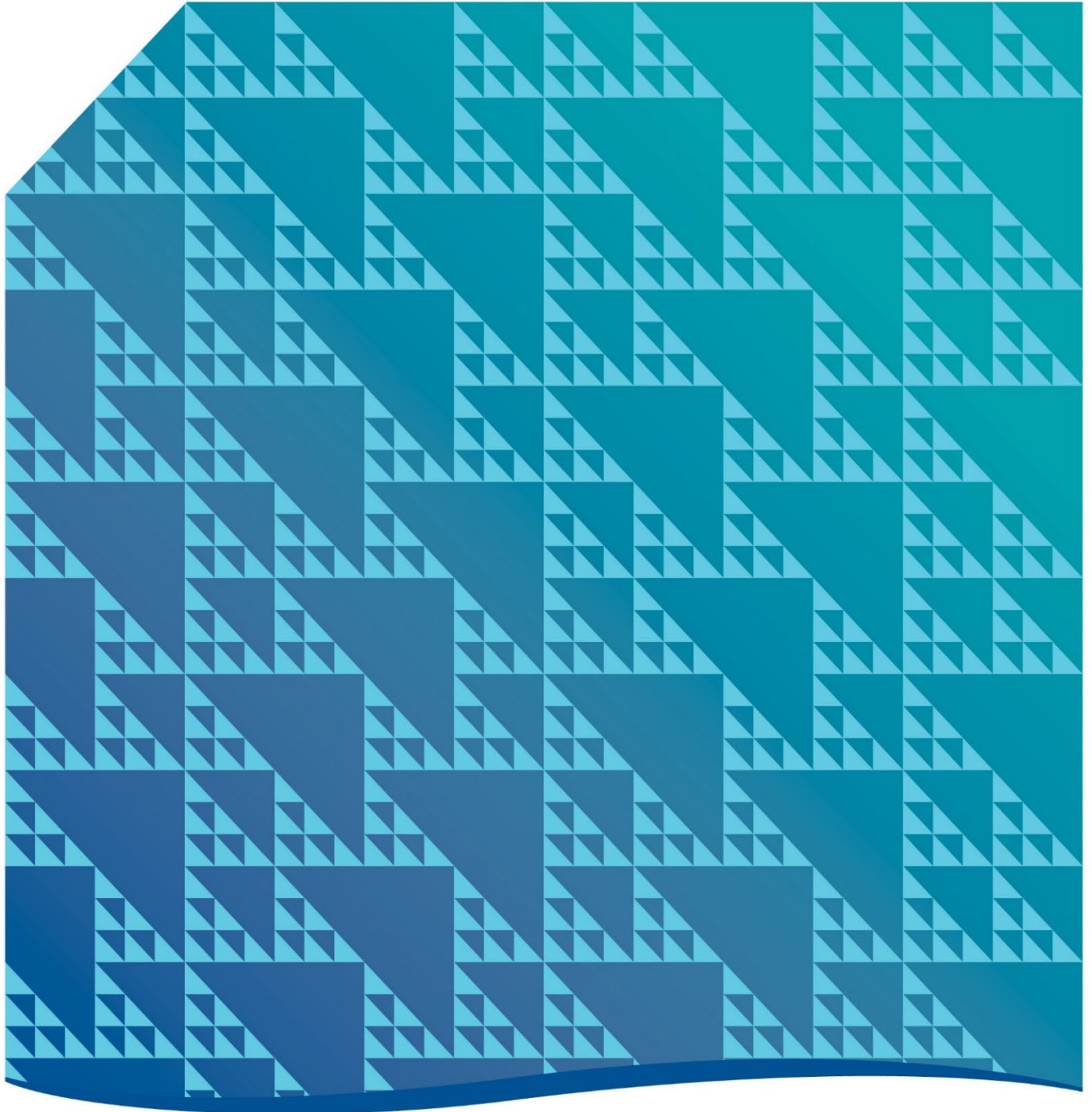


September 2023

# Huon Highway – Kingston to Southport Corridor Strategy



Department of State Growth



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## Glossary of Terms

Term	Description/definition
AADT	Annual Average Daily Traffic
ABS	Australian Bureau of Statistics
ATS	Average Travel Speed
AUL	Auxiliary left turn
BAL	Basic left turn
BAR	Basic right turn
CBD	Central Business District
CHL	Channelised left turn
CHR	Channelised right turn
DDA	Disability Discrimination Act 1992 (DDA)
GHUTDM	Greater Hobart Urban Travel Demand Model
HCM	Highway Capacity Manual
HML	Higher Mass Limits
HPFV	High Productivity Freight Vehicle
HV	Heavy vehicle
ILM	Investment Logic Mapping
KPI	Key Performance Indicator
LoS	Level of Service
MCA	Multi-criteria analysis
OSOM	Oversize overmass
SPV	Special purpose vehicle
PTSF	Percent Time Spent Following
The corridor	Huon Highway between Kingston and Southport
The strategy	Huon Highway Corridor Strategy (2021)
THR	Tasmanian Heritage Register
vpd	Vehicles per day

## Executive summary

The Department of State Growth (State Growth) is preparing corridor strategies for state roads across Tasmania to create consistency in how the State Road Network is managed and planned. This report presents a corridor strategy for the Huon Highway between Kingston and Huonville. The strategy includes two sections:

- Northern section – a 25km section of the Huon Highway from the Southern Outlet at Kingston to Orchard Avenue at Huonville
- Southern section – a 65km section of the Huon Highway from Huon River Bridge at Huonville to Southport, including Scotts Road.

Huonville town centre was not included in the study area as it is undergoing a separate planning process led by Huon Valley Council.

The southern section was previously investigated as part of the Huon Highway Corridor Study (2012), whilst the northern section has been investigated as part of this corridor strategy. The ultimate objective of this strategy is to develop one prioritised list of road improvement opportunities for the Huon Highway between Kingston and Southport, to meet the expected strategic function of the corridor over the next 30 years. The improvement opportunities identified for the northern section have been considered alongside the previous opportunities identified for the southern section, to ensure consistent prioritisation and vision across the entire corridor.

The vision for the Huon Highway between Kingston and Southport, over the next 30 years, is to provide a safe, efficient, reliable and consistent road environment for all road users. This includes improving road safety outcomes through a safe systems approach and providing sufficient overtaking opportunities to maintain an appropriate level of service.

The development of the strategy included extensive stakeholder and community engagement along with a period of formal public consultation. The objectives of the consultation were to gather information and ideas from a broad cross section of the community and key stakeholders to help inform the strategy and the prioritised list of road improvement opportunities. A range of engagement formats were used, including individual meetings, workshops and public consultation using an interactive map on Social Pinpoint.

The Huon Highway connects Hobart with the southern part of Tasmania. The highway is vital to the Huon Valley community as the main road connection to the region. The highway contributes to Tasmania's competitiveness in the agricultural, forestry and tourism sectors, providing access to people from across Tasmania, as well as national and international visitors. Traffic volumes on the highway range from 11,600 vehicles per day (vpd) near Kingston to 400 vpd near Southport.

The Huon Highway plays an important role supporting industry and freight movements. The highway, between Huonville and Arve Road, Geeveston, provides gazetted access for a range of High Productivity Freight Vehicles (HPFVs) and is part of the Tasmanian Declared Higher Mass Limits (HML) network. Additionally, similar gazetted access is provided on Scotts Road and a short section of the Huon Highway connecting Hermons Road to the southern end of Scotts Road. The proportion of heavy vehicles ranges from eight per cent near Kingston, to 17 per cent near Geeveston

The corridor is serviced by nine bus routes which connect the Huon Valley to Hobart. Services extend as far south as Dover. Low service frequency and high fees reduce the attractiveness of public transport. In addition, bus stops are typically informal, with no shelter, seating, timetable information or pedestrian crossing infrastructure.

Active transport infrastructure along the corridor is generally limited to within towns or locations which have recently been upgraded such as the Summerleas Road and Sandfly Road intersections.

A review of crash data between 2012 and 2020 was undertaken for the northern section of the corridor. Vehicles losing control on a curve was the most frequent crash type, with these crashes concentrated along the bends near Lower Longley. There were a high number of rear end collisions between Grove and Huonville, where there is a high frequency of access points. Most intersection crashes occurred at Summerleas Road and Sandfly Road, which were upgraded in 2018 and 2021 respectively.

The capacity of the northern corridor and the associated level of service (LoS) was determined through methods outlined in the Highway Capacity Manual (HCM) 2016. The modelling determined that generally the highway has enough capacity to cope with expected traffic volume increases over the next 30 years.

Key challenges identified for the northern section of the corridor include:

- narrow sealed shoulders throughout the corridor present a safety concern
- the lack of a separation between opposing traffic on undivided sections poses the risk of high-speed, head-on crashes
- winding horizontal geometry, between Sandfly and Grove, increases the risk of loss of control crashes
- substandard intersection alignment in several locations poses a road safety risk
- roadside hazards along the corridor pose a safety risk
- many property accesses require right turns from overtaking lanes, creating the potential for rear end collisions with accelerating vehicles
- the elevation of the road at Vince's Saddle creates a potential ice hazard in winter
- there is a high frequency of accesses within the 100km/h zone between Mountain River Road and Allens Road, creating the potential for conflicts with turning vehicles
- interaction between the mix of road users, including cyclists, pedestrians and vehicles, can cause potential conflict
- substandard bus stops adjacent to the highway create the potential for pedestrian / vehicle conflicts
- bus service frequency and pricing are barriers to the uptake of public transport on the corridor
- different users on the highway, including commuters, tourists and heavy vehicles, have different desired speeds
- Vince's Saddle can be impassable during snowfalls, leading to highway closures and isolation of the Huon Valley community.

