

## 4. Route planning pressures

### 4.1 Factors influencing transport demand

#### 4.1.1 Land use change and population growth

Population projections for Queensland are developed by the Queensland Government Statisticians Office (QGSO) for forecast years including 2041. Both City of Gold Coast and TMR then allocate these forecasts to specific “zones” to be used for transport model forecasting purposes based on their future planning. For this study, the TMR (QGSO2018) population and employment growth forecasts were adopted. Zones inside the red dashed line as illustrated in Figure 4-1 were defined as being within the study area for the purposes of this analysis.

Over a 22-year period between 2019 and 2041, the residential population of the study area is projected to rise from 7,200 to 11,800 (a 64% increase) and employment to rise from 5,700 to 7,700 (a 35% increase). Most of the population growth within the study area is along the coastal strip straddling the Gold Coast Highway however we also note that substantial growth is also forecast in Cobaki Lakes<sup>3</sup> a new residential estate in Tweed Shire. Whilst outside of the defined study area, transport demands to and from this development will impact on the T2C corridor. Conversely, employment growth appears to be evenly spread across existing employment centres at the Airport, Kirra and Coolangatta. See Table 4-1 and Table 4-2 for an overview of the forecast growth between 2019 and 2041.

**Table 4-1: Population growth from 2019 to 2041 (based on QGSO projections at the zonal level).**

Area/ zone	2019	2041	Growth
Coastal strip (east of Gold Coast Highway between Boyd Street and Musgrave St)	1,700	3,200	88%
Airport	400	400	0%
Kirra and Coolangatta	5,100	8,200	61%
<b>Study area total</b>	<b>7,200</b>	<b>11,800</b>	<b>64%</b>

**Table 4-2: Employment growth from 2019 to 2041 (based on QGSO projections at the zonal level).**

Area/ zone	2019	2041	Growth
Coastal strip (east of Gold Coast Highway between Boyd Street and Musgrave St)	60	80	35%
Airport	2,800	3,800	36%
Kirra and Coolangatta	2,700	3,800	38%
<b>Study area total</b>	<b>5,700</b>	<b>7,700</b>	<b>35%</b>

<sup>3</sup> Cobaki development information - <https://www.tweed.nsw.gov.au/CobakiDevelopment>

