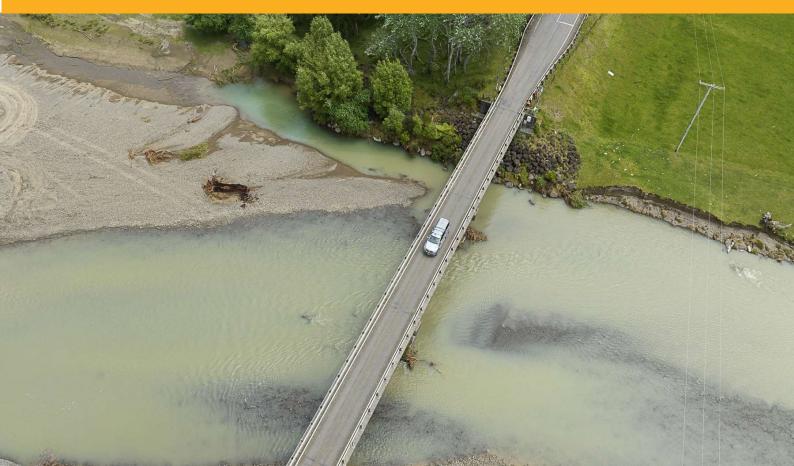


# Tō tātau tūhononga waka whenua Our transport network

Strategic context, challenges, and opportunities





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# Nga rohe Our place

#### Te Tairāwhiti

Te Tairāwhiti is a unique region of New Zealand, which boasts some of the deepest history and culture in the country. Located on the East Coast of the North Island, Te Tairāwhiti has long been associated with the first landing by James Cook in October 1769.

However, there was Māori settlement of the land for centuries before that. Poverty Bay is believed to be the landing place of the Horouta and Te Ikaroa-a-Rauru waka, which first carried Māori to the region and therefore an ancestral place for local iwi and hapū. Te Tairāwhiti is said to be first to rise from the ocean as Māui fished up Te Ika-a-Māui.

More practically, Gisborne is the first region in New Zealand to see the sun as it rises each morning, from the vantage point of Mount Hikurangi. The region is home to friendly people, diverse wildlife, stunning scenery, and traditional ways of life.

This section provides more information on the story of Te Tairāwhiti, and its potential for sustainable and culturally sensitive economic development. Investment in the land transport system is a key part of this development.

Bounded by the sea and mountainous inland forests, Te Tairāwhiti is one of the most remote regions in New Zealand and home to about 1% of the country's population. The region's economy is largely based on primary production (forestry, fishing, sheep and beef farming, horticulture and viticulture), with a growing tourism and leisure market which takes advantage of stunning inland and coastal scenery.

With a total area of 835,100 hectares, and population of 52,000, Te Tairāwhiti is sparsely populated. Geologically young, the region sits on a large rising fold that emerged from the sea millions of years ago, with its crest being the Raukumara Range.

The internal hinterland is largely made up of steep hill country, rolling pasture and fertile alluvial valleys. Of the 835,000 hectares of land in the region, 42% is used for pastoral farming. Exotic forest covers around another 20%. Much of the forestry was planted as part of erosion protection schemes after Cyclone Bola in 1988, and many trees are now being harvested and transported to the Port.

The 11,000-hectare Poverty Bay flats (the single largest area of high-quality fertile soils in New Zealand) occupy land formed by the Waipaoa River flood plain, and includes the city of Gisborne. Smaller coastal plains are found at Tolaga Bay (Uawa), Ruatoria and Te Araroa. The coast is home to numerous coves, inlets, and beaches, which stretch the entire length of the region.





Figure 1 Te Tairāwhiti

Severe natural forces – earthquakes, tsunamis, floods, droughts, and landslides – have shaped the terrain. Prior to European settlement, much of the land was native forest, which provided a degree of protection from erosion. However, significant tree felling created pastoral land that is drained by the Rivers Waipaoa and Waiapu. Together, they pump 50 million tonnes of sediment into the sea each year. Gisborne city sits on the confluence of the



Turanganui, Waimata, and Taruheru Rivers. Four other major rivers flow into adjacent regions of Hawke's Bay and Bay of Plenty.

The earth is constantly moving, and quakes are common. Periodic remnants of decaying tropical cyclones and storms can cause heavy rainfall, strong winds, and high seas. A combination of tectonic shifts, soft rocks, intense rainfall, and deforestation have compromised land stability. The contours of the region's hills are some of the most eroded anywhere on the planet.



Figure 2 The Waipaoa River flood plain looking towards Te Kurī Paoa (Young Nick's Head)

This is the challenging geographic and geological context within which the communities of the region, and the land transport system, operate. A combination of unstable land, occasional but regular extreme weather, and transport demand from primary industries such as logging puts huge pressure on transport infrastructure. Cyclone Gabrielle, which led to unprecedented levels of destruction, was only one of many events over the years, which have tested the resilience of the region's people and places.

Te Tairāwhiti 2050 Spatial Plan¹ states that climate change will intensify the impacts of many natural hazards and have far-reaching economic, environmental, and social implications. The transport network will become more vulnerable to damage from natural hazards, as the effects of climate change become more pronounced. Nine severe weather events in the last two years very much supports this conclusion.

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<sup>&</sup>lt;sup>1</sup> Tairawhiti Spatial Plan 2050



The financial and social cost of making communities and infrastructure more resilient to natural hazards and climate change is one of the most significant challenges being faced in Te Tairāwhiti. The longer the delay planning for action, the more expensive it will be. There will be private and public property that may not be able to be insured and ultimately occupied. Looking into an uncertain future, it is possible there may be whole areas no longer suitable for people to reside due to the risk of natural hazards.

A top priority for this RLTP is therefore to significantly reduce our greenhouse gas emissions to avoid the worst effects of long-term climate change; and access support and funding to deliver the system transformation that is necessary.



Figure 3 There have been nine severe weather events (four of which were cyclones) between June 2021 and June 2023

In spite of its challenges, Te Tairāwhiti remains an attractive place to live, work and play, and communities have a genuine sense of belonging. The lifestyle, services and facilities enable people to live a balanced and happy life, and attract visitors and residents from across New Zealand and the world. Gisborne city and the smaller townships have vibrant centres and are destinations for business, services, employment, and tourism.

The land transport system is of critical importance for enabling safe and sustainable access within the main places, and fostering economic, social, and cultural links between them.

# Our people

At 52,100 people (June 2022 estimate) Te Tairāwhiti is one of the smallest regions in New Zealand, with just 1% of the country's population contained within 3% of the land area. This number represents a population increase of around 5,000 since the 2018 census and 7,500 since 2006. The rate of overall population growth has rapidly increased over the last few years, as more people are being attracted by a different lifestyle.

Median age of the general population at the 2018 census was 37.0 years. However, for Māori this was much lower, at 27.7 years. After being stable between the 2006 and 2013, census the Māori population had increased over 5,000 by 2018.

The below graphs compare the age and sex of both general population, and that of Māori. Younger age groups (up to 19 years of age) have a higher percentage of Māori compared



with the general population. In contrast older (50 years and over) age groups have a higher percentage of people in the general population. In the 70 years and over age groups, the percentage of Māori compared to the general population is significantly lower, which reflects lower life expectancy and poorer health outcomes.

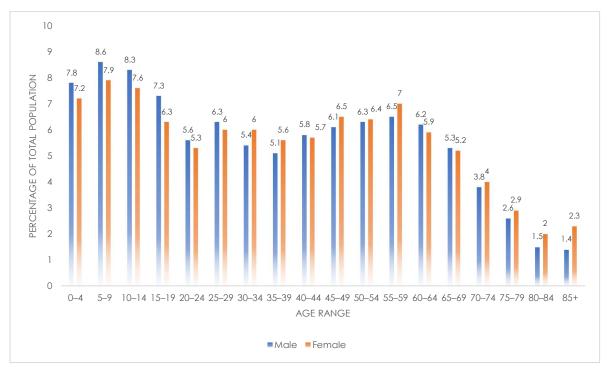


Figure 4 Total population spread by age (Census 2018)

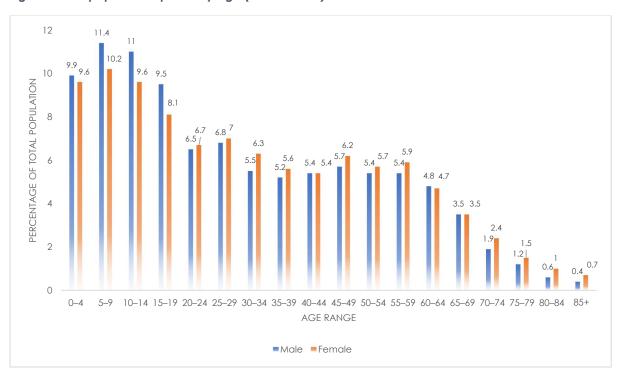


Figure 5 Māori population spread by age (Census 2018)

In percentage terms, Te Tairāwhiti has the highest Māori population of any region in New Zealand.



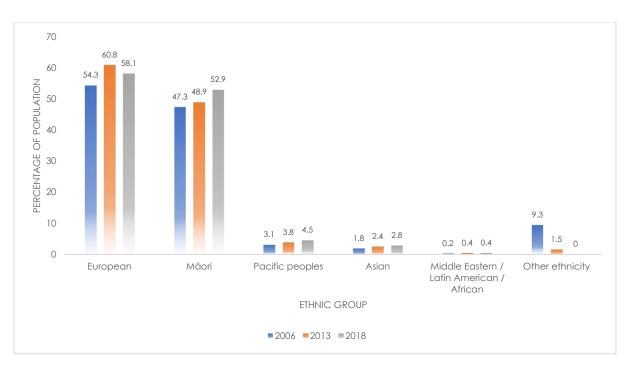


Figure 6 Total population by ethnicity

The main urban area of Gisborne city contains 73% of the population in Te Tairāwhiti. The remaining 27% is spread amongst the smaller townships and rural areas, primarily along the East Coast. In New Zealand as a whole, the percentage of people living in urban areas is higher than Te Tairāwhiti, at nearly 84%. Prior to the damage caused by the weather events, the journey times were still significant.



Figure 7 Journey times for one-way journeys within the region (prior to damage from weather events)

Now journey times are longer. For example, it takes approximately 3 hours 30mins to get from Wharekahika/Hick's Bay to Gisborne.



Gisborne city residents benefit from having a relatively large concentration of jobs, educational opportunities, and services within a small urban area, no more than ten kilometres from east to west. It is a different story outside of the city, with residents having to travel significant distances to Gisborne city to access anything other than the most basic services within local townships.

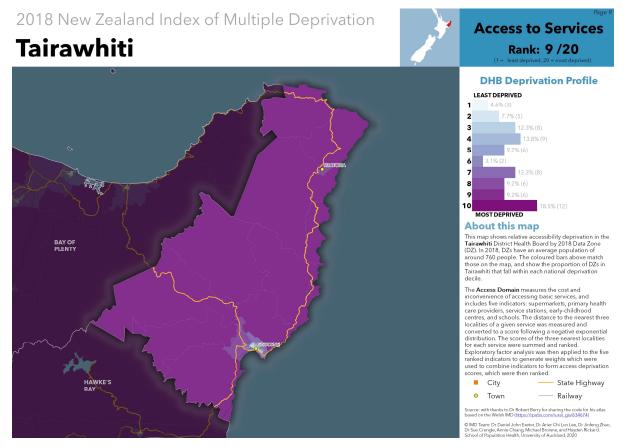


Figure 8 Deprivation across Tairāwhiti

This situation results in a high level of deprivation in terms of access to services. At the 2018 census, the Tairawhiti District Health Board (DHB) area ranked 9 out 20 in the country (with 20 being the highest level of deprivation). However, this ranking masks the fact that access is relatively good in Gisborne city, whilst being very poor elsewhere in the region (as shown in Figure 2.6 above).

# Our economy

Based on a range of metrics, Te Tairāwhiti is an economically deprived region, when compared to the New Zealand average.

Indicator	Te Tairāwhiti	New Zealand Average
Gross Domestic Product per capita, year to March 2022 (\$)	51,833	70,617
Proportion of total population in employment, in 2022 (%)	63.6	70.9



Indicator	Te Tairāwhiti	New Zealand Average
Average Household Income in 2019 (\$)	90,100	106,600
Households with annual income of \$100,001 or more in 2018 (%)	22.4	34.3
Average Deprivation Index (out of 10, the highest level)	7.5	5.6

A significant contributory factor of low economic performance is the proportion of GDP in primary production industries such as forestry / logging and agriculture:

Table 2.3: Te Tairāwhiti has a very high Share of primary production industries.

Industry	Te Tairāwhiti Share of GDP (%)	New Zealand Average Share of GDP (%)
Forestry / logging	6.9	0.6
Agriculture	9.0	4.3

Compared with regions such as Hawke's Bay, the value-add economic activities associated with some primary product processing (in particular wood) is relatively small. In others – such as fruit – it is better. In effect, therefore, some primary products leave Te Tairāwhiti region after they are harvested, and value is created elsewhere, along with the required jobs and skills to support this process.



	RGDP		% region		% industry
Forestry, Fishing, Mining, Electricity, Gas, Water and Waste Services	~~~	\$266m	~~	14%	2%
Agriculture		\$196m	$\sqrt{\sim}$	10%	2%
Health Care and Social Assistance	~~	\$146m	\\\\\	8%	1%
Rental, Hiring and Real Estate Services		\$142m	~~	8%	1%
Manufacturing	$\wedge \wedge \wedge$	\$119m	~~	6%	0%
Owner-Occupied Property Operation	~	\$115m	~~	6%	1%
Construction	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	\$111m	^	6%	1%
Education and Training	~~~	\$105m	~	6%	1%
Retail Trade	~	\$98m	\~·	5%	1%
Professional, Scientific and Technical Services	~~~	\$79m	\\\.	4%	0%
Transport, Postal and Warehousing	~	\$74m	~	4%	1%
Information Media, Telecommunications and Other Services	<b>/</b>	\$68m	~	4%	0%
Public Administration and Safety		\$61m	~	3%	1%
Wholesale Trade	~~	\$49m	~~	3%	0%
Financial and Insurance Services	\\\\\	\$32m	1	2%	0%
Administrative and Support Services	~~	\$31m	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	2%	1%
Food and beverage services	~~~	\$26m	~~~	1%	1%
Accommodation	$\sim$	\$6m	~	0%	0%

Figure 9 Regional GDP breakdown

The right-hand column shows the percentage of each industry's total GDP in New Zealand, that is represented by Te Tairāwhiti. Again, primary industries dominate, along with support services such as health care / social assistance.



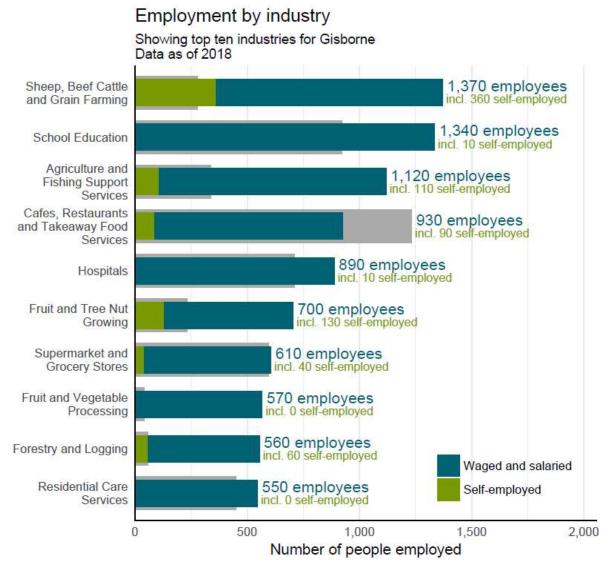


Figure 10 Employment in top 10 industries in the region

In nine of the ten industries represented above, the percentage of jobs in Te Tairāwhiti is greater than the national average.



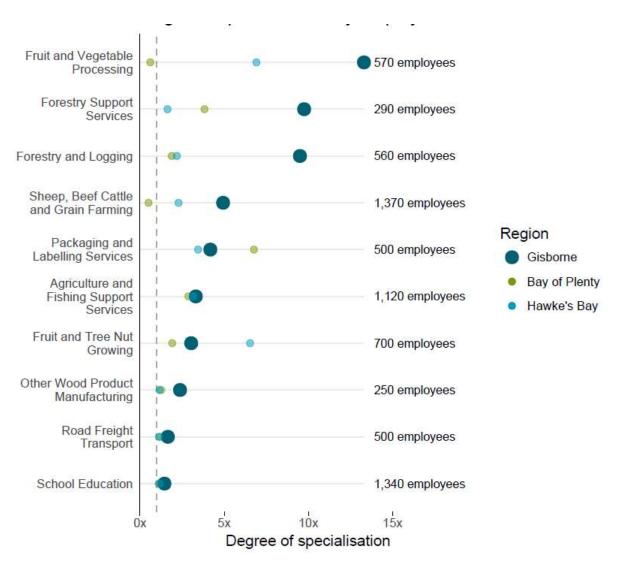


Figure 11 Specialisation by industry

Regional specialisation is a measure of which industries are concentrated in Te Tairāwhiti. If the region specialises in an industry, its share of employment is higher than the national average. Again, there is a large specialisation in primary industries and services which support them.

Regions such as Te Tairāwhiti, where primary industries and public services represent a high percentage of GDP, tend to be economically disadvantaged as both numbers of jobs and rates of pay are relatively low.

# **Gisborne City**

Gisborne (population 38,000) is the region's only city - the first Pākehā settlement and has always been by far the largest. The traditional Māori name is Tūranga-nui-a-Kiwa - "Great standing place of Kiwa". The city was renamed in 1870, in honour of New Zealand Colonial Secretary William Gisborne, who had the distinction of never actually visiting the place.

In 1831 John Harris set up the first trading station. The founding of the town is attributed to G. E. Read, who settled on the Kaiti (east) side of the river in 1852, but later built stores on the west bank which is now the modern city centre.



Over the next 30 years other traders and missionaries also arrived. Conflict in Poverty Bay in 1865–66 drew attention to the strategic position of the settlement, and in 1868 the government bought 300 hectares of land for a town site. Rapid development progressed towards the end of the 19<sup>th</sup> century on the back of a thriving pastoral hinterland. Two freezing works and many other industries were established.

The modern city of Gisborne still retains its historic charm, and is now a bustling settlement which contains many of the employment, services, education, and retail functions within the region.

The Poverty Bay flats encompass Gisborne city as well as surrounding areas of Mākaraka, Matawhero and Ormond, where lifestyle blocks, vineyards and farms are extensive.

Gisborne boasts a large stretch of coastline encompassing Waikanae and Midway, Kaiti, Sponge Bay, Wainui, Okitu, and Makorori beaches, which are world-renowned and therefore popular for swimming and surfing. Sometimes referred to as the "City of Rivers", Gisborne sits at the confluence of the Waimata, Taruheru and Turanganui rivers. At only 1,200 meters long, Turanganui is the shortest river in New Zealand.

Titirangi, which sits directly above James Cook's landing site, provides expansive views over the city and wider Poverty Bay. Many archaeological sites have been identified on Titirangi, including burial grounds, terraces, and middens. Titirangi Pā sits near the summit.

#### Te Karaka

Located on State Highway 2, Te Karaka is a small rural town located 32 kilometres north-east of Gisborne - in the heart of Te Aitanga a Mahaki iwi. Te Karaka has Nga Ariki Kaiputahi, Rongowhakaata, Ngati Porou, Tuhoe and Te Whanau a Kai iwi connections.

Te Karaka is in the valley of the Waipaoa River close to its junction with its tributary, the Waihora River. Despite the distance inland, Te Karaka is only 40 metres above sea level. The township is the largest settlement between Gisborne and Ōpōtiki, 112 kilometres further northwest.

With a population of nearly 600 people, the township boasts industries such as silviculture, agriculture, horticulture, and viticulture. There are active sports clubs, community groups, churches, and voluntary fire brigade. Te Karaka boasts a leading-edge school facility which opened in 2014. Marae, a petrol station, post office, butcher, doctor, police station, and tavern are the main other local services and facilities.

Surrounded by the river on three sides, Te Karaka was severely affected by the Cyclone Gabrielle flooding in February 2023, with 110 homes badly damaged or destroyed.

State Highway 2 bypasses the main street of the town, and the 2013 Community Plan identified a need to provide more information and reasons for travellers to stop in the township.

# Tolaga Bay

Tolaga Bay (Ūawa) is both a bay and small town located on State Highway 35, approximately 45 kilometres northeast of Gisborne and 30 kilometres south of Tokomaru Bay. The current population is around 900.

The region around the bay is rugged and remote, and for many years the only access to the town was by boat. Because the bay is shallow, a wharf – the second longest in New Zealand (600 metres) was built in the 1920s to accommodate visiting vessels. The last ship to use the



wharf loaded a cargo of maize in 1967. By 1998, the wharf had deteriorated and was in danger of being closed. The Tolaga Bay Save the Wharf Trust raised funds and gained technical help to restore the structure. The wharf was re-opened and a refurbishment project finished in May 2013. Now a popular leisure and fishing destination, the wharf was badly damaged during Cyclone Gabrielle in February 2023, and is currently closed. Further damage from swells and slash in June 2023 means there is no current date for re-opening, and insufficient funding to complete the necessary works.

The town is a popular tourist and leisure destination, with several holiday parks and camp sites. For a town its size, there are a relatively high number of local shops and cafes, two petrol stations and a pub, alongside the usual local services for residents.

The population is predominantly Māori, a centre of the Te Aitanga-a-Hauiti hapū and home of Ariki – Te Kani a Takirau and Tohunga – Rangiuia.

The Ūawa River reaches the Pacific Ocean in the middle of Tolaga Bay. There is a bar at the river mouth with around two metres of water at high tide. Tributaries include the Waiau and the Mangaheia. In 2018 heavy rains washed huge amounts of discarded forestry timber (or slash) down the Ūawa River, which choked up the estuary, covered the beach, and caused extensive damage to farms and houses. History repeated itself in 2023.

There is a popular local walkway, which runs from land adjacent to the Wharf to Cook's Cove.

# Tokomaru Bay and Te Puia Springs

Tokomaru Bay is a small community located 91 kilometres north of Gisborne, on State Highway 35, and close to Hikurangi. The current population is around 500.