Potential road improvement opportunities were identified to address the key challenges identified for the northern corridor. These opportunities have been reviewed alongside the opportunities identified previously for the southern section.

A comprehensive assessment process was undertaken to prioritise the long list of opportunities identified. A Multi-Criteria Analysis (MCA) was undertaken to assess each opportunity against a range of social, environmental, and economic criteria, which aligned with the objectives of the corridor. Each opportunity was also assessed against the desired benefits that were identified through the Investment Logic Mapping (ILM) process that was undertaken with key stakeholders. ILM is a technique that assists in developing and documenting the logic that underpins a potential investment decision before specific solutions are identified.

A total of 74 improvement opportunities have been identified, and these have been grouped into four categories to allow comparison of similar types of improvements, with the number of projects identified for each category in noted in brackets:

- junction / access improvements (total of 30, 7 being high priority)



- road width and curve related improvements (total of 28, 9 being high priority)
- passing opportunities (total of 8, 2 being high priority)
- pedestrian / public transport improvements. (total of 8, 6 being high priority)

Based on the assessment against the MCA and ILM, improvement opportunities were classified as high, medium, or long-term priority. High priority improvement opportunities, recommended for implementation in the short term, are summarised in Table 1. Medium priority improvement opportunities are summarised in Table 2. Low and long-term priority improvement opportunities are summarised in Table 3.

Table 1 Short-term improvement opportunities

Location	Name
<b>Junction / Access Improvement Opportunities</b>	
Kingston to Huonville	Leslie Road junction alignment improvements
	Krauses Road junction improvements
	Huon Road junction improvements
	Dip Road junction improvements
Geeveston to Dover	Church Street junction roundabout
Dover to Southport	Hold line and bus stop sealing Narrows Road junction
	Priority change Hastings Caves Road junction
<b>Road Width and Curve Related Improvement Opportunities</b>	
Kingston to Huonville	Shoulder widening Leslie Vale to Sandfly
	Huon View Road to Dip Road dual lane removal
	Line marking changes north of Grove
Geeveston to Dover	Shoulder Sealing - Kermandie River Road to Scotts Rd
	Road Widening - Scotts Road (south) to Esperance Coast Road
	Super elevation correction north of Esperance Road
	Widen Rd - Esperance Coast Rd to "Waterfall Bend" (Glendevie)
	Widen Rd - "Waterfall Bend" (Sth Glendevie) to Sledge Hill Road
Road Widening - Sledge Hill Road to north of Dover	
<b>Passing Opportunities</b>	
Huonville to Geeveston	Southbound overtaking lane north of Swamp Road junction
	Northbound overtaking lane north of Castle Forbes Bay
<b>Pedestrian / Public Transport Improvement Opportunities</b>	
Kingston to Huonville	Improve Leslie Road bus stops
	Improve Huon Road bus stops
	Improve Dip Road bus stops
	Improve Mountain River Road bus stops
	Improve Lollara Road bus stops

Location	Name
	Improve Voss Road bus stops

Table 2 Medium-term improvement opportunities

Location	Name
<b>Junction / Access Improvement Opportunities</b>	
Kingston to Huonville	Huon View Road junction improvements
Huonville to Geeveston	North Glen Road junction improvements
	Right turn treatment Franklin Eldercare access
	Wooden Boat Centre, Franklin
	Crowthers Road intersection
	Sight distance improvements Shipwrights Point access
Geeveston to Dover	Right turn treatment Hermons Road Junction
	Realign Scotts Road junction (south)
	Right turn treatment Calvert Bros Orchard access
	Side road access sealing Jetty Road
	Widen right turn treatment at Esperance Coast Road Junction
Dover to Southport	Esperance River Road intersection
<b>Road Width and Curve Related Improvement Opportunities</b>	
Kingston to Huonville	Shoulder widening Kingston to Leslie Vale
	Pavement rehabilitation near Kyalami Corner
Huonville to Geeveston	Guard fence reduction Black Bridge
Geeveston to Dover	Curve realignment Scotts Road to Waterloo
	Curve improvements at Surges Bay (near 5720 Huon Highway)
Dover to Southport	Road Widening - Chapman Ave (Dover) to North of Peacock Road
	Super elevation correction Dover
	Shoulder widening south of Tylers Road
<b>Passing Opportunities</b>	
Geeveston to Dover	Slow vehicle passing lane Scotts Road
	Northbound slow vehicle passing lane Waterloo to Scotts Road

Table 3 Long-term improvement opportunities

Location	Name
<b>Junction / Access Improvement Opportunities</b>	
Kingston to Huonville	Lighting at key intersections
	Longleys Road junction improvements

Location	Name
Huonville to Geeveston	Cool Store Rd junction roundabout
	Relocate Fleurty's Road junction
Geeveston to Dover	Right turn treatment Kermadie River Rd junction
	Relocate Pillings Road junction
	Sight distance improvements property access Waterloo
	Relocate Police Point Road junction
	Station Rd junction roundabout
Dover to Southport	Francistown Road intersection
	Darcy Link intersection
<i>Road Width and Curve Related Improvement Opportunities</i>	
Kingston to Huonville	Median turn lane between Grove and Huonville
Huonville to Geeveston	Curve realignment north of Fleurty's Road
Geeveston to Dover	Surges Creek Bridge replacement
Dover to Southport	Road Widening - Hastings Caves Road to Southport
<i>Passing Opportunities</i>	
Huonville to Geeveston	Reopen Palmers Road to through traffic
	Southbound overtaking lane south of Port Huon
Dover to Southport	Sight distance improvements near Hays Rd
	Northbound overtaking lane near Peacock Rd
<i>Pedestrian / Public Transport Improvement Opportunities</i>	
Kingston to Huonville	Shared path Grove to Huonville
Geeveston to Dover	Bridge near Kermadie River Road

# I Introduction

## I.1 What is a corridor strategy?

The Department of State Growth (State Growth) is preparing corridor strategies for state roads across Tasmania to create consistency in how the State Road Network is managed and planned.

Corridor strategies make planning and investment decisions transparent to the community, councils and other community stakeholders. By reviewing current and future characteristics of the road corridor and community around that network, the corridor strategy identifies:

- corridor specific objectives that support the Southern Integrated Transport Plan to improve the safety and efficiency of key regional roads, including Huon Highway (this corridor strategy),
- the performance of transport infrastructure in meeting the corridor-specific objectives
- current and future challenges in meeting these corridor-specific objectives
- key transport demands likely to be placed on the corridor over the next ten to 30 years
- short, medium and long-term priorities and actions to manage the corridor.

The corridor strategy sets up a framework which brings together road safety, traffic efficiency and asset management activities, together with policy in relation to freight access.

The process for developing the strategy is summarised in Figure I-1.

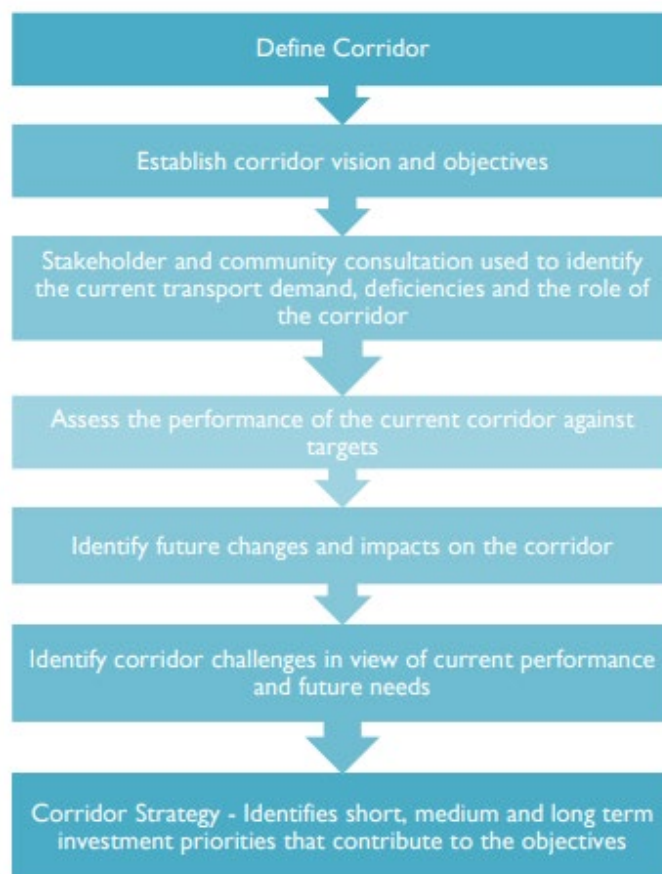


Figure I-1: Corridor strategy process

## 1.2 Huon Highway – Kingston to Southport

The study corridor consists of two sections along the Huon Highway:

- Northern section – between Kingston and Huonville
- Southern section – between Huonville and Southport.

Huonville town centre was not included in the study area as it is undergoing a separate planning process led by Huon Valley Council.

