Zenadth Kes Planning Scheme

(planning scheme for the Torres Strait Island Regional Council)

23 February 2018


We acknowledge the past and present elders
of all Indigenous people in the Torres Strait
and respect the culture and lore of all
Indigenous people in the region.

Citation and commencement

This planning scheme may be cited as the Zenadth Kes Planning Scheme.

A notice was published in the Government Gazette No. 55 on 8 July, 2016 for the planning scheme for the Torres Strait Island Regional Council.

The commencement date for the planning scheme was 11 July, 2016.

Amendments to the planning scheme are included at Appendix 2.

Community statement

Our vision for our communities:

English:

Empowering our people, in our decision, in our culture, for our future

Kala Lagau Ya:

Ngalpun yangu kaaba woeydhay, a ngalpun muruygaw danalagan mabaygal kunakan palayk, bathayngaka

Meriam Mir:

Buaigiz kelar obaiswerare, merbi mir apuge mena obakedi, muige merbi areribi tonarge, ko merbi keub kerkerem

Kala Kawau Ya:

Ngalpan moebaygal thoepoeriwoeyamoeyn, ngalpan ya kuduthoeraynu, ngalpan igililmaypa, sepa setha wara goeygil sey boey wagel

The traditional people of the Torres Strait are of Melanesian origin and speak two distinct traditional languages. In the eastern islands the traditional language is Meriam Mir, whilst the western and central Island groups speak either Kala Lagau Ya or Kala Kawau Ya, which are dialects of the same language. Torres Strait Creole and English are also spoken.

Our vision is expressed in the **languages of our region**, recognising the importance and **diversity of our culture and traditional languages**.

Our vision signifies that the **heart of our region is our people**, with culture an important part of our lives both now and into the future. Empowering our people to contribute to, and make decisions regarding their future ensures that **our culture will remain strong** and that **the future will be guided by the people who live in the region** and understand and promote its unique characteristics.

Editor's Note – The community statement is extrinsic material to the planning scheme.

Contents

Part 1 About the planning scheme

1.1 Introduction

(1) The Zenadth Kes Planning Scheme (Planning Scheme for the Torres Strait Regional Island Council Area) has been prepared in accordance with the *Sustainable Planning Act 2009* (the SP Act) as a framework for managing development in a way that advances the purpose of the SP Act.

(2) The planning scheme was amended for alignment with the Planning Act 2016 (the Act) by the Minister's rules under section 293 of the Act on the19th and 20th December 2017.

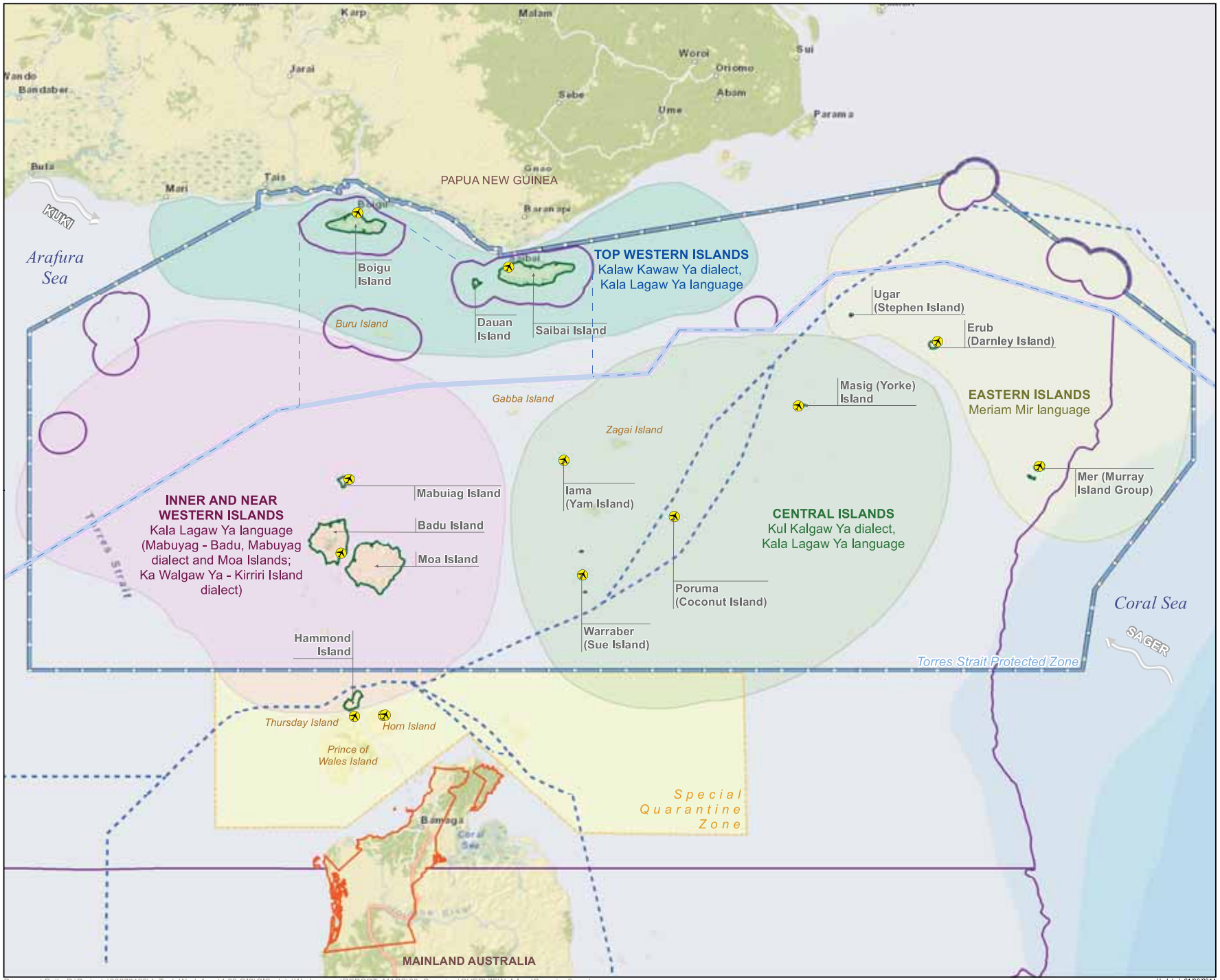
(3) In seeking to achieve this purpose, the planning scheme sets out the Torres Strait Island Regional Council's intention for the future development in the planning scheme area, over the next 25 years.

(4) The planning scheme seeks to advance state and regional policies through more detailed local responses, taking into account the local context.

(5) While the planning scheme has been prepared with a 25 year planning horizon, it will be reviewed periodically in accordance with the Act to ensure that it responds appropriately to the changes of the community at a local, regional and state level.

(6) The planning scheme applies to the planning scheme area of Zenadth Kes (Torres Strait Island Regional Council) including all premises, roads, internal and interrelates with the surrounding local government areas illustrated in Map 1.

Editor's Note – State legislation may state that the planning scheme does not apply to certain areas, e.g. priority development areas or strategic port land under the *Transport Infrastructure Act 1994*.



Zenadth Kes
Planning Scheme:
Planning Scheme for
The Torres Strait Island
Regional Council Area

LEGEND

- Air Infrastructure
- Fisheries Jurisdiction Line
- Shipping Channel
- Seabed Jurisdiction Line
- Torres Strait Protected Zone
- Special Quarantine Zone

LGA Boundary

- Torres Strait Island Regional
- Torres Shire
- Northern Peninsula Area Regional
- Kuki (NW Winds - January to April)
- Sager (SE Winds - May to December)

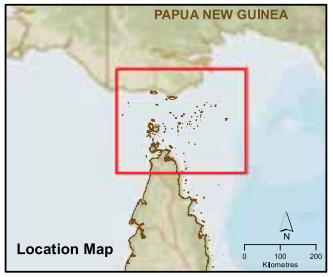
Data Sources:
Unless stated below all landuse, road, or natural feature data shown is from the Strategic Landuse Plan (SLUP) by the RPS Group 2010.
Community Consultation 2013: Local Names, Places and identified facilities
Queensland Dept. Natural Resources and Environment: Imagery, LGA Boundaries, Terrain data and Flooding layers
AECOM: all strategic framework, zoning and local area plan data is modified from the SLUP and DNRM source data.
James Cook University: Coastal Hazard and Coastal Innundation where shown.
Location Map Base Data and LGA map base imagery:
Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, OpenStreetMap contributors, and the GIS User Community

Disclaimer:
AECOM does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. AECOM shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information. Where not part of the DCDB, internal lot boundaries have been derived based on visible occupation of land from 2011,2012 and 2013 orthorectified aerial imagery and CAD Detail Survey. They should not be considered spatially accurate (Derived Lot Boundary)

Projection: GCS GDA 1994 **Datum:** GDA 1994

Approx. Scale @A3 1:1,100,000

0 20 40
Kilometers



Planning Scheme Area & Local Context

1.2 Planning scheme components

(1) The planning scheme comprises the following components:

- (a) about the planning scheme
- (b) state planning provisions
- (c) the strategic framework
- (d) the local government infrastructure plan
- (e) tables of assessment
- (f) the following zones:
  - (i) Environmental management and conservation zone
  - (ii) Township zone
    - (A) Township expansion precinct
- (g) the following local plans:
  - (i) Badu Island
  - (ii) Boigu Island
  - (iii) Dauan Island
  - (iv) Erub (Dranley) Island
  - (v) Iama (Yam) Island
  - (vi) Kirriri (Hammond) Island
  - (vii) Kubin (on Moa Island)
  - (viii) Mabuyag Island
  - (ix) Masig (Yorke) Island
  - (x) Mer (Murray) Island
  - (xi) Poruma (Coconut) Island
  - (xii) Saibai Island
  - (xiii) St Pauls (on Moa Island
  - (xiv) Ugar (Stephens) Island
  - (xv) Warraber (Sue) Island
- (h) the following development codes:
  - (i) Infrastructure and works code
  - (ii) Reconfiguring a lot code
  - (iii) Water quality and acid sulfate soils code
- (i) schedules and appendices.

(2) The following planning scheme policies support the planning scheme:

- (a) Cultural heritage planning scheme policy
- (b) Having a say planning scheme policy.

1.3 Interpretation

1.3.1 Definitions

(1) A term used in the planning scheme has the meaning assigned to that term by one of the following:

(a) the Planning Act 2016 (the Act)

(b) the Planning Regulation 2017 (the Regulation), other than the regulated requirements

(c) the definitions in Schedule 1 of the planning scheme

(d) the *Acts Interpretation Act 1954*

(e) the ordinary meaning where that term is not defined in any of hte above.

(2) In the event a term has been assigned a meaning in more than one of the instruments listed in sub-section 1.3.1(1), the meaning contained in the instrument highest on the list will prevail.

(3) A reference in the planning scheme to any act includes any regulation or instrument made under it, and where amended or replaced, if the context permits, means the amended or replaced act.

(4) A reference in the planning scheme to a specific resource document or standard, means the latest version of the resource document or standard.

(5) A reference to a part, section, table or schedule is a reference to a part, section, table or schedule of the planning scheme.

Editor's Note – The regulated requirements do not apply to this planning scheme.

1.3.2 Standard drawings, maps, notes, editor's notes and footnotes

(1) Standard drawings contained in codes or schedules are part of the planning scheme.

(2) Maps provide information to support the outcomes and are part of the planning scheme.

(3) Notes are identified by the title 'note' and are part of the planning scheme.

(4) Editor's notes and footnotes are extrinsic material, as per the *Acts Interpretation Act 1954*, and are identified by the title 'editor's note' and 'footnote' and are provided to assist in the interpretation of the planning scheme; they do not have the force of law.

Note – This is an example of a note.

Footnote – This is an example of a footnote.

Editor's Note – This is an example of an editor's note.

Editor's notes may also look like the examples below.

Editor's Note –

Gogobithiay (land, sea and sky) is fundamental to the Torres Strait Islander way of life. Gogobithiay cannot be separated into land, sea and sky and it cannot exist without the Torres Strait people.

Editor's Note –

Community Snapshot

Location

- Badu Island is part of the Torres Strait inner and near western group of islands. The Badu community in the largest in the Torres Strait Island Regional Council area and the second largest in the Torres Strait after Thursday Island.

Editor's Note –

Local Story

Long ago at Wakaid there was a man who had four beautiful daughters, Madainab, Mainab, Damanab, and Kotinab.

One day he told them that they would be going that night to hunt for turtle by torchlight.

1.3.3 Punctuation

(1) A word followed by ';' or ', and' is considered to be 'and'

(2) A word followed by '; or' means either or both options can apply.

1.3.4 Zones for roads, closed roads, waterways and reclaimed land

(1) The following applies to a road, closed road, waterway or reclaimed land in the planning scheme area:

(a) if adjoined on both sides by land in the same zone—the road, closed road, waterway or reclaimed land is in the same zone as the adjoining land

(b) if adjoined on one side by land in a zone and adjoined on the other side by land in another zone—the road, closed road, waterway or reclaimed land is in the same zone as the adjoining land when measured from a point equidistant from the adjoining boundaries

(c) if the road, closed road, waterway or reclaimed land is adjoined on one side only by land in a zone—the entire waterway or reclaimed land is in the same zone as the adjoining land

(d) if the road, closed road, waterway or reclaimed land is covered by a zone then that zone applies.

Editor's Note – The boundaries of the local government area are described by the maps referred to in the Local Government Regulation 2012.

1.4 Categories of development

(1) The categories of development under the Act are:

(a) accepted development

(b) assessable development:

(i) code assessment

(ii) impact assessment

Editor's Note – A development approval is required for assessable development. Schedule 9, 10 and 12 of the Regulation also prescribe assessable development.

(c) prohibited development

Editor's Note – A development application may not be made for prohibited development. Schedule 10, part 4 of the Regulation prescribes prohibited development.

(2) The planning scheme states the category of development for certain types of development, and specifies the category of assessment for assessable development in the planning scheme area in part 5.

Editor's Note – Section 43 of the Act identifies that a categorising instrument categorises development and specifies categories of assessment and may be a regulation or local categorising instrument. A local categorising insturment includes a planning scheme, a TLPI or a variation approval.

Accepted: means no planning permit is needed

Accepted subject to requirements: means no planning permit is needed but the proposed development has to comply with all relevant accepted subject to requirements outcomes prescribed in the scheme

Code assessment: means a development permit is needed and the proposed development has to comply with all relevant codes in the planning scheme

Impact assessment: means the proposed development needs to comply with the planning scheme as a whole

Prohibited development: means a development application can not be made as the proposed development is not allowed under the planning scheme

1.5 Hierarchy of assessment benchmarks

(1) Where there is inconsistency between provisions in the planning scheme, the following rules apply:

(a) relevant assessment benchmarks or requirements for accepted development specified in the Planning Regulation prevail over the planning scheme to the extent of any inconsistency

(b) the strategic framework prevails over all other components to the extent of the inconsistency for impact assessment

(c) relevant codes as specified in Schedules 6 and 10 of the Regulation prevail over all other components to the extent of the inconsistency

(d) overlays prevail over all other components (other than the matters mentioned in (a) and (b)) to the extent of the inconsistency

(e) local plan codes prevail over zone codes, use codes and other development codes to the extent of the inconsistency

(f) zone codes prevail over use codes and other development codes to the extent of the inconsistency.

1.6 Building work regulated under the planning scheme

(1) Section 17(b) of the Regulation identifies that a local planning instrument must not be inconsistent with the effect of the building assessment provisions stated in the *Building Act 1975*.

(2) The building assessment provisions are listed in section 30 of the *Building Act 1975*.

Editor's Note – The building assessment provisions are stated in section 30 of the *Building Act 1975* and are assessment benchmarks for the carrying out of building assessment work or the building work that is accepted development subject to any requirements (see also section 31 of the *Building Act 1975*).

(3) This planning scheme, through part 5, regulates building work in accordance with sections 32 and 33 of the *Building Act 1975*.

Editor's Note – The *Building Act 1975* permits planning schemes to:

- Regulate, for the Building Code of Australia (BCA) or the Queensland Development Code (QDC), matters prescribed under a regulation under the *Building Act 1975* (section 32). These include variations to provisions contained in parts MP1.1, MP 1.2 and MP 1.3 of the QDC such as heights of buildings related to obstruction and overshadowing, siting and design of buildings to provide visual privacy and adequate sight lines, on-site parking and outdoor living spaces. It may also regulate other matters, such as designating land liable to flooding, designating land as bushfire prone areas and transport noise corridors
- Deal with an aspect of, or matter related or incidental to, building work prescribed under a regulation under section 32 of the *Building Act 1975*.
- Specify alternative boundary clearances and site cover provisions for Class 1 and 10 structures under section 33 of the *Building Act 1975*.

Refer to Schedule 9 of the Regulation to determine assessable development, the type of assessment and any referrals applying to the building work.

(4) There are no building assessment provisions in this planning scheme. However, this planning scheme designates bushfire prone areas, flood hazard and storm tide hazard areas. It also declares a defined flood level.

Editor's Note – A decision in relation to building work that is assessable development under the planning scheme should only be issued as a preliminary approval. See section 83(b) of the *Building Act 1975*.

Editor's Note – In a development application the applicant may request preliminary approval for building work. The decision on that development application can also be taken to be a referral agency's response under section 56 of the Act, for building work assessable against the *Building Act 1975*.

1.7 Local government administrative matters

(1) Applicants are asked to commence discussions with TSIRC and the relevant Prescribed Body Corporate (PBC) prior to lodging a development application, wherever possible. This is important so that local knowledge, including matters relating to cultural heritage and ailan kastom, can be incorporated into the proposed development.

(2) The Cultural Heritage Planning Scheme Policy in schedule 5.2 provides further information about the role of Traditional Owners and PBCs and how this information needs to be incorporated into the development application process.

(3) The Having a Say Planning Scheme Policy in schedule 5.3 outlines a process that TSIRC may choose to follow to seek additional advice from Traditional Owners and PBCs (and other individuals and organisations) if information provided by the applicant is considered to be insufficient.

(4) The following editor's notes (see overleaf) relate to native title and land tenure. The information is provided for information purposes only and is extrinsic material to the planning scheme.

Editor's Note – Native title rights are recognised over the majority of TSIRC land and waters. In addition, some native title claims have been registered with, and are still being considered by, the National Native Title Tribunal.

Applicants of development proposals need to be aware of their obligations under the *Native Title Act 1993*. The *Native Title Act 1993* provides a system or a process to facilitate dealings that may affect native title, during the native title claim process and after native title has been recognised. The purpose of the act is to recognise and protect native title; provide a process for the recognition of native title; render valid certain past acts; provide certainty in the extinguishment of native title in some cases; and provide for certain future acts to be done validly.

If a proposed development affects native title, consent in the form of an Indigenous Land Use Agreement (ILUA) may be required before development can take place. This process is separate to any approvals required under this planning scheme.

ILUAs are negotiated with the Registered Native Title Body Corporate (RNTBC) (also sometimes referred to as a Prescribed Body Corporate (PBC)), which is responsible for consulting with the people listed on the native title claim and their descendents (i.e. the Traditional Owners of the land) and doing business on their behalf.

To ensure that applicant's obligations under the *Native Title Act 1993* are met, applicants should make initial contact with the Torres Strait Island Regional Council (TSIRC) prior to preparing a development application. The TSIRC will be able to assist with identifying the correct RNTBC contact with which to make further enquiries.

For further information about existing native title determinations, claims and ILUAs refer to the National Native Title Tribunal (www.nntt.gov.au).

Editor's Note – The majority of islands in the TSIRC area are DOGIT land (deed of grant in trust) held in trustee by the Torres Strait Island Regional Council, which acts on behalf of the community.

On a number of islands, this situation has changed, with the land being transferred to Torres Strait Islander Freehold under recent changes to the *Torres Strait Islander Land Act 1991*. At the time of writing, this has occurred on Mer Island and Badu Island, with discussions commencing on Kirriri Island.

Applicants will need to be aware of the status of land ownership, which may have implications for who is the rightful signatory on owner's consent forms, among other things.

For further information and to make initial enquiries, applicants should contact the Torres Strait Island Regional Council.

Part 2 State planning provisions

2.1 State planning policy

The Minister has identified that the state planning policy (July 2014) is integrated in the planning scheme in the following ways:

State interests in the state planning policy appropriately integrated

- Liveable communities
- Housing supply and diversity
- Agriculture
- Development and construction
- Mining and extractive resources
- Tourism
- Biodiversity
- Coastal environment
- Cultural heritage
- Water quality
- Emissions and hazardous activities
- Natural hazards
- Energy and water supply
- State transport infrastructure
- Strategic airports and aviation facilities

State interests in the state planning policy not integrated

- Nil

State interests in the state planning policy not relevant to the Torres Strait Island Regional Council

- Strategic ports

Editor's Note – In accordance with section 8(4)(a) of the Act the state planning policy applies to the extent of any inconsistency.

2.2 Regulated requirements

The regulated requirements as identified in section 5(2)(a) of the Planning Regulation 2017 are not reflected in this planning scheme. The Minister has identified that the Queensland Planning Provisions (QPP) version 3.1 dated 27 June 2014 are appropriately reflected in the planning scheme.

Editor's Note – The planning scheme reflects the Queensland Planning Provisions Version 4.0 dated January 2016.

Part 3 Strategic framework

3.1 Preliminary

(1) The strategic framework sets the policy direction for the planning scheme and forms the basis for ensuring appropriate development occurs in the planning scheme area for the life of the planning scheme.

(2) Mapping for the strategic framework is included in Schedule 2, and is presented on maps for each island.

(3) For the purpose of describing the policy direction for the planning scheme, the strategic framework is structured in the following way:

(a) the strategic intent

(b) the themes and elements listed in table 3.1.1 that collectively represent the policy intent of the scheme

(c) the strategic outcomes proposed for development in the planning scheme area for each theme

(4) Although each theme has its own section, the strategic framework in its entirety represents the policy intent for the planning scheme.

Table 3.1.1—Theme and Element Headings in the Strategic Framework

Theme	Element
Gogobithiay (land, sea and sky)	• Environment and natural resources • Waterways, wetlands and ground water • Land and soil
Natural hazards	• Coastal hazards • Flood, bushfire, landslide
Torres Strait people and townships	• Health and wellbeing • Economic development and employment • Housing and community expansion • Education and community facilities • Cross border movement
Ailan kastom and cultural heritage	• Ailan kastom • Cultural heritage
Getting around	• Roads • Air access • Sea access
Town infrastructure	• Water and waste water • Waste • Drainage • Electricity • Telecommunications

3.2 Gogobithiay (Land, Sea and Sky)

✎ **Editor's Note –**

Gogobithiay (land, sea and sky) is fundamental to the Torres Strait Islander way of life. Gogobithiay cannot be separated into land, sea and sky and it cannot exist without the Torres Strait people. The existence and health of gogobithiay are essential to the community's health, wellbeing, economy and way of life.

The islands of the Torres Strait were formed through different natural processes and can be grouped into:

- *Top Western Islands (Boigu, Dauan and Saibai)*
  Boigu and Saibai were formed by alluvial sedimentary deposits flowing from rivers in Papua New Guinea to the sea. These islands are low lying and mostly composed of mangrove muds and peats. In terms of geology, Dauan is similar to the inner and near western groups of islands.

- *Inner and Near Western Islands (Badu, Mabuaig, Kubin, St Pauls and Kirriri)*
  These islands are hilly and steep and composed mainly of granite and volcanic rock. The islands are peaks of the northern most extension of the Great Dividing Range, now separated from the mainland by sea.

- *Central Islands (Iama (Yam), Masig (Yorke), Poruma (Coconut) and Warraber (Sue))*
  These islands are low lying islands of sandy coral cays formed by wave action over platform reefs. Iama has geological characteristics more similar to the inner and neat western group of islands.

- *Eastern Islands (Mer (Murray), Ugar (Stephen) and Erub (Darnley) Island)*
  These islands are high volcanic islands with steep vegetated slopes and exposed rock. The soils on these islands are very fertile and good for gardening.

Although there are common characteristics across the islands, gogobithiay of each island and the surrounding seas is unique.

3.2.1 Element – Environment and Natural Resources

Editor's Note –

The environment and natural resource values of the Torres Strait Islands include important habitat for plants and animals, both on land and in the sea. These areas, and the natural resources within them, are associated with ailan kastom, traditional medicine, spiritual beliefs and totems. All are essential to the wellbeing of Torres Strait Islander communities.

As island communities, the people of the Torres Strait have close connections to the sea, which provides a source of food, recreation, fishing and transport. In addition, marine and foreshore areas provide staging, foraging and breeding areas for migratory seabirds.

Strategic Outcomes

(1) The environment and natural resources of the Torres Strait Islands continue to support the quality of life and the wellbeing of the Torres Strait Island communities, including both current and future generations.

(2) On all islands, development for urban purposes is contained within the township zone and away from areas of high or moderate environmental value, except where the development:

  (a) needs to be separated from where people live; or

  (b) needs to be located in a particular place or near a particular resource to be able to function; or

  (c) requires a large area of land that can not physically fit within the township zone; or

  (d) is for the purpose of a utility installation (sewerage treatment plant or water supply infrastructure) or renewable energy facility; or

  (e) is required to support ailan kastom or traditional practices.

(3) Wherever possible, areas of high environmental value and moderate environmental value are protected to ensure the integrity of natural processes and to maintain or enhance nature conservation, landscape, visual quality, biodiversity, fisheries resources and habitat values.

(4) Development minimises the effects of development on plants and animals and avoids fragmentation of habitat so that animals can move easily to different areas of habitat to access food sources.

(5) The ecological values of marine ecosystems, including coastal waters, dunes and foreshore areas are protected from the impacts of development.

(6) The use of coastal resources for hunting and fishing is undertaken in a way that means it will be available for consumption and enjoyment by future generations.

Editor's Note – Urban purposes is used in this document to describe all of the defined activity groups other than rural activities in schedule 1.1.1 in this planning scheme. An exception to this is part 4 of the planning scheme where urban purposes is defined as per the administrative definitions in schedule 1.2 of this planning scheme.

Editor's Note – It is important that all land users are aware of their obligations under the *Vegetation Management Act (VMA) 1999*. The requirements of the *VMA Act 1999* continue to apply in addition to any requirements specified by this planning scheme for the protection of environmental values.

3.2.2 Element – Waterways and Wetlands

Editor's Note –

A waterway can be a creek, brook, river or stream and may have a lake, estuary or inlet at its base. Waterways may include floodplain or wetland systems and can be above or below ground. Waterways and wetlands may be permanently, seasonally or intermittently inundated with water, and may be fresh, saline, flowing or static.

The islands of the Torres Strait Island Regional Council are diverse and were formed by different natural processes. Therefore, not all islands have waterways and wetlands. Where waterways and wetlands exist, they provide for important natural processes and habitat. They are an important community resource.

Strategic Outcomes

(1) Waterways, wetlands and associated natural processes are protected to maintain water quality, natural flood flows and protective functions during storm tides as well as riparian habitat and landscape quality.

(2) Water storages for use by island communities are protected from the impacts of development so that the supply and quality of drinking water is not reduced.

(3) Recreational and commercial fishing areas, whether part of freshwater or marine ecosystems, are important places where local people go to recreate and fish. Upstream development does not result in runoff that impacts on the environmental and habitat qualities of these places.

(4) Recreational opportunities based on waterways and wetlands are provided in a way that does not negatively impact water quality, flood flows, riparian habitat values and landscape quality.

Editor's Note – The maps provided in schedule 2 show the locations of all known waterways. It should be noted that other waterways may exist that are not shown on these maps.

3.2.3 Element – Land and Soil

Editor's Note –

The land, together with the sea, gives communities life. The communities of the Torres Strait manage their land by working with nature rather than against it.

Strategic Outcomes

(1) Disturbance of soil is minimised and managed so that salinity and rising water tables are not created and erosion, sedimentation, acidification and water quality degradation are prevented.

3.3 Natural Hazards

Editor's Note –

Natural hazards include bushfire, landslide, flooding, storm tide inundation and erosion. The threats to Torres Strait Island communities caused by these natural hazards differ from island to island.

3.3.1 Element – Coastal Hazards

Editor's Note –

The Torres Strait Islands are vulnerable to climate change, tropical cyclones, storms and associated coastal hazards, which are described in this planning scheme as erosion and storm tide inundation.

The impacts of coastal hazards on Torres Strait people and townships are worse in low lying communities and may worsen over time as the global climate changes and sea levels rise. Coastal dunes and vegetation provide protection for many of these communities, allowing for natural processes of coastal change and absorbing the erosive energy of waves.

Strategic Outcomes

(1) Risks to people and property caused by coastal hazards, including erosion, storm tide inundation and the impacts of projected sea level rise, are minimised to the greatest extent possible through the following combination of responses:

(a) Avoiding –

(i) Coastal hazard areas are kept free of essential community infrastructure, community facilities and accommodation activities, unless involving coastal dependent development; or temporary or readily relocatable development; or the upgrade or replacement of existing buildings or infrastructure; or a house or dual occupancy on an existing lot within the township zone;

(ii) New lots are not created within a coastal hazard area unless the purpose of the subdivision is to create a lot over a lease area or house site established before the planning scheme was adopted; or the lots are within a designated expansion area and the requirements of (c) and (d) are met;

(iii) Development does not worsen the severity or impact to people and property caused by coastal hazards.

(b) Retreating –

(i) When in need of upgrading or replacement, essential community infrastructure, community facilities and accommodation activities within a coastal hazard area are relocated outside of this area, wherever possible.

(c) Accommodating –

(i) Unless coastal dependent or temporary or readily relocatable, development within a coastal hazard area is:

(A) sited to lessen the potential risk of erosion and storm tide inundation;

(B) designed to withstand the erosion and storm tide inundation hazard; and

(C) designed to minimise susceptibility to erosion and storm tide inundation;

(ii) Essential community infrastructure is able to function effectively during and immediately after a coastal hazard;

(iii) Community facilities, accommodation activities and coastal dependent development provide for an evacuation route that is available at all times;

(iv) Development involving the manufacture or storage of hazardous materials does not increase risk to public safety or the environment caused by erosion or storm tide inundation.

(d) Protecting –

(i) To the greatest extent possible, development maintains environmental features and physical characteristics that provide protective functions for existing development against the risk of erosion and storm tide inundation;

(ii) As a last resort, coastal protection works may be considered to protect existing development.

Editor's Note – It is critical that future development in the Torres Strait takes into account potential risks associated with coastal hazards such as erosion and storm tide inundation, both now and in the future as sea levels rise. Planning responses will vary from island to island depending on the geomorphology of the island; the location of the township and township expansion area in relation to coastal hazards; the nature and severity of the risk; and the desires and aspirations held by the local community. In many cases, decisions about how to respond to coastal hazards will take time for local communities to thoroughly consider and decide.

This planning scheme takes coastal hazards into account using the best available data (at the time of writing). It is anticipated that, over time, the communities of the Torres Strait will continue to discuss these issues and develop an agreed position on the most appropriate responses at the local level. The outcome of these decisions will need to be incorporated into future amendments or revisions to this planning scheme.

While the best available data has been used in this planning scheme, projections about climate change may alter over time. In addition, circumstances may change which means that previous projections about coastal hazards are no longer valid (for example, if a sea wall is constructed to protect a township, calculations about where sea levels may extend to as a consequence of storm tide inundation and sea level rise will not longer be accurate). These circumstances will be taken into account either through development application processes or through planning scheme amendments.

Note – For the purpose of section 13 of the Building Regulations 2006:

(1) land shown as flood hazard areas and storm tide inundation area on the maps in schedule 2 is designated as the flood hazard area; and

(2) the defined flood level is declared for each island community in the local plans provided in part 7 of this planning scheme.

Editor's Note – Dwelling houses and dual occupancies are not made assessable in the township zone under section 5 of this planning scheme. However, building works approval will be required. The declaration of flood hazard areas under the planning scheme trigger various requirements under the Building Codes of Australia.

Editor's Note – Essential community infrastructure is used in this document to describe infrastructure that is critical during and after an emergency and includes land uses such as emergency services, hospitals, health care services, renewable energy facilities, telecommunications facilities, utility installations, substations and major electricity infrastructure (see the land use definitions in schedule 1.1).

This is different to the term community facilities, which is used in this document to describe facilities which provide important social services to the community. Land use examples of community facilities include cemeteries, child care centres, clubs, community care centres, community residences, community uses, crematoriums, detention facilities, educational establishments, emergency services, health care services, hospitals, places if worship, retirement facilities, residential care facilities and rooming accommodation (see the land use definitions in schedule 1.1).

Note – Coastal dependent development is defined in the State Planning Policy.

3.3.2 Element – Flood, Bushfire and Landslide

Editor's Note –

In the Torres Strait, flooding can be caused by heavy rainfall or it may come from the sea. Flooding from the sea is referred to as storm tides and is dealt with in section 3.4.1 above. Flooding caused by rainfall is a potential hazard in ten of the fifteen Torres Strait Island Regional Council communities and is dealt with in this section. The affected communities are:

- *Inner and near wester group – Badu Island, Kirriri Island, Mabuyag Island, St Pauls (Moa Island) and Kubin (Moa Island);*
- *Top western group – Dauan Island;*
- *Eastern group – Ugar Island, Erub Island and Mer Island;*
- *Central group – Iama Island.*

Bushfire may affect all of the Torres Strait Island communities and is largely dependent on the vegetation and slope of the land.

Landslide is a threat in some communities and not in others, depending on topography and vegetation cover. Islands in the inner and near western group tend to be steep and hilly as these islands are peaks of the northern most extension of the Great Dividing Range now separated by sea and therefore may be affected by landslide hazard.

The planning scheme mapping in schedule 2 shows the affected areas.

Strategic Outcomes

(1) Development avoids, minimises or mitigates risks to people and property caused by flooding, bushfire and landslide.

(2) Buildings are not located within flood corridors along waterways shown as flood hazard areas on the local plan maps.

Editor's Note – The local plan codes in part 7 also contain requirements for new development to avoid waterway corridors.

(3) Within other flood hazard areas affecting land in the township zone, development is sited and designed to minimise or mitigate the flooding risk.

(4) Development does not worsen the severity or impact to people and property caused by flooding, bushfire and landslide.

(5) Essential community infrastructure is able to function effectively during and immediately after a flood, bushfire or landslide.

Note – For the purpose of section 13 of the Building Regulations 2006:

(1) land shown as flood hazard areas and storm tide inundation areas on the maps in schedule 2 is designated as the flood hazard area; and

(2) the defined flood level is declared for each island community in the local plans provided in part 7 of this planning scheme.

Note – Land shown as bushfire hazard area on the maps in schedule 2 is designated as the bushfire prone area for the purposes of section 12 of the Building Regulation 2006. The bushfire hazard area (bushfire prone area) includes land covered by very high, high and medium hazard areas as well as the buffer area category.

3.4 Torres Strait People and Townships

Editor's Note –

The fifteen communities that make up the Torres Strait Island Regional Council area are planning for a strong and resilient future. The key issues and priorities for the people and townships (as reflected in the TSIRC community plan) are:

- *Housing – to achieve the provision of adequate, appropriate and affordable housing.*
- *Economic development and employment - to enhance our region's wealth, by creating sustainable industries and increasing employment opportunities for our people equivalent to the wider Australian community.*
- *Health and wellbeing – to enhance both healthy communities and our living environment and to achieve safe, healthy, respectful and progressive communities based on Ailan Kastom.*
- *Schooling, social services and early childhood – to increase regional education to a national standard; to create strong families and safe, healthy communities that are guided by cultural and traditional lore; and to nurture early learning development and socialisation opportunities that incorporate Indigenous traditional and cultural practices.*

(TSIRC Community Plan; 2009-2029)

3.4.1 Element – Economic Development and Employment

Editor's Note –

Improving the economic strength of Torres Strait Island region and Torres Strait Islander people is a high priority. This goes hand in hand with wealth and employment creation and will improve the standard of living of Torres Strait Islander people and communities.

Strategic Outcomes

(1) Development supports the creation of local industries providing increased opportunities for employment, training and capacity building in all Torres Strait Island communities.

(2) Local industries are owned and operated by local people and may include fisheries resources, marine based industries, industrial activities, tourism, construction and arts and craft.

(3) Activities associated with establishing and operating local industries do not unduly impact on the region's environmental values and natural resources and ensures these are available for enjoyment by future generations.

(4) New community services and commercial activities are established within township centre core areas where these are designated.

(5) New industrial activities are located within industry core areas where these are designated.

(6) New development does not unduly impact on the amenity of townships or increase risk to community health and safety.

3.4.2 Element – Health and Wellbeing

Editor's Note –

Health standards and life expectancy of Torres Strait Islanders is lower than the average Australian. This situation needs to be addressed as a matter of priority.

Access to affordable primary health care and preventative health care is important to address this issue, as well as the promotion of active and healthy lifestyles for all Torres Strait Islanders.

Strategic Outcomes

(1) Development is well-designed and encourages participation in community life and the promotion of active and healthy lifestyles.

(2) Communities have access to essential services and infrastructure, including primary health care and preventative health care to support healthy families.

(3) Wherever possible, development supports access to affordable, fresh and healthy food options throughout the Torres Strait region.

3.4.3 Element – Housing and Community Expansion

Editor's Note –

Access to appropriate and affordable housing is vital to the health and wellbeing of Torres Strait Islanders. In particular, new housing is necessary to improve living conditions, alleviate issues related to over-crowding and facilitate access to traditional lands by Traditional Owners.

Other development may also be required in the future to support the needs of Torres Strait Island communities. This development is to occur in a way that best serves the communities, while protecting important environmental and community values.

Strategic Outcomes

(1) New development for urban purposes is generally accommodated within the township area, which is framed by undeveloped and natural areas.

(2) Within the township area, new development facilitates the efficient and sustainable use of infrastructure including water supply and sewerage infrastructure.

(3) New development contributes to the creation of pleasant, safe and attractive living environments and the health and wellbeing of Torres Strait Islanders.

(4) Housing options are available to individuals and families across the region which:

- (a) include affordable home ownership and rental opportunities;
- (b) reduce overcrowding;
- (c) provide a mix in the type of housing available to meet current and future community needs;
- (d) provide opportunities for traditional owners to live on their traditional lands;
- (e) are culturally appropriate;
- (f) designed to minimise operational and maintenance costs.

(5) New accommodation activities make efficient use of available unconstrained land with the township area.

(6) Development within the township expansion area is well connected to the existing township area and creates a pleasant living environment.

(7) Development is sited and designed to work with local climatic conditions to reduce reliance on energy use for cooling.

(8) Outstations and camping areas are generally located within the environmental management and conservation zone and are an important part of Torres Strait Islander life, helping to keep communities connected to their traditional lands. Outstations and camping areas provide important benefits to local communities including recreational, spiritual, health and wellbeing benefits.

(9) New outstations and camping areas occur where damage to areas of high environmental value is minimised.

(10) Outstations and camping areas are generally not connected to town infrastructure.

(11) Possible future housing investigation areas have been identified on a number of islands. These areas are not intended to be utilised for township purposes prior to substantive investigations of constraints (including vulnerability to natural hazards), servicing options and development feasibility, as well as negotiation with traditional owners. Parts or all of these areas may prove to be unsuitable for development as a result. Some represent very long term options that may accommodate relocation of housing and facilities in response to the increased risks associated with sea level rise.

Editor's Note – Urban purposes is used in this document to describe all of the defined activity groups other than rural activities in schedule 1.1.1 in this planning scheme. An exception to this is part 4 of the planning scheme where urban purposes is defined as per the administrative definitions in schedule 1.2 of this planning scheme.

Editor's Note – 'Camping area' is a term sometimes used by Torres Strait Islander people to refer to 'outstations', which is defined in schedule 1.1 of this planning scheme.

Editor's Note – Applicants should be aware of their obligations under the *Disability Discrimination Act 1992* and the Disability (Access to Premises—Building) Standards 2010. The standards have been incorporated into the National Construction Code from 1 May 2011 and, as a result, must be met as part of a building development application.

The standards contain provisions for non-discriminatory access to public buildings for people with a disability and provide a nationally consistent set of provisions that detail what must be done to provide for non-discriminatory access to buildings for people with disability.

Editor's Note – In undertaking township development in areas affected by natural hazards, regard must also be given to section 3.3 of this strategic framework.

3.4.4 Element – Education and Community Facilities

Editor's Note –

It is important that Torres Strait Islanders can access appropriate and effective resources and support services in the region. This must be done in a way that promotes the positive application of traditional and cultural practices to deal with family and community issues, including the role of Elders in providing leadership and resolving disputes.

Schooling and education is of high importance to Torres Strait Islanders, particularly for young people. Educational standards, including numeracy and literacy, must be lifted so that young people can transition into career pathways.

Strategic Outcomes

(1) Educational opportunities are available to young people equivalent to mainland Australia and include cultural teaching and training for school leavers to assist them into career pathways.

(2) Facilities and services responding to local education, health and training needs, including cultural training for school leavers, are maintained and new opportunities to improve or expand these facilities and services are facilitated.

(3) Safe and convenient access to community, sport and recreation facilities are available to meet the needs of the community, including people with special needs, older people, children, low income earners and people with disabilities.