A Ngati Porou iwi stronghold, the two hapū that reside in Tokomaru Bay are Te Whanau a Ruataupare and Te Whānau a Te Aotawarirangi. The ancestral mountain Marotiri is clearly visible from the town, which is bisected by the ancestral river Mangahauini.

In the later 19th century the bay became a centre for the local pastoral industry. In 1911 and the wharf was extended to take overseas ships. The town's modern economy is mainly based on agriculture and forestry, with some tourism as part of the State Highway 35 route around the East Coast. In the 21st century Tokomaru Bay, formerly a port and service centre for neighbouring farms and stations, is now host to a number of artists and craftspeople.

There are a variety of shops, cafes, and taverns in Tokomaru Bay, spread out along the seven-kilometre coastal strip on State Highway 35 and Beach Road.

The township was cut off for six weeks, in the aftermath of Cyclone Gabrielle. A bypass road allowing improved access to Tokomaru Bay was blessed and officially opened in front of a crowd of about 150 people in late March 2023. The 2.2km route, named Pourau Road, provides a route around Hikuwai No.1 Bridge on State Highway 35, which was washed out during Cyclone Gabrielle.

20 kilometres north of Tokomaru Bay, Te Puia Springs Hospital is the main health hub on the East Coast, although every township has its own clinic. Te Puia Springs is the only Māoriowned and run hospital in the world.



#### Ruatoria

A service town of 860 people Ruatōria, for a time known simply as the "Cross Roads", became the principal township on the East Coast, as roads replaced the sea as the main means of transport.

From about 1925 onwards, Ruatōria began to replace the nearby coastal settlement of Tuparoa as the main urban centre of the East Coast district. This transition was brought about by the increased reliability of State Highway 35, which at that time ran via the Ruatōria main street. Tuparoa was disadvantaged by unreliable road access and lack of an all-weather harbour.

Ruatōria is therefore the largest service town in the upper part of the East Coast, and features a well-known hotel tavern as well as several small supermarkets and a petrol station.

The principal industries in Ruatōria are related to agriculture and forestry.

#### Te Araroa

Situated right at the top of the East Cape, Te Araroa is situated 175 km north of Gisborne city, along State Highway 35. In distance terms, Te Araroa is slightly closer to Ōpōtiki in the Bay of Plenty region. Te Araroa has two camping grounds and a New Zealand Motor Caravan Association park.

With just 175 residents, Te Araroa sits at the base of Whetumatarau at the eastern end of Kawakawa Bay. The marae in the area are Hinerupe, Paerauta, Matahi-o-te-tau, Awatere, Pikitanga and Hurae. Te Whanau a Hinerupe, Te Whanau a Te Aotaihi, Te Whanau a Hunaara, Te Whanau a Kahu, and Te Whanau a Tuwhakairiora are the hapū in the area.

The township has a medical centre, general store, takeaways, fire station and police station. Access to the iconic Lighthouse is via East Cape Road. However, access to the lighthouse is currently unavailable due to the condition of the track. The local school caters to students from Year 1 to 13. In the grounds of the local school stands Te Waha o Rerekohu, one of the largest pōhutukawa trees (Metrosideros excelsa) in New Zealand.

# Wharekahika Hick's Bay

Wharekahika / Hick's Bay is a small township and coastal area, situated 150 km east of Ōpōtiki and 186 km north of Gisborne city, along State Highway 35 between Potaka and Te Araroa. The town was named after Captain William Hicks, who was the first European to sight the bay in the early 19th century. The narrow Onepoto Road provide access to a cluster of houses around the bay. As its name suggests, Wharf Road provides access to the old wharf, now closed due to a state of disrepair.

There are 162 residents. Over the years, Wharekahika / Hick's Bay has remained a tight-knit community, with many residents working in the education, manuka and forestry industries. The township is also home to a small number of local businesses, including a general store, and accommodation lodge. Te Kura Kaupapa Māori o Kawakawa-mai-tawhiti is a kura kaupapa Māori for Year 1 to 13.

The local Hinemaurea ki Wharekahika Marae hosts hapū and community events. Te Whānau a Te Aotakī and Te Whānau a Tuwhakairiora are the hapū in the area.



#### Muriwai

Muriwai is a settlement and rural community at the southern end of Poverty Bay, just west of Te Kurī o Pāoa (Young Nick's Head). State Highway 2 between Gisborne and Wairoa passes through the settlement, although most of the houses are located on local roads adjacent to it. The local primary school is situated on State Highway 2.

The Gisborne to Wairoa railway passes through Muriwai, and occasional steam excursions run from the city, including during the annual Chardonnay Express event on the site of the old station.

The settlement has two marae, belonging to the Ngãi Tāmanuhiri hapū of Ngãi Tawehi, Ngãti Kahutia, Ngãti Rangitauwhiwhia, Ngãti Rangiwaho and Ngãti Rangiwahomatua: Muriwai Marae and Te Poho o Tamanuhiri meeting house, and Waiari Marae and meeting house.

#### Manutūkē

Located 15 kilometres to the west of the city of Gisborne on State Highway 2, close to the mouth of the Waipaoa River, Manutūkē had a population of 399 at the 2018 census.

Most of the township is bypassed by State Highway 2, and local facilities include post office (housed in an attractive Rongowhakaata Trust building), fire station, local store, police station and primary school.

The area has four marae belonging to the hapū of Rongowhakaata:

- Manutūkē Marae and Te Poho o Rukupo or Te Poho o Epeha meeting house is a meeting place of Ngāti Kaipoho.
- Ohako Marae and Te Kiko o te Rangi meeting house is a meeting place of Ngāi Tāwhiri and Ruapani.
- Pāhou Marae and Te Poho o Taharakau meeting house is a meeting place of Ngāti

  Maru
- Whakato Marae and Te Mana o Turanga meeting house is also a meeting place of Ngāti Maru.

#### Pātūtahi

Pātūtahi is a small settlement 15 kilometres from Gisborne city, and had a population of around 330 people at the 2018 census.

The settlement is arranged around a small grid pattern of streets, with the rugby ground and community hall situated in the centre. There is also a community hall, fire station, church, tavern (including small shop / take away) and primary school.

The area has three marae belonging to the hapū of Te Aitanga-a-Māhaki. Pakowhai Marae and Te Poho o Hiraina meeting house, and Rongopai Marae and meeting house are a meeting place of Te Whānau a Kai. Takitimu Marae and Te Poho o Whakarau Oratanga a Tamure meeting house are a meeting place of Ngā Pōtiki and Te Whānau a Kai.

#### Makaraka

Makaraka is an outer suburb of Gisborne city, located in the west of the airport, and features the local racecourse. State Highway 2 meets the Pacific Coast Highway (Main Road) into Gisborne city. There is a tavern at the intersection, plus several local shops and a petrol station on Main Road. There is a significant level of local industry, including a large sawmill.



Makaraka was settled by dairy farmers in the 19th century, and a factory was built in the settlement in 1899.

The Tarere Marae, located near Makaraka, is a tribal meeting place of Te Whānau a lwi, a hapū of Te Aitanga ā Māhaki.

From 1902 to 1959 Mākaraka had a railway station on the Moutohora Branch and, from 1915 to 1931, was the junction for the Ngātapa Branch. It is now the mothballed Makaraka Industrial Line and has the East Coast Museum of Technology on the former Makaraka station site.

#### Matawai

Situated on State Highway 2, midway between Gisborne and Ōpōtiki, Matawai is a small community that features a tavern and shop on the main highway. The Matawai War Memorial Hall opened in 1952, and replacing a previous building from 1910, was refurbished in 2016 to accommodate war rolls of honour from neighbouring communities. There is a small local primary school.

The local Mātāwai Marae and Tapapa meeting house is a meeting place of Te Aitanga ā Māhaki's hapū of Ngā Pōtiki, Ngāti Mātāwai, Ngāti Wahia and Te Whānau a Taupara.

Matawai is secluded hill country and is marketed as base for a range of recreational activities in the great outdoors including hunting, fishing, hiking and cycling – in particular the epic Mōtū Trails, one of the twenty-three Great Rides that make up the New Zealand Cycle Trail.

#### Mōtū

Mōtū itself is located north of Matawai and State Highway 2 between Gisborne and Ōpōtiki.

Research undertaken by children at the local school<sup>2</sup> reveals that in the early 1900s Motu was a thriving community with a General Store, (run by The Common Shelton Company in Gisborne), Lovell's stables with their own stage coach, the Bank of New Zealand, the Bank of New South Wales, a cobbler and saddlers, a cheese and butter factory, a blacksmith shop with a billiard saloon, the Motu Hotel, police station, school, Post Office, garage, two churches, sports grounds, stock and station yards, tennis courts, and a Public Works Department, the Motu Hall, plus the thriving timber mills.

Today there is only, the church, the Community House (visitor accommodation located in the old Post Office building), six permanent residents' houses, three fishing lodges, and the school. The last remaining shop has been closed since 1995.

The Mōtū River is Gisborne's largest upland river. It has significant ecological values, particularly in the upper reaches. The river's water quality, aquatic ecosystem values, swimming values and the quality of its trout fishery have been gradually declining with the intensification of grazing, climate change and other land-use activities.

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<sup>2</sup> https://www.livingheritage.org.nz/Schools-Stories/Motu-From-bush-to-grass



#### Rere

Rere is a small community located in the upper valley of the Wharekōpae River in remote country in the foothills of the Huiarau Range, inland from Gisborne city.

Rere Falls is a picturesque 5 metres tall and 20 metres (66 ft) wide waterfall and it is possible to walk behind its cascading curtain of water. Rere Rock Slide has been included in the NZ Automobile Association's 101 Must-do places for Kiwis, and is a smooth, natural rock formation 60 metres long, at an angle of about 30°, over which the Wharekopae River rushes like water in a giant water slide.

On the way to Rere from Gisborne city, Eastwoodhill, New Zealand's national arboretum, encompasses 131 hectares of exotic and native flora for a walk through gardens, trails, parks and reserves.

#### **Tiniroto**

Tiniroto is a small farming and forestry community on the "inland" road from Gisborne to Wairoa. The village has a primary school and a tavern, with overnight accommodation. The tavern is adjacent to the post office.

Surrounded by the Ruakituiri and Hangaroa rivers with the maunga Mt Whakapunake in the background, Tiniroto is marketed as tranquil and scenic environment for recreational activities. The nearby Hackfalls Arboretum is home to over 3,000 species and varieties of oaks, alders, cherries, magnolias, maples and more.

Tiniroto Road, an inland route which parallels State Highway 2 was very badly damaged by Cyclone Gabrielle. In July 2023, the road was closed because of the danger of rockfall at the Hangaroa bluffs.



# Tō tātau tūhononga waka whenua Our transport network

The role of any transport system is to support and grow economic, social, and cultural activity for people, through provision of safe and efficient access. Transport also supports and enables sustainable development of places where people live, work and play.

At 0.7 vehicles per head of population in 2020, Te Tairāwhiti has the second lowest rate of private vehicle ownership in the country (after Wellington, where public transport is far more extensive). This means that a relatively high number of people are reliant on provision of alternative transport modes to live their lives.

This section sets out the main components of the region's transport system, starting with active travel (walking, cycling, scooters, wheelchair, and horse) and then moves into motorised modes.

#### **Active travel**

Footpaths, walkways, cycleways, shared paths, cycle lanes and quiet routes represent the backbone of local travel, especially for children and young people and other members of the community who do not have access to a private car.

Footpaths are located adjacent to roads and streets in Gisborne city and the smaller townships, and are the first point of contact with the active travel network.

"Gazetted walkways" are tracks established under the Walking Access Act 2008 and the New Zealand Walkways Act 1990, and declared as walkways in the Government's official newspaper, the New Zealand Gazette. Walkways under these Acts may be over public land or private land. Many other walking tracks provide opportunities for people to access the outdoors. While some of these tracks may be termed "walkways", only those formally established and gazetted under the Walking Access Act 2008, or the New Zealand Walkways Act 1990 have the special legal status.

Dedicated cycleways are separated from vehicle traffic and pedestrians, and should only be used by cyclists and e-scooters. Generally there is also a dedicated footpath alongside a cycleway.

Shared paths are separated from vehicle traffic and used by cyclists, pedestrians, and people using scooters, wheelchairs, skates, prams. Slower traffic always has the right of way.

Protected on-road cycle lanes are physically separated from traffic, using anything from raised concrete barriers through to temporary plastic posts. On-road cycle lanes are painted, and do not have any physical separation from vehicle traffic.

Quiet routes include streets which have traffic calming such as speed bumps to slow down cars, and shared zones which are used by all types of traffic including pedestrians, cyclists, and cars.

Gisborne city has by far the most extensive active travel network in the region. Footpaths are generally provided alongside the local roads and State Highways, although there are some gaps in the outer areas. In the smaller townships and fringe areas of Gisborne City there can often be whole roads which, whilst residential, never had footpaths constructed.





Figure 12 Example where there is no footpath provision

Where they exist, footpaths are often very narrow, and regularly cross side roads which have very wide entrance "flares" that are especially hard for disabled people, and others with mobility impairments, to cross. The crossing points can sometimes retain pools of water and silt, which do not provide a good level of service to pedestrians – an example is shown in Figure 2.13.

Good progress has been made with improving active travel routes in some parts of the city. The shared path from Wainui into Gisborne city on State Highway 35 is well-used and generally of a good standard. The Crawford Road segregated on-street path provides a good alternative to Wainui Road for people living to the south. There are pockets of very good facilities which need to be linked together into a coherent network, which opens up a much larger range of journey possibilities.

However, an attractive, convenient, and safe active travel network must provide a good level of service everywhere, and gaps such as unsafe intersections have a very negative impact – especially for disabled people or others who may have temporary mobility impairment (for example heavy shopping or pushchairs). If there are locations on a route which are challenging and unsafe, people are often dissuaded from active travel at all, even if most of the journey is fine.





Figure 13 Example of poor drainage which covers tactile paving used by blind or partially sighted people

Crossing the heavily trafficked roads is especially challenging for pedestrians, cyclists and wheelchair users, both in Gisborne city and the smaller townships which are often bisected by a State Highway. Figure 2.14 shows the Peel Street / Childers Road intersection, where pedestrians and cyclists wishing to go straight on must cross two lanes of busy fast-moving traffic and a right turn lane. Anyone in a wheelchair or mobility scooter would struggle with the upward camber into the centre of the road. There are many examples of these types of pedestrian crossing challenges across the city of Gisborne.





Figure 14 Example of a challenging crossing for pedestrians and cyclists

Where on-road painted cycle lanes are provided, these are often very narrow and sometimes abruptly terminate into a line of parked cars, which then forces the cyclist to swerve into the traffic. Poor road surfaces – specifically potholes – are highlighted for their ability to damage motor vehicles. For cyclists, damage to the roads represent another significant safety risk.

The overall conclusion is that, whilst previous RLTP investment has made a good start, a consistent high-quality system-wide level of service for pedestrians and cyclists is missing from Te Tairāwhiti network. Investment in this RLTP will take active travel provision to the next level.



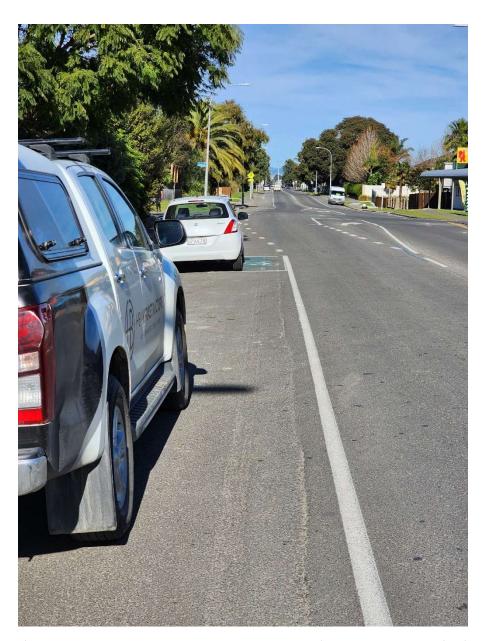


Figure 15 Example of an On-road cycle Lane occupied by a ute and ending in a parked car

# **Public transport**

Gisborne City has the only Council-funded fixed bus network in Te Tairāwhiti. The urban current network is summarised in Table 2.5. Buses run on weekdays only, between 7am and 6pm. There are no evening or weekend services.



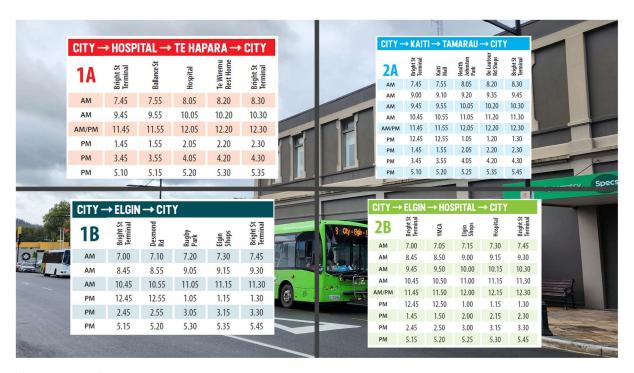


Figure 16 Bus timetable

The urban bus routes are configured as long one-way loops. The aim of this approach is to maximise geographic coverage of the network with a small number of buses (just three in total). However, the result is very long travel times for relatively short journeys, as passengers are often taken in the opposite direction to where they want to go.

All services start and finish in the city centre, and so it is impossible to get a direct bus between the western and eastern halves of the city, necessitating a time-consuming transfer of around 15-20 minutes. None of the urban services offer a high (greater than hourly) frequency, which means that people who have the option of a car to travel find it far more convenient. Therefore the only people who use Gizzybus are those who have no other choice.

Even the aim of coverage is not achieved by the current network. The below map shows the extent of the services and areas of the city which are within a 400-metre walk of a bus stop.

The proportion of Gisborne residents that are served by the network is below 60%, which equates to a poor "E" level of service aa defined by the Transit Level of Service and Capacity Manual<sup>3</sup>. When the additional proposed housing development areas are added in, the population catchment reduces further. Therefore not all the urban area is covered by a bus route, with residents of Awapuni, Taruheru, Tamarau, Wainui and Otiku having no service at all. No public buses run to the main aquatic facility, port or airport.

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<sup>&</sup>lt;sup>3</sup> TCQSM Part 1 (trb.org)



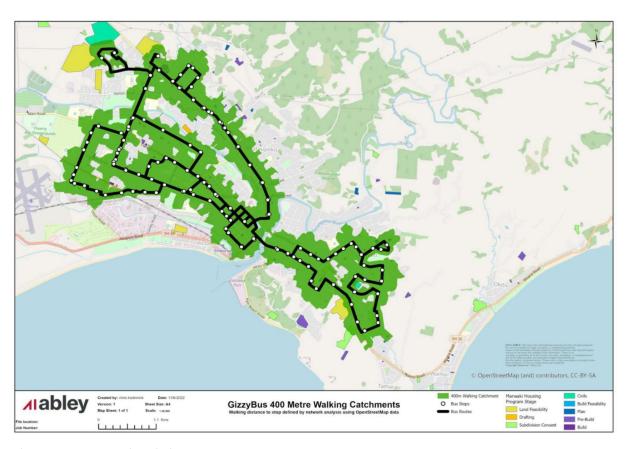


Figure 17 Areas of city within 400m walk of a bus stop

At the 2018 census, percentage of travel to work for bus was only 0.3% of all trips, compared with 4.2% for New Zealand as a whole.

In March 2023, the busiest month in the year, the number of passenger trips on the four urban routes was as follows:

Service	Number of Passenger Trips	Number of Bus Journeys in the Month	Average Number of Passengers per Bus Journey
1A	557	138	4.04
1B	553	138	4.00
2A	1,284	276	4.61
2B	1,360	276	4.68
Total	3,754	828	4.38

The table shows that services are currently not well used, even in the busiest month of the year. Patronage on GizzyBus services has been declining - losing existing passengers and failing to attract new ones – for the last ten years. The COVID-19 pandemic has only made things worse.



Council funds nine Waka Kura school services, which each provide one morning and one afternoon journey. All secondary schools are in the western half of the city, and routes undertake various circuits of the east before then travelling to different schools, as shown in Figure 18.

All services start by doing various circuits of the eastern half of the city, before making their way over the river to the western half where all the high schools are located.

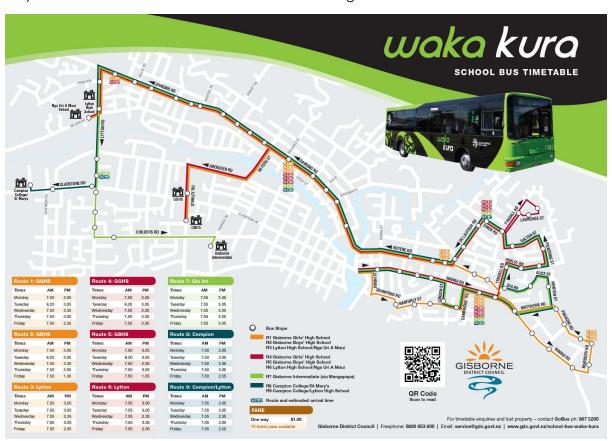


Figure 18 Waka Kura timetable

School buses in Te Tairāwhiti are popular, both compared to urban buses in the region and other New Zealand regions. At the 2018 census, 15.4% of pupils used a school bus, compared with a New Zealand average of 9.9%. In contrast only 0.9% of pupils use the GizzyBus network to get to school, compared with the New Zealand average of 7.1%. In contrast to GizzyBus, average numbers of passengers per bus are relatively high. In recent years, additional buses have been introduced to meet demand.

Service	Number of Passenger Trips	Number of Bus Journeys in the Month	Average Number of Passengers per Bus Journey
1	1,077	46	23.41
2	1,400	46	30.43
3	1,259	46	27.37



Service	Number of Passenger Trips	Number of Bus Journeys in the Month	Average Number of Passengers per Bus Journey
4	1,242	46	27.00
5	1,716	46	37.30
6	1,580	46	34.35
7	1,344	46	29.22
8	2,157	46	46.89
9	865	46	18.80
Total	11,775	414	23.41

Total patronage on the GizzyBus and Waka Kura networks varies significantly over the year. The total patronage numbers over this period are affected both by COVID-19 and also introduction of half price fares for all passengers.

