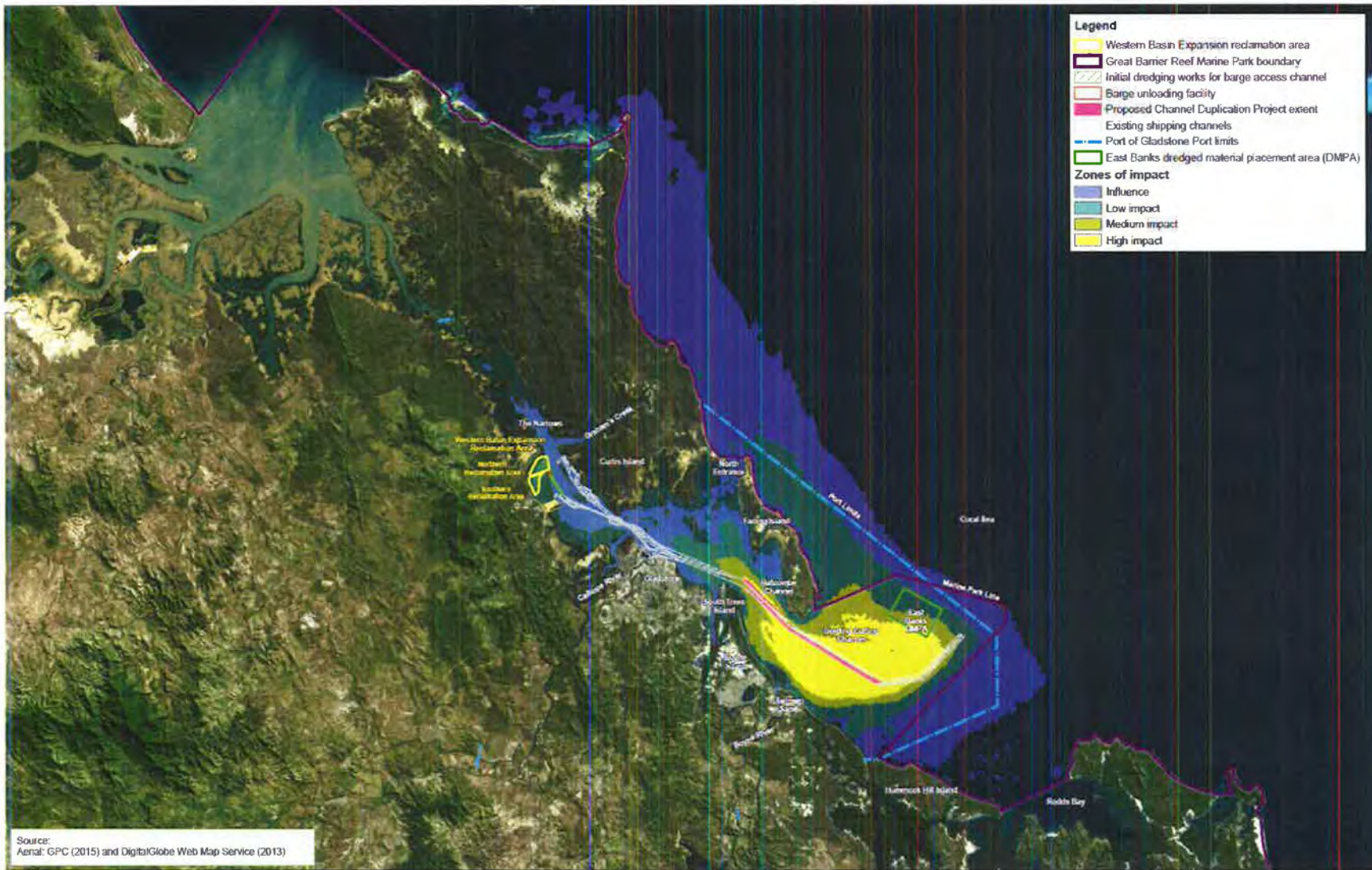
Figure 7.2: Proposed area to be dredged - Stage 1 (-13.5m LAT)

Attachment F: Stage 2 Capital Dredging Area



Gatcombe and Golding Cutting Channel Duplication Project
Figure 7.3: Proposed area to be dredged - Stage 2 (-16.1m LAT)