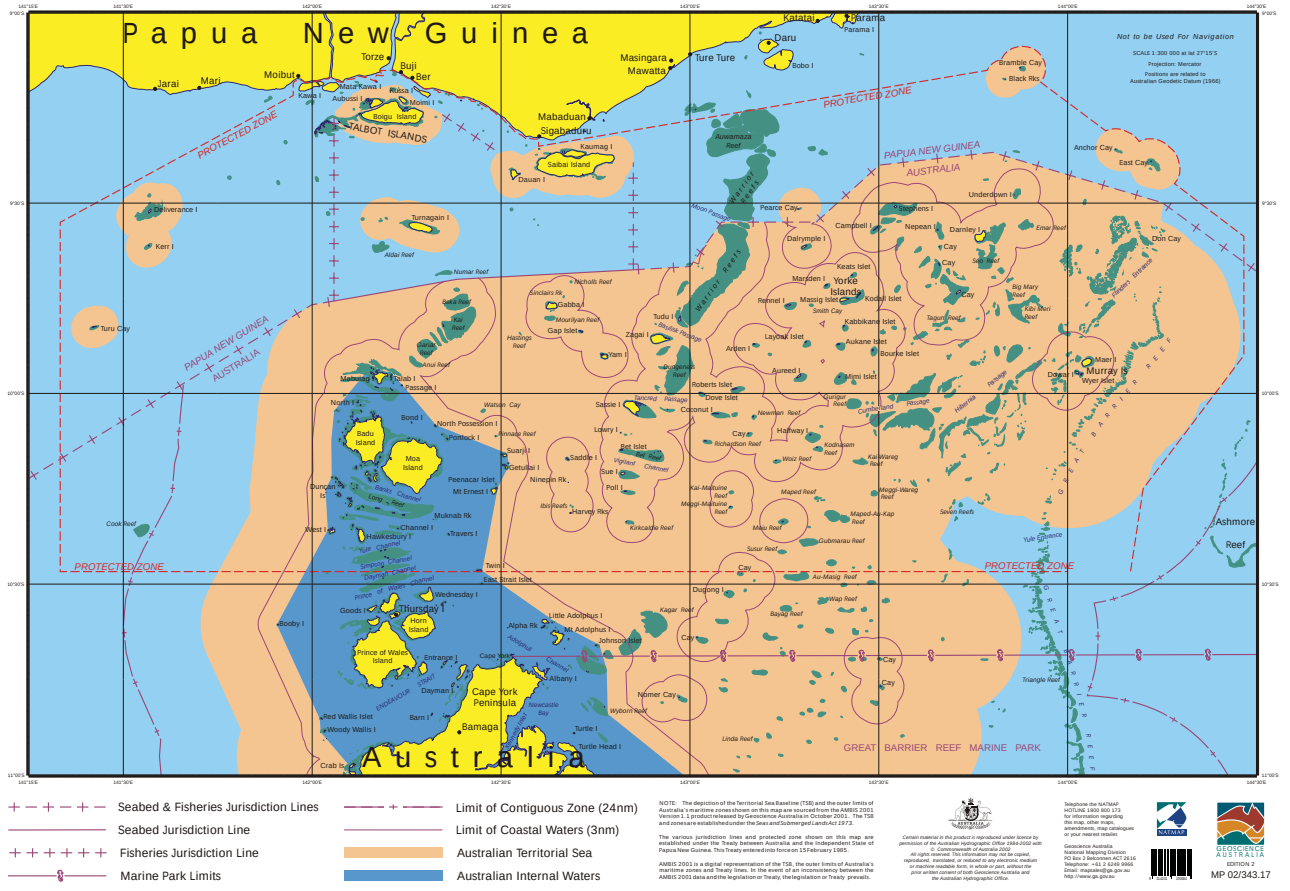
3.4.5 Element – Cross Border Movement

Editor's Note –

The Torres Strait Treaty defines the border between Australia and Papua New Guinea (PNG) and provides a framework for the management of the common border area. Management arrangements for commercial fisheries in the zone have also been put in place under the treaty.

As well as defining the maritime boundaries between PNG and Australia, the treaty protects the ways of life of traditional inhabitants in the Torres Strait Protected Zone (the 'protected zone'). The main reason for the protected zone is so that Torres Strait Islanders and the coastal people of Papua New Guinea (from 13 PNG villages) can carry out their traditional way of life, such as cross border trade, feasting and other customs. Traditional people from both countries may move freely (without passports or visas) for traditional activities in the protected zone.

Australia's Maritime Zones in the Torres Strait



NOTE: The depiction of the Territorial Sea Baseline (TSB) and the outer limits of Australia's maritime zones shown on this map are sourced from the AMBIS 2001 Version 1.1 product released by Geoscience Australia in October 2001. The TSB and zones are established under the Seas and Submerged Lands Act 1973.

The various jurisdiction lines and protected zone shown on this map are established under the Treaty between Australia and the Independent State of Papua New Guinea. This Treaty entered into force on 15 February 1985.

AMBIS 2001 is a digital representation of the TSB, the outer limits of Australia's maritime zones and Treaty lines. In the event of an inconsistency between the AMBIS 2001 data and the legislation or Treaty, the legislation or Treaty prevails.

Telephone the NATMAP HOTLINE 1800 800 173 for information regarding this map, other maps, amendments, map catalogues or your nearest retailer.
Geoscience Australia
National Mapping Division
PO Box 2 Belconnen ACT 2616
Telephone: +61 2 6249 9966
Email: mapsales@ga.gov.au
http://www.ga.gov.au
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Strategic Outcomes

(1) The strategic role of the Torres Strait region as a whole, and the islands of Boigu, Saibai and Dauan in particular, is maintained, particularly in relation to:

  (a) national border security,

  (b) defence of Australian territory and waters; and

  (c) biosecurity including the early detection of the transmission of pests, weeds and disease into Australia.

(2) Development required to support strategic security functions is facilitated, including:

  (a) buildings for occupation by joint agencies needing a local presence in the region;

  (b) infrastructure upgrades to improve capacity to deal with the large number of visitors from Papua New Guinea and the burden this places on town infrastructure and community facilities;

  (c) provision of additional or improved health services to respond to the needs of the local community as well as visitors from Papua New Guinea and to take appropriate action if illnesses are transmitted into the region; and

  (d) improved transportation and telecommunication between islands and to the mainland to minimise response times in the case of an emergency.

3.5 Ailan Kastom and Cultural Heritage

Editor's Note –

There are multiple language and cultural groups across the Torres Strait Island region, each with different identities, cultural practices, customs and histories. Ailan kastom and cultural heritage provide a connection to this history and its preservation is essential to the way forward for the Torres Strait Island communities.

3.5.1 Element – Ailan Kastom

Editor's Note –

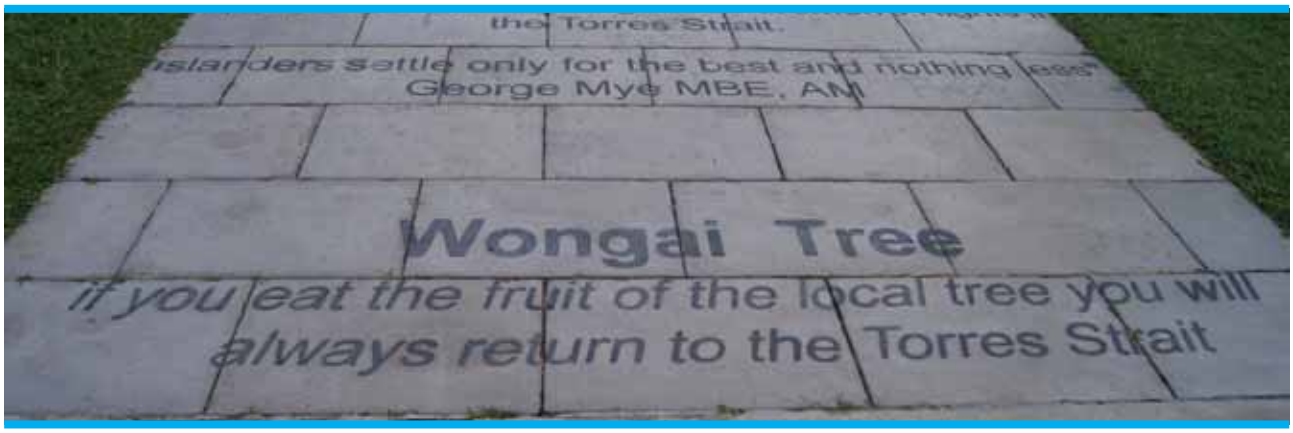
Ailan Kastom means the body of customs, traditions, observances and beliefs of some or all of the Torres Strait Islanders living in the Torres Strait area and relates to particular persons, areas, objects or relationships. Ailan Kastom is central to community life and it is necessary to ensure communities remain connected to culture and traditions.

Strategic Outcomes

(1) Communities are developed based on Ailan Kastom.

(2) Access to the sea is integral to the Ailan Kastom and is necessary for Torres Strait Islanders to carry out traditional hunting practices and to subsidise the cost of living in the Torres Strait region.

(3) Strong Ailan Kastom are passed on through language, culture and dance.



3.5.2 Element – Cultural Heritage

Editor's Note –

In the Torres Strait Island region, there are many different places of cultural heritage importance. Significant areas do not necessarily have markings or other physical evidence. Places of importance may be part of myths or legends ('story places').

These places are all irreplaceable sources of information about people's lives and activities and the historical development of crafts, techniques and art. Cultural heritage provides a source of emotional and aesthetic experiences for many people and local communities benefit from their connection to it. Torres Strait Islander people are the guardians, keepers and knowledge holders of their cultural heritage.

Respecting their sensitive nature, places of Indigenous cultural heritage are not recorded in this planning scheme except in cases where community members requested the information be recorded on the planning scheme maps.

Strategic Outcomes

(1) Places and items of heritage significance for cultural, historical or archaeological reasons are protected and retained for the benefit of current and future generations.

(2) Development does not threaten the integrity of cultural heritage places and items, including impacts that may result from water run off, soil erosion or soil movement onto nearby sites.

(3) Prior to undertaking new development, consultation is undertaken with council, prescribed body corporates and the community to identify potential cultural heritage places.

Editor's Note – Places shown as sacred sites and significant trees on the maps in schedule 2 are potential locations of cultural heritage value. Other locations of cultural heritage value will exist that are not shown on the maps and in some cases, locations are not recorded due to reasons of confidentiality.

It is important that all land users are aware of their obligations under the *Torres Strait Islander Cultural Heritage Act 2003*. The Act recognises that Torres Strait Islander people are the guardians, keepers and knowledge holders of their cultural heritage. Importantly, the Act recognises that significant areas do not necessarily have markings or other physical evidence indicating occupation or denoting its significance. For example, geographical places of importance may such as places that are part of myths or legends (commonly referred to as 'storyplaces') are significant under the Act.

The most important part of the Act is the duty of care provisions that require those conducting activities in areas of significance to take all reasonable and practical measures to avoid harming cultural heritage.

In addition, historical cultural heritage that are not Indigenous in origin are protected under the *Queensland Heritage Act 1992*. These places are recorded in this planning scheme.

3.6 Getting Around

Editor's Note –

Due to the geography of the Torres Strait, safe and efficient access to freight and passenger transport by air and sea that meets the need of the community is a significant issue facing the Torres Strait Islands. It is critical that a quality transport infrastructure and services are available in each community to support the day to day life and intra / inter island movement in the Torres Strait islands.

Editor's Note – Transport infrastructure is used in this document to describe infrastructure required to move people around. Examples include roads, jetties, barge ramps, airports, helipads and walkways.

It includes land use definitions such as air services, transport depot and landing (see the land use definitions in schedule 1.1).

3.6.1 Element – Roads

Editor's Note –

Roads are expensive to construct and maintain. Therefore, the layout of new roads is to be planned in an efficient manner and in a way that connects to the existing road network.

Walking is the most common form of travel in all Torres Strait Island communities and roads serve an important function in supporting this mode of travel. People and cars need to be able to share roads safely.

Strategic Outcomes

(1) The road network provides efficient and safe connections for people travelling by foot, bicycle and vehicle within and between the township area and township expansion area and other key destinations.

(2) New roads provide convenient extensions and connections to the existing road network so that it is easy to move around.

3.6.2 Element – Air Access

Editor's Note –

Air services, supported by sealed, all-weather airstrips in local communities, are available in all Torres Strait Island communities with the exception of Ugar Island, Dauan Island and Hammond Island, which can be accessed by chartered helicopter flights or boat.

Airstrips and helipads are vital pieces of infrastructure to Torres Strait Island communities. It is important this infrastructure can operate in a safe and efficient manner.

Strategic Outcomes

(1) Development that may impact on the safe and efficient operation of existing or future airstrips, including the approach and take-off of air craft, does not occur.

(2) Airstrips and helipads are designed to minimise noise, lighting and other disturbances.

3.6.3 Element – Sea Access

Editor's Note –

As an island region, transportation by sea supports the daily life, commercial activity and access to food for Torres Strait Islanders. Sea transport includes large freight carriers as well as small dinghies, forming a vital network of freight and passenger transport.

Strategic Outcomes

(1) Development that may negatively impact on existing or future sea transport services and facilities, including freight and passenger services, does not occur.

(2) Barge ramps, finger piers and associated facilities required to facilitate sea transport services are designed to:

- (a) minimise noise, lighting and other disturbances to residents and users of surrounding accommodation activities and community facilities;
- (b) operate in a safe and efficient manner;
- (c) minimise impacts to coastal habitats and coastal processes; and
- (d) maintain public access to the beach and foreshore areas to the extent possible.

3.7 Town Infrastructure

Editor's Note –

Town infrastructure includes such things as electricity, water supply, waste water treatment, waste management, stormwater management and telecommunications.

This infrastructure plays a vital role in the health and wellbeing of Torres Strait communities.

Editor's Note – Town infrastructure is used in this document to describe infrastructure required to provide a basic range of town services. Examples include water supply, sewage treatment, waste collection and disposal, stormwater management, electricity and telecommunications. It includes land uses such as major electricity infrastructure, renewable energy facilities, sub-stations, telecommunication facilities and utility installation facilities (see the land use definitions in schedule 1.1).

Services provided by town infrastructure may or may not be available within the township zone but typically are not available outside of the township zone. For further information about the existing and planned infrastructure (water supply, sewerage, stormwater, transport, parks and land for community facilities) refer to the local government infrastructure plans (LGIPs) in part 4 of this planning scheme.

As noted in the LGIPs, it is difficult to predict future demand for town infrastructure in TSIRC communities due to the way development processes and funding takes place in the region. Therefore, decisions about infrastructure provision are likely to be made on a case by case basis, depending on funding availability and a range of other factors.

3.7.1 Element – Water and Waste Water

Editor's Note –

Water supply infrastructure and sewage treatment infrastructure are critical to the health and welling being of Torres Strait communities. This infrastructure is generally expensive to install, maintain and operate, therefore, future development for new residential areas must take into account how it will be connected to essential services.

Strategic Outcomes

(1) Development is provided with water and waste water infrastructure that is designed to safely and efficiently accommodate existing and future demands.

(2) Development does not encroach on existing or future water and waste water infrastructure or compromise its operation into the future.

(3) New water and waste water infrastructure is located so as to avoid or minimise negative impacts on communities and the natural environment.

(4) Reuse of waste water occurs where environmental health management systems are implemented and water quality is maintained.

(5) The visual impact of water and waste water infrastructure is minimised.

(6) Future water and waste water infrastructure accommodates climate change risks in relation to water security, infiltration of sea water into sewerage systems and operational sustainability.

3.7.2 Element – Solid Waste

Editor's Note –

Due to the remoteness of the Torres Strait Islands and the significant environmental values of the region, waste management is an important issue. If not properly managed, waste facilities can be unsightly, impact on the environment and make townships unpleasant for communities. In addition, the removal of waste (and disused car bodies in particular) can be very expensive.

The TSIRC and the Torres Strait Island communities are working to develop a strategic approach to waste management that will minimise the volume of waste requiring disposal, while maximising the economic value of resources through the reuse, recycling, reprocessing and energy recovery.

Strategic Outcomes

(1) Efficient and effective waste management and recycling systems are available across the Torres Strait region to reduce waste loads.

(2) Waste facilities are:

  (a) located in areas that are stable, free from the impacts of natural hazards and buffered from areas of environmental value; and

  (b) located and designed to avoid or minimise negative impacts on the community.

(3) Reliance on local waste facilities for the disposal of construction waste is minimised to the extent possible.

(4) The visual impact of waste facilities is minimised.

3.7.3 Element – Stormwater Drainage

Editor's Note –

Communities can be affected by the flow and ponding of storm water on islands that are low lying with poor drainage (such as Boigu and Saibai) as well as islands that are hilly with large catchment areas (such as Badu, Dauan, Erub, Iama, Kirriri, Kubin, Mabuyag, Mer, St Pauls and Ugar).

Run-off can cause problems with water quality by conveying sediments and other contaminants into waterways and the sea, affecting sea grass habitat for dugongs, fish traps and other marine environments. It can also contribute to problems of coastal erosion.

Adequate stormwater drainage infrastructure is essential to manage these issues and is important to the safety of Torres Strait Island communities during heavy rainfall.

Strategic Outcomes

(1) Draining infrastructure is provided in a way that maximises the operation of roads during storms and flooding and minimises public safety risks.

(2) Wherever possible, development in the township expansion area incorporates multi-functional recreational and stormwater corridors to reduce the quantity and improve the quality of storm water run-off.

(3) Drainage infrastructure does not result in the worsening of drainage and run-off issues on downstream or adjoining properties.

(4) Design of storm water systems accommodates more intense wet season rainfall associated with climate change.

3.7.4 Element – Electricity

Editor's Note –

Many Torres Strait Island communities currently depend on non-renewable and non-environmentally friendly sources of power, such as diesel generators, for electricity. Ergon is the electricity distributor and generator for the region.

TSIRC, the Torres Strait Island communities and Ergon are working towards developing a long term, reliable energy solution in the region, such a wind or solar energy, that is cost effective and does not rely on the burning of fossil fuels.

In the meantime, it is essential that a reliable source of electricity supply is maintained in all Torres Strait Island communities.

Strategic Outcomes

(1) Opportunities to supplement or replace existing diesel energy sources with renewable energy, such as solar and wind, are supported provided that impacts on communities and the environment can be avoided or minimised.

(2) A buffer is provided between existing and future electricity infrastructure and sensitive land uses, such as accommodation activities and community facilities.

(3) The visual impact of electricity infrastructure is minimised.

3.7.5 Element – Telecommunications

Editor's Note –

Reliable mobile and internet coverage is essential during times of emergency and extreme weather conditions. It is also required to support the growth of local industries as well as employment, education and training opportunities.

Not all islands currently have telecommunication coverage with only limited coverage available on some of the Torres Strait Islands. This is an issue that needs to be addressed as a matter of priority.

Strategic Outcomes

(1) Telecommunications infrastructure is provided so that mobile and internet coverage is available in existing township areas and township expansion areas.

(2) Telecommunications infrastructure is located so that:

  (a) surrounding development will not impact on its current and future operations; and

  (b) impacts on accommodation activities and community facilities are avoided or minimised.

(3) The visual impact of telecommunications infrastructure is minimised.


PUMP
STATION
No 1
NO ENTRY

Part 4 Local government infrastructure plan

4.1 Badu Island

4.1.1 Preliminary

(1) This local government infrastructure plan has been prepared in accordance with the requirements of the *Sustainable Planning Act 2009* (repealed).

(2) The purpose of the local government infrastructure plan is to:

- (a) integrate infrastructure planning with the land use planning identified in the planning scheme
- (b) provide transparency regarding a local government's intentions for the provision of trunk infrastructure
- (c) enable a local government to estimate the cost of infrastructure provision to assist its long term financial planning
- (d) ensure that trunk infrastructure is planned and provided in an efficient and orderly manner.
- (e) provide a basis for the imposition of conditions about infrastructure on development approvals.

(3) The local government infrastructure plan:

- (a) states in Section 4.1.2 (planning assumptions) the assumptions about future growth and urban development including the assumptions of demand for each trunk infrastructure network
- (b) identifies in Section 4.1. 3 (priority infrastructure area) the prioritised area to accommodate urban growth up to 2036.
- (c) states in Section 4.1. 4 (desired standards of service) for each trunk infrastructure network the desired standard of performance
- (d) identifies in Section 4.1. 5 (plans for trunk infrastructure) the existing and future trunk infrastructure for the following networks:
  - (i) water supply
  - (ii) sewerage
  - (iii) stormwater
  - (iv) transport
  - (v) parks and land for community facilities

4.1.2 Planning assumptions

(1) The planning assumptions state the assumptions about:

- (a) changes in population and employment
- (b) the type, scale, location and timing of development including the demand for each trunk infrastructure network

(2) The planning assumptions together with the desired standards of service form a basis for the planning of the trunk infrastructure networks and the determination of the priority infrastructure area.

(3) The planning assumptions have been prepared for:

- (a) the base date 2011 and the following projection years to accord with future Australian Bureau of Statistics census years:
  - (i) mid 2016
  - (ii) mid 2021
  - (iii) mid 2031
  - (iv) mid 2036

(b) the LGIP development types in column 2 that include the uses in column 3 of table 4.1.2.1.

(c) the projection areas identified on Local Government Infrastructure Plan Map LGIP – LGIP Area – Badu Island in Schedule 3—Local government infrastructure plan mapping and tables.

Table 4.1.2.1—Relationship between LGIP development categories, LGIP development types and uses

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
Residential development	Attached dwelling	Dual occupancy Dwelling unit Multiple dwelling
	Detached dwelling	Dwelling house
Non-residential development	Commercial	Office
	Community purpose	Community use
		Place of worship
		Educational establishment
		Hospital
	Industry	Low impact industry
		High impact industry
		Medium impact industry
	Other	Animal husbandry
		Cropping
		Extractive industry
	Retail	Food and drink outlet
		Nightclub entertainment facility
		Shop
		Shopping centre
		Showroom

4.1.2.1 Changes in population and employment

(1) A summary of the assumptions about changes in population and employment for the planning scheme area is stated in table 4.1.2.1.1.

Table 4.1.2.1.1—Population assumptions summary – Badu Island

Column 1 Description	Column 2 Assumptions						
	Base Date 2011	2016	2021	2026	2031	2036	Ultimate development
Population	844	891	932	969	1,003	1,034	1,034

Editor's Note – Customised population projections were derived from Queensland Government population projections, 2013 edition, Queensland Government. These customised projections were provided by the Queensland Government Statisticians Office.

Given the lack of reliable census and employment data for the TSIRC, employment, employment projections and non-residential floorspace projections have not been undertaken.

Given that housing in this community is largely government funded, supply of additional housing stock is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such residential floorspace projections have not been provided.

4.1.3 Priority infrastructure area

(1) The priority infrastructure area identifies the area prioritised for the provision of trunk infrastructure to service the existing and assumed future urban development up to 2036.

(2) The priority infrastructure area is identified on Local Government Infrastructure Plan Map LGIP — LGIP Area – Badu Island.

4.1.4 Desired standards of service

(1) This section states the key standards of performance for a trunk infrastructure network.

(2) Details of the standard of service for a trunk infrastructure networks are identified in the extrinsic material.

4.1.4.1 Water supply network

Table 4.1.4.1.1—Water supply network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability/continuity of supply	All development receives a reliable supply of potable water with minimal interruptions to their service.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Adequacy of supply	All development is provided with a water supply that is adequate for the intended use.	• Water Service Association of Australia codes • IPWEA standards • Customer service standards • Standards in planning scheme, planning scheme policies and/or Netserv Plans
Quality of supply	Provide a uniform water quality in accordance with recognised standards that safeguards community health and is free from objectionable taste and odour.	• The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council
Environmental impacts	The environmental impacts of the water supply network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection Policies and the *Water Act 2000*

Pressure and leakage management	The water supply network is monitored and managed to maintain the reliability and adequacy of supply and to minimise environmental impacts.	• System Leakage Management Plan (Chapter 3, Part 3, Division 1A *Water Act 2000*)
Infrastructure design/planning standards	Design of the water supply network will comply with established codes and standards.	• Water Supply Code of Australia—Water Services Association of Australia—WSA 03–2002 • The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council • Planning Guidelines for Water Supply and Sewerage—Department of Natural Resources and Water (NRW) • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.1.4.2 Sewerage network

Table 4.1.4.2.1—Sewerage network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability	All development has access to a reliable sewerage collection, conveyance, treatment and disposal system.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Quality of treatment	Ensures the health of the community and the safe and appropriate level of treatment and disposal of treated effluent.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	The environmental impacts of the sewerage network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection policies

Effluent re-use	Reuse effluent wherever possible.	• Guidelines for Sewerage Systems: Reclaimed Water — February 2000 • Queensland Water Recycling Guidelines—December 2005
Infrastructure design /planning standards	Design of the sewerage network will comply with established codes and standards.	• Planning Guidelines for Water Supply and Sewerage—NRW • Sewerage Code of Australia—Water Services Association of Australia—WSA 02—2002 • Sewerage Pumping Station Code of Australia—Water Services Association of Australia—WSA 04—2005 • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.1.4.3 Stormwater network

Table 4.1.4.3.1—Stormwater network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Quantity	Collect and convey stormwater in natural and engineered channels, a piped, drainage network and system of overland flow paths to a lawful point of discharge, in a safe manner that minimises the inundation of habitable rooms and protects life.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Transport and Main Roads - Road Drainage Design Manual
Quality	The water quality of urban catchments and waterways is managed to protect and enhance environmental values and pose no health risk to the community.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (EPA) (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	Adopt water-sensitive urban design principles and on-site water quality management to achieve EPA water quality objectives.	• Section 42 Environmental Protection [Water] Policy 1997) • Local Government standards in planning scheme and planning scheme policies

Infrastructure design/planning standards	Design of the stormwater network will comply with established codes and standards.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Natural Channel Design Guidelines • Transport and Main Roads - Road Drainage Design Manual

4.1.4.4 Transport network

Table 4.1.4.4.1—Transport network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Road network design/planning standards	The road network provides a functional urban and rural hierarchy that supports settlement patterns, commercial and economic activities, and freight movement. Design of the road system will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Interim Guide to Road Planning and Design Practice developed by the Department of Transport and Main Roads • Australian Standards • AUSTROADS guides
Public transport design/planning standards	New urban development is designed to achieve safe and convenient walking distance to existing or potential bus stops, or existing or proposed demand-responsive public transport routes.	• Local government design and development manual/standards/ codes in planning scheme and planning scheme policy • Design accords with the performance criteria set by Department of Transport and Main Roads • AUSTROADS guides for road-based public transport and high-occupancy vehicles
Cycleway and pathway design/ planning standards	Cycleways and pathways provide a safe and convenient network that encourages walking and cycling as acceptable alternatives. Design of the network will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Australian Standards • AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths'. • Complete Streets

4.1.4.5 Public parks and land for community facilities network

Table 4.1.4.5.1—Public parks and land for community facilities network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Functional network	A network of parks and land for community facilities is established to provide for the full range of recreational and sporting activities and provide for development of community facilities.	• Parks and land for community facilities is provided at a local, district and LGA-wide level • Parks and land for community facilities addresses the needs of both recreation and provides for development of community facilities
Accessibility	Public parks and land for community facilities will be located to ensure adequate pedestrian, cycle and vehicle access.	• AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths • Australian Standards (AS 1428.1 – Design for access and mobility – General requirements for access – New building work, AS 2890 – Parking Facilities)
Land quality / suitability / minimum size / maximum grade / flood immunity	Public parks and land for community facilities will be provided to a standard that meets the needs of the community and supports a diverse range of recreational, sporting, health and services–promoting activities to meet community expectations. This includes ensuring land is of an appropriate size, configuration and slope, and has an acceptable level of flood immunity.	• Local government standards in planning scheme and planning scheme policies
Facilities/embellishments	Public parks contain a range of embellishments to complement the type and purpose of the park.	• Australian Standards (AS 1428.4 – Design for access and mobility – Tactile indicators, AS 4419 – Soils for landscaping and garden use, AS 4586 – Slip resistance classification of new pedestrian surface materials, AS 4970 – Protection of trees in development sites) • National Construction Code
Infrastructure design / performance standards	Maximise opportunities to co-locate recreational parks and community facilities in proximity to other community infrastructure, transport hubs and valued environmental and cultural assets.	• Local government standards in planning scheme and planning scheme policies • Australian Standards

4.1.5 Plans for trunk infrastructure

(1) The plans for trunk infrastructure identify the trunk infrastructure networks intended to service the existing and assumed future urban development at the desired standard of service up to 2036.

4.1.5.1 Plans for trunk infrastructure maps

(1) The existing and future trunk infrastructure networks are shown on the following maps in Schedule 3—Local government infrastructure plan mapping and tables:

(a) Local Government Infrastructure Plan Map LGIP – LGIP Area – Badu Island

(b) Local Government Infrastructure Plan Map LGIP – Transport Infrastructure – Badu Island

(c) Local Government Infrastructure Plan Map LGIP – Sewer Infrastructure – Badu Island

(d) Local Government Infrastructure Plan Map LGIP – Water Infrastructure – Badu Island

(e) Local Government Infrastructure Plan Map LGIP – Community and Infrastructure – Badu Island

(2) The State infrastructure forming part of transport trunk infrastructure network has been identified using information provided by the relevant State infrastructure supplier.

4.1.5.2 Schedules of works

(1) The future trunk infrastructure is identified in the following table:

(a) for the water supply network, table 4.1.5.2.1

(b) for the sewerage network, table 4.1.5.2.2

(c) for the stormwater network, table 4.1.5.2.3

(d) for the transport network, table 4.1.5.2.4

(e) for the parks and land for community facilities network, table 4.1.5.2.5

Editor's Note – The following tables identify infrastructure capacity upgrades required to service existing urban areas based on population projection figures. Establishment costs have not been provided due to the complexities of infrastructure delivery in this remote locality.

Most housing in this community is government funded and the supply of additional housing stock within township expansion areas is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such the trunk infrastructure required to service these expansion areas has not been identified or costed at this stage.

Table 4.1.5.2.1—Water supply network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – No water storage upgrade is required contingent on the performance of the wells, particularly during the dry season. The design yield of the three main wells is approximately 530kL/day, which is able to cater for a population of 1009 EP (assuming MDMM loading of 1.5 times AD). It is noted that community demand currently exceeds 350l/EP/day and Council may need to undertake a demand management project together with leakage detection to reduce water demand.

Table 4.1.5.2.2—Sewerage network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Existing STP has capacity to service 2500 Equivalent Persons which is fit for purpose based on projected population change.

Table 4.1.5.2.3—Stormwater network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – There is limited formal stormwater infrastructure within the township. Natural runoff and infiltration is acceptable for the existing township and will be acceptable over the LGIP timeframe given the projected population change.

Table 4.1.5.2.4—Transport network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost[1]
LGIP Transport Infrastructure	Sealed road servicing township expansion area.	Subject to development of township expansion area.	NA
Total			

1. Column 4 The establishment costs are not provided due to the need for detailed investigation in recognition of the unique development circumstances.

Editor's Note – Other existing roads are expected to be fit for purpose over the LGIP timeframe given projected population change.

Table 4.1.5.2.5—Parks and land for community facilities schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

4.2 Boigu Island

4.2.1 Preliminary

(1) This local government infrastructure plan has been prepared in accordance with the requirements of the *Sustainable Planning Act 2009* (repealed).

(2) The purpose of the local government infrastructure plan is to:

- (a) integrate infrastructure planning with the land use planning identified in the planning scheme
- (b) provide transparency regarding a local government's intentions for the provision of trunk infrastructure
- (c) enable a local government to estimate the cost of infrastructure provision to assist its long term financial planning
- (d) ensure that trunk infrastructure is planned and provided in an efficient and orderly manner.
- (e) provide a basis for the imposition of conditions about infrastructure on development approvals.

(3) The local government infrastructure plan:

- (a) states in Section 4.2.2 (planning assumptions) the assumptions about future growth and urban development including the assumptions of demand for each trunk infrastructure network
- (b) identifies in Section 4.2.3 (priority infrastructure area) the prioritised area to accommodate urban growth up to 2036.
- (c) states in Section 4.2.4 (desired standards of service) for each trunk infrastructure network the desired standard of performance
- (d) identifies in Section 4.2.5 (plans for trunk infrastructure) the existing and future trunk infrastructure for the following networks:
  - (i) water supply
  - (ii) sewerage
  - (iii) stormwater
  - (iv) transport
  - (v) parks and land for community facilities

4.2.2 Planning assumptions

(1) The planning assumptions state the assumptions about:

- (a) changes in population and employment
- (b) the type, scale, location and timing of development including the demand for each trunk infrastructure network

(2) The planning assumptions together with the desired standards of service form a basis for the planning of the trunk infrastructure networks and the determination of the priority infrastructure area.

(3) The planning assumptions have been prepared for:

- (a) the base date 2011 and the following projection years to accord with future Australian Bureau of Statistics census years:
  - (i) mid 2016
  - (ii) mid 2021
  - (iii) mid 2031
  - (iv) mid 2036
- (b) the LGIP development types in column 2 that include the uses in column 3 of table 4.2.2.1.
- (c) the projection areas identified on Local Government Infrastructure Plan Map LGIP – LGIP Area – Boigu Island in Schedule 3—Local government infrastructure plan mapping and tables.

Table 4.2.2.1—Relationship between LGIP development categories, LGIP development types and uses

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
Residential development	Attached dwelling	Dual occupancy Dwelling unit Multiple dwelling
	Detached dwelling	Dwelling house
Non-residential development	Commercial	Office
	Community purpose	Community use Place of worship Educational establishment Hospital
	Industry	Low impact industry High impact industry Medium impact industry
	Other	Animal husbandry Cropping Extractive industry
	Retail	Food and drink outlet Nightclub entertainment facility Shop Shopping centre Showroom

4.2.2.1 Changes in population and employment

(1) A summary of the assumptions about changes in population and employment for the planning scheme area is stated in table 4.2.2.1.1.

Table 4.2.2.1.1—Population assumptions summary – Boigu Island

Column 1 Description	Column 2 Assumptions						
	Base Date 2011	2016	2021	2026	2031	2036	Ultimate development
Population	224	210	197	189	183	180	180

Editor's Note – Customised population projections were derived from Queensland Government population projections, 2013 edition, Queensland Government. These customised projections were provided by the Queensland Government Statisticians Office.

Given the lack of reliable census and employment data for the TSIRC, employment, employment projections and non-residential floorspace projections have not been undertaken.

Given that housing in this community is largely government funded, supply of additional housing stock is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such residential floorspace projections have not been provided.

4.2.3 Priority infrastructure area

(1) The priority infrastructure area identifies the area prioritised for the provision of trunk infrastructure to service the existing and assumed future urban development up to 2036.

(2) The priority infrastructure area is identified on Local Government Infrastructure Plan Map LGIP — LGIP Area – Boigu Island.

4.2.4 Desired standards of service

(1) This section states the key standards of performance for a trunk infrastructure network.

(2) Details of the standard of service for a trunk infrastructure networks are identified in the extrinsic material.

4.2.4.1 Water supply network

Table 4.2.4.1.1—Water supply network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability/continuity of supply	All development receives a reliable supply of potable water with minimal interruptions to their service.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Adequacy of supply	All development is provided with a water supply that is adequate for the intended use.	• Water Service Association of Australia codes • IPWEA standards • Customer service standards • Standards in planning scheme, planning scheme policies and/or Netserv Plans
Quality of supply	Provide a uniform water quality in accordance with recognised standards that safeguards community health and is free from objectionable taste and odour.	• The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council
Environmental impacts	The environmental impacts of the water supply network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection Policies and the *Water Act 2000*
Pressure and leakage management	The water supply network is monitored and managed to maintain the reliability and adequacy of supply and to minimise environmental impacts.	• System Leakage Management Plan (Chapter 3, Part 3, Division 1A *Water Act 2000*)

Infrastructure design/planning standards	Design of the water supply network will comply with established codes and standards.	• Water Supply Code of Australia—Water Services Association of Australia—WSA 03–2002 • The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council • Planning Guidelines for Water Supply and Sewerage—Department of Natural Resources and Water (NRW) • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.2.4.2 Sewerage network

Table 4.2.4.2.1—Sewerage network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability	All development has access to a reliable sewerage collection, conveyance, treatment and disposal system.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Quality of treatment	Ensures the health of the community and the safe and appropriate level of treatment and disposal of treated effluent.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	The environmental impacts of the sewerage network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection policies
Effluent re-use	Reuse effluent wherever possible.	• Guidelines for Sewerage Systems: Reclaimed Water — February 2000 • Queensland Water Recycling Guidelines—December 2005

Infrastructure design /planning standards	Design of the sewerage network will comply with established codes and standards.	• Planning Guidelines for Water Supply and Sewerage—NRW • Sewerage Code of Australia—Water Services Association of Australia—WSA 02—2002 • Sewerage Pumping Station Code of Australia—Water Services Association of Australia—WSA 04—2005 • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.2.4.3 Stormwater network

Table 4.2.4.3.1—Stormwater network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Quantity	Collect and convey stormwater in natural and engineered channels, a piped, drainage network and system of overland flow paths to a lawful point of discharge, in a safe manner that minimises the inundation of habitable rooms and protects life.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Transport and Main Roads - Road Drainage Design Manual
Quality	The water quality of urban catchments and waterways is managed to protect and enhance environmental values and pose no health risk to the community.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (EPA) (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	Adopt water-sensitive urban design principles and on-site water quality management to achieve EPA water quality objectives.	• Section 42 Environmental Protection [Water] Policy 1997) • Local Government standards in planning scheme and planning scheme policies

Infrastructure design/planning standards	Design of the stormwater network will comply with established codes and standards.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Natural Channel Design Guidelines • Transport and Main Roads - Road Drainage Design Manual

4.2.4.4 Transport network

Table 4.2.4.4.1—Transport network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Road network design/planning standards	The road network provides a functional urban and rural hierarchy that supports settlement patterns, commercial and economic activities, and freight movement. Design of the road system will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Interim Guide to Road Planning and Design Practice developed by the Department of Transport and Main Roads • Australian Standards • AUSTROADS guides
Public transport design/planning standards	New urban development is designed to achieve safe and convenient walking distance to existing or potential bus stops, or existing or proposed demand-responsive public transport routes.	• Local government design and development manual/standards/ codes in planning scheme and planning scheme policy • Design accords with the performance criteria set by Department of Transport and Main Roads • AUSTROADS guides for road-based public transport and high-occupancy vehicles
Cycleway and pathway design/ planning standards	Cycleways and pathways provide a safe and convenient network that encourages walking and cycling as acceptable alternatives. Design of the network will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Australian Standards • AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths'. • Complete Streets

4.2.4.5 Public parks and land for community facilities network

Table 4.2.4.5.1—Public parks and land for community facilities network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Functional network	A network of parks and land for community facilities is established to provide for the full range of recreational and sporting activities and provide for development of community facilities.	• Parks and land for community facilities is provided at a local, district and LGA-wide level • Parks and land for community facilities addresses the needs of both recreation and provides for development of community facilities
Accessibility	Public parks and land for community facilities will be located to ensure adequate pedestrian, cycle and vehicle access.	• AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths • Australian Standards (AS 1428.1 – Design for access and mobility – General requirements for access – New building work, AS 2890 – Parking Facilities)
Land quality / suitability / minimum size / maximum grade / flood immunity	Public parks and land for community facilities will be provided to a standard that meets the needs of the community and supports a diverse range of recreational, sporting, health and services–promoting activities to meet community expectations. This includes ensuring land is of an appropriate size, configuration and slope, and has an acceptable level of flood immunity.	• Local government standards in planning scheme and planning scheme policies
Facilities/embellishments	Public parks contain a range of embellishments to complement the type and purpose of the park.	• Australian Standards (AS 1428.4 – Design for access and mobility – Tactile indicators, AS 4419 – Soils for landscaping and garden use, AS 4586 – Slip resistance classification of new pedestrian surface materials, AS 4970 – Protection of trees in development sites) • National Construction Code
Infrastructure design / performance standards	Maximise opportunities to co-locate recreational parks and community facilities in proximity to other community infrastructure, transport hubs and valued environmental and cultural assets.	• Local government standards in planning scheme and planning scheme policies • Australian Standards

4.2.5 Plans for trunk infrastructure

(1) The plans for trunk infrastructure identify the trunk infrastructure networks intended to service the existing and assumed future urban development at the desired standard of service up to 2036.

4.2.5.1 Plans for trunk infrastructure maps

(1) The existing and future trunk infrastructure networks are shown on the following maps in Schedule 3—Local government infrastructure plan mapping and tables:

(d) Local Government Infrastructure Plan Map LGIP – LGIP Area – Boigu Island

(e) Local Government Infrastructure Plan Map LGIP – Transport Infrastructure – Boigu Island

(f) Local Government Infrastructure Plan Map LGIP – Sewer Infrastructure – Boigu Island

(g) Local Government Infrastructure Plan Map LGIP – Water Infrastructure – Boigu Island

(h) Local Government Infrastructure Plan Map LGIP – Community and Infrastructure – Boigu Island

(2) The State infrastructure forming part of transport trunk infrastructure network has been identified using information provided by the relevant State infrastructure supplier.

4.2.5.2 Schedules of works

(1) The future trunk infrastructure is identified in the following table:

(a) for the water supply network, table 4.2.5.2.1

(b) for the sewerage network, table 4.2.5.2.2

(c) for the stormwater network, table 4.2.5.2.3

(d) for the transport network, table 4.2.5.2.4

(e) for the parks and land for community facilities network, table 4.2.5.2.5

Editor's Note – The following tables identify infrastructure capacity upgrades required to service existing urban areas based on population projection figures. Establishment costs have not been provided due to the complexities of infrastructure delivery in this remote locality.

Most housing in this community is government funded and the supply of additional housing stock within township expansion areas is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such the trunk infrastructure required to service these expansion areas has not been identified or costed at this stage.

Table 4.2.5.2.1—Water supply network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – The water reticulation network, covered and lined lagoon storage and the desalination plant intake were originally designed to cater for a design population of 711 persons and maximum possible short term population of 969 persons. Following investigations as part of the desalination plant upgrade, the capacity of the storage has been revised to approximately 660 EP based on a simple water balance and the storage at the end of the year being the same at the start of the year. If required, subject to development of urban expansion areas, further network capacity can be provided by a desalination upgrade be undertaken in lieu of additional storage. This would need to consider the capacity of the raw water intake to confirm that sufficient water could be provided to the treatment plant.

The full water storage offers approximately 318 days water storage at current population and a demand of 350 l/EP/day.