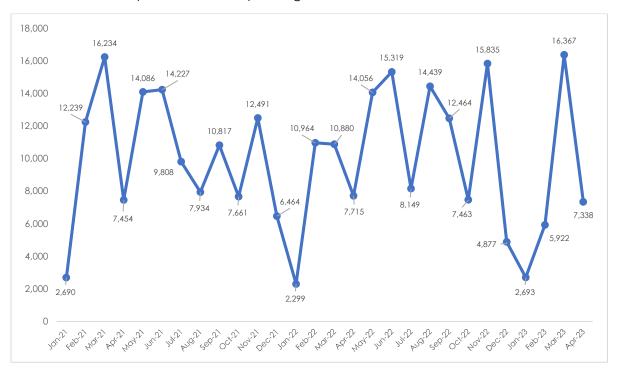


Figure 19 Patronage by month January 2021 to April 2023

The busiest months of the year (March and November) are where there no school / public holidays, which reflects the extent of school travel compared with adults. In contrast, January is all school holiday, and total patronage is very low.

Bus stops are the "shop window" of the public transport system, where people access the vehicles themselves. The quality and extent of facilities at bus stops in Gisborne city is very



poor – with most having no shelter, seating, or timetable information. In some cases, there is not even a dedicated hard standing area for passengers.

As part of the first phase network review, stakeholder engagement has identified a number of priorities for service improvement:

- More direct routes by removing the long one-way loops;
- Services which link places where people want to go;
- Higher service frequencies (in terms of number of buses per hour);
- Assurance of service reliability and punctuality;
- Accessible and higher quality bus stops with good information;
- Weekend services; and
- More flexible fare structures.

It is currently not always possible for buses to meet the kerb and enable level boarding for people who are permanently or temporarily mobility impaired.



Figure 20 Example of bus stop without level boarding facility

This RLTP proposes a step change in public transport planning and investment, both within Gisborne city and across the region as a whole. This will include a significant overhaul of current bus stop infrastructure, and provision of greater priority for buses on the street. It is proposed to develop a number of multi-modal transport hubs which will be integrated with



development, and linked to together by a core network of fast and frequent buses. Conversion of the bus fleet to modern environmental and accessible standards is a priority.

To enable much greater use of an improved network, significantly more resource will need to be put into information, publicity, and marketing of services. The Regional Public Transport Plan (RPTP) will be developing proposals for eye-catching and compelling campaigns to sell the benefits of improved bus services. At present bus timetables for existing services are not available in public places such as libraries or even at the Council's reception.

# **Total Mobility**

Total Mobility (TM) is a subsidised taxi service which provides residents with long-term impairments to access appropriate transport to meet their daily needs and enhance community participation.

Eligibility for TM is based on how a disability affects a person's ability to use transport. A disability may be psychological, psychiatric, physical, neurological, intellectual, sensory, or other. People need to meet with a registered assessor, to make sure they meet the scheme's national eligibility criteria and are in genuine need of subsidised taxi travel.

TM services are provided in an "on-demand" fashion provided by private taxi organisations – Driving Miss Daisy and Gisborne Taxis. The TM system is dependent on a trust-based system of vouchers and signoffs and needs significant amount of administrative reconciling work.

In Gisborne, a 75% taxi voucher subsidy applies per trip up to a maximum fare of \$12, which was set some years ago. As a result of inflation, this maximum fare level is very low by comparison with other councils in New Zealand, who set it at around \$40-\$50. The low maximum fare of \$12 has the effect of limiting the 75% discount to very short distance trips of four kilometres or less.

Stakeholder feedback on the TM service is that it is perceived as relatively expensive next to the regular public transport system. Although convenient and accessible, cost is an issue, and the elderly and disabled are interested in seeing the regular public transport system cater more for them with accessibility being a key priority.

GDC will continue to promote and invest in TM, including modernisation of the current voucher-based booking system through introduction of the Ridewise platform. However, provision of more accessible public transport aims to reduce dependence on TM and provide disabled people with a greater choice of affordable access options.

# **Community Transport**

"Community transport" services (which can either be on-demand or fixed route) provided by non-profit organisations such as charitable trusts. The services are also generally provided by smaller vehicles such as vans or even cars.

The Sunshine Service is a community transport operation within the Gisborne city boundary, including Wainui<sup>4</sup>. In 2023 Sunshine celebrated 40 years of operation.

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<sup>&</sup>lt;sup>4</sup> Sunshine Service Inc | CAB Directory Listing



During the year to 31 March 2017 Sunshine carried a total of 18,573 passenger trips, including 5,460 wheelchair and walking frame clients. The vans travelled a total of 75,975 kms. At the time there were nearly 1,600 clients using the vans on a regular basis.

With around 450-500 passenger trips per week provision is for elderly and people with disabilities only, to hospital, doctors, dental and hair appointments as well as to social and recreational activities. Bookings only need to be made a day in advance.

Community transport services are not currently funded by the Council or Waka Kotahi, and there is no promotion of Sunshine Service through the GDC website for example.

St John provide health-based community transport shuttle services in many parts of the country<sup>5</sup>, and as currently investigating options for serving the remote parts of the region up the East Coast. In the second half of 2023 the Waka Manaaki - East Coast Health Shuttle has been funded by Te Whatu Ora on a pilot basis to travel between Ruatoria and Gisborne Hospital. What started as a three day per week service has now been extended to every weekday in order to meet demand. The shuttle is operated by Ngati Porou.

In the South Island, the Environment Canterbury Community Vehicle Trust (CVT) approach<sup>6</sup> provides targeted funding to an organisation which provides such a service. Operated primarily by volunteer drivers, a CVT community transport operation can meet the needs of the target communities at a lower cost and on a more sustainable basis compared to tendered fixed route services and Total Mobility. There are currently 15 CVTs across the Canterbury region, which provide public transport – for both short and longer distance journeys – where there is nothing else available.

This RLTP proposes investment to set up a community transport planning and funding framework, which will be able to commence working with communities to understand their full access needs (not just the obvious ones, such as doctors' appointments) and co-design solutions which are led by locals.

#### Rail

The Gisborne to Napier portion of the Palmerston North-Gisborne Line (PNGL), a secondary main line, was completed in 1942 and primarily operated a freight movement function. However, the line was closed in 2012 following several large washouts north of Wairoa, resulting in significant damage to rail infrastructure.

In early 2018, KiwiRail reopened the section of line between Wairoa and Napier with support from the Provincial Growth Fund (PGF). The Wairoa to Gisborne section of the track is currently mothballed, although the line between Gisborne and Muriwai is used for occasional steam train excursions.

The BERL report Tūranga ki Wairoa Rail Study (December 2019)<sup>7</sup> concluded that from an engineering perspective, it is feasible to reinstate the rail line to a level that would be more resilient to damaging weather events.

<sup>&</sup>lt;sup>5</sup> St John Shuttle Services

<sup>&</sup>lt;sup>6</sup> <u>Home Page - Community Vehicle Trust</u>

<sup>&</sup>lt;sup>7</sup> Reconnecting Gisborne | BERL



The Gisborne Rail Reinstatement Update Assessment Report (May 2022)<sup>8</sup> provides a detailed analysis of the infrastructure and economic potential of the line, by providing an updated rail freight assessment and potential contribution to regional growth; assessing the social and environmental impacts of the current options; and outlining benefits to the future safety of traffic on roads in the region.

Jointly commissioned by GDC and Hawkes's Bay Regional Council, the assessment report concludes:

- The reinstatement of the line to Gisborne, including upgrades to the Napier Wairoa section, can be achieved in 18 months for between \$73 million and \$80 million;
- There could be up to 150,000 tonnes of projected rail freight by 2025 expected to rise of over 210,000 tonnes by 2030;
- Estimated projected gross revenue in 2025 for the rail service including rail operator and intermodal road transport to and from rail for customers (including port fees) is \$15 million or more;
- Rail could provide sufficient combined transport logistics infrastructure required to process 1m tonnes of logs per year into over 450,000 m<sub>3</sub> of export product;
- GHG emissions rail net savings of 2,550 to 3,650 tonnes per year based on current KiwiRail locomotives; and
- Rail benefits from reducing growth in trucks on the main state highway making these roads safer, thereby contributing to "Road to Zero" strategy.

While reinstatement of the Gisborne to Wairoa rail line was not included in the New Zealand Rail Plan 2021-24, GDC will continue to advocate for the project's inclusion in future plans. In particular, the Waka Kotahi Arataki regional direction for Te Tairāwhiti notes the potential for increasing the share of freight moved by rail.

This RLTP proposes investment in a business case which will examine a range of multi-modal options for connecting Te Tairāwhiti with our neighbours in Hawke's Bay and Bay of Plenty.

### Sea

Located right in the heart of Gisborne city, Eastland Port is one of New Zealand's largest log exporters and the most easterly commercial shipping port in New Zealand. Primary exports include logs, squash, and kiwifruit but the Port is looking to diversify products and future proof infrastructure with the \$60 million Twin Berth project.

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<sup>8</sup> Sustainable Tairawhiti Committee 2 June 2022 (gdc.govt.nz)





Figure 21 Eastland Port

There are two additional storage yards, one located behind the inner harbour precinct on Crawford Road and the other in Matawhero. The Port is joint owners of a debarking facility located within the complex.

The port also encompasses the inner harbour and marina precinct, which is a regional hub for marine operations and a popular community space. The Inner Harbour Marina includes 43 berths, a free boat ramp (owned by GDC) and a swathe of waterfront restaurants.

Forestry is a major driver for freight movements from harvest areas across the region to Eastland Port. Because of significant increases in logging volumes to the Port and adverse impacts of heavy vehicles on the roading network, there has been interest in exploring other freight modes. This includes expanding capacity for the existing Eastland Port through the Twin Berth project?

Eastland Port exported 2,890,730 tonnes of cargo during the 2019/20 financial year, equating to over 100,000 full truck movements. With projected growing volumes of logs, kiwifruit, and apples from the region the Port's current role as a regional bulk export port is likely to change in coming years to support growing container export volume via coastal shipping to both Napier and Tauranga.

In March 2023 the Government funded an emergency container shipping route between Eastland and Napier ports, which acted as a lifeline for regional economies and further help aid cyclone recovery. The support was through a \$500,000 grant and a \$2.25m underwrite for the charter of the 67-metre-long container ship Rangitata for three months.

During the three-month charter funded by the government, there were 18 voyages and 294 containers moved between the two East Coast ports - 233 containers were transported for the meat industry while 61 were for produce. The coastal container service came with significant environmental benefits with ship freight emissions being less than 15% of its road freight equivalent.

The Port predicts the eventual return of coastal container shipping, if the \$60 million rebuild of Wharf 7 and Twin Berth Project receives resource consent and is constructed. Once finished,

<sup>&</sup>lt;sup>9</sup> Twin Berth project » Eastland Port



two 185-200-metre-long ships will be able to berth at the same time, opening up the possibilities of large shipping container vessels to and from the region.

The Waka Kotahi Arataki regional direction for Te Tairāwhiti notes the potential for increasing the share of freight moved by sea. As noted in the section on rail above, this RLTP will progress a business case for provision of alternative modes to the current road link between Gisborne city, Wairoa, and Napier.

# Roading network

Travel in Te Tairāwhiti is dominated by private motor vehicles with over 90% of work trips undertaken by private vehicle (car, van and truck) at the 2018 census. In 2001, total traffic was 0.37 million vehicle kilometres; by 2021 this figure had risen to 0.44 million vehicle kilometres.

The One Network Framework (ONF)<sup>10</sup> is a tool to help establish transport network function, performance measures, operating gaps and potential interventions for each road and street type.

#### The ONF:

- Recognises that streets not only keep people and goods moving, but they are also places for people to live, work, and enjoy.
- Is designed to contribute to improving road safety and building more vibrant and liveable communities.
- Organises transport links by their place and movement roles into road and street types, in both rural and urban areas:

<sup>10</sup> One Network Framework | Waka Kotahi NZ Transport Agency (nzta.govt.nz)



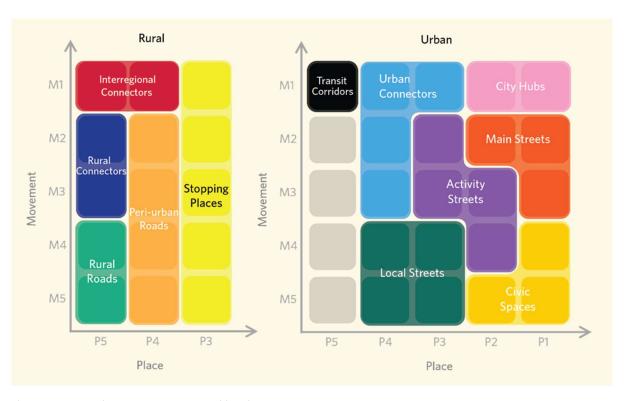


Figure 22 Overview of the ONF classification framework

Category	Description
Civic Spaces	Roads or streets where people can relax and move freely. There is usually street furniture and other amenities to encourage and support people to linger and spend time in these spaces. There are very high numbers of pedestrians moving around and through the space while there is little or no through movement for motor vehicles.
Local Streets	Provide quiet and safe residential access for all ages and abilities. They are part of the fabric of our neighbourhoods and facilitate local community access. Generally important parts of walking and cycling networks and should support these transport choices for local trips.
Activity Streets	Provide access to shops, entertainment venues, community facilities and commercial, trades and industrial businesses for all people, whether walking, cycling, using public transport, or driving. support medium to high levels of people walking, cycling, using public transport, or driving through the area.
Main Streets	Have lots of people walking around - with people working, visiting shops, businesses, and entertainment venues. Main streets need to balance the interaction between the movement of people and goods and on-street activity. They support medium to high levels of people walking, cycling, using public transport, or driving through the area.
City Hubs	Dense and vibrant places as they are the central point of a city where people spend time working, shopping, meeting other



Category	Description
	people, visiting entertainment venues and businesses. They support very high levels of people walking, cycling, and using public transport through the area.
Transit Corridors	Make it fast and efficient for people and goods to move within urban areas. They are mass transit corridors for private motor vehicles, freight and public transport and include motorways and urban expressways. They are usually separated from surrounding land use so there are no people walking or cycling on these roads. Transit corridors also include heavy rail networks and busways.
Urban Connectors	Make it safe, reliable, and efficient for people and goods to move between different parts of urban areas. There are high levels of motor vehicle traffic, including freight. They often support public transport and provide major routes for people cycling. There are low levels of pedestrian activity associated with people moving along the road.
Stopping Places	Rural destinations that increase activity on the roadside and directly uses the road for access. There are more people walking, cycling, and driving in these locations, including people often crossing the road.
Peri Urban Roads	Primarily provide access from residential property on the urban fringe, where the predominant adjacent land-use is residential, but usually at a lower density than that found in urban residential locations. On street activity is discernible and local in nature but also at lower levels than in urban areas. The level of movement on peri-urban roads can range from low volume through to regional.
Rural Roads	Provide access to rural land. There are low levels of traffic and roadside activity from local people going about their daily lives. Some rural roads are important for freight, collecting dairy and forestry and other primary produce from their source, while others, where volumes of vehicle traffic are very low, can provide safe and pleasant recreational and tourism routes.
Rural Connectors	Make it easy for people and goods to move between different parts of rural areas, and link rural roads with interregional connectors. They support an increased level of traffic moving through the area, while also providing access from the land they pass through.
Interregional Connectors	These are national State Highways that make it safe, reliable, and efficient to move people and goods between and within regions. These roads carry significant levels of motor vehicle traffic, including freight. There are people cycling on the routes that connect the New Zealand Cycle Trail.

The network is divided into local roads and State Highways. As Road Controlling Authority (RCA) GDC is responsible for 85% (1,893 kilometres) of the region's total roading network, of



which 13% is urban and 87% rural, and 46% sealed and 54% unsealed. some of the main characteristics of the physical assets which make up the road network are:

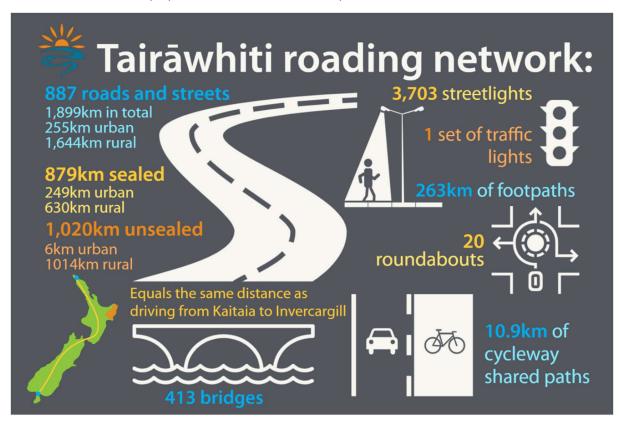


Figure 23 Some of the characteristics of the local road network

The region's industries and businesses are heavily reliant on land transport for the vast majority of freight and supply movement. The highly rural nature of the region and its road network is reflected in the ONF categories across the region.





Figure 24 ONF categories across the region

GDC receives a subsidy from Waka Kotahi through the National Land Transport Fund (NLTF) to enable ratepayers to afford the provision and maintenance of the local road network. The Funding Assistance Rate (FAR)<sup>11</sup> is currently 68% for Te Tairāwhiti - so for every dollar GDC spends on an approved activity on local roads, the NLTF contributes 68 cents and ratepayers

11 Normal funding assistance rates | Waka Kotahi NZ Transport Agency (nzta.govt.nz)



32 cents. Most of GDC's local share comes from a small ratepayer base. Some projects therefore also require external funding or grants to complete.

The key areas of growing pressure on the transport network include rapid growth in freight, particularly export log volumes to the port and other sites, and growing traffic volumes on key urban routes.

Te Tairāwhiti region is well known for its soft rock soil erosion – on a scale and severity greater than any other part of New Zealand. Natural erosion susceptibility has been aggravated by deforestation as native forests were cleared for pastoral farming over the 19th and early 20th centuries.

A paper from 2021 12, by D. L. Fellows & N. Barker of consultants GHD, states that the southern portion of the region is comprised of Tertiary aged interbedded mudstones and sandstones (weak rocks). To the north the geology also includes Allochthonous Cretaceous aged calcareous mudstone, sandstone, limestone, and green sand. All the units have been uplifted by the East Coast Deformation Belt. The region is capped by a veneer of up to 10 metres of rhyolitic volcanic ashes. The upper weathered weak rocks and overlying ashes form the soils of the region. Local shallow slope 2 instability has also created areas of colluvium on the steep hillslopes which remain vulnerable to continued shallow instability. In addition to the ground conditions, historic road formation practices (i.e. sidling cut and fill with minimal compaction) have also created areas vulnerable to shallow slope instability. The interface of the fill with natural ground often becomes the shear surface for shallow failures.

The region's roading network therefore traverses unstable and highly erodible land that is very prone to over slips (where debris falls on to the road from above) and dropouts (where the road collapses from underneath). This underlying challenge is exacerbated by issues including climate impact (more frequent heavy rain and flooding) and increased heavy traffic volumes.

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<sup>&</sup>lt;sup>12</sup> Slope failures, scour and infrastructure damage: - Tairāwhiti road network response to multiple severe weather events - New Zealand Geotechnical Society (nzgs.org)



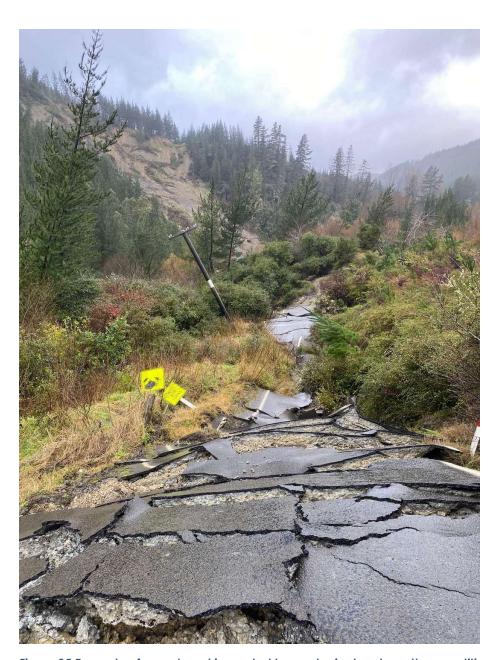


Figure 25 Example of a rural road impacted by geological and weather conditions

The cause of erosion in the district is a combination of soft rock geology, and in rural areas - historic vegetation clearance or deforestation. Over the last 12 years there has been about a tenfold increase in freight to the port, which is represents significant additional heavy vehicle traffic volumes using the roads.

The challenge facing local roads, even before the last two to three years of weather events, is summed up in the 2019 route security business case, again produced by GHD. The document highlights that the local roading network of Te Tairāwhiti plays a critical role in connecting sparsely populated and relatively isolated communities, and key primary producers such as forestry and agriculture. However many transport routes are not resilient, and susceptible to slips, subsidence, flooding, tree fall, scour and other issues. These regular hazard events cause widespread disruption and economic and social consequences for communities and regional producers, and the activities and markets they connect.



Regular hazard events result in faster depletion of regional local roading maintenance budgets, because significant proportions are allocated to reactive emergency maintenance activities responding to the effects of closures. Although necessary at the time, reactive spend is suboptimal as similar closures will continue to occur because the root causes are not generally addressed. In Te Tairāwhiti a yearly cycle transpires where large proportions of maintenance funds are allocated to emergency works, and therefore funds available to target the root causes of road closures are constrained.

Additional funding sought via the 2019 business case focussed on addressing the cause of issues which affect route security as opposed to the effects of such issues. This could then reduce future emergency maintenance costs at selected sites that can be better utilised on preventative future maintenance activities on other high risk network areas.

The business case concluded that scale of the problem outweighed available funding even with the injection of additional resource identified by the technical work. This was due to the sparse population and associated low traffic volumes, socio-economic status of the region, and levels of preventative and resilience investment.

Recommendations in the business case were scaled to fit available funding; additional high and medium priority issues not prioritised. The business case concluded that whilst benefits would be achieved on prioritised routes, connectivity issues would continue to remain for the community and stakeholders in many parts of the network.