Attachment G: Water Quality zones of Impacts



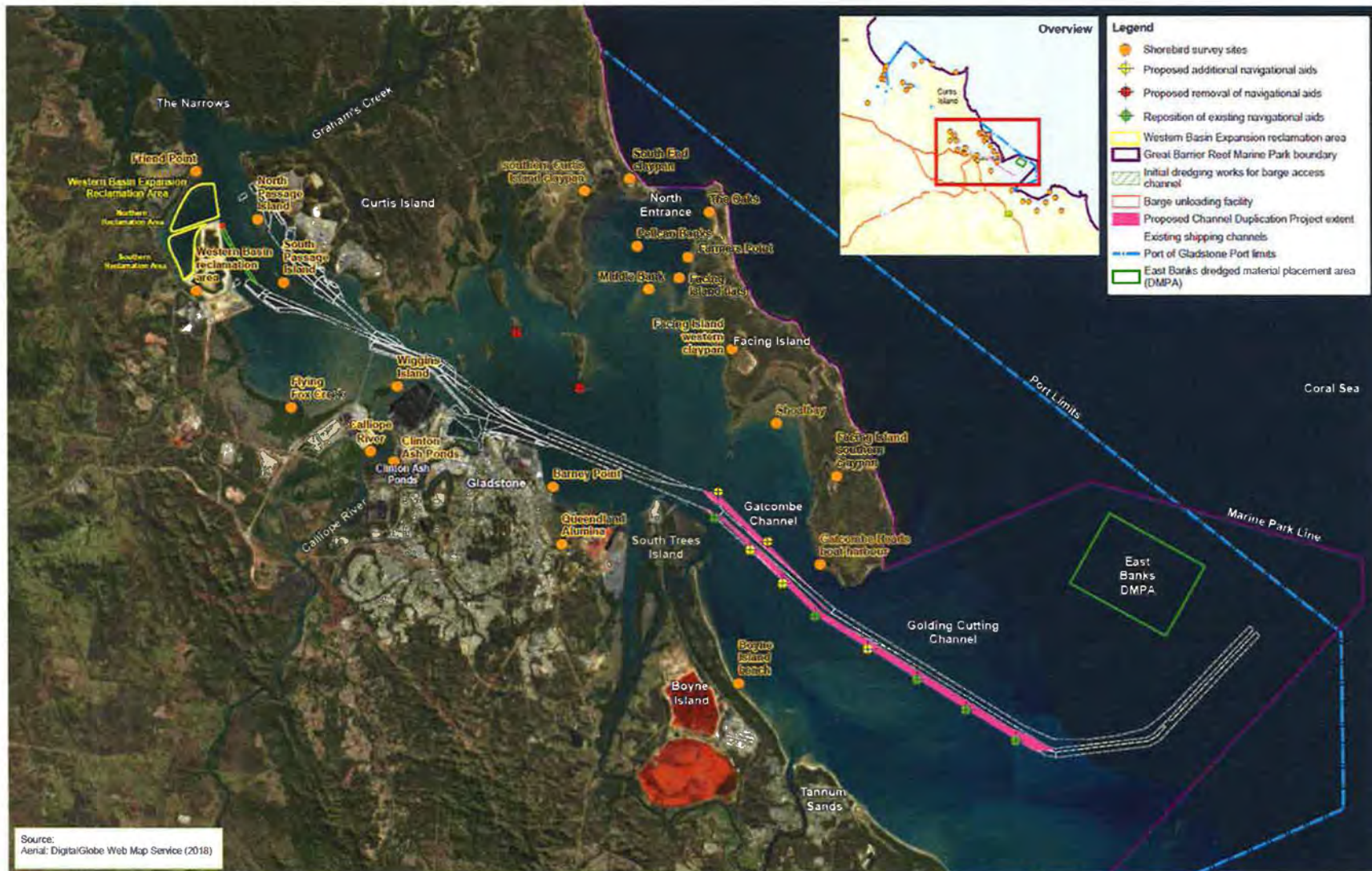
0 3,800 7,600 Metres

Date: 26/02/2019 Version: 6 Job No: 237374
Coordinate system: GDA_1994_MCA_Zone_3c

Gatcombe and Golding Cutting Channel Duplication Project

Figure 8.8: Water quality zones of impact (Stages 1 and 2 dredging)

Attachment H: Shorebird Roost sites



Gatcombe and Golding Cutting Channel Duplication Project
 Figure 2.8b: ERMP migratory shorebird survey sites – Port Curtis and Mainland Shoreline

Attachment I: Offset information requirements

Requirement	Information required
Description	A description of the environmental offset, including location, size, condition, environmental values present and surrounding land uses.
Baseline data	Baseline data, including results from field validation surveys, and quantifiable ecological data on habitat quality and other supporting evidence that documents the presence of each protected matter and the quality of habitat for each protected matter within the environmental offset.
Site habitat quality	An assessment of site habitat quality using a method agreed to in writing by the Department .
Connectivity and/or strategic offsets	Details of how the environmental offset will provide connectivity with other habitats and and/or will contribute to a larger strategic offset or conservation objective for each protected matter .
Maps	Maps and shapefiles to clearly define the location and boundaries of the environmental offset, accompanied by offset attributes .
Offset completion criteria	Specific offset completion criteria derived from the site habitat quality to demonstrate the improvement in the quality of habitat for each protected matter in the environmental offset over the period of effect of this approval.
Management actions	Details of the management, habitat creation or restoration actions, and timeframes for implementation, to be undertaken to meet the offset completion criteria.
Interim milestones	Interim milestones that set targets at 5-yearly intervals for progress towards achieving the offset completion criteria.
Monitoring program	Details of the nature, timing and frequency of monitoring to inform progress against achieving the 5-yearly interim milestones and maintaining improvements of habitat quality (the frequency of monitoring must be sufficient to track progress towards each set of milestones, and sufficient to determine whether the environmental offset is likely to achieve those milestones in adequate time to implement all necessary corrective actions).
Monitoring reporting	Timing for the submission of internal monitoring reports which provide evidence demonstrating whether the interim milestones and offset completion criteria are likely to and/or have been achieved.
Corrective actions	Timing for the implementation of corrective actions if monitoring activities indicate the interim milestones will not or have not been achieved.
Risk analysis	A risk analysis and a risk management and mitigation strategy for all risks to the successful implementation of the environmental offset and timely achievement of the offset completion criteria, including a rating of all initial and post-mitigation residual risks.

Requirement	Information required
EPBC Act documents	Evidence of how the management actions and corrective actions take into account relevant approved conservation advices and are consistent with relevant recovery plans and threat abatement plans .
Legal securing mechanism	Details of the legal mechanism for legally securing the environmental offset, such that legal security remains in force over the environmental offset for at least the period of effect of this approval.