Route Strategy: Tugun to Coolangatta

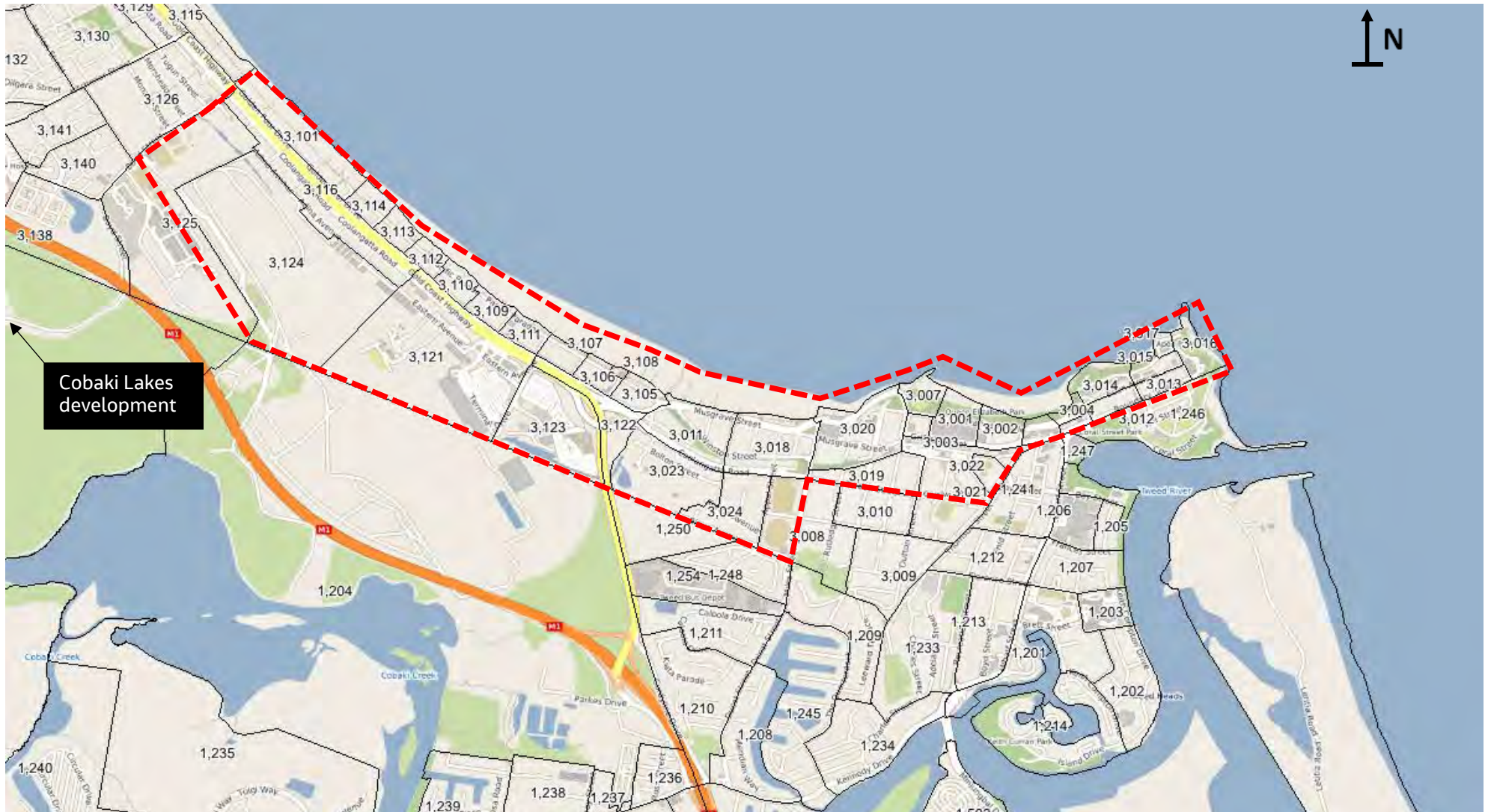
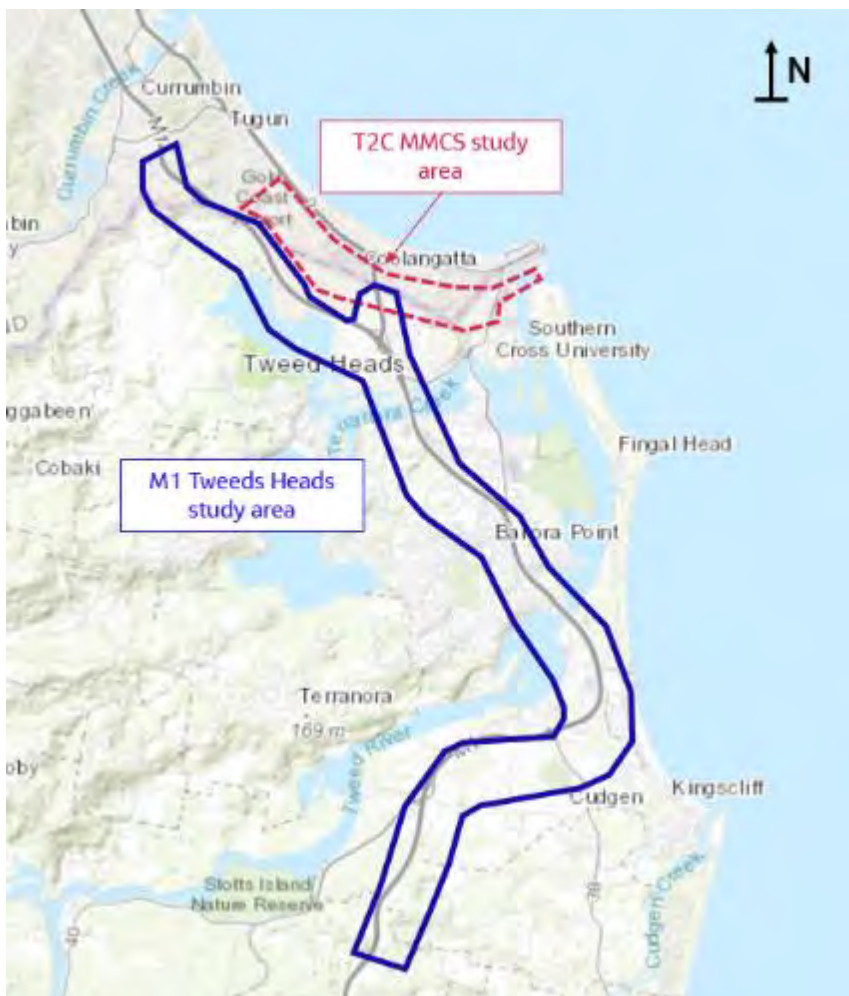


Figure 4-1 Transport model zones considered to be within the overall study area (Source: Jacobs GIS)

## 4.1.2 Wider transport network changes

The Tugun to Coolangatta route strategy is being developed in parallel with changes that will impact on the wider transport network, either in the short or long term, as outlined in the sections below.

### 4.1.2.1 Pacific Motorway from Stewart Road to 2km south of the Tweed Valley interchange.



As discussed in Section 2, TfNSW are undertaking planning to identify ways to manage future demands on the Pacific Highway in Tweed Heads to complement the motorway upgrade works now under construction north of Tugun in Queensland. The length of the project is 20km and includes (south to north):

- Tweed Valley Way interchange
- Chinderah Road interchange
- Fingal Road interchange
- Barneys Point interchange
- Darlington Drive South Tweed Interchange (includes Minjungbal Drive)
- Kirkwood Road interchange
- Kennedy Drive interchange
- Gold Coast Highway interchange

The extent of these works is illustrated in Figure 4-2. Potential changes to the Pacific Motorway are likely to include providing additional traffic lanes to tie into the widening proposed in Queensland from Robina to Stewart Road as well as interchange upgrades and potential service roads in some locations.

Figure 4-2: Pacific Highway – Tweed

Heads study (TfNSW)

### 4.1.2.2 Heavy Rail Extension to Gold Coast Airport

In 2005, a proposed corridor to extend heavy rail south of Robina to Tugun was identified. Following community consultation, a preferred corridor between Robina and Tugun was preserved in 2008. The first stage between Robina and Varsity Lakes (previously known as Reedy Creek) was then constructed in 2009. Further investigations were also conducted in 2009 as part of a wider Robina to Tugun Rail Impact Assessment Study that considered technical, environmental, social and economic impacts on a preferred rail alignment. Refer to Figure 4-3.