Fast forward to 2023, and the conclusions of the business case look somewhat prophetic. The catastrophic damage and destruction to the local roading network makes the situation far worse than in 2019. Had more resources been invested in proactive, rather than emergency, maintenance over the last 10-20 years the transport asset may have been in a better shape to withstand the severe weather events.

As it is, the region is now faced with a Herculean task, both to repair the damage and build a future network that is resilient to all that can be thrown at it. The Council provides regularly updated information on the immediate priorities for repair of the network<sup>13</sup>.

## Strategic transport corridors

Te Tairāwhiti has close economic and transport links with our three neighbours:

- Hawke's Bay;
- Manawatu; and
- Bay of Plenty.

Whilst Gisborne city has the thriving and growing Eastland Port, its ability to handle cargo other than primary products is limited. This means that Te Tairāwhiti is highly reliant on the ports of Napier (Hawke's Bay) and Tauranga (Bay of Plenty) for exporting goods to market.

The region is highly dependent on State Highways 2 and 35 for longer distance travel, both within the region and to our Hawke's Bay and Bay of Plenty neighbours. Both corridors have resilience challenges with few, if any, viable alternative routes. The reliability of these corridors is critical for the economic functioning and future prosperity of the region.

<sup>13</sup> Flood-damaged road network | Gisborne District Council (gdc.govt.nz)



SH2 is the key connection for Gisborne city and the surrounding Te Tairāwhiti region to the Bay of Plenty, Waikato, and Auckland, for healthcare, tourism, vital fuel, and food supplies as well as exporting local products. Gisborne's relative isolation means businesses and communities rely on having access to safe, reliable transport to get their goods to domestic and international markets and to access basic services.

Freight using this road is either generally bound for the Port of Tauranga, carrying timber to the Gisborne Port or fresh produce to and from Auckland. Inter-regional freight includes agricultural producers of horticulture, dairy, grazing and sheep farming.

These routes are also popular for recreational use, connecting Tauranga to the East Coast and Gisborne. This includes people towing boats and caravans to and from their holiday and weekend breaks, or popular events such as Rhythm and Vines and other music festivals. Some areas increase in population during the summer, causing pressure on the state highways.

The Waka Kotahi Corridor Management Plans from 2018<sup>14</sup> provide more detail on the key corridors which link Te Tairāwhiti with the outside world.

(a) Gisborne to Hawke's Bay and Palmerston North

The corridor comprises six state highways connecting Palmerston North with Hastings, Napier, and Gisborne to the north. The corridor also includes SH38 linking Wairoa to Te Urewera Rainforest including Lake Waikaremoana, and SH2B which bypasses central Napier across the Ahuriri Estuary. SH50 is an alternative route between just north of Norsewood and Napier.

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<sup>14</sup> Corridor management plans | Waka Kotahi NZ Transport Agency (nzta.govt.nz)



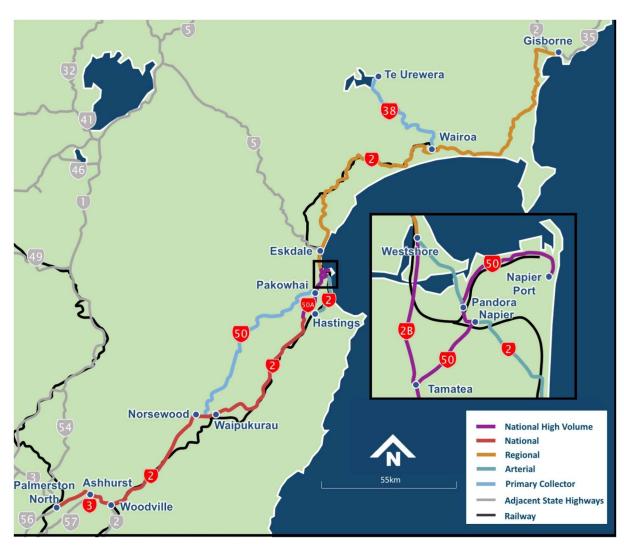


Figure 26 Map of state highways between Gisborne and Palmerston North

The corridor is approximately 563 kilometres long (4.9% of the state highway network). In 2018, Waka Kotahi estimated the total value of assets along the corridor at \$740 million (3.2% of the total national State Highway asset value).

The corridor south of Napier is the main transport route for product from Hawke's Bay and Te Tairāwhiti region to the lower North Island and the South Island - a key freight route for export commodities moving between the Wellington, Hawke's Bay and Napier ports and the Palmerston North Freight Hub. This section of the corridor also provides an alternative route if SH5 between Napier and Taupo is closed.

North of Napier heavy vehicle traffic is lower in volume, but continues to make up a significant portion of the traffic present. However, SH2 remains the only land transport route available to customers moving between Napier and Gisborne as the railway line has been mothballed.

Spanning the Manawatu, Hawke's Bay and Poverty Bay regions, the corridor supports strong horticultural, agricultural and forestry industries. With economies built on industry and exports, freight continues to be a transport focus.

There are limited alternative heavy transport routes along the corridor, other than the section around Napier and Hastings, where a number of local roads and highways can be used.



Resilience of the corridor between Napier and Wairoa is an issue as the only viable alternative route is a 500-kilometre diversion. Between Wairoa and Gisborne there is an alternative route via Tiniroto Road.

This stretch of state highway was closed for three months after Cyclone Gabrielle after suffering damage to around 100 sites, including the bridge at Waikare Gorge, which was completely destroyed.

State Highway 2 was impassible between Gisborne and Wairoa, with the potential alternative of Tiniroto Road also out of action. This resulted in a journey of around 9-10 hours between Gisborne and Napier, via Ōpōtiki, Rotorua, and Taupo (normally the State Highway 2 journey between the two cities would be around three hours).

A Bailey bridge has now replaced Waikare bridge while plans for a long-term replacement are finalised. Tiniroto Road remains closed because of cyclone damage.

Waka Kotahi states that the alignment between Napier and Gisborne limits upper travel speeds, but continues to give reliable travel times (particularly Whirinaki to Tutira, Raupunga, Wairoa and Morere). Travel times between Napier and the Napier Port are highly variable.

Te Tairāwhiti is completely reliant on State Highway 2 for access to both neighbouring regions. The impact of Cyclone Gabrielle on the route between Gisborne and Napier resulted in the Government investing \$2.75 million in a temporary three-month sea freight service between Eastland Port and Napier Port.

Eastland Port reported 18 voyages, and 294 containers - 233 for the meat industry and 61 for produce - moved between the two ports. The coastal container service came with 15% lower Greenhouse Gas emissions compared with road freight.

#### (b) Ōpōtiki to Gisborne corridor

The Ōpōtiki to Gisborne corridor, State Highway 35, is the only road that circuits the East Cape of the North Island.

SH35 was originally a Māori designation road, fully constructed in 1929, and serves the majority of the regional rural population as it is the only transport route linking local communities around the East Coast. The corridor follows the Eastern Bay of Plenty coast from Ōpōtiki to Waihau Bay, before heading slightly inland crossing the regional boundary into Tairāwhiti.

The corridor is approximately 335 kilometres long (2.9% of the State Highway network in New Zealand). The total value of assets along the corridor is \$403 million (1.7% of the total State Highway national asset value). The corridor is fairly consistent in nature, being a two-lane opposing road, narrow for large sections, with frequent bends and steep undulating topography and geometry.

Ōpōtiki to Waihau Bay is characterised by its coastal setting on the west side and native forests to the east, single-lane bridges, and small rural communities. The remaining alignment of the corridor south of Hicks Bay through to the east of Gisborne is inland through farmland, forestry, and local communities.

The corridor follows alongside the Waiapu River to Ruatoria, gradually rises towards its highest point of 271 metres near Tokomaru Bay, dropping steeply into the coastal town, before rising back to a similar height and descending again towards Gisborne.



SH35 is the key connection for East Coast community services including healthcare, education, and food and fuel access as well as for exporting local products. Customers using this corridor are generally locals, driving between home and employment, accessing local services, and distributing goods.

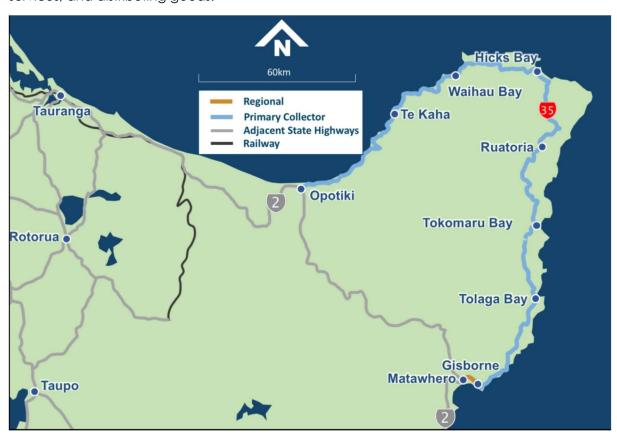


Figure 27 State highway network from Gisborne to Ōpōtiki

The corridor is subject to closure due to storms and flooding, resulting in disruption to business sustainability and extensive detours for all other users. SH35 is the only road around the majority of the East Coast, which is also the freight route and access for local communities and commercial enterprise.

Freight using this corridor is generally bound for the Port of Tauranga for international distribution as well as collecting supplies for the region, and transferring timber to Eastland Port in Gisborne. Inter-regional freight distributes local produce to key servicing locations, the East Coast is heavily reliant on the resilience of the corridor, with local fruit producers in particular susceptible to closures. Local growers include kiwifruit and stone fruits, which are perishable and have a short shelf life. The long-term sustainability of local business relies on their produce reliably getting to market. There has been recent promotion of value-adding crops in the region to bring further investment and greater opportunities for local employment.

Tourism and local recreation is an additional opportunity and risk for the corridor, being an extra source of revenue, along with an increase of traffic, potential delay for freight and locals, and greater infrastructure requirements.

As a result of Cyclone Gabrielle, State Highway 35 was closed for a number of weeks between Gisborne and Tokomaru Bay. This completely cut off many of the small East Coast communities, with the result that supplies had to be airlifted in. The only land-based option



was for people to drive to Ōpōtiki and then on State Highway 2 to Gisborne – a journey of at least five hours. There was significant disruption to people's lives, and those who (for example) rely on access to hospital facilities in Gisborne were put at significant risk.

#### (c) Tauranga to Gisborne Corridor

The Tauranga to Gisborne corridor comprises SH2 from Tasman Quay / Hewlett's Road intersection (Mount Maunganui) in the west to its intersection with SH35 in Gisborne (Matawhero) in the east.

Travelling west from the Port of Tauranga, the corridor includes the Tauranga Eastern Link (TEL) toll road, passes through Matata, Edgecumbe and Ōpōtiki, continuing through the 50-kilometre Waioeka Gorge (the longest road gorge in New Zealand) to Gisborne.



Figure 28 State highway Gisborne to Tauranga

There is a freight rail line that runs alongside the corridor between Tauranga and Matata, west of Edgecumbe; and a closed rail line between Matawai and Gisborne. The corridor is approximately 304 kilometres long (2.7% of the State Highway network). The total value of assets along the corridor is \$520 million (2.2% of the total State Highway national asset value).

The corridor is the major transport route linking Te Tairāwhiti region and the Tauranga / Bay of Plenty. The corridor is varied in nature, being a four-lane divided road in the urban west between Tauranga and Papamoa, before transitioning to a rural environment with long straight road sections, occasional out of context curves by the coast to Edgecumbe.

East of Edgecumbe the corridor is characterised by single-lane bridges and a winding geometry through woodlands along the banks of the Waimana River before opening back to rural farmland through to Ōpōtiki. The road from Ōpōtiki raises up through steep and



winding forested terrain through the Waioeka Gorge, to the highest point at 716 metres, west of Matawai.

The corridor gradually descends to Te Karaka returning to a rural nature before ending at the SH35 intersection west of Gisborne. SH2 is the key connection for Gisborne city and the surrounding Te Tairāwhiti region to the Bay of Plenty and Auckland, for tourism, vital fuel and food supplies as well as exporting local products.

Customers using this corridor are generally regular users, with a good understanding of the road conditions and its limits. The corridor is readily subject to closure due to storms and flooding resulting in disruption to business sustainability and extensive detours for all other users.

Freight using this corridor is generally bound for the Port of Tauranga for international distribution and collection of supplies for the region, or carrying timber to Eastland Port in Gisborne.

This RLTP has been developed in close partnership with Hawke's Bay Regional Council. Future corridor asset management and developing multi-modal links (sea, bus, and rail) are important to improve resilience and reduce carbon emissions from longer distance transport.



# Looking to the future

#### Tairāwhiti 2050

The Tairāwhiti 2050 Spatial Plan<sup>15</sup> maps out how we as a community want our region to look in 30 years' time - building resilient and prosperous communities which:

- Recognise, protect, and build upon their natural and social capital; and
- Anticipate, respond, and adapt positively to the challenges facing our region.

Community wellbeing is made up of four areas which provide the foundation for developing Tairāwhiti 2050:

Wellbeing	Description
Social	Our communities have a deep sense of place and belonging. We are socially connected, recognise the importance of whakapapa, and are committed to improving the education, health and safety outcomes of our people. Our communities are more resilient. Our townships have access to a network of fit-for purpose facilities that reflect community need. We support affordable housing options and the sustainable management of urban growth.
Environmental	We maintain the health of our soils, air, fresh water and coastal environments. Our region's biodiversity is restored and protected. We improve land uses to ensure they are environmentally sustainable.
Cultural	Communities and individuals experience vitality through kaitaikitanga, expressing their arts, heritage, history, identity, and traditions. We work together to achieve common goals. Cultural activities are enabled by the activation of community spaces, our marae and place making.
Economic	Our communities are financially secure and contribute to a growing regional economy. Infrastructure is provided to enable businesses to establish, thrive and create new employment opportunities. Our rural townships benefit directly from ongoing economic investment.

This RLTP will contribute to a number of key outcomes:

Outcome	Opportunity	RLTP Contribution
A driven and enabled Tairāwhiti	Council can support the right kind of development and investment by providing clearer direction and more certainty through the rules and	Planning and provision of sustainable transport infrastructure and services to enable development in areas

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<sup>15</sup> tairawhiti-2050-spatial-plan-shaping-the-future-of-our-region.pdf (gdc.govt.nz)



Outcome	Opportunity	RLTP Contribution
	guidance in the Tairāwhiti Resource Management Plan.	where the need to travel is minimised.
Resilient communities	We can limit the effects of climate change by moving toward a zero emissions economy and fast-tracking climate change mitigation actions, so Tairāwhiti is carbon neutral before the national 2050 target.  Substantial investment in a new public transport network for Gisborne city, and services in the townships / rural areas, will be accompanied by active travel routes to enable sustainable shorter journeys.	
	For all of our infrastructure, it will be important to understand where our most important assets are and will need to be (asset criticality). This will help us to prioritise their long-term development and make wise choices around investment.	Asset management and resilient communities is the highest priority for the RLTP, based on substantial investment in resilience and multimodal alternatives to road travel.
A vibrant city centre and townships	Activate our CBD by promoting walking and cycling, inner city living, repurposing heritage buildings, creating multi-use public spaces and developing a hospitality precinct.	The new public transport and active travel networks will significantly improve travel to, from and within the city centre, and support compact sustainable urban development.
	Making the best use of available land - including infill development, intensification, and redevelopment of the city centre to support mixed use with open space and high-quality medium density	
Connected and safe communities	residential housing.  Implement the Road to Zero Safety Strategy for New Zealand.	The RLTP has three transport priorities which address all of these issues:
	Upgrade the State Highway network to improve safety, efficiency and to support regional tourism.  Facilitate safe and efficient transport routes for all users to	1. Investment in long term multi- modal asset renewal and improvement will enable the region's transport network to meet demand for freight, provide greater travel choice, promote equitable access, withstand future severe weather (and other



Outcome	Opportunity	RLTP Contribution
	reduce the risk of deaths and serious injuries.  Improve the safety and amenity of the State Highway and local road network where it passes through townships.  Improve access and safety of cyclists and pedestrians, including use of dedicated pathways through the city centre.  Develop a wider regional walking and cycling trail network that provides connections between schools, townships, and community spaces, and provides a variety of must-visit experiences for visitors.  Explore and strengthen pathway connections between local reserves to enhance their use as well as the liveability of our communities.  Promote car sharing and shared car ownership for our communities.	unexpected) events, and provide safe and accessible travel choices to all members of the community and businesses.  2. Investment in coordinated safety infrastructure, education, enforcement, and encouragement to reduce and eventually eliminate deaths and serious injuries for all transport system users, but especially Māori who are over-represented in the statistics.  3. Investment in public / shared transport solutions and low carbon alternatives to current fossil fuel vehicles, to enable people to access economic, education, and social opportunities without having to own a vehicle.
A diverse economy	Move towards higher value industry and economic diversification such as adding value to the tourism industry, local timber processing, high value crops such as kiwifruit and apples and the growth of horticulture further up the coast.  There is an opportunity to build an authentic East Coast Road	The creation of resilient multimodal transport routes for transporting of freight will give companies the confidence to invest in future production and processing capability, knowing that they will be able to get goods to market when needed.  The RLTP strongly supports the proposed Te Ara Tipuna walking
	journey, complemented by tracks and trails, and support efficient road access to local attractions across the region.	and cycling trail.

The safe and connected communities outcome has a number of specific aspirations which the RLTP will work towards:



- Everyone has access to transport to get where they need to go.
- No deaths or serious injuries on roads in Tairāwhiti.
- Our city and townships are pedestrian and cycling friendly.
- Gisborne city is the cycle capital of New Zealand.
- 40% of Gisborne city residents walk or cycle to work.
- 80% of our children walk or cycle to school.
- Wheelchairs, push chairs and mobility scooters have equal access opportunities.
- Public transport combined with driver-less technology services 80% of the city population.
- Heavy vehicle / freight volumes passing through the Gisborne region have significantly reduced.
- We have alternate transport routes that could be on the blue highway, via rail to Hawke's Bay, inland routes off State Highway 35, through the city.

## **Draft Future Development Strategy**

The draft Future Development Strategy (FDS) gives effect to Tairāwhiti 2050 by promoting long term planning to achieve well-functioning urban environments, providing development capacity, and assisting with planning decisions that promote sustainability.

A recently completed Housing and Business Capacity Assessment 2022 (HBCA) projects Tairāwhiti will need nearly 30% more houses over the next 30 years – around 5,000 new homes. The HBCA provides three projections (low, medium, and high growth) incorporating different fertility, mortality, and migration assumptions.

Metric	2020	2023	2030	2050
Population	50,700	52,080	54,420	59,460
Households	17,250	17,930	19,580	22,270
Change in households from 2020	-	+660	+2,330	+5,020

The assessment also indicates there is sufficient business land available to accommodate present and future business demand.

Almost half of Tairāwhiti's population don't earn enough money to buy or rent a house. This will get worse unless something is done about it. The HBCA also anticipates an ongoing shift away from traditional detached dwellings. One solution to address future growth and inform affordable land use choices is allowing housing intensification to occur in the right places and in the right way. Redeveloping existing urban areas and building smaller but high-quality dwellings, can bring housing costs down, helping to create connected communities.

To make up the existing shortfall and provide for the increased demand, there is a need to identify more land suitable for housing (known as future growth areas) and allow for housing intensification in the city centre and surrounding areas.



In accordance with established Council policy<sup>16</sup> promotes a compact city form, the FDS growth strategy encourages three quarters of new development within and close to existing neighbourhoods that can support higher density housing over the next 30 years. This will place the majority of growth in these areas accessible by active and public transport (particularly in the future) to jobs, services and amenities. Intensifying existing urban areas alone will not provide for all future demand, to provide a variety of homes a small amount of lower density forms of growth provide greenfield and rural lifestyle opportunities.

The FDS public consultation draft has outlined objectives necessary to support future growth in Te Tairāwhiti. Key to well-functioning urban environments is how people connect with the urban areas that encourages and enables a variety of movement options. This is where good land use and transportation planning alignment, through transport investments and the RLTP, and the RPTP will make a direct contribution:

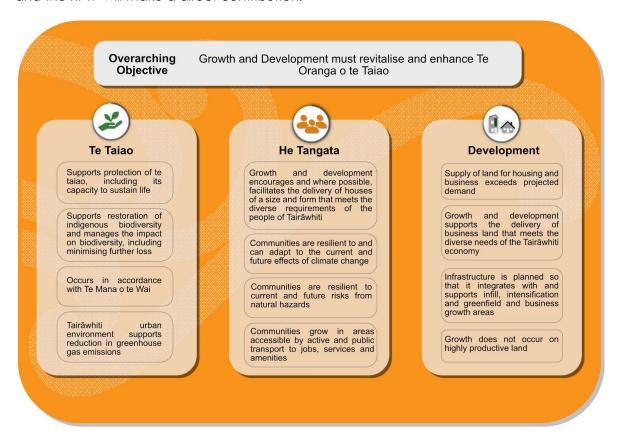


Figure 29 Draft FDS objectives

The FDS is supported by investment in transport infrastructure and services. Figure 30 below outlines existing and potential mobility improvements that can contribute to improved movement choices in the Gisborne urban area. These improvements togethers with an efficient bus service is key to supporting the success of compact, high-quality urban environments.





Figure 30 Major transport infrastructure to support growth



# Ngā whakature me te anga kaupapa here National legislation, policies and plans

#### Legislation for transport planning

Section 13 of The Land Transport Management Act (LTMA) 2003<sup>17</sup> places an obligation on Te Tairāwhiti Regional Transport Committee (RTC) to prepare an RLTP, on behalf of **Gisborne District Council**, every six financial years, with a refresh after three.

Section 14 of the LTMA outlines the core requirements:

#### Core RLTP Requirements (section 14, LTMA)

Before a regional transport committee submits a regional land transport plan to a regional council or Auckland Transport (as the case may be) for approval, the regional transport committee must—

- (a) be satisfied that the regional land transport plan—
- (i) contributes to the purpose of this Act; and
- (ii) is consistent with the GPS on land transport; and
- (b) have considered—
- (i) alternative regional land transport objectives that would contribute to the purpose of this Act: and
- (ii) the feasibility and affordability of those alternative objectives; and
- (c) have taken into account any—
- (i) national energy efficiency and conservation strategy; and
- (ii) relevant national policy statements and any relevant regional policy statements or plans that are for the time being in force under the Resource Management Act 1991; and
- (iii) likely funding from any source.

