

Bribie Island Breakthrough Emergency Works

Project Report

July 2025

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The department acknowledges the First Nations peoples in Queensland: Aboriginal and Torres Strait Islander peoples and their connections to the lands, winds and waters we now all share. We pay our respect to Elders, past, present and emerging. We also acknowledge the continuous living culture of First Nations Queenslanders – their diverse languages, customs and traditions, knowledges and systems. We acknowledge the deep relationship, connection and responsibility to land, sea, sky and Country as an integral element of First Nations identity and culture.

The Country is sacred. Everything on the land has meaning and all people are one with it. We acknowledge First Nations peoples' sacred connection as central to culture and being. We acknowledge the stories, traditions and living cultures of First Nations peoples and commit to shaping our state's future together. The department recognises the contribution of First Nations peoples and communities to the State of Queensland and how this continues to enrich our society more broadly.

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Purpose of the report

This report supports amendments to the *State Development and Public Works Organisation Regulation 2020* to facilitate emergency works for the Bribie Island and the Pumicestone Passage region. The amendment regulation is provided for under sections 108, 109, 140 and 173 of the *State Development and Public Works Organisation Act 1971*.



Gerard Coggan
Coordinator-General

25 July 2025

1. Background

1.1 Need for action

In June 2025, the Queensland State Government announced urgent works following the release of the Bribie Island Erosion and Breakthrough Reports and committed \$20 million to immediate action.

Without appropriate intervention, there is significant risk to private property, essential community infrastructure and areas of natural and cultural significance within the Pumicestone Passage area and ecological values throughout the Moreton Bay Marine Park region and associated Ramsar-listed wetland. Urgent action is necessary given the closing window of opportunity to deliver effective mitigation, and to protect public safety, private property, public assets, and restore land with State and nationally significant environmental values.

Without action, impacts could be exacerbated in the coming months. The coming storm season, anticipated to commence in November 2025, will bring larger tides, stronger waves, and higher winds, posing a significant risk in an already vulnerable environment. A works regulation, directing the Coordinator-General to undertake the works and enlivening their powers of the *State Development and Public Works Organisation Act 1971*, was identified as the most appropriate pathway to undertaking urgent works to address these impacts.

The works regulation directs the Coordinator-General to undertake the works, removes the requirement for development permits and the need for an environmental authority under the *Environmental Protection Act 1994*. The regulation also enlivens the Coordinator-General's powers to take sand, stone, gravel or other material, undertake works in foreshores and in Queensland waters, and occupy land for the performance of the works. Importantly, it does not impact:

- the need to deal with matters of national environmental significance under the *Environment Protection and Biodiversity Conservation Act 1999*;
- the general environmental duty under the *Environment Protection Act 1994*;
- the requirements of the *Native Title Act 1993*; or
- the requirement to comply with any other law.

The Project Works are intended as urgent interventions to stabilise the situation, prevent degradation of the Moreton Bay Ramsar wetland and protect people, property, public assets from imminent harm. The works are not intended as a long-term solution to the ongoing challenges facing Bribie Island. The works will provide valuable time for the government to undertake planning of long-term solutions.

1.2 Context

Bribie Island is a large sand island located off the coast of Queensland, Australia, forming a natural barrier between the Coral Sea and the Pumicestone Passage. Pumicestone Passage is a tidal waterway connected to the ocean at the Northern end of Bribie Island, however the location of the tidal entrance has historically shifted north and south.

Sheltered by the Island, the community of Golden Beach within the Sunshine Coast Regional Council local government area (SCRC) is on the shoreline, with significant social, economic and culturally significant infrastructure and natural environment within the community. The whole area is part of Kabi

Kabi country and the Kabi Kabi Aboriginal Corporation holds native title over the land and sea surrounding Bribie Island.

Environmental values include the marine plants, seagrass meadows, mangrove habitats, and fish breeding grounds. These systems provide critical biodiversity, water quality, and flood mitigation services to the local community. Somehow makes it thus – Moreton Bay Marine Park and Ramsar-listed wetlands

The Australian Government works in partnership with state and territory governments to implement the Ramsar Convention. The broad aims of the Ramsar Convention are to halt and, where possible, reverse, the worldwide loss of wetlands and to conserve that that remain through wise use and management. Project works are intended to mitigate impacts that endanger or could endanger the ecological character of the Ramsar wetland, in particular through changes to water regimes.