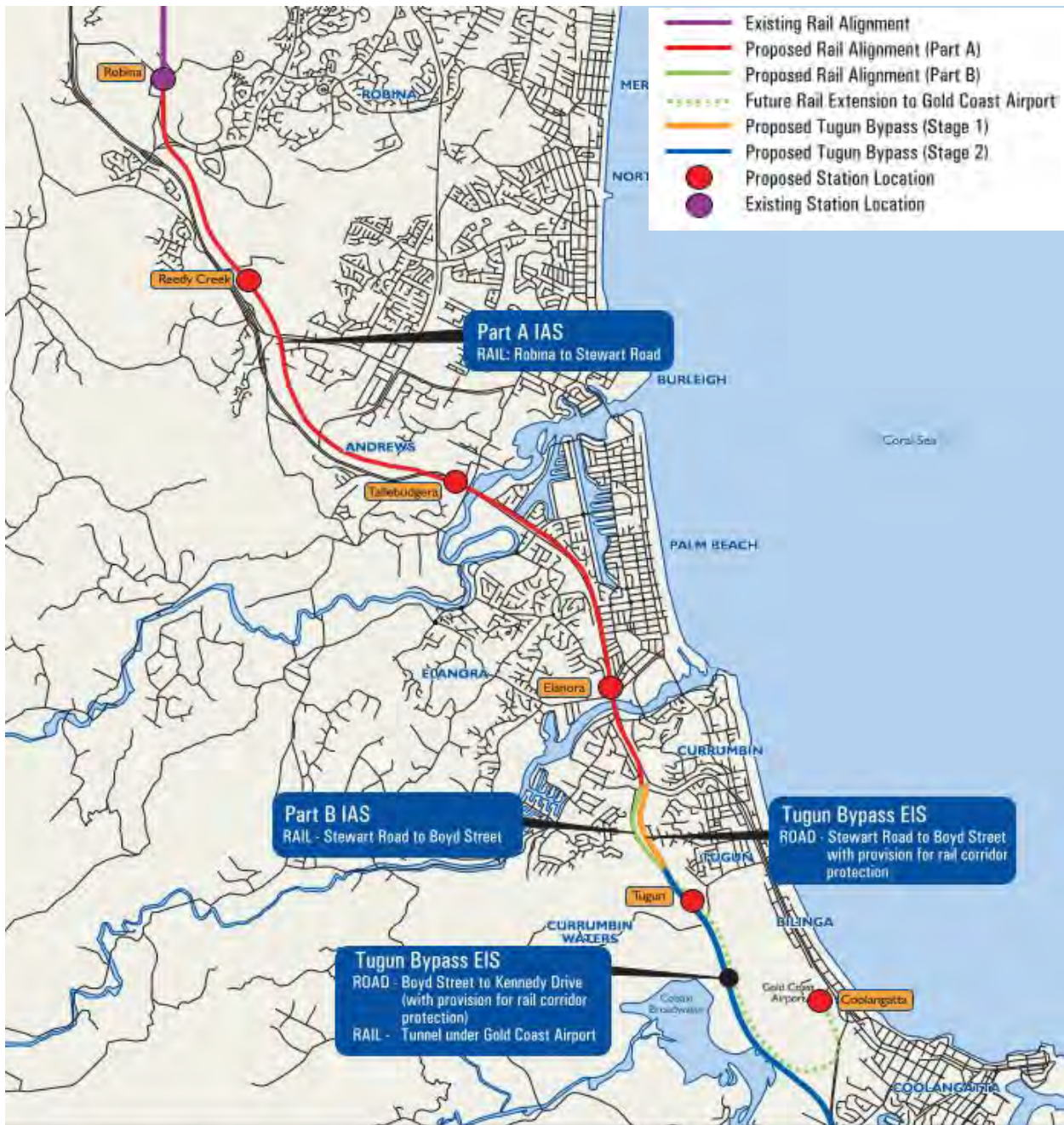
Key components of the potential future rail extension include a new railway station at the Gold Coast Airport which could form part of a regionally significant multi-modal passenger transport interchange facility for the southern Gold Coast and Tweed Shire. It was identified in the project's environmental impact statement that the rail extension to Gold Coast Airport will make a significant contribution to the achievement of the Gold Coast mode share target, reducing the number of car trips on the road network.



## Route Strategy: Tugun to Coolangatta

The South East Queensland Regional Transport Plan 2021 confirms the Varsity Lakes to Gold Coast Airport rail extension as part of long-term planning.

Figure 4-3: Robina to Tugun Rail and Road proposal (Parson Brinckerhoff, 2009<sup>4</sup>)



### 4.1.2.3 Cobaki Lakes

Cobaki was identified within the NSW State Government's Far North Coast Regional Strategy and Tweed Shire Council's "Tweed Urban and Employment Lands Release Strategy 2009" as one of the largest contributors for the provision of new housing and employment within the Tweed Shire over the next two decades. Seventeen residential precincts with a mix of housing types including detached houses, townhouses and multi-unit housing to a maximum of 3 storeys, comprising approximately 5,500 dwellings are proposed for the area.