### Public transport legislation and regulations

In section 117 of Land Transport Management Act (LTMA), the purpose of the RPTP is stated as being:

- a) A means for encouraging Regional Councils and public transport operators to work together in developing public transport services and infrastructure;
- b) An instrument for engaging with the public in the region on the design and operation of the public transport network; and

<sup>17</sup> LTMA 2003



#### c) A statement of:

- i. The public transport services that are integral to the public transport network;
- ii. The policies and procedures that apply to those services; and
- iii. The information and infrastructure that support those services.

Section 126 of the LTMA states the RPTP must, at all times, be kept current for a period not less than three, and not more than ten, years in advance. The Council may review the Plan from time to time, after the public transport service components of the Regional Land Transport Plan (RLTP) are approved or varied.

The previous RPTP was prepared under the Public Transport Operating Model (PTOM), a system for planning, procuring, and funding public transport, which aimed to increase patronage with less reliance on public subsidies, through improved collaboration between operators and Regional Councils.

Services which do not form part of the core public transport network are exempt from operating under contracts. This currently includes long distance services provided by Inter City.

PTOM has been replaced by the Sustainable Public Transport Framework (SPTF), which is underpinned by new objectives prioritising mode-shift, fair and equitable treatment of employees, and improved environment and health outcomes. The basic structure of PTOM has been retained, whereby all bus services are divided into units and provided under contracts to GDC.

An amended LTMA enables Regional Councils to either operate public transport services inhouse or to continue to outsource the operation of services to private operators. This change acknowledges that outsourcing of services to private operators may not always align with wider objectives for public transport services, for example, improving the terms and conditions of employees or accelerating the decarbonisation of the bus fleet. At this point in time, GDC is undertaking a service efficiency review under section 17A of the Local Government Act, which will examine all viable options for future procurement and governance arrangements for public transport in the region.

The amended act also establishes a requirement for public transport services to be planned, procured, and operated in an open and transparent manner - in relation to operating costs, service performance, vehicles used to deliver services, aggregate employee terms and conditions, and financial performance of operators.

Under the SPTF, the definition of public transport includes on-demand and shuttle services which do not run to a fixed schedule. Therefore, Regional Councils are able to support any form of passenger transport service through any mode, other than air transport, whether delivered to a timetable or not. Regional Councils can procure, contract, and deliver ondemand services separately to timetabled services, by amending the definition of a unit, and removing the requirement for every unit to be contracted on an exclusive basis.

"Exempt services", which are not integral to the public transport network, include commercially operated buses, on-demand, and shuttles. Some exempt on-demand, and all exempt shuttle services, can be operated without being registered with GDC. A smaller subset of commercially operated passenger transport services will be subject to registration requirements - limited to those services more likely to affect public transport services provided by Regional Councils.



Inter-regional buses, which cross a boundary between two Regional Councils, are no longer automatically classed as "exempt", and treated the same as services within a region. Inter-regional services would only be automatically exempt if they are not identified as integral in an RPTP and operate without a subsidy, or if the regions that they operate between are not required to have RPTPs. Subsidised inter-regional services that are identified as integral in an RPTP would need to be provided in a specified unit.

### **Government Policy Statement on Land Transport**

The LTMA requires the Minister of Transport to issue a Government Policy Statement on Land Transport (GPS) every three years. The GPS sets out the government's priorities for expenditure from the National Land Transport Fund (NLTF) over a 10-year period, and how funding should be allocated across different activity classes. RLTPs must be consistent with the GPS, and Waka Kotahi must give effect to it with regards to land transport planning and funding.

The current draft 2024 GPS<sup>18</sup> strategic priorities are shown in Figure 31 below.

The recently elected Government have announced their intention to redraft the GPS. A draft of this is not available at the time of writing. The RLTP has taken account of the current 2021 GPS direction and priorities, particularly in relation to the identification of its short to medium term transport investment priorities and regional programme.

The highest investment priority within this RLTP is multi-modal resilience, based on robust asset management planning, significant investment in maintenance, operation & renewals (MOR), projects to protect essential infrastructure from severe weather, and a developing a diverse range of transport options for both people and freight. The first RLTP problem statement (see page 75), which deals with resilience, has a weighting of 55%.

To support adaptation of the transport system to impacts of climate change, there is a continued effort to reduce Greenhouse Gas (GHG) emissions at source, as a means of contributing to national and international efforts to limit global warming and its devastating consequences.

Safety of all users continues to be a high priority within this RLTP, and is an objective that permeates all proposed transport investments (not just those explicitly linked to a safety outcome).

The Council is developing its Future Development Strategy (FDS) as a means of both tackling housing shortages and building compact, sustainable, and cohesive communities which are enabled by active travel and public transport.

As a region heavily reliant on primary production, and links to the rest of New Zealand, the importance of safe, sustainable, and efficient freight movements cannot be overstated. Access to Eastland Port, and support for its expansion plans, is an important part of the RLTP investment story (subject to resource consents being granted). There are critical freight corridors – road, rail and sea – which need to be developed to provide a resilient and multimodal system that enables genuine choice.

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<sup>18</sup> Government Policy Statement on land transport 2024 | Ministry of Transport





Maintaining and operating the system: the condition of the existing transport system is maintained at a level that meets the current and future needs of users



**Increasing resilience:** The transport system is better able to cope with natural and anthropogenic hazards.



**Reducing emissions:** Transitioining to a lower carbon transport system.



**Safety:** To make transport substantially safer for all.



Sustainable urban and regional development: People can readily access social, cultural, and economic opportunities through a variety of transport options; in resilient and productive towns and cities that have a range of low-emission transport options and low congestion.



Integrated freight system: well-designed and operated transport corridors and hubs that provide efficient, reliable, resilient, multimodal, and low carbon connections to support productive economic activity

Figure 31 Draft GPS strategic priorities

### **National Adaptation Plan**

The National Adaptation Plan (NAP)<sup>19</sup> outlines present and future initiatives to aid development of New Zealand's climate resilience. The document gives a high-level overview of planned future work programmes, outlining the government's goals for the next six years. The land transport system – including ports and airports – is made up of critical assets for social wellbeing and connecting New Zealand to the rest of the world. Coastal erosion, flooding, and severe weather occurrences are predicted to become more severe and occur more frequently as a result of climate change.

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<sup>19</sup> National adaptation plan | Ministry for the Environment



Severe weather events in the last few years dramatically illustrate that the clear and present danger from climate change is here already, and therefore adaptation to a more challenging future begins now. Te Tairāwhiti transport system is vulnerable to:

- Coastal inundation and erosion;
- Land-based erosion;
- Heavy rain and strong winds; and
- Seismic activity.

According to the 2020 NIWA report Climate Change Projections and Impacts for Tairāwhiti and Hawke's Bay<sup>20</sup> one of the major and most certain (and therefore foreseeable) consequences of increasing concentrations of atmospheric greenhouse gases and associated warming is rising sea levels. In past decades this trend has already affected human activities and infrastructure in coastal areas is New Zealand, with a higher base mean sea level contributing to increased vulnerability to storms and tsunami.

The NIWA report also identifies that a warmer atmosphere in future is expected to result in increases to rainfall intensity, which is associated with more slips, floods, and erosion, and hence damage to infrastructure (e.g. roads, power lines, water supply etc.), the forestry sector, and agricultural land productivity. Loss of infrastructure connectivity is a particular risk for the primary production and tourism sectors, which make up a large part of the local economy. Furthermore, increased rainfall intensity increases the risk of reduced quality of fruit and vegetables, as well as causing soil saturation issues for horticulture and agriculture.

Therefore this RLTP strongly supports the bid from GDC and partners to not only repair severe weather damage, but also increase resilience of transport assets (and therefore the communities they serve) against future events.

#### **Emissions Reduction Plan**

In accordance with the Climate Change Response (Zero Carbon) Amendment Act  $2019^{21}$ , Ministry for the Environment (MfE) has released the first national Emissions Reduction Plan (ERP) $^{22}$  which sets out policies and strategies New Zealand will take to meet its first emissions budget. The aim is to transition to a low-emission future in a way that is achievable and affordable. Road transport is responsible for 25% of New Zealand's net  $CO_2$  emissions and its reduction is a priority for the country to meet its climate change obligations under the Paris Agreement.

Published in May 2022, the New Zealand Government Emissions Reduction Plan (ERP) is the national response to the challenge of climate change. The transport chapter starts with the following vision:

"By 2035, Aotearoa New Zealand will have significantly reduced transport-related carbon emissions and have a more accessible and equitable transport system that supports wellbeing."

<sup>&</sup>lt;sup>20</sup> NIWA Client report (gdc.govt.nz)

<sup>&</sup>lt;sup>21</sup> <u>Climate Change Response (Zero Carbon) Amendment Act 2019 | Ministry for the Environment</u>

<sup>22</sup> Emissions reduction plan | Ministry for the Environment



The Government has set four transport targets that support these focus areas. The targets aim to deliver an approximately 41% reduction in transport emissions by 2035 from 2019 levels in New Zealand as a whole.

- Target 1: Reduce 2035 forecast total kilometres, travelled by the light fleet, by 20%.
- Target 2: Increase zero-emissions vehicles to 30% of the light fleet by 2035.
- Target 3: Reduce emissions from freight transport by 35% by 2035.
- Target 4: Reduce the emissions intensity of transport fuel by 10% by 2035.

For target 1, a key focus area of the ERP is reducing reliance on cars and support people to walk, cycle and use public transport including by:

- Improving the reach, frequency and quality of public transport and making it more affordable for low-income New Zealanders;
- Increasing support for walking and cycling, including initiatives to increase the use of e-bikes; and
- Ensuring safer streets and well-planned urban areas.

This RLTP aims to set out how GDC will actively contribute to these targets, through developing a multi-modal transport system that provides a genuine and compelling alternative to the private car for many journeys, primarily in the Gisborne city urban area.

MOT has issued a mandate that from 2025 all new local public transport bus purchases must be zero emission. From 2035, there is a target for decarbonisation of the whole New Zealand fleet (estimated to be between 3,500 and 4,000 vehicles). Decarbonisation is part of a much wider strategy – outlined in the national Emissions Reduction Plan (ERP) and the MOT work programme – to encourage many more people to switch from private car to public transport.

The MOT report Public Transport Operating Model (PTOM) Decarbonisation Option Development <sup>23</sup> has short listed four decarbonisation technologies:

- **Battery Electric Buses (BEBs):** charged from mains electricity and then are powered by in-vehicle batteries.
- **Hydrogen Fuel Cell Buses (HFCBs):** fuelled by gaseous hydrogen which powers an invehicle fuel cell and batteries.
- **Renewable Diesel Buses (RDBs):** fuelled by diesel that is produced from plant biomass and some animal waste, which then directly powers the bus.
- **Bio-methane Buses (BMBs):** fuelled by compressed natural gas produced by anaerobic digestion of waste agricultural crops, which then directly powers the bus.

Whilst all four options deliver lower GHG emissions compared with conventional petroleum diesel buses, only the first two will meet the 2025 Government mandate. The latter two options can contribute to a reduction in GHG emissions up to 2035, by lessening the need for

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<sup>23</sup> Public Transport Operating Model Decarbonisation Option Development



conventional fossil-based fuel. By 2035, all conventional diesel buses will need to be withdrawn from service on GDC urban and school contracts.

# Road to Zero: NZ Road Safety Strategy 2020-2030

Road to Zero<sup>24</sup> articulates government's vision of:

"...a New Zealand where no one is killed or seriously injured in road crashes".

Road to Zero sets out the five areas of focus for the next decade: infrastructure improvements and speed management; vehicle safety; work-related road safety; road user choices; and system management.

The guiding principles are:

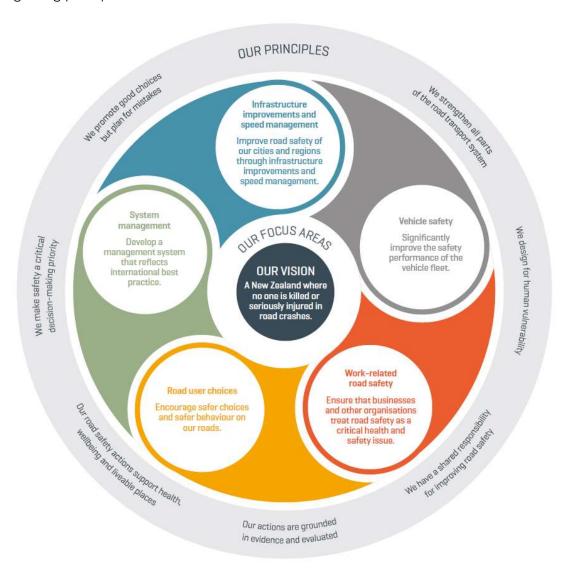


Figure 32 Road to Zero Principles

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<sup>&</sup>lt;sup>24</sup> <u>Road to Zero – NZ's road safety strategy - All updates | Waka Kotahi NZ Transport Agency (nzta.govt.nz)</u>



Road to Zero is founded on the safe system approach that says whilst everyone has a responsibility to make good choices, people make mistakes (such as lapses in attention or judgement). Therefore Road Controlling Authorities (RCAs) need to design and build a more forgiving road system that protects people from death and serious injury when they crash.

# New Zealand Energy Efficiency and Conservation Strategy 2017-2022

This document<sup>25</sup> sets overarching direction for government and specific actions for the promotion of energy efficiency and renewable sources of energy. The contribution of public transport (fleet and use) and efficient freight movement are recognised in the strategy, and this has been considered in developing the policies and priorities in the RLTP as required by LTMA.

There is significant ambition to decarbonise the public transport fleet in Gisborne, and also to play a coordination role with central government and the private sector in delivering an electric vehicle charging network across what is a remote and challenging regional land transport system.

#### Arataki

Arataki<sup>26</sup> is Waka Kotahi's 30-year view of what is needed to deliver on the government's current priorities and long-term objectives for the land transport system. Arataki outlines the context for change and the levers Waka Kotahi will use, in partnership with others, to shape change.

The regional view of Arataki for Te Tairāwhiti<sup>27</sup> provides an extensive menu of directions which this RLTP directly addresses:

Arataki Direction	How Direction is Addressed by Te Tairāwhiti RLTP
Enable and support the region's transition to a low-carbon economy.	Significant investment in active travel and public transport to deliver mode shift for shorter and medium distance urban journeys.  Support provision of electric charging infrastructure across the region to enable longer distance travel by zero emission vehicles.
Maintain and improve the resilience and efficiency of key connections to the west and south.	Multi-million-dollar investment in post- Cyclone recovery and resilience works on local roads and State Highways. Further work to assess future asset lifecycle planning to enable greater resilience to impact of climate change.
Improve access to social and economic opportunities, especially by public transport, walking, and cycling.	Development of a safe, secure, convenient, and integrated active travel and public transport network, designed and operated to maximise opportunities for people of all

<sup>&</sup>lt;sup>25</sup> <u>Unlocking our energy productivity and renewable potential - New Zealand Energy Efficiency and Conservation Strategy 2017-2022 (mbie.govt.nz)</u>

<sup>27</sup> Tairāwhiti – Gisborne | Waka Kotahi NZ Transport Agency (nzta.govt.nz)

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<sup>&</sup>lt;sup>26</sup> <u>Arataki - 30-year plan (nzta.govt.nz)</u>



Arataki Direction	How Direction is Addressed by Te Tairāwhiti RLTP
	backgrounds, including disabled people and other marginalised groups.
Begin to reduce vehicle kilometres travelled in a way that's equitable and improves people's quality of life.	Targeting of commuting and school travel for mode shift, through active travel and public transport network improvements, road safety initiatives, and a comprehensive travel demand management and behaviour change programme (including parking controls).
Significantly reduce the harm caused by the region's transport system, especially through improved road safety and reduced pollutants dangerous to health.	Comprehensive and integrated road safety strategy, including road layout improvements, education on safe behaviour, enforcement of traffic laws, and use of incentives to encourage changes to attitudes and practices.
Actively support, enable, and encourage growth and development in areas that already have good travel choices and shorter trip lengths.	Proposed comprehensive active travel, public transport, and road safety package to support the Future Development Strategy (FDS) of intensive growth within the city, and selected urban extensions.
Rapidly accelerate the delivery of walking and cycling networks, predominantly through reshaping existing streets, to make these options safe and attractive.	Maintenance and asset management programme to reallocate road space and rationalise road markings to create safer conditions for both active travel and place-based functions – shopping, eating, strolling etc. – within Gisborne city and smaller townships.  Pilot projects to reallocate road space to create more vibrant places, including key corridors within the city centre and in development areas.
Explore new and emerging technologies, such as on demand services, to improve access to social and economic opportunities.	Develop a community and accessible transport planning / funding framework to identify gaps in provision, and co-design appropriate locally operated solutions.
Better understand the impact of future economic transformation on travel patterns and freight volumes.	Intensive monitoring of traffic and travel, with particular emphasis on freight demand and its relationship with future economic development.
Explore opportunities to move to a more multimodal freight system with greater use of rail and coastal shipping.	East Coast Connectivity Programme Business Case (PBC) to assess multi-modal alternatives to current passenger and freight roading routes to spread the travel demand burden, and to promote increased resilience.
Confirm how key resilience risks will be addressed over time, and work with	Continued planning and engagement work through the recovery and resilience



Arataki Direction	How Direction is Addressed by Te Tairāwhiti RLTP
communities to identify plans for when to defend, accommodate, or retreat.	programme, to better understand the long- term risks and options for their mitigation.
Continue to implement road safety plans and programmes including those focused on iwi Māori.	Continue work with communities to tackle economic, social, and cultural barriers to road safety, focussing on vehicles, drivers, and behaviours.
Reduce financial and other barriers to iwi Māori getting a driver's licence in areas not well served by public transport.	Promotion of programmes to enable Māori to obtain driving licenses through the Nga Ara Pai ten week driving course.
Improve or maintain, as appropriate, physical access to marae, papakāinga, wāhi tapu, and wāhi taonga.	Use public and active travel network and service planning to identify accessibility gaps, and develop culturally appropriate solutions.

# Other national plans

Other national plans which provide important context for this RLTP include:

- Keeping Cities Moving, Waka Kotahi's National Mode Shift Plan<sup>28</sup>: sets out national
  objectives and programmes to increase the share of travel by public transport,
  walking and cycling by shaping urban form, making shared and active modes more
  attractive, and influencing travel demand and transport choice.
- **Ministry of Transport's New Zealand Rail Plan<sup>29</sup>:** outlines the Government's long-term vision and priorities for New Zealand's national rail network, both freight and passenger networks.
- Aotearoa New Zealand Freight and Supply Chain Strategy<sup>30</sup>: identifies ten strategic goals and four high priority focus areas ports, road freight decarbonisation, data sharing / inter-operability, and international engagement which will be progressed jointly by government and sector partners.

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<sup>&</sup>lt;sup>28</sup> <u>Keeping cities moving | Waka Kotahi NZ Transport Agency (nzta.govt.nz)</u>

<sup>&</sup>lt;sup>29</sup> The New Zealand Rail Plan | Ministry of Transport

<sup>30</sup> New Zealand freight and supply chain strategy | Ministry of Transport



# Te Pūtea Funding

Funding of land transport in New Zealand is guided by the final Government Policy Statement on Land Transport (GPS) which influences investment decisions.

The funding process, sources, and forecasts, in combination with the transport priorities outlined in the strategic framework, enable the region to progress the agreed policy direction of the RLTP.

The National Land Transport Fund (NLTF) is critical to giving effect to the programme of regional transport activities included in the RLTP, and to the objectives, policies and transport priorities for the region. This high-level flow chart that illustrates the New Zealand land transport planning and investment framework – with the NLTF at the centre – to support understanding the RLTP funding process.

For each activity class, an upper and lower funding range is given in the GPS. The distribution of funds across activities is undertaken by Waka Kotahi. Funding occurs in a manner consistent with the GPS and is based on national priority until the funding available to each activity class is fully allocated.

The National Land Transport Programme (NLTP) is a three-year programme of planned activities and a 10-year forecast of revenue and expenditure prepared by Waka Kotahi to give effect to the GPS. The NLTP is a partnership between Waka Kotahi, the Crown, and local government. Waka Kotahi has independent statutory responsibilities for the allocation and investment of the NLTF, which occurs through the NLTP, while local government invests their local funding share of projects, funded by ratepayers.

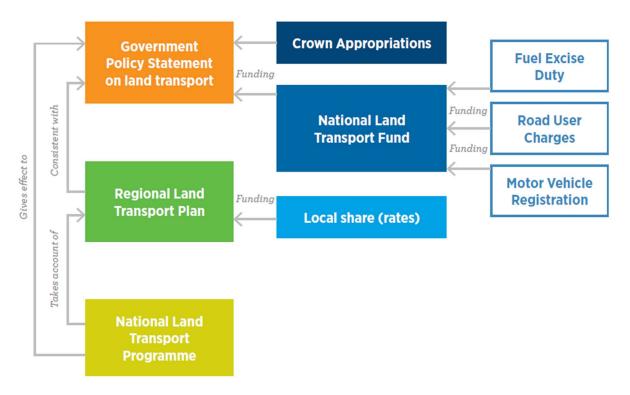


Figure 33 Summary of funding process



The NLTF is a fully ring-fenced transport fund made up of fuel excise duty (FED), road user charges (RUC), vehicle and driver registration and licensing, state highway property disposal and leasing and road tolling is credited to the NLTF. All revenue collected from transport users is dedicated to investment in land transport, but it also means that the NLTF is a limited funding pool, especially as COVID-19 led to reduced levels of travel demand and hence money collected.

Many transport activities, undertaken by regional and territorial authorities, are subsidised through the NLTF. Except for State Highways, subsidy through the NLTF is contingent on the provision of a local contribution applied by local councils. The NLTF contribution varies between local authorities and is referred to as the Funding Assistance Rate (FAR). In Te Tairāwhiti the FAR is 68%, which means that GDC contributes 32%.

Approved organisations raise their local share from rates revenue, debt, developer contributions or other financial contributions and revenue.

RLTPs effectively bridge the gap between local and regional investment and the NLTP. Before a project can be considered for funding through the NLTP and NLTF, it must first be included in an adopted RLTP.

The NLTP is finalised and released three months after RLTPs are submitted to enable regional programmes to be considered for investment from the NLTF.