At this point in time 100kL of treated water storage is available. While this is quite minimal, it is considered adequate for emergency response purposes as an emergency generator has been provided for the freshwater treatment and the storage is augmented by the raw water supply.

Table 4.2.5.2.2—Sewerage network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Existing STP has capacity to service 600 Equivalent Persons which is fit for purpose given projected population change.

Table 4.2.5.2.3—Stormwater network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – There is limited formal stormwater infrastructure within the township. Natural runoff and infiltration is acceptable for the existing township and will be acceptable over the LGIP timeframe given the projected population change. Development of township expansion areas would need to ensure that lots have an appropriate level of immunity and that the existing upstream catchments/community areas are not impacted.

Table 4.2.5.2.4—Transport network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – The existing concrete roads are in poor repair and will require upgrade to address structural issues.

Table 4.2.5.2.5—Parks and land for community facilities schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

4.3 Dauan Island

4.3.1 Preliminary

(1) This local government infrastructure plan has been prepared in accordance with the requirements of the *Sustainable Planning Act 2009* (repealed).

(2) The purpose of the local government infrastructure plan is to:

- (a) integrate infrastructure planning with the land use planning identified in the planning scheme
- (b) provide transparency regarding a local government's intentions for the provision of trunk infrastructure
- (c) enable a local government to estimate the cost of infrastructure provision to assist its long term financial planning
- (d) ensure that trunk infrastructure is planned and provided in an efficient and orderly manner.
- (e) provide a basis for the imposition of conditions about infrastructure on development approvals.

(3) The local government infrastructure plan:

- (a) states in section 4.3.2 (planning assumptions) the assumptions about future growth and urban development including the assumptions of demand for each trunk infrastructure network
- (b) identifies in section 4.3.3 (priority infrastructure area) the prioritised area to accommodate urban growth up to 2036.
- (c) states in section 4.3.4 (desired standards of service) for each trunk infrastructure network the desired standard of performance
- (d) identifies in section 4.3.5 (plans for trunk infrastructure) the existing and future trunk infrastructure for the following networks:
  - (i) water supply
  - (ii) sewerage
  - (iii) stormwater
  - (iv) transport
  - (v) parks and land for community facilities

4.3.2 Planning assumptions

(1) The planning assumptions state the assumptions about:

- (a) changes in population and employment
- (b) the type, scale, location and timing of development including the demand for each trunk infrastructure network

(2) The planning assumptions together with the desired standards of service form a basis for the planning of the trunk infrastructure networks and the determination of the priority infrastructure area.

(3) The planning assumptions have been prepared for:

- (a) the base date 2011 and the following projection years to accord with future Australian Bureau of Statistics census years:
  - (i) mid 2016
  - (ii) mid 2021
  - (iii) mid 2031
  - (iv) mid 2036
- (b) the LGIP development types in column 2 that include the uses in column 3 of table 4.3.2.1.
- (c) the projection areas identified on Local Government Infrastructure Plan Map LGIP – LGIP Area – Dauan Island in Schedule 3—Local government infrastructure plan mapping and tables.

Table 4.3.2.1—Relationship between LGIP development categories, LGIP development types and uses

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
Residential development	Attached dwelling	Dual occupancy Dwelling unit Multiple dwelling
	Detached dwelling	Dwelling house
Non-residential development	Commercial	Office
	Community purpose	Community use Place of worship Educational establishment Hospital
	Industry	Low impact industry High impact industry Medium impact industry
	Other	Animal husbandry Cropping Extractive industry
	Retail	Food and drink outlet Nightclub entertainment facility Shop Shopping centre Showroom

4.3.2.1 Changes in population and employment

(1) A summary of the assumptions about changes in population and employment for the planning scheme area is stated in table 4.3.2.1.1.

Table 4.3.2.1.1—Population assumptions summary – Dauan Island

Column 1 Description	Column 2 Assumptions						
	Base Date 2011	2016	2021	2026	2031	2036	Ultimate development
Population	139	147	154	161	166	172	172

Editor's Note – Customised population projections were derived from Queensland Government population projections, 2013 edition, Queensland Government. These customised projections were provided by the Queensland Government Statisticians Office.

Given the lack of reliable census and employment data for the TSIRC, employment, employment projections and non-residential floorspace projections have not been undertaken.

Given that housing in this community is largely government funded, supply of additional housing stock is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such residential floorspace projections have not been provided.

4.3.3 Priority infrastructure area

(1) The priority infrastructure area identifies the area prioritised for the provision of trunk infrastructure to service the existing and assumed future urban development up to 2036.

(2) The priority infrastructure area is identified on Local Government Infrastructure Plan Map LGIP — LGIP Area – Dauan Island.

4.3.4 Desired standards of service

(1) This section states the key standards of performance for a trunk infrastructure network.

(2) Details of the standard of service for a trunk infrastructure networks are identified in the extrinsic material.

4.3.4.1 Water supply network

Table 4.3.4.1.1—Water supply network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability/continuity of supply	All development receives a reliable supply of potable water with minimal interruptions to their service.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Adequacy of supply	All development is provided with a water supply that is adequate for the intended use.	• Water Service Association of Australia codes • IPWEA standards • Customer service standards • Standards in planning scheme, planning scheme policies and/or Netserv Plans
Quality of supply	Provide a uniform water quality in accordance with recognised standards that safeguards community health and is free from objectionable taste and odour.	• The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council
Environmental impacts	The environmental impacts of the water supply network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection Policies and the *Water Act 2000*
Pressure and leakage management	The water supply network is monitored and managed to maintain the reliability and adequacy of supply and to minimise environmental impacts.	• System Leakage Management Plan (Chapter 3, Part 3, Division 1A *Water Act 2000*)

Infrastructure design/planning standards	Design of the water supply network will comply with established codes and standards.	• Water Supply Code of Australia—Water Services Association of Australia—WSA 03–2002 • The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council • Planning Guidelines for Water Supply and Sewerage—Department of Natural Resources and Water (NRW) • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.3.4.2 Sewerage network

Table 4.3.4.2.1—Sewerage network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability	All development has access to a reliable sewerage collection, conveyance, treatment and disposal system.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Quality of treatment	Ensures the health of the community and the safe and appropriate level of treatment and disposal of treated effluent.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	The environmental impacts of the sewerage network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection policies
Effluent re-use	Reuse effluent wherever possible.	• Guidelines for Sewerage Systems: Reclaimed Water — February 2000 • Queensland Water Recycling Guidelines—December 2005

Infrastructure design /planning standards	Design of the sewerage network will comply with established codes and standards.	• Planning Guidelines for Water Supply and Sewerage—NRW • Sewerage Code of Australia—Water Services Association of Australia—WSA 02—2002 • Sewerage Pumping Station Code of Australia—Water Services Association of Australia—WSA 04—2005 • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.3.4.3 Stormwater network

Table 4.3.4.3.1—Stormwater network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Quantity	Collect and convey stormwater in natural and engineered channels, a piped, drainage network and system of overland flow paths to a lawful point of discharge, in a safe manner that minimises the inundation of habitable rooms and protects life.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Transport and Main Roads - Road Drainage Design Manual
Quality	The water quality of urban catchments and waterways is managed to protect and enhance environmental values and pose no health risk to the community.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (EPA) (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	Adopt water-sensitive urban design principles and on-site water quality management to achieve EPA water quality objectives.	• Section 42 Environmental Protection [Water] Policy 1997) • Local Government standards in planning scheme and planning scheme policies

Infrastructure design/planning standards	Design of the stormwater network will comply with established codes and standards.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Natural Channel Design Guidelines • Transport and Main Roads - Road Drainage Design Manual

4.3.4.4 Transport network

Table 4.3.4.4.1—Transport network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Road network design/planning standards	The road network provides a functional urban and rural hierarchy that supports settlement patterns, commercial and economic activities, and freight movement. Design of the road system will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Interim Guide to Road Planning and Design Practice developed by the Department of Transport and Main Roads • Australian Standards • AUSTROADS guides
Public transport design/planning standards	New urban development is designed to achieve safe and convenient walking distance to existing or potential bus stops, or existing or proposed demand-responsive public transport routes.	• Local government design and development manual/standards/ codes in planning scheme and planning scheme policy • Design accords with the performance criteria set by Department of Transport and Main Roads • AUSTROADS guides for road-based public transport and high-occupancy vehicles
Cycleway and pathway design/ planning standards	Cycleways and pathways provide a safe and convenient network that encourages walking and cycling as acceptable alternatives. Design of the network will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Australian Standards • AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths'. • Complete Streets

4.3.4.5 Public parks and land for community facilities network

Table 4.3.4.5.1—Public parks and land for community facilities network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Functional network	A network of parks and land for community facilities is established to provide for the full range of recreational and sporting activities and provide for development of community facilities.	• Parks and land for community facilities is provided at a local, district and LGA-wide level • Parks and land for community facilities addresses the needs of both recreation and provides for development of community facilities
Accessibility	Public parks and land for community facilities will be located to ensure adequate pedestrian, cycle and vehicle access.	• AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths • Australian Standards (AS 1428.1 – Design for access and mobility – General requirements for access – New building work, AS 2890 – Parking Facilities)
Land quality / suitability / minimum size / maximum grade / flood immunity	Public parks and land for community facilities will be provided to a standard that meets the needs of the community and supports a diverse range of recreational, sporting, health and services–promoting activities to meet community expectations. This includes ensuring land is of an appropriate size, configuration and slope, and has an acceptable level of flood immunity.	• Local government standards in planning scheme and planning scheme policies
Facilities/embellishments	Public parks contain a range of embellishments to complement the type and purpose of the park.	• Australian Standards (AS 1428.4 – Design for access and mobility – Tactile indicators, AS 4419 – Soils for landscaping and garden use, AS 4586 – Slip resistance classification of new pedestrian surface materials, AS 4970 – Protection of trees in development sites) • National Construction Code
Infrastructure design / performance standards	Maximise opportunities to co-locate recreational parks and community facilities in proximity to other community infrastructure, transport hubs and valued environmental and cultural assets.	• Local government standards in planning scheme and planning scheme policies • Australian Standards

4.3.5 Plans for trunk infrastructure

(1) The plans for trunk infrastructure identify the trunk infrastructure networks intended to service the existing and assumed future urban development at the desired standard of service up to 2036.

4.3.5.1 Plans for trunk infrastructure maps

(1) The existing and future trunk infrastructure networks are shown on the following maps in Schedule 3—Local government infrastructure plan mapping and tables:

(a) Local Government Infrastructure Plan Map LGIP – LGIP Area – Dauan Island

(b) Local Government Infrastructure Plan Map LGIP – Transport Infrastructure – Dauan Island

(c) Local Government Infrastructure Plan Map LGIP – Sewer Infrastructure – Dauan Island

(d) Local Government Infrastructure Plan Map LGIP – Water Infrastructure – Dauan Island

(e) Local Government Infrastructure Plan Map LGIP – Community and Infrastructure – Dauan Island

(2) The State infrastructure forming part of transport trunk infrastructure network has been identified using information provided by the relevant State infrastructure supplier.

4.3.5.2 Schedules of works

(1) The future trunk infrastructure is identified in the following table:

(a) for the water supply network, table 4.3.5.2.1

(b) for the sewerage network, table 4.3.5.2.2

(c) for the stormwater network, table 4.3.5.2.3

(d) for the transport network, table 4.3.5.2.4

(e) for the parks and land for community facilities network, table 4.3.5.2.5

Editor's Note – The following tables identify infrastructure capacity upgrades required to service existing urban areas based on population projection figures. Establishment costs have not been provided due to the complexities of infrastructure delivery in this remote locality.

Most housing in this community is government funded and the supply of additional housing stock within township expansion areas is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such the trunk infrastructure required to service these expansion areas has not been identified or costed at this stage.

Table 4.3.5.2.1—Water supply network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Water is sourced from four wells and a covered and lined lagoon which harvests rainwater from its catchment. Based on a simple water balance model prepared using the safe yield capacities in the 2004 infrastructure planning report (31ML), it would appear that the water supply can accommodate a design population of 242EP. Recently the eastern rising main was upgraded and all wells should be operational.

Based on current population and a demand of 350l/EP/day, there is sufficient storage for 131 days.

Details regarding capacity of the treatment plant are currently unknown and will require further investigation.

Treated water storage is considered adequate for a design population of 280EP.

Water is reticulated throughout the community via an underground network consisting of 80mm and 100mm diameter pipework. The majority of households own a water tank which is fed directly via the mains supply. Based on previous studies it is evident that the water supply network was designed for 252 EP @ 250l/EP/day. Based on current demands, the design EP for the reticulation is in the order of 180. It would be necessary to construct a water model to confirm this reticulation network capacity.

Table 4.3.5.2.2—Sewerage network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – The community is currently serviced by septic tank systems which is fit for purpose given projected population change.

Table 4.3.5.2.3—Stormwater network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – There is limited formal stormwater infrastructure within the township. Natural runoff and infiltration is acceptable for the existing township and will be acceptable over the LGIP timeframe given the projected population change.

Table 4.3.5.2.4—Transport network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Existing roads are expected to be fit for purpose over the LGIP timeframe given projected population change. A potential sewer infrastructure site has been identified on LGIP mapping however the development of this site would be subject to future population growth, further technical investigations and availability of funding.

Table 4.3.5.2.5—Parks and land for community facilities schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

4.4 Erub (Darnley) Island

4.4.1 Preliminary

(1) This local government infrastructure plan has been prepared in accordance with the requirements of the *Sustainable Planning Act 2009* (repealed).

(2) The purpose of the local government infrastructure plan is to:

- (a) integrate infrastructure planning with the land use planning identified in the planning scheme
- (b) provide transparency regarding a local government's intentions for the provision of trunk infrastructure
- (c) enable a local government to estimate the cost of infrastructure provision to assist its long term financial planning
- (d) ensure that trunk infrastructure is planned and provided in an efficient and orderly manner.
- (e) provide a basis for the imposition of conditions about infrastructure on development approvals.

(3) The local government infrastructure plan:

- (a) states in section 4.4.2 (planning assumptions) the assumptions about future growth and urban development including the assumptions of demand for each trunk infrastructure network
- (b) identifies in section 4.4.3 (priority infrastructure area) the prioritised area to accommodate urban growth up to 2036.
- (c) states in section 4.4.4 (desired standards of service) for each trunk infrastructure network the desired standard of performance
- (d) identifies in section 4.4.5 (plans for trunk infrastructure) the existing and future trunk infrastructure for the following networks:
  - (i) water supply
  - (ii) sewerage
  - (iii) stormwater
  - (iv) transport
  - (v) parks and land for community facilities

4.4.2 Planning assumptions

(1) The planning assumptions state the assumptions about:

- (a) changes in population and employment
- (b) the type, scale, location and timing of development including the demand for each trunk infrastructure network

(2) The planning assumptions together with the desired standards of service form a basis for the planning of the trunk infrastructure networks and the determination of the priority infrastructure area.

(3) The planning assumptions have been prepared for:

- (a) the base date 2011 and the following projection years to accord with future Australian Bureau of Statistics census years:
  - (i) mid 2016
  - (ii) mid 2021
  - (iii) mid 2031
  - (iv) mid 2036
- (b) the LGIP development types in column 2 that include the uses in column 3 of table 4.4.2.1.
- (c) the projection areas identified on Local Government Infrastructure Plan Map LGIP – LGIP Area – Erub Island in Schedule 3—Local government infrastructure plan mapping and tables.

Table 4.4.2.1—Relationship between LGIP development categories, LGIP development types and uses

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
Residential development	Attached dwelling	Dual occupancy Dwelling unit Multiple dwelling
	Detached dwelling	Dwelling house
Non-residential development	Commercial	Office
	Community purpose	Community use Place of worship Educational establishment Hospital
	Industry	Low impact industry High impact industry Medium impact industry
	Other	Animal husbandry Cropping Extractive industry
	Retail	Food and drink outlet Nightclub entertainment facility Shop Shopping centre Showroom

4.4.2.1 Changes in population and employment

(1) A summary of the assumptions about changes in population and employment for the planning scheme area is stated in table 4.4.2.1.1.

Table 4.4.2.1.1—Population assumptions summary – Erub Island

Column 1 Description	Column 2 Assumptions						
	Base Date 2011	2016	2021	2026	2031	2036	Ultimate development
Population	405	434	458	478	496	513	513

Editor's Note – Customised population projections were derived from Queensland Government population projections, 2013 edition, Queensland Government. These customised projections were provided by the Queensland Government Statisticians Office.

Given the lack of reliable census and employment data for the TSIRC, employment, employment projections and non-residential floorspace projections have not been undertaken.

Given that housing in this community is largely government funded, supply of additional housing stock is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such residential floorspace projections have not been provided.

4.4.3 Priority infrastructure area

(1) The priority infrastructure area identifies the area prioritised for the provision of trunk infrastructure to service the existing and assumed future urban development up to 2036.

(2) The priority infrastructure area is identified on Local Government Infrastructure Plan Map LGIP — LGIP Area – Erub Island.

4.4.4 Desired standards of service

(1) This section states the key standards of performance for a trunk infrastructure network.

(2) Details of the standard of service for a trunk infrastructure networks are identified in the extrinsic material.

4.4.4.1 Water supply network

Table 4.4.4.1.1—Water supply network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability/continuity of supply	All development receives a reliable supply of potable water with minimal interruptions to their service.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Adequacy of supply	All development is provided with a water supply that is adequate for the intended use.	• Water Service Association of Australia codes • IPWEA standards • Customer service standards • Standards in planning scheme, planning scheme policies and/or Netserv Plans
Quality of supply	Provide a uniform water quality in accordance with recognised standards that safeguards community health and is free from objectionable taste and odour.	• The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council
Environmental impacts	The environmental impacts of the water supply network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection Policies and the *Water Act 2000*
Pressure and leakage management	The water supply network is monitored and managed to maintain the reliability and adequacy of supply and to minimise environmental impacts.	• System Leakage Management Plan (Chapter 3, Part 3, Division 1A *Water Act 2000*)

Infrastructure design/planning standards	Design of the water supply network will comply with established codes and standards.	• Water Supply Code of Australia—Water Services Association of Australia—WSA 03–2002 • The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council • Planning Guidelines for Water Supply and Sewerage—Department of Natural Resources and Water (NRW) • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.4.4.2 Sewerage network

Table 4.4.4.2.1—Sewerage network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability	All development has access to a reliable sewerage collection, conveyance, treatment and disposal system.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Quality of treatment	Ensures the health of the community and the safe and appropriate level of treatment and disposal of treated effluent.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	The environmental impacts of the sewerage network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection policies
Effluent re-use	Reuse effluent wherever possible.	• Guidelines for Sewerage Systems: Reclaimed Water — February 2000 • Queensland Water Recycling Guidelines—December 2005

Infrastructure design /planning standards	Design of the sewerage network will comply with established codes and standards.	• Planning Guidelines for Water Supply and Sewerage—NRW • Sewerage Code of Australia—Water Services Association of Australia—WSA 02—2002 • Sewerage Pumping Station Code of Australia—Water Services Association of Australia—WSA 04—2005 • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.4.4.3 Stormwater network

Table 4.4.4.3.1—Stormwater network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Quantity	Collect and convey stormwater in natural and engineered channels, a piped, drainage network and system of overland flow paths to a lawful point of discharge, in a safe manner that minimises the inundation of habitable rooms and protects life.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Transport and Main Roads - Road Drainage Design Manual
Quality	The water quality of urban catchments and waterways is managed to protect and enhance environmental values and pose no health risk to the community.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (EPA) (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	Adopt water-sensitive urban design principles and on-site water quality management to achieve EPA water quality objectives.	• Section 42 Environmental Protection [Water] Policy 1997) • Local Government standards in planning scheme and planning scheme policies

Infrastructure design/planning standards	Design of the stormwater network will comply with established codes and standards.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Natural Channel Design Guidelines • Transport and Main Roads - Road Drainage Design Manual

4.4.4.4 Transport network

Table 4.4.4.4.1—Transport network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Road network design/planning standards	The road network provides a functional urban and rural hierarchy that supports settlement patterns, commercial and economic activities, and freight movement. Design of the road system will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Interim Guide to Road Planning and Design Practice developed by the Department of Transport and Main Roads • Australian Standards • AUSTROADS guides
Public transport design/planning standards	New urban development is designed to achieve safe and convenient walking distance to existing or potential bus stops, or existing or proposed demand-responsive public transport routes.	• Local government design and development manual/standards/ codes in planning scheme and planning scheme policy • Design accords with the performance criteria set by Department of Transport and Main Roads • AUSTROADS guides for road-based public transport and high-occupancy vehicles
Cycleway and pathway design/ planning standards	Cycleways and pathways provide a safe and convenient network that encourages walking and cycling as acceptable alternatives. Design of the network will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Australian Standards • AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths'. • Complete Streets

4.4.4.5 Public parks and land for community facilities network

Table 4.4.4.5.1—Public parks and land for community facilities network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Functional network	A network of parks and land for community facilities is established to provide for the full range of recreational and sporting activities and provide for development of community facilities.	• Parks and land for community facilities is provided at a local, district and LGA-wide level • Parks and land for community facilities addresses the needs of both recreation and provides for development of community facilities
Accessibility	Public parks and land for community facilities will be located to ensure adequate pedestrian, cycle and vehicle access.	• AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths • Australian Standards (AS 1428.1 – Design for access and mobility – General requirements for access – New building work, AS 2890 – Parking Facilities)
Land quality / suitability / minimum size / maximum grade / flood immunity	Public parks and land for community facilities will be provided to a standard that meets the needs of the community and supports a diverse range of recreational, sporting, health and services–promoting activities to meet community expectations. This includes ensuring land is of an appropriate size, configuration and slope, and has an acceptable level of flood immunity.	• Local government standards in planning scheme and planning scheme policies
Facilities/embellishments	Public parks contain a range of embellishments to complement the type and purpose of the park.	• Australian Standards (AS 1428.4 – Design for access and mobility – Tactile indicators, AS 4419 – Soils for landscaping and garden use, AS 4586 – Slip resistance classification of new pedestrian surface materials, AS 4970 – Protection of trees in development sites) • National Construction Code
Infrastructure design / performance standards	Maximise opportunities to co-locate recreational parks and community facilities in proximity to other community infrastructure, transport hubs and valued environmental and cultural assets.	• Local government standards in planning scheme and planning scheme policies • Australian Standards

4.4.5 Plans for trunk infrastructure

(1) The plans for trunk infrastructure identify the trunk infrastructure networks intended to service the existing and assumed future urban development at the desired standard of service up to 2036.

4.4.5.1 Plans for trunk infrastructure maps

(1) The existing and future trunk infrastructure networks are shown on the following maps in Schedule 3—Local government infrastructure plan mapping and tables:

(a) Local Government Infrastructure Plan Map LGIP – LGIP Area – Erub Island

(b) Local Government Infrastructure Plan Map LGIP – Transport Infrastructure – Erub Island

(c) Local Government Infrastructure Plan Map LGIP – Sewer Infrastructure – Erub Island

(d) Local Government Infrastructure Plan Map LGIP – Water Infrastructure – Erub Island

(e) Local Government Infrastructure Plan Map LGIP – Community and Infrastructure – Erub Island

(2) The State infrastructure forming part of transport trunk infrastructure network has been identified using information provided by the relevant State infrastructure supplier.

4.4.5.2 Schedules of works

(1) The future trunk infrastructure is identified in the following table:

(a) for the water supply network, table 4.4.5.2.1

(b) for the sewerage network, table 4.4.5.2.2

(c) for the stormwater network, table 4.4.5.2.3

(d) for the transport network, table 4.4.5.2.4

(e) for the parks and land for community facilities network, table 4.4.5.2.5

Editor's Note – The following tables identify infrastructure capacity upgrades required to service existing urban areas based on population projection figures. Establishment costs have not been provided due to the complexities of infrastructure delivery in this remote locality.

Most housing in this community is government funded and the supply of additional housing stock within township expansion areas is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such the trunk infrastructure required to service these expansion areas has not been identified or costed at this stage.

Table 4.4.5.2.1—Water supply network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost[1]
LGIP Water Infrastructure	Upgrade water supply system beyond existing design capacity of 456 EP.	Subject to population growth – between 2016-2021	NA
Total			

1. Column 4 Establishment costs are not provided due to the need for detailed investigation in recognition of the unique development circumstances.

Editor's Note – Water supply system incorporates raw water storage, water treatment and water reticulation infrastructure.

Table 4.4.5.2.2—Sewerage network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Existing STP has capacity to service 620 Equivalent Persons which is fit for purpose given projected population change.

Table 4.4.5.2.3—Stormwater network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – There is limited formal stormwater infrastructure within the township. Natural runoff and infiltration is acceptable for the existing township and will be acceptable over the LGIP timeframe given the projected population change.

Table 4.4.5.2.4—Transport network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost[1]
LGIP Transport Infrastructure	Sealed road servicing township expansion area	Subject to timing of development within township expansion area	NA
Total			

1. Column 4 Establishment costs are not provided due to the need for detailed investigation in recognition of the unique development circumstances.

Editor's Note – Other existing roads are expected to be fit for purpose over the LGIP timeframe given projected population change.

Table 4.4.5.2.5—Parks and land for community facilities schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

4.5 Iama (Yam) Island

4.5.1 Preliminary

(1) This local government infrastructure plan has been prepared in accordance with the requirements of the *Sustainable Planning Act 2009* (repealed).

(2) The purpose of the local government infrastructure plan is to:

- (a) integrate infrastructure planning with the land use planning identified in the planning scheme
- (b) provide transparency regarding a local government's intentions for the provision of trunk infrastructure
- (c) enable a local government to estimate the cost of infrastructure provision to assist its long term financial planning
- (d) ensure that trunk infrastructure is planned and provided in an efficient and orderly manner.
- (e) provide a basis for the imposition of conditions about infrastructure on development approvals.

(3) The local government infrastructure plan:

- (a) states in section 4.5.2 (planning assumptions) the assumptions about future growth and urban development including the assumptions of demand for each trunk infrastructure network
- (b) identifies in section 4.5.3 (priority infrastructure area) the prioritised area to accommodate urban growth up to 2036.
- (c) states in section 4.5.4 (desired standards of service) for each trunk infrastructure network the desired standard of performance
- (d) identifies in section 4.5.5 (plans for trunk infrastructure) the existing and future trunk infrastructure for the following networks:
  - (i) water supply
  - (ii) sewerage
  - (iii) stormwater
  - (iv) transport
  - (v) parks and land for community facilities

4.5.2 Planning assumptions

(1) The planning assumptions state the assumptions about:

- (a) changes in population and employment
- (b) the type, scale, location and timing of development including the demand for each trunk infrastructure network

(2) The planning assumptions together with the desired standards of service form a basis for the planning of the trunk infrastructure networks and the determination of the priority infrastructure area.

(3) The planning assumptions have been prepared for:

- (a) the base date 2011 and the following projection years to accord with future Australian Bureau of Statistics census years:
  - (i) mid 2016
  - (ii) mid 2021
  - (iii) mid 2031
  - (iv) mid 2036
- (b) the LGIP development types in column 2 that include the uses in column 3 of table 4.5.2.1.
- (c) the projection areas identified on Local Government Infrastructure Plan Map LGIP – LGIP Area – Iama Island in Schedule 3—Local government infrastructure plan mapping and tables.

Table 4.5.2.1—Relationship between LGIP development categories, LGIP development types and uses

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
Residential development	Attached dwelling	Dual occupancy Dwelling unit Multiple dwelling
	Detached dwelling	Dwelling house
Non-residential development	Commercial	Office
	Community purpose	Community use Place of worship Educational establishment Hospital
	Industry	Low impact industry High impact industry Medium impact industry
	Other	Animal husbandry Cropping Extractive industry
	Retail	Food and drink outlet Nightclub entertainment facility Shop Shopping centre Showroom

4.5.2.1 Changes in population and employment

(1) A summary of the assumptions about changes in population and employment for the planning scheme area is stated in table 4.5.2.1.1.

Table 4.5.2.1.1—Population assumptions summary – Iama Island

Column 1 Description	Column 2 Assumptions						
	Base Date 2011	2016	2021	2026	2031	2036	Ultimate development
Population	342	356	369	382	394	406	406

Editor's Note – Customised population projections were derived from Queensland Government population projections, 2013 edition, Queensland Government. These customised projections were provided by the Queensland Government Statisticians Office.

Given the lack of reliable census and employment data for the TSIRC, employment, employment projections and non-residential floorspace projections have not been undertaken.

Given that housing in this community is largely government funded, supply of additional housing stock is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such residential floorspace projections have not been provided.

4.5.3 Priority infrastructure area

(1) The priority infrastructure area identifies the area prioritised for the provision of trunk infrastructure to service the existing and assumed future urban development up to 2036.

(2) The priority infrastructure area is identified on Local Government Infrastructure Plan Map LGIP — LGIP Area – Iama Island.

4.5.4 Desired standards of service

(1) This section states the key standards of performance for a trunk infrastructure network.

(2) Details of the standard of service for a trunk infrastructure networks are identified in the extrinsic material.

4.5.4.1 Water supply network

Table 4.5.4.1.1—Water supply network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability/continuity of supply	All development receives a reliable supply of potable water with minimal interruptions to their service.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Adequacy of supply	All development is provided with a water supply that is adequate for the intended use.	• Water Service Association of Australia codes • IPWEA standards • Customer service standards • Standards in planning scheme, planning scheme policies and/or Netserv Plans
Quality of supply	Provide a uniform water quality in accordance with recognised standards that safeguards community health and is free from objectionable taste and odour.	• The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council
Environmental impacts	The environmental impacts of the water supply network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection Policies and the *Water Act 2000*
Pressure and leakage management	The water supply network is monitored and managed to maintain the reliability and adequacy of supply and to minimise environmental impacts.	• System Leakage Management Plan (Chapter 3, Part 3, Division 1A *Water Act 2000*)

Infrastructure design/planning standards	Design of the water supply network will comply with established codes and standards.	• Water Supply Code of Australia—Water Services Association of Australia—WSA 03–2002 • The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council • Planning Guidelines for Water Supply and Sewerage—Department of Natural Resources and Water (NRW) • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.5.4.2 Sewerage network

Table 4.5.4.2.1—Sewerage network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability	All development has access to a reliable sewerage collection, conveyance, treatment and disposal system.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Quality of treatment	Ensures the health of the community and the safe and appropriate level of treatment and disposal of treated effluent.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	The environmental impacts of the sewerage network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection policies
Effluent re-use	Reuse effluent wherever possible.	• Guidelines for Sewerage Systems: Reclaimed Water — February 2000 • Queensland Water Recycling Guidelines—December 2005

Infrastructure design /planning standards	Design of the sewerage network will comply with established codes and standards.	• Planning Guidelines for Water Supply and Sewerage—NRW • Sewerage Code of Australia—Water Services Association of Australia—WSA 02—2002 • Sewerage Pumping Station Code of Australia—Water Services Association of Australia—WSA 04—2005 • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.5.4.3 Stormwater network

Table 4.5.4.3.1—Stormwater network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Quantity	Collect and convey stormwater in natural and engineered channels, a piped, drainage network and system of overland flow paths to a lawful point of discharge, in a safe manner that minimises the inundation of habitable rooms and protects life.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Transport and Main Roads - Road Drainage Design Manual
Quality	The water quality of urban catchments and waterways is managed to protect and enhance environmental values and pose no health risk to the community.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (EPA) (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	Adopt water-sensitive urban design principles and on-site water quality management to achieve EPA water quality objectives.	• Section 42 Environmental Protection [Water] Policy 1997) • Local Government standards in planning scheme and planning scheme policies

Infrastructure design/planning standards	Design of the stormwater network will comply with established codes and standards.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Natural Channel Design Guidelines • Transport and Main Roads - Road Drainage Design Manual

4.5.4.4 Transport network

Table 4.5.4.4.1—Transport network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Road network design/planning standards	The road network provides a functional urban and rural hierarchy that supports settlement patterns, commercial and economic activities, and freight movement. Design of the road system will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Interim Guide to Road Planning and Design Practice developed by the Department of Transport and Main Roads • Australian Standards • AUSTROADS guides
Public transport design/planning standards	New urban development is designed to achieve safe and convenient walking distance to existing or potential bus stops, or existing or proposed demand-responsive public transport routes.	• Local government design and development manual/standards/ codes in planning scheme and planning scheme policy • Design accords with the performance criteria set by Department of Transport and Main Roads • AUSTROADS guides for road-based public transport and high-occupancy vehicles
Cycleway and pathway design/ planning standards	Cycleways and pathways provide a safe and convenient network that encourages walking and cycling as acceptable alternatives. Design of the network will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Australian Standards • AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths'. • Complete Streets

4.5.4.5 Public parks and land for community facilities network

Table 4.5.4.5.1—Public parks and land for community facilities network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Functional network	A network of parks and land for community facilities is established to provide for the full range of recreational and sporting activities and provide for development of community facilities.	• Parks and land for community facilities is provided at a local, district and LGA-wide level • Parks and land for community facilities addresses the needs of both recreation and provides for development of community facilities
Accessibility	Public parks and land for community facilities will be located to ensure adequate pedestrian, cycle and vehicle access.	• AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths • Australian Standards (AS 1428.1 – Design for access and mobility – General requirements for access – New building work, AS 2890 – Parking Facilities)
Land quality / suitability / minimum size / maximum grade / flood immunity	Public parks and land for community facilities will be provided to a standard that meets the needs of the community and supports a diverse range of recreational, sporting, health and services–promoting activities to meet community expectations. This includes ensuring land is of an appropriate size, configuration and slope, and has an acceptable level of flood immunity.	• Local government standards in planning scheme and planning scheme policies
Facilities/embellishments	Public parks contain a range of embellishments to complement the type and purpose of the park.	• Australian Standards (AS 1428.4 – Design for access and mobility – Tactile indicators, AS 4419 – Soils for landscaping and garden use, AS 4586 – Slip resistance classification of new pedestrian surface materials, AS 4970 – Protection of trees in development sites) • National Construction Code
Infrastructure design / performance standards	Maximise opportunities to co-locate recreational parks and community facilities in proximity to other community infrastructure, transport hubs and valued environmental and cultural assets.	• Local government standards in planning scheme and planning scheme policies • Australian Standards

4.5.5 Plans for trunk infrastructure

(1) The plans for trunk infrastructure identify the trunk infrastructure networks intended to service the existing and assumed future urban development at the desired standard of service up to 2036.

4.5.5.1 Plans for trunk infrastructure maps

(1) The existing and future trunk infrastructure networks are shown on the following maps in Schedule 3—Local government infrastructure plan mapping and tables:

(a) Local Government Infrastructure Plan Map LGIP – LGIP Area – Iama Island

(b) Local Government Infrastructure Plan Map LGIP – Transport Infrastructure – Iama Island

(c) Local Government Infrastructure Plan Map LGIP – Sewer Infrastructure – Iama Island

(d) Local Government Infrastructure Plan Map LGIP – Water Infrastructure – Iama Island

(e) Local Government Infrastructure Plan Map LGIP – Community and Infrastructure – Iama Island

(2) The State infrastructure forming part of transport trunk infrastructure network has been identified using information provided by the relevant State infrastructure supplier.

4.5.5.2 Schedules of works

(1) The future trunk infrastructure is identified in the following table:

(a) for the water supply network, table 4.5.5.2.1

(b) for the sewerage network, table 4.5.5.2.2

(c) for the stormwater network, table 4.5.5.2.3

(d) for the transport network, table 4.5.5.2.4

(e) for the parks and land for community facilities network, table 4.5.5.2.5

Editor's Note – The following tables identify infrastructure capacity upgrades required to service existing urban areas based on population projection figures. Establishment costs have not been provided due to the complexities of infrastructure delivery in this remote locality.

Most housing in this community is government funded and the supply of additional housing stock within township expansion areas is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such the trunk infrastructure required to service these expansion areas has not been identified or costed at this stage.

Table 4.5.5.2.1—Water supply network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – The township expansion areas appear to be higher than the existing reservoirs. If this area is to be developed, it will require either a new higher reservoir or installation of a pressure boosting system.

Table 4.5.5.2.2—Sewerage network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Existing STP has capacity to service 450 Equivalent Persons which is fit for purpose given projected population change.

Table 4.5.5.2.3—Stormwater network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – It is noted that there are currently localised flooding issues at Iama and a review of the drainage will be required to determine whether the additional flows will impact on the community. The discharge point for the township expansion area, located to the west of the reservoirs the township expansion area will be into the drain that runs around the rear of the community. Any drainage upgrades to address existing flooding issues should be timed so that they occur concurrently with development of the expansion area. The township expansion area located to the east of the reservoirs will discharge to the swampy area to the east and will require construction of new drainage and culverts to its discharge point.

Table 4.5.5.2.4—Transport network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost[1]
LGIP Transport Infrastructure	Sealed existing access road adjacent to airstrip servicing the township expansion area.	Subject to development of township expansion area.	NA
Total			

1. Column 4 Establishment cost are not provided due to the need for detailed investigation in reconition of the unique development circumstances.

Editor's Note – Other existing roads are expected to be fit for purpose over the LGIP timeframe given projected population change.

Table 4.5.5.2.5—Parks and land for community facilities schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

4.6 Kirriri (Hammond) Island

4.6.1 Preliminary

(1) This local government infrastructure plan has been prepared in accordance with the requirements of the *Sustainable Planning Act 2009* (repealed).

(2) The purpose of the local government infrastructure plan is to:

- (a) integrate infrastructure planning with the land use planning identified in the planning scheme
- (b) provide transparency regarding a local government's intentions for the provision of trunk infrastructure
- (c) enable a local government to estimate the cost of infrastructure provision to assist its long term financial planning
- (d) ensure that trunk infrastructure is planned and provided in an efficient and orderly manner.
- (e) provide a basis for the imposition of conditions about infrastructure on development approvals.

(3) The local government infrastructure plan:

- (a) states in section 4.6.2 (planning assumptions) the assumptions about future growth and urban development including the assumptions of demand for each trunk infrastructure network
- (b) identifies in section 4.6.3 (priority infrastructure area) the prioritised area to accommodate urban growth up to 2036
- (c) states in section 4.6.4 (desired standards of service) for each trunk infrastructure network the desired standard of performance
- (d) identifies in section 4.6.5 (plans for trunk infrastructure) the existing and future trunk infrastructure for the following networks:
  - (i) water supply
  - (ii) sewerage
  - (iii) stormwater
  - (iv) transport
  - (v) parks and land for community facilities

4.6.2 Planning assumptions

(1) The planning assumptions state the assumptions about:

- (a) changes in population and employment
- (b) the type, scale, location and timing of development including the demand for each trunk infrastructure network

(2) The planning assumptions together with the desired standards of service form a basis for the planning of the trunk infrastructure networks and the determination of the priority infrastructure area.

(3) The planning assumptions have been prepared for:

- (a) the base date 2011 and the following projection years to accord with future Australian Bureau of Statistics census years:
  - (i) mid 2016
  - (ii) mid 2021
  - (iii) mid 2031
  - (iv) mid 2036
- (b) the LGIP development types in column 2 that include the uses in column 3 of table 4.6.2.1.
- (c) the projection areas identified on Local Government Infrastructure Plan Map LGIP – LGIP Area – Kirriri Island in Schedule 3—Local government infrastructure plan mapping and tables.

Table 4.6.2.1—Relationship between LGIP development categories, LGIP development types and uses

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
Residential development	Attached dwelling	Dual occupancy Dwelling unit Multiple dwelling
	Detached dwelling	Dwelling house
Non-residential development	Commercial	Office
	Community purpose	Community use Place of worship Educational establishment Hospital
	Industry	Low impact industry High impact industry Medium impact industry
	Other	Animal husbandry Cropping Extractive industry
	Retail	Food and drink outlet Nightclub entertainment facility Shop Shopping centre Showroom

4.6.2.1 Changes in population and employment

(1) A summary of the assumptions about changes in population and employment for the planning scheme area is stated in table 4.6.2.1.1.

Table 4.6.2.1.1—Population assumptions summary – Kirriri Island

Column 1 Description	Column 2 Assumptions						
	Base Date 2011	2016	2021	2026	2031	2036	Ultimate development
Population	245	261	274	286	297	306	306

Editor's Note – Customised population projections were derived from Queensland Government population projections, 2013 edition, Queensland Government. These customised projections were provided by the Queensland Government Statisticians Office.

Given the lack of reliable census and employment data for the TSIRC, employment, employment projections and non-residential floorspace projections have not been undertaken.

Given that housing in this community is largely government funded, supply of additional housing stock is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such residential floorspace projections have not been provided.

4.6.3 Priority infrastructure area

(1) The priority infrastructure area identifies the area prioritised for the provision of trunk infrastructure to service the existing and assumed future urban development up to 2036.

(2) The priority infrastructure area is identified on Local Government Infrastructure Plan Map LGIP — LGIP Area – Kirriri Island.

4.6.4 Desired standards of service

(1) This section states the key standards of performance for a trunk infrastructure network.

(2) Details of the standard of service for a trunk infrastructure networks are identified in the extrinsic material.