<sup>4</sup> Robina to Tugun Rail Impact Assessment Study, Parson Brinckerhoff 2009)

## Route Strategy: Tugun to Coolangatta

Refer to Figure 4-4 for an overview of the Cobaki Lakes development. As part of this development, Boyd Street and Piggabeen Road are the principal connections to the wider urban road network. Of particular interest to the Tugun to Coolangatta study is the extent of additional traffic that this community will generate on the Gold Coast Highway where it is intended to (in the future) intersect directly with Boyd Street. Overall, the development is estimated to generate approximately 5,400<sup>5</sup> additional daily trips on Boyd Street, requiring an upgrade to Boyd Street and widening of Gold Coast Highway between Toolona and Boyd Street to six through lanes to cater for the increase in demand.



Figure 4-4: Cobaki development site location as identified in NSW Department of Planning, Director-General's Report Part 3A Approval of Cobaki, December 2010 (Basemap: Jacobs GIS, 2022)

<sup>5</sup> Sourced from Gold Coast Highway Multi Modal Transport Study – Boyd Street intersection investigations



#### 4.1.2.4 Gold Coast Airport – second access to Gold Coast Highway at QLD/NSW border

A second access point to the Gold Coast Highway is proposed for the Gold Coast Airport as part of the Gold Coast Airport Master Plan. By providing an additional entry/exit point to the Gold Coast Airport, this would reduce congestion and delays at the Terminal Drive / Gold Coast Highway intersection by relocating some traffic further south on the Gold Coast Highway to a new intersection. This project is in detailed planning with funding committed and it is therefore expected to be operational in the short term (within the next 5 years).



Figure 4-5: Location of proposed new southern access point as identified in Gold Coast Airport Master Plan 2017 (Basemap: Jacobs GIS, 2022)

## 4.2 Future transport demand

Analysis of future traffic volumes and passenger movements was undertaken to inform the scale of change and growth in transport demands between 2019 to 2041. Refer to The analysis found that between 2019 and 2041:

- North of Stewart Road, trips on the Gold Coast Highway are estimated to increase by 10% (increase of 2,800 trips) however Pacific Motorway (M1) volumes increase by 76% from 95,700 trips in 2019 to 168,100 in 2041. Public transport trips account for 18% of total trips on the Gold Coast Highway in 2019 but reduce to 14% of total trips in 2041 (as vehicle trips increase while public transport trips remain similar).
- All trips on the Gold Coast Highway south of Stewart Road are estimated to increase substantially:
  - North of Boyd Street traffic volumes are estimated to increase by 85%, carrying up to 74,900 vehicles per day.
  - South of Boyd Street: traffic volumes are estimated to increase by 62% (from 40,400 vehicle trips per day in 2019 to 65,600 in 2041) and by 156% south of the Gold Coast Airport (to 37,900 private vehicle trips per day in 2041)
- Coolangatta Road and Musgrave Street in Kirra each increase by around 50% with volumes approximately 17,900 vehicles per day on each corridor.

These transport analyses illustrate that there will be substantial traffic growth in the network, without enhanced public transport especially on Gold Coast Highway south of Stewart Road (85% - 156% growth within Bilinga) and on the M1 Pacific Motorway north of Stewart Road (59%-76% growth and approx. 168,100 trips). This reinforces the opportunity that enhanced public transport could play in managing the growth in transport demand on the southern Gold Coast and reduce pressure on the road network by 2041. A key conclusion is the need to protect the corridor to allow for Light Rail to be implemented, in some form, at some point in the future.

Table 4-3 for the AWDT vehicle trips in 2019 and 2041. These are sourced from the Gold Coast Strategic Transport Model (GCSTM-MM v2.2) including the calibrated 2019 Base model and 2041 Base Case (Scenario A – with Light Rail to Burleigh Heads only).

The analysis found that between 2019 and 2041:

- North of Stewart Road, trips on the Gold Coast Highway are estimated to increase by 10% (increase of 2,800 trips) however Pacific Motorway (M1) volumes increase by 76% from 95,700 trips in 2019 to 168,100 in 2041. Public transport trips account for 18% of total trips on the Gold Coast Highway in 2019 but reduce to 14% of total trips in 2041 (as vehicle trips increase while public transport trips remain similar).
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Table 4-3: AWDT vehicle trips (Source – GSTM-MMv2.2, Model Runs: GC\_2019\_N013d\_TW03 and GC\_2041\_N007d\_TMR05\_Burleigh)

Road	2019	2041 Option A (Light Rail to Burleigh Heads)	Difference
	Vehicle	Vehicle	Vehicle
<b>North of Stewart Road</b>			
Pacific Motorway	95,700	168,100	72,400
Gold Coast Highway	26,500	29,000	2,500
<b>North of Boyd Street</b>			
Gold Coast Highway	40,400	74,900	34,500
<b>South of Boyd Street</b>			
Pacific Motorway	67,900	107,900	40,000
Gold Coast Highway	40,400	65,600	25,200
<b>South of Gold Coast Airport</b>			
Pacific Motorway	67,900	107,900	40,000
Gold Coast Highway	14,800	37,900	23,100
Coolangatta Road	11,900	17,900	6,000
Musgrave Street	11,400	17,800	6,400
<b>Over Terranora Creek</b>			
Pacific Motorway	73,400	111,100	37,700
Minjungbal Drive	29,800	34,900	5,100

### 4.3 Future transport issues and opportunities

The process of identifying issues and opportunities involved Jacobs presenting initial findings at a technical working group workshop (held on 24<sup>th</sup> March 2021) to key stakeholders. This workshop utilised a collaborative tool called MURAL where workshop attendees were asked to identify issues and opportunities along the corridor. From this activity, key themes were identified for individual sections of the corridor which will be taken forward for consideration in the option development process. Refer to Figure 4-6 for an overview of the four corridor sections.