However, the regional land transport funding process through the NLTF is not able to fund all the land transport activities identified in RLTPs. Other sources of funding, outside the NLTF, are needed to give effect to the policy direction in the RLTP.

From time-to-time the Crown will identify a specific need for investment that may not fit neatly within the standard model for funding transport investment. This may be due to issues relating to timing of projects or central government priorities that are not being addressed through existing mechanisms.

Central government can also choose to directly fund land transport activities through Crown appropriations, or funding streams that are external to the NLTF. For example, The NZ Upgrade Programme is investing over \$7 billion across road, rail, public transport, and active travel infrastructure. More recently, the Transport Rebuild East Coast (TREC) Alliance has been set up to plan, organise and deliver much of the recovery and rebuild work needed on the highway and rail networks in Gisborne and Hawke's Bay, in conjunction with local businesses and contractors. It is anticipated that much of the required funding for TREC will come through Crown.

Other sources of funding include:

- Additional contributions from local authorities beyond that usually required for a subsidised activity;
- Public transport fares;
- SuperGold fare subsidy (administered by the Ministry of Social Development) to fund free off-peak bus travel for seniors;
- Community Connect fare subsidy for CSC cardholders and people under 25 years of age;
- Contributions from community groups or other central government agencies to community programmes;



- Contributions from developers towards cost of transport infrastructure; and
- Fees and charges, including road tolls.



# Recovery and resilience

There are many definitions of resilience, and more emerging all the time. Several resilience definitions that are useful include:

- Ability to absorb effects of a disruptive event, minimise adverse impacts, respond
  effectively post-event, maintain, or recover functionality, and adapt in a way that
  allows for learning and thriving, while mitigating adverse impacts of future events.
- Capacity of public, private, and civic sectors to withstand disruption, absorb disturbance, act effectively in a crisis, adapt to changing conditions, including climate change, and grow over time.
- Ability of assets, networks, and systems to anticipate, absorb, adapt to and / or rapidly recover from a disruptive event.

Resilience is often only thought of as an "asset management" exercise – or infrastructure resilience. While the need to maintain and manage assets to minimise disruption is critical, they exist:

- To provide diverse services to meet a range of community needs.
- As part of a wider system which does not include just transport.

It is the "system" concept - encompassing a complex interrelationship between infrastructure, governments, businesses, and communities - which is the focus of the RLTP transport investment priority. Making transport assets resilient is a means to that end.

Around the world, governments, businesses, private developers, and planners are spearheading a growing movement to make transport systems in vulnerable communities more resilient through improved preventative action. The increasing frequency of severe weather events has brought an even greater urgency to create buildings and communities that are better adapted to a changing climate and able to bounce back from disturbances and interruptions.

Resilience is more than transport assets physically withstanding major natural disasters – it is a crucial factor in how communities plan for and cope with weather extremes, economic disruption, and resource depletion. Ultimately, it is about a community's ability to come together and continue to function in the aftermath of an extreme event, which benefits everyone.

The future safety and wellbeing of our communities, and prosperity of the region, is predicated on a substantial investment in post-Cyclone recovery that delivers effective and long-term solutions to infrastructure challenges and risk reduction.

This RLTP makes a strong case that resilience and affordability are part of the same discussion, as future costs of recovery and asset repair can be significantly reduced if upfront investment is made in the next few years.

Due to policies which exclude resilience improvements from emergency funding, infrastructure damaged due to severe weather has been repaired time and again without consideration for long term affordability and ever decreasing LOS. Local communities are frustrated with the outcomes of this approach. Furthermore the progressive challenge of climate change through coastal erosion and, in a few locations, sea level rises, constitutes an existential threat to the transport system that cannot be ignored.



Soils in Te Tairāwhiti are highly erodible. Up to 26% of the land is considered to be susceptible to severe soil erosion, compared with only 8% in New Zealand as a whole. Even without the compounding effect of severe weather, the risk of slippage affecting roads is higher than in other areas, resulting in regular road closures, impacts on the structural integrity of pavements, and increased maintenance costs.

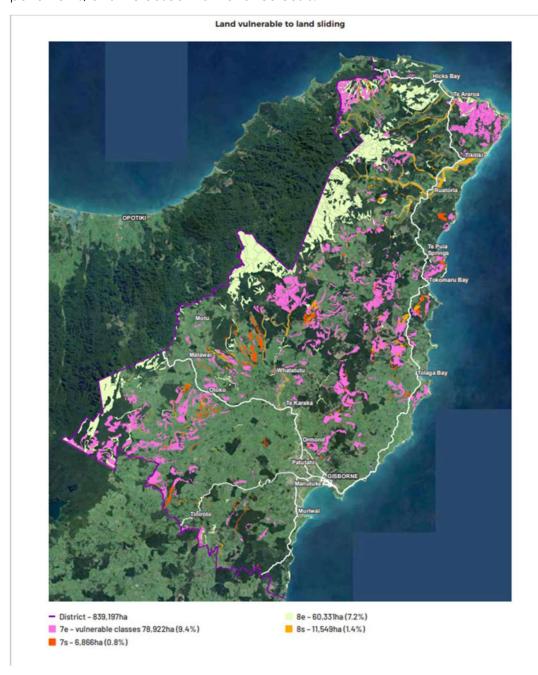


Figure 34 Many areas of the region are highly vulnerable to landslides

Areas which have previously been stabilised through forestry plantings are also more vulnerable to slippage after harvesting, which can result in network closures after heavy rain.

Access and low volume roads together account for nearly 80% of the network, of which a high proportion are unsealed. The pressure on the asset is high, with 67% of forestry originating on access or low volume roads. Forestry roads consume the bulk of the funding



that is available for roads. In 2019/20, 69% of the road maintenance and on-road renewals budget was forecast to be spent on forestry roads. Many of these rural roads also provide critical access to farms and households.

The vast majority of logs are directed to Eastland Port for export. Logs make up 99.4% of total exports. The volumes of cargo exported from Eastland Port have increased significantly over the last ten years. Log harvest volumes are projected to increase.

A 2019 review estimated that the total logging harvest will average about 3.50 – 3.90 million cubic metres per year between 2019 and 2028, providing infrastructure meets demand and there is a competitive market. A slight decrease is projected between 2034-2043, before harvest volumes rise to new record levels. Eastland Port is investing in its Twin Berth project to increase its capacity handle higher freight volumes.

All this increases wear and tear on the transport asset. The recorded Pavement Integrity Index (PII) shows a notable deterioration on rural roads since 2015, which represent 87% of the network. This deterioration increases the risk of closures on the network.

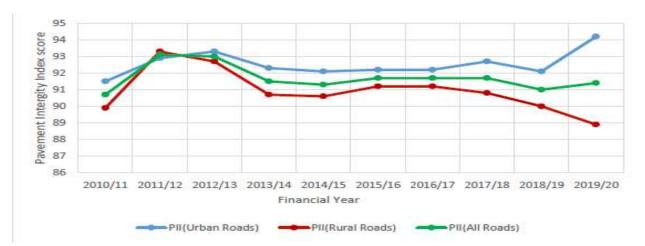


Figure 35 The Pavement Integrity Index (2010-2020) is mostly going in the wrong direction

The state highway network across the region has been upgraded to support 62 tonne (maximum) High Productivity Motor Vehicles (HPMVs) and 50Max trucks. However, parts of the local road network remain constrained by capacity of bridges, many of which have been weakened or destroyed by severe weather events. The business case to provide for 50Max vehicles has been approved and bridge upgrades have been largely implemented.

The poor quality of roads in the district, the high likelihood of closures, and long detour routes all contribute to the cost of doing business. The Eastland Wood Council estimated that the cost of fuel and tyres for logging trucks when operating in Te Tairāwhiti was 38% higher than Bay of Plenty.

Leaderbrand is the biggest fresh vegetable grower in the region and a major employer. In a 2023 interview with Rural News, Chief Executive Richard Burke stated that a roading network that keeps getting damaged and causing delays is making companies think twice about expanding production in the region. My Burke says trucks having to take long diversions around blocked roads adds to the cost of products it sends to consumers around the country:



"...the ability to guarantee – in Leaderband's case – a daily supply of fresh produce makes you think about where you base your operation or look closely at plans for expansion."

Mr Burke says Leaderbrand is very committed to the Tairāwhiti community, but has now established commercial growing operations in other regions to mitigate the risk of being isolated by road closures in the East Coast:

"At some point, we may have no choice but to leave because we can't run a daily business that's requiring truck access in and out of Gisborne every day if we don't have a road that is open every day."

Mr Burke is well aware of the challenges that Tairāwhiti faces around infrastructure. However, he says there needs to be a plan now to look at the big picture, set the direction and implement this and build long-term resilience into the roading network.

The financial impact on the local economy of road damage and closures has been significant.

The total cost for local roading repairs as a result of the recent severe weather events alone is expected to range between \$465 million and \$725 million, depending on the level of resilience built into solutions. This figure includes repair or replacement of 61 bridges, reinstatement of Tiniroto Road, repairs to dropouts and retaining walls as well as silt and woody debris removal.

To put this figure in perspective, the total budget for local road maintenance in the 2021 to 2031 Regional Land Transport Plan was \$323 million over 10 years – or \$32 million per year. Therefore the level of repair and resilience required dwarfs the current resources of Council. Council is responsible for the renewal and maintenance of assets with a replacement cost of \$2.2 billion with a budget that is less than 2% of that figure.

### Asset management

The first strategic priority of the draft Government Policy Statement on Land Transport (GPS) has its primary objective being:

"The condition of the existing transport system is efficiently maintained at a level that meets current and future needs of users."

The GPS goes on to state that:

- Investment decisions need to be based on need and contribution within the wider transport network, rather than always replacing "like for like";
- This may mean resilience improvements, safety upgrades and creating additional space for bus lanes and active transport.
- Asset management plans need to be forward looking and outcome-focussed that incorporate Level of Service (LOS) improvements for all road users into maintenance programmes.
- Maintenance need can be a "trigger" to reshape and meet multi-modal needs through consistency with the ONF.

The lifecycle of a transport asset covers the following stages:



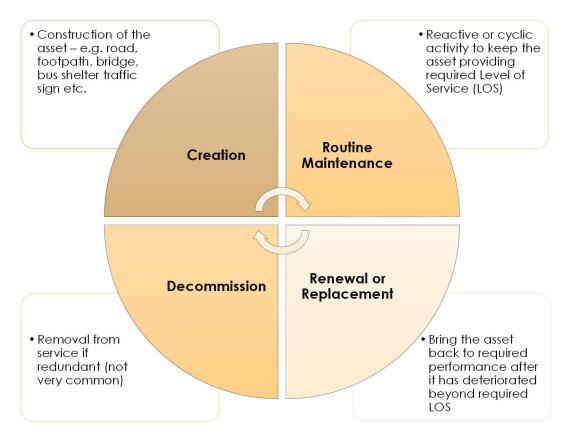


Figure 36 Asset lifecycle

The asset maintenance backlog describes the financial value of upgrades required to return the network to a state whereby condition and performance meet base stakeholder LOS requirements for safety, resilience, environmental protection, accessibility, and financial performance. The larger the value of the upgrades, the higher the backlog.

Once the MVB LOS has been established, using the One Network Framework (ONF), an asset lifecycle plan is produced, based on key information such as:

- **Inventory:** asset locations, lengths, widths, structure components and dimensions; types and sizes as a minimum);
- **Performance:** including asset condition and forecast condition deterioration in the absence of intervention;
- Routine maintenance: including reactive and cyclical activities; and
- Intervention treatment options: including their historic performance and cost.

The aim of the lifecycle plan is to develop a strategy for undertaking maintenance work at the optimum time, so that the condition of the asset is preserved for a longer period of time before full replacement is required.

Any further LOS improvement beyond the MVB, which may be required for various policy purposes, could be delivered as extra investment that creates significant added value, such as increases in capacity for non-car modes and enhanced safety treatments (as suggested by the GPS).

Asset lifecycle management is also an environmental issue. Re-use of the existing asset, including recycling of materials, is the preferred approach where possible, so that GHG



emissions from industrial processing and manufacture are avoided. However, some individual asset upgrades require a completely new solution to the LOS challenge, which may include a different asset design, alternative materials or even a new location.

Assets have impacts on adjacent natural ecosystems which are highly valued by the community. For example, the need to protect fish passage to / from river spawning grounds must be considered in both design and construction for bridges and culverts. Similarly, water quality and avoidance of run-off pollutants from roads is also critical.



## Te Marutau Safety

The 2021 RLTP noted a number of challenges in the region:

- The majority (85%) of Te Tairāwhiti roads are rural, typically featuring meandering alignments with narrow seal, and high (100 km/hour) speed limits.
- Limited alternative routes which forces all road users to share infrastructure and can create safety conflicts.
- Road alignments, construction and road space are unforgiving with out-of-context curves and limited safety infrastructure, and a mistake may often result in fatalities or serious injuries.
- In Gisborne city, increasing demand for port services has meant an increase in heavy vehicles through mixed use city streets, and conflict with vulnerable road users.
- The region's crash data reflects a large proportion of high-risk driver behaviour, with an over representation of non-compliant driver licensing and drug and alcohol related crashes.
- Limited skills, impaired abilities and unforgiving roading infrastructure, particularly in rural areas combines to increase personal risk leading to unacceptable levels of deaths and serious injuries.

None of these challenges have gone away, and a continued effort to reduce the high level of crashes that result in the death and serious injury of our people is needed.

The 2021 RLTP has a 2030 target for reduction in DSI crashes to an average of 29 per year across the whole of the region. The year before the RTLP (2020/21) was a particularly bad one, with nine deaths and 47 serious injuries (56 DSIs in total). Minor and non-injury crashes, which are an important indicator of risk, totalled 492.

A small change in speed can make a big difference to the outcome of a crash. When a vehicle crashes, it undergoes a rapid reduction in speed. However, occupants keep moving at the vehicle's previous speed until they are stopped – either by hitting an object or by being restrained by a safety belt or airbag. Human bodies are not designed to be hurled against objects - the faster the speed, the more severe the injuries.

Speeds on a road also impact how safe other road users feel to walk, bike, or travel with their children. If a pedestrian is hit by a vehicle, severity of their injuries is related to the impact speed. The international accepted speed to greatly reduce the chances of a pedestrian being killed or seriously injured is 30km/hour. The probability of a pedestrian being killed rises as impact speed increases:

- Approximately doubles between 30km/hour and 40km/hour; and
- Doubles again from 40km/hour to 50km/hour.

The risk to vulnerable pedestrians, such as the elderly and young children, is even higher as their bodies are less able to withstand high trauma.

The Waka Kotahi Crash Analysis System (CAS) records all traffic crashes as reported to the Transport Agency by NZ Police. Not all crashes are reported to NZ Police. The level of reporting increases with the severity of the crash. Due to the nature of non-fatal crashes it is



believed that these are under-reported. CAS covers crashes on all New Zealand roadways or places where the public have legal access with a motor vehicle.

Analysis of crash data continues to paint a mixed picture in terms of genuine and sustained progress in reducing injuries, especially DSIs. Before 2022, the previous four years showed a consistent increase in DSIs. In 2022, figures reduced to 2018 levels.

Crash Injury Type	2018	2019	2020	2021	2022
Serious Injury	36	46	45	51	34
Fatal Injury	5	4	9	6	7
Total	41	50	54	57	41

This RLTP includes a headline target that is aligned with the Road to Zero target of a 40% reduction in deaths and serious injuries (DSIs) by 2030. To meet the 2030 target, the 2022 DSI figure would need to be reduced by another 30% by the end of the decade. The risk is that figures for 2023 may show a bounce back in the number of crashes, similar to that following COVID-19.

To achieve it in Te Tairāwhiti, the RLTP sets out a credible and integrated road safety strategy based on a package of engineering, education, enforcement, and encouragement policy interventions. Current road safety performance in the region is not good – therefore both significant additional resources and better partnership working are required to address a number of deep-seated problems.

The Waka Kotahi Communities at Risk Register provides a ranking of council areas around New Zealand with regard to selected road safety risks, which are measured in two ways:

- Personal risk (DSIs Per 100 million Vehicle Kilometres Travelled): likelihood of an individual being killed or seriously injured by a crash.
- Collective risk (5-year average DSIs): average number of people seriously injured or killed by a crash.

Personal risk is a count of deaths and serious injuries (DSI) divided by distance or time travelled, and highlights areas where a crash is more likely to occur based on use of the road network. Because personal risk is not affected by an area's population size, it is one way of making crash measures comparable between council areas.

Alongside personal risk calculations are the average annual DSI counts based on the latest five-year data (the collective risk at a local body level, regional level and national level). This is used to show the areas where the biggest difference can be made in terms of absolute numbers of DSIs. Collective risk is affected by the population size, and so larger council areas would generally be expected to have higher average DSI numbers.

The Communities at Risk Register ranking combines both personal and collective risk. Te Tairāwhiti rankings in the top 20% of all Territorial Authorities is highlighted in red, a higher-ranking denoting worse performance.



Crash Metric	DSIs Per 100 million Vehicle Kilometres Travelled	5-year Average Number of DSIs	Te Tairāwhiti Ranking (out of 71 Territorial Authorities)
Total Number of DSI crashes	11.97	48.8	2nd highest
Young drivers (aged 16 to 24) of light vehicles	17.08	9.2	17th highest
Alcohol and / or drugs	2.70	11.2	4th highest
Speed too fast for the conditions	3.61	14.4	Highest
Urban intersections	4.20	7.6	14th highest
Rural intersections	0.66	1.6	47th highest
All intersections	2.20	9.2	12th highest
Rural loss of control over 70km / hour speed limit	11.82	27.0	2nd highest
Motorcyclist involved	173.11	7.0	13th highest
Cyclist involved	2.97	3.6	54th highest
Pedestrian involved	1.77	4.8	42nd highest
Driver distracted	0.49	2.0	16th highest
Driver fatigue	1.14	4.6	4th highest
Older road users (aged 75 and over)	19.95	5.2	2nd highest
Restraints (seat belts) not worn	1.90	7.2	2nd highest

In seven out of the 15 metrics (highlighted in yellow text), Te Tairāwhiti is more than one standard deviation from the mean, which represents a particularly concerning performance in the bottom third of all Territorial Authorities.

Leaving aside total DSIs, five of the remaining six metrics which are more than one standard deviation from the mean are based on driver skill or behaviour factors:

- Driving too fast;
- Use of alcohol and / or drugs;
- Loss of vehicle control;
- Driver fatigue; and
- Not wearing a seat belt.

These metrics measure aspects of safety risk that are largely avoidable if there was better driver behaviour. Whilst safety engineering can play its part by making roads safer and more forgiving when genuine mistakes occur, the onus of responsibility to avoid reckless and often criminal behaviour should be on people and communities.



# Ngā Tauwhāinga Aheinga Accessibility

In transport planning, the term **accessibility** refers to a measure of:

- Ease of reaching (and interacting with) destinations or activities distributed in space –
  for example around a city, town, or region. A place with "high accessibility" is one
  from which many destinations can be reached with relative ease. "Low accessibility"
  implies that relatively few destinations can be reached for a given amount of time /
  effort / cost.
- Ease of people using a particular mode of transport to reach their destination or activity. A person has "high accessibility" if they can use their chosen mode (or a range of potential modes) to get where they need to go. "Low accessibility" means that a person has little or possibly even no choice.

The concept of the accessible journey is defined by TDG (2013)31:

"The accessible journey is a term used to describe all components required for a person to make a journey from their home to a desired destination, in order to participate in some activity. If any of the required links in that journey are broken or absent, the journey as a whole may never eventuate."

All the end-to-end factors shown below – availability, information, affordability, and journey must be in place for the user to be able to undertake the journey. Only factor one needs to fail to make the journey difficult or impossible, and result in transport disadvantage.

Can the user Can the user Can the user Does the service go obtain the afford to pay get access to **Affordabil** where the information for all the the service at journeys they user needs they need to need, when to go, and at plan and the journey, book the they need and enjoy a the times they need to journey? them? comfortable ride during qo? it?

Figure 37 End to end user experience factors for public transport

Disabled people generate significant demand for public and active transport, as it is sometimes their only viable option. Disabled people are sometimes referred to as "mobility impaired". Whilst this can be an accurate description, researchers such as Stafford (2020) point out that:

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<sup>&</sup>lt;sup>31</sup> TDG. (2013). Measuring Accessible Journeys.



"...people with impairments are disabled by society through the effects of ableist attitudes, systems and infrastructure, rather than the functioning of people's minds, bodies and senses."

Stafford states that disabled people experience spatial and social injustices within housing, streets, towns, and cities. Taken-for-granted acts (for able-bodied people) like going for a walk, seeing friends, and using public transport are, for disabled people, conditional or precluded acts due to exclusion by design. This exclusion occurs because, despite policy declarations which say all the right things, design continues to be led from an able-bodied perspective, with any "facilities" for disabled people tacked on.

The concept of transport disadvantage is critical to the purpose of this RLTP.

Currie and Delbosc (2011)<sup>33</sup> set out a typology of transport disadvantage as shown in Figure 4.14. They observe that whilst transport disadvantage is generally considered a "complex" and "multi-dimensional construct".

Starting with people there are a range of physical, personal, and socio-economic factors which can result in transport disadvantage. Disability can be physical and / or mental.

Starting with people is the best way of understanding disadvantage from the transport user perspective, because it provides an opportunity for policy makers and service planners to "walk in the shoes of others".

Transport service provision presents another form of disadvantage if any part of the offering does not meet the needs of people. Even if a service is available, it may be of limited value if users do not know about it (through lack of information), cannot board the vehicle (because it is not adapted to their impairment) or cannot afford the fare (because of low income or the service being too expensive).

<sup>33</sup> Currie, G. & Delbosc, A. (2011). Transport Disadvantage: A Review. Chapter 2.1. In Currie, G. (Ed.). New perspectives and methods in transport and social exclusion research. Emerald Publishing Limited.

<sup>&</sup>lt;sup>32</sup> Stafford, L. (2020). Queensland University of Technology Centre for Justice Briefing Paper Number 10.