The southern section has previously been investigated as part of the Huon Highway Corridor Study (2012), whilst the northern section was investigated as part of the current strategy. The improvement opportunities identified for the northern section were reviewed and considered alongside the improvement opportunities previously developed for the southern section, to ensure consistent prioritisation and vision across the entire corridor.

### **Northern section**

The northern section of the corridor, shown in Figure 1-2, consists of a 25km section of the Huon Highway from the Southern Outlet at Kingston to Orchard Avenue at Huonville.

The northern section of the corridor is defined as a Category 2 – Regional Freight Road (Tasmanian State Road Hierarchy). Regional Freight Roads are of strategic importance to regional and local communities and economies. Category 2 roads are major arterial routes carrying heavy freight.

The northern section of the corridor covers two local government areas: Kingborough Council and Huon Valley Council. Townships in the northern section of the corridor include Kingston, Leslie Vale, Sandfly, Longley, Lower Longley, Grove and Huonville.

The northern section of the corridor carries heavy freight vehicles, buses, tourist traffic, commuters, and local traffic. Important industries in the region that the highway supports include tourism, forestry, and agriculture.

The predominant means of travel is private vehicle although there are some public and active transport facilities in key areas. The travel time by private vehicle along the length of the corridor is approximately 18-20 minutes during peak periods based on travel time surveys undertaken by querying google travel times.



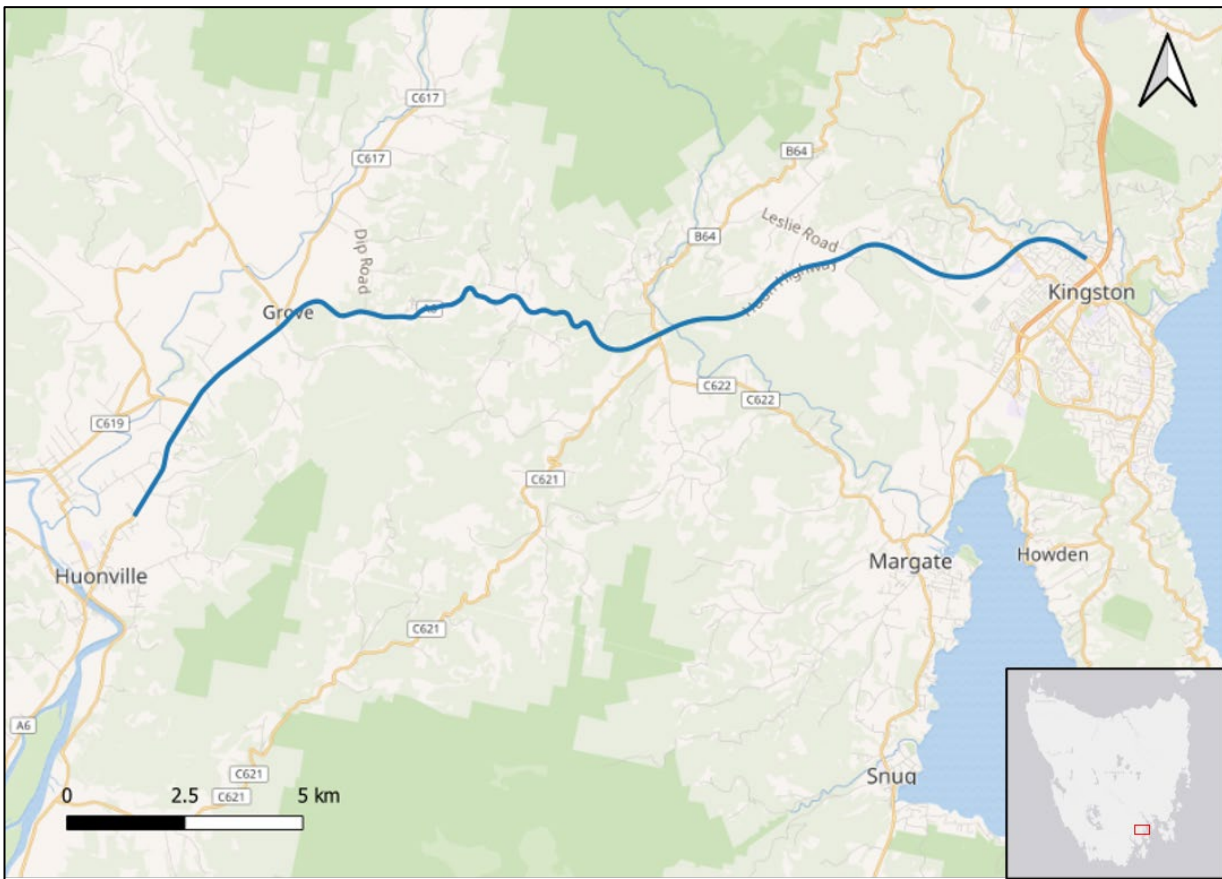


Figure 1-2: Northern section – Huon Highway between Kingston and Huonville

### Southern section

The southern section of the corridor, shown in Figure 1-3, consists of a 65km section of the Huon Highway from Huonville (Huon River Bridge) to Southport and includes Scotts Road, which bypasses the town of Geeveston.

The southern section of the corridor from Huonville to Dover, including Scotts Road is defined as a Category 3 – Regional Access Road. Regional Access Roads are of strategic importance to regional and local communities and economies. South of Dover, as well as between Geeveston and Scotts Road southern intersection, the highway is defined as a Category 4 - Feeder Road. Feeder Roads provide safe passenger vehicle and tourist movement within the regions of Tasmania. The most southern section of the corridor between Hastings Caves Road junction and Southport is classified as a Category 5 - Other Road. Other Roads are primarily access roads, with some being used for comparatively low frequency heavy freight vehicle transport.

The southern section of the corridor is wholly within the Huon Valley Council area. Townships in the southern section of the corridor include Huonville, Franklin, Port Huon, Geeveston, Dover and Southport.

Like the northern section, the southern section of the corridor carries heavy freight vehicles, school buses, tourist traffic, commuters and local traffic. Important industries in the region include aquaculture, tourism, forestry and agriculture.

The predominant means of travel is private vehicle although there are some public and active transport facilities in key areas.

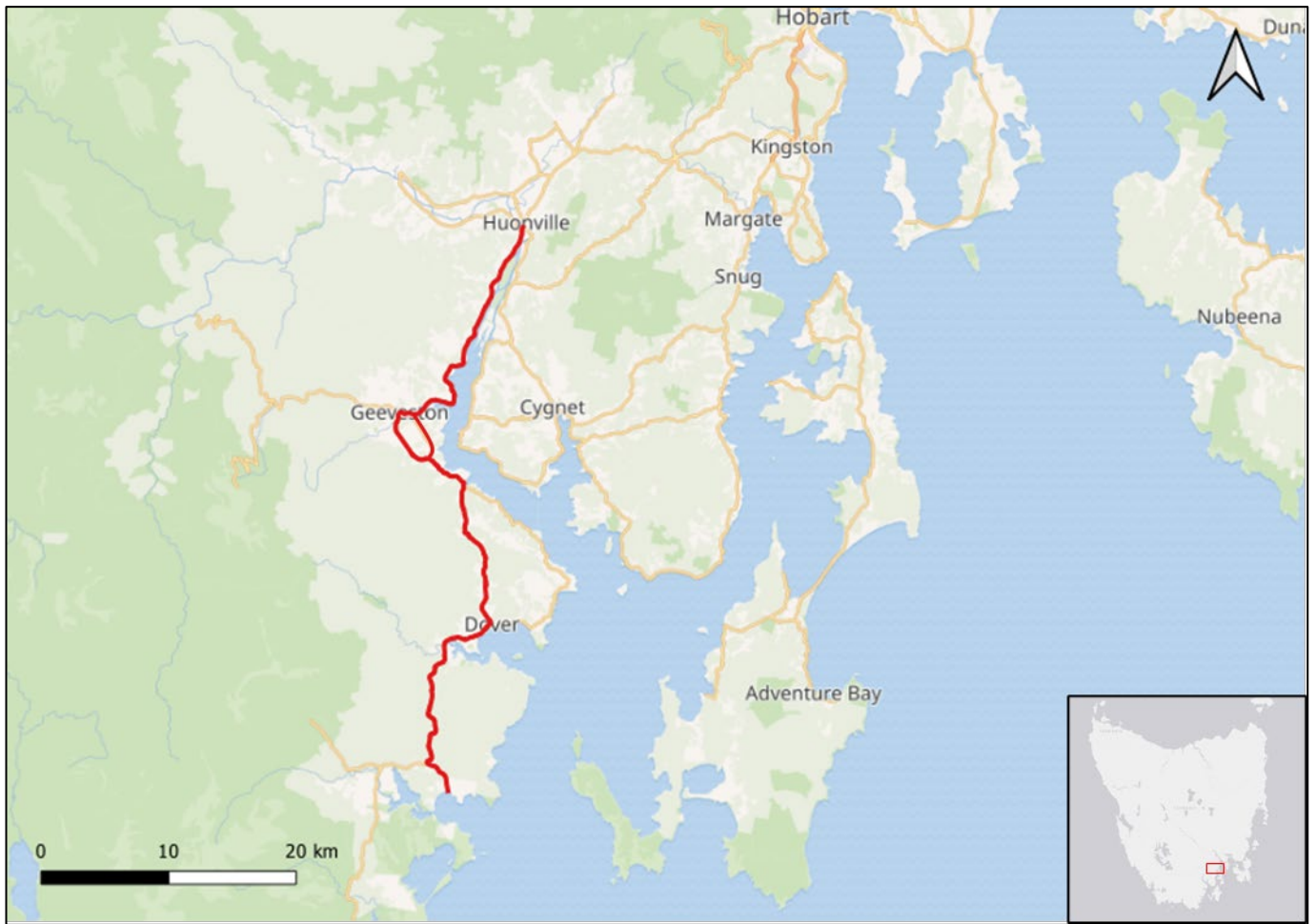


Figure 1-3: Southern section – Huon Highway between Huonville and Southport, including Scotts Road

### 1.3 Planning context and State priorities

Relevant Tasmanian State and local government strategies that apply to the corridor are summarised below. The summary below highlights the objectives and vision of other strategies which align with the objectives of the Huon Highway Corridor Strategy. It is also noted the strategy contributes to the Tasmanian Government priority of developing a 10 Year Huon Highway Action Plan.