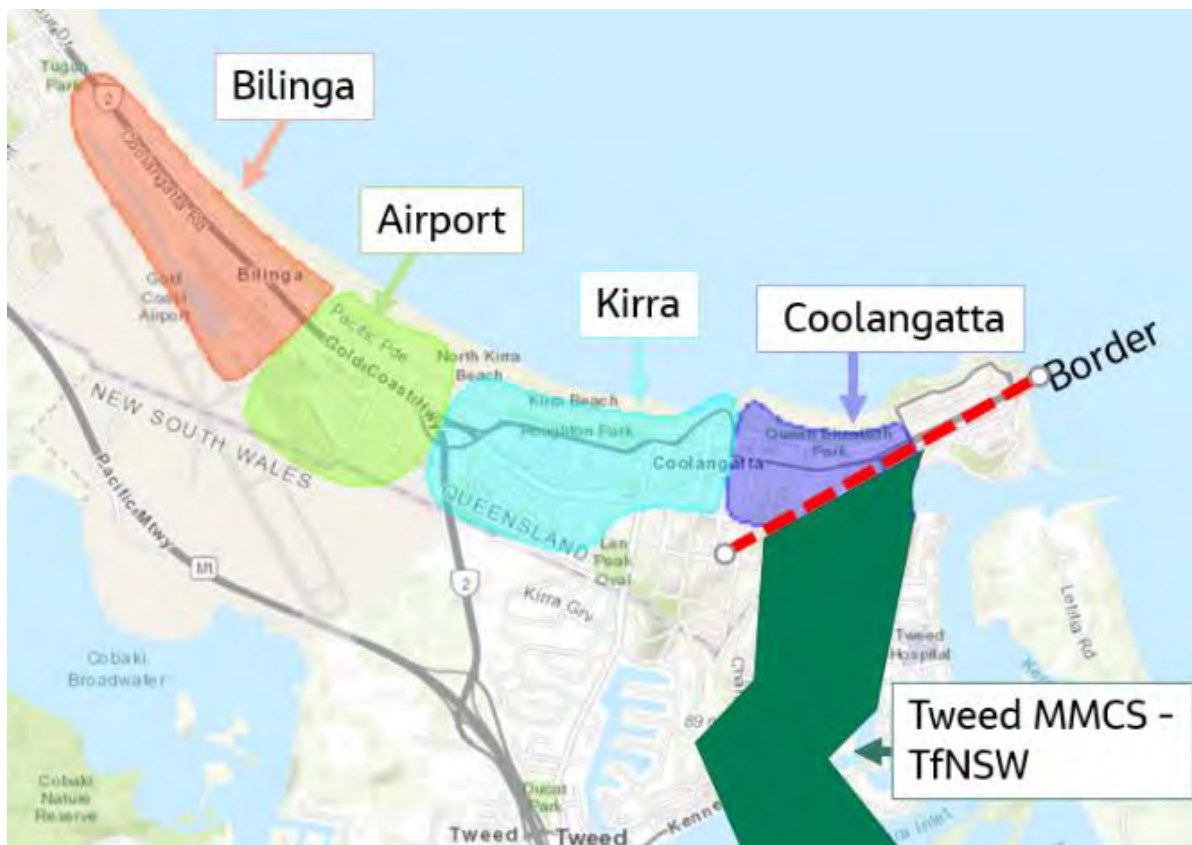


Figure 4-6: Individual corridor sections of Tugun to Coolangatta MMCS study area (source Jacobs GIS)

### 4.3.1 Public transport issues and opportunities

The public transport issues and opportunities identified through the pre-workshop analysis by the project team and by additional contributions from workshop attendees include:

#### Corridor-wide public transport issues and opportunities:

- Provide attractive, comfortable and legible (easy to find) Light Rail stations
- Provide attractive bus-Light Rail interchange opportunities
- Highly accessible stations (for all users) – going above and beyond minimum compliance standards
- High frequency and reliable bus and rail services (minimisation of delays along corridor)
- Catering for a range of first mile/ last mile access solutions including personal transport or rideshare/taxi options.
- Enhanced connectivity to key attractors – considering both existing and future trip generators
- Complementing and shaping land use growth by building Light Rail stations that create “destinations” and distinct activity nodes. Beyond creating destinations, the stations design and location should identify and capitalise on existing potential place making opportunities.
- The corridor planning framework should facilitate the delivery of places that provide a superior experience for the passengers as they travel through them.
- Light Rail stations should provide a sense of engagement with the place where they are located.
- Pedestrian movement networks around the stations and connecting stations to destinations should be legible, safe, secure and with high quality streetscape amenity

Additional opportunities specific to each section include:

### **Bilinga**

- Need for improved connectivity to John Flynn Hospital and future Tugun heavy rail. There are key attractors along Boyd Street (specifically John Flynn Hospital) that should be considered in the development of a public transport solution.
- Number of stations. To consider increase in station spacings where catchment is not wide (making use of 400m-800m walking distances that are north south orientated). In addition, additional stop/s and a new bus route or extension of an existing route is required on Boyd Street to connect to the emerging Cobaki Lakes development.
- Potential for side running (not centre running) to maximise pedestrian connections to the east which has the greatest existing and future catchment potential

### **Airport**

- Integrated multi-modal transport hub (Light Rail, bus and future heavy rail) in the airport precinct. Potentially including airport type amenities at the interchange
- Minimisation of delays in and out of the airport for Light Rail (minimise the diversion, maximise operating speed and efficiency)
- Improved connectivity from LRT stop to Airport and Southern Cross University (e.g. upgraded walk links with shelter/ protection)
- Address major barrier effect of Gold Coast Highway for pedestrians which cuts off the North Kirra catchment from a potential transport hub on the airport side of the highway

### **Kirra**

- Improved access to schools and land uses south of Coolangatta
- Need for suitable and attractive connection from Light Rail stop to beach.
- Potential for Light Rail stop along Coolangatta Road given proximity to beach (200-250m) and land uses to the south.