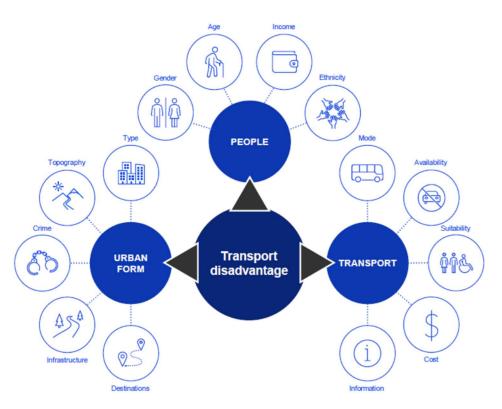


Figure 38 Transport Disadvantage Factors

In addition to the most obvious forms of disadvantage - people and transport - urban form can encompass a range of factors including distance to destinations, use of infrastructure (such as bus stops, pavements and building entrances), topography and personal safety (fear of crime). The road layout of urban and rural areas can also have an influence on the physical ability of vehicles to access areas where people wish to get on and off the service.

Transport disadvantage is therefore an inter-play of many factors – depending on the personal and geographic circumstances of the user.

## **Total Mobility review**

In October 2023, Manaaki Tairāwhiti produced a review of the TM service which concluded:

- **Diverse Transport Needs:** Whānau require transport across a variety of sectors, including health, education, justice, housing, access to kai, and social development. The lack of reliable, affordable transport disproportionately affects the access of whānau with disabilities to these essential services.
- **Recurring Barriers:** Several common barriers recur across sectors: lack of vehicle or public transport options, coverage, financial constraints, rural location, and eligibility criteria, among others. These barriers amplify the transport exclusion experienced by whānau with disabilities.
- Coordination Gaps: There are critical coordination gaps among various service providers that further impede access. Timing issues, especially with public transport, are frequent and worsen the already existing barriers.
- **Shortcomings in the Current Scheme:** The existing Total Mobility Scheme is not sufficiently addressing these needs and barriers. There are limitations in its



accessibility, financial provisions, and overall effectiveness in catering to whānau with disabilities.

The study then went on to make a series of recommendations:

- **Expand Public Transport Options:** Invest in public transport solutions that are more frequent, reliable, and span rural areas to bridge the gap in access.
- **Financial Assistance:** Increase financial assistance designed to aid whānau with disabilities, as well as those experiencing persistent disadvantage, in meeting their transport needs.
- **Enhance Coordination:** Improve coordination between service providers and the transport network to better synchronise appointment times and transport options, using commissioning and contract specifications.
- **Change Eligibility Criteria:** Broaden the eligibility parameters of the Total Mobility Scheme to be more inclusive and effective for the demographic it aims to serve.
- Ongoing Monitoring and Assessment: Implement a robust framework with whānaucentric measures for constant feedback and adjustments to ensure the scheme remains responsive to community needs.

Stakeholder feedback on the TM service is that it is relatively expensive next to the regular public transport system. Elderly and disabled people are interested in seeing the regular public transport system cater more for them with accessibility being a key priority.

GDC will continue to promote and invest in TM, including modernisation of the current voucher-based booking system through introduction of the Ridewise digital platform. However, provision of more coordinated, customer-centric and accessible public transport aims to reduce dependence on TM and provide disabled people with a greater choice of affordable access options. This possibly includes more support for existing community transport services - such as Sunshine and Waka Manaaki – and expansion of such services across the region.



# Waka haere Active travel

One of the ways to boost community resilience is to develop better local connections for active travel – including walking, cycling and horse riding. This can be done at a very local level, through street audits to assess and deliver LOS improvements for active travel users; and at a strategic level through visionary projects. Both approaches are needed.

The draft Active Travel strategy has developed an active travel route network through as assessment of "desire lines" – where people need to travel to and from – and existing barriers where safety, convenience and physical accessibility are sub-optimal. The completed network will be able to offer active travellers a range of routes, taking advantage of the city's grid road system. In the event of severe weather, this choice will enable local active travel journeys to key services and facilities to be undertaken. A similar approach can be followed within the smaller townships, although choice of routes may be smaller where activities are based around a single main road.

At the visionary end of the scale, Te Ara Tipuna is a proposed an active travel route of 657 kilometres traversing the rohe of Ngati Porou and of Te Whanau-a-Apanui, engaging with some of the most beautiful, rugged, isolated land and waterways of Aotearoa New Zealand; experiencing cultural icons of marae and mountains, and the unique character of its local people and communities.

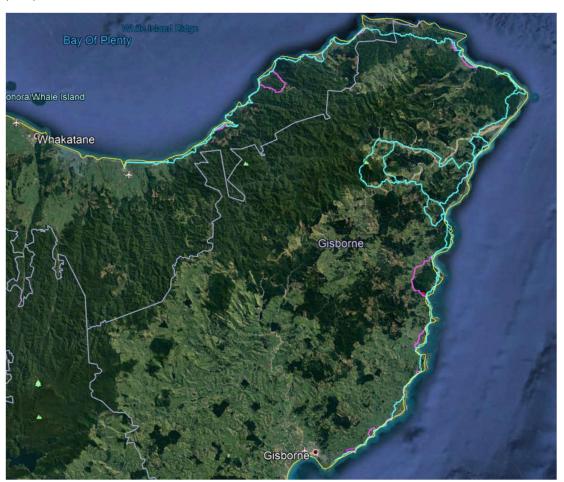


Figure 39 Map of Te Ara Tipuna routes



Ngati Porou and Te Whanau-a-Apanui have rich histories, strong cultural infrastructure, and high ambitions for the future of their people, communities, and their way of life. Conventional government activity has relied on top-down interventions. Te Ara Tipuna takes, instead, a bottom-up approach – building sustainable enterprise and wellness by investing in the cultural wealth that already exists in the region. Implementation of Te Ara Tipuna can enable communities to develop resilient local active travel links which are driven by local need and culture.

In the event of severe weather disruption, a key element of resilience is having multi-modal alternatives for local journeys to access essential supplies (particularly food, water, and fuel) as well as other resources necessary for survival. If neighbours and communities are to function, they need to have local public transport and active travel routes to use. In some cases, these local multi-modal routes may be the only option for moving around communities in the event of road closures.

## Safety and perception of safety

The top three reasons in Tairāwhiti for not walking or cycling are related to safety and suitability of infrastructure<sup>34</sup>.

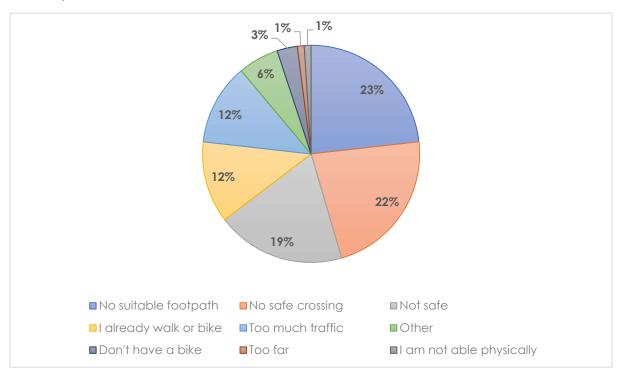


Figure 40 Why people don't walk or cycle in Tairāwhiti

Of the people who responded to the survey, almost everyone stated that they would (inprinciple at least) consider not using a car for short rips. This indicates that improvement of alternative modes of travel could make a significant impact, especially if they are combined with demand management measures such as car parking supply and pricing.

<sup>&</sup>lt;sup>34</sup> Public engagement through the GDC "Participate" page in 2023.



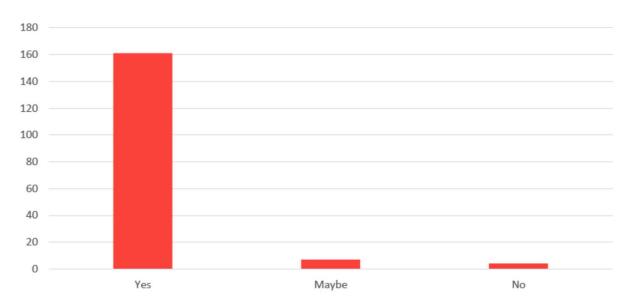


Figure 41 People willing to consider not taking the car for short trips in Tairāwhiti

Every journey from home starts in a local neighbourhood. The concept of Low Traffic Neighbourhoods (LTNs) aims to reduce motorised traffic rat-running through residential areas using a mix of traffic calming and street closures to create access-only areas for residents. A key requirement for LTNs is to make urban connector roads as safe and efficient as possible for moving motor vehicles, including buses. This will discourage people taking perceived faster short cuts through residential areas, and make LTNs more deliverable.

LTNs can be implemented through the use of barriers such as bollards, boom barriers and planters, though can also be enforced through the use of automatic number-plate recognition cameras and road signs, which can allow residential motor access while prohibiting passing motor traffic.

The Waka Kotahi Innovating Streets projects have demonstrated how "tactical urbanism" can be used to build a pipeline of LTN projects and bring forward benefits for communities. Through the programme, approximately 89 kilometres of street changes were introduced. Changes to streets range from kerb buildouts and speed cushions, to parklets, pedestrian crossings, and cycleways. In most cases, projects were made up of multiple changes. While each project has unique objectives, the project evaluation reports the following outcomes:

- Reduced vehicle speeds and volumes;
- More people cycling, walking, or scooting;
- Safer and more accessible environments for pedestrians and cyclists;
- Increase in the number of people spending time in an area; and
- Increased visibility of cultural narratives in the streetscape.

Other reported outcomes included positive community engagement and participation in projects, social procurement delivering local economic benefits, and community support or demand for more street innovation.

GDC is one of 17 councils nationwide selected to be part of Streets for People 2021-24 programme. The programme seeks to create a healthier future by putting people and place at the heart of streets.



## Mode shift

The dominant form of transport for moving people in New Zealand is the private car. At the 2018 census, 91% of all household travel was by drivers or passengers in a car or van, with 92% of all households having access to at least one vehicle. In 2018 two-thirds of all workers, and over a third of all students, travelled to their place of work or study by car, either as a driver or passenger.

Mode share of non-car modes in Tairāwhiti for journeys to work is very small, and below the national average.

Mode of Travel	Te Tairāwhiti (%)	New Zealand (%)
Work at home	15.1	11.9
Drive private car, truck, or van	57.2	57.8
Drive company car, truck, or van	12.7	11.2
Passenger in car, truck, van, or company bus	7.4	4.0
Public bus	0.3	4.2
Train	0	2.0
Bicycle	2.3	2.0
Walk or jog	3.7	5.2
Ferry	0	0.2
Other	1.4	1.4

Although a more detailed breakdown of these figures is not available, it is likely that rural areas of the region are even more car-dependent than this data suggests. On the other hand, anecdotal evidence points to more instances of people sharing rides in rural areas, and also transporting small consignments of goods for neighbours and goods when they make a trip into Gisborne city.

Despite recent growth in public transport, walking and cycling in some urban areas of New Zealand, private vehicle travel is also increasing. Shared and active modes do not yet account for a significant proportion of total journeys and New Zealand remains a very car dependent country overall, with one of the highest rates of vehicle ownership in the Organisation for Economic Cooperation and Development (OECD). The share of travel by public transport, walking and cycling varies across cities and regions, due in part to geography, and different urban planning and transport policies.

This travel behaviour has been typical for decades in New Zealand's main cities, driven by improved affordability and accessibility of private cars, along with expanded and dispersed urban environments to enable population growth and preferred housing types. At the same time the level of investment in public transport services has been very small by comparison to that of building roads, with only larger urban areas of Auckland, Wellington, Christchurch, Hamilton, and Dunedin starting to see a renaissance.

In order to promote social inclusion through mode shift, it is important to define shared and active modes of travel.



#### Shared travel includes:

- Conventional bus-based scheduled public transport;
- On-demand transport services where people from more than one origin share the vehicle;
- Community transport services which are run by charities and often (though not exclusively) focused on elderly and disabled people; and
- Car-pooling, where people share rides to common destinations.

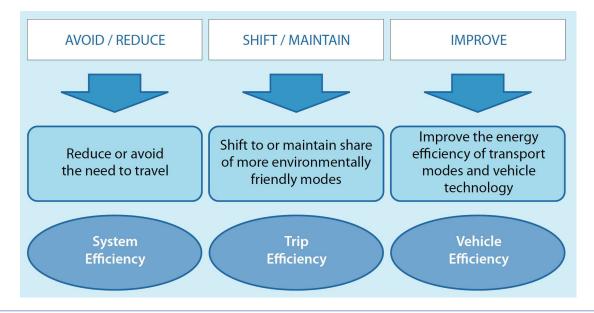
#### Active travel includes:

- Walking;
- People using wheelchairs, mobility aids or mobility scooters;
- Cycling (including e-bikes);
- Horse riding
- Scooting (including e-scooters) and;
- All other forms of micro-mobility.

There are three complementary ways in which the challenge of high private car growth can be tackled:

- Avoiding or reducing travel: through undertaking more activities (such as work, education, and shopping) from home and combining more than one purpose in a single journey.
- **Shifting the mode of travel:** substituting car journeys for public transport and active travel.
- Improving the mode of travel: replacing Internal Combustion Engine (ICE) vehicles with zero emission (battery electric and hydrogen) alternatives.

This gives rise to the Avoid-Shift-Improve (A-S-I) framework:





#### Figure 42 Avoid, Shift, Improve (ASI) Framework

Emissions reduction is important for air quality and health impacts on our communities. The World Health Organization (WHO) released new air quality guidelines<sup>35</sup> in September 2021. These set a Nitrogen Dioxide (NO<sub>2</sub>) 24-hour guideline of 25µg/m<sup>3</sup>, which is significantly less than the current New Zealand 24-hour guideline of 100µg/m³. The 2016 Health and Air Pollution in New Zealand summary report reveals that mortality rates from local pollutant emissions are ten times higher than the number of deaths resulting from road crashes.

For the global challenge of Greenhouse Gas (GHG) emissions, the March 2023 Synthesis Report from the Inter-Governmental Panel on Climate Change (IPCC)<sup>36</sup> summarises the state of knowledge, widespread impacts and risks, and mitigation and adaptation approaches.

Under section C, "Responses in the near term", there are several conclusions:

- There is a rapidly closing window of opportunity to secure a liveable and sustainable future for all (very high confidence).
- Climate resilient development integrates adaptation and mitigation to advance sustainable development for all, and is enabled by increased cooperation including improved access to adequate financial resources, particularly for vulnerable regions, sectors and groups, and inclusive governance and coordinated policies (high confidence).
- Rapid and far-reaching transitions across all sectors and systems are necessary to achieve deep and sustained emissions reductions and secure a liveable and sustainable future for all.
- These system transitions involve a significant upscaling of a wide portfolio of mitigation and adaptation options. Feasible, effective, and low-cost options for mitigation and adaptation are already available, with differences across systems and regions (high confidence).

#### The report concludes:

- Systemic change required to achieve rapid and deep emissions reductions and transformative adaptation to climate change is unprecedented in terms of scale, but not necessarily in terms of speed (medium confidence).
- Systems transitions include deployment of low- or zero emission technologies; reducing and changing demand through infrastructure design and access, sociocultural and behavioural changes, and increased technological efficiency and adoption; social protection, climate services or other services; and protecting and restoring ecosystems (high confidence).
- Feasible, effective, and low-cost options for mitigation and adaptation are already available (high confidence).

According to the GDC report Our Climate, Air and Waste by producing 232,647tCO2e in the 2018/19 reporting year<sup>37</sup>, transport is Te Tairāwhiti's second highest emitting sector. Transport-

<sup>35</sup> WHO Global Air Quality Guidelines

<sup>&</sup>lt;sup>36</sup> AR6 Synthesis Report: Climate Change 2023 — IPCC

<sup>37 &</sup>lt;u>soe-report-2020-air-climate-waste.pdf</u> (gdc.govt.nz)



related consumption consists mainly of on-road and off-road petrol and diesel fuel, which represent 87% of total transport emissions. The remainder of transport are emissions associated with Eastland Port and Gisborne Airport activity.

This RLTP proposes planning and investment in multi-modal transport solutions (walking, cycling and public transport) to reduce dependence on the private car and promote safe, healthy, and environmentally sustainable alternatives.

## Challenges and opportunities

This diagram from Victoria in Australia shows both the relative space efficiency (in square metres) and carbon emissions (grammes of CO<sub>2</sub>) per person travelled of bus, walking, and cycling.

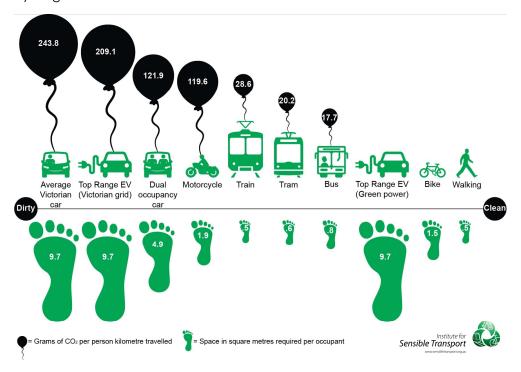


Figure 43 Space efficiency and emission per person by mode of transport

An increase in public transport and active modes reduces pressure on natural resources and reduces carbon emissions from the vehicle fleet, while more efficient use of land (given reduced demand for roads) lessens the impact on biodiversity and water.

The RLTP will support these objectives through development of an integrated shared and active travel network, based on linking multi-modal transport and service hubs across the region. This network will give people the confidence to know they have a genuine non-car choice for their journey.



# Ngā ratonga waka tūmatanui Public transport

The current Te Tairāwhiti Regional Public Transport Plan (RPTP) was published by GDC in 2021, well into the COVID-19 pandemic – an event which has changed the way that people think and feel about travel, and life in general.

As a result of COVID-19, public transport patronage across Aotearoa New Zealand has suffered significantly and has yet to recover even to pre-pandemic levels. There may be no such thing as "returning to normal"; public transport now lives in a different world to which it will have to adapt.

There is cause for optimism, and also a compelling need to do better. Early engagement work on the public transport network review reveals strong support for significant improvements, as a means of tackling a range of issues including access to jobs / education, social isolation, sustainable economic regeneration, and climate change. The current public transport mode share for journeys to work in Te Tairāwhiti is very low, at less than 0.5%. In contrast, for journeys to school the figure is well over 10%, which is higher than the Aotearoa New Zealand average.

The 2021 RPTP was about consolidation in a highly uncertain world. The focus for GDC was very much on ensuring that people were able to travel safely and affordably. To support that objective, the Government introduced half price public transport fares for all passengers between April 2022 and June 2023.

The Government has now funded free public transport fares for children under 13 years of age, and half price for both adults up to the age of 24 (until April 2024), and Community Services Card (CSC) holders. Adult fares have not changed since 2009. Bus travel has never been so affordable.

Demand for bus travel is driven strongly by children and young people accessing education, and GDC has maintained and enhanced capacity on school services in Gisborne city, also funding the Kaiti School Bus Initiative, which enables schools to offer free travel to children from an economically deprived area of the city. Ministry of Education (MoE) continues to provide school transport from the vast outlying rural hinterland.

Current approved budgets for public transport services and infrastructure are:

Item	2023/24 Budget (\$)
Bus services (GizzyBus and Waka Kura)	821,323
Total Mobility operations and equipment	83,945
Real time information and ticketing	195,851
Public transport infrastructure maintenance	8,954
Public transport infrastructure renewals	31,620
Operations and management	6,492



Item	2023/24 Budget (\$)
Total	1,148,185

Once income from fares is taken into account, the National Land Transport Fund (NLTF) from Waka Kotahi contributes two thirds of the net operating costs, and GDC one third.

Data from Waka Kotahi and Statistics NZ shows that per capita funding on public transport in Gisborne over the last ten years is the second lowest in the country and only surpassed by the West Coast which does not have any regular bus services (see graph below). Considering 72% of the population lives in Gisborne city, the per capita spend would be lowest in New Zealand for an urban area.

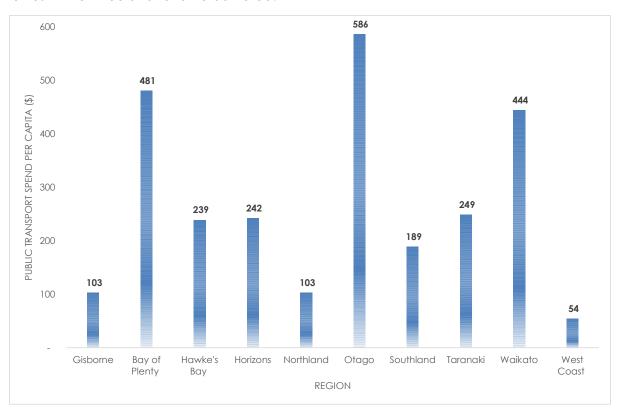


Figure 44 Per capita public transport spend by region

Students living in Kaiti experience unique geographical and socio-economic challenges in travelling to and from school. For the last few years, Council has provided \$40,000 per annum (subsidised at 68% from Waka Kotahi) to the Kaiti school bus initiative, which allows high schools to provide free bus travel to students from this deprived area, with the aim of improving school attendance. The initiative has been included in the RLTP 2024-2034 to continue for the next three years (2024-27), subject to approval from Waka Kotahi.

Stakeholder engagement undertaken as part of the strategic public transport review has identified several key benefits of an improved public transport network:



Improvement Area	Key Benefits
Environmental protection	Reduction in greenhouse gas emissions from land transport, because of moving more people per vehicle and introducing zero emission buses
Social inclusion	A good public transport system connects people and enables all sectors to participate in society and provides greater opportunities for education, healthcare, recreation, and employment
Economy	Direct benefits such as reduced expenditure on fuel and vehicle operating costs are complemented by the indirect benefits of workforce and community engagement, especially from area outside of Gisborne city
Integrated planning	Public transport and active modes have a synergistic relationship with compact communities located within existing urban areas, and can significantly reduce the need to travel by private car

### **Patronage**

Bus patronage in Te Tairawhiti has been in long term decline. The graph below shows that since 2012/13, total annual bus patronage in Gisborne city (both GizzyBus and Waka Kura) has fallen by just under 35,000, or nearly 22%. Given that Waka Kura has required additional vehicles to be provided to meet demand from school children, the decline is the likely to be the result of lower numbers of adult GizzyBus passenger trips.