4.6.4.1 Water supply network

Table 4.6.4.1.1—Water supply network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability/continuity of supply	All development receives a reliable supply of potable water with minimal interruptions to their service.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Adequacy of supply	All development is provided with a water supply that is adequate for the intended use.	• Water Service Association of Australia codes • IPWEA standards • Customer service standards • Standards in planning scheme, planning scheme policies and/or Netserv Plans
Quality of supply	Provide a uniform water quality in accordance with recognised standards that safeguards community health and is free from objectionable taste and odour.	• The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council
Environmental impacts	The environmental impacts of the water supply network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection Policies and the *Water Act 2000*
Pressure and leakage management	The water supply network is monitored and managed to maintain the reliability and adequacy of supply and to minimise environmental impacts.	• System Leakage Management Plan (Chapter 3, Part 3, Division 1A *Water Act 2000*)

Infrastructure design/planning standards	Design of the water supply network will comply with established codes and standards.	• Water Supply Code of Australia—Water Services Association of Australia—WSA 03–2002 • The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council • Planning Guidelines for Water Supply and Sewerage—Department of Natural Resources and Water (NRW) • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.6.4.2 Sewerage network

Table 4.6.4.2.1—Sewerage network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability	All development has access to a reliable sewerage collection, conveyance, treatment and disposal system.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Quality of treatment	Ensures the health of the community and the safe and appropriate level of treatment and disposal of treated effluent.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	The environmental impacts of the sewerage network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection policies
Effluent re-use	Reuse effluent wherever possible.	• Guidelines for Sewerage Systems: Reclaimed Water — February 2000 • Queensland Water Recycling Guidelines—December 2005

Infrastructure design /planning standards	Design of the sewerage network will comply with established codes and standards.	• Planning Guidelines for Water Supply and Sewerage—NRW • Sewerage Code of Australia—Water Services Association of Australia—WSA 02—2002 • Sewerage Pumping Station Code of Australia—Water Services Association of Australia—WSA 04—2005 • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.6.4.3 Stormwater network

Table 4.6.4.3.1—Stormwater network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Quantity	Collect and convey stormwater in natural and engineered channels, a piped, drainage network and system of overland flow paths to a lawful point of discharge, in a safe manner that minimises the inundation of habitable rooms and protects life.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Transport and Main Roads - Road Drainage Design Manual
Quality	The water quality of urban catchments and waterways is managed to protect and enhance environmental values and pose no health risk to the community.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (EPA) (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	Adopt water-sensitive urban design principles and on-site water quality management to achieve EPA water quality objectives.	• Section 42 Environmental Protection [Water] Policy 1997) • Local Government standards in planning scheme and planning scheme policies

Infrastructure design/planning standards	Design of the stormwater network will comply with established codes and standards.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Natural Channel Design Guidelines • Transport and Main Roads - Road Drainage Design Manual

4.6.4.4 Transport network

Table 4.6.4.4.1—Transport network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Road network design/planning standards	The road network provides a functional urban and rural hierarchy that supports settlement patterns, commercial and economic activities, and freight movement. Design of the road system will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Interim Guide to Road Planning and Design Practice developed by the Department of Transport and Main Roads • Australian Standards • AUSTROADS guides
Public transport design/planning standards	New urban development is designed to achieve safe and convenient walking distance to existing or potential bus stops, or existing or proposed demand-responsive public transport routes.	• Local government design and development manual/standards/ codes in planning scheme and planning scheme policy • Design accords with the performance criteria set by Department of Transport and Main Roads • AUSTROADS guides for road-based public transport and high-occupancy vehicles
Cycleway and pathway design/ planning standards	Cycleways and pathways provide a safe and convenient network that encourages walking and cycling as acceptable alternatives. Design of the network will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Australian Standards • AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths'. • Complete Streets

4.6.4.5 Public parks and land for community facilities network

Table 4.6.4.5.1—Public parks and land for community facilities network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Functional network	A network of parks and land for community facilities is established to provide for the full range of recreational and sporting activities and provide for development of community facilities.	• Parks and land for community facilities is provided at a local, district and LGA-wide level • Parks and land for community facilities addresses the needs of both recreation and provides for development of community facilities
Accessibility	Public parks and land for community facilities will be located to ensure adequate pedestrian, cycle and vehicle access.	• AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths • Australian Standards (AS 1428.1 – Design for access and mobility – General requirements for access – New building work, AS 2890 – Parking Facilities)
Land quality / suitability / minimum size / maximum grade / flood immunity	Public parks and land for community facilities will be provided to a standard that meets the needs of the community and supports a diverse range of recreational, sporting, health and services–promoting activities to meet community expectations. This includes ensuring land is of an appropriate size, configuration and slope, and has an acceptable level of flood immunity.	• Local government standards in planning scheme and planning scheme policies
Facilities/embellishments	Public parks contain a range of embellishments to complement the type and purpose of the park.	• Australian Standards (AS 1428.4 – Design for access and mobility – Tactile indicators, AS 4419 – Soils for landscaping and garden use, AS 4586 – Slip resistance classification of new pedestrian surface materials, AS 4970 – Protection of trees in development sites) • National Construction Code
Infrastructure design / performance standards	Maximise opportunities to co-locate recreational parks and community facilities in proximity to other community infrastructure, transport hubs and valued environmental and cultural assets.	• Local government standards in planning scheme and planning scheme policies • Australian Standards

4.6.5 Plans for trunk infrastructure

(1) The plans for trunk infrastructure identify the trunk infrastructure networks intended to service the existing and assumed future urban development at the desired standard of service up to 2036.

4.6.5.1 Plans for trunk infrastructure maps

(1) The existing and future trunk infrastructure networks are shown on the following maps in Schedule 3—Local government infrastructure plan mapping and tables:

(a) Local Government Infrastructure Plan Map LGIP – LGIP Area – Kirriri Island

(b) Local Government Infrastructure Plan Map LGIP – Transport Infrastructure – Kirriri Island

(c) Local Government Infrastructure Plan Map LGIP – Sewer Infrastructure – Kirriri Island

(d) Local Government Infrastructure Plan Map LGIP – Water Infrastructure – Kirriri Island

(e) Local Government Infrastructure Plan Map LGIP – Community and Infrastructure – Kirriri Island

(2) The State infrastructure forming part of transport trunk infrastructure network has been identified using information provided by the relevant State infrastructure supplier.

4.6.5.2 Schedules of works

(1) The future trunk infrastructure is identified in the following table:

(a) for the water supply network, table 4.5.5.2.1

(b) for the sewerage network, table 4.5.5.2.2

(c) for the stormwater network, table 4.5.5.2.3

(d) for the transport network, table 4.5.5.2.4

(e) for the parks and land for community facilities network, table 4.5.5.2.5

Editor's Note – The following tables identify infrastructure capacity upgrades required to service existing urban areas based on population projection figures. Establishment costs have not been provided due to the complexities of infrastructure delivery in this remote locality.

Most housing in this community is government funded and the supply of additional housing stock within township expansion areas is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such the trunk infrastructure required to service these expansion areas has not been identified or costed at this stage.

Table 4.6.5.2.1—Water supply network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Kirriri Island's water supply is sourced from three wells located on the island (all operational as a result of the recent water project) and a submarine pipeline. The bulk water supply is designed for 44ML while the estimated demand at 2036 is 39ML at 350l/EP/day. Water reticulation may need extension to the township expansion areas. It is likely that adequate pressures can be supplied by the existing reservoir which is located approximately 50m above the existing township level.

Table 4.6.5.2.2—Sewerage network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – The community is currently serviced by septic tank systems which is fit for purpose given projected population change.

Table 4.6.5.2.3—Stormwater network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – There is limited formal stormwater infrastructure within the township. Natural runoff and infiltration is acceptable for the existing township and will be acceptable over the LGIP timeframe given the projected population change. Any future urban development would need to consider downstream infrastructure/ flowpaths to confirm that it is of a suitable capacity to cater for increased flows.

Table 4.6.5.2.4—Transport network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Existing roads are expected to be fit for purpose over the LGIP timeframe given projected population change.

Table 4.6.5.2.5—Parks and land for community facilities schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

4.7 Kubin (on Moa Island)

4.7.1 Preliminary

(1) This local government infrastructure plan has been prepared in accordance with the requirements of the *Sustainable Planning Act 2009* (repealed).

(2) The purpose of the local government infrastructure plan is to:

- (a) integrate infrastructure planning with the land use planning identified in the planning scheme
- (b) provide transparency regarding a local government's intentions for the provision of trunk infrastructure
- (c) enable a local government to estimate the cost of infrastructure provision to assist its long term financial planning
- (d) ensure that trunk infrastructure is planned and provided in an efficient and orderly manner.
- (e) provide a basis for the imposition of conditions about infrastructure on development approvals.

(3) The local government infrastructure plan:

- (a) states in section 4.7.2 (planning assumptions) the assumptions about future growth and urban development including the assumptions of demand for each trunk infrastructure network
- (b) identifies in section 4.7.3 (priority infrastructure area) the prioritised area to accommodate urban growth up to 2036.
- (c) states in section 4.7.4 (desired standards of service) for each trunk infrastructure network the desired standard of performance
- (d) identifies in section 4.7.5 (plans for trunk infrastructure) the existing and future trunk infrastructure for the following networks:
  - (i) water supply
  - (ii) sewerage
  - (iii) stormwater
  - (iv) transport
  - (v) parks and land for community facilities

4.7.2 Planning assumptions

(1) The planning assumptions state the assumptions about:

- (a) changes in population and employment
- (b) the type, scale, location and timing of development including the demand for each trunk infrastructure network

(2) The planning assumptions together with the desired standards of service form a basis for the planning of the trunk infrastructure networks and the determination of the priority infrastructure area.

(3) The planning assumptions have been prepared for:

- (a) the base date 2011 and the following projection years to accord with future Australian Bureau of Statistics census years:
  - (i) mid 2016
  - (ii) mid 2021
  - (iii) mid 2031
  - (iv) mid 2036
- (b) the LGIP development types in column 2 that include the uses in column 3 of table 4.7.2.1.
- (c) the projection areas identified on Local Government Infrastructure Plan Map LGIP – LGIP Area – Moa Island (Kubin) in Schedule 3—Local government infrastructure plan mapping and tables.

Table 4.7.2.1—Relationship between LGIP development categories, LGIP development types and uses

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
Residential development	Attached dwelling	Dual occupancy Dwelling unit Multiple dwelling
	Detached dwelling	Dwelling house
Non-residential development	Commercial	Office
	Community purpose	Community use Place of worship Educational establishment Hospital
	Industry	Low impact industry High impact industry Medium impact industry
	Other	Animal husbandry Cropping Extractive industry
	Retail	Food and drink outlet Nightclub entertainment facility Shop Shopping centre Showroom

4.7.2.1 Changes in population and employment

(1) A summary of the assumptions about changes in population and employment for the planning scheme area is stated in table 4.7.2.1.1.

Table 4.7.2.1.1—Population assumptions summary – Kubin (on Moa Island)

Column 1 Description	Column 2 Assumptions						
	Base Date 2011	2016	2021	2026	2031	2036	Ultimate development
Population	173	163	154	147	143	140	140

Editor's Note – Customised population projections were derived from Queensland Government population projections, 2013 edition, Queensland Government. These customised projections were provided by the Queensland Government Statisticians Office.

Given the lack of reliable census and employment data for the TSIRC, employment, employment projections and non-residential floorspace projections have not been undertaken.

Given that housing in this community is largely government funded, supply of additional housing stock is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such residential floorspace projections have not been provided.

4.7.3 Priority infrastructure area

(1) The priority infrastructure area identifies the area prioritised for the provision of trunk infrastructure to service the existing and assumed future urban development up to 2036.

(2) The priority infrastructure area is identified on Local Government Infrastructure Plan Map LGIP — LGIP Area – Moa Island (Kubin).

4.7.4 Desired standards of service

(1) This section states the key standards of performance for a trunk infrastructure network.

(2) Details of the standard of service for a trunk infrastructure networks are identified in the extrinsic material.

4.7.4.1 Water supply network

Table 4.7.4.1.1—Water supply network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability/continuity of supply	All development receives a reliable supply of potable water with minimal interruptions to their service.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Adequacy of supply	All development is provided with a water supply that is adequate for the intended use.	• Water Service Association of Australia codes • IPWEA standards • Customer service standards • Standards in planning scheme, planning scheme policies and/or Netserv Plans
Quality of supply	Provide a uniform water quality in accordance with recognised standards that safeguards community health and is free from objectionable taste and odour.	• The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council
Environmental impacts	The environmental impacts of the water supply network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection Policies and the *Water Act 2000*
Pressure and leakage management	The water supply network is monitored and managed to maintain the reliability and adequacy of supply and to minimise environmental impacts.	• System Leakage Management Plan (Chapter 3, Part 3, Division 1A *Water Act 2000*)

Infrastructure design/planning standards	Design of the water supply network will comply with established codes and standards.	• Water Supply Code of Australia—Water Services Association of Australia—WSA 03–2002 • The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council • Planning Guidelines for Water Supply and Sewerage—Department of Natural Resources and Water (NRW) • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.7.4.2 Sewerage network

Table 4.7.4.2.1—Sewerage network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability	All development has access to a reliable sewerage collection, conveyance, treatment and disposal system.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Quality of treatment	Ensures the health of the community and the safe and appropriate level of treatment and disposal of treated effluent.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	The environmental impacts of the sewerage network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection policies
Effluent re-use	Reuse effluent wherever possible.	• Guidelines for Sewerage Systems: Reclaimed Water — February 2000 • Queensland Water Recycling Guidelines—December 2005

Infrastructure design /planning standards	Design of the sewerage network will comply with established codes and standards.	• Planning Guidelines for Water Supply and Sewerage—NRW • Sewerage Code of Australia—Water Services Association of Australia—WSA 02—2002 • Sewerage Pumping Station Code of Australia—Water Services Association of Australia—WSA 04—2005 • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.7.4.3 Stormwater network

Table 4.7.4.3.1—Stormwater network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Quantity	Collect and convey stormwater in natural and engineered channels, a piped, drainage network and system of overland flow paths to a lawful point of discharge, in a safe manner that minimises the inundation of habitable rooms and protects life.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Transport and Main Roads - Road Drainage Design Manual
Quality	The water quality of urban catchments and waterways is managed to protect and enhance environmental values and pose no health risk to the community.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (EPA) (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	Adopt water-sensitive urban design principles and on-site water quality management to achieve EPA water quality objectives.	• Section 42 Environmental Protection [Water] Policy 1997) • Local Government standards in planning scheme and planning scheme policies

Infrastructure design/planning standards	Design of the stormwater network will comply with established codes and standards.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Natural Channel Design Guidelines • Transport and Main Roads - Road Drainage Design Manual

4.7.4.4 Transport network

Table 4.7.4.4.1—Transport network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Road network design/planning standards	The road network provides a functional urban and rural hierarchy that supports settlement patterns, commercial and economic activities, and freight movement. Design of the road system will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Interim Guide to Road Planning and Design Practice developed by the Department of Transport and Main Roads • Australian Standards • AUSTROADS guides
Public transport design/planning standards	New urban development is designed to achieve safe and convenient walking distance to existing or potential bus stops, or existing or proposed demand-responsive public transport routes.	• Local government design and development manual/standards/ codes in planning scheme and planning scheme policy • Design accords with the performance criteria set by Department of Transport and Main Roads • AUSTROADS guides for road-based public transport and high-occupancy vehicles
Cycleway and pathway design/ planning standards	Cycleways and pathways provide a safe and convenient network that encourages walking and cycling as acceptable alternatives. Design of the network will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Australian Standards • AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths'. • Complete Streets

4.7.4.5 Public parks and land for community facilities network

Table 4.7.4.5.1—Public parks and land for community facilities network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Functional network	A network of parks and land for community facilities is established to provide for the full range of recreational and sporting activities and provide for development of community facilities.	• Parks and land for community facilities is provided at a local, district and LGA-wide level • Parks and land for community facilities addresses the needs of both recreation and provides for development of community facilities
Accessibility	Public parks and land for community facilities will be located to ensure adequate pedestrian, cycle and vehicle access.	• AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths • Australian Standards (AS 1428.1 – Design for access and mobility – General requirements for access – New building work, AS 2890 – Parking Facilities)
Land quality / suitability / minimum size / maximum grade / flood immunity	Public parks and land for community facilities will be provided to a standard that meets the needs of the community and supports a diverse range of recreational, sporting, health and services–promoting activities to meet community expectations. This includes ensuring land is of an appropriate size, configuration and slope, and has an acceptable level of flood immunity.	• Local government standards in planning scheme and planning scheme policies
Facilities/embellishments	Public parks contain a range of embellishments to complement the type and purpose of the park.	• Australian Standards (AS 1428.4 – Design for access and mobility – Tactile indicators, AS 4419 – Soils for landscaping and garden use, AS 4586 – Slip resistance classification of new pedestrian surface materials, AS 4970 – Protection of trees in development sites) • National Construction Code
Infrastructure design / performance standards	Maximise opportunities to co-locate recreational parks and community facilities in proximity to other community infrastructure, transport hubs and valued environmental and cultural assets.	• Local government standards in planning scheme and planning scheme policies • Australian Standards

4.7.5 Plans for trunk infrastructure

(1) The plans for trunk infrastructure identify the trunk infrastructure networks intended to service the existing and assumed future urban development at the desired standard of service up to 2036.

4.7.5.1 Plans for trunk infrastructure maps

(1) The existing and future trunk infrastructure networks are shown on the following maps in Schedule 3—Local government infrastructure plan mapping and tables:

- (a) Local Government Infrastructure Plan Map LGIP – LGIP Area – Moa Island (Kubin)
- (b) Local Government Infrastructure Plan Map LGIP – Transport Infrastructure – Moa Island (Kubin)
- (c) Local Government Infrastructure Plan Map LGIP – Sewer Infrastructure – Moa Island (Kubin)
- (d) Local Government Infrastructure Plan Map LGIP – Water Infrastructure – Moa Island (Kubin)
- (e) Local Government Infrastructure Plan Map LGIP – Community and Infrastructure – Moa Island (Kubin)

(2) The State infrastructure forming part of transport trunk infrastructure network has been identified using information provided by the relevant State infrastructure supplier.

4.7.5.2 Schedules of works

(1) The future trunk infrastructure is identified in the following table:

- (a) for the water supply network, table 4.7.5.2.1
- (b) for the sewerage network, table 4.7.5.2.2
- (c) for the stormwater network, table 4.7.5.2.3
- (d) for the transport network, table 4.7.5.2.4
- (e) for the parks and land for community facilities network, table 4.7.5.2.5

Editor's Note – The following tables identify infrastructure capacity upgrades required to service existing urban areas based on population projection figures. Establishment costs have not been provided due to the complexities of infrastructure delivery in this remote locality.

Most housing in this community is government funded and the supply of additional housing stock within township expansion areas is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such the trunk infrastructure required to service these expansion areas has not been identified or costed at this stage.

Table 4.7.5.2.1—Water supply network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Water is sourced from rainwater harvested from the catchment of the covered and lined water storage lagoons, an infiltration gallery and well system located near the lagoons and a creek source near the lagoons. Previous studies have identified the safe yield as 74ML while the demand at 350l/EP/day is 22ML. The source could support a population of 579EP.

The raw water storage is adequate for the current population, however it would be necessary to construct a water balance model to confirm the maximum population which the storage could support.

Treated water storage is provided by a 490kL elevated tank. The reservoir is suitable for a population of approximately 490EP.

Previous investigations indicated that the reticulation network should be upgraded based on 2010 demands. There is however no record of the population used in the model. Based on calculations using a 5% growth factor mentioned in the report and a 2003 base population of 280, the design population may be in the range of 390EP.

A previous investigation indicates that the annual demand used for treatment design was 39ML. It is estimated that the treatment plant can likely accommodate a population of 305.

Table 4.7.5.2.2—Sewerage network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Existing STP was upgraded in 2008 has capacity to service 480 Equivalent Persons which is fit for purpose given projected population change.

Table 4.7.5.2.3—Stormwater network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – There is limited formal stormwater infrastructure within the township. Natural runoff and infiltration is acceptable for the existing township and will be acceptable over the LGIP timeframe given the projected population change.

Table 4.7.5.2.4—Transport network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Existing roads are expected to be fit for purpose over the LGIP timeframe given projected population change.

Table 4.7.5.2.5—Parks and land for community facilities schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost[1]
LGIP Community and Infrastructure	Future Sports Field	Subject to funding	NA
Total			

1. Column 4 Establishment cost are not provided due to the need for detailed investigation in recognition of the unique development circumstances.

4.8 Mabuyag Island

4.8.1 Preliminary

(1) This local government infrastructure plan has been prepared in accordance with the requirements of the *Sustainable Planning Act 2009* (repealed).

(2) The purpose of the local government infrastructure plan is to:

- (a) integrate infrastructure planning with the land use planning identified in the planning scheme
- (b) provide transparency regarding a local government's intentions for the provision of trunk infrastructure
- (c) enable a local government to estimate the cost of infrastructure provision to assist its long term financial planning
- (d) ensure that trunk infrastructure is planned and provided in an efficient and orderly manner.
- (e) provide a basis for the imposition of conditions about infrastructure on development approvals.

(3) The local government infrastructure plan:

- (a) states in section 4.8.2 (planning assumptions) the assumptions about future growth and urban development including the assumptions of demand for each trunk infrastructure network
- (b) identifies in section 4.8.3 (priority infrastructure area) the prioritised area to accommodate urban growth up to 2036.
- (c) states in section 4.8.4 (desired standards of service) for each trunk infrastructure network the desired standard of performance
- (d) identifies in section 4.8.5 (plans for trunk infrastructure) the existing and future trunk infrastructure for the following networks:
  - (i) water supply
  - (ii) sewerage
  - (iii) stormwater
  - (iv) transport
  - (v) parks and land for community facilities

4.8.2 Planning assumptions

(1) The planning assumptions state the assumptions about:

- (a) changes in population and employment
- (b) the type, scale, location and timing of development including the demand for each trunk infrastructure network

(2) The planning assumptions together with the desired standards of service form a basis for the planning of the trunk infrastructure networks and the determination of the priority infrastructure area.

(3) The planning assumptions have been prepared for:

- (a) the base date 2011 and the following projection years to accord with future Australian Bureau of Statistics census years:
  - (i) mid 2016
  - (ii) mid 2021
  - (iii) mid 2031
  - (iv) mid 2036
- (b) the LGIP development types in column 2 that include the uses in column 3 of table 4.8.2.1.
- (c) the projection areas identified on Local Government Infrastructure Plan Map LGIP – LGIP Area – Mabuyag Island in Schedule 3—Local government infrastructure plan mapping and tables.

Table 4.8.2.1—Relationship between LGIP development categories, LGIP development types and uses

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
Residential development	Attached dwelling	Dual occupancy Dwelling unit Multiple dwelling
	Detached dwelling	Dwelling house
Non-residential development	Commercial	Office
	Community purpose	Community use Place of worship Educational establishment Hospital
	Industry	Low impact industry High impact industry Medium impact industry
	Other	Animal husbandry Cropping Extractive industry
	Retail	Food and drink outlet Nightclub entertainment facility Shop Shopping centre Showroom

4.8.2.1 Changes in population and employment

(1) A summary of the assumptions about changes in population and employment for the planning scheme area is stated in table 4.8.2.1.1.

Table 4.8.2.1.1—Population assumptions summary – Mabuyag Island

Column 1 Description	Column 2 Assumptions						
	Base Date 2011	2016	2021	2026	2031	2036	Ultimate development
Population	280	297	311	324	336	347	347

Editor's Note – Customised population projections were derived from Queensland Government population projections, 2013 edition, Queensland Government. These customised projections were provided by the Queensland Government Statisticians Office.

Given the lack of reliable census and employment data for the TSIRC, employment, employment projections and non-residential floorspace projections have not been undertaken.

Given that housing in this community is largely government funded, supply of additional housing stock is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such residential floorspace projections have not been provided.

4.8.3 Priority infrastructure area

(1) The priority infrastructure area identifies the area prioritised for the provision of trunk infrastructure to service the existing and assumed future urban development up to 2036.

(2) The priority infrastructure area is identified on Local Government Infrastructure Plan Map LGIP — LGIP Area – Mabuyag Island.

4.8.4 Desired standards of service

(1) This section states the key standards of performance for a trunk infrastructure network.

(2) Details of the standard of service for a trunk infrastructure networks are identified in the extrinsic material.

4.8.4.1 Water supply network

Table 4.8.4.1.1—Water supply network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability/continuity of supply	All development receives a reliable supply of potable water with minimal interruptions to their service.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Adequacy of supply	All development is provided with a water supply that is adequate for the intended use.	• Water Service Association of Australia codes • IPWEA standards • Customer service standards • Standards in planning scheme, planning scheme policies and/or Netserv Plans
Quality of supply	Provide a uniform water quality in accordance with recognised standards that safeguards community health and is free from objectionable taste and odour.	• The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council
Environmental impacts	The environmental impacts of the water supply network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection Policies and the *Water Act 2000*
Pressure and leakage management	The water supply network is monitored and managed to maintain the reliability and adequacy of supply and to minimise environmental impacts.	• System Leakage Management Plan (Chapter 3, Part 3, Division 1A *Water Act 2000*)

Infrastructure design/planning standards	Design of the water supply network will comply with established codes and standards.	• Water Supply Code of Australia—Water Services Association of Australia—WSA 03–2002 • The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council • Planning Guidelines for Water Supply and Sewerage—Department of Natural Resources and Water (NRW) • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.8.4.2 Sewerage network

Table 4.8.4.2.1—Sewerage network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability	All development has access to a reliable sewerage collection, conveyance, treatment and disposal system.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Quality of treatment	Ensures the health of the community and the safe and appropriate level of treatment and disposal of treated effluent.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	The environmental impacts of the sewerage network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection policies
Effluent re-use	Reuse effluent wherever possible.	• Guidelines for Sewerage Systems: Reclaimed Water — February 2000 • Queensland Water Recycling Guidelines—December 2005

Infrastructure design /planning standards	Design of the sewerage network will comply with established codes and standards.	• Planning Guidelines for Water Supply and Sewerage—NRW • Sewerage Code of Australia—Water Services Association of Australia—WSA 02—2002 • Sewerage Pumping Station Code of Australia—Water Services Association of Australia—WSA 04—2005 • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.8.4.3 Stormwater network

Table 4.8.4.3.1—Stormwater network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Quantity	Collect and convey stormwater in natural and engineered channels, a piped, drainage network and system of overland flow paths to a lawful point of discharge, in a safe manner that minimises the inundation of habitable rooms and protects life.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Transport and Main Roads - Road Drainage Design Manual
Quality	The water quality of urban catchments and waterways is managed to protect and enhance environmental values and pose no health risk to the community.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (EPA) (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	Adopt water-sensitive urban design principles and on-site water quality management to achieve EPA water quality objectives.	• Section 42 Environmental Protection [Water] Policy 1997) • Local Government standards in planning scheme and planning scheme policies

Infrastructure design/planning standards	Design of the stormwater network will comply with established codes and standards.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Natural Channel Design Guidelines • Transport and Main Roads - Road Drainage Design Manual

4.8.4.4 Transport network

Table 4.8.4.4.1—Transport network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Road network design/planning standards	The road network provides a functional urban and rural hierarchy that supports settlement patterns, commercial and economic activities, and freight movement. Design of the road system will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Interim Guide to Road Planning and Design Practice developed by the Department of Transport and Main Roads • Australian Standards • AUSTROADS guides
Public transport design/planning standards	New urban development is designed to achieve safe and convenient walking distance to existing or potential bus stops, or existing or proposed demand-responsive public transport routes.	• Local government design and development manual/standards/ codes in planning scheme and planning scheme policy • Design accords with the performance criteria set by Department of Transport and Main Roads • AUSTROADS guides for road-based public transport and high-occupancy vehicles
Cycleway and pathway design/ planning standards	Cycleways and pathways provide a safe and convenient network that encourages walking and cycling as acceptable alternatives. Design of the network will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Australian Standards • AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths'. • Complete Streets

4.8.4.5 Public parks and land for community facilities network

Table 4.8.4.5.1—Public parks and land for community facilities network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Functional network	A network of parks and land for community facilities is established to provide for the full range of recreational and sporting activities and provide for development of community facilities.	• Parks and land for community facilities is provided at a local, district and LGA-wide level • Parks and land for community facilities addresses the needs of both recreation and provides for development of community facilities
Accessibility	Public parks and land for community facilities will be located to ensure adequate pedestrian, cycle and vehicle access.	• AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths • Australian Standards (AS 1428.1 – Design for access and mobility – General requirements for access – New building work, AS 2890 – Parking Facilities)
Land quality / suitability / minimum size / maximum grade / flood immunity	Public parks and land for community facilities will be provided to a standard that meets the needs of the community and supports a diverse range of recreational, sporting, health and services–promoting activities to meet community expectations. This includes ensuring land is of an appropriate size, configuration and slope, and has an acceptable level of flood immunity.	• Local government standards in planning scheme and planning scheme policies
Facilities/embellishments	Public parks contain a range of embellishments to complement the type and purpose of the park.	• Australian Standards (AS 1428.4 – Design for access and mobility – Tactile indicators, AS 4419 – Soils for landscaping and garden use, AS 4586 – Slip resistance classification of new pedestrian surface materials, AS 4970 – Protection of trees in development sites) • National Construction Code
Infrastructure design / performance standards	Maximise opportunities to co-locate recreational parks and community facilities in proximity to other community infrastructure, transport hubs and valued environmental and cultural assets.	• Local government standards in planning scheme and planning scheme policies • Australian Standards

4.8.5 Plans for trunk infrastructure

(1) The plans for trunk infrastructure identify the trunk infrastructure networks intended to service the existing and assumed future urban development at the desired standard of service up to 2036.

4.8.5.1 Plans for trunk infrastructure maps

(1) The existing and future trunk infrastructure networks are shown on the following maps in Schedule 3—Local government infrastructure plan mapping and tables:

(a) Local Government Infrastructure Plan Map LGIP – LGIP Area – Mabuyag Island

(b) Local Government Infrastructure Plan Map LGIP – Transport Infrastructure – Mabuyag Island

(c) Local Government Infrastructure Plan Map LGIP – Sewer Infrastructure – Mabuyag Island

(d) Local Government Infrastructure Plan Map LGIP – Water Infrastructure – Mabuyag Island

(e) Local Government Infrastructure Plan Map LGIP – Community and Infrastructure – Mabuyag Island

(2) The State infrastructure forming part of transport trunk infrastructure network has been identified using information provided by the relevant State infrastructure supplier.

4.8.5.2 Schedules of works

(1) The future trunk infrastructure is identified in the following table:

(a) for the water supply network, table 4.8.5.2.1

(b) for the sewerage network, table 4.8.5.2.2

(c) for the stormwater network, table 4.8.5.2.3

(d) for the transport network, table 4.8.5.2.4

(e) for the parks and land for community facilities network, table 4.8.5.2.5

Editor's Note – The following tables identify infrastructure capacity upgrades required to service existing urban areas based on population projection figures. Establishment costs have not been provided due to the complexities of infrastructure delivery in this remote locality.

Most housing in this community is government funded and the supply of additional housing stock within township expansion areas is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such the trunk infrastructure required to service these expansion areas has not been identified or costed at this stage.

Table 4.8.5.2.1—Water supply network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Mabuyag's water supply is mainly sourced from an existing weir and water is discharged to a 30.4ML storage lagoon. This lagoon was covered and lined in 2008. A 2004 planning study indicated that the storage volume is sufficient for a population of around 300 EP, however this based on a design consumption rate of 400l/EP/day.

TSIRC plans to undertake a leak detection project as part of MIP5 which may reduce demand closer to 350l/EP/day, in accordance with projected consumption across the Torres Strait.

Further investigations should be undertaken to confirm that there is suitable storage volumes to supply the anticipated population growth. A desalination unit may be the most economical solution to supplement community demand.

The existing water treatment plant was recently upgraded, however further investigation is required to determine whether pumps, filters and chlorine dosing equipment is designed to accommodate the ultimate population. Any new urban development in township expansion areas will need to provide new water reticulation infrastructure and update the water model (completed in 2010 as part of the Regional Asset Sustainability Project Group B) to determine whether there is an impact on the community.

Table 4.8.5.2.2—Sewerage network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Existing STP was upgraded in 2008 has capacity to service 600 Equivalent Persons which is fit for purpose given projected population change.

Table 4.8.5.2.3—Stormwater network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – There is limited formal stormwater infrastructure within the township. A drainage masterplan was prepared in 2003 and the Infrastructure Planning Report indicates that the required infrastructure was completed as part of a project constructed by TMR in 2008/09. In general, natural runoff and infiltration is acceptable for the existing township and will be acceptable over the LGIP timeframe given the projected population change. Development within township expansion areas will need to conduct further investigations to determine drainage infrastructure requirements.

Table 4.8.5.2.4—Transport network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – The majority of the existing roads were sealed by TMR in 2008/09 and are expected to be fit for purpose over the LGIP timeframe given projected population change.

Table 4.8.5.2.5—Parks and land for community facilities schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

4.9 Masig (Yorke) Island

4.9.1 Preliminary

(1) This local government infrastructure plan has been prepared in accordance with the requirements of the *Sustainable Planning Act 2009* (repealed).

(2) The purpose of the local government infrastructure plan is to:

- (a) integrate infrastructure planning with the land use planning identified in the planning scheme
- (b) provide transparency regarding a local government's intentions for the provision of trunk infrastructure
- (c) enable a local government to estimate the cost of infrastructure provision to assist its long term financial planning
- (d) ensure that trunk infrastructure is planned and provided in an efficient and orderly manner.
- (e) provide a basis for the imposition of conditions about infrastructure on development approvals.

(3) The local government infrastructure plan:

- (a) states in section 4.9.2 (planning assumptions) the assumptions about future growth and urban development including the assumptions of demand for each trunk infrastructure network
- (b) identifies in section 4.9.3 (priority infrastructure area) the prioritised area to accommodate urban growth up to 2036.
- (c) states in section 4.9.4 (desired standards of service) for each trunk infrastructure network the desired standard of performance
- (d) identifies in section 4.9.5 (plans for trunk infrastructure) the existing and future trunk infrastructure for the following networks:
  - (i) water supply
  - (ii) sewerage
  - (iii) stormwater
  - (iv) transport
  - (v) parks and land for community facilities

4.9.2 Planning assumptions

(1) The planning assumptions state the assumptions about:

- (a) changes in population and employment
- (b) the type, scale, location and timing of development including the demand for each trunk infrastructure network

(2) The planning assumptions together with the desired standards of service form a basis for the planning of the trunk infrastructure networks and the determination of the priority infrastructure area.

(3) The planning assumptions have been prepared for:

- (a) the base date 2011 and the following projection years to accord with future Australian Bureau of Statistics census years:
  - (i) mid 2016
  - (ii) mid 2021
  - (iii) mid 2031
  - (iv) mid 2036
- (b) the LGIP development types in column 2 that include the uses in column 3 of table 4.9.2.1.
- (c) the projection areas identified on Local Government Infrastructure Plan Map LGIP – LGIP Area – Masig (Yorke) Island in Schedule 3—Local government infrastructure plan mapping and tables.

Table 4.9.2.1—Relationship between LGIP development categories, LGIP development types and uses

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
Residential development	Attached dwelling	Dual occupancy Dwelling unit Multiple dwelling
	Detached dwelling	Dwelling house
Non-residential development	Commercial	Office
	Community purpose	Community use Place of worship Educational establishment Hospital
	Industry	Low impact industry High impact industry Medium impact industry
	Other	Animal husbandry Cropping Extractive industry
	Retail	Food and drink outlet Nightclub entertainment facility Shop Shopping centre Showroom

4.9.2.1 Changes in population and employment

(1) A summary of the assumptions about changes in population and employment for the planning scheme area is stated in table 4.9.2.1.1.

Table 4.9.2.1.1—Population assumptions summary – Masig Island

Column 1 Description	Column 2 Assumptions						
	Base Date 2011	2016	2021	2026	2031	2036	Ultimate development
Population	254	236	221	211	204	200	200

Editor's Note – Customised population projections were derived from Queensland Government population projections, 2013 edition, Queensland Government. These customised projections were provided by the Queensland Government Statisticians Office.

Given the lack of reliable census and employment data for the TSIRC, employment, employment projections and non-residential floorspace projections have not been undertaken.

Given that housing in this community is largely government funded, supply of additional housing stock is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such residential floorspace projections have not been provided.

4.9.3 Priority infrastructure area

(1) The priority infrastructure area identifies the area prioritised for the provision of trunk infrastructure to service the existing and assumed future urban development up to 2036.

(2) The priority infrastructure area is identified on Local Government Infrastructure Plan Map LGIP — LGIP Area – Masig (Yorke) Island.

4.9.4 Desired standards of service

(1) This section states the key standards of performance for a trunk infrastructure network.

(2) Details of the standard of service for a trunk infrastructure networks are identified in the extrinsic material.

4.9.4.1 Water supply network

Table 4.9.4.1.1—Water supply network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability/continuity of supply	All development receives a reliable supply of potable water with minimal interruptions to their service.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Adequacy of supply	All development is provided with a water supply that is adequate for the intended use.	• Water Service Association of Australia codes • IPWEA standards • Customer service standards • Standards in planning scheme, planning scheme policies and/or Netserv Plans
Quality of supply	Provide a uniform water quality in accordance with recognised standards that safeguards community health and is free from objectionable taste and odour.	• The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council
Environmental impacts	The environmental impacts of the water supply network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection Policies and the *Water Act 2000*
Pressure and leakage management	The water supply network is monitored and managed to maintain the reliability and adequacy of supply and to minimise environmental impacts.	• System Leakage Management Plan (Chapter 3, Part 3, Division 1A *Water Act 2000*)

Infrastructure design/planning standards	Design of the water supply network will comply with established codes and standards.	• Water Supply Code of Australia—Water Services Association of Australia—WSA 03–2002 • The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council • Planning Guidelines for Water Supply and Sewerage—Department of Natural Resources and Water (NRW) • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.9.4.2 Sewerage network

Table 4.9.4.2.1—Sewerage network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability	All development has access to a reliable sewerage collection, conveyance, treatment and disposal system.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Quality of treatment	Ensures the health of the community and the safe and appropriate level of treatment and disposal of treated effluent.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	The environmental impacts of the sewerage network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection policies
Effluent re-use	Reuse effluent wherever possible.	• Guidelines for Sewerage Systems: Reclaimed Water — February 2000 • Queensland Water Recycling Guidelines—December 2005

Infrastructure design /planning standards	Design of the sewerage network will comply with established codes and standards.	• Planning Guidelines for Water Supply and Sewerage—NRW • Sewerage Code of Australia—Water Services Association of Australia—WSA 02—2002 • Sewerage Pumping Station Code of Australia—Water Services Association of Australia—WSA 04—2005 • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.9.4.3 Stormwater network

Table 4.9.4.3.1—Stormwater network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Quantity	Collect and convey stormwater in natural and engineered channels, a piped, drainage network and system of overland flow paths to a lawful point of discharge, in a safe manner that minimises the inundation of habitable rooms and protects life.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Transport and Main Roads - Road Drainage Design Manual
Quality	The water quality of urban catchments and waterways is managed to protect and enhance environmental values and pose no health risk to the community.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (EPA) (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	Adopt water-sensitive urban design principles and on-site water quality management to achieve EPA water quality objectives.	• Section 42 Environmental Protection [Water] Policy 1997) • Local Government standards in planning scheme and planning scheme policies

Infrastructure design/planning standards	Design of the stormwater network will comply with established codes and standards.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Natural Channel Design Guidelines • Transport and Main Roads - Road Drainage Design Manual

4.9.4.4 Transport network

Table 4.9.4.4.1—Transport network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Road network design/planning standards	The road network provides a functional urban and rural hierarchy that supports settlement patterns, commercial and economic activities, and freight movement. Design of the road system will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Interim Guide to Road Planning and Design Practice developed by the Department of Transport and Main Roads • Australian Standards • AUSTROADS guides
Public transport design/planning standards	New urban development is designed to achieve safe and convenient walking distance to existing or potential bus stops, or existing or proposed demand-responsive public transport routes.	• Local government design and development manual/standards/ codes in planning scheme and planning scheme policy • Design accords with the performance criteria set by Department of Transport and Main Roads • AUSTROADS guides for road-based public transport and high-occupancy vehicles
Cycleway and pathway design/ planning standards	Cycleways and pathways provide a safe and convenient network that encourages walking and cycling as acceptable alternatives. Design of the network will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Australian Standards • AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths'. • Complete Streets

4.9.4.5 Public parks and land for community facilities network

Table 4.9.4.5.1—Public parks and land for community facilities network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Functional network	A network of parks and land for community facilities is established to provide for the full range of recreational and sporting activities and provide for development of community facilities.	• Parks and land for community facilities is provided at a local, district and LGA-wide level • Parks and land for community facilities addresses the needs of both recreation and provides for development of community facilities
Accessibility	Public parks and land for community facilities will be located to ensure adequate pedestrian, cycle and vehicle access.	• AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths • Australian Standards (AS 1428.1 – Design for access and mobility – General requirements for access – New building work, AS 2890 – Parking Facilities)
Land quality / suitability / minimum size / maximum grade / flood immunity	Public parks and land for community facilities will be provided to a standard that meets the needs of the community and supports a diverse range of recreational, sporting, health and services–promoting activities to meet community expectations. This includes ensuring land is of an appropriate size, configuration and slope, and has an acceptable level of flood immunity.	• Local government standards in planning scheme and planning scheme policies
Facilities/embellishments	Public parks contain a range of embellishments to complement the type and purpose of the park.	• Australian Standards (AS 1428.4 – Design for access and mobility – Tactile indicators, AS 4419 – Soils for landscaping and garden use, AS 4586 – Slip resistance classification of new pedestrian surface materials, AS 4970 – Protection of trees in development sites) • National Construction Code
Infrastructure design / performance standards	Maximise opportunities to co-locate recreational parks and community facilities in proximity to other community infrastructure, transport hubs and valued environmental and cultural assets.	• Local government standards in planning scheme and planning scheme policies • Australian Standards

4.9.5 Plans for trunk infrastructure

(1) The plans for trunk infrastructure identify the trunk infrastructure networks intended to service the existing and assumed future urban development at the desired standard of service up to 2036.