### **Coolangatta**

- Enhanced connectivity to key attractors in Coolangatta AND Tweed Heads
- Potential for a beach station (e.g. Marine Parade) and opportunity to create a Light Rail precinct or destination or
- Potential for a more southern station (e.g. Chalk St) to pick up the large residential catchment to the south
- A station in Coolangatta should consider station locations either side (e.g. in Kirra and Tweed Heads).

### 4.3.2 Active transport issues and opportunities

The active transport issues and opportunities identified through the pre-workshop analysis by the project team and by additional contributions from workshop attendees include:

#### Corridor-wide active transport issues and opportunities:

- Opportunity to enhance and improve connectivity to the Oceanway through upgrading existing cycle infrastructure and/or improving pathways.
- Improve safety – e.g. reduce speed environment adjacent to active transport links
- Strengthen existing active transport routes particularly at intersections and crossings
- Transform existing pedestrian paths to “pedestrian boulevards” with enhanced shade
- Adopting Crime Prevention Through Environmental Design (CPTED) measures to create safer pedestrian links (may include more active land uses alongside some key paths)

Additional opportunities specific to each section include:

#### Bilinga

- Width of road corridor is a barrier to cross corridor active transport movements. Large distances between pedestrian crossing locations and spacing of Gold Coast Highway intersections create limitations on cross corridor movement between east and west of carriageway. This study may create opportunities to reduce spacing or crossing distances through development of new intersections that create key links between the beachside and residences on the west.
- Speed and volume of traffic on Gold Coast Highway is an impediment to safe, all ages and abilities cycling facilities. May be better to reinforce Golden Four Drive as the ‘commuter’ cycle route with more recreational trips on the Oceanway.
- Potential to create better active transport linkages to public transport nodes via upgraded pathways and proper wayfinding as this is a last mile area.

#### Airport

- Need to create more pedestrian friendly connections, specifically from Airport/ transport node towards the beach. This may be in the form of a grade separated crossing to cater for the increase in demand due to the heavy rail extension. Potential to also explore additional at grade crossings in conjunction with new LRT-actuated intersections/ crossing points.
- Potential to reduce crossing width of the corridor to improve pedestrian and cycle movements. This may be through intersection movement rationalisation (potentially as a result of some traffic to/ from the south being diverted to the new southern airport access

#### Kirra

- Design safer paths through rail cutting – wider, better surveillance, better lighting
- Providing improved pedestrian and cycling links within Kirra alongside the Light Rail

#### Coolangatta

- Create a successful pedestrian link from residential to the south to Griffith Street through to the beach – the potential of Dutton Street to be transformed into a pedestrian boulevard was identified as it is already well located relative to the wider catchment and includes a narrow pedestrian laneway between Chalk and Griffith Streets which could be widened.



### 4.3.3 Traffic operational issues and opportunities

The traffic operational issues and opportunities identified through the pre-workshop analysis by the project team and by additional contributions from workshop attendees include:

#### Corridor-wide traffic issues and opportunities:

- Ensure sufficient capacity on the Gold Coast Highway to accommodate the Tugun Bypass traffic in event of a tunnel closures and for hazardous goods/ over dimension vehicles.
- Efficiency for all modes of travel (including taxi/rideshare) particularly on the Gold Coast Highway as a strategic (higher order) road
- Strengthening road hierarchy (i.e. Gold Coast Highway for through trips, Golden Four Drive and Coolangatta Road for local trips/ access)
- Enhance connectivity from Bilinga (“Gateway to the Gold Coast”) to Tweed Heads

Additional opportunities specific to each section include:

#### Bilinga

- Ensure accessibility to John Flynn Hospital – e.g. reconfigured intersection of Boyd St/ Gold Coast Highway will create more direct access removing trips from Coolangatta Road
- Consideration of a Boyd Street park and ride for LRT, but ensure it is not used simply as free satellite parking for Airport passengers

#### Airport

- Efficiency for all modes of travel in/out of airport to reduce delays – given the strategic nature of this major airport
- New second access to the south is a major opportunity to redistribute traffic in a way that takes unnecessary trips off Gold Coast Highway and redirects them to the M1. Maximise that opportunity through a better internal road network configuration and signage/ wayfinding.
- Opportunities for the complicated road network at GCH/ Coolangatta Road/ Musgrave Street to be rationalised/ simplified while still maintaining adequate capacity – e.g. flatten the interchange and create a more legible T intersection
- Resolving internal airport access road issues – simpler and more legible road network, with clearer, more direct pedestrian connections including between a new transit stop and surrounding destinations

#### Kirra

- Enhanced connectivity to Coolangatta Road via all modes of travel
- Support and grow Musgrave Road and Marine Parade as a tourist location
- Improve safety on Musgrave Road caused by distracted drivers and pedestrians
- Improve access to local activity centres and schools.