#### **Tasmanian Heavy Vehicle Driver Rest Area Strategy (2020)**

The Tasmanian Heavy Vehicle Driver Rest Area Strategy was developed by the Tasmanian Government. The strategy aims to manage heavy vehicle safety and productivity by establishing a network of facilities along key Tasmanian freight routes that are suitable for heavy vehicle drivers to take rest breaks. This will support compliance with fatigue regulations and support planning and design for heavy vehicle driver rest areas on key Tasmanian freight routes. Rest areas identified in the strategy along the Huon Highway corridor include:

- Huon Highway at Vince’s Saddle (southbound)
- Huon Highway at Vince’s Saddle (northbound)

### **Tasmanian Integrated Freight Strategy (2016)**

This strategy identifies issues, opportunities and actions across four themes:

- supporting competition and service choice across Bass Strait and beyond
- efficient freight gateways
- high-standard, responsive land freight connections
- delivering a single, integrated freight system.

The strategy identifies the Huon Highway as a key regional freight connection. These corridors support the movement of freight from regional areas to processing and export ports. The focus for key regional freight connections is on incremental upgrade of existing infrastructure to deliver improved freight access, productivity and safety outcomes over time.

### **Towards Zero - Tasmanian Road Safety Strategy 2017-2026 (2016)**

This strategy outlines Tasmania's 10-year plan to reduce serious injuries and fatalities. The strategy identifies 13 key directions that are based on the best practice Safe System approach to road safety which were informed by extensive engagement, consultation, research, and modelling. The priority road safety areas during the 2020-2024 period are:

- making rural roads safer
- improving safety in our towns and cities
- saving young lives
- encouraging safer road use
- making visitors safer
- improving safety through vehicles and technology.

### **Huon Highway Corridor Study (2012)**

The Huon Highway Corridor Study (2012) was developed by the Tasmanian Government. The strategy investigated the southern section of the Huon Highway corridor, between Huonville (Huon River Bridge) and Southport, with the primary objective of developing a prioritised list of corridor improvement projects to meet the expected strategic function of the road corridor over the next 30 years. The improvement projects were to:

- improve safety outcomes
- provide a more consistent traffic environment along the road corridor
- improve transport efficiency and overtaking opportunities.

The strategy included an assessment of the existing road geometry, safety performance and transport efficiency, including transport modelling, with the outcome being an identified list of short, medium and long-term projects. These priorities will be reviewed and consolidated with the current strategy to ensure consistent prioritisation and vision along the corridor.

### **Southern Integrated Transport Plan (2010):**

The Southern Integrated Transport Plan was developed by the Tasmanian Government, in collaboration with the Southern Tasmanian Councils Authority and twelve member councils. The Plan provides a coordinated and strategic framework to identify and address transport issues within the Southern Region over the next twenty

years, with several objectives (as highlighted in Table I-1) aligning with those of the Huon Highway Corridor Strategy.

Table I-1: Southern Integrated Transport Plan (2010) - relevant objectives

Objective	Strategic policy area	Relevant strategies
Provide a consistent, safe road environment on strategic transport routes from: Regional centres to Hobart Rural centres to regional centres	Infrastructure	1.3 – improve the safety and consistency of key regional roads including Huon Highway
Improve freight efficiency on strategic regional freight routes	Freight	4.4 – Ensure appropriate road standards to support higher productivity vehicles on key freight routes, including Huon Highway (Geeveston to Kingston)

### **Kingborough Integrated Transport Strategy (2010)**

Kingborough Council developed the Kingborough Integrated Transport Strategy (2010). The strategy was developed in response to a greater need for a more coordinated and sustainable approach to transport issues, reflecting the strategic direction for the Kingborough community and developed in accordance with the views of the community. Objectives relevant to the Huon Highway corridor are summarised in Table I-2.

Table I-2: Kingborough Integrated Transport Strategy (2010) – relevant objectives

Objective	Strategic policy area	Relevant strategies
Providing for safer and more efficient transport	Road network	Support safety improvements on the Channel Highway and Huon Highway

## **1.4 Corridor challenges and issues**

This strategy aims to address key corridor challenges by identifying potential improvement opportunities. Key issues and challenges include:

- safety issues at junctions due to lack of turning lanes or restricted sight distance
- narrow road shoulders and winding road geometry
- no separation between opposing traffic directions in most locations
- high frequency of accesses in some sections, leading to conflicts with through traffic
- different users on the highway have different desired speeds, and passing opportunities are limited in some locations particularly south of Huonville
- informal bus stops and limited pedestrian infrastructure.

Potential improvement opportunities identified in this strategy to address these challenges include junction upgrades, cross-section and geometry improvements, pedestrian and public transport improvement and passing opportunities.

## 1.5 Corridor objectives and planning

The objectives of the strategy are aligned with the other strategic planning documents detailed in Section 1.3. Corridor objectives were also consolidated by key stakeholder groups during the Investment Logic Mapping (ILM) exercise, which is explained further in Section 2.1.1.

The objectives for the corridor are to:

- Improve safety outcomes for all road users recognising the varied user groups
- Improve efficiency, reliability and resilience by providing a consistent driving experience for all user groups
- Enable economic growth and development by providing a road network that will meet the future needs of the community.

## 1.6 Vision for the future

The vision for the Huon Highway between Kingston and Southport over the next 30 years is to provide a safe, efficient, reliable and consistent road environment for all road users. This includes improving road safety outcomes through a safe systems approach and providing sufficient overtaking opportunities to maintain an appropriate level of service. This also includes providing greater access for heavy vehicles to improve productivity.

This strategy identifies potential improvement opportunities to achieve this vision such as junction upgrades, cross-section and geometry improvements, pedestrian and public transport improvements and passing opportunities.



## 2 Community consultation

### 2.1 Consultation summary

The Tasmanian Government is committed to engaging with local communities and providing opportunities for feedback throughout the development of all corridor strategies. The consultation undertaken for this project is detailed in the *Huon Highway Corridor Strategy Consultation and Feedback Report 2021* and the *Huon Highway Corridor Strategy Consultation and Feedback Findings Summary 2021*. A summary of the engagement activity and feedback obtained is provided in this section.

The development of the corridor strategy included extensive stakeholder and community engagement along with a period of formal public consultation. The objectives of the consultation were to gather information and experiences from a broad cross section of the community and key stakeholders to help inform the strategy and the prioritised list of road improvement opportunities.

The engagement activity was designed to engage as many people as possible, with a good cross-section of local residents and people representing local government, local industry, small to medium enterprises, transport organisations, and other key stakeholder groups and organisations who may have an interest in the project. A range of engagement formats were used, tailored to the stakeholder groups, including individual meetings, workshops and public consultation using an interactive map on Social Pinpoint, where people could leave comments.

As this project is only at the planning phase, no priority areas or proposals were presented. Rather, participants were asked to give their feedback about their experiences using the road corridor to help inform the strategy and to identify and prioritise areas for improvement.

#### 2.1.1 Consultation with key stakeholders

To support the Huon Highway Corridor Strategy and to inform future options development and prioritisation, an Investment Logic Mapping (ILM) exercise was undertaken. ILM is a technique that assists in developing and documenting the logic that underpins a potential investment decision before specific solutions are identified and before a decision is made.

Two ILM workshops were held for each section of the Huon Highway corridor. All workshops were facilitated by an accredited and experienced ILM facilitator. Key stakeholders were invited to participate in the workshops including Local Government, transport groups, industry bodies and community groups. The following organisations participated in the workshops:

- Department of State Growth - Transport Network Planning, Traffic Engineering
- Kingborough Council
- Huon Valley Council
- RACT
- Tasmanian Transport Association
- Tasmanian Farmers and Graziers Association
- Circular Economy Huon

The purpose of these workshops was to arrive at the following outcomes:

- Workshop 1:

- clear articulation of the problems, their underlying causes, their effects, and their relative importance
- achieve consensus around the range of benefits sought and their associated key performance indicators (KPIs) if a problem was addressed.
- Workshop 2:
  - reconfirmation of the outcomes of Workshop 1
  - agree on the range of strategic responses that might exist to address the identified problems, including their root causes
  - develop an initial list of potential solutions that would be further developed and explored in the corridor strategy and subsequent project stages.

To facilitate an informed and evidence-based workshop discussion, a briefing pack was provided to participants prior to the workshop that included:

- background information on the project including historical studies
- an assessment of strategic alignment with government objectives
- a description of the current state of the corridor.

At the completion of the workshops, an investment logic map was prepared for each section of the Huon Highway corridor reflecting workshop outcomes and feedback post-workshop. An investment logic map is a simple single-page flowchart or ‘map’ that tells the story of an investment and exposes its underpinning logic.

A summary of the engagement activity undertaken with key stakeholders is summarised in Table 2-1.

Table 2-1: Summary of engagement activity

Item	Description	Stakeholders Invited	Stakeholders Attended
Meetings – council	Meetings with Kingborough and Huon Valley Council Officers and a briefing to Huon Valley Councillors	Kingborough and Huon Valley Council Officers, Huon Valley Councillors	Kingborough and Huon Valley Council Officers, Huon Valley Councillors
Meetings – key stakeholders	Meeting with Circular Economy Huon	Circular Economy Huon	Circular Economy Huon
Transport, Industry and Business Workshops	1. Transport Workshop, 20 July 2021	20 Transport organisations plus the two Councils	Six transport organisations plus the two Councils
	2. Industry Workshop, 21 July 2021	17 Huon Valley industry organisations and large businesses	Four Huon Valley industry organisations and large businesses
	3. Business Workshop, 22 July 2022	32 Huon Valley small and medium enterprises	Five Huon Valley small and medium enterprises

## 2.1.2 Community Consultation

The engagement activity undertaken with the community is shown in Table 2-2.

Table 2-2: Community engagement activity

Item	Description	Stakeholders Invited	Stakeholders Attended
Public Consultation	<p>A formal, four-week period of public consultation from 19 July – 14 August 2021 seeking comments via:</p> <ul style="list-style-type: none"> <li>• Social Pinpoint</li> <li>• Email</li> <li>• Phone</li> </ul>	<ul style="list-style-type: none"> <li>• Notifications posted to approx. 15 000 Huon Valley residents and businesses</li> <li>• Department of State Growth website and social media</li> <li>• Advertisements on Council websites, Council newsletters, and posters on public noticeboards</li> </ul>	333 people participated

The number of comments and submissions received is summarised in Table 2-3.

Table 2-3: Summary of amount of feedback received

Source	Number of Comments / Submissions	Number of Individuals
Transport Workshop	52	10
Industry Workshop		5
Business Workshop		7
Social Pinpoint	936	263
Written Submissions and Emails – Key Stakeholders	8	8
Written Submissions and Emails – Local Residents	36	35
Phone Calls	5	5
<b>Total</b>	<b>988 comments 49 submissions</b>	<b>333 individuals</b>

## 2.2 Feedback Summary

### 2.2.1 Feedback from key stakeholders

The most raised themes and issues in the key stakeholder workshops included:

- narrow and winding roads being unsuitable for larger vehicles
- the lack of pullover areas for trucks
- insufficient overtaking opportunities
- poor bus stop safety
- safety at intersections
- challenging driving conditions.

### 2.2.2 Community Feedback

A total of 936 comments were received on the Social Pinpoint interactive map. Comments relating specifically to intersections were sorted and the key themes and issues identified. The Huon Highway corridor was broken

down into 16 sections to identify key themes and issues by section of Highway. A summary of the key themes and issues for the highest ranked intersections and each section of the Huon Highway is included in the *Huon Highway Corridor Strategy Consultation and Feedback Report 2021* and the *Huon Highway Corridor Strategy Consultation and Feedback Findings Summary 2021*.

Themes that were most common on Social Pinpoint included:

- safety at intersections
- appropriate speed limits
- pedestrian safety
- provision of turning lanes
- concerns over road width
- poor driver visibility
- insufficient overtaking opportunities.

Other general comments stated that:

- climate change should be considered in the 30-year projections
- provision should be made for electric vehicles
- Huonville should be bypassed
- consideration should be given to tourist developments planned around Ida Bay, Southport and Cockle Creek.

The following points are also noted.

- There were 26 comments about the Sandfly intersection, which was undergoing upgrade works at the time of consultation
- Feedback regarding the Huonville Main Road in the town centre will be passed on to Huon Valley Council.

## 2.3 Key findings of consultation

The common themes identified as being of most concern in the Huon Highway corridor from all consultation feedback are the difficult road geometry, safety at intersections, location of bus stops and lack of overtaking opportunities. All groups considered the road width toward the southern end of the corridor to be inadequate for large vehicles.

The range of engagement activities, variety of stakeholder groups, and the high volume of feedback, gives confidence that the key themes and issues raised are generally representative of the views of the community and will help inform potential future upgrades that will meet community needs.

## 3 Current corridor function

This section details the function of the northern section of the corridor. As the southern section of the corridor has already been assessed in the Huon Highway Corridor Study (2012), a high-level summary of the function and performance of the southern section is provided in Section 7.

### 3.1 Role and characteristics

The Huon Highway forms part of the A6 highway and connects Hobart with the southern part of Tasmania. The northern end of the corridor at Kingston intersects the Southern Outlet, which is one of Hobart's three major radial highways. The highway contributes to Tasmania's competitiveness in the agricultural, forestry and tourism sectors, providing access to people from across Tasmania, as well as national and international visitors.

The corridor functions as a major arterial facilitating inter-regional and sub-regional freight movements. In addition, the corridor also facilitates movement of private passenger vehicles between townships such as Kingston, Leslie Vale, Sandfly, Longley, Lower Longley, Grove and Huonville as well as facilitating tourist movements.

Southern Tasmania had 869,000 visitors, in the year ending March 2020 (Tourism Tasmania 2020), which is the highest of any region in Tasmania. Huonville had 129,000 visitors in the same period. Tourism growth between 2019 and 2020 in Southern Tasmania was relatively low at one per cent, compared to 6.5 per cent growth in Eastern Tasmania (Tourism Tasmania 2020). As a major corridor through Southern Tasmania, the Huon Highway facilitates this tourism activity.

Numerous residential and farming properties have direct access to the highway. Several businesses, such as Willie Smith's and the Honey Pot Visitor Centre, also have direct access to the highway. The frequency of accesses increases closer to Huonville. The corridor, including key intersections, is shown in Figure 3-1.

The Tasmanian State Road Hierarchy System classifies roads according to their importance in linking population centres, Annual Average Daily Traffic (AADT) and the amount of freight carried.

The northern section of the corridor is defined as a *Category 2 – Regional Freight Road*. *Regional Freight Roads* are of strategic importance to regional and local communities and economies. They provide safe and efficient access to Tasmania's regions and facilitate:

- heavy inter-regional and sub-regional freight movement
- passenger vehicle movement
- commercial interaction
- tourist movement.

The northern section of the corridor is included in a range of High Productivity Freight Vehicle (HPFV) networks, such as the 26m B-double, truck and dog trailer and PBS 2A networks. This section is also part of the Tasmanian Declared Higher Mass Limits (HML) network.

The Huon Highway is vital to the Huon Valley community as the main road connection to the region. There is an alternative route between Huonville and Kingston via the Channel Highway, however this is substantially longer as illustrated in Figure 3-2. The alternative route, via the Channel Highway and Nicholls Rivulet Road, is 55km in length and takes approximately 50 minutes, compared to 20 minutes via the Huon Highway (25km). There is no alternative HPFV route.



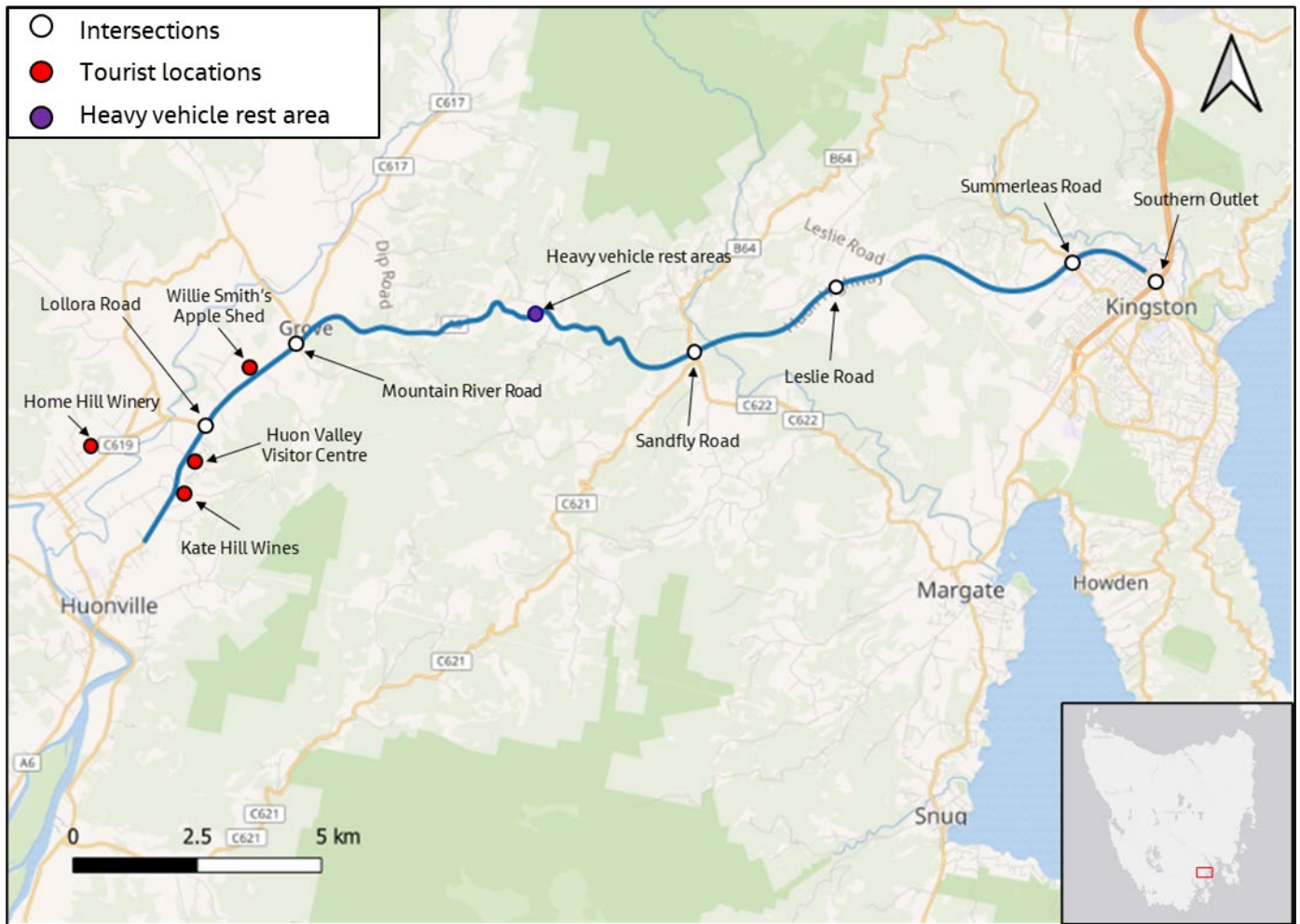


Figure 3-1: Corridor overview



Figure 3-2: Alternate route between Hobart and Huonville via the Channel Highway

The northern section of the corridor can be divided into 17 sections, as shown in Figure 3-3, based on characteristics such as:

- direction of travel
- number of lanes
- divided/undivided carriageway
- key intersections.

Categorising these segments provides a better understanding of the existing road characteristics of the northern section of the corridor and allows for more specific issue identification and prioritisation for certain sections.

For the purposes of this strategy, the northbound direction refers to travel towards Kingston and southbound refers to travel towards Huonville.

A summary of the characteristics of the corridor segments is provided in Table 3-1 and Table 3-2. Of the 25km total length between Kingston and Huonville, 16.6km and 9.2km are two lanes in the northbound and southbound directions respectively. The speed limit across the corridor varies from 80km/h to 100km/h, as shown in Figure 3-4. Sections of the highway near Huonville and Kingston along with the winding section near Lower Longley are 80km/h, with all other sections being 100km/h.

Images of the corridor, showing how the road characteristics vary, are provided in Figure 3-5 to Figure 3-9. Images are ordered from north to south and are all facing southbound.

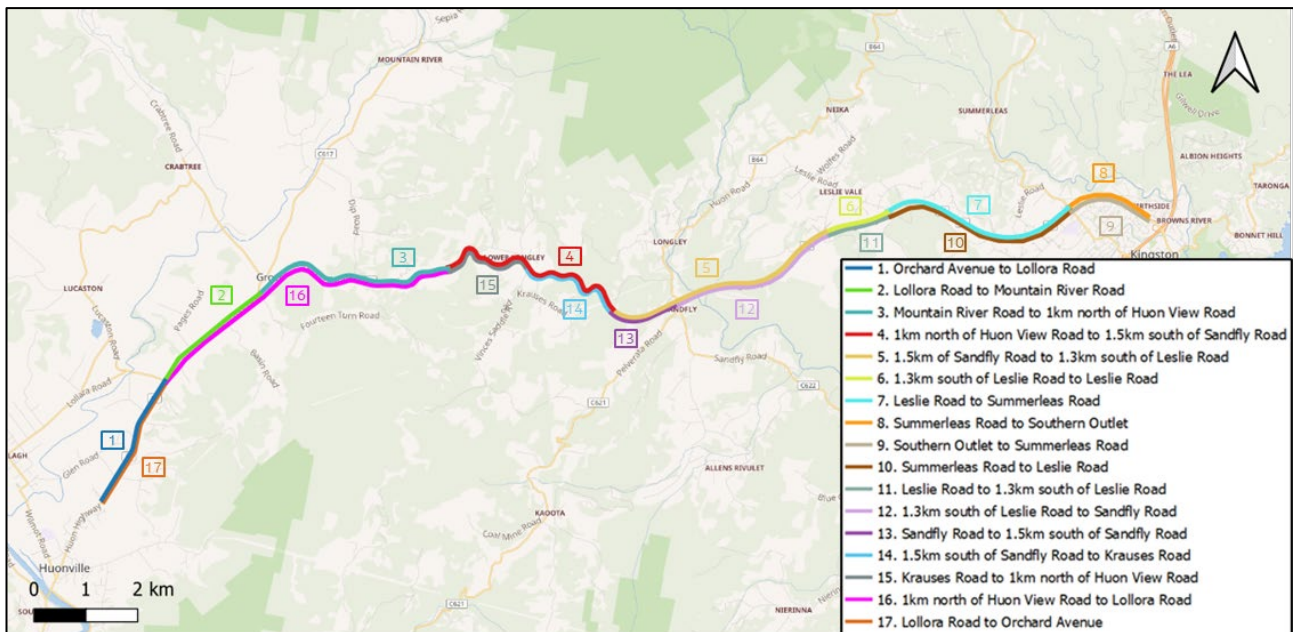


Figure 3-3: Segments of the northern section of Corridor

Table 3-1: Summary of corridor segments - northbound

Segment No.	Corridor segment	Direction	Length (km)	Number of lanes	Speed limit (km/h)	Carriageway
1	Orchard Avenue to Lollora Road	Northbound	2.6	1	80	Undivided
2	Lollora Road to Mountain River Road	Northbound	2.4	1	100	Undivided
3	Mountain River Road to 1km north of Huon View Road	Northbound	4	2	100	Undivided
4	1km north of Huon View Road to 1.5km south of Sandfly Road	Northbound	4	2	80	Divided (east of Krauses Road)
5	1.5km south of Sandfly Road to 1.3km south of Leslie Road	Northbound	4.7	2	100	Undivided
6	1.3km south of Leslie Road to Leslie Road	Northbound	1.3	1	100	Undivided
7	Leslie Road to Summerleas Road	Northbound	3.9	2	100	Undivided
8	Summerleas Road to Southern Outlet	Northbound	1.8	1	80	Divided

Table 3-2: Summary of corridor segments - southbound

Segment No.	Corridor segment	Direction	Length (km)	Number of lanes	Speed limit (km/h)	Divided/undivided carriageway
9	Southern Outlet to Summerleas Road	Southbound	1.8	2	80	Divided
10	Summerleas Road to Leslie Road	Southbound	3.9	2	100	Undivided
11	Leslie Road to 1.3km south of Leslie Road	Southbound	1.3	1	100	Undivided
12	1.3km south of Leslie Road to Sandfly Road	Southbound	3.2	1	100	Undivided
13	Sandfly Road to 1.5km south of Sandfly Road	Southbound	1.5	2	100	Divided
14	1.5km south of Sandfly Road to Krauses Road	Southbound	2	2	80	Divided
15	Krauses Road to 1km north of Huon View Road	Southbound	2	1	80	Undivided
16	1km north of Huon View Road to Lollora Road	Southbound	6.4	1	100	Undivided
17	Lollora Road to Orchard Avenue	Southbound	2.6	1	80	Undivided



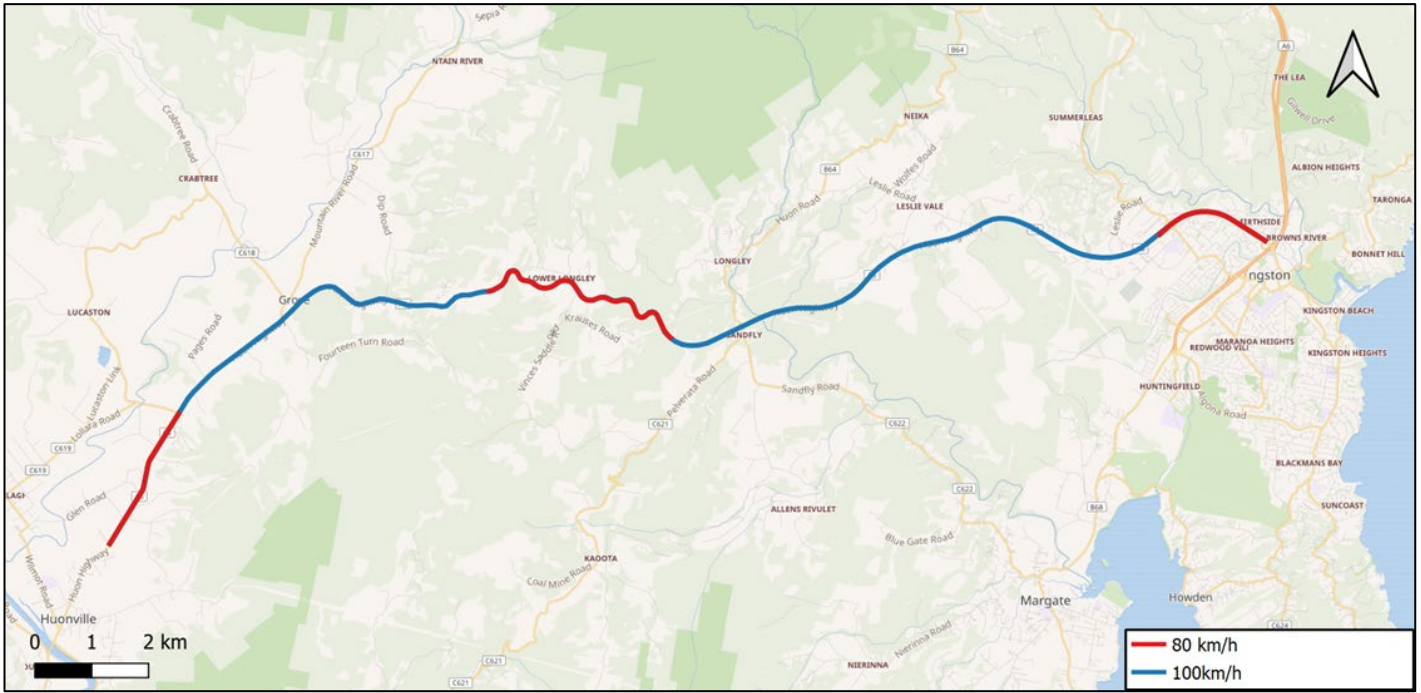


Figure 3-4: Speed limit along northern section of corridor



Figure 3-5 Recently upgraded section, north of Summerleas Road



Figure 3-6 Undivided, duplicated section, north of Leslie Road



Figure 3-7 Divided, duplicated section, south of Sandfly Road



Figure 3-8 Duplicated northbound, north of Mountain River Road



Figure 3-9 Single carriageway, south of Mountain River Road

## 3.2 Current population and land use

### 3.2.1 Population and age demographic

Demographic information including population and age demographic was obtained from the Australian Bureau of Statistics (ABS 2020) for Huon Valley Council and Kingborough Council.

A summary of population data for Huon Valley Council and Kingborough Council between 2001 and 2020 is shown in Figure 3-10. Key insights are as follows.

- As of 2020, the population of Huon Valley Council is approximately 18,000 (approximately 3 per cent of total population of the State)
- As of 2020, the population of Kingborough Council is approximately 39,000 (approximately 7 per cent of total population of the State)
- Huon Valley Council and Kingborough Council are growth regions with an annual growth rate of 1.5 per cent, which is twice that of the State at 0.7 per cent, reinforcing the need to review the corridor considering increasing population.



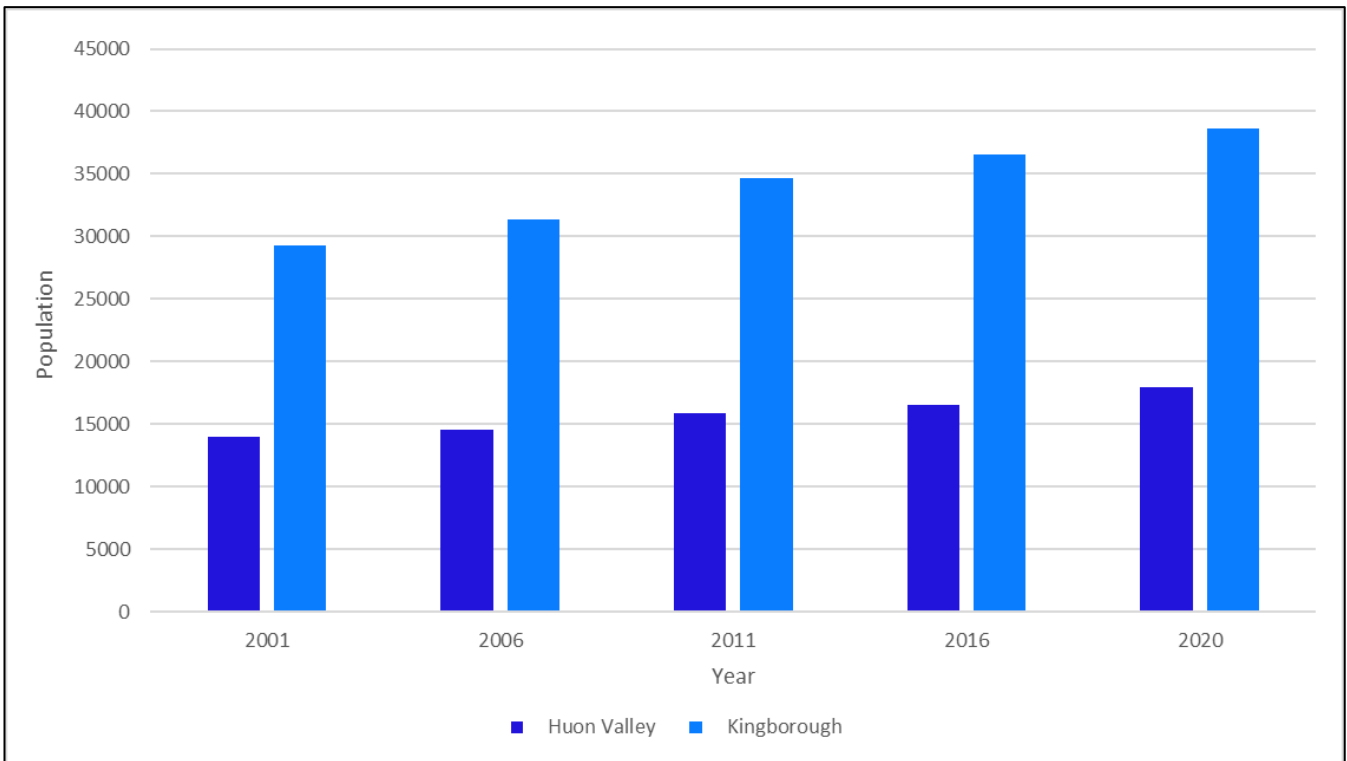


Figure 3-10: Population data (ABS 2001 to 2020)

Age demographic data for Huon Valley Council and Kingborough Council for 2019 is shown in Figure 3-11. Key insights are as follows.

- Huon Valley has a slightly older demographic with a median age of 45.6, compared to the State median of 44.5
- Kingborough has a younger demographic with a median age of 41.8, compared to the State median
- Median age for Huon Valley has increased between 2001 and 2019 from 36.3 to 45.6
- Median age for Kingborough has increased between 2001 and 2019 from 37.4 to 41.8.

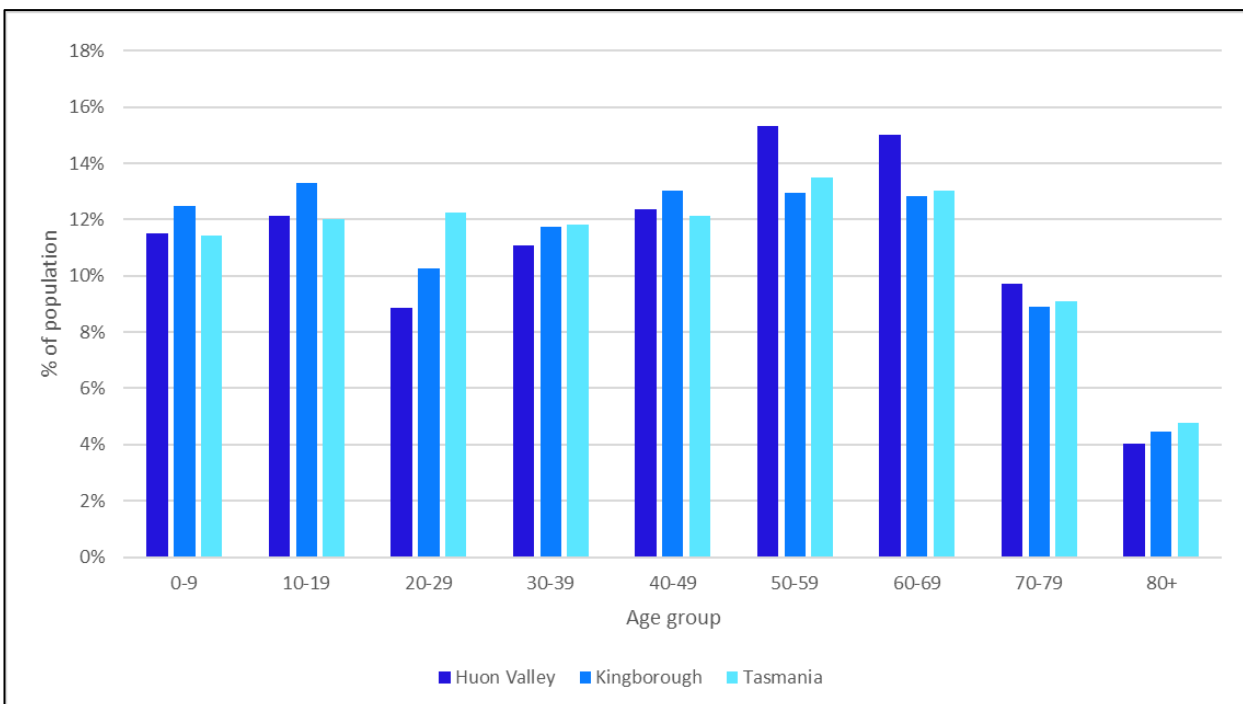


Figure 3-11: Age demographic (ABS 2019)

### 3.2.2 Land use and zoning

The Huon Valley Interim Planning Scheme 2015 and the Kingborough Interim Planning Scheme 2015 currently apply, however the Tasmanian Planning Scheme is currently being rolled out across the state as Local Provisions Schedules are approved.

The existing planning scheme zoning along the corridor is shown in Figure 3-12. Key insights are as follows:

- Huon Highway between Huonville and Grove is predominantly zoned “significant agriculture”
- Huon Highway between Grove and Leslie Vale is predominantly zoned “rural resource” and “environmental living”
- Huon Highway between Leslie Vale and Kingston is predominantly zoned “rural living” and “general residential”.

Under the Huon Valley Draft Local Provisions Schedule , the highway between Huonville and Grove is predominantly zoned “agriculture”, while the highway between Grove and Lower Longley predominantly zoned “rural” and “rural living”.

The zoning adjacent to the highway highlights that the highway passes through rural areas. Residential density (measured as the total number of dwellings per area surrounding the study corridor) and property access from the highway is expected to be relatively low. Higher residential density is observed at the northern end of the highway in Kingston, where the zoning is general residential, however these properties do not have direct access to the highway.

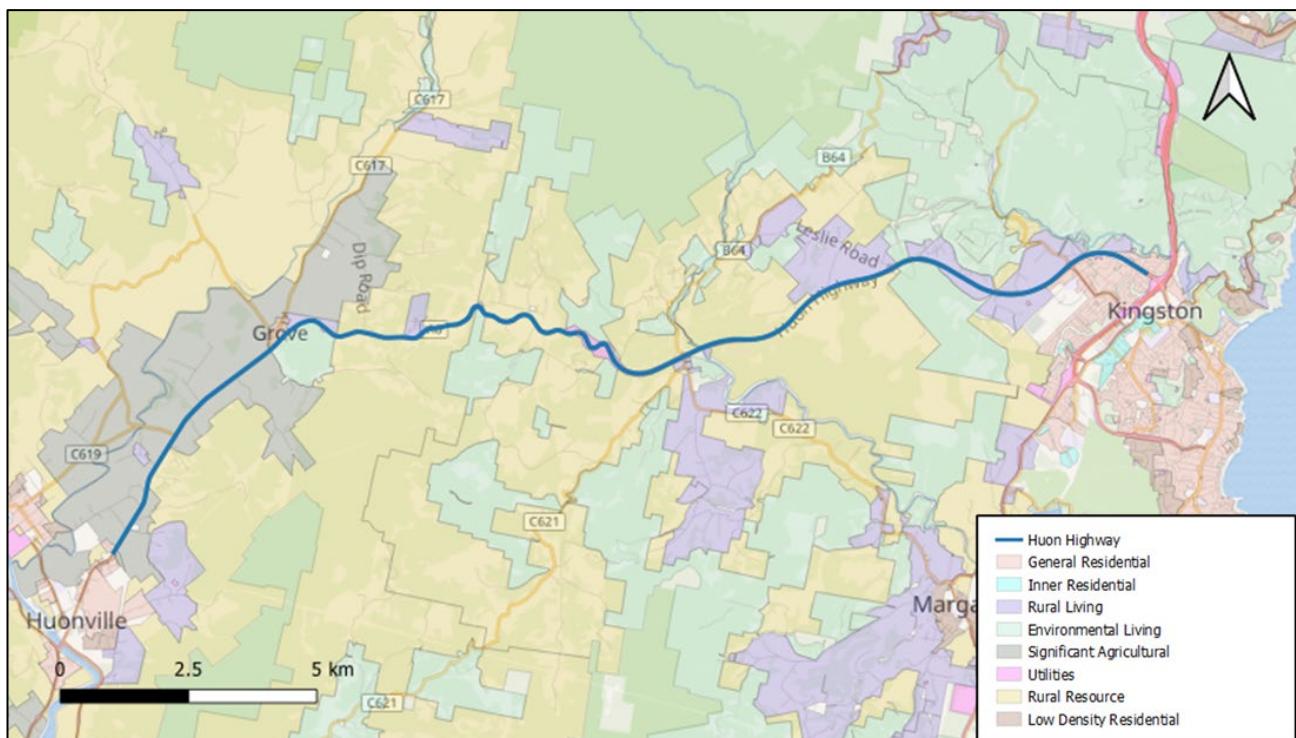


Figure 3-12: Planning scheme zoning along corridor



### 3.3 Current traffic volumes and heavy vehicle use and access

There are two continuous traffic counters and one short-term traffic counter located along the northern section of the corridor. In addition, traffic counts were also obtained at six major intersections. The locations of these traffic counts are shown in Figure 3-13.



Figure 3-13: Traffic counter locations

#### Classified counters

The 2019 two-way AADT volumes were obtained from the short term and continuous traffic counters (GEOCOUNTS 2022) and are provided in Table 3-3. Data from 2019 was used to understand traffic volumes prior to the COVID-19 pandemic. Key insights are as follows.

- 2019 AADT is relatively consistent south of Summerleas Road but increases north of Summerleas Road (near Southern Outlet)
- Annual growth is slightly higher north of Summerleas Road (near Southern Outlet), compared to south of Summerleas Road
- Heavy vehicle percentage and annual growth are lower north of Summerleas Road (near Southern Outlet) where total traffic volumes are higher
- Growth in heavy vehicles is stronger than growth in total traffic across the whole highway.

Table 3-3: 2019 AADT

Traffic counter location	AADT	Annual AADT growth (2003-2019)	%HV	Annual HV growth (2003-2019)
Near Lollora Road (A0168174P)	10,100	3%	11%	8%
Near Leslie Vale (A0168145P)	10,290	3%	10%	9%
Near Southern Outlet (A0168130)	11,600	4%	8%	5%

The directional daily volume profiles at the three traffic counter locations are shown in Figure 3-14 to Figure 3-16. As the traffic surveys were only collected during peak period, data from the continuous and short-term traffic counters were used to understand the daily traffic profile at different locations along the corridor. Key insights are as follows.

- Northbound peak period along the corridor occurs between 7:00am and 8:00am.
- Southbound peak period along the corridor occurs between 4:00pm and 5:00pm.

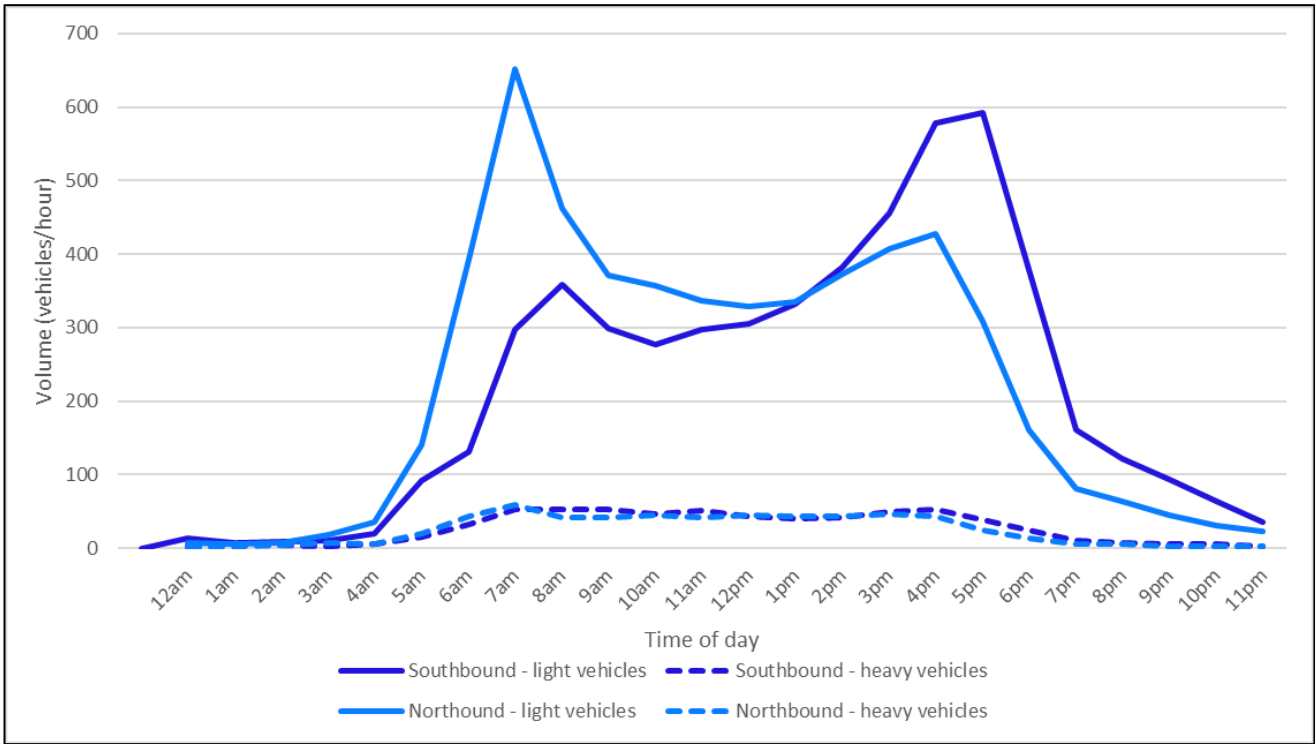


Figure 3-14: Directional daily volume profile – A0168174P – near Lollora Road