Figure 45 Bus patronage since 2012/13

The graph also shows the impact of COVID-19. Even in 2022/23, total patronage has not recovered to the level seen in 2018/19. Total numbers of passenger trips on GizzyBus and Waka Kura vary significantly by month of the year, as shown in Figure 46. Total passenger trip



numbers over this 28-month period are affected both by COVID-19 and introduction of half price fares for all passengers (between April 2022 and June 2023).

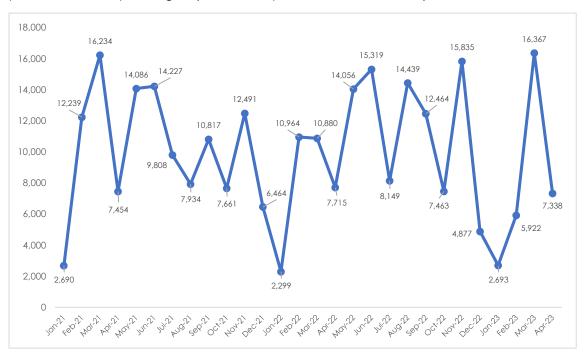


Figure 46 Bus patronage by month of the year

The busiest months of the year (generally March and November) are when there are school/public holidays, which reflects the extent of school travel compared with adults. In contrast, January is all school holiday, and total patronage is very low.

At the 2018 census, percentage of travel to work for bus was only 0.3% of all trips, compared with 4.2% for Aotearoa New Zealand as a whole. In March 2023, the busiest month in the year, the number of passenger trips on the four urban routes was:

Service	Number of Passenger Trips	Number of Bus Journeys in the Month	Average Number of Passengers per Bus Journey
1A	557	138	4.04
1B	553	138	4.00
2A	1,284	276	4.61
2B	1,360	276	4.68
Total	3,754	828	4.38

The table shows that average numbers of passengers per journey is very low. Patronage on GizzyBus services has been declining for a decade - losing existing passengers and failing to attract new ones.

As part of this RPTP preparation, GDC has undertaken a web-based survey of local residents – both people who use the bus and those that don't – to obtain a gauge of the key challenges and opportunities.



People who do not currently use the bus provide an interesting view as to the reasons why, with the following chart showing the percentage of respondents who identify each one as a factor in their decision making:

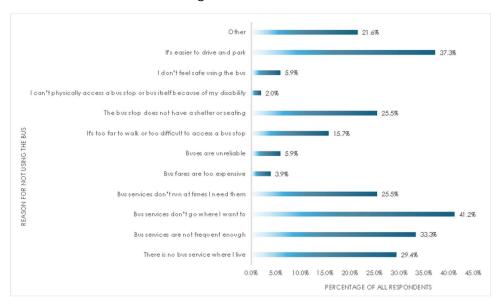


Figure 47 Reasons why people do not use the bus in Gisborne

The top three reasons – buses not going where people need, easier to drive and park, and infrequent services – are closely inter-related. At present there is no compelling reason why people with access to a car would choose the bus.

The fourth, fifth and sixth ranked reasons – a bus not being available at all, unavailable at times when people need them, and lack of bus shelters and seating – are also significant factors in low bus usage. In contrast, high fares, services being unreliable, and safety concerns all barely register as issues.

#### **Fares**

A significant source of revenue for public transport comes from passengers themselves, through fares. Adult fares have not changed since 2009, and the impact of inflation since then means that they are now 40% lower in real terms.

Current fare levels are summarised in the table below. Same day transfer from one GizzyBus to another within 90 minutes is free.

Passenger category	Cash fare (\$)	Bee Card fare (\$)
Child (under 12 years)	Free	Free
Youth (13-18 years)	1.00	0.50
Youth (19-24 years)	2.20	1.00
Adult	2.20	2.00
Community Services Card holder	N/A	1.00



Passenger category	Cash fare (\$)	Bee Card fare (\$)
Super Gold Card holder	2.20	Free (9am – 3pm) \$2 (at other times)

Fare revenue has been declining over the last ten years. In 2022/23:

- Fare revenue was only 35% of the 2012/13 level (see Figure 48).
- Revenue per passenger journey was only 45% of the 2012/13 level (see Figure 49).
- Inflation means that this lower revenue buys less in 2022/23 than it would have done ten years earlier.

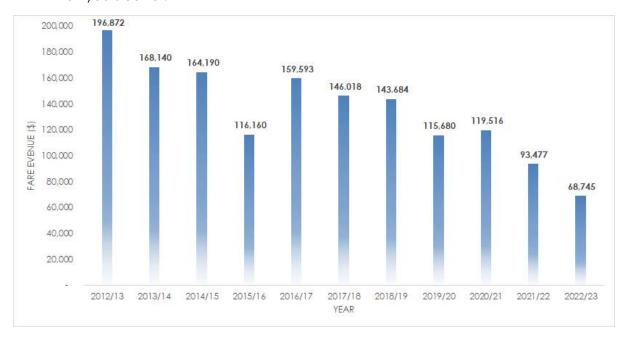


Figure 48 Fare revenue since 2012/13

Whilst some of this revenue decrease is the result of COVID-19 and Government concessionary fare policies since 2019/20, there had still been a significant (27%) decline in total fare levels between 2012/23 and 2018/19.

The 52% fall in revenue per passenger journey since 2019/20 is much higher compared with the period between 2012/23 and 2018/19 (just 7%). This strongly indicates the significant impact of both lower passenger numbers (as a result of COVID-19) and Government free fare policies.



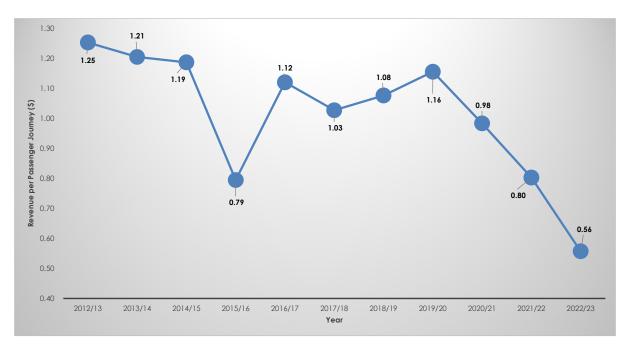


Figure 49 Fare received per passenger journey

It should be noted that GDC is reimbursed by the Government for the various concessions for Super Gold card holders, Community Services Card holders, and children / young people. These reimbursement figures are not represented in the fare income figures because they are not directly collected from passengers. If the fare concessions did not exist, then direct fare revenue above would be higher.

#### Route design

Even before the current contract commenced in 2013, bus services in Gisborne were not very frequent and the design of routes was very confusing for the passenger.

A key issue is that network design has attempted to cover as much of the city with as few buses as possible. The main design principle to achieve this – long one-way loop bus routes - gives people a theoretical service even if though it is often very slow, not well-timed for work start / finish times, and doesn't go where passengers want it to. On service 2A for example, someone boarding at Kaiti Mall and travelling to the city centre has a 35-minute journey around the eastern half the city, which would take no more than 10 minutes going westbound direct via Wainui Road. On the other side of the city, someone travelling from Elgin to the hospital via Lytton Road on route 2B would then have to travel via the city centre and changes buses in order to get back.

Gisborne city has the only Council-funded fixed route bus service network in Te Tairāwhiti. Buses run on weekdays only, between 7am and 5.15pm. There are no evening or weekend services, and nothing has been provided since 2009 when a trial service on Saturday mornings was withdrawn. A bus every two hours represents a very unattractive level of service for an urban area the size of Gisborne. Even hourly services for relatively short routes are less than ideal, and there is a large gap between mid-afternoon and the last bus at 5.15pm.

Service	Routing	Weekday Frequency
1A	City centre to Hospital	Six per day (every two hours)



Service	Routing	Weekday Frequency	
1B	City centre to Elgin	Six per day (every two hours)	
2A City centre to Kaiti		Nine per day (every hour)*	
2B	City centre to Elgin and Hospital	Nine per day (every hour)*	

<sup>\*</sup> Until mid-afternoon, after which there is a long gap until the last bus at 5.15pm.

A third of respondents to the GDC survey cite low frequency as a reason why they do not use the bus.

Relatively small urban bus networks can have reasonably frequent and attractive services. For example the new Nelson – Tasman e-Bus network has four urban routes which run on a 30-minute headway (weekdays and weekends, until mid-evening), and two regional routes with two to three weekday return journeys. There is also a late bus to get people home from a night out. Therefore it is not inevitable that Gisborne should have an infrequent bus service.

Therefore, it is not inevitable that Gisborne should have an infrequent bus service. Respondents to the GDC survey rank more frequent services as the second highest factor that would persuade them to consider using the bus (only behind actually having a bus route to use). Amongst existing bus passengers, more frequent services are the highest ranked reason for using services more often.

The aim of population coverage is not completely achieved by the current network. Figure 50 shows (in green shading) the extent of the services and areas of the city which are within a 400-metre walk of a bus stop.

In the GDC survey, nearly 30% of respondents who don't use the bus give the reason as being no service where they live. Providing a service is also the highest ranked improvement which would persuade people to consider using the bus. Even amongst people who do use the bus, "A bus route that serves the area I live in; and goes where I need it to" is the second highest ranked improvement that would enable people to travel more frequently.



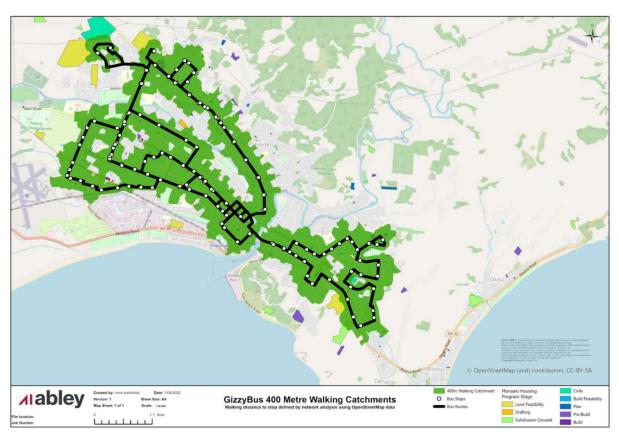


Figure 50 Areas of the city within 400m of a bus stop

The proportion of Gisborne city residents that are served by the current network is below 60%, which equates to a poor "E" level of service as defined by the *Transit Level of Service and Capacity Manual*<sup>38</sup>. When additional proposed housing development areas are added in, the population catchment will reduce further (unless services are extended). Not all the urban area is covered by a bus route, with residents of Awapuni, Taruheru, Tamarau, Wainui and Okitu having no service at all. No public buses run to the new Kiwa Pools aquatic centre, city beaches, port, or airport.

#### Infrastructure

Bus stops are the "shop window" of the public transport system, where people access the vehicles themselves. The quality and extent of facilities at bus stops in Gisborne city is very poor – with most having no shelter, seating, or timetable information. In some cases, there is not even a dedicated hard standing area for passengers (Figure 51). It is currently not always possible for buses to meet the kerb and enable level boarding for people who are permanently or temporarily mobility impaired.

A quarter of respondents to the GDC survey cite the lack of bus shelters and seating as a reason why they don't use the bus. Amongst bus users, better bus stops are ranked highest in terms of improvements (other than services themselves) they would like to see.

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<sup>38</sup> Transit Level of Service and Capacity Manual





Figure 51 Example of a bus stop with poor facilities and no accessibility for mobility impaired people

## Waka Kura

GDC funds nine Waka Kura school services, which each provide one morning and one afternoon journey. All secondary schools are in the western half of the city, and routes undertake various circuits of the east before then travelling to different sites, as shown in Figure 52.



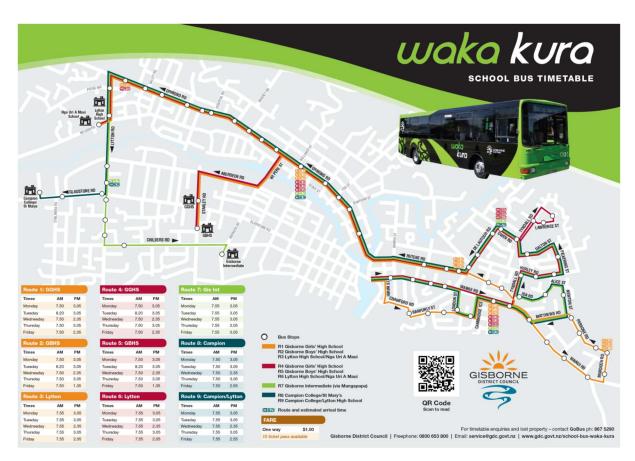


Figure 52 Waka Kura network

The routes were designed in partnership with local high schools and other agencies. The schools currently serviced by Waka Kura are Gisborne Girls High, Gisborne Boys High, Lytton High, Nga Uri A Maui, Gisborne Intermediate, Campion College, and St Mary's. Adults are not allowed to travel on Waka Kura services.

School buses in Te Tairāwhiti are relatively popular, both compared to urban buses in the region and other regions. At the 2018 census, 15.4% of pupils used a school bus, compared with an Aotearoa New Zealand average of 9.9%. In contrast only 0.9% of pupils use the public bus network to get to school, compared with the Aotearoa New Zealand average of 7.1%.

The table below shows that, in contrast to GizzyBus, average numbers of passengers per bus in the same month are relatively high. In recent years, an additional service has been introduced to meet demand.

Service	Number of Passenger Trips	Number of Bus Journeys in the Month	Average Number of Passengers per Bus Journey
1	1,077	46	23.41
2	1,400	46	30.43
3	1,259	46	27.37
4	1,242	46	27.00



Service	Number of Passenger Trips	Number of Bus Journeys in the Month	Average Number of Passengers per Bus Journey
5	1,716	46	37.30
6	1,580	46	34.35
7	1,344	46	29.22
8	2,157	46	46.89
9	865	46	18.80
Total	11,775	414	23.41

The design of Waka Kura services means that many students do not have access to a bus stop that is less than 300 metres away. The first phase of the network review reveals that only 12% of Gisborne city children live within 150 metres of a stop served by Waka Kura, and just 31% within 300 metres.

Waka Kura services have many common sections of route in the east and northwest of the city, as the nine buses individually serve seven different schools. This has the effect of ensuring that some sections of the city (for example immediately to the west and south of the city centre) have no service.

If each bus served a different area of the city, and then dropped off at multiple schools, then more efficient routings could potentially increase service coverage and patronage. There would also be the ability for greater integration of Waka Kura and GizzyBus services, thereby making best use of available budgets and capacity.

The challenge of increasing demand for Waka Kura services has traditionally been met by putting on more school services, which is relatively expensive and inefficient because of the need to pay a part time driver and use a bus which may then not be used for the rest of the day.

The solution to this problem is for at least some children to use a GizzyBus service, rather than Waka Kura. This will save the cost of providing a vehicle and driver for just two journeys per day. With changes to the GizzyBus network in the eastern half of the city, it will be possible to achieve this outcome.

However, most schools currently start and finish at different times on different days of the week. This means multiple different shift patterns for the operator and makes any integration with the GizzyBus network very difficult. In addition, unofficial changes appear to be agreed between schools and the operator to accommodate occasional early finishes – for example at the end of term.

As part of any future route changes, it is proposed that bus routes will no longer vary arrival or departure times in response to different school day hours. If all schools start and finish at the same time every day, operations would be much more straightforward and greater efficiencies achieved.

Given that the schools operation is effectively one route with minor variations, there would be considerable savings to be made by use of 90-seat double deck vehicles, which would halve the required number of buses. Not only would costs be saved but fewer drivers required which is an important factor in times of labour shortage.



#### Rural and inter-regional services

Outside of Gisborne city, GDC does not currently provide any bus services, with the home to school operation provided by private operators under contract to Ministry of Education. These services are not available for use by the general public.

There is one long distance Inter City coach service per day to Rotorua, Hamilton, and Auckland, with a journey time of nine and half hours (compared to an hour on an aeroplane), and one to Wairoa and Napier (journey time four and a half hours). Other destinations such as Palmerston North and Wellington can only be reached with a transfer of buses.

This situation has meant that communities along the East Coast on State Highway 35, and those located on SH2 (between Opotiki, Gisborne and Wairoa) effectively have had no local service which meets their needs.

In July 2023, the Waka Manaaki health shuttle service was established on a trial basis (with funding from Te Whatu Ora) to transport people from Ruatoria and intermediate townships along the East Coast into Gisborne hospital. The service started as a three-day-per-week operation, but its popularity meant that it was quickly extended to every weekday. This shows that there is demand for a public transport service from East Coast communities, and there is the opportunity to consider how more places and journey purposes could be served.

"Community transport" services (which can either be on-demand or fixed route) provided by non-profit organisations such as charitable trusts. The services are also generally provided by smaller vehicles such as vans or even cars. There is an opportunity to set up a community transport planning and funding framework, which will be able to commence working with communities to understand their full access needs (not just the obvious ones, such as doctors' appointments) and co-design solutions which are led by locals.

The draft Government Policy Statement on Land Transport (GPS) 2024-27 signals the Government's intention to make improvements to the inter-regional passenger transport network through a dedicated activity class that will enable partnership with other parties including local government, KiwiRail, and the private sector, to begin developing new interregional public transport services, including rail.

Inter-regional public transport passenger connections with Hawke's Bay and Bay of Plenty are important to provide a means to provide travel opportunities – for a range of journey purposes – without the need to travel by private car. This new activity class provides an opportunity to investigate provision of these connections by a range of modes including bus, rail, and ferry (to Hawke's Bay); and bus and ferry (to Bay of Plenty).

#### **Bus decarbonisation**

As part of global commitments against climate change, the New Zealand Government and Regional / Local Councils have pledged to reduce Greenhouse Gas (GHG) emissions based on defined targets to 2050.

New Zealand ratified the Paris Agreement in 2016 and has committed to reducing GHG emissions to 50% below 2005 levels by 2030. The Climate Change Response (Zero Carbon) Amendment Act 2019 set a statutory domestic target for reductions in GHGs, including net emissions other than biogenic methane, to be zero by 2050.

Transport accounts for around 17% of Greenhouse Gas (GHG) emissions in New Zealand. Carbon Dioxide (CO2) is the most common GHG produced by transport – and 39% of all



New Zealand emissions of this gas are from transport. Smaller amounts of Methane (CH4) and Nitrous Oxide (N2O) are also produced, and they can have a much larger global warming effect. All in all, reducing transport GHG emissions in Te Tairāwhiti will need to contribute to the national and global effort.

One of the many GHG reduction policy levers is decarbonisation of locally planned and operated public transport bus networks. According to the Ministry of Transport (MOT), "decarbonisation" refers to a transition from the current fossil fuel power sources (predominantly diesel) to zero emission vehicles, or vehicles using zero emission power sources (such as hydroelectricity). In principle decarbonisation could be achieved through the deployment of buses powered by electricity, hydrogen or other power sources that result in an equivalent reduction in GHG emissions such as biodiesel or bio-methane. However, the government decarbonisation work programme is very much focussed on zero emission buses, especially battery electric vehicles.

MOT has issued a mandate that from 2025 all new local public transport bus purchases must be zero emission. From 2035, there is a target for decarbonisation of the whole New Zealand fleet (estimated to be between 3,500 and 4,000 vehicles at that time). Decarbonisation is part of a much wider strategy – outlined in the national Emissions Reduction Plan (ERP) and the MOT work programme – to encourage many more people to switch from private car to public transport.

The MOT report Public Transport Operating Model (PTOM) Decarbonisation Option Development <sup>39</sup> has short listed four decarbonisation technologies:

- **Battery Electric Buses (BEBs):** charged from mains electricity and then are powered by in-vehicle batteries.
- **Hydrogen Fuel Cell Buses (HFCBs):** fuelled by gaseous hydrogen which powers an invehicle fuel cell and batteries.
- **Renewable Diesel Buses (RDBs):** fuelled by diesel that is produced from plant biomass and some animal waste, which then directly powers the bus.
- **Bio-methane Buses (BMBs):** fuelled by compressed natural gas produced by anaerobic digestion of waste agricultural crops, which then directly powers the bus.

Whilst all four options deliver lower GHG emissions compared with conventional petroleum diesel buses, only the first two will meet the 2025 Government mandate. The latter two options can contribute to a reduction in GHG emissions up to 2035, by lessening the need for conventional fossil-based fuel. By 2035, all conventional diesel buses will need to be withdrawn from service on GDC urban and school contracts.

## Community transport

"Community transport" services (which can either be on-demand or fixed route) provided by non-profit organisations such as charitable trusts. The services are also generally provided by smaller vehicles such as vans or even cars.

The Sunshine Service is a community transport operation within the Gisborne city boundary, including Wainui<sup>40</sup>. In 2023 Sunshine celebrates 40 years of operation. During the year to 31

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<sup>&</sup>lt;sup>39</sup> <u>Public Transport Operating Model Decarbonisation Option Development</u>

<sup>&</sup>lt;sup>40</sup> Sunshine Service Inc | CAB Directory Listing



March 2017 Sunshine carried a total of 18,573 passenger trips, including 5,460 wheelchair and walking frame clients. The vans travelled a total of 75,975 kms. At the time there were nearly 1,600 clients using the vans on a regular basis.

With around 450-500 passenger trips per week provision is for elderly and people with disabilities only, to hospital, doctors, dental and hair appointments as well as to social and recreational activities. Bookings only need to be made a day in advance.

Community transport services are not currently funded by the Council or Waka Kotahi, and there is no promotion of Sunshine Service through the GDC website for example.

St John provide health-based community transport shuttle services in many parts of the country<sup>41</sup>, and as currently investigating options for serving the remote parts of the region up the East Coast. The Waka Manaaki service, funded by Te Whatu Ora and operated by Ngāti Porou, has previously been highlighted.

As an example of good practice, the Environment Canterbury Community Vehicle Trust (CVT) approach<sup>42</sup> provides targeted funding to an organisation which provides such a service. Operated primarily by volunteer drivers, a CVT community transport operation can meet the needs of the target communities at a lower cost and on a more sustainable basis compared to tendered fixed route services and Total Mobility. There are currently 15 CVTs across the Canterbury region, which provide public transport – for both short and longer distance journeys – where there is nothing else available.

There is an opportunity to set up a community transport planning and funding framework, which will be able to commence working with communities to understand their full access needs (not just the obvious ones, such as doctors' appointments) and co-design solutions which are led by locals.

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<sup>41</sup> St John Shuttle Services

<sup>42</sup> Home Page - Community Vehicle Trust



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