#### Coolangatta

- Ability to connect through to Tweed Heads – all modes including vehicles.

## 4.4 Future land use and place making issues and opportunities

The land use and place-making issues and opportunities identified through the pre-workshop analysis by the project team and by additional contributions from workshop attendees include:

### Corridor-wide land use and placemaking issues and opportunities:

- Responsibly accommodate growth while preserving the valued lifestyle, amenity, heritage and neighbourhood character.
- Stimulating economic clusters at Light Rail stations
- Serving/ reinforcing higher density, higher amenity residential area
- Potential for residential and commercial uplift adjoining the Light Rail corridor
- Land use change between the Airport and Coolangatta Road from residential to commercial could create a buffer to the higher density residential precinct to the east of the highway
- Protecting and enhancing character of neighbourhood.
- The GC Highway from Tugun, through Bilinga to Kirra is a wide corridor with multiple roadways extending up to 110 metres wide. The opportunity exists to review the operation and spatial layout of this corridor in conjunction with the proposed Light Rail in order to achieve a more 'place oriented' environment.
- Opportunity to implement the Coolangatta and Kirra Business Centre Placed Based Master Plan, visions such as improve getting into the centre, getting around and parking; improving the experience; and feeling safe

Additional opportunities specific to each section include:

### Bilinga

- Investigate opportunities for land use changes south west of the Gold Coast Highway. This included suggestions of an "Aerotropolis" including specialist services that capitalises on location and growth of aviation-based development opportunities.
- Opportunities for retail and commercial in close proximity to a 'Bilinga' station (or stations).
- Opportunity to repurpose portions of the 100 m wide Gold Coast Highway Road reserve for public space.
- Protect and enhance the lifestyle, amenity, heritage and character of the neighbourhoods
- Taking advantage of the location – proximity to transport AND amenity (beach etc).

### Airport

- Transforming the airport corridor to a destination.
- Create an "Aerotropolis" – a specialist centre that capitalises on location and growth of aviation-based development opportunities. Focussing in particular on underutilised land on the south-western side of the Gold Coast Highway which will have direct access to airport, university and regionally significant passenger transport interchange facility
- Consultation with the Gold Coast Airport and alignment with the Gold Coast Airport Master Plan.

### Kirra

- Kirra is limited by aircraft noise and flight path restrictions, though potential to investigate opportunities for land use changes.
- Encouraging a shift in mode share for all residents (in both high-rise and low-rise areas).
- Opportunity to expand existing neighbourhood centres further south – become more of a local activity centre not just about beach cafes but supporting a more diverse retail street hierarchy.
- Refocusing planning 'behind the beach'
- Adopting a multi-modal Coolangatta Road corridor.

### Coolangatta

- Significant uplift potential was identified within the Coolangatta area, particularly around Griffith Street and Chalk Street to the south.

- Supporting employment precincts that will grow the economy and deliver jobs
- Significant placemaking opportunities in and around a proposed Coolangatta Light Rail station.
- Significant regeneration potential in the Chalk Street area where the at grade car parking and building 'back doors' form a barrier between the residential/ parkland/ community use to the south and the retail heart/ beach/ recreation to the north
- Above mentioned opportunities that identify a preference for increased densities and building height within the corridor are consistent with the findings of the City of Gold Coast Building Height Study (City of Gold Coast and Urbis, 2017), which identified areas in the southern Gold Coast as an 'area of significant opportunity'. Of relevance to the project, the study identified:
  - opportunities for building height along the Bilinga beachfront and at the southern end of the Gold Coast Airport
  - opportunities for a contained urban neighbourhood within and around Coolangatta

## 4.5 Future environmental and social issues and opportunities

The environmental and social issues and opportunities identified through the pre-workshop analysis by the project team and by additional contributions from workshop attendees include:

### Corridor-wide environment and social issues and opportunities:

- Adopting Water Sensitive Urban Design (WSUD) opportunities
- Retain and support the existing beach value and existing vegetation
- Maximising urban canopy tree coverage
- Opportunities to incorporate indigenous themes that can blend into the Light Rail design
- Achieve a stronger connection to Cultural Heritage values (aboriginal and historic)
- Protection of foreshore and popular viewing spots/ vistas
- Maximise benefits accrued from Light Rail to deliver greater equity of access (e.g. more stops) and/or opportunities to support/ stimulate more affordable housing (e.g. by serving catchments slightly further away from the high amenity beachfront corridor).
- Maximise corridor resilience to natural hazards and events

Additional opportunities specific to each section include:

### Bilinga

- Opportunity to create a green boulevard with WSUD in median of Gold Coast Highway with additional planting and landscaping.
- Setting a tree canopy target to ensure sufficient shade is provided for users/pedestrians.

### Airport

- Provide sufficient shade for pedestrians within the airport precinct.

### Kirra

- Retaining iconic vista from Kirra Hill lookout
- Preservation of Kirra Beach and heritage

### Coolangatta

- Retention of existing green areas.
- Inclusion of shade on key pathways to the beach



## 4.6 Summary of future issues and opportunities

Table 4-4 summarises the route planning pressures along the corridor.