4.9.5.1 Plans for trunk infrastructure maps

(1) The existing and future trunk infrastructure networks are shown on the following maps in Schedule 3—Local government infrastructure plan mapping and tables:

(a) Local Government Infrastructure Plan Map LGIP – LGIP Area – Masig (Yorke Island)

(b) Local Government Infrastructure Plan Map LGIP – Transport Infrastructure – Masig (Yorke Island)

(c) Local Government Infrastructure Plan Map LGIP – Sewer Infrastructure – Masig (Yorke Island)

(d) Local Government Infrastructure Plan Map LGIP – Water Infrastructure – Masig (Yorke Island)

(e) Local Government Infrastructure Plan Map LGIP – Community and Infrastructure – Masig (Yorke) Island

(2) The State infrastructure forming part of transport trunk infrastructure network has been identified using information provided by the relevant State infrastructure supplier.

4.9.5.2 Schedules of works

(1) The future trunk infrastructure is identified in the following table:

(a) for the water supply network, table 4.9.5.2.1

(b) for the sewerage network, table 4.9.5.2.2

(c) for the stormwater network, table 4.9.5.2.3

(d) for the transport network, table 4.9.5.2.4

(e) for the parks and land for community facilities network, table 4.9.5.2.5

Editor's Note – The following tables identify infrastructure capacity upgrades required to service existing urban areas based on population projection figures. Establishment costs have not been provided due to the complexities of infrastructure delivery in this remote locality.

Most housing in this community is government funded and the supply of additional housing stock within township expansion areas is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such the trunk infrastructure required to service these expansion areas has not been identified or costed at this stage.

Table 4.9.5.2.1—Water supply network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost[1]
LGIP Water Infrastructure	Water Treatment Plant – additional desalination unit	Subject to population increase to 275 equivalent persons	NA
Total			

1. Column 4 Establishment cost are not provided due to the need for detailed investigation in recognition of the unique development circumstances.

Editor's Note – The Water Treatment Plant was recently upgraded as part of the asset sustainability project. Masig is serviced by a covered and lined lagoon that stores 24ML of rainwater falling on its catchment and is supplemented by a desalination plant currently capable of delivering 70kl/day. Desalinated water is pumped into the lagoon which is designed to accommodate a 140kL/day desalination unit. During the project, a water balance was developed to 2020 and a desalination capacity was selected as an initial approach. This is less than what was originally in place for the community. If in the event the EP projection appears to approach or exceed 275 EP, TSIRC will need to install an additional 70kl/day unit to accommodate future demand for a population. It will also be necessary to conduct an ongoing program of leak and demand management.

Table 4.9.5.2.2—Sewerage network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
LGIP Sewer Infrastructure	Sewage Treatment Plant upgrade	Subject to population increase to 524 equivalent persons	NA
Total			

Editor's Note – The Sewage Treatment Plant was constructed in 2008/09 and the design capacity was 524EP.

Table 4.9.5.2.3—Stormwater network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – There is limited formal stormwater infrastructure within the township. Natural runoff and infiltration is acceptable for the existing township and will be acceptable over the LGIP timeframe given the projected population change.

Table 4.9.5.2.4—Transport network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Existing roads are expected to be fit for purpose over the LGIP timeframe given projected population change.

Table 4.9.5.2.3—Parks and land for community facilities schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

4.10 Mer (Murray) Island

4.10.1 Preliminary

(1) This local government infrastructure plan has been prepared in accordance with the requirements of the *Sustainable Planning Act 2009* (repealed).

(2) The purpose of the local government infrastructure plan is to:

- (a) integrate infrastructure planning with the land use planning identified in the planning scheme
- (b) provide transparency regarding a local government's intentions for the provision of trunk infrastructure
- (c) enable a local government to estimate the cost of infrastructure provision to assist its long term financial planning
- (d) ensure that trunk infrastructure is planned and provided in an efficient and orderly manner.
- (e) provide a basis for the imposition of conditions about infrastructure on development approvals.

(3) The local government infrastructure plan:

- (a) states in section 4.10.2 (planning assumptions) the assumptions about future growth and urban development including the assumptions of demand for each trunk infrastructure network
- (b) identifies in section 4.10.3 (priority infrastructure area) the prioritised area to accommodate urban growth up to 2036.
- (c) states in section 4.10.4 (desired standards of service) for each trunk infrastructure network the desired standard of performance
- (d) identifies in section 4.10.5 (plans for trunk infrastructure) the existing and future trunk infrastructure for the following networks:
  - (i) water supply
  - (ii) sewerage
  - (iii) stormwater
  - (iv) transport
  - (v) parks and land for community facilities

4.10.2 Planning assumptions

(1) The planning assumptions state the assumptions about:

- (a) changes in population and employment
- (b) the type, scale, location and timing of development including the demand for each trunk infrastructure network

(2) The planning assumptions together with the desired standards of service form a basis for the planning of the trunk infrastructure networks and the determination of the priority infrastructure area.

(3) The planning assumptions have been prepared for:

- (a) the base date 2011 and the following projection years to accord with future Australian Bureau of Statistics census years:
  - (i) mid 2016
  - (i) mid 2021
  - (ii) mid 2031
  - (iii) mid 2036
- (b) the LGIP development types in column 2 that include the uses in column 3 of table 4.10.2.1.
- (c) the projection areas identified on Local Government Infrastructure Plan Map LGIP – LGIP Area – Mer Island in Schedule 3—Local government infrastructure plan mapping and tables.

Table 4.10.2.1—Relationship between LGIP development categories, LGIP development types and uses

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
Residential development	Attached dwelling	Dual occupancy Dwelling unit Multiple dwelling
	Detached dwelling	Dwelling house
Non-residential development	Commercial	Office
	Community purpose	Community use Place of worship Educational establishment Hospital
	Industry	Low impact industry High impact industry Medium impact industry
	Other	Animal husbandry Cropping Extractive industry
	Retail	Food and drink outlet Nightclub entertainment facility Shop Shopping centre Showroom

4.10.2.1 Changes in population and employment

(1) A summary of the assumptions about changes in population and employment for the planning scheme area is stated in table 4.10.2.1.1.

Table 4.10.2.1.1—Population assumptions summary – Masig Island

Column 1 Description	Column 2 Assumptions						
	Base Date 2011	2016	2021	2026	2031	2036	Ultimate development
Population	394	389	385	381	379	378	378

Editor's Note – Customised population projections were derived from Queensland Government population projections, 2013 edition, Queensland Government. These customised projections were provided by the Queensland Government Statisticians Office.

Given the lack of reliable census and employment data for the TSIRC, employment, employment projections and non-residential floorspace projections have not been undertaken.

Given that housing in this community is largely government funded, supply of additional housing stock is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such residential floorspace projections have not been provided.

4.10.3 Priority infrastructure area

(1) The priority infrastructure area identifies the area prioritised for the provision of trunk infrastructure to service the existing and assumed future urban development up to 2036.

(2) The priority infrastructure area is identified on Local Government Infrastructure Plan Map LGIP — LGIP Area – Mer Island.

4.10.4 Desired standards of service

(1) This section states the key standards of performance for a trunk infrastructure network.

(2) Details of the standard of service for a trunk infrastructure networks are identified in the extrinsic material.

4.10.4.1 Water supply network

Table 4.10.4.1.1—Water supply network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability/continuity of supply	All development receives a reliable supply of potable water with minimal interruptions to their service.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Adequacy of supply	All development is provided with a water supply that is adequate for the intended use.	• Water Service Association of Australia codes • IPWEA standards • Customer service standards • Standards in planning scheme, planning scheme policies and/or Netserv Plans
Quality of supply	Provide a uniform water quality in accordance with recognised standards that safeguards community health and is free from objectionable taste and odour.	• The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council
Environmental impacts	The environmental impacts of the water supply network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection Policies and the *Water Act 2000*
Pressure and leakage management	The water supply network is monitored and managed to maintain the reliability and adequacy of supply and to minimise environmental impacts.	• System Leakage Management Plan (Chapter 3, Part 3, Division 1A *Water Act 2000*)

Infrastructure design/planning standards	Design of the water supply network will comply with established codes and standards.	• Water Supply Code of Australia—Water Services Association of Australia—WSA 03–2002 • The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council • Planning Guidelines for Water Supply and Sewerage—Department of Natural Resources and Water (NRW) • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.10.4.2 Sewerage network

Table 4.10.4.2.1—Sewerage network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability	All development has access to a reliable sewerage collection, conveyance, treatment and disposal system.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Quality of treatment	Ensures the health of the community and the safe and appropriate level of treatment and disposal of treated effluent.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	The environmental impacts of the sewerage network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection policies
Effluent re-use	Reuse effluent wherever possible.	• Guidelines for Sewerage Systems: Reclaimed Water — February 2000 • Queensland Water Recycling Guidelines—December 2005

Infrastructure design /planning standards	Design of the sewerage network will comply with established codes and standards.	• Planning Guidelines for Water Supply and Sewerage—NRW • Sewerage Code of Australia—Water Services Association of Australia—WSA 02—2002 • Sewerage Pumping Station Code of Australia—Water Services Association of Australia—WSA 04—2005 • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.10.4.3 Stormwater network

Table 4.10.4.3.1—Stormwater network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Quantity	Collect and convey stormwater in natural and engineered channels, a piped, drainage network and system of overland flow paths to a lawful point of discharge, in a safe manner that minimises the inundation of habitable rooms and protects life.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Transport and Main Roads - Road Drainage Design Manual
Quality	The water quality of urban catchments and waterways is managed to protect and enhance environmental values and pose no health risk to the community.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (EPA) (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	Adopt water-sensitive urban design principles and on-site water quality management to achieve EPA water quality objectives.	• Section 42 Environmental Protection [Water] Policy 1997) • Local Government standards in planning scheme and planning scheme policies

Infrastructure design/planning standards	Design of the stormwater network will comply with established codes and standards.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Natural Channel Design Guidelines • Transport and Main Roads - Road Drainage Design Manual

4.10.4.4 Transport network

Table 4.10.4.4.1—Transport network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Road network design/planning standards	The road network provides a functional urban and rural hierarchy that supports settlement patterns, commercial and economic activities, and freight movement. Design of the road system will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Interim Guide to Road Planning and Design Practice developed by the Department of Transport and Main Roads • Australian Standards • AUSTROADS guides
Public transport design/planning standards	New urban development is designed to achieve safe and convenient walking distance to existing or potential bus stops, or existing or proposed demand-responsive public transport routes.	• Local government design and development manual/standards/ codes in planning scheme and planning scheme policy • Design accords with the performance criteria set by Department of Transport and Main Roads • AUSTROADS guides for road-based public transport and high-occupancy vehicles
Cycleway and pathway design/ planning standards	Cycleways and pathways provide a safe and convenient network that encourages walking and cycling as acceptable alternatives. Design of the network will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Australian Standards • AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths'. • Complete Streets

4.10.4.5 Public parks and land for community facilities network

Table 4.10.4.5.1—Public parks and land for community facilities network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Functional network	A network of parks and land for community facilities is established to provide for the full range of recreational and sporting activities and provide for development of community facilities.	• Parks and land for community facilities is provided at a local, district and LGA-wide level • Parks and land for community facilities addresses the needs of both recreation and provides for development of community facilities
Accessibility	Public parks and land for community facilities will be located to ensure adequate pedestrian, cycle and vehicle access.	• AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths • Australian Standards (AS 1428.1 – Design for access and mobility – General requirements for access – New building work, AS 2890 – Parking Facilities)
Land quality / suitability / minimum size / maximum grade / flood immunity	Public parks and land for community facilities will be provided to a standard that meets the needs of the community and supports a diverse range of recreational, sporting, health and services–promoting activities to meet community expectations. This includes ensuring land is of an appropriate size, configuration and slope, and has an acceptable level of flood immunity.	• Local government standards in planning scheme and planning scheme policies
Facilities/embellishments	Public parks contain a range of embellishments to complement the type and purpose of the park.	• Australian Standards (AS 1428.4 – Design for access and mobility – Tactile indicators, AS 4419 – Soils for landscaping and garden use, AS 4586 – Slip resistance classification of new pedestrian surface materials, AS 4970 – Protection of trees in development sites) • National Construction Code
Infrastructure design / performance standards	Maximise opportunities to co-locate recreational parks and community facilities in proximity to other community infrastructure, transport hubs and valued environmental and cultural assets.	• Local government standards in planning scheme and planning scheme policies • Australian Standards

4.10.5 Plans for trunk infrastructure

(1) The plans for trunk infrastructure identify the trunk infrastructure networks intended to service the existing and assumed future urban development at the desired standard of service up to 2036.

4.10.5.1 Plans for trunk infrastructure maps

(1) The existing and future trunk infrastructure networks are shown on the following maps in Schedule 3—Local government infrastructure plan mapping and tables:

(a) Local Government Infrastructure Plan Map LGIP – LGIP Area – Mer Island

(b) Local Government Infrastructure Plan Map LGIP – Transport Infrastructure – Mer Island

(c) Local Government Infrastructure Plan Map LGIP – Sewer Infrastructure – Mer Island

(d) Local Government Infrastructure Plan Map LGIP – Water Infrastructure – Mer Island

(e) Local Government Infrastructure Plan Map LGIP – Community and Infrastructure – Mer Island

(2) The State infrastructure forming part of transport trunk infrastructure network has been identified using information provided by the relevant State infrastructure supplier.

4.10.5.2 Schedules of works

(1) The future trunk infrastructure is identified in the following table:

(a) for the water supply network, table 4.10.5.2.1

(b) for the sewerage network, table 4.10.5.2.2

(c) for the stormwater network, table 4.10.5.2.3

(d) for the transport network, table 4.10.5.2.4

(e) for the parks and land for community facilities network, table 4.10.5.2.5

Editor's Note – The following tables identify infrastructure capacity upgrades required to service existing urban areas based on population projection figures. Establishment costs have not been provided due to the complexities of infrastructure delivery in this remote locality.

Most housing in this community is government funded and the supply of additional housing stock within township expansion areas is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such the trunk infrastructure required to service these expansion areas has not been identified or costed at this stage.

Table 4.10.5.2.1—Water supply network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost[1]
LGIP Water infrastructure	Replace existing 80mm mains with 100mm mains.	Subject to funding availability.	NA
Total			

1. Column 4 Establishment cost are not provided due to the need for detailed investigation in recognition of the unique development circumstances.

Editor's Note – Water at Mer is sourced from rainwater falling on the catchment of the covered and lined storage lagoon as well as a 210kL/day desalination plant. This plant was upgraded in 2013 and the water balance indicates the storage & desalination capacity is sufficient for a design population of around 600 EP (based on 350l/EP/day).

Treated water is stored in a break of head tank located below the raw water lagoon and a new 90kL reservoir has been constructed to service the new school and development above the lagoon. Water is pumped to this reservoir while it gravity feeds to the lower reservoir that supplies the town. Given the location of the raw water storage, the reservoir capacity is currently considered suitable, however further consideration should be given as part of any development on the island. To account for possible issues with the reservoir, lagoon and chlorine dosing equipment, a cross connection was constructed to enable permeate water from the desalination plant to be pumped into town.

A 2004 study indicates that the remaining sections of 80mm diameter water main should be replaced with 100mm diameter main. Any new development should be accompanied by a water reticulation model to indicate that sufficient water pressures will be available to the new allotment.

Table 4.10.5.2.2—Sewerage network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Existing STP has capacity to service 600 Equivalent Persons which is fit for purpose given projected population change.

Table 4.10.5.2.3—Stormwater network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – There is limited formal stormwater infrastructure within the township. Natural runoff and infiltration is acceptable for the existing township and will be acceptable over the LGIP timeframe given the projected population change.

Table 4.10.5.2.4—Transport network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Existing roads are expected to be fit for purpose over the LGIP timeframe given projected population change.

Table 4.10.5.2.5—Parks and land for community facilities schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

4.11 Poruma (Coconut) Island

4.11.1 Preliminary

(1) This local government infrastructure plan has been prepared in accordance with the requirements of the *Sustainable Planning Act 2009* (repealed).

(2) The purpose of the local government infrastructure plan is to:

- (a) integrate infrastructure planning with the land use planning identified in the planning scheme
- (b) provide transparency regarding a local government's intentions for the provision of trunk infrastructure
- (c) enable a local government to estimate the cost of infrastructure provision to assist its long term financial planning
- (d) ensure that trunk infrastructure is planned and provided in an efficient and orderly manner.
- (e) provide a basis for the imposition of conditions about infrastructure on development approvals.

(3) The local government infrastructure plan:

- (a) states in section 4.11.2 (planning assumptions) the assumptions about future growth and urban development including the assumptions of demand for each trunk infrastructure network
- (b) identifies in section 4.11.3 (priority infrastructure area) the prioritised area to accommodate urban growth up to 2036.
- (c) states in section 4.11.4 (desired standards of service) for each trunk infrastructure network the desired standard of performance
- (d) identifies in section 4.11.5 (plans for trunk infrastructure) the existing and future trunk infrastructure for the following networks:
  - (i) water supply
  - (ii) sewerage
  - (iii) stormwater
  - (iv) transport
  - (v) parks and land for community facilities

4.11.2 Planning assumptions

(1) The planning assumptions state the assumptions about:

- (a) changes in population and employment
- (b) the type, scale, location and timing of development including the demand for each trunk infrastructure network

(2) The planning assumptions together with the desired standards of service form a basis for the planning of the trunk infrastructure networks and the determination of the priority infrastructure area.

(3) The planning assumptions have been prepared for:

- (a) the base date 2011 and the following projection years to accord with future Australian Bureau of Statistics census years:
  - (i) mid 2016
  - (ii) mid 2021
  - (iii) mid 2031
  - (iv) mid 2036
- (b) the LGIP development types in column 2 that include the uses in column 3 of table 4.11.2.1.
- (c) the projection areas identified on Local Government Infrastructure Plan Map LGIP – LGIP Area – Poruma Island in Schedule 3—Local government infrastructure plan mapping and tables.

Table 4.11.2.1—Relationship between LGIP development categories, LGIP development types and uses

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
Residential development	Attached dwelling	Dual occupancy Dwelling unit Multiple dwelling
	Detached dwelling	Dwelling house
Non-residential development	Commercial	Office
	Community purpose	Community use Place of worship Educational establishment Hospital
	Industry	Low impact industry High impact industry Medium impact industry
	Other	Animal husbandry Cropping Extractive industry
	Retail	Food and drink outlet Nightclub entertainment facility Shop Shopping centre Showroom

4.11.2.1 Changes in population and employment

(1) A summary of the assumptions about changes in population and employment for the planning scheme area is stated in table 4.11.2.1.1.

Table 4.11.2.1.1—Population assumptions summary – Poruma Island

Column 1 Description	Column 2 Assumptions						
	Base Date 2011	2016	2021	2026	2031	2036	Ultimate development
Population	160	161	161	162	163	163	163

Editor's Note – Customised population projections were derived from Queensland Government population projections, 2013 edition, Queensland Government. These customised projections were provided by the Queensland Government Statisticians Office.

Given the lack of reliable census and employment data for the TSIRC, employment, employment projections and non-residential floorspace projections have not been undertaken.

Given that housing in this community is largely government funded, supply of additional housing stock is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such residential floorspace projections have not been provided.

4.11.3 Priority infrastructure area

(1) The priority infrastructure area identifies the area prioritised for the provision of trunk infrastructure to service the existing and assumed future urban development up to 2036.

(2) The priority infrastructure area is identified on Local Government Infrastructure Plan Map LGIP — LGIP Area – Poruma Island.

4.11.4 Desired standards of service

(1) This section states the key standards of performance for a trunk infrastructure network.

(2) Details of the standard of service for a trunk infrastructure networks are identified in the extrinsic material.

4.11.4.1 Water supply network

Table 4.11.4.1.1—Water supply network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability/continuity of supply	All development receives a reliable supply of potable water with minimal interruptions to their service.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Adequacy of supply	All development is provided with a water supply that is adequate for the intended use.	• Water Service Association of Australia codes • IPWEA standards • Customer service standards • Standards in planning scheme, planning scheme policies and/or Netserv Plans
Quality of supply	Provide a uniform water quality in accordance with recognised standards that safeguards community health and is free from objectionable taste and odour.	• The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council
Environmental impacts	The environmental impacts of the water supply network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection Policies and the *Water Act 2000*
Pressure and leakage management	The water supply network is monitored and managed to maintain the reliability and adequacy of supply and to minimise environmental impacts.	• System Leakage Management Plan (Chapter 3, Part 3, Division 1A *Water Act 2000*)

Infrastructure design/planning standards	Design of the water supply network will comply with established codes and standards.	• Water Supply Code of Australia—Water Services Association of Australia—WSA 03–2002 • The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council • Planning Guidelines for Water Supply and Sewerage—Department of Natural Resources and Water (NRW) • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.11.4.2 Sewerage network

Table 4.11.4.2.1—Sewerage network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability	All development has access to a reliable sewerage collection, conveyance, treatment and disposal system.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Quality of treatment	Ensures the health of the community and the safe and appropriate level of treatment and disposal of treated effluent.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	The environmental impacts of the sewerage network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection policies
Effluent re-use	Reuse effluent wherever possible.	• Guidelines for Sewerage Systems: Reclaimed Water — February 2000 • Queensland Water Recycling Guidelines—December 2005

Infrastructure design /planning standards	Design of the sewerage network will comply with established codes and standards.	• Planning Guidelines for Water Supply and Sewerage—NRW • Sewerage Code of Australia—Water Services Association of Australia—WSA 02—2002 • Sewerage Pumping Station Code of Australia—Water Services Association of Australia—WSA 04—2005 • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.11.4.3 Stormwater network

Table 4.11.4.3.1—Stormwater network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Quantity	Collect and convey stormwater in natural and engineered channels, a piped, drainage network and system of overland flow paths to a lawful point of discharge, in a safe manner that minimises the inundation of habitable rooms and protects life.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Transport and Main Roads - Road Drainage Design Manual
Quality	The water quality of urban catchments and waterways is managed to protect and enhance environmental values and pose no health risk to the community.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (EPA) (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	Adopt water-sensitive urban design principles and on-site water quality management to achieve EPA water quality objectives.	• Section 42 Environmental Protection [Water] Policy 1997) • Local Government standards in planning scheme and planning scheme policies

Infrastructure design/planning standards	Design of the stormwater network will comply with established codes and standards.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Natural Channel Design Guidelines • Transport and Main Roads - Road Drainage Design Manual

4.11.4.4 Transport network

Table 4.11.4.4.1—Transport network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Road network design/planning standards	The road network provides a functional urban and rural hierarchy that supports settlement patterns, commercial and economic activities, and freight movement. Design of the road system will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Interim Guide to Road Planning and Design Practice developed by the Department of Transport and Main Roads • Australian Standards • AUSTROADS guides
Public transport design/planning standards	New urban development is designed to achieve safe and convenient walking distance to existing or potential bus stops, or existing or proposed demand-responsive public transport routes.	• Local government design and development manual/standards/ codes in planning scheme and planning scheme policy • Design accords with the performance criteria set by Department of Transport and Main Roads • AUSTROADS guides for road-based public transport and high-occupancy vehicles
Cycleway and pathway design/ planning standards	Cycleways and pathways provide a safe and convenient network that encourages walking and cycling as acceptable alternatives. Design of the network will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Australian Standards • AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths'. • Complete Streets

4.11.4.5 Public parks and land for community facilities network

Table 4.11.4.5.1—Public parks and land for community facilities network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Functional network	A network of parks and land for community facilities is established to provide for the full range of recreational and sporting activities and provide for development of community facilities.	• Parks and land for community facilities is provided at a local, district and LGA-wide level • Parks and land for community facilities addresses the needs of both recreation and provides for development of community facilities
Accessibility	Public parks and land for community facilities will be located to ensure adequate pedestrian, cycle and vehicle access.	• AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths • Australian Standards (AS 1428.1 – Design for access and mobility – General requirements for access – New building work, AS 2890 – Parking Facilities)
Land quality / suitability / minimum size / maximum grade / flood immunity	Public parks and land for community facilities will be provided to a standard that meets the needs of the community and supports a diverse range of recreational, sporting, health and services–promoting activities to meet community expectations. This includes ensuring land is of an appropriate size, configuration and slope, and has an acceptable level of flood immunity.	• Local government standards in planning scheme and planning scheme policies
Facilities/embellishments	Public parks contain a range of embellishments to complement the type and purpose of the park.	• Australian Standards (AS 1428.4 – Design for access and mobility – Tactile indicators, AS 4419 – Soils for landscaping and garden use, AS 4586 – Slip resistance classification of new pedestrian surface materials, AS 4970 – Protection of trees in development sites) • National Construction Code
Infrastructure design / performance standards	Maximise opportunities to co-locate recreational parks and community facilities in proximity to other community infrastructure, transport hubs and valued environmental and cultural assets.	• Local government standards in planning scheme and planning scheme policies • Australian Standards

4.11.5 Plans for trunk infrastructure

(1) The plans for trunk infrastructure identify the trunk infrastructure networks intended to service the existing and assumed future urban development at the desired standard of service up to 2036.

4.11.5.1 Plans for trunk infrastructure maps

(1) The existing and future trunk infrastructure networks are shown on the following maps in Schedule 3—Local government infrastructure plan mapping and tables:

(a) Local Government Infrastructure Plan Map LGIP – LGIP Area – Poruma Island

(b) Local Government Infrastructure Plan Map LGIP – Transport Infrastructure – Poruma Island

(c) Local Government Infrastructure Plan Map LGIP – Sewer Infrastructure – Poruma Island

(d) Local Government Infrastructure Plan Map LGIP – Water Infrastructure – Poruma Island

(e) Local Government Infrastructure Plan Map LGIP – Community and Infrastructure – Poruma Island

(2) The State infrastructure forming part of transport trunk infrastructure network has been identified using information provided by the relevant State infrastructure supplier.

4.11.5.2 Schedules of works

(1) The future trunk infrastructure is identified in the following table:

(a) for the water supply network, table 4.11.5.2.1

(b) for the sewerage network, table 4.11.5.2.2

(c) for the stormwater network, table 4.11.5.2.3

(d) for the transport network, table 4.11.5.2.4

(e) for the parks and land for community facilities network, table 4.11.5.2.5

Editor's Note – The following tables identify infrastructure capacity upgrades required to service existing urban areas based on population projection figures. Establishment costs have not been provided due to the complexities of infrastructure delivery in this remote locality.

Most housing in this community is government funded and the supply of additional housing stock within township expansion areas is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such the trunk infrastructure required to service these expansion areas has not been identified or costed at this stage.

Table 4.11.5.2.1—Water supply network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Water at Poruma is currently sourced from the catchment of the covered and lined storage lagoon as well as a 70kL/day desalination plant. The desalination plant was upgraded in 2013 and the water balance model indicates that the current water supply can accommodate a design population of 190EP.

Treated water is stored in a 60kL tank and this provides for just over a day of storage. It is noted that this storage capacity is currently sufficient for current and future use based on projected population change.

A 2004 study indicates that the upgraded reticulation network is capable of supplying 37.5kL/day which is considerably less than the current population estimate. A new pump system has been installed in lieu of a high level tank, however further investigation will be required to confirm if this has impacted capacity. Any new development should conduct further assessment of the water reticulation network and the impact on the community.

Table 4.11.5.2.2—Sewerage network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost[1]
LGIP Sewer Infrastructure	Sewage Treatment Plant	Subject to population growth and funding availability	NA
Total			

1. Column 4 Establishment cost are not provided due to the need for detailed investigation in recognition of the unique development circumstances.

Editor's Note – Existing STP has capacity to service 371 Equivalent Persons which is fit for purpose given projected population change.

Table 4.11.5.2.3—Stormwater network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – There is limited formal stormwater infrastructure within the township. Natural runoff and infiltration is acceptable for the existing township and will be acceptable over the LGIP timeframe given the projected population change.

Table 4.11.5.2.4—Transport network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Existing roads are expected to be fit for purpose over the LGIP timeframe given projected population change.

Table 4.11.5.2.5—Parks and land for community facilities schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

4.12 Saibai Island

4.12.1 Preliminary

(1) This local government infrastructure plan has been prepared in accordance with the requirements of the *Sustainable Planning Act 2009* (repealed).

(2) The purpose of the local government infrastructure plan is to:

- (a) integrate infrastructure planning with the land use planning identified in the planning scheme
- (b) provide transparency regarding a local government's intentions for the provision of trunk infrastructure
- (c) enable a local government to estimate the cost of infrastructure provision to assist its long term financial planning
- (d) ensure that trunk infrastructure is planned and provided in an efficient and orderly manner.
- (e) provide a basis for the imposition of conditions about infrastructure on development approvals.

(3) The local government infrastructure plan:

- (a) states in section 4.12.2 (planning assumptions) the assumptions about future growth and urban development including the assumptions of demand for each trunk infrastructure network
- (b) identifies in section 4.12.3 (priority infrastructure area) the prioritised area to accommodate urban growth up to 2036.
- (c) states in section 4.12.4 (desired standards of service) for each trunk infrastructure network the desired standard of performance
- (d) identifies in section 4.12.5 (plans for trunk infrastructure) the existing and future trunk infrastructure for the following networks:
  - (i) water supply
  - (ii) sewerage
  - (iii) stormwater
  - (iv) transport
  - (v) parks and land for community facilities

4.12.2 Planning assumptions

(1) The planning assumptions state the assumptions about:

- (a) changes in population and employment
- (b) the type, scale, location and timing of development including the demand for each trunk infrastructure network

(2) The planning assumptions together with the desired standards of service form a basis for the planning of the trunk infrastructure networks and the determination of the priority infrastructure area.

(3) The planning assumptions have been prepared for:

- (a) the base date 2011 and the following projection years to accord with future Australian Bureau of Statistics census years:
  - (i) mid 2016
  - (ii) mid 2021
  - (iii) mid 2031
  - (iv) mid 2036
- (b) the LGIP development types in column 2 that include the uses in column 3 of table 4.12.2.1.
- (c) the projection areas identified on Local Government Infrastructure Plan Map LGIP – LGIP Area – Saibai Island in Schedule 3—Local government infrastructure plan mapping and tables.

Table 4.12.2.1—Relationship between LGIP development categories, LGIP development types and uses

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
Residential development	Attached dwelling	Dual occupancy Dwelling unit Multiple dwelling
	Detached dwelling	Dwelling house
Non-residential development	Commercial	Office
	Community purpose	Community use Place of worship Educational establishment Hospital
	Industry	Low impact industry High impact industry Medium impact industry
	Other	Animal husbandry Cropping Extractive industry
	Retail	Food and drink outlet Nightclub entertainment facility Shop Shopping centre Showroom

4.12.2.1 Changes in population and employment

(1) A summary of the assumptions about changes in population and employment for the planning scheme area is stated in table 4.12.2.1.1.

Table 4.12.2.1.1—Population assumptions summary – Saibai Island

Column 1 Description	Column 2 Assumptions						
	Base Date 2011	2016	2021	2026	2031	2036	Ultimate development
Population	517	564	600	630	655	678	678

Editor's Note – Customised population projections were derived from Queensland Government population projections, 2013 edition, Queensland Government. These customised projections were provided by the Queensland Government Statisticians Office.

Given the lack of reliable census and employment data for the TSIRC, employment, employment projections and non-residential floorspace projections have not been undertaken.

Given that housing in this community is largely government funded, supply of additional housing stock is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such residential floorspace projections have not been provided.

4.12.3 Priority infrastructure area

(1) The priority infrastructure area identifies the area prioritised for the provision of trunk infrastructure to service the existing and assumed future urban development up to 2036.

(2) The priority infrastructure area is identified on Local Government Infrastructure Plan Map LGIP — LGIP Area – Saibai Island.

4.12.4 Desired standards of service

(1) This section states the key standards of performance for a trunk infrastructure network.

(2) Details of the standard of service for a trunk infrastructure networks are identified in the extrinsic material.

4.12.4.1 Water supply network

Table 4.12.4.1.1—Water supply network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability/continuity of supply	All development receives a reliable supply of potable water with minimal interruptions to their service.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Adequacy of supply	All development is provided with a water supply that is adequate for the intended use.	• Water Service Association of Australia codes • IPWEA standards • Customer service standards • Standards in planning scheme, planning scheme policies and/or Netserv Plans
Quality of supply	Provide a uniform water quality in accordance with recognised standards that safeguards community health and is free from objectionable taste and odour.	• The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council
Environmental impacts	The environmental impacts of the water supply network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection Policies and the *Water Act 2000*
Pressure and leakage management	The water supply network is monitored and managed to maintain the reliability and adequacy of supply and to minimise environmental impacts.	• System Leakage Management Plan (Chapter 3, Part 3, Division 1A *Water Act 2000*)

Infrastructure design/planning standards	Design of the water supply network will comply with established codes and standards.	• Water Supply Code of Australia—Water Services Association of Australia—WSA 03–2002 • The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council • Planning Guidelines for Water Supply and Sewerage—Department of Natural Resources and Water (NRW) • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.12.4.2 Sewerage network

Table 4.12.4.2.1—Sewerage network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability	All development has access to a reliable sewerage collection, conveyance, treatment and disposal system.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Quality of treatment	Ensures the health of the community and the safe and appropriate level of treatment and disposal of treated effluent.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	The environmental impacts of the sewerage network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection policies
Effluent re-use	Reuse effluent wherever possible.	• Guidelines for Sewerage Systems: Reclaimed Water — February 2000 • Queensland Water Recycling Guidelines—December 2005

Infrastructure design /planning standards	Design of the sewerage network will comply with established codes and standards.	• Planning Guidelines for Water Supply and Sewerage—NRW • Sewerage Code of Australia—Water Services Association of Australia—WSA 02—2002 • Sewerage Pumping Station Code of Australia—Water Services Association of Australia—WSA 04—2005 • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.12.4.3 Stormwater network

Table 4.12.4.3.1—Stormwater network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Quantity	Collect and convey stormwater in natural and engineered channels, a piped, drainage network and system of overland flow paths to a lawful point of discharge, in a safe manner that minimises the inundation of habitable rooms and protects life.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Transport and Main Roads - Road Drainage Design Manual
Quality	The water quality of urban catchments and waterways is managed to protect and enhance environmental values and pose no health risk to the community.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (EPA) (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	Adopt water-sensitive urban design principles and on-site water quality management to achieve EPA water quality objectives.	• Section 42 Environmental Protection [Water] Policy 1997) • Local Government standards in planning scheme and planning scheme policies

Infrastructure design/planning standards	Design of the stormwater network will comply with established codes and standards.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Natural Channel Design Guidelines • Transport and Main Roads - Road Drainage Design Manual

4.12.4.4 Transport network

Table 4.12.4.4.1—Transport network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Road network design/planning standards	The road network provides a functional urban and rural hierarchy that supports settlement patterns, commercial and economic activities, and freight movement. Design of the road system will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Interim Guide to Road Planning and Design Practice developed by the Department of Transport and Main Roads • Australian Standards • AUSTROADS guides
Public transport design/planning standards	New urban development is designed to achieve safe and convenient walking distance to existing or potential bus stops, or existing or proposed demand-responsive public transport routes.	• Local government design and development manual/standards/ codes in planning scheme and planning scheme policy • Design accords with the performance criteria set by Department of Transport and Main Roads • AUSTROADS guides for road-based public transport and high-occupancy vehicles
Cycleway and pathway design/ planning standards	Cycleways and pathways provide a safe and convenient network that encourages walking and cycling as acceptable alternatives. Design of the network will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Australian Standards • AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths'. • Complete Streets

4.12.4.5 Public parks and land for community facilities network

Table 4.12.4.5.1—Public parks and land for community facilities network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Functional network	A network of parks and land for community facilities is established to provide for the full range of recreational and sporting activities and provide for development of community facilities.	• Parks and land for community facilities is provided at a local, district and LGA-wide level • Parks and land for community facilities addresses the needs of both recreation and provides for development of community facilities
Accessibility	Public parks and land for community facilities will be located to ensure adequate pedestrian, cycle and vehicle access.	• AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths • Australian Standards (AS 1428.1 – Design for access and mobility – General requirements for access – New building work, AS 2890 – Parking Facilities)
Land quality / suitability / minimum size / maximum grade / flood immunity	Public parks and land for community facilities will be provided to a standard that meets the needs of the community and supports a diverse range of recreational, sporting, health and services–promoting activities to meet community expectations. This includes ensuring land is of an appropriate size, configuration and slope, and has an acceptable level of flood immunity.	• Local government standards in planning scheme and planning scheme policies
Facilities/embellishments	Public parks contain a range of embellishments to complement the type and purpose of the park.	• Australian Standards (AS 1428.4 – Design for access and mobility – Tactile indicators, AS 4419 – Soils for landscaping and garden use, AS 4586 – Slip resistance classification of new pedestrian surface materials, AS 4970 – Protection of trees in development sites) • National Construction Code
Infrastructure design / performance standards	Maximise opportunities to co-locate recreational parks and community facilities in proximity to other community infrastructure, transport hubs and valued environmental and cultural assets.	• Local government standards in planning scheme and planning scheme policies • Australian Standards

4.12.5 Plans for trunk infrastructure

(1) The plans for trunk infrastructure identify the trunk infrastructure networks intended to service the existing and assumed future urban development at the desired standard of service up to 2036.

4.12.5.1 Plans for trunk infrastructure maps

(1) The existing and future trunk infrastructure networks are shown on the following maps in Schedule 3—Local government infrastructure plan mapping and tables:

(a) Local Government Infrastructure Plan Map LGIP – LGIP Area – Saibai Island

(b) Local Government Infrastructure Plan Map LGIP – Transport Infrastructure – Saibai Island

(c) Local Government Infrastructure Plan Map LGIP – Sewer Infrastructure – Saibai Island

(d) Local Government Infrastructure Plan Map LGIP – Water Infrastructure – Saibai Island

(e) Local Government Infrastructure Plan Map LGIP – Community and Infrastructure – Saibai Island

(2) The State infrastructure forming part of transport trunk infrastructure network has been identified using information provided by the relevant State infrastructure supplier.

4.12.5.2 Schedules of works

(1) The future trunk infrastructure is identified in the following table:

(a) for the water supply network, table 4.12.5.2.1

(b) for the sewerage network, table 4.12.5.2.2

(c) for the stormwater network, table 4.12.5.2.3

(d) for the transport network, table 4.12.5.2.4

(e) for the parks and land for community facilities network, table 4.12.5.2.5

Editor's Note – The following tables identify infrastructure capacity upgrades required to service existing urban areas based on population projection figures. Establishment costs have not been provided due to the complexities of infrastructure delivery in this remote locality.

Most housing in this community is government funded and the supply of additional housing stock within township expansion areas is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such the trunk infrastructure required to service these expansion areas has not been identified or costed at this stage.

Table 4.12.5.2.1—Water supply network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost[1]
LGIP Water Infrastructure	Expand reservoir (treated storage) capacity	Subject to funding availability - capacity required based on existing serviced population.	NA
LGIP Water Infrastructure	Expand raw water storage or supplement with desalination plant.	Subject to funding availability - capacity required based on existing serviced population. See below editors note	NA
Total			

1. Column 4 Establishment cost are not provided due to the need for detailed investigation in recognition of the unique development circumstances.

Editor's Note – Existing filtration and disinfection facilities were recently upgraded as part of the Regional Asset Sustainability Project however the capacity of the filters, pumps and chlorine dosing equipment will require further review to confirm that they can adequately service the projected population.

Previous investigations have identified that a section of reticulation main between the water treatment plant and Esplanade requires augmentation with a further 100mm diameter main. In addition to this upgrade, it will be necessary to prepare a new water model and undertake a further investigation to confirm that the water reticulation network can supply sufficient water pressures to the community and projected population.

By conducting a high level water balance, and adopting the catchment yield indicated in previous planning documents (SLUP - 63ML), the current usage of the community at 350l/EP/day exceeds the available storage. This is exacerbated in future years based on projected population change. An upgrade will be required either to the raw water storage or by supplementing the supply with a desalination plant.

The existing reservoir capacity requires upgrading now. Saibai's estimated population is anticipated to be the second highest in the Torres Strait yet the treated storage is only 120kL.

Table 4.12.5.2.2—Sewerage network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost[1]
LGIP Sewerage Infrastructure	Upgrade STP	Subject to population increase beyond 600 equivalent persons.	NA
Total			

1. Column 4 Establishment cost are not provided due to the need for detailed investigation in recognition of the unique development circumstances.

Editor's Note – Existing STP has capacity to service 600 Equivalent Persons.

Table 4.12.5.2.3—Stormwater network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – There is limited formal stormwater infrastructure within the township. Natural runoff and infiltration is acceptable for the existing township and will be acceptable over the LGIP timeframe given the projected population change.

Table 4.12.5.2.4—Transport network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Existing roads are expected to be fit for purpose over the LGIP timeframe given projected population change.

Table 4.12.5.2.5—Parks and land for community facilities schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

4.13 St Pauls (on Moa Island)

4.13.1 Preliminary

(1) This local government infrastructure plan has been prepared in accordance with the requirements of the *Sustainable Planning Act 2009* (repealed).

(2) The purpose of the local government infrastructure plan is to:

- (a) integrate infrastructure planning with the land use planning identified in the planning scheme
- (b) provide transparency regarding a local government's intentions for the provision of trunk infrastructure
- (c) enable a local government to estimate the cost of infrastructure provision to assist its long term financial planning
- (d) ensure that trunk infrastructure is planned and provided in an efficient and orderly manner.
- (e) provide a basis for the imposition of conditions about infrastructure on development approvals.

(3) The local government infrastructure plan:

- (a) states in section 4.13.2 (planning assumptions) the assumptions about future growth and urban development including the assumptions of demand for each trunk infrastructure network
- (b) identifies in section 4.13.3 (priority infrastructure area) the prioritised area to accommodate urban growth up to 2036.
- (c) states in section 4.13.4 (desired standards of service) for each trunk infrastructure network the desired standard of performance
- (d) identifies in section 4.13.5 (plans for trunk infrastructure) the existing and future trunk infrastructure for the following networks:
  - (i) water supply
  - (ii) sewerage
  - (iii) stormwater
  - (iv) transport
  - (v) parks and land for community facilities

4.13.2 Planning assumptions

(1) The planning assumptions state the assumptions about:

- (a) changes in population and employment
- (b) the type, scale, location and timing of development including the demand for each trunk infrastructure network

(2) The planning assumptions together with the desired standards of service form a basis for the planning of the trunk infrastructure networks and the determination of the priority infrastructure area.