1.3 Current situation

The location and size of the Bribie Island Breakthrough is shaped by complex dynamics including tides, waves and wind. In 2022, this combination of effects, in association with human intervention and extreme weather events, caused a significant breakthrough (breakthrough 1) of the Island, which in time became the main tidal entrance. This has been monitored by SCRC and the State Government since the occurrence. In 2025, Tropical Cyclone Alfred exacerbated the erosion in the area and drove the development of further breakthroughs, as well as an increase in depth and width of the original 2022 breakthrough.

Recent imagery and field observations have confirmed that breakthrough 1 continues to expand. The comparison of aerial data between 21st January 2025 (pre-Cyclone Alfred) and the most recent post-cyclone imagery reveals a notable loss of exposed sand at the island's seaward tip, highlighting the dynamic and unstable nature of the breach. There has also been significant degradation of dune and swale vegetation to the south of breakthrough 1, with remnant vegetation established along the inside edge of the island tip completely eroded in several locations.

Recent breakthrough events have amplified wave energy, widened tidal channels, and increased exposure of both mainland infrastructure and marine ecosystems to erosion, inundation, and ecological stress. The area of island between the breakthroughs is extremely vulnerable and at risk of full loss in the near term.

In summary, Northern Bribie Island has undergone significant structural changes within the past years, urging the development of a Bribie Island Erosion and Breakthrough Review, which was finalised by the Department of State Development, Infrastructure and Planning in June 2025. The reports outline the current situation of the locality (refer to figure 1 below and table 1 for explanatory notes).