**Table 4-4: Corridor themes**

Route planning pressures	Corridor themes
Factors influencing transport demand	<p>Over a 22-year period between 2019 and 2041, the residential population of the study area is projected to rise from 7,200 to 11,800 (a 64% increase) and employment to rise from 5,700 to 7,700 (a 35% increase). Most of the population growth is along the coastal strip straddling the Gold Coast Highway or in Cobaki Lakes (a new residential estate to the west of the M1). The employment growth is forecast to be evenly spread across existing population, employment centres and Cobaki Lakes.</p> <p>Wider transport network changes include:</p> <ul style="list-style-type: none"> <li>▪ Pacific Motorway upgrade Varsity Lakes to Tugun (under construction – short term) and from Tugun to Tweed Valley interchange (planning underway, timing unknown).</li> <li>▪ Heavy Rail Extension at Gold Coast Airport (longer term, likely beyond 2041)</li> <li>▪ Cobaki Lakes development (early construction works now underway)</li> <li>▪ Gold Coast Airport – second access to Gold Coast Highway at QLD/NSW border (short term)</li> </ul>
Future transport demand	<p>Analysis of future traffic volumes and passenger movements using the Gold Coast Strategic Transport Model (GCSTM) was undertaken to inform the scale of change and growth in transport demands between 2019 to 2041.</p> <p>These transport analyses illustrate that there will be substantial traffic growth in the network, without enhanced public transport especially on the Gold Coast Highway south of Stewart Road (85% - 156% growth within Bilinga) and on the M1 Pacific Motorway north of Stewart Road (59%-76% growth and approx. 168,100 trips).</p> <p>These analyses highlight the opportunity that enhanced public transport could play in managing the growth in transport demand on the southern Gold Coast and reduce pressure on the road network by 2041.</p>
Future public transport issues and opportunities	<ul style="list-style-type: none"> <li>▪ Attractive, comfortable and legible (easy to find) Light Rail stations</li> <li>▪ Highly accessible stations (for all users) – going above and beyond minimum compliance standards</li> <li>▪ High frequency and reliable bus and rail services (minimisation of delays along corridor)</li> <li>▪ Catering for a range of first mile/ last mile access solutions including personal transport options</li> <li>▪ Enhanced connectivity to key attractors – considering both existing AND future trip generators</li> <li>▪ Complementing and shaping land use growth by building Light Rail stations that create “destinations” and distinct activity nodes.</li> </ul>
Active transport issues and opportunities	<ul style="list-style-type: none"> <li>▪ Opportunity to enhance and improve connectivity to the Oceanway through upgrading existing cycle infrastructure and/or improving pathways.</li> <li>▪ Improve safety – e.g. reduce speed environment adjacent to active transport links</li> <li>▪ Strengthen existing active transport routes particularly at intersections and crossings</li> <li>▪ Transform existing pedestrian paths to “pedestrian boulevards” with enhanced shade</li> </ul>

Route planning pressures	Corridor themes
	<ul style="list-style-type: none"> <li>▪ Adopting Crime Prevention Through Environmental Design (CPTED) measures to create safer pedestrian links. This may include more active land uses alongside some key paths.</li> </ul>
Traffic operational issues and opportunities	<ul style="list-style-type: none"> <li>▪ Ensure sufficient capacity on the Gold Coast Highway to accommodate the Tugun Bypass traffic in event of a tunnel closures and for hazardous goods/ over dimension vehicles.</li> <li>▪ Efficiency for all modes of travel particularly on the Gold Coast Highway as a strategic (higher order) road</li> <li>▪ Strengthening road hierarchy (i.e. Gold Coast Highway for through trips, Golden Four Drive and Coolangatta Road for local trips/ access)</li> <li>▪ Enhance connectivity from Bilina (“Gateway to the Gold Coast”) to Tweed Heads</li> </ul>
Land use and place making issues and opportunities	<ul style="list-style-type: none"> <li>▪ Supporting land use growth by building Light Rail stations that create “destinations” and distinct activity nodes.</li> <li>▪ Stimulating economic clusters at Light Rail stations</li> <li>▪ Providing diversity of housing stock to meet changing demographics</li> <li>▪ A multi-modal public transport network that connects people with new jobs and businesses – driving economic growth and opportunity.</li> <li>▪ Investigate opportunities for additional employment lands in the areas adjoining the airport.</li> <li>▪ Protect and enhance the lifestyle, amenity, heritage and character of the neighbourhoods.</li> <li>▪ Addressing emerging potential CPTED issues and consider mitigation of risks.</li> <li>▪ Opportunity to implement the Coolangatta and Kirra Business Centre Placed Based Master Plan, visions such as improve getting into the centre, getting around and parking; Improving the experience; and feeling safe</li> </ul>
Environmental and social issues and opportunities	<ul style="list-style-type: none"> <li>▪ Adopting Water Sensitive Urban Design (WSUD) opportunities</li> <li>▪ Retain and support the existing beach value and existing vegetation</li> <li>▪ Opportunities to incorporate indigenous themes that can blend into the Light Rail design</li> <li>▪ Achieve a stronger connection to Cultural Heritage values (aboriginal and historic)</li> <li>▪ Protection of foreshore and popular viewing spots</li> <li>▪ Maximise benefits accrued from Light Rail to deliver greater equity of access (e.g. more stops) and/or opportunities to support/ stimulate more affordable housing (e.g. by serving catchments slightly further away from the high amenity beachfront corridor).</li> <li>▪ Maximise corridor resilience to natural hazards and events</li> </ul>