(3) The planning assumptions have been prepared for:

- (a) the base date 2011 and the following projection years to accord with future Australian Bureau of Statistics census years:
  - (i) mid 2016
  - (ii) mid 2021
  - (iii) mid 2031
  - (iv) mid 2036
- (b) the LGIP development types in column 2 that include the uses in column 3 of table 4.13.2.1.
- (c) the projection areas identified on Local Government Infrastructure Plan Map LGIP – LGIP Area – Moa Island (St Pauls) in Schedule 3—Local government infrastructure plan mapping and tables.

Table 4.13.2.1—Relationship between LGIP development categories, LGIP development types and uses

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
Residential development	Attached dwelling	Dual occupancy Dwelling unit Multiple dwelling
	Detached dwelling	Dwelling house
Non-residential development	Commercial	Office
	Community purpose	Community use Place of worship Educational establishment Hospital
	Industry	Low impact industry High impact industry Medium impact industry
	Other	Animal husbandry Cropping Extractive industry
	Retail	Food and drink outlet Nightclub entertainment facility Shop Shopping centre Showroom

4.13.2.1 Changes in population and employment

(1) A summary of the assumptions about changes in population and employment for the planning scheme area is stated in table 4.13.2.1.1.

Table 4.13.2.1.1—Population assumptions summary – St Pauls (on Moa Island)

Column 1 Description	Column 2 Assumptions						
	Base Date 2011	2016	2021	2026	2031	2036	Ultimate development
Population	278	296	312	325	337	348	348

Editor's Note – Customised population projections were derived from Queensland Government population projections, 2013 edition, Queensland Government. These customised projections were provided by the Queensland Government Statisticians Office.

Given the lack of reliable census and employment data for the TSIRC, employment, employment projections and non-residential floorspace projections have not been undertaken.

Given that housing in this community is largely government funded, supply of additional housing stock is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such residential floorspace projections have not been provided.

4.13.3 Priority infrastructure area

(1) The priority infrastructure area identifies the area prioritised for the provision of trunk infrastructure to service the existing and assumed future urban development up to 2036.

(2) The priority infrastructure area is identified on Local Government Infrastructure Plan Map LGIP — LGIP Area – Moa Island (St Pauls).

4.13.4 Desired standards of service

(1) This section states the key standards of performance for a trunk infrastructure network.

(2) Details of the standard of service for a trunk infrastructure networks are identified in the extrinsic material.

4.13.4.1 Water supply network

Table 4.13.4.1.1—Water supply network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability/continuity of supply	All development receives a reliable supply of potable water with minimal interruptions to their service.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Adequacy of supply	All development is provided with a water supply that is adequate for the intended use.	• Water Service Association of Australia codes • IPWEA standards • Customer service standards • Standards in planning scheme, planning scheme policies and/or Netserv Plans
Quality of supply	Provide a uniform water quality in accordance with recognised standards that safeguards community health and is free from objectionable taste and odour.	• The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council
Environmental impacts	The environmental impacts of the water supply network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection Policies and the *Water Act 2000*
Pressure and leakage management	The water supply network is monitored and managed to maintain the reliability and adequacy of supply and to minimise environmental impacts.	• System Leakage Management Plan (Chapter 3, Part 3, Division 1A *Water Act 2000*)

Infrastructure design/planning standards	Design of the water supply network will comply with established codes and standards.	• Water Supply Code of Australia—Water Services Association of Australia—WSA 03–2002 • The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council • Planning Guidelines for Water Supply and Sewerage—Department of Natural Resources and Water (NRW) • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.13.4.2 Sewerage network

Table 4.13.4.2.1—Sewerage network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability	All development has access to a reliable sewerage collection, conveyance, treatment and disposal system.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Quality of treatment	Ensures the health of the community and the safe and appropriate level of treatment and disposal of treated effluent.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	The environmental impacts of the sewerage network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection policies
Effluent re-use	Reuse effluent wherever possible.	• Guidelines for Sewerage Systems: Reclaimed Water — February 2000 • Queensland Water Recycling Guidelines—December 2005

Infrastructure design /planning standards	Design of the sewerage network will comply with established codes and standards.	• Planning Guidelines for Water Supply and Sewerage—NRW • Sewerage Code of Australia—Water Services Association of Australia—WSA 02—2002 • Sewerage Pumping Station Code of Australia—Water Services Association of Australia—WSA 04—2005 • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.13.4.3 Stormwater network

Table 4.13.4.3.1—Stormwater network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Quantity	Collect and convey stormwater in natural and engineered channels, a piped, drainage network and system of overland flow paths to a lawful point of discharge, in a safe manner that minimises the inundation of habitable rooms and protects life.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Transport and Main Roads - Road Drainage Design Manual
Quality	The water quality of urban catchments and waterways is managed to protect and enhance environmental values and pose no health risk to the community.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (EPA) (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	Adopt water-sensitive urban design principles and on-site water quality management to achieve EPA water quality objectives.	• Section 42 Environmental Protection [Water] Policy 1997) • Local Government standards in planning scheme and planning scheme policies

Infrastructure design/planning standards	Design of the stormwater network will comply with established codes and standards.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Natural Channel Design Guidelines • Transport and Main Roads - Road Drainage Design Manual

4.13.4.4 Transport network

Table 4.13.4.4.1—Transport network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Road network design/planning standards	The road network provides a functional urban and rural hierarchy that supports settlement patterns, commercial and economic activities, and freight movement. Design of the road system will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Interim Guide to Road Planning and Design Practice developed by the Department of Transport and Main Roads • Australian Standards • AUSTROADS guides
Public transport design/planning standards	New urban development is designed to achieve safe and convenient walking distance to existing or potential bus stops, or existing or proposed demand-responsive public transport routes.	• Local government design and development manual/standards/ codes in planning scheme and planning scheme policy • Design accords with the performance criteria set by Department of Transport and Main Roads • AUSTROADS guides for road-based public transport and high-occupancy vehicles
Cycleway and pathway design/ planning standards	Cycleways and pathways provide a safe and convenient network that encourages walking and cycling as acceptable alternatives. Design of the network will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Australian Standards • AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths'. • Complete Streets

4.13.4.5 Public parks and land for community facilities network

Table 4.13.4.5.1—Public parks and land for community facilities network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Functional network	A network of parks and land for community facilities is established to provide for the full range of recreational and sporting activities and provide for development of community facilities.	• Parks and land for community facilities is provided at a local, district and LGA-wide level • Parks and land for community facilities addresses the needs of both recreation and provides for development of community facilities
Accessibility	Public parks and land for community facilities will be located to ensure adequate pedestrian, cycle and vehicle access.	• AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths • Australian Standards (AS 1428.1 – Design for access and mobility – General requirements for access – New building work, AS 2890 – Parking Facilities)
Land quality / suitability / minimum size / maximum grade / flood immunity	Public parks and land for community facilities will be provided to a standard that meets the needs of the community and supports a diverse range of recreational, sporting, health and services–promoting activities to meet community expectations. This includes ensuring land is of an appropriate size, configuration and slope, and has an acceptable level of flood immunity.	• Local government standards in planning scheme and planning scheme policies
Facilities/embellishments	Public parks contain a range of embellishments to complement the type and purpose of the park.	• Australian Standards (AS 1428.4 – Design for access and mobility – Tactile indicators, AS 4419 – Soils for landscaping and garden use, AS 4586 – Slip resistance classification of new pedestrian surface materials, AS 4970 – Protection of trees in development sites) • National Construction Code
Infrastructure design / performance standards	Maximise opportunities to co-locate recreational parks and community facilities in proximity to other community infrastructure, transport hubs and valued environmental and cultural assets.	• Local government standards in planning scheme and planning scheme policies • Australian Standards

4.13.5 Plans for trunk infrastructure

(1) The plans for trunk infrastructure identify the trunk infrastructure networks intended to service the existing and assumed future urban development at the desired standard of service up to 2036.

4.13.5.1 Plans for trunk infrastructure maps

(1) The existing and future trunk infrastructure networks are shown on the following maps in Schedule 3—Local government infrastructure plan mapping and tables:

(a) Local Government Infrastructure Plan Map LGIP – LGIP Area – Moa Island (St Pauls)

(b) Local Government Infrastructure Plan Map LGIP – Transport Infrastructure – Moa Island (St Pauls)

(c) Local Government Infrastructure Plan Map LGIP – Sewer Infrastructure – Moa Island (St Pauls)

(d) Local Government Infrastructure Plan Map LGIP – Water Infrastructure – Moa Island (St Pauls)

(e) Local Government Infrastructure Plan Map LGIP – Community and Infrastructure – Moa Island (St Pauls)

(2) The State infrastructure forming part of transport trunk infrastructure network has been identified using information provided by the relevant State infrastructure supplier.

4.13.5.2 Schedules of works

(1) The future trunk infrastructure is identified in the following table:

(a) for the water supply network, table 4.13.5.2.1

(b) for the sewerage network, table 4.13.5.2.2

(c) for the stormwater network, table 4.13.5.2.3

(d) for the transport network, table 4.13.5.2.4

(e) for the parks and land for community facilities network, table 4.13.5.2.5

Editor's Note – The following tables identify infrastructure capacity upgrades required to service existing urban areas based on population projection figures. Establishment costs have not been provided due to the complexities of infrastructure delivery in this remote locality.

Most housing in this community is government funded and the supply of additional housing stock within township expansion areas is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such the trunk infrastructure required to service these expansion areas has not been identified or costed at this stage.

Table 4.13.5.2.1—Water supply network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Water is supplied via rainwater falling on the storage lagoon's catchment along with two infiltration galleries/wells. Annual water supply volumes are approximately 57ML while at 350ep/day, the estimate demand is 44ML.

The raw water storage volume is considered suitable providing adequate storage for the annual dry season.

Treated water storage is considered acceptable.

The capacity of the treatment plant is unknown and further investigations will be required to determine whether the equipment is designed to accommodate the anticipated future expansion.

Table 4.13.5.2.2—Sewerage network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Existing STP has capacity to service 1068 Equivalent Persons which is fit for purpose given projected population change.

Table 4.13.5.2.3—Stormwater network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – There is limited formal stormwater infrastructure within the township. Natural runoff and infiltration is acceptable for the existing township and will be acceptable over the LGIP timeframe given the projected population change.

Table 4.13.5.2.4—Transport network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Existing roads are expected to be fit for purpose over the LGIP timeframe given projected population change.

Table 4.13.5.2.5—Parks and land for community facilities schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

4.14 Ugar (Stephens) Island

4.14.1 Preliminary

(1) This local government infrastructure plan has been prepared in accordance with the requirements of the *Sustainable Planning Act 2009* (repealed).

(2) The purpose of the local government infrastructure plan is to:

- (a) integrate infrastructure planning with the land use planning identified in the planning scheme
- (b) provide transparency regarding a local government's intentions for the provision of trunk infrastructure
- (c) enable a local government to estimate the cost of infrastructure provision to assist its long term financial planning
- (d) ensure that trunk infrastructure is planned and provided in an efficient and orderly manner.
- (e) provide a basis for the imposition of conditions about infrastructure on development approvals.

(3) The local government infrastructure plan:

- (a) states in section 4.14.2 (planning assumptions) the assumptions about future growth and urban development including the assumptions of demand for each trunk infrastructure network
- (b) identifies in section 4.14.3 (priority infrastructure area) the prioritised area to accommodate urban growth up to 2036.
- (c) states in section 4.14.4 (desired standards of service) for each trunk infrastructure network the desired standard of performance
- (d) identifies in section 4.14.5 (plans for trunk infrastructure) the existing and future trunk infrastructure for the following networks:
  - (i) water supply
  - (ii) sewerage
  - (iii) stormwater
  - (iv) transport
  - (v) parks and land for community facilities

4.14.2 Planning assumptions

(1) The planning assumptions state the assumptions about:

- (a) changes in population and employment
- (b) the type, scale, location and timing of development including the demand for each trunk infrastructure network

(2) The planning assumptions together with the desired standards of service form a basis for the planning of the trunk infrastructure networks and the determination of the priority infrastructure area.

(3) The planning assumptions have been prepared for:

- (a) the base date 2011 and the following projection years to accord with future Australian Bureau of Statistics census years:
  - (i) mid 2016
  - (ii) mid 2021
  - (iii) mid 2031
  - (iv) mid 2036
- (b) the LGIP development types in column 2 that include the uses in column 3 of table 4.14.2.1.
- (c) the projection areas identified on Local Government Infrastructure Plan Map LGIP – LGIP Area – Ugar Island in Schedule 3—Local government infrastructure plan mapping and tables.

Table 4.14.2.1—Relationship between LGIP development categories, LGIP development types and uses

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
Residential development	Attached dwelling	Dual occupancy Dwelling unit Multiple dwelling
	Detached dwelling	Dwelling house
Non-residential development	Commercial	Office
	Community purpose	Community use Place of worship Educational establishment Hospital
	Industry	Low impact industry High impact industry Medium impact industry
	Other	Animal husbandry Cropping Extractive industry
	Retail	Food and drink outlet Nightclub entertainment facility Shop Shopping centre Showroom

4.14.2.1 Changes in population and employment

(1) A summary of the assumptions about changes in population and employment for the planning scheme area is stated in table 4.14.2.1.1.

Table 4.14.2.1.1—Population assumptions summary – Ugar Island

Column 1 Description	Column 2 Assumptions						
	Base Date 2011	2016	2021	2026	2031	2036	Ultimate development
Population	52	51	49	48	48	47	47

Editor's Note – Customised population projections were derived from Queensland Government population projections, 2013 edition, Queensland Government. These customised projections were provided by the Queensland Government Statisticians Office.

Given the lack of reliable census and employment data for the TSIRC, employment, employment projections and non-residential floorspace projections have not been undertaken.

Given that housing in this community is largely government funded, supply of additional housing stock is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such residential floorspace projections have not been provided.

4.14.3 Priority infrastructure area

(1) The priority infrastructure area identifies the area prioritised for the provision of trunk infrastructure to service the existing and assumed future urban development up to 2036.

(2) The priority infrastructure area is identified on Local Government Infrastructure Plan Map LGIP — LGIP Area – Ugar Island.

4.14.4 Desired standards of service

(1) This section states the key standards of performance for a trunk infrastructure network.

(2) Details of the standard of service for a trunk infrastructure networks are identified in the extrinsic material.

4.14.4.1 Water supply network

Table 4.14.4.1.1—Water supply network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability/continuity of supply	All development receives a reliable supply of potable water with minimal interruptions to their service.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Adequacy of supply	All development is provided with a water supply that is adequate for the intended use.	• Water Service Association of Australia codes • IPWEA standards • Customer service standards • Standards in planning scheme, planning scheme policies and/or Netserv Plans
Quality of supply	Provide a uniform water quality in accordance with recognised standards that safeguards community health and is free from objectionable taste and odour.	• The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council
Environmental impacts	The environmental impacts of the water supply network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection Policies and the *Water Act 2000*
Pressure and leakage management	The water supply network is monitored and managed to maintain the reliability and adequacy of supply and to minimise environmental impacts.	• System Leakage Management Plan (Chapter 3, Part 3, Division 1A *Water Act 2000*)

Infrastructure design/planning standards	Design of the water supply network will comply with established codes and standards.	• Water Supply Code of Australia—Water Services Association of Australia—WSA 03–2002 • The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council • Planning Guidelines for Water Supply and Sewerage—Department of Natural Resources and Water (NRW) • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.14.4.2 Sewerage network

Table 4.14.4.2.1—Sewerage network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability	All development has access to a reliable sewerage collection, conveyance, treatment and disposal system.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Quality of treatment	Ensures the health of the community and the safe and appropriate level of treatment and disposal of treated effluent.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	The environmental impacts of the sewerage network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection policies
Effluent re-use	Reuse effluent wherever possible.	• Guidelines for Sewerage Systems: Reclaimed Water — February 2000 • Queensland Water Recycling Guidelines—December 2005

Infrastructure design /planning standards	Design of the sewerage network will comply with established codes and standards.	• Planning Guidelines for Water Supply and Sewerage—NRW • Sewerage Code of Australia—Water Services Association of Australia—WSA 02—2002 • Sewerage Pumping Station Code of Australia—Water Services Association of Australia—WSA 04—2005 • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.14.4.3 Stormwater network

Table 4.14.4.3.1—Stormwater network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Quantity	Collect and convey stormwater in natural and engineered channels, a piped, drainage network and system of overland flow paths to a lawful point of discharge, in a safe manner that minimises the inundation of habitable rooms and protects life.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Transport and Main Roads - Road Drainage Design Manual
Quality	The water quality of urban catchments and waterways is managed to protect and enhance environmental values and pose no health risk to the community.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (EPA) (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	Adopt water-sensitive urban design principles and on-site water quality management to achieve EPA water quality objectives.	• Section 42 Environmental Protection [Water] Policy 1997) • Local Government standards in planning scheme and planning scheme policies

Infrastructure design/planning standards	Design of the stormwater network will comply with established codes and standards.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Natural Channel Design Guidelines • Transport and Main Roads - Road Drainage Design Manual

4.14.4.4 Transport network

Table 4.14.4.4.1—Transport network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Road network design/planning standards	The road network provides a functional urban and rural hierarchy that supports settlement patterns, commercial and economic activities, and freight movement. Design of the road system will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Interim Guide to Road Planning and Design Practice developed by the Department of Transport and Main Roads • Australian Standards • AUSTROADS guides
Public transport design/planning standards	New urban development is designed to achieve safe and convenient walking distance to existing or potential bus stops, or existing or proposed demand-responsive public transport routes.	• Local government design and development manual/standards/ codes in planning scheme and planning scheme policy • Design accords with the performance criteria set by Department of Transport and Main Roads • AUSTROADS guides for road-based public transport and high-occupancy vehicles
Cycleway and pathway design/ planning standards	Cycleways and pathways provide a safe and convenient network that encourages walking and cycling as acceptable alternatives. Design of the network will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Australian Standards • AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths'. • Complete Streets

4.14.4.5 Public parks and land for community facilities network

Table 4.14.4.5.1—Public parks and land for community facilities network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Functional network	A network of parks and land for community facilities is established to provide for the full range of recreational and sporting activities and provide for development of community facilities.	• Parks and land for community facilities is provided at a local, district and LGA-wide level • Parks and land for community facilities addresses the needs of both recreation and provides for development of community facilities
Accessibility	Public parks and land for community facilities will be located to ensure adequate pedestrian, cycle and vehicle access.	• AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths • Australian Standards (AS 1428.1 – Design for access and mobility – General requirements for access – New building work, AS 2890 – Parking Facilities)
Land quality / suitability / minimum size / maximum grade / flood immunity	Public parks and land for community facilities will be provided to a standard that meets the needs of the community and supports a diverse range of recreational, sporting, health and services–promoting activities to meet community expectations. This includes ensuring land is of an appropriate size, configuration and slope, and has an acceptable level of flood immunity.	• Local government standards in planning scheme and planning scheme policies
Facilities/embellishments	Public parks contain a range of embellishments to complement the type and purpose of the park.	• Australian Standards (AS 1428.4 – Design for access and mobility – Tactile indicators, AS 4419 – Soils for landscaping and garden use, AS 4586 – Slip resistance classification of new pedestrian surface materials, AS 4970 – Protection of trees in development sites) • National Construction Code
Infrastructure design / performance standards	Maximise opportunities to co-locate recreational parks and community facilities in proximity to other community infrastructure, transport hubs and valued environmental and cultural assets.	• Local government standards in planning scheme and planning scheme policies • Australian Standards

4.14.5 Plans for trunk infrastructure

(1) The plans for trunk infrastructure identify the trunk infrastructure networks intended to service the existing and assumed future urban development at the desired standard of service up to 2036.

4.14.5.1 Plans for trunk infrastructure maps

(1) The existing and future trunk infrastructure networks are shown on the following maps in Schedule 3—Local government infrastructure plan mapping and tables:

(a) Local Government Infrastructure Plan Map LGIP – LGIP Area – Ugar Island

(b) Local Government Infrastructure Plan Map LGIP – Transport Infrastructure – Ugar Island

(c) Local Government Infrastructure Plan Map LGIP – Sewer Infrastructure – Ugar Island

(d) Local Government Infrastructure Plan Map LGIP – Water Infrastructure – Ugar Island

(e) Local Government Infrastructure Plan Map LGIP – Community and Infrastructure – Ugar Island

(2) The State infrastructure forming part of transport trunk infrastructure network has been identified using information provided by the relevant State infrastructure supplier.

4.14.5.2 Schedules of works

(1) The future trunk infrastructure is identified in the following table:

(a) for the water supply network, table 4.13.5.2.1

(b) for the sewerage network, table 4.13.5.2.2

(c) for the stormwater network, table 4.13.5.2.3

(d) for the transport network, table 4.13.5.2.4

(e) for the parks and land for community facilities network, table 4.13.5.2.5

Editor's Note – The following tables identify infrastructure capacity upgrades required to service existing urban areas based on population projection figures. Establishment costs have not been provided due to the complexities of infrastructure delivery in this remote locality.

Most housing in this community is government funded and the supply of additional housing stock within township expansion areas is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such the trunk infrastructure required to service these expansion areas has not been identified or costed at this stage.

Table 4.14.5.2.1—Water supply network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Water is sourced from rainwater collected on the catchment for the covered and lined water storage lagoons and two bores. When required, a mobile desalination plant is mobilised to the community. At rates of 350l/EP/day and a population of 52, the safe yield provides in excess of a year's water storage. Simple water balance models indicate that the storage remains full for a design population of 75 EP, based on a safe yield from the bores of 25kL/day. For populations in excess of this, consideration should be given to supplementing the storage or installing a fulltime desalination unit.

The treated water storage was recently replaced as part of the Asset Sustainability Program with 2 x 50KL and 1 x 30kL tanks and a VSD. The tanks were sized as elevated storages and are suitable for a population of 79EP.

It would appear the treatment plant was constructed in 2000 for an estimated capacity of 25,000l/day. Based on consumption rates of 350l/EP/day, this will service approximately 70EP.

It is noted that the community is heavily contingent on the operation of the bores which have been known to fail in the past.

A new VSD pump was installed 2-3 years ago and provides suitable water pressures to the community. The design life of the pump was similar to the new tanks and should be upgraded when a population of 79EP is exceeded.

Table 4.14.5.2.2—Sewerage network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – The community is currently serviced by septic tank systems which is fit for purpose given projected population change.

Table 4.14.5.2.3—Stormwater network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – There is limited formal stormwater infrastructure within the township. Natural runoff and infiltration is acceptable for the existing township and will be acceptable over the LGIP timeframe given the projected population change.

Table 4.14.5.2.4—Transport network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Existing roads are expected to be fit for purpose over the LGIP timeframe given projected population change.

Table 4.14.5.2.5—Parks and land for community facilities schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

4.15 Warraber/Dhuwal Pad (Sue) Island

4.15.1 Preliminary

(1) This local government infrastructure plan has been prepared in accordance with the requirements of the *Sustainable Planning Act 2009* (repealed).

(2) The purpose of the local government infrastructure plan is to:

- (a) integrate infrastructure planning with the land use planning identified in the planning scheme
- (b) provide transparency regarding a local government's intentions for the provision of trunk infrastructure
- (c) enable a local government to estimate the cost of infrastructure provision to assist its long term financial planning
- (d) ensure that trunk infrastructure is planned and provided in an efficient and orderly manner.
- (e) provide a basis for the imposition of conditions about infrastructure on development approvals.

(3) The local government infrastructure plan:

- (a) states in section 4.15.2 (planning assumptions) the assumptions about future growth and urban development including the assumptions of demand for each trunk infrastructure network
- (b) identifies in section 4.15.3 (priority infrastructure area) the prioritised area to accommodate urban growth up to 2036.
- (c) states in section 4.15.4 (desired standards of service) for each trunk infrastructure network the desired standard of performance
- (d) identifies in section 4.15.5 (plans for trunk infrastructure) the existing and future trunk infrastructure for the following networks:
  - (i) water supply
  - (ii) sewerage
  - (iii) stormwater
  - (iv) transport
  - (v) parks and land for community facilities

4.15.2 Planning assumptions

(1) The planning assumptions state the assumptions about:

- (a) changes in population and employment
- (b) the type, scale, location and timing of development including the demand for each trunk infrastructure network

(2) The planning assumptions together with the desired standards of service form a basis for the planning of the trunk infrastructure networks and the determination of the priority infrastructure area.

(3) The planning assumptions have been prepared for:

- (a) the base date 2011 and the following projection years to accord with future Australian Bureau of Statistics census years:
  - (i) mid 2016
  - (ii) mid 2021
  - (iii) mid 2031
  - (iv) mid 2036
- (b) the LGIP development types in column 2 that include the uses in column 3 of table 4.15.2.1.
- (c) the projection areas identified on Local Government Infrastructure Plan Map LGIP – LGIP Area – Warraber Island in Schedule 3—Local government infrastructure plan mapping and tables.

Table 4.15.2.1—Relationship between LGIP development categories, LGIP development types and uses

Column 1 LGIP development category	Column 2 LGIP development type	Column 3 Uses
Residential development	Attached dwelling	Dual occupancy Dwelling unit Multiple dwelling
	Detached dwelling	Dwelling house
Non-residential development	Commercial	Office
	Community purpose	Community use Place of worship Educational establishment Hospital
	Industry	Low impact industry High impact industry Medium impact industry
	Other	Animal husbandry Cropping Extractive industry
	Retail	Food and drink outlet Nightclub entertainment facility Shop Shopping centre Showroom

4.15.2.1 Changes in population and employment

(1) A summary of the assumptions about changes in population and employment for the planning scheme area is stated in table 4.15.2.1.1.

Table 4.15.2.1.1—Population assumptions summary – Warraber Island

Column 1 Description	Column 2 Assumptions						
	Base Date 2011	2016	2021	2026	2031	2036	Ultimate development
Population	271	287	301	313	324	334	334

Editor's Note – Customised population projections were derived from Queensland Government population projections, 2013 edition, Queensland Government. These customised projections were provided by the Queensland Government Statisticians Office.

Given the lack of reliable census and employment data for the TSIRC, employment, employment projections and non-residential floorspace projections have not been undertaken.

Given that housing in this community is largely government funded, supply of additional housing stock is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such residential floorspace projections have not been provided.

4.15.3 Priority infrastructure area

(1) The priority infrastructure area identifies the area prioritised for the provision of trunk infrastructure to service the existing and assumed future urban development up to 2036.

(2) The priority infrastructure area is identified on Local Government Infrastructure Plan Map LGIP — LGIP Area – Warraber Island.

4.15.4 Desired standards of service

(1) This section states the key standards of performance for a trunk infrastructure network.

(2) Details of the standard of service for a trunk infrastructure networks are identified in the extrinsic material.

4.15.4.1 Water supply network

Table 4.15.4.1.1—Water supply network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability/continuity of supply	All development receives a reliable supply of potable water with minimal interruptions to their service.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Adequacy of supply	All development is provided with a water supply that is adequate for the intended use.	• Water Service Association of Australia codes • IPWEA standards • Customer service standards • Standards in planning scheme, planning scheme policies and/or Netserv Plans
Quality of supply	Provide a uniform water quality in accordance with recognised standards that safeguards community health and is free from objectionable taste and odour.	• The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council
Environmental impacts	The environmental impacts of the water supply network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection Policies and the *Water Act 2000*
Pressure and leakage management	The water supply network is monitored and managed to maintain the reliability and adequacy of supply and to minimise environmental impacts.	• System Leakage Management Plan (Chapter 3, Part 3, Division 1A *Water Act 2000*)

Infrastructure design/planning standards	Design of the water supply network will comply with established codes and standards.	• Water Supply Code of Australia—Water Services Association of Australia—WSA 03–2002 • The Australian Drinking Water Guidelines developed by the National Health and Medical Research Council • Planning Guidelines for Water Supply and Sewerage—Department of Natural Resources and Water (NRW) • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.15.4.2 Sewerage network

Table 4.15.4.2.1—Sewerage network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Reliability	All development has access to a reliable sewerage collection, conveyance, treatment and disposal system.	• Standards in planning scheme, planning scheme policies and/or Netserv Plans • Customer service standards • Customer service obligations
Quality of treatment	Ensures the health of the community and the safe and appropriate level of treatment and disposal of treated effluent.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	The environmental impacts of the sewerage network are minimised in accordance with community expectations.	• Compliance with the requirements of the *Environmental Protection Act 1994* and associated Environmental Protection policies
Effluent re-use	Reuse effluent wherever possible.	• Guidelines for Sewerage Systems: Reclaimed Water — February 2000 • Queensland Water Recycling Guidelines—December 2005

Infrastructure design /planning standards	Design of the sewerage network will comply with established codes and standards.	• Planning Guidelines for Water Supply and Sewerage—NRW • Sewerage Code of Australia—Water Services Association of Australia—WSA 02—2002 • Sewerage Pumping Station Code of Australia—Water Services Association of Australia—WSA 04—2005 • Standards in planning scheme, planning scheme policies and/or Netserv Plans

4.15.4.3 Stormwater network

Table 4.15.4.3.1—Stormwater network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Quantity	Collect and convey stormwater in natural and engineered channels, a piped, drainage network and system of overland flow paths to a lawful point of discharge, in a safe manner that minimises the inundation of habitable rooms and protects life.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Transport and Main Roads - Road Drainage Design Manual
Quality	The water quality of urban catchments and waterways is managed to protect and enhance environmental values and pose no health risk to the community.	• Local water quality guidelines prepared in accordance with the National Water Quality Management Strategy • Queensland Water Quality Guidelines 2006—Environmental Protection Agency (EPA) (where local guidelines do not exist) • National Water Quality Guidelines—National Water Quality Management Strategy (where local or regional guidelines do not exist)
Environmental impacts	Adopt water-sensitive urban design principles and on-site water quality management to achieve EPA water quality objectives.	• Section 42 Environmental Protection [Water] Policy 1997) • Local Government standards in planning scheme and planning scheme policies

Infrastructure design/planning standards	Design of the stormwater network will comply with established codes and standards.	• Queensland Urban Drainage Manual—NRW • Local government standards in planning scheme and planning scheme policies • Natural Channel Design Guidelines • Transport and Main Roads - Road Drainage Design Manual

4.15.4.4 Transport network

Table 4.15.4.4.1—Transport network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Road network design/planning standards	The road network provides a functional urban and rural hierarchy that supports settlement patterns, commercial and economic activities, and freight movement. Design of the road system will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Interim Guide to Road Planning and Design Practice developed by the Department of Transport and Main Roads • Australian Standards • AUSTROADS guides
Public transport design/planning standards	New urban development is designed to achieve safe and convenient walking distance to existing or potential bus stops, or existing or proposed demand-responsive public transport routes.	• Local government design and development manual/standards/ codes in planning scheme and planning scheme policy • Design accords with the performance criteria set by Department of Transport and Main Roads • AUSTROADS guides for road-based public transport and high-occupancy vehicles
Cycleway and pathway design/ planning standards	Cycleways and pathways provide a safe and convenient network that encourages walking and cycling as acceptable alternatives. Design of the network will comply with established codes and standards.	• Local government road design and development manual/ standards/codes in planning scheme and planning scheme policy • Australian Standards • AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths'. • Complete Streets

4.15.4.5 Public parks and land for community facilities network

Table 4.15.4.5.1—Public parks and land for community facilities network desired standards of service

Measure	Planning criteria (qualitative standards)	Design criteria (quantitative standards)
Functional network	A network of parks and land for community facilities is established to provide for the full range of recreational and sporting activities and provide for development of community facilities.	• Parks and land for community facilities is provided at a local, district and LGA-wide level • Parks and land for community facilities addresses the needs of both recreation and provides for development of community facilities.
Accessibility	Public parks and land for community facilities will be located to ensure adequate pedestrian, cycle and vehicle access.	• Parks and land for community facilities is provided at a local, district and LGA-wide level • Parks and land for community facilities addresses the needs of both recreation and provides for development of community facilities
Land quality/suitability Area/1000 persons minimum size maximum grade Flood immunity	Public parks and land for community facilities will be provided to a standard that supports a diverse range of recreational, sporting, health and services–promoting activities to meet community expectations. This includes ensuring land is of an appropriate size, configuration and slope, and has an acceptable level of flood immunity.	• AUSTROADS Guide to Road Design – Part 6A: Pedestrian and Cycle Paths • Australian Standards (AS 1428.1 – Design for access and mobility – General requirements for access – New building work, AS 2890 – Parking Facilities)
Facilities/embellishments	Public parks contain a range of embellishments to complement the type and purpose of the park.	• Local government standards in planning scheme and planning scheme policies
Infrastructure design / performance standards	Maximise opportunities to co-locate recreational parks and community facilities in proximity to other community infrastructure, transport hubs and valued environmental and cultural assets.	• Local government standards in planning scheme and planning scheme policies • Australian Standards

4.15.5 Plans for trunk infrastructure

(1) The plans for trunk infrastructure identify the trunk infrastructure networks intended to service the existing and assumed future urban development at the desired standard of service up to 2036.

4.15.5.1 Plans for trunk infrastructure maps

(1) The existing and future trunk infrastructure networks are shown on the following maps in Schedule 3—Local government infrastructure plan mapping and tables:

(a) Local Government Infrastructure Plan Map LGIP – LGIP Area – Warraber Island

(b) Local Government Infrastructure Plan Map LGIP – Transport Infrastructure – Warraber Island

(c) Local Government Infrastructure Plan Map LGIP – Sewer Infrastructure – Warraber Island

(d) Local Government Infrastructure Plan Map LGIP – Water Infrastructure – Warraber Island

(e) Local Government Infrastructure Plan Map LGIP – Community and Infrastructure – Warraber Island

(2) The State infrastructure forming part of transport trunk infrastructure network has been identified using information provided by the relevant State infrastructure supplier.

4.15.5.2 Schedules of works

(1) The future trunk infrastructure is identified in the following table:

(a) for the water supply network, table 4.15.5.2.1

(b) for the sewerage network, table 4.15.5.2.2

(c) for the stormwater network, table 4.15.5.2.3

(d) for the transport network, table 4.15.5.2.4

(e) for the parks and land for community facilities network, table 4.15.5.2.5

Editor's Note – The following tables identify infrastructure capacity upgrades required to service existing urban areas based on population projection figures. Establishment costs have not been provided due to the complexities of infrastructure delivery in this remote locality.

Most housing in this community is government funded and the supply of additional housing stock within township expansion areas is directly related to government funding availability. On this basis, it is difficult to predict future projected dwellings and as such the trunk infrastructure required to service these expansion areas has not been identified or costed at this stage.

Table 4.15.5.2.1—Water supply network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost[1]
LGIP Water Infrastructure	Additional desalination unit	Subject to population growth beyond 400 EP	NA
LGIP Water Infrastructure	Upgrade treated water storage	Subject to population growth beyond 292 EP	NA
LGIP Water Infrastructure	Upgrade treatment plant capacity	Subject to population growth beyond 336 EP	NA
Total			

1. Column 4 Establishment costs are not provided due to the need for detailed investigation in recognition of the unique development circumstances.

Editor's Note – An additional desalination unit (70kL/day capacity) will be required for a population of around 400EP.

No upgrades to raw water storage required as it is planned to augment the desalination capacity.

Treated water storage will require upgrading. Current capacity is 90kL and this is marginal for the current population. The water storage should be upgraded when populations exceed 292 equivalent persons.

The current capacity of the treatment plant is in excess of 200kL/day. This is suitable to accommodate the project population, however will require upgrade when population exceeds 334.

No reticulation upgrades are required. Pressures are delivered by a VSD. However, any future development should be accompanied by an investigation to confirm appropriate pressure is maintained.

Table 4.15.5.2.2—Sewerage network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost[1]
LGIP Sewerage Infrastructure	Upgrade STP	Subject to population increase beyond 300 equivalent persons.	NA
Total			

1. Column 4 Establishment costs are not provided due to the need for detailed investigation in recognition of the unique development circumstances.

Editor's Note – Existing STP has capacity to service 300 Equivalent Persons.

Table 4.15.5.2.3—Stormwater network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – There is limited formal stormwater infrastructure within the township. Natural runoff and infiltration is acceptable for the existing township and will be acceptable over the LGIP timeframe given the projected population change.

Table 4.15.5.2.4—Transport network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Editor's Note – Existing roads are expected to be fit for purpose over the LGIP timeframe given projected population change. Extension to concrete paving may be required to provide access to the township expansion area.

Table 4.15.5.2.5—Parks and land for community facilities schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Establishment cost
	Nil		
Total			

Part 5 Tables of assessment

5.1 Preliminary

The tables in this part identify the category of development, and the category of assessment and assessment benchmarks for assessable development in the planning scheme area.

5.2 Reading the tables

The tables identify the following:

(1) category of development:

- (a) prohibited
- (b) accepted, including accepted subject to requirements
- (c) assessable development, that requires either code or impact assessment

(2) the category of assessment, code or impact, for assessable development in:

- (a) a zone and, where used, a precinct of a zone
- (b) a local plan and, where used, a precinct of a local plan
- (c) an overlay where used

(3) the assessment benchmarks for assessable development, including:

- (a) whether a zone code or specific provisions in the zone code apply (shown in the 'assessment benchmarks' column)
- (b) if there is a local plan, whether a local plan code or specific provisions in the local plan code apply (shown in the 'assessment benchmarks' column)
- (c) any other applicable code(s) (shown in the 'assessment benchmarks' column)

(4) any variation to the category of assessment (shown as an 'if' in the 'categories of development and assessment' column) that applies to the development.

Note – Development will only be taken to be prohibited development under the planning scheme if it is identified as prohibited development in schedule 10 of the Regulation.

Editor's Note – Examples of matters that can vary the category of assessment are gross floor area, height, numbers of people or precinct provisions.

Editor's Note – There are no overlays or local plan precincts in this planning scheme.

5.3 Categories of development and assessment

5.3.1 Process for determining the category of development and the category of assessment for assessable development

The process for determining a category of development and category of assessment is:

(1) for a material change of use, establish the use by reference to the use definitions in Schedule 1

(2) for all development, identify the following:

- (a) the zone or zone precinct that applies to the premises, by reference to the zone map in Schedule 2
- (b) if a local plan or local plan precinct applies to the premises, by reference to the local plan maps in Schedule 2
- (c) if an overlay applies to the premises, by reference to the overlay map in Schedule 2

(3) determine if the development is accepted development under schedules 6 and 7 of the Regulation or is assessable or prohibited development under schedule 10 of the Regulation

Editor's Note – Schedule 6 of the Regulation prescribes development of a planning scheme cannot categorise as assessable. Schedule 7 of the Regulation identifies development the state makes accepted. Some development in schedule 7 may still be made assessable under this planning scheme.

(4) determine the initial category of assessment by reference to the tables in:

(a) section 5.4 Categories of development and assessment—Material change of use

(b) section 5.5 Categories of development and assessment—Reconfiguring a lot

(c) section 5.6 Categories of development and assessment—Building work

(d) section 5.7 Categories of development and assessment—Operational work

(5) a precinct of a zone may change the categories of development or assessment and this will be shown in the 'categories of development and assessment' column of the tables in sections 5.4, 5.5, 5.6 and 5.7

(6) if a local plan applies refer to the tables(s) in section 5.8 Categories of development and assessment - Local plans, to determine if the local plan changes the categories of development and assessment for the zone

(7) if a precinct of a local plan changes the categories of development and assessment this is to be shown in the 'categories of development and assessment' column of the tables in section 5.8

Editor's Note – The local plans and zone precincts do not alter the categories of development and assessment described elsewhere in part 5, sections 5.5, 5.6 and 5.7.

There are no overlays or local plan precincts in this planning scheme.

5.3.2 Determining the category of development and categories of assessment

(1) A material change of use is assessable development requiring impact assessment:

(a) unless the table of assessment states otherwise

(b) if a use is not listed or defined

(c) unless otherwise prescribed in the Act or the Regulation.

(2) Reconfiguring a lot is assessable development requiring code assessment unless the tables of assessment state otherwise or unless otherwise prescribed in the Act or the Regulation.

(3) Building work and operational work are accepted development, unless the tables of assessment state otherwise or unless otherwise prescribed in the Act or the Regulation.

(4) Where an aspect of development is proposed on premises included in more than one zone, the category of development or assessment for that aspect is the highest category under each of the applicable zones or local plans.

(5) If the development is identified as having a different category of development or category of assessment under a zone than under a local plan, the highest category of development or assessment applies as follows:

(a) accepted development subject to requirements prevails over accepted development

(b) code assessment prevails over accepted development where subject to requirements and accepted development

(c) impact assessment prevails over code assessment, accepted development where subject to requirements and accepted development.

(6) The Regulation prescribes development that the planning scheme cannot make assessable in schdule 6.

Editor's Note – Schedule 7 of the Regulation also identifies development the state makes accepted. Some development in that schedule may still be made assessable under this planning scheme.

(7) Despite all of the above, if development is listed as prohibited development under schedule 10 of the Regulation, a development application can not be made.

Note – Where a development is comprised of a number of defined uses (not in an activity group) the highest categories of development and assessment applies.

Note – Development is to be taken to be prohibited development under the planning scheme only if it is identified in schedule 10 of the Regulation.

5.3.3 Determining the requirements for accepted development and assessment benchmarks and other matters for assessable development

(1) Accepted development does not require a development approval and is not subject to assessment benchmarks. However, certain requirements may apply to some types of development for it to be accepted development. Where nominated in the tables of assessment, accepted development must comply with the requirements identified as acceptable outcomes in the relevant parts of the applicable code(s).

(2) Accepted development that does not comply with one or more of the nominated acceptable outcomes in the relevant parts of the applicable code(s) becomes code assessable development, unless otherwise specified.

(3) The following rules apply in determining assessment benchmarks for each category of development and assessment.

(4) Accepted subject to requirements:

(a) is to be assessed against all the relevant acceptable outcomes in codes identified in the assessment benchmarks column

Editor's Note – If there is no acceptable outcome supporting a performance outcome in the specified code, there is no requirement.

(5) Code assessable development:

(a) is to be assessed against all the assessment benchmarks identified in the assessment benchmarks column

(b) that occurs as a result of development becoming code assessable pursuant to sub-section 5.3.3(2), must:

(i) be assessed against the assessment benchmarks for the development application, limited to the subject matter of the required acceptable outcomes that were not complied with or were not capable of being complied with under sub-section 5.3.3(2)

(ii) comply with all required acceptable outcomes identified in sub-section 5.3.3(1), other than those mentioned in sub-section 5.3.3(2);

(c) that complies with:

(i) the purpose and overall outcomes of the code complies with the code

(ii) the performance or acceptable outcomes complies with the purpose and overall outcomes of the code;

(d) is to be assessed against any assessment benchmarks for the development identified in section 26 of the Regulation.

Editor's Note – Section 27 of the Regulation identifies the matters code assessment must have regard to.

(6) Impact assessable development:

(a) is to be assessed against the identified assessment benchmarks in the assessment benchmarks column

Note – The whole of the planning scheme is the assessment benchmark for impact assessable development in this planning scheme.

(b) is to be assessed against any assessment benchmarks for the development identified in Section 30 of the Regulation.

Editor's Note – Section 31 of the Regulation identifies the matters that impact assessment must have regard to.

5.4 Categories of development and assessment—Material change of use

The following tables identify the categories of development and assessment for development in a zone for making a material change of use.

Table 5.4.1 – Environmental management and conservation zone

Zone	Categories of development and assessment	Assessment benchmarks for assessable development and requirements for accepted development
Environment facility, Landing, Market, Outdoor sport and recreation, Park, Permanent plantation, Roadside stall	**Accepted**	
	All	Not applicable
Caretaker's accommodation	**Accepted**	
	If located outside of a landslide hazard area, bushfire hazard area, flood hazard area and coastal hazard area.	Not applicable
	Code assessment	
	If not exempt	• Environmental management and conservation zone code • Applicable local plan code • Infrastructure and works code • Water quality and acid sulphate soils code
Outstation	**Accepted**	
	If less than 200m^2 gross floor area	Not applicable
	Code assessment	
	If not eaccepted	• Environmental management and conservation zone code • Applicable local plan code • Infrastructure and works code • Water quality and acid sulphate soils code

Zone	Categories of development and assessment	Assessment benchmarks for assessable development and requirements for accepted development
Club, Emergency services	**Accepted**	
	If: (1) located outside of a landslide hazard area, bushfire hazard area, flood hazard area and coastal hazard area; (2) located outside and area of high environmental value; and (3) any building or strcuture is not more than 100m^2 gross floor area.	Not applicable
	Code assessment	
	If: (1) not accepted; and (2) located outside of an area of high environmental value.	• Environmental management and conservation zone code • Applicable local plan code • Infrastructure and works code • Water quality and acid sulphate soils code
Dwelling house, Home based business, Place of worship	**Accepted**	
	If: (1) located outside of a landslide hazard area, bushfire hazard area, flood hazard area and coastal hazard area; and (2) located outside of an area of high environmental value.	Not applicable
	Code assessment	
	If not accepted	• Environmental management and conservation zone code • Applicable local plan code • Infrastructure and works code • Water quality and acid sulphate soils code

Zone	Categories of development and assessment	Assessment benchmarks for assessable development and requirements for accepted development
Cemetery	**Accepted**	
	If: (1) located outside of a landslide hazard area, bushfire hazard area, flood hazard area and coastal hazard area; and (2) located outside of an area of high environmental value.	Not applicable
	Code assessment	
	If not accepted	• Environmental management and conservation zone code • Applicable local plan code • Infrastructure and works code • Water quality and acid sulphate soils code
Animal husbandry, Animal keeping, Cropping (where not involving forestry for wood production)	**Accepted**	
	If not animal keeping for a kennel or cattery	Not applicable
	Code assessment	
	If not accepted	• Environmental management and conservation zone code • Applicable local plan code • Infrastructure and works code • Water quality and acid sulphate soils code
Wholesale nursery	**Accepted**	
	If located outside of an area of high environmental value	Not applicable
	Code assessment	
	If not accepted	• Environmental management and conservation zone code • Applicable local plan code • Infrastructure and works code • Water quality and acid sulphate soils code

Zone	Categories of development and assessment	Assessment benchmarks for assessable development and requirements for accepted development
Intensive horticulture	**Accepted**	
	If: (1) located outside of an area of high environmental value; and (2) not intensive horticulture for a mushroom farm.	Not applicable
	Code assessment	
	If not accepted	• Environmental management and conservation zone code • Applicable local plan code • Infrastructure and works code • Water quality and acid sulphate soils code
Aquaculture, **Bulk landscape supplies,** **Function facility,** **Indoor sport and recreation,** **Major sport, recreation and entertainment facility,** **Marine industry,** **Special industry,** **Outdoor sales,** **Rural industry**	**Code assessment**	
	If located outside of an area of high environmental value	• Environmental management and conservation zone code • Applicable local plan code • Infrastructure and works code • Water quality and acid sulphate soils code
Shop, **Food and drink outlet**	**Code assessment**	
	If: (1) located outside of an area of high environmental value; (2) associated with an application for function facility, nature based tourism, short term accommodation, tourist attraction or tourist park; and (3) 100m^2 or less in gross floor area	• Environmental management and conservation zone code • Applicable local plan code • Infrastructure and works code • Water quality and acid sulphate soils code

Zone	Categories of development and assessment	Assessment benchmarks for assessable development and requirements for accepted development
Crematorium, Funeral parlour, Nature based tourism, Non-resident workforce accommodation, Short term accommodation, Resort complex, Rural worker's accommodation, Tourist attraction, Tourist park	**Code assessment**	
	If: (1) located outside of a landslide hazard area, bushfire hazard area, flood hazard area and coastal hazard area; and (2) located outside of an area of high environmental value.	• Environmental management and conservation zone code • Applicable local plan code • Infrastructure and works code • Water quality and acid sulphate soils code
Motor sport facility	**Code assessment**	
	If: (1) located more than 2km from the township zone; and (2) located outside of an area of high environmental value.	• Environmental management and conservation zone code • Applicable local plan code • Infrastructure and works code • Water quality and acid sulphate soils code
Major electricity infrastructure, Substation, Telecommunications facility, Transport depot, Utility installation	**Accepted**	
	If provided by Torres Strait Island Regional Council.	Not applicable
	Code assessment	
	If: (1) not accepted; and (2) provided by any other public sector entity.	• Environmental management and conservation zone code • Applicable local plan code • Infrastructure and works code • Water quality and acid sulphate soils code
Impact assessment		
Any other use not listed in this table. Any use listed in this table and not meeting the description listed in the categories of development and assessment column. Any other undefined use.		The planning scheme

Editor's Note – The above categories of development and assessment apply unless otherwise prescribed in the Regulation.

Editor's Note – To determine if the proposed development is located within a:

- a landslide hazard area
- a bushfire hazard area
- a flood hazard area
- a coastal hazard area
- an area of high environmental value
- an area of medium environmental value

Refer to the local plan maps provided at schedule 2.

Table 5.4.2 – Township zone

Use	Categories of development and assessment	Assessment benchmarks for assessable development and requirements for accepted development
Dwelling house, **Dual occupancy,** **Environment facility,** **Landing,** **Market,** **Outdoor sport and recreation,** **Outstation,** **Park,** **Roadside stall**	**Accepted**	
	All	Not applicable
Caretaker's accommodation, **Dwelling unit,** **Emergency services,** **Home based business,** **Place of worship,** **Sales office,** **Veterinary services**	**Accepted**	
	If: (1) located outside of a landslide hazard area, bushfire hazard area, flood hazard area and coastal hazard area; and (2) located outside of an area of high environmental value.	Not applicable
	Code assessment	
	If not accepted	• Township zone code • Applicable local plan code • Infrastructure and works code • Water quality and acid sulfate soils code
Cemetery	**Accepted**	
	If: (1) located outside of a landslide hazard area, bushfire hazard area, flood hazard area and coastal hazard area; and (2) located outside of an area of high environmental value.	Not applicable
Major electricity infrastructure, **Substation,** **Telecommunications facility,** **Transport depot,** **Utility installation**	**Exempt**	
	If provided by Torres Strait Island Regional Council.	Not applicable
	Code assessment	
	If: (1) not accepted; and (2) provided by any other public sector entity.	• Township zone code • Applicable local plan code • Infrastructure and works code • Water quality and acid sulfate soils code

Use	Categories of development and assessment	Assessment benchmarks for assessable development and requirements for accepted development
Agricultural supplies store, **Animal keeping,** **Aquaculture,** **Bulk landscaping supplies,** **Car wash,** **Child care centre,** **Club,** **Community care centre,** **Community use,** **Crematorium,** **Educational establishment,** **Food and drink outlet,** **Function facility,** **Funeral parlour,** **Garden centre,** **Hardware and trade supplies,** **Health care services,** **Hospital,** **Indoor sport and recreation,** **Low impact industry,** **Major sport, recreation and entertainment facility,** **Marine industry,** **Medium impact industry,** **Multiple dwelling,** **Nature based tourism,** **Non-resident workforce accommodation,** **Office,** **Outdoor sales,** **Relocatable home park,** **Research and technology industry,** **Residential care facility,** **Resort complex,** **Retirement facility,** **Rooming accommodation,** **Rural industry,** **Rural workers' accommodation,** **Service industry,** **Shop,** **Shopping centre,** **Short-term accommodation,** **Showroom,** **Theatre,** **Tourist attraction,** **Tourist park,** **Warehouse,** **Wholesale nursery**	**Code assessment**	
	All	• Township zone code • Applicable local plan code • Infrastructure and works code • Water quality and acid sulphate soils code

Use	Categories of development and assessment	Assessment benchmarks for assessable development and requirements for accepted development
Impact assessment		
Any other use not listed in this table. Any use listed in this table and not meeting the description listed in the categories of development and assessment column. Any other undefined use.		The planning scheme

Editor's Note – The above categories of development and assessment apply unless otherwise prescribed in the Regulation.

Editor's Note – To determine if the proposed development is located within a:

- a landslide hazard area
- a bushfire hazard area
- a flood hazard area
- a coastal hazard area
- an area of high environmental value
- an area of medium environmental value

Refer to the local plan maps provided at schedule 2.

Note – For the purposes of section 13 of the Building Regulations 2006:

(1) land shown as flood hazard areas on the maps in schedule 2 is designated as the flood hazard area; and

(2) the defined flood hazard area is delared to be the level to which flood water would reasonably be expected to rise within the flood hazard area during the designated flood events.

Note – Land shown as bushfire hazard area on the maps in schedule 2 is designated as the bushfire prone area for the purposes of section 12 of the Building Regulation 2006. The bushfire hazard area (bushfire prone area) includes land covered by very high, high and medium hazard areas as well as the buffer area catagory.

5.5 Categories of development and assessment—Reconfiguring a lot

The following table identifies the categories of development and assessment for reconfiguring a lot.

Table 5.5.1 – Reconfiguring a lot

Zone	Categories of development and assessment	Assessment benchmarks for assessable development and requirements for accepted development
Township zone	**Code assessment**	
	All	• Township zone code • Applicable local plan code • Reconfiguration of a lot code • Infrastructure and works code • Water quality and acid sulphate soils code
Environmental management and conservation zone	**Code assessment**	
	All	• Environmental management and conservation zone code • Applicable local plan code • Reconfiguration of a lot code • Infrastructure and works code • Water quality and acid sulphate soils code
Code assessment		
Any other reconfiguring a lot not listed in this table. Any reconfiguring a lot listed in this table and not meeting the description listed in the categories of development and assessment column.		

Editor's Note – The above categories of development and assessment apply unless otherwise prescribed in the Regulation.

5.6 Categories of development and assessment—Building work

There is no building work regulated by the planning scheme.

Note – For the purposes of section 13 of the Building Regulations 2006:

(1) land shown as flood hazard areas on the maps in schedule 2 is designated as the flood hazard area; and

(2) the defined flood hazard area is delared to be the level to which flood water would reasonably be expected to rise within the flood hazard area during the designated flood events.

Note – Land shown as bushfire hazard area on the maps in schedule 2 is designated as the bushfire prone area for the purposes of section 12 of the Building Regulation 2006. The bushfire hazard area (bushfire prone area) includes land covered by very high, high and medium hazard areas as well as the buffer area catagory.

5.7 Categories of development and assessment—Operational work

The following table identifies the categories of development and assessment for operational work.

Table 5.7.1 – Operational work

Development	Categories of development and assessment	Assessment benchmarks for assessable development and requirements for accepted development
Excavation and filling	**Accepted**	
	If: (1) located more than 30m from waterways and wetlands; (2) located outside of a flood hazard area; and (3) involving less than 50 cubic metres of material.	Not applicable **Editor's Note** – Flood hazard areas are shown for each island on the maps in Schedule 2.
	Code assessment	
	If not accepted	• Applicable local plan code • Infrastructure and works code • Water quality and acid sulphate soils code
Accepted		
Development approval is not required for any other operational work not listed in this table and any operational work listed in this table and not meeting the description listed in the categories of development and assessment column.		

Editor's Note – The above categories of development and assessment apply unless otherwise prescribed in the Regulation.

Editor's Note – Certain works may require approval under other legislation or local laws even if they are not regulated by the planning scheme.

5.8 Categories of development and assessment – Local plans

The local plans in this planning scheme do not alter the categories of development and assessment described elsewhere in part 5, sections 5.4, 5.5 and 5.7.


School
Kindergarten

Part 6 Zones

6.1 Preliminary

(1) Zones organise the planning scheme area in a way that facilitates the location of preferred or acceptable land uses.

(2) Zones are mapped and included in Schedule 2, for each island.

(3) The categories of development and assessment for development in a zone are in part 5.

(4) Assessment benchmarks for zones are contained in a zone code.

(5) A precinct may be identified for part of a zone.

(6) Precinct provisions are contained in the zone code.

(7) Each zone code identifies the following:

- (a) the purpose of the code
- (b) the overall outcomes that achieve the purpose of the code

(8) The following are the zone codes for the planning scheme:

- (a) environmental management and conservation zone
- (b) township zone including a township expansion precinct

6.2 Zone codes

6.2.1 Environmental management and conservation zone

6.2.1.1 Application

The code applies where identified in the assessment benchmarks column of tables 5.4.1, 5.4.2 or 5.5.1 in part 5 of this planning scheme.

When using this code, reference should be made to section 5.3.

6.2.1.2 Purpose

(1) The purpose of the environmental management and conservation zone code is to provide for the protection of areas identified as supporting biological diversity and ecological integrity, as well as ailan kastom and traditional practices.

(2) The purpose of the environmental management and conservation zone code will be achieved through the following overall outcomes:

- (a) Land within the zone is conserved to protect significant water resources, environmental and cultural heritage values, while providing for rural activities, some recreation activities and waterfront activities.
- (b) In limited circumstances, land within the zone can be developed for urban purposes if the development:
  - (i) needs to be separated from where people live; or
  - (ii) needs to be located in a particular place or near a particular resource to be able to function; or
  - (iii) requires a large area of land that can not physically fit within the township zone; or
  - (iv) is for the purpose of a utility installation (sewerage treatment plant or water supply infrastructure) or renewable energy facility; or
  - (v) is required to support ailan kastom or traditional practices.
- (c) Possible future housing investigation areas have been identified on a number of islands. These areas are not intended to be utilised for township purposes prior to substantive investigations of constraints (including vulnerability to natural hazards), servicing options and development feasibility, as well as negotiation with traditional owners. Parts or all of these areas may prove to be unsuitable for development as a result. Some represent very long term options that may accommodate relocation of housing and facilities in response to the increased risks associated with sea level rise.
- (d) Development occurs in the manner intended in each local plan.

Editor's Note – the activity groupings referred to in the overall outcomes above (such as rural activities, recreational activities and waterfront activities) are described in schedule 1.1.1 – defined activity groupings.

Editor's Note – For the purpose of the environmental management and conservation zone code, urban purposes refers to all of the defined activity groups in schedule 1.1.1 of this planning scheme with the exception of rural activities.

6.2.2 Township zone

6.2.2.1 Application

The code applies where identified in the assessment benchmarks column of tables 5.4.1, 5.4.2 or 5.5.1, in part 5 of this planning scheme.

When using this code, reference should be made to section 5.3.

6.2.2.2 Purpose

(1) The purpose of the township zone code is to provide for a mix of uses within townships and to identify land that may be suitable for expansion of towns over the life of the planning scheme.

(2) The purpose of the township zone code will be achieved through the following overall outcomes:

- (a) Expansion of the township is to occur within the township expansion precinct, unless there is an demonstrated community need for development to occur elsewhere.
- (b) A mix of uses including residential, retail, business, education, industrial, community, tourism, recreation and open space are accommodated within the zone that supports the needs of the community.
- (c) New community services and commercial activities are established within township centre core areas where these are designated.
- (d) New industrial activities are located within industry core areas where these are designated.
- (e) New development does not unduly impact on the amenity of townships or increase risk to community health and safety.
- (f) Development occurs in the manner intended in each local plan.

Editor's Note – For the purpose of the township zone code, urban purposes refers to all of the defined activity groups in schedule 1.1.1 of this planning scheme with the exception of rural activities.

Part 8 Development codes

8.1 Preliminary

(1) Development codes are codes for assessment where identified as an applicable code in part 5.

(2) Use codes and other development codes are specific to each planning scheme area.

(3) There are no use codes for the planning scheme.

(4) The following are the other development codes for the planning scheme:

(a) Infrastructure and works code

(b) Reconfiguring a lot code

(c) Water quality and acid sulfate soils code.

Editor's Note – Assessment benchmarks for certain assessable development and requirements for certain accepted development are also contained in the Planning Regulation.

8.2 Other development codes

8.2.1 Infrastructure and works code

8.2.1.1 Application

(1) This code applies where identified in the assessment benchmarks in the categories of development and assessment column of table 5.5.1 in part 5 of this planning scheme.

(2) When using this code, reference should be made to section 5.3.

8.2.1.2 Purpose

(1) The purpose of the infrastructure and works code is to ensure development is provided with infrastructure and services in accordance with recognised standards.

(2) The purpose of the code will be achieved through the following overall outcomes:

(a) works are carried out with an appropriate level of service and safety;

(b) infrastructure is provided in a cost-effective, efficient and coordinated manner; and

(c) works do not cause negative impacts to environmental values or people.

8.2.1.3 Specific benchmarks for assessment

Table 8.2.1.3 – Assessable development

Performance outcomes	Acceptable outcomes
General	
PO1 All lots are provided with access to services including: (1) waste water disposal; (2) water supply services; (3) electricity services; and (4) telecommunications services.	AO1.1 The lot is connected to reticulated water supply, sewerage service, electricity and telecommunications.
Earthworks	
PO2 The design and construction of site earthworks is undertaken in a safe and efficient manner while minimising impacts to adjoining properties and environmental values.	AO2.1 Design of site earthworks is undertaken in accordance with: (1) FNQROC Operational Works Design Guideline D2, Site Regrading; (2) FNQROC Operational Works Design Guidelines D5, Stormwater Quality; and (3) Department of Transport & Main Roads Technical Standard MRTS04, General Earthworks. AO2.2 Construction of site earthworks is undertaken in accordance with: (1) FNQROC Operational Works Specification S1, Earthworks; and (2) Department of Transport & Main Roads Standard Specification MRS04, General Earthworks.
Roadways, Pathways and Cycleways	
PO3 New roads are designed and constructed to be able to: (1) accommodate walking, cycling and vehicle movements; (2) provide on street parking; and (3) incorporate services and drainage.	No acceptable solution is nominated.

Performance outcomes	Acceptable outcomes
PO4 Where roadways, pathways and cycleways are to be provided, design and construction is undertaken in a safe, cost-effective, coordinated and efficient manner.	AO4.1 Design of roadways, pathways and cycleways is undertaken in accordance with: (1) FNQROC Operational Works Design Guideline D1, Road Geometry; (2) FNQROC Operational Works Design Guidelines D3, Road Pavements; (3) FNQROC Operational Works Design Guidelines D4 Stormwater Drainage (4) Department of Transport & Main Roads Technical Standard MRTS05, Unbound Pavements; (5) Department of Transport & Main Roads Technical Standard MRTS11, Sprayed Bituminous Surfacing; and (6) Department of Transport & Main Roads Technical Standard MRTS22, Supply of Cover Aggregate. AO4.2 Construction of roadways are undertaken in accordance with: (1) FNQROC Operational Works Specification S2, Road Pavements; (2) FNQROC Operational Works Specification S3, Segmental Paving; (3) FNQROC Operational Works Specification S4, Stormwater Drainage; (4) Department of Transport & Main Roads Standard Specification MRS05, Unbound Pavements; (5) Department of Transport & Main Roads Standard Specification MRS11, Sprayed Bituminous Surfacing; and (6) Department of Transport & Main Roads Standard Specification MRS22, Supply of Cover Aggregate.
Traffic and Driveway Crossovers	
PO5 Sites are managed during construction to minimise negative traffic impacts to existing roads.	AO5.1 All site works are managed in accordance with Manual of Uniform Traffic Control Devices (MUTCD) Part 3, Works on Roads.
PO6 Driveways are provided to a standard that protects community safety and the safe and efficient operation of transport networks.	AO6.1 A driveway crossover to each lot is designed and constructed in accordance with the FNQROC Regional Development Manual, Standard Drawings.
Water Supply	
PO7 Where lots are intended to be connected to a water supply, the design and construction is undertaken in a safe, cost-effective, coordinated and efficient manner that supports sustainable development practices.	AO7.1 Design and construction of water supply systems is undertaken in accordance with FNQROC Operational Works Design Guidelines D6, Water Reticulation.

Performance outcomes	Acceptable outcomes
Sewerage Infrastructure	
PO8 Where lots are intended to be provided with reticulated sewerage, the design and construction is undertaken in a safe, cost effective, coordinated and efficient manner that supports sustainable development practices.	AO8.1 Design and construction of sewerage systems is undertaken in accordance with FNQROC Operational Works Design Guidelines D7, Sewerage System.
Service Conduits	
PO9 The design and construction of the service conduits is undertaken in a safe, cost effective, coordinated and efficient manner that supports sustainable development practices.	AO9.1 The design of service conduits is undertaken in in accordance with FNQROC Operational Works Design Guidelines D8, Utilities.

8.2.2 Reconfiguring a lot code

8.2.2.1 Application

This code applies where identified in the assessment benchmarks in the categories of development and assessment column of table 5.5.1 in part 5 of this planning scheme.

When using this code, reference should be made to section 5.3.

8.2.2.2 Purpose

(1) The purpose of the reconfiguring a lot code is to provide for good subdivision design that:

- (a) is consistent with the creation of connected, accessible, pleasant and safe communities; and
- (b) promotes the efficient use and servicing of land.

(2) The purpose of the code will be achieved through the following overall outcomes:

- (a) development helps to create pleasant, safe and attractive living environments;
- (b) the layout, size and dimensions of lots are suited to the intended use of the land including buildings, associated structures, vehicle access, parking and recreation areas;
- (c) the design and layout of lots is responsive to the natural environment, including its topography, drainage flow paths, slope of the land, environmental and natural resource values;
- (d) development meets the needs of the community for a range of different housing types;
- (e) the orientation and layout of lots allows buildings to be positioned in a way that is suited to the local climate and to reduce demand for energy and water;
- (f) public open spaces are well designed, centrally located and sufficient to meet the needs of the community;
- (g) the street system provides for safe and convenient traffic flows and supports pedestrian and cyclist movement;
- (h) development is logically coordinated to maximise the efficient use of transport, energy, water and sewage infrastructure.

8.2.2.3 Specific benchmarks for assessment

Table 8.2.2.3 (a) – Assessable development

Performance outcomes	Acceptable outcomes
General	
PO1 The layout of new lots: (1) responds to the site characteristics, including natural features, views and topography; and (2) minimises the need for earthworks.	No acceptable solution is nominated.
Accessible and Pleasant Residential Areas	
PO2 The layout of new lots: (1) is easily accessible by people walking and cycling; and (2) is well connected to other facilities and township areas, including community facilities and public parks.	No acceptable solution is nominated.
PO3 Street orientation, lot orientation and lot size facilitate development that conserves non-renewable energy sources and enhances climate responsiveness by: (1) optimising an east-west orientation for the long axis of street blocks or where north-south street orientation is unavoidable, proportioning lots to allow for appropriate building orientation; and (2) creating lots that are generally rectangular in shape.	No acceptable solution is nominated.

Performance outcomes	Acceptable outcomes
PO4 Residential lots are not subjected to unreasonable nuisance noise and air quality impacts.	AO4.1 Residential lots are located more than: (1) 100m (straight line measurement) of existing or future air services, animal keeping, animal husbandry, cropping, emergency services, high impact industry, intensive animal industry, intensive horticulture, major electricity infrastructure, medium impact industry, major sport facility, renewable energy facility, service station, special industry, substation, telecommunications facility, transport depot and utility installation; (2) 1,000m (straight line measurement) of existing extractive industries involving blasting or crushing; and (3) 200m (straight line measurement) of existing extractive industries not involving blasting or crushing.
Safe Communities	
PO5 The design and layout of lots helps to make communities safe for residents and visitors by: (1) creating an interconnected grid street pattern; (2) avoiding the creation of rear lots except where necessary to gain access to traditional land by Traditional Owners; (3) proving public parks that are centrally located to maximise overlooking from nearby development; and (4) facilitating walking and cycling.	No acceptable solution is nominated.
Road Access	
PO6 Residential lots have road frontages that are of sufficient width to allow easy and safe access.	AO6.1 All lots, other than rear lots, have a minimum road frontage of 10m.
Lot Size and Dimensions	
PO7 Rear lots are established only where necessary in order to: (1) facilitate access to traditional land by Traditional Owners; or (2) avoid subdivision of land unsuitable for development, such as land affected by natural hazards.	No acceptable solution is nominated.

Performance outcomes	Acceptable outcomes
PO8 Subdivision results in lots of a size, shape and orientation that allows for: (1) siting of a building required for the intended use; (2) front, rear and side building setbacks consistent with surrounding development; (3) on-site parking and private open space, including space for zarzars and outdoor kitchens for feasting, where required; (4) a mix of lot sizes to allow for small and large dwellings, dual occupancies and multiple dwellings; and (5) on-site sewage treatment where reticulated sewerage is not available.	AO8.1 *For all lots:* Minimum lot size is in acordance with table 8.2.3.3 (b). AO8.2 *For rear lots:* An access strip or easement is provided for access, which: (1) has a minimum width of 4m; and (2) has a maximum length of 40m.
Road Function and Layout	
PO9 The road network accommodates the following primary functions: (1) access to lots; (2) social and activity space; (3) stormwater drainage paths; (4) utility services location; and (5) streetscape and landscaping.	No acceptable solution is nominated.
PO10 Intersections along residential streets are spaced to create safe and convenient pedestrian movements.	AO10.1 Block lengths are no greater than 100m.

Table 8.2.3.3 (b) – Minimum Lot Size

Acceptable outcomes (AO)	
Environmental Management and Conservation Zone	10ha
Township Zone where reticulated sewerage is available	300sqm
Township Zone where no reticulated sewerage is available	2000sqm

8.2.3 Water quality and acid sulfate soils code

8.2.3.1 Application

(1) This code applies where identified in the assessment benchmarks in the categories of development and assessment column of tables 5.4.1, 5.4.2, 5.5.1 or 5.7.1, in part 5 of this planning scheme.

(2) When using this code, reference should be made to section 5.3.

8.2.3.2 Purpose

(1) The purpose of the water quality and acid sulfate soils code is to ensure that development effectively manages stormwater run-off and acid sulfate soils to protect the environmental values and quality of Torres Strait Island fresh and marine waters.

(2) The purpose of the code will be achieved through the following overall outcomes:

(a) the environmental values of Torres Strait waterways, wetlands and marine areas are protected or enhanced;

(b) stormwater run-off does not reduce the quality of receiving waters, including waterways, wetlands and marine areas;

(c) stormwater is managed to ensure that the impacts of overland flow and flooding are not worsened for people or property;

(d) the natural flow regime, including flow paths and quantity, is maintained to the extent possible;

(e) potential negative impacts resulting from acid sulfate soils, erosion and sediment flow are avoided;

(f) stormwater, water quality and erosion control infrastructure is:

(i) provided in a cost effective and efficient manner; and

(ii) located and designed to minimise whole-of-lifecycle costs.

8.2.3.3 Specific benchmarks for assessment

Table 8.2.3.3(a) – Assessable development

Performance outcomes	Acceptable outcomes
Water Quality	
PO1 Development contributes to the protection of environmental values of receiving waters and meets the water quality objectives nominated for the Torres Strait region during both construction and operation.	AO1.1 *For development involving a site area of 2,500sqm or more, six or more residential lots, or six or more dwellings:* Stormwater run-off leaving the development site complies with the stormwater quality objectives set out in table 8.2.3.3(b) and 8.2.3.3(c).
PO2 The entry and transport of contaminants in stormwater or wastewater is avoided or minimised.	No acceptable outcomes are nominated.

Performance outcomes	Acceptable outcomes
PO3 During construction and operation, development does not discharge wastewater into waterways unless: (1) it cannot practicably be avoided; (2) the wastewater discharge is minimised through re-use, recycling, recovery and treatment for disposal to sewer, surface water and groundwater; (3) ecological processes, riparian vegetation, wateray intergrity and downstream ecosystem health are maintained. **Editor's Note** – To demonstrate achievement with this PO, a wastewater management plan (WWMP) and stormwater quality management plan (SQMP) prepared by a suitably qualified person may be required.	No acceptable outcomes are nominated.
PO4 Acid, iron, aluminium and other metals are not released into waterways through wastewater discharge.	AO4.1 Wastewaters are managed so that: (1) the pH of any wastewater discharged is maintained between 6.5 and 8.5 to avoid mobiliation of acid, iron, aluminium and metals; (2) holding times of neutralised wastewaters ensures the flocculation and removal of any dissolved iron prior to release; (3) visible iron floc is not present in any discharge; (4) precipitated iron floc is contained and disposed of; and (5) wastewater and precipitates that cannot be contained and treated for discharge on site are removed and disposed of through trafe waste and another lawful method.
Stormwater Drainage Design	
PO5 Wherever practicable, natural drainage lines and associated natural hydraulic capacity are retained.	AO5.1 All existing natural waterways and overland flow paths are retained.
PO6 The stormwater drainage system maintains the pre-development velocity and quantity of run-off outside of the site and does not otherwise worsen or cause nuisance to adjacent upstream or downstream land.	No acceptable outcomes are nominated.
PO7 The stormwater drainage system is designed to function in the event of a minor system blockage.	No acceptable outcomes are nominated.

Performance outcomes	Acceptable outcomes
PO8 Roof and surface run-off is managed to prevent stormwater flows from entering buildings and to be diected to a lawful point of discharge.	No acceptable outcomes are nominated.
PO9 Where located within open space, stormwater devices or functions do not reduce the utility of that space for its intended recreational or ecological functions.	No acceptable outcomes are nominated.
PO10 The full extent of maintenance requirements and costs associated with devices used within the stormwater sysem are minimised.	No acceptable outcomes are nominated.
Port Services	
PO11 Development involving port services provides facilities for the handling and disposal of ship-sourced pollutants by: (1) providing common user facilities for the handling and disposal of ship-sourced pollutants including oil, garbage and sewage; (2) designing and operating the facilities to ensure the risk of spillage from operations is minimised; (3) storing appropriate equipment to contain and remove spillages in a convenient position near the facility that is available for immediate use; and (4) allowing for boats visiting the facility to make use of ship-sourced pollutants reception facilities. **Editor's Note** – Refer to: Australian and New Zealand Environment and Conservation Council (ANZECC), 1997, Best Practice Guidelines for Waste Reception Facilities at Ports, Marinas and Boat Harbours in Australia and New Zealand. **Editor's Note** – Reception facilities require code assessment under the *Plumbing and Drainage Act 2002*. The plumbing code assessment process will ensure that the proposed facilities address 'peak load'.	No acceptable outcomes are nominated.

Performance outcomes	Acceptable outcomes
Erosion Prevention and Sediment Control	
PO12 Development does not increase: (1) the concentration of total suspended solids or other contaminants in stormwater flows during site construction; and (2) run-off which causes erosion either on site or off site. **Editor's Note** – In order to demonstrate compliance with PO12-PO16, an erosion and sediment control plan prepared by a suitably qualified RPEQ (Registered Professional Engineer of Queensland), Certified Practising Soil Scientist (CPSS) or Certified Professional in Erosion and Sediment Control (CPESC) may be required. Such a plan should address the design parameters set out in table 8.2.3.3(b) and 8.2.3.3(c).	No acceptable outcomes are nominated.
PO13 Development avoids unnecessary disturbance to soil, waterways or drainage channels.	No acceptable outcomes are nominated.
PO14 All soil surfaces are effectively stabilised against erosion.	No acceptable outcomes are nominated.
PO15 The functionality of stormwater infrastructure is protected from the impacts of erosion, turbidity and sedimentation, both within and external to the development site.	No acceptable outcomes are nominated.
PO16 Areas outside the development site are not adversely impacted by erosion or sedimentation.	No acceptable outcomes are nominated.

Performance outcomes	Acceptable outcomes
Acid Sulfate Soils	
PO17 For development within an area identified as potentially affected by acid sulfate soils on the local plan maps in Schedule 2, the generation or release of acid and metal contaminants into the environment from acid sulfate soils is avoided by: (1) avoiding the disturbance of acid sulfate soils when excavating or otherwise removing soil or sediment, draining or extracting groundwater, excluding tidal water or filling land; or (2) where disturbance of acid sulfate soils can not be avoided, development: (a) neutralises existing acidity and prevents the generation of acid and metal contaminants; and (b) prevents the release of surface or groundwater flows containing acid and metal contaminants into the environment. **Editor's Note** – Where works are propose within an area identified as potentially affected by acid sulfate soils, it is likely that an onsite acid sulfate soils investigation will be required. Where acid sulfate soils can not reasonably be avoided, investigation results assist in the planning of treatment and remedial activities and must be undertaken in accordance with the Queensland Acid Sulfate Soil Technical Manual. Applicants should also refer to the Guidelines for Sampling Analysis of Lowland Acid Sulfate Soils in Queensland, Acid Sulfate Soils Laboratory Methods Guidelines or Australian Standard 4969. It is highly recommended that the applicant develop a practical Acid Sulfate Management Plan for use in monitoring and treating acid sulfate soils.	AO17.1 Development does not involve: (1) excavating or otherwise removing 100 cubic meters or more of soil or sediment at or below 5m AHD; (2) permanently or temporarily extracting groundwater resulting in the aeration of of previously saturated acid sulfate soils; or (3) filling in excess of 500 cubic meters with an average depth of 0.5m or greater that results in: (a) actual acid sulfate soils being moved below the water table; or (a) previously saturated acid sulfate soils being aerated.

Table 8.2.3.3(b) – Stormwater Management Design Objectives: Construction Phase

Issue		Design Objective
Drainage control	Temporary drainage works	(1) Design life and design storm for temporary drainage works: (a) Disturbed area open for <12 months—1 in 2-year ARI event (b) Disturbed area open for 12–24 months—1 in 5-year ARI event (c) Disturbed area open for > 24 months—1 in 10-year ARI event (2) Design capacity excludes minimum 150 mm freeboard (3) Temporary culvert crossing—minimum 1 in 1-year ARI hydraulic capacity
Erosion control	Erosion control measures	(1) Minimise exposure of disturbed soils at any time (2) Divert water run-off from undisturbed areas around disturbed areas (3) Determine the erosion risk rating using local rainfall erosivity, rainfall depth, soil-loss rate or other acceptable methods (4) Implement erosion control methods corresponding to identified erosion risk rating
Sediment control	Sediment control measures Design storm for sediment control basins Sediment basin dewatering	(1) Determine appropriate sediment control measures using: (a) potential soil loss rate, or (b) monthly erosivity, or (c) average monthly rainfall (2) Collect and drain stormwater from disturbed soils to sediment basin for design storm event: (a) design storm for sediment basin sizing is 80th% five-day event or similar (3) Site discharge during sediment basin dewatering: (a) TSS < 50 mg/L TSS, and (b) Turbidity not >10% receiving waters turbidity, and (c) pH 6.5–8.5
Water quality	Litter and other waste, hydrocarbons and other contaminants	(1) Avoid wind-blown litter; remove gross pollutants (2) Ensure there is no visible oil or grease sheen on released waters (3) Dispose of waste containing contaminants at authorised facilities
Waterway stability and flood flow management	Changes to the natural waterway hydraulics and hydrology	(1) For peak flow for the 1-year and 100-year ARI event, use constructed sediment basins to attenuate the discharge rate of stormwater from the site

Table 8.2.3.3(c) – Stormwater Management Design Objectives: Post Construction Works

Issue		Design Objective
Minimum reductions in mean annual load from unmitigated development (%)	Total suspended solids (TSS)	80 or in lieu of modelling, provide a bio-retention treatment area that is 1.5% of the contributing catchment area.
	Total phosphorus (TP)	60 or in lieu of modelling, provide a bio-retention treatment area that is 1.5% of the contributing catchment area.
	Total Nitrogen (TN)	40 or in lieu of modelling, provide a bio-retention treatment area that is 1.5% of the contributing catchment area.
	Gross pollutants > 5mm	90 or in lieu of modelling, provide a bio-retention treatment area that is 1.5% of the contributing catchment area.

Schedule 1 Definitions

SC1.1 Use definitions

(1) Use definitions have a particular meaning for the purpose of the planning scheme.

(2) Any use not listed in table SC1.1.2 column 1 is an undefined use.

Note – Development comprising a combination of defined uses is not considered to be an undefined use.

(3) A use listed in table SC1.1.2 column 1 has the meaning set out beside that term in column 2.

(4) The use definitions listed here are the definitions used in this planning scheme.

(5) Column 3 of table SC1.1.2 identifies examples of the types of activities that are consistent with the use identified in column 1.

(6) Column 4 of table SC1.1.2 identifies examples of activities that are not consistent with the use identified in column 1.

(7) Columns 3 and 4 of table SC1.1.2 are not exhaustive lists.

(8) Uses listed in table SC1.1.2 columns 3 and 4 that are not listed in column 1, do not form part of the definition.