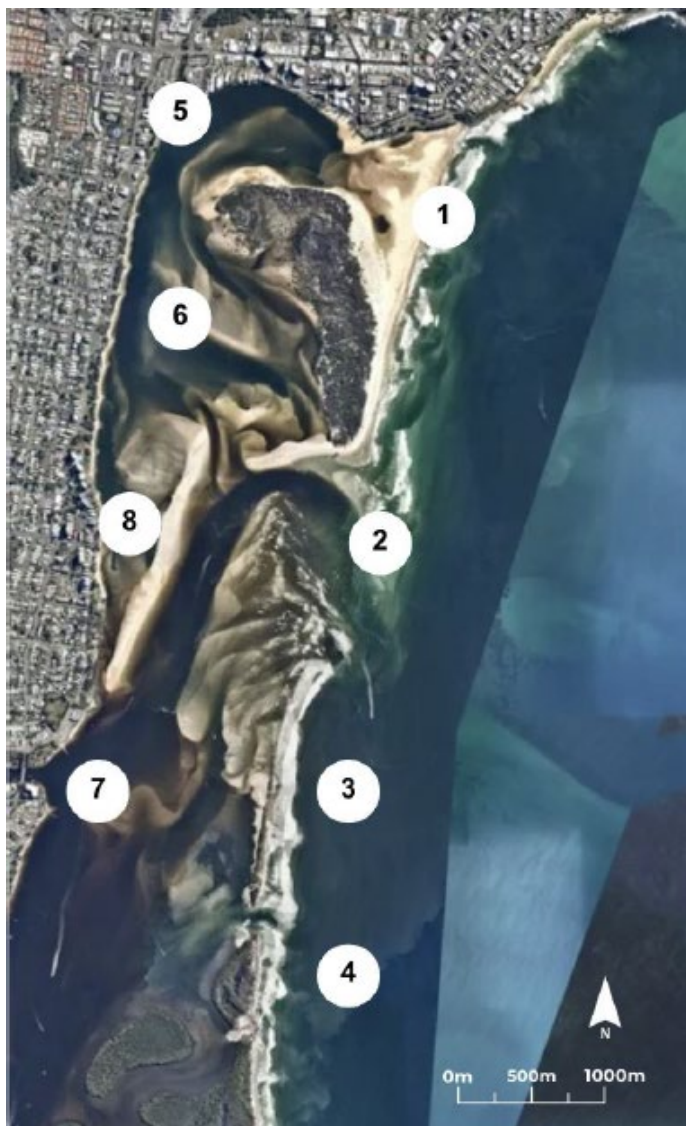


Table 1 Explanatory notes for Figure 1

Number	Notes
1	Closure of historic Caloundra Bar following expansion of 2
2	Expansion of Breakthrough 1, occurring in 2022
3	Erosion and rapid degradation of island between Breakthrough 1 and Breakthrough 2
4	Breakthrough 2 (above number) expanding – Breakthrough 3 forming (below number)
5	Reduction in circulation and flushing of northern Pumicestone Passage
6	Increased tidal levels in passage, risking infrastructure and cultural values
7	Increased wave energy impacting on shoreline
8	New sandbank build up behind Breakthrough 1

Figure 1 Bribie Island – 2025 Aerial image

2. The Project

2.1 Responsible entity

The Coordinator-General has been tasked with project implementation and is the responsible entity.

2.2 Definition

Bribie Island Breakthrough, for this Project Report, is the creation of channels through Bribie Island by natural processes at breakthroughs 1, 2 and 3 identified in Figure 1. Further detail about the Bribie Island Breakthrough is provided in section 2.4 of the Bribie Island Erosion and Breakthrough Review Part 2 report dated 12 June 2025 and published on the Department's website at statedevelopment.qld.gov.au.

2.3 Project Works

The Project Works are all actions required to be undertaken by the Coordinator-General to address, in the short term, the immediate risks posed by the Bribie Island Breakthrough and will involve:

- close and stabilise the recent breakthroughs of northern Bribie Island resulting from Tropical Cyclone Alfred.
- buffer the Bribie Island segment between these recent breakthroughs and the tidal entrance to the Pumicestone Passage through construction of a temporary dune barrier, extension of the island segment and/or construction of a sand bank inside the Pumicestone Passage.
- create a temporary channel between the northern end of Pumicestone Passage and the tidal entrance (to improve water circulation and enhance water quality and navigational access).

The scope of the Project Works will include:

- (1) carrying out preliminary, incidental or exploratory works, surveys, investigations, studies, planning or approval processes for the Project Works
- (2) removal and disposal of debris, material or other foreign objects within the Project Area
- (3) moving, casting and depositing sand, stone, gravel or other material by appropriate means, to close breakthroughs 2 and 3, strengthen island segments between breakthroughs, and create barriers to reduce wave energy, including extension of the island between breakthroughs 1 and 2 (as indicated in Figure 2). This will involve:
 - (a) reclamation of land lying under Queensland waters that are affected, or that may reasonably be believed to be affected by, the Bribie Island Breakthrough
 - (b) establishment, restoration, nourishment, protection or reinforcement of sand bunds, dune systems, or other buffers or barriers, within the Project Area
- (4) taking sand, stone, gravel or other material, including by dredging, within the Project Area for use for the Project Works
- (5) dredging, within the Project Area, for purposes including, but not limited to:
 - (a) creating, deepening and maintaining a temporary navigable channel or channels

- (b) channel deepening that assists in restoring, improving or protecting hydrological functions or environmental values
- (6) establishing areas for lay down and stockpiling and storage of plant, equipment and materials and other activities during the Project Works, and transporting items within the Project Area
- (7) erecting structures, including for the transport and placement of material and dewatering for the performance of the Project Works mentioned above

2.4 Project Area

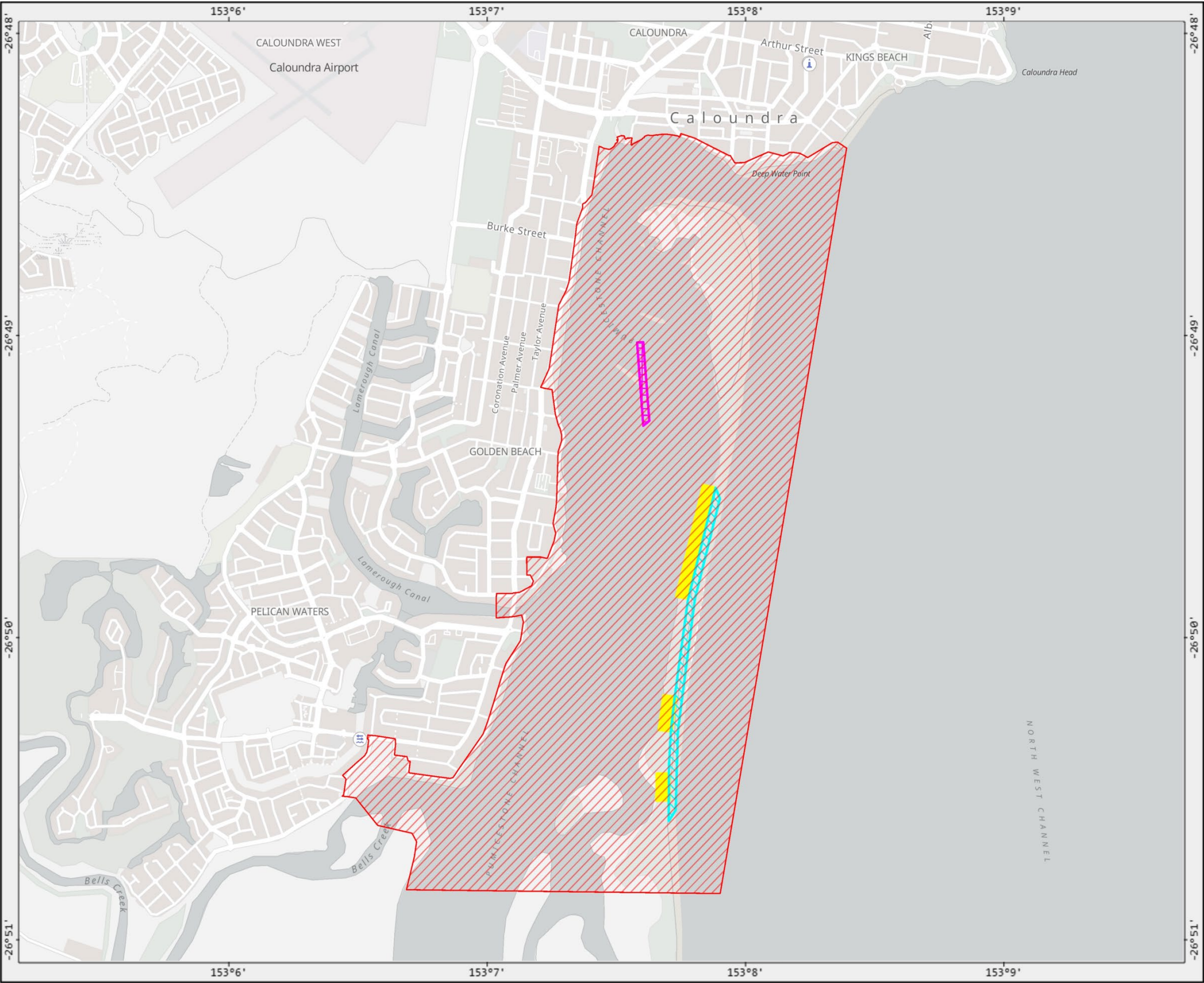
The Project Works will take place within the local government area of the Sunshine Coast in the areas shown on Figure 2 as the Indicative Works Area, including:

- (1) within the Bribie Island national park, north of the latitude line 26°50'50" south to the northernmost point of that national park
- (2) within the area known as Pumicestone Passage, north of the latitude line 26°50'50" south, including parts no longer permanently under waters because of the Bribie Island Breakthrough, such as the former Caloundra Bar
- (3) in, on, over, through and across the foreshore area of Bribie Island, north of the latitude line 26°50'50" south, to the northernmost point of the island

The Project Works will also take place in:

- (4) waters within Moreton Bay, including within the Moreton Bay Marine Park, for the purpose of taking sand, stone, gravel and other material and the disposal of same, in the areas shown on Figure 3.

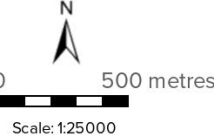
Figure 2



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- Legend**
- Works**
- Island Extension
 - BT2 Closure
 - BT3 Closure
 - Dredged Channel
 - Erosion Buffer
- Project area**
- Indicative Works Area



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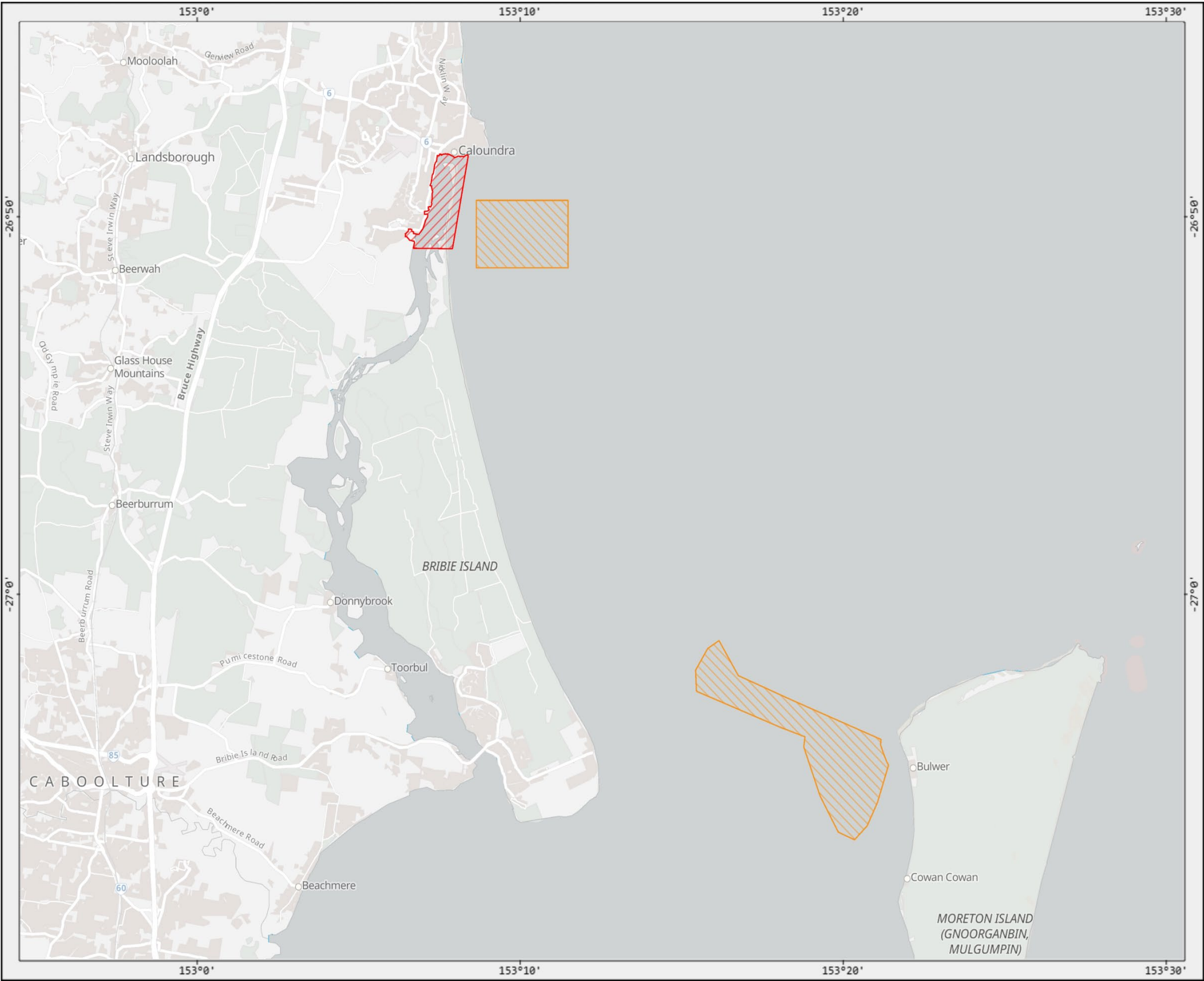
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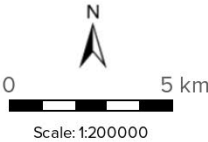
Figure 3



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- Legend**
- Project area**
- Offshore area
 - Offshore area
 - Indicative Works Area



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