

1.0 Introduction

“Integrated transport planning” as defined by the Queensland Government’s Integrated Transport Planning Framework, “is a process to identify current and future access needs for people, places, goods and services, and to inform decision makers on ways to manage the transport system and land use to best address their needs.”

The foundations of integrated transport planning include:

- Sustainability (i.e. thinking beyond the transport system) to enhance economic, social and environmental outcomes for current and future generations;
- Integration across sectors and levels of planning such as transport, economic development, education and health; and
- Partnerships across governments, industry and the community.

In developing the Torres Strait Transport Infrastructure Plan (TSTIP) integrated transport strategy, community issues and transport data were analysed to determine the vision, principles, objectives and strategies/actions. The integrated transport strategy addresses current and desired future(s) and identifies the triggers that initiate the implementation of the TSTIP.

For Torres Strait, the foundations of integrated transport planning can be summarised as follows:

- Need to consider transport system performance and the whole-of-life economic, social and environmental consequences of options;
- Need to show the benefits and costs of the transport system equally, within and across current and future generations;
- Need to collaborate across governments and industry to take other planning measures and impacts into account when making transport decisions; and
- Need to engage and develop effective partnerships across governments, industry and the community in planning, providing and operating the transport systems.

1.1 Background

The communities of the Torres Strait, being island based, widely dispersed and small in size, have a significant need for an efficient and effective transport network for the supply of goods, access to local services and facilities and connections to mainland centres. Due to the remoteness of the area, freight and passenger travel within and to and from the region is heavily dependant on marine and air transport. As such, the provision of high quality services and infrastructure to support these transport modes, as well as adequate public transport and walking and cycling facilities, is a necessity for the region.

There are a number of transport issues which constrain the provision of a high quality transport network in the Torres Strait region. These include the climatic conditions, low levels of private transport, few public transport options, high travel costs, varying quality of infrastructure and lack of a strong commercial market for transport ventures. There are also a number of freight movement and infrastructure issues, such as the need for dredging maritime channels leading to island boating facilities.

In recent years there have been major upgrades to air and marine infrastructure within the Torres Strait to improve the transport network. A number of opportunities exist to build on this work and further develop transport services and infrastructure for freight and passenger travel. Queensland Transport (QT) and Department of Main Roads (DMR) in partnership with the Torres Strait Regional Authority (TSRA) have identified a need to develop a transport plan to provide guidance for the future development of the transport network in the Torres Strait.

1.2 Purpose and Objectives

Maunsell Australia and its partner Black & More have been engaged to prepare the TSTIP. The purpose of the TSTIP is to develop safe, efficient and sustainable access to freight and passenger transport services that meets the needs of the community. The planning horizon for the TSTIP is the year 2026.

The study objectives for the TSTIP are to:

- Identify issues impacting on existing and future provision of transport infrastructure and transport services;
- Establish existing demands and community need for freight and passenger transport;
- Project transport demands to 2026;
- Develop a vision and supporting plan in consultation with the key stakeholders;
- Develop strategies for the provision of transport infrastructure and services that meet identified community needs; and
- Identify appropriate technologies and transport infrastructure and service options required to deliver the transport strategies.

1.3 Methodology

The methodology for the preparation of the TSTIP includes ten tasks, which are identified below in **Figure 1.1**.

Figure 1.1 Methodology for preparing the Torres Strait Transport Infrastructure Plan



1.4 Purpose of this Report

The report encompasses the results and outcomes from all of the study tasks, as listed in Section 1.3, in the process of preparing the TSTIP. The report also addresses the specific objectives of the study as listed in Section 1.0, and provides guidance on the future needs of the broader transport system. The TSTIP develops recommendation for safe, efficient and sustainable access to freight and passenger transport services that meets the needs of the community. The TSTIP will provide information and direction for a number of government agencies and public bodies who have a common interest.

1.5 Report Structure

The report is structured into the following sections:

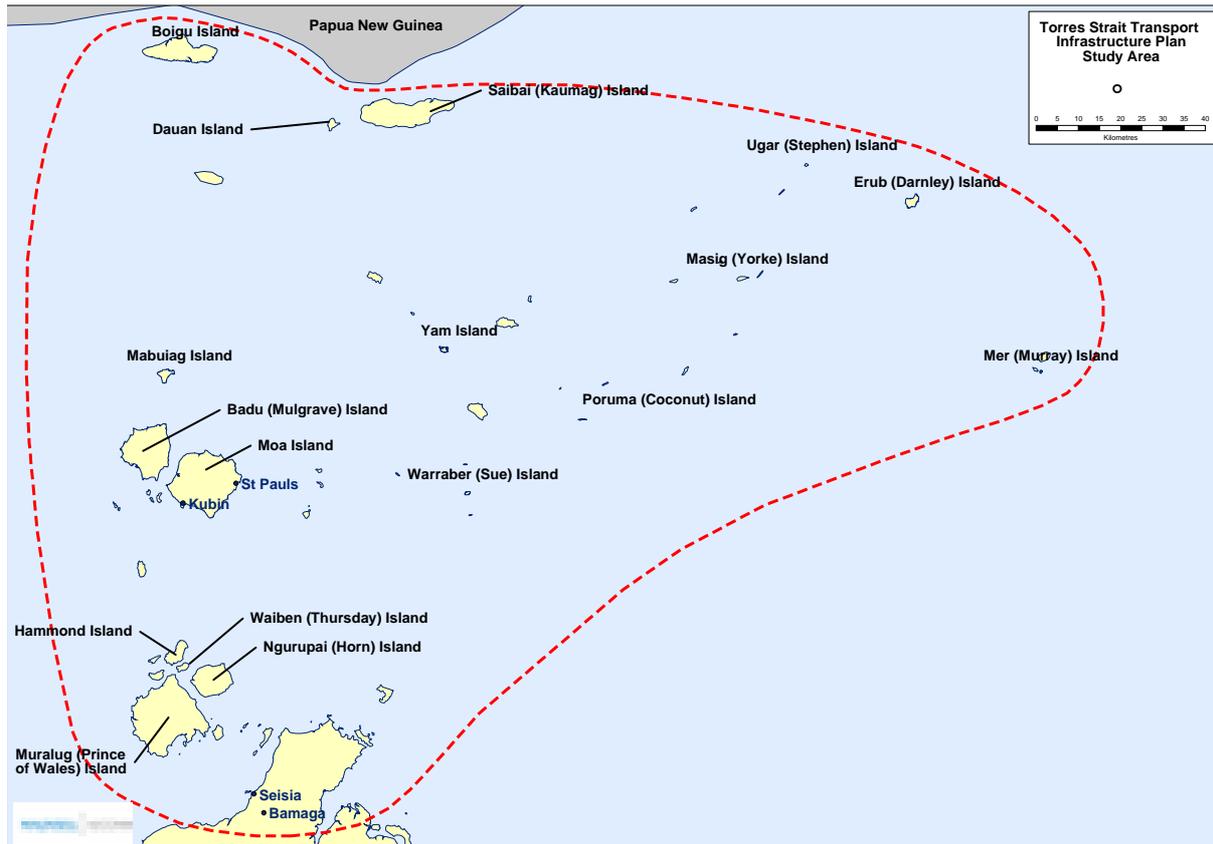
- **Section 1** outlines the study development background, purpose and objectives;
- **Section 2** contains the study context , describing the Torres Strait regional characteristics and communities;
- **Section 3** outlines the existing transport network in the Torres Strait;
- **Section 4** outlines the analysis of issues and transport demands in the Torres Strait;
- **Section 5** discusses the consultation tasks and outcomes for the study;
- **Section 6** sets out the planning framework for the transport plan;
- **Section 7** outlines the options for the transport system for the Torres Strait in 2026;
- **Section 8** comprises the integrated strategy for the Torres Strait; and
- **Section 9** outlines the implementation plan for the TSTIP.

2.0 Study Area Context

2.1 Study Area Boundary

The study area, as illustrated in **Figure 2.1**, encompasses more than 20,000 square kilometres and includes the land, water and air space within the boundary of the Torres Shire. This area extends over 220 kilometres north from the northernmost part of mainland Queensland to near the coast of Papua New Guinea (PNG), and over 250 kilometres to the east to Darnley and Murray Islands.

Figure 2.1 Study Area Boundary and Communities of the Torres Strait Region



Source for Base Map: MapData Sciences Pty Ltd

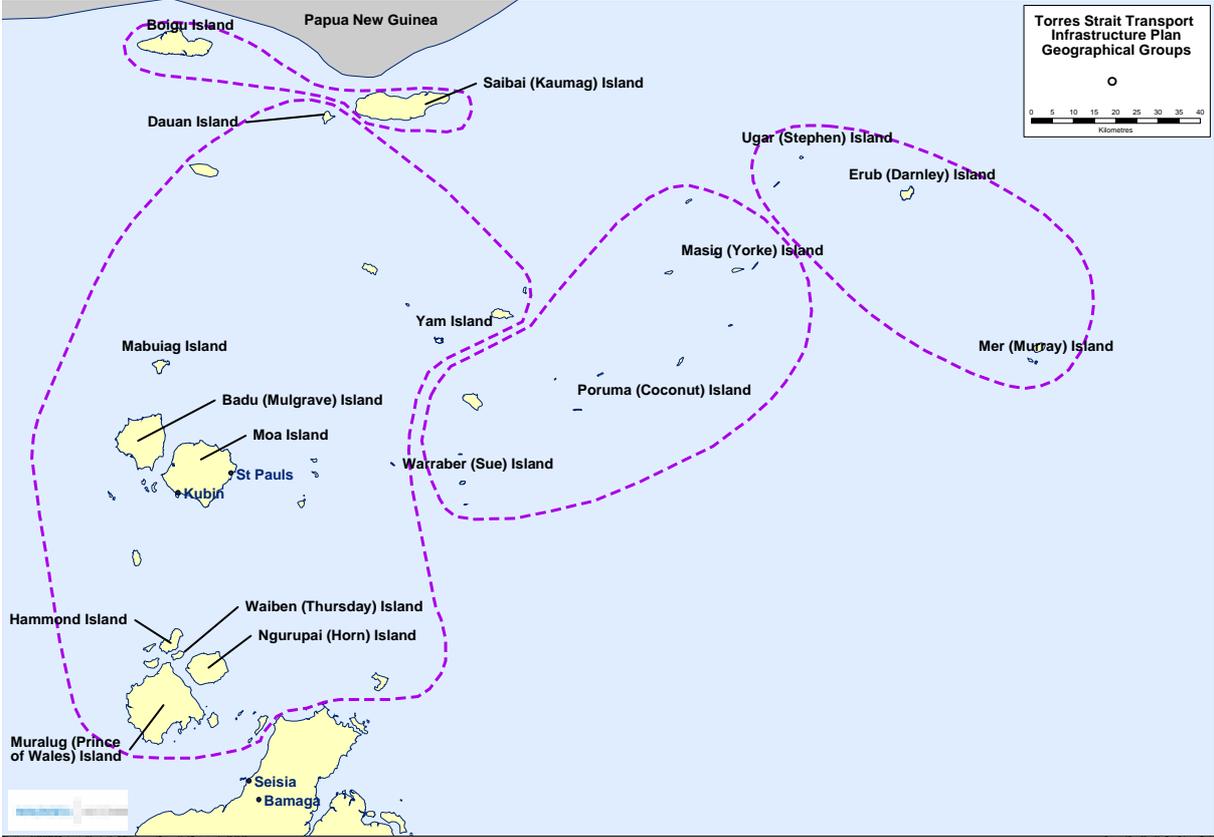
2.2 Regional Characteristics

The Torres Strait covers a region stretching from Cape York, the most northerly point of the Australian mainland, to the small islands just off the southern coast of PNG. Approximately 200km across and over 20,000 square kilometers in area, the channel links the Coral Sea, in the east, to the Arafura Sea, in the west, and has been an important point of contact between cultures for thousands of years. The region lies across a major shipping route between South East Asia and the east coast of Australia and southern PNG.

The Torres Strait area is of vital strategic interest to Australia as it is in direct contact with both Indonesia and PNG, with cross border treaties and isolation permitting relatively free movement between countries. Federal Police, Customs and Immigration services operate actively to monitor regional movements, but the traditional relationships of the region have supported a freedom of travel that is unusual relative to the rest of the modern world. The closest Australian provincial city of Cairns is over 1,000 kilometres away from the Torres Strait, so the area assumes a regional importance far in

excess of its relatively small total population of around 8,500 people. The government is the region's major employer, directly at Local, State and Commonwealth levels in areas such as governance, education, health and oversight, and indirectly through social service employment schemes such as the Community Development Employment Program (CDEP).

Figure 2.2 Geographical Groupings in the Torres Strait



Source for Base Map: MapData Sciences Pty Ltd

The region is geologically diverse, as depicted in **Figure 2.2**, with the far eastern group of islands (the communities of Ugar, Erub and Mer) being of volcanic origin with steeper hills, red clay soils and deeper seabeds. Regionally central are a group of smaller islands (with the communities of Masig, Poruma and Warraber) consisting of low sandy clay surrounded by extensive coral reefs and shallow seas, whilst a northerly group of low islands (the communities of Boigu and Saibai) consist of saturated mud and alluvial sediments overlying coranous limestone and clay lenses, and covered with thick mangroves. All of the other communities, from Dauan in the north, to Prince of Wales in the South, across to Yam in the centre and including the islands around Port Kennedy (also known as the Port of Thursday Island), are typically weathered intrusions with extensive granites outcrops, sandy alluvial soils and recent overlying sedimentary sandstones and shales; remnants of the mainland's Great Dividing Range.

Large coral reefs dot the entire regional seabed, protecting the islands and creating a bountiful resource for the local communities, but making navigation more difficult and travel more dangerous for larger vessels. Some of the larger communities such as Thursday Island and Badu have more protected offshore passages, but most communities have seasonally exposed approaches and mooring facilities. As a consequence, air travel has become accepted as a safer and more predictable means of travel and all communities but two (Ugar and Dauan) can readily access scheduled flights.