Table SC1.1.1 – Index of use definitions

Index of use definitions		
• Adult store • Agricultural supplies store • Air services • Animal husbandry • Animal keeping • Aquaculture • Bar • Brothel • Bulk landscape supplies • Caretaker's accommodation • Car wash • Cemetery • Child care centre • Club • Community care centre • Community residence • Community use • Crematorium • Cropping • Detention facility • Dual occupancy • Dwelling house • Dwelling unit • Educational establishment • Emergency services • Environment facility • Extractive industry • Food and drink outlet • Function facility • Funeral parlour • Garden centre	• Hardware and trade supplies • Health care services • High impact industry • Home based business • Hospital • Hotel • Indoor sport and recreation • Intensive animal industry • Intensive horticulture • Landing • Low impact industry • Major electricity infrastructure • Major sport, recreation and entertainment facility • Marine industry • Market • Medium impact industry • Motor sport facility • Multiple dwelling • Nature-based tourism • Nightclub entertainment facility • Non-resident workforce accommodation • Office • Outdoor sales • Outdoor sport and recreation • Outstation • Park • Parking station • Permanent plantation	• Place of worship • Port services • Relocatable home park • Renewable energy facility • Research and technology industry • Residential care facility • Resort complex • Retirement facility • Roadside stall • Rooming accommodation • Rural industry • Rural workers' accommodation • Sales office • Service industry • Service station • Shop • Shopping centre • Short-term accommodation • Showroom • Special industry • Substation • Telecommunications facility • Theatre • Tourist attraction • Tourist park • Transport depot • Utility installation • Veterinary services • Warehouse • Wholesale nursery • Winery

Table SC1.1.2 – Use definitions

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Adult store	Premises used as a shop where the primary purpose is for the display or sale of sexually explicit materials, products and devices associated with or used in a sexual practice or activity.	Sex shop	Shop, newsagent, registered pharmacist or video hire, where the primary use of these are concerned with: • the sale, display or hire of printed or recorded matter (not of a sexually explicit nature) or • the sale or display of underwear or lingerie or • the sale or display of an article or thing primarily concerned with or used in association with a medically recognised purpose.
Agricultural supplies store	Premises used for the sale of agricultural products and supplies including agricultural chemicals and fertilisers, seeds, bulk veterinary supplies, farm clothing, saddlery, animal feed and irrigation materials.		Bulk landscape supplies, garden centre, outdoor sales wholesale nursery
Air services	Premises used for any of the following: • the arrival and departure of aircraft • the housing, servicing, refuelling, maintenance and repair of aircraft • the assembly and dispersal of passengers or goods on or from an aircraft • any ancillary activities directly serving the needs of passengers and visitors to the use • associated training and education facilities • aviation facilities.	Airport, airstrip, helipad, public or private airfield	

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Animal husbandry	Premises used for production of animals or animal products on either native or improved pastures or vegetation. The use includes ancillary yards, stables and temporary holding facilities and the repair and servicing of machinery.	Cattle studs, grazing of livestock, non-feedlot dairying	Animal keeping, intensive animal industry, aquaculture, feedlots, piggeries
Animal keeping	Premises used for boarding, breeding or training of animals. The use may include ancillary temporary or permanent holding facilities on the same site and ancillary repair and servicing of machinery.	Aviaries, catteries, kennels, stables, wildlife refuge	Aquaculture, cattle studs, domestic pets, feedlots, grazing of livestock, non-feedlot dairying, piggeries, poultry meat and egg production, animal husbandry
Aquaculture	Premises used for the cultivation of aquatic animals or plants in a confined area that may require the provision of food either mechanically or by hand.	Pond farms, tank systems, hatcheries, raceway system, rack and line systems, sea cages	Intensive animal industry
Bar	Premises used primarily to sell liquor for consumption on the premises and that provides for a maximum capacity to seat sixty persons at any one time. The use may include ancillary sale of food for consumption on the premises and entertainment activities.		Club, hotel, nightclub entertainment facility, tavern
Brothel	Brothel	Premises made available for prostitution by two or more prostitutes at the premises.	Adult store, club, nightclub entertainment facility, shop

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Bulk landscape supplies	Premises used for bulk storage and sale of landscaping and gardening supplies, which may include soil, gravel, potting mix and mulch, where the majority of materials sold from the premises are not in pre-packaged form.		Garden centre, outdoor sales, wholesale nursery
Caretaker's accommodation	A dwelling provided for a caretaker of a non-residential use on the same premises.		Dwelling house
Car wash	Premises primarily used for commercially cleaning motor vehicles by an automatic or partly automatic process.		Service station
Cemetery	Premises used for interment of bodies or ashes after death.	Burial ground, crypt, columbarium, lawn cemetery, pet cemetery, mausoleum	Crematorium, funeral parlour
Child care centre	Premises used for minding, education and care, but not residence, of children.	Crèche, early childhood centre, kindergarten, outside hours school care	Educational establishment, home based child care, family day care
Club	Premises used by persons associated for social, literary, political, sporting, athletic or other similar purposes for social interaction or entertainment. The use may include the ancillary preparation and service of food and drink.	Club house, guide and scout clubs, surf lifesaving club, RSL, bowls club	Hotel, nightclub entertainment facility, place of worship, theatre
Community care centre	Premises used to provide social support where no accommodation is provided. Medical care may be provided but is ancillary to the primary use.	Disability support services, drop in centre, respite centre, integrated Indigenous support centre	Child care centre, family day care, home based child care, health care services, residential care facility

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Community residence	(1) Premises used for residential accommodation; (a) no more than 6 persons who require assistance or support with daily living needs; and (b) no more than 1 support worker; and (2) includes a building or structure that is reasonably associated with the use in paragraph (1)	Hospice	Dwelling house, dwelling unit, residential care facility, rooming accommodation, short-term accommodation
Community use	Premises used for providing artistic, social or cultural facilities and community support services to the public and may include the ancillary preparation and provision of food and drink.	Art gallery, community centre, community hall, library, museum	Cinema, club, hotel, nightclub entertainment facility, place of worship
Crematorium	Premises used for the cremation or aquamation of bodies.		Cemetery
Cropping	Premises used for growing plants or plant material for commercial purposes where dependent on the cultivation of soil. The use includes harvesting and the storage and packing of produce and plants grown on the site and the ancillary repair and servicing of machinery used on the site.	Fruit, nut, vegetable and grain production, forestry for wood production, fodder and pasture production, plant fibre production, sugar cane growing, vineyard	Permanent plantations, intensive horticulture, rural industry
Detention facility	Premises used for the confinement of persons committed by a process of law.	Prison, detention centre	

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Dual occupancy	Premises containing two dwellings, each for a separate household, and consisting of: • a single lot, where neither dwelling is a secondary dwelling or • two lots sharing common property where one dwelling is located on each lot.	Duplex, two dwellings on a single lot (whether or not attached), two dwellings within one single community title scheme under the *Body Corporate and Community Management Act 1997*, two dwellings within the one body corporate to which the *Building Units and Group Title Act 1980* continues to apply.	Dwelling house, multiple dwelling
Dwelling house	A residential use of premises for one household that contains a single dwelling. The use includes domestic out-buildings and works normally associated with a dwelling and may include a secondary dwelling.		Caretaker's accommodation, dual occupancy, rooming accommodation, short-term accommodation, student accommodation, multiple dwelling
Dwelling unit	A single dwelling within a premises containing non residential use(s).	'Shop-top' apartment	Caretaker's accommodation, dwelling house
Educational establishment	Premises used for training and instruction designed to impart knowledge and develop skills. The use may include outside hours school care for students or on-site student accommodation.	Pre-preparatory, preparatory and primary school, secondary school, special education, college, university, technical institute, outdoor education centres	Child care centre, home based child care, family day care
Emergency services	Premises used by government bodies or community organisations to provide essential emergency services or disaster management services including management support facilities for the protection of persons, property and the environment.	State emergency service facility, ambulance station, rural fire brigade, auxiliary fire and rescue station, urban fire and rescue station, police station, emergency management support facility, evacuation centres	Community use, hospital, residential care facility
Environment facility	Facilities used for the conservation, interpretation and appreciation of areas of environmental, cultural or heritage value.	Nature-based attractions, walking tracks, seating, shelters, boardwalks, observation decks, bird hides	

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Extractive industry	Premises used for the extraction and/or processing of extractive resources and associated activities, including their transportation to market.	Quarry	
Food and drink outlet	Premises used for preparation and sale of food and drink to the public for consumption on or off the site. The use may include the ancillary sale of liquor for consumption on site.	Bistro, café, coffee shop, drive-through facility, kiosk, milk bar, restaurant, snack bar, take-away, tea room	Bar, club, hotel, shop, theatre, nightclub entertainment facility
Function facility	Premises used for conducting receptions or functions that may include the preparation and provision of food and liquor for consumption on site.	Conference centre, reception centre	Community use, hotel
Funeral parlour	Premises used to arrange and conduct funerals, memorial services and the like, but do not include burial or cremation. The use includes a mortuary and the storage and preparation of bodies for burial or cremation.		Cemetery, crematorium, place of worship
Garden centre	Premises used primarily for the sale of plants and may include sale of gardening and landscape products and supplies where these are sold mainly in pre-packaged form. The use may include an ancillary food and drink outlet.	Retail plant nursery	Bulk landscape supplies, wholesale nursery, outdoor sales
Hardware and trade supplies	Premises used for the sale, display or hire of hardware and trade supplies including household fixtures, timber, tools, paint, wallpaper, plumbing supplies and the like.		Shop, showroom, outdoor sales and warehouse

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Health care services	Premises for medical, paramedical, alternative therapies and general health care and treatment of persons that involves no overnight accommodation.	Dental clinics, medical centres, natural medicine practices, nursing services, physiotherapy clinic	Community care centre, hospital
High impact industry	Premises used for industrial activities that include the manufacturing, producing, processing, repairing, altering, recycling, storing, distributing, transferring or treating of products and have one or more of the following attributes: • potential for significant impacts on sensitive land uses due to offsite emissions including aerosol, fume, particle, smoke, odour and noise • potential for significant offsite impacts in the event of fire, explosion or toxic release • generates high traffic flows in the context of the locality or the road network • generates a significant demand on the local infrastructure network • the use may involve night time and outdoor activities • onsite controls are required for emissions and dangerous goods risks.	Abattoirs, concrete batching plant, boiler making and engineering and metal foundry Note—additional examples may be shown in schedule 1.1.2 industry thresholds.	Tanneries, rendering plants, oil refineries, waste incineration, manufacturing or storing explosives, power plants, manufacturing fertilisers, service industry, low impact industry, medium impact industry, special industry
Home based business	A dwelling used for a business activity where subordinate to the residential use.	Bed and breakfast, home office, home based child care	Hobby, office, shop, warehouse, transport depot

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Hospital	Premises used for medical or surgical care or treatment of patients whether or not involving overnight accommodation. The use may include ancillary accommodation for employees and ancillary activities directly serving the needs of patients and visitors.		Health care services, residential care facility
Hotel	Premises used primarily to sell liquor for consumption. The use may include short-term accommodation, dining and entertainment activities and facilities.	Pub, tavern	Nightclub entertainment facility
Indoor sport and recreation	Premises used for leisure, sport or recreation conducted wholly or mainly indoors.	Amusement parlour, bowling alley, gymnasium, squash courts, enclosed tennis courts	Cinema, hotel, nightclub entertainment facility, theatre
Intensive animal industry	Premises used for the intensive production of animals or animal products in an enclosure that requires the provision of food and water either mechanically or by hand. The use includes the ancillary storage and packing of feed and produce.	Feedlots, piggeries, poultry and egg production	Animal husbandry, aquaculture, drought feeding, milking sheds, shearing sheds, weaning pens
Intensive horticulture	Premises used for the intensive production of plants or plant material on imported media and located within a building or structure or where outdoors, artificial lights or containers are used. The use includes the storage and packing of produce and plants grown on the subject site.	Greenhouse and shade house plant production, hydroponic farms, mushroom farms	Wholesale nursery

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Landing	A structure for mooring, launching, storage and retrieval of vessels where passengers embark and disembark.	Boat ramp, jetty, pontoon	Marina
Low impact industry	Premises used for industrial activities that include the manufacturing, producing, processing, repairing, altering, recycling, storing, distributing, transferring or treating of products and have one or more of the following attributes: • negligible impacts on sensitive land uses due to offsite emissions including aerosol, fume, particle, smoke, odour and noise • minimal traffic generation and heavy-vehicle usage • demands imposed upon the local infrastructure network consistent with surrounding uses • the use generally operates during the day (e.g. 7am to 6pm) • offsite impacts from storage of dangerous goods are negligible • the use is primarily undertaken indoors.	Repairing motor vehicles, fitting and turning workshop Note—additional examples may be shown in schedule 1.1.2 industry thresholds.	Panel beating, spray painting or surface coating, tyre recycling, drum re-conditioning, wooden and laminated product manufacturing, service industry, medium impact industry, high impact industry, special industry
Major electricity infrastructure	All aspects of development for either the transmission grid or electricity supply networks as defined under the *Electricity Act 1994*. The use may include ancillary telecommunication facilities.	Powerlines greater than 66kV	Minor electricity infrastructure, substation

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Major sport, recreation and entertainment facility	Premises with large scale built facilities designed to cater for large scale events including major sporting, recreation, conference and entertainment events.	Convention and exhibition centres, entertainment centres, sports stadiums, horse racing	Indoor sport and recreation, local sporting field, motor sport, park, outdoor sport and recreation
Marine industry	Premises used for waterfront based marine industries involved in any activity relating to the manufacturing, storage, repair or servicing of vessels and maritime infrastructure. The use may include the provision of fuel and disposal of waste.	Boat building, boat storage, dry dock	Marina
Market	Premises used for the sale of goods to the public on a regular basis, where goods are primarily sold from temporary structures such as stalls, booths or trestle tables. The use may include entertainment provided for the enjoyment of customers.	Flea market, farmers market, car boot sales	Shop, roadside stall

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Medium impact industry	Premises used for industrial activities that include the manufacturing, producing, processing, repairing, altering, recycling, storing, distributing, transferring or treating of products and have one or more of the following attributes: • potential for noticeable impacts on sensitive land uses due to offsite emissions including aerosol, fume, particle, smoke, odour and noise • potential for noticeable offsite impacts in the event of fire, explosion or toxic release • generates high traffic flows in the context of the locality or the road network • generates an elevated demand on the local infrastructure network • onsite controls are required for emissions and dangerous goods risks • the use is primarily undertaken indoors • evening or night activities are undertaken indoors and not outdoors.	Spray painting and surface coating, wooden and laminated product manufacturing (including cabinet making, joining, timber truss making or wood working) Note—additional examples may be shown in schedule 1.1.2 industry thresholds.	Concrete batching, tyre manufacturing and retreading, metal recovery (involving a fragmentiser), textile manufacture, chemically treating timber and plastic product manufacture, service industry, low impact industry, high impact industry, special industry
Motor sport facility	Premises used for organised or recreational motor sports whether on or off-road, which may include permanent, temporary or informal provision for spectators and other supporting uses.	Go-karting, lawn mower race tracks, trail bike parks, 4WD and all terrain parks, motocross tracks, off road motorcycle facility, motorcycle or car race tracks	Major sport, recreation and entertainment facility, outdoor sport and recreation
Multiple dwelling	Premises containing three or more dwellings for separate households.	Apartments, flats, units, townhouses, row housing, triplex	Rooming accommodation, dual occupancy, duplex, granny flat, residential care facility, retirement facility

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Nature-based tourism	The use of land or premises for a tourism activity, including tourist and visitor short-term accommodation, that is intended for the conservation, interpretation and appreciation of areas of environmental, cultural or heritage value, local ecosystem and attributes of the natural environment. Nature-based tourism activities typically: • maintain a nature based focus or product • promote environmental awareness, education and conservation • carry out sustainable practices.	Environmentally responsible accommodation facilities including lodges, cabins, huts and tented camps	Environment facility
Nightclub entertainment facility	Premises used to provide entertainment, which may include cabaret, dancing and music. The use generally includes the sale of liquor and food for consumption on site.		Club, hotel, tavern, pub, indoor sport and recreation, theatre, concert hall
Non-resident workforce accommodation	Premises used to provide accommodation for non-resident workers. The use may include provision of recreational and entertainment facilities for the exclusive use of residents and their visitors.	Contractor's camp, construction camp, single person's quarters, temporary workers' accommodation	Relocatable home park, short-term accommodation, tourist park

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Office	Premises used for an administrative, secretarial or management service or the practice of a profession, where no goods or materials are made, sold or hired and where the principal activity provides for one or more of the following: • business or professional advice • service of goods that are not physically on the premises • office based administrative functions of an organisation.	Bank, real estate agent, administration building	Home based business, home office, shop, outdoor sales
Outdoor sales	Premises used for the display, sale, hire or lease of products where the use is conducted wholly or predominantly outdoors and may include construction, industrial or farm plant and equipment, vehicles, boats and caravans. The use may include ancillary repair or servicing activities and sale or fitting of accessories.	Agricultural machinery sales yard, motor vehicles sales yard	Bulk landscape supplies, market
Outdoor sport and recreation	Premises used for a recreation or sport activity that is carried on outside a building and requires areas of open space and may include ancillary works necessary for safety and sustainability. The use may include ancillary food and drink outlet(s) and the provision of ancillary facilities or amenities conducted indoors such as changing rooms and storage facilities.	Driving range, golf course, swimming pool, tennis courts, football ground, cricket oval	Major sport, recreation and entertainment facility, motor sport, park, community use

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Outstation	Premises used for cultural and/or recreational activities undertaken by Aboriginal and Torres Strait Islander people. The use provides for intermittent short stay and/or long term camping. The use may involve permanent low scale built infrastructure.	Indigenous camp site	Dwelling house, hostel, multiple dwelling, relocatable home park, short term accommodation, tourist park
Park	Premises accessible to the public generally for free sport, recreation and leisure, and may be used for community events or other community activities. Facilities may include children's playground equipment, informal sports fields and ancillary vehicle parking and other public conveniences.	Urban common	Tourist attraction, outdoor sport and recreation
Parking station	Premises used for parking vehicles where the parking is not ancillary to another use.	Car park, 'park and ride', bicycle parking	
Permanent plantation	Premises used for growing plants not intended to be harvested.	Permanent plantations for carbon sequestration, biodiversity or natural resource management	Forestry for wood production, biofuel production
Place of worship	Premises used by an organised group for worship and religious activities. The use may include ancillary facilities for social, educational and associated charitable activities.	Church, chapel, mosque, synagogue, temple	Community use, child care centre, funeral parlour, crematorium

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Port services	Premises used for the following: • the arrival and departure of vessels • the movement of passengers or goods on or off vessels • any ancillary activities directly serving the needs of passengers and visitors or the housing, servicing, maintenance and repair of vessels.	Marina, ferry terminal	Landing
Relocatable home park	Premises used for relocatable dwellings (whether they are permanently located or not) that provides long-term residential accommodation. The use may include a manager's residence and office, ancillary food and drink outlet, kiosk, amenity buildings and the provision of recreation facilities for the exclusive use of residents.		Tourist park
Renewable energy facility	Premises used for the generation of electricity or energy from renewable (naturally reoccurring) sources.	Solar farm, wind farm, tidal power	Wind turbine or solar panels supplying energy to domestic or rural activities on the same site
Research and technology industry	Premises used for innovative and emerging technological industries involved in research design, manufacture, assembly, testing, maintenance and storage of machinery, equipment and components. The use may include emerging industries such as energy, aerospace, and biotechnology.	Aeronautical engineering, computer component manufacturing, medical laboratories, computer server facility	

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Residential care facility	A residential use of premises for supervised accommodation where the use includes medical and other support facilities for residents who cannot live independently and require regular nursing or personal care.	Convalescent home, nursing home	Community residence, dwelling house, dual occupancy, hospital, multiple dwelling, retirement facility
Resort complex	Premises used for tourist and visitor short-term accommodation that include integrated leisure facilities including: • restaurants and bars • meeting and function facilities • sporting and fitness facilities • staff accommodation • transport facilities directly associated with the tourist facility such as a ferry terminal and air services.	Island resort	
Retirement facility	A residential use of premises for an integrated community and specifically built and designed for older people. The use includes independent living units and may include serviced units where residents require some support with health care and daily living needs. The use may also include a manager's residence and office, food and drink outlet, amenity buildings, communal facilities and accommodation for staff.	Retirement village	Residential care facility
Roadside stall	Premises used for the roadside display and sale of goods in rural areas.	Produce stall	Market

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Rooming accommodation	Premises used for the accommodation of one or more households where each resident: • has a right to occupy one or more rooms • does not have a right to occupy the whole of the premises in which the rooms are situated • may be provided with separate facilities for private use • may share communal facilities or communal space with one or more of the other residents. The use may include: • rooms not in the same building on site • provision of a food or other service • on site management or staff and associated accommodation. Facilities include furniture and equipment as defined in the *Residential Tenancies and Rooming Accommodation Act 2008*.	Boarding house, hostel, monastery, off-site student accommodation	Hospice, community residence, dwelling house, short-term accommodation, multiple dwelling
Rural industry	Premises used for storage, processing and packaging of products from a rural use. The use includes processing, packaging and sale of products produced as a result of a rural use where these activities are ancillary to a rural use on or adjacent to the site.	Packing shed	Intensive animal husbandry, intensive horticulture, roadside stall, wholesale nursery, winery, abattoir, agricultural supply store

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Rural workers' accommodation	Any premises used as quarters for staff employed in the use of land for rural purposes, such as agriculture, intensive animal husbandry and forestry, conducted on a lot in the same ownership whether or not such quarters are self-contained.	Farm workers' accommodation	Short-term accommodation, caretaker's accommodation, dual occupancy, dwelling house, nature or rural based tourist accommodation, non-resident workforce accommodation, multiple dwellings
Sales office	The temporary use of premises for displaying a land parcel or buildings that can be built for sale or can be won as a prize. The use may include a caravan or relocatable dwelling or structure.	Display dwelling	Bank, office
Service industry	Premises used for industrial activities that have no external air, noise or odour emissions from the site and can be suitably located with other non-industrial uses.	Audio visual equipment repair, film processing, bicycle repairs, clock and watch repairs, computer repairs, dry cleaning, hand engraving, jewellery making, laundromat, locksmith, picture framing, shoe repairs, tailor	Small engine mechanical repair workshop, cabinet making, shop fitting, sign writing, tyre depot, low impact industry, medium impact, high impact industry, special industry
Service station	Premises used for the sale of fuel including petrol, liquid petroleum gas, automotive distillate and alternative fuels. The use may include, where ancillary, a shop, food and drink outlet, maintenance, repair servicing and washing of vehicles, the hire of trailers, and supply of compressed air.		Car wash
Shop	Premises used for the display, sale or hire of goods or the provision of personal services or betting to the public.	Hairdresser, liquor store, department store, discount department store, discount variety stores, betting agencies, supermarket, corner store	Adult store, food and drink outlet, showroom, market

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Shopping centre	Premises comprising two or more individual tenancies that is comprised primarily of shops, and that function as an integrated complex.		
Short-term accommodation	Premises used to provide short-term accommodation for tourists or travellers for a temporary period of time (typically not exceeding three consecutive months) and may be self-contained. The use may include a manager's residence and office and the provision of recreation facilities for the exclusive use of visitors.	Motel, backpackers accommodation, cabins, serviced apartments, hotel, farm stay	Hostel, rooming accommodation, tourist park
Showroom	Premises used primarily for the sale of goods of a related product line that are of a size, shape or weight that requires: • a large area for handling, display or storage • direct vehicle access to the building by members of the public for loading and unloading items purchased or hired.	Bulky goods sales, motor vehicles sales showroom, bulk stationary supplies	Food and drink outlet, shop, outdoor sales

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Special industry	Premises used for industrial activities that include the manufacturing, producing, processing, repairing, altering, recycling, storing, distributing, transferring or treating of products and have one or more of the following attributes: • potential for extreme impacts on sensitive land uses due to offsite emissions including aerosol, fume, particle, smoke, odour and noise • potential for extreme offsite impacts in the event of fire, explosion or toxic release • onsite controls are required for emissions and dangerous goods risks • the use generally involves night time and outdoor activities • the use may involve the storage and handling of large volumes of dangerous goods • requires significant separation from non-industrial uses.	Tanneries, rendering plants, oil refineries, waste incineration, manufacturing or storing explosives, power plants, manufacturing fertilisers Note—additional examples may be shown in schedule 1.1.2 industry thresholds.	Low impact industry, medium impact industry, high impact industry, service industry

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Substation	Premises forming part of a transmission grid or supply network under the *Electricity Act 1994*, and used for: • converting or transforming electrical energy from one voltage to another • regulating voltage in an electrical circuit • controlling electrical circuits • switching electrical current between circuits • a switchyard or • communication facilities for 'operating works' as defined under the *Electricity Act 1994* or for workforce operational and safety communications.	Substations, switching yards	Major electricity infrastructure, minor electricity infrastructure
Telecommunications facility	Premises used for systems that carry communications and signals by means of radio, including guided or unguided electromagnetic energy, whether such facility is manned or remotely controlled.	Telecommunication tower, broadcasting station, television station	Aviation facility, 'low-impact telecommunications facility' as defined under the *Telecommunications Act 1997*

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Theatre	Premises used for presenting movies, live entertainment or music to the public and may include provision of food and liquor for consumption on the premises. The use may include the production of film or music, including associated ancillary facilities, which are associated with the production, such as sound stages, wardrobe and laundry facilities, makeup facilities, set construction workshops, editing and post-production facilities.	Cinema, movie house, concert hall, dance hall, film studio, music recording studio	Community hall, hotel, indoor sport and recreation facility, temporary film studio
Tourist attraction	Premises used for providing on- site entertainment, recreation or similar facilities for the general public. The use may include provision of food and drink for consumption on site.	Theme park, zoo	Hotel, major sport, recreation and entertainment facility, nightclub entertainment facility
Tourist park	Premises used to provide for accommodation in caravans, self-contained cabins, tents and similar structures for the public for short term holiday purposes. The use may include, where ancillary, a manager's residence and office, kiosk, amenity buildings, food and drink outlet, or the provision of recreation facilities for the use of occupants of the tourist park and their visitors, and accommodation for staff.	Camping ground, caravan park, holiday cabins	Relocatable home park, tourist attraction, short-term accommodation, non-resident workforce accommodation

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Transport depot	Premises used for the storage, for commercial or public purposes, of more than one motor vehicle. The use includes premises for the storage of taxis, buses, trucks, heavy machinery and uses of a like nature. The term may include the ancillary servicing, repair and cleaning of vehicles stored on the premises.	Contractor's depot, bus depot, truck yard, heavy machinery yard	Home based business, warehouse, low impact industry, service industry
Utility installation	Premises used to provide the public with the following services: • supply or treatment of water, hydraulic power or gas • sewerage, drainage or stormwater services • transport services including road, rail or water • waste management facilities or • network infrastructure. The use includes maintenance and storage depots and other facilities for the operation of the use.	Sewerage treatment plant, mail depot, pumping station, water treatment plant	Telecommunications tower, major electricity infrastructure, minor electricity infrastructure, substation, renewable energy facility, transport depot
Veterinary services	Premises used for veterinary care, surgery and treatment of animals that may include provision for the short-term accommodation of the animals on the premises.		Animal keeping

Column 1 Use	Column 2 Definition	Column 3 Examples included	Column 4 Does not include the following examples
Warehouse	Premises used for the storage and distribution of goods, whether or not in a building, including self-storage facilities or storage yards. The use may include sale of goods by wholesale where ancillary to storage. The use does not include retail sales from the premises or industrial uses.	Self-storage sheds	Hardware and trade supplies, outdoor sales, showroom, shop
Wholesale nursery	Premises used for the sale of plants, but not to the general public, where the plants are grown on or adjacent to the site. The use may include sale of gardening materials where these are ancillary to the primary use.		Bulk landscape supplies, garden centre
Winery	Premises used for manufacturing of wine, which may include the sale of wine manufactured on site.		Rural industry

SC1.1.1 Defined activity groups

(1) Defined uses listed in table SC1.1.2 are able to be clustered into activity groups.

(2) An activity group listed in column 1 clusters the defined uses listed in column 2.

(3) An activity group is able to be referenced in part 5.

(4) The activity groups listed here are the defined activity groups for the purpose of the planning scheme.

Table SC1.1.1.1—Index of defined activity groups

• Accommodation activities • Business activities • Centre activities	• Community activities • Entertainment activities • Industry activities	• Recreation activities • Rural activities • Waterfront activities

Table SC1.1.1.2—Defined activity groups

Column 1 Activity group	Column 2 Uses
Accommodation activities	• Caretaker's accommodation • Community residence • Dual occupancy • Dwelling house • Dwelling unit • Home based business • Multiple dwelling • Nature-based tourism • Non-resident workforce accommodation • Relocatable home park • Residential care facility • Resort complex • Retirement facility • Rooming accommodation • Rural workers' accommodation • Short-term accommodation • Tourist park
Business activities	• Agricultural supplies store • Bulk landscape supplies • Food and drink outlet • Garden centre • Hardware and trade supplies • Market • Office • Outdoor sales • Parking station • Sales office • Service industry • Service station • Shop • Shopping centre • Showroom • Veterinary services

Column 1 Activity group	Column 2 Uses
Centre activities	• Bar • Caretaker's accommodation • Child care centre • Club • Community care centre • Community use • Educational establishment (where excluding exclusive outdoor recreation facilities) • Food and drink outlet • Function facility • Health care services • Hospital • Hotel • Market • Multiple dwelling • Nightclub entertainment facility • Office • Parking station • Place of worship • Residential care facility • Retirement facility • Rooming accommodation • Sales office • Service industry • Service station • Shop • Shopping centre • Short-term accommodation • Showroom • Theatre
Community activities	• Cemetery • Child care centre • Club • Community care centre • Community residence • Community use • Crematorium • Detention facility • Educational establishment • Funeral parlour • Health care services • Hospital • Outstation • Place of worship

Column 1 Activity group	Column 2 Uses
Entertainment activities	• Bar • Club • Function facility • Hotel • Nightclub entertainment facility • Theatre • Tourist attraction • Tourist park
Industry activities	• Extractive industry • High impact industry • Low impact industry • Marine industry • Medium impact industry • Research and technology industry • Special industry • Service industry • Warehouse
Recreation activities	• Environment facility • Indoor sport and recreation • Major sport, recreation and entertainment facility • Motor sport facility • Outdoor sport and recreation • Park
Rural activities	• Agricultural supplies store • Animal husbandry • Animal keeping • Aquaculture • Cropping • Intensive animal industry • Intensive horticulture • Permanent plantation • Roadside stall • Rural industry • Rural workers' accommodation • Wholesale nursery • Winery
Waterfront activities	• Landing • Marine industry • Port services

SC1.1.2 Industry thresholds

There are no industry thresholds for the planning scheme.

SC1.2 Administrative definitions

(1) Administrative definitions assist with the interpretation of the planning scheme but do not have a meaning in relation to a use.

(2) A term listed in table SC1.2.2 column 1 has the meaning set out beside that term in column 2 under the heading.

(3) The administrative definitions listed here are the definitions for the purpose of the planning scheme.

Table SC1.2.1—Index of administrative definitions

Index of administrative definitions		
• Adjoining premises • Advertising device • Affordable housing • Average width • Base date • Basement • Boundary clearance • Building height • Demand unit • Development footprint • Domestic outbuilding	• Dwelling • Gross floor area • Ground level • Household • Minor building work • Minor electricity infrastructure • Net developable area • Netserv plan • Non-resident workers • Outermost projection • Planning assumptions	• Plot ratio • Projection area(s)Secondary dwelling • Setback • Service catchment • Site • Site cover • Storey • Temporary use • Ultimate development • Urban purposes

Table SC1.2.2—Administrative definitions

Column 1 Term	Column 2 Definition
Adjoining premises	Premises that share all or part of a common boundary. A common boundary may be a single point such as a corner point.
Advertising device	Any permanent structure, device, sign or the like intended for advertising purposes. It includes any framework, supporting structure or building feature that is provided exclusively or mainly as part of the advertisement.
Affordable housing	Housing that is appropriate to the needs of households with low to moderate incomes.
Average width	In regard to a lot, the distance between the midpoints of the side boundaries of the lot.
Base date	The date from which a local government has estimated its projected infrastructure demands and costs.
Basement	A space that is situated between one floor level and the floor level next below where no part of the space projects more than one metre above ground level.

Column 1 Term	Column 2 Definition
Boundary clearance	The shortest distance from the outermost projection of a structural part of the building or structure to the property boundary, including: (1) if the projection is a roof and there is a fascia—the outside face of the fascia or (2) if the projection is a roof and there is no fascia—the roof structure. The term does not include rainwater fittings or ornamental or architectural attachments.
Building height	If specified: (1) in metres, the vertical distance between the ground level and the highest point of the building roof (apex) or parapet at any point, but not including load-bearing antenna, aerial, chimney, flagpole or the like (2) in storeys, the number of storeys above ground level or (3) in both metres and storeys, both (a) and (b) apply.
Demand unit	Demand units provide a standard of unit measurement to express demand on a trunk infrastructure network.
Development footprint	The location and extent of all development proposed on a site. This includes all buildings and structures, open space, all associated facilities, landscaping, on-site stormwater drainage, on-site wastewater treatment, all areas of disturbance, on-site parking, access and manoeuvring areas.
Domestic outbuilding	A Class 10a building, as defined in the Building Code of Australia, that is ancillary to a residential use on the same premises and is limited to non-habitable buildings for the purpose of a shed, garage and carport.
Dwelling	A building or part of a building used or capable of being used as a self-contained residence that must include the following: (1) food preparation facilities (2) a bath or shower (3) a toilet and wash basin (4) clothes washing facilities. This term includes outbuildings, structures and works normally associated with a dwelling.
Gross floor area	The total floor area of all storeys of a building (measured from the outside of the external walls or the centre of a common wall), other than areas used for the following: (1) building services, plant and equipment (2) access between levels (3) ground floor public lobby (4) a mall (5) the parking, loading and manoeuvring of motor vehicles (6) unenclosed private balconies whether roofed or not.
Ground level	The level of the natural ground, or, where the level of the natural ground has been changed, the level as lawfully changed.
Household	An individual or a group of two or more related or unrelated people who reside in the dwelling, with the common intention to live together on a long-term basis and who make common provision for food or other essentials for living.
Minor building work	An alteration, addition or extension to an existing building(s) which result in an increase in the gross floor area of the building(s) of less than five per cent of the gross floor area of the existing building(s) or 50 square metres, whichever is the lesser.

Column 1 Term	Column 2 Definition
Minor electricity infrastructure	All aspects of development for an electricity supply network as defined under the *Electricity Act 1994*, (or for private electricity works that form an extension of, or provide service connections to properties from the network), if the network operates at standard voltages up to and including 66kV. This includes: (1) augmentations/upgrades to existing powerlines where the voltage of the infrastructure does not increase (2) augmentations to existing substations (including communication facilities for controlling works as defined under the *Electricity Act 1994*) where the voltage of the infrastructure does not increase, and where they are located on an existing substation lot.
Net developable area	The area of land available for development. It does not include land that cannot be developed due to constraints such as acid sulfate soils, conservation land, flood affected land or steep slope. **Note** – for the purpose of a local government infrastructure plan, net developable area is usually measured in hectares, net developable hectares (net dev ha).
Netserv plan	A distributor-retailer's plan about its water and wastewater networks and provision of water service and wastewater service pursuant to section 99BJ of the *South East Queensland Water (Distribution and Retail Restructuring) Act 2009*.
Non-resident workers	Workers who reside in areas for extended periods when employed on projects directly associated with resource extraction, major industry, major infrastructure or rural uses, but have a permanent place of residence in another area. This includes workers engaged in fly-in/fly-out or drive-in/drive-out arrangements.
Outermost projection	The outermost projection of any part of a building or structure including, in the case of a roof, the outside face of the fascia, or the roof structure where there is no fascia, or attached sunhoods or the like, but does not include retractable blinds, fixed screens, rainwater fittings, or ornamental attachments.
Planning assumptions	Assumptions about the type, scale, location and timing of future growth.
Plot ratio	The ratio of gross floor area to the area of the site.
Projection area(s)	Area or areas within a local government area for which a local government carries out demand growth projections.
Secondary dwelling	A dwelling used in conjunction with, and subordinate to, a dwelling house on the same lot. A secondary dwelling may be constructed under a dwelling house, be attached to a dwelling house or be free standing.
Service catchment	An area serviced by an infrastructure network. An infrastructure network is made up of one or more service catchments. Service catchments are determined by the network type and how it has been designed to operate and provide service to the urban areas. **Note** – for example: • stormwater network service catchments can be delineated to align with watershed boundaries • open space network service catchment can be determined using local government accessibility standards • water network service catchment can be established as the area serviced by a particular reservoir.

Column 1 Term	Column 2 Definition
Setback	For a building or structure, the shortest distance measured horizontally from the outer most projection of a building or structure to the vertical projection of the boundary of the lot.
Site	Any land on which development is carried out or is proposed to be carried out whether such land comprises the whole or part of one lot or more than one lot if each of such lots is contiguous.
Site cover	The proportion of the site covered by a building(s), structure(s) attached to the building(s) and carport(s), calculated to the outer most projections of the building(s) and expressed as a percentage. The term does not include: (1) any structure or part thereof included in a landscaped open space area such as a gazebo or shade structure (2) basement car parking areas located wholly below ground level (3) eaves and sun shading devices.
Storey	A space that is situated between one floor level and the floor level next above, or if there is no floor above, the ceiling or roof above, but not a space that contains only: (1) a lift shaft, stairway or meter room (2) a bathroom, shower room, laundry, water closet, or other sanitary compartment (3) a combination of the above. A mezzanine is a storey. A roofed structure on or part of a rooftop that does not solely accommodate building plant and equipment is a storey. A basement is not a storey.
Temporary use	A use that is impermanent and may be irregular or infrequent that does not require the construction of a permanent building or the installation of permanent infrastructure or services. **Note** – provisions for temporary use timeframes for defined uses may be provided in section for Local government administrative matters. **Editor's Note** – it is recommended that local government use the ability under section for Local government administrative matters to further refine this definition for use in the local government area for defined uses.
Ultimate development	The realistic extent of development anticipated to be achieved when a site (or projection area or infrastructure service catchment) is fully developed.
Urban purposes	For the purpose of local government infrastructure plans, urban purposes includes residential (other than rural residential), retail, commercial, industrial, community and government related purposes.

Schedule 4 Notations required under the *Planning Act 2016*

SC4.1 Notation of decisions affecting the planning scheme under section 89 of the Act

Table SC4.1.1 – Notation of decisions under section 89 of the Act

Date of decision	Location (real property description)	Decision type	File/Map reference

Editor's Note – This schedule must include details of:

- development approvals that are substantially inconsistent with the planning scheme
- variation approval
- decisions agreeing to a superseded planning scheme request to apply to a superseded scheme to a particular development.

SC4.2 Notation of resolution(s) under Chapter 4, Part 2, Division 2 of the Act

Table SC4.2.1—Notation of resolutions under Chapter 4, Part 2, Division 2 of the Act

Date of resolution	Date of effect	Details	Contact information

Editor's Note – This schedule must provide information about the adopted infrastructure charges for the local government and where a copy of the adopted charges can be obtained, including a link to the local government website where a copy of the infrastructure charges resolution can be viewed or downloaded in accordance with the requirements of section 117(1)(a) of the Act.

Schedule 5 Planning scheme policies

SC5.1 Planning scheme policy index

The table below lists all the planning scheme policies applicable to the planning scheme area.

Table SC5.1.1—Planning scheme policy index

Schedule	Planning scheme policy title
SC5.2	Cultural Heritage Planning Scheme Policy
SC5.3	Having a Say Planning Scheme Policy

SC5.2 Cultural Heritage Planning Scheme Policy

All Applications to Address Matters of Cultural Heritage

For all proposed development, discussion with the relevant Prescribed Body Corporate (PBC) and Traditional Owners will be necessary to understand possible impacts on cultural heritage given that:

(1) Traditional Owners:

  (a) are the primary source of information on the value of their cultural heritage and how this is best conserved;

  (b) must have an active role in any heritage planning process;

  (c) own intellectual property and other information relating to their culture and heritage;

  (d) are the key stakeholders in land use planning through the relationship with land and sea management and resources; and

  (e) are to be engaged with under Duty of Care obligations in order to manage and protect unique areas of cultural significance.

(2) Prescribed Body Corporates:

  (a) will be able to assist applicants to identify local areas and objects of significance.

All proposed developments must include:

(1) a written agreement possibly in the form of a Cultural Heritage Management Plan; and

(2) the results of a site inventory including a search of State Government and PBR cultural heritage records.

A written agreement, possibly in the form of a Cultural Heritage Management Plan, must address:

(1) genuine consultation with the community to determine how they wish to safeguard and manage their cultural heritage;

(2) how the development will protect the item or place of cultural heritage significance;

(3) the requirement for a cultural heritage survey prior to approval of the development;

(4) the role of the PBC and Traditional Owners as observers during construction to monitor the impact on cultural heritage;

(5) methods to be used, such as temporary markers, that identify a buffer zone around the item or place of cultural heritage significance that must be removed after construction is completed;

(6) a remediation plan which details how and when an item or place of cultural heritage significance will be reinstated, if removed or damaged during construction; and

(7) the details of a 'sign-off process' after construction is completed to ensure all parties are satisfied with the condition of the cultural heritage place or item after construction is completed.

The community and the PBC is to identify, record and manage places and items of cultural heritage significance, particularly those affected by natural hazards, and determine if information will be made available to the general public.

Editor's Note – Places shown as sacred sites and significant trees on the maps in schedule 2.4 are potential locations of cultural heritage value. Other locations of cultural heritage value will exist that are not shown on the maps and in some cases, locations are not recorded due to reasons of confidentiality.

It is important that all land users are aware of their obligations under the *Torres Strait Islander Cultural Heritage Act 2003*. The Act recognises that Torres Strait Islander people are the guardians, keepers and knowledge holders of their cultural heritage. Importantly, the Act recognises that significant areas do not necessarily have markings or other physical evidence indicating occupation or denoting its significance. For example, geographical places of importance may such as places that are part of myths or legends (commonly referred to as 'storyplaces') are significant under the Act.

The most important part of the Act is the Duty of Care provisions that require those conducting activities in areas of significance to take all reasonable and practical measures to avoid harming cultural heritage.

SC5.3 Having a Say Planning Scheme Policy

The Purpose of this Planning Scheme Policy

This policy outlines a process that the Torres Strait Island Regional Council (TSIRC) may choose to follow to seek additional advice or comment from community members and Traditional Owners about development applications.

This process can be used by Council to provide an additional opportunity for Traditional Owners, Prescribed Body Corporates, native title claimants, elders, rangers and other people to have a say on a range of different matters, including whether a development application may harm important features and places, including those of value for cultural heritage and ailan kastom reasons.

TSIRC may choose to use or not use the information provided by Traditional Owners, Prescribed Body Corporates, native title claimants, elders, rangers and other people. Instead, the comments will be used to help Council make informed decisions about development applications.

When TSIRC May Seek Additional Advice or Comment

The Torres Strait Island Regional Council may ask any person or organisation for advice or comment under Section 34 of the *Development Assessment Rules 2017*. This can occur at any stage in the IDAS process (i.e. after the application is received and before a decision notice is issued) and there is no particular way that advice and comment must be asked for and received. The request may occur during public notification of the development application.

Information that TSIRC May Request

There is a lot of good work and detailed local knowledge held by individuals, Prescribed Body Corporates, elders, rangers and others in each TSIRC community. It is important that this knowledge is incorporated into decisions about development applications so that important features and places can be protected and development happens in a way that is consistent with the Torres Strait way of life.

Examples of information that may be requested by TSIRC include information about cultural heritage, ailan kastom, management of land and sea country, pests and weeds, natural resource management and places of environmental value.

Timeframes for Providing Advice to TSIRC

So that advice and comments received under Section 34 are provided before Council assesses the application, Council may ask that advice and comment is provided within a specified timeframe.

> **Editor's Note** – In addition to the above, the community may also have an opportunity to comment on a development application during the formal public notification period, if the development application is made impact assessable under section 5.4 of the planning scheme.

Appendix 1 Index and glossary of abbreviations and acronyms

Table AP1.1 – Abbreviations and acronyms

Abbreviation/acronym	Description
MCU	Material change of use as defined in the Act
the Act	*Planning Act 2016*
the Regulation	*Planning Regulation 2017*
ROL	Reconfiguring a lot as defined in the Act
the SP Act	*Sustainable Planning Act 2009* (repealed)
the SP Regulation	*Sustainable Planning Regulation 2009* (repealed)

Appendix 2 Table of amendments

Table AP2.1 – Table of amendments

Date of adoption and effective date	Planning scheme version number	Amendment type	Summary of amendments
19th and 20th December 2017 (adoption) 23 February 2018 (gazettal)	1.1	Minor amendments	Updates to reflect the *Planning Act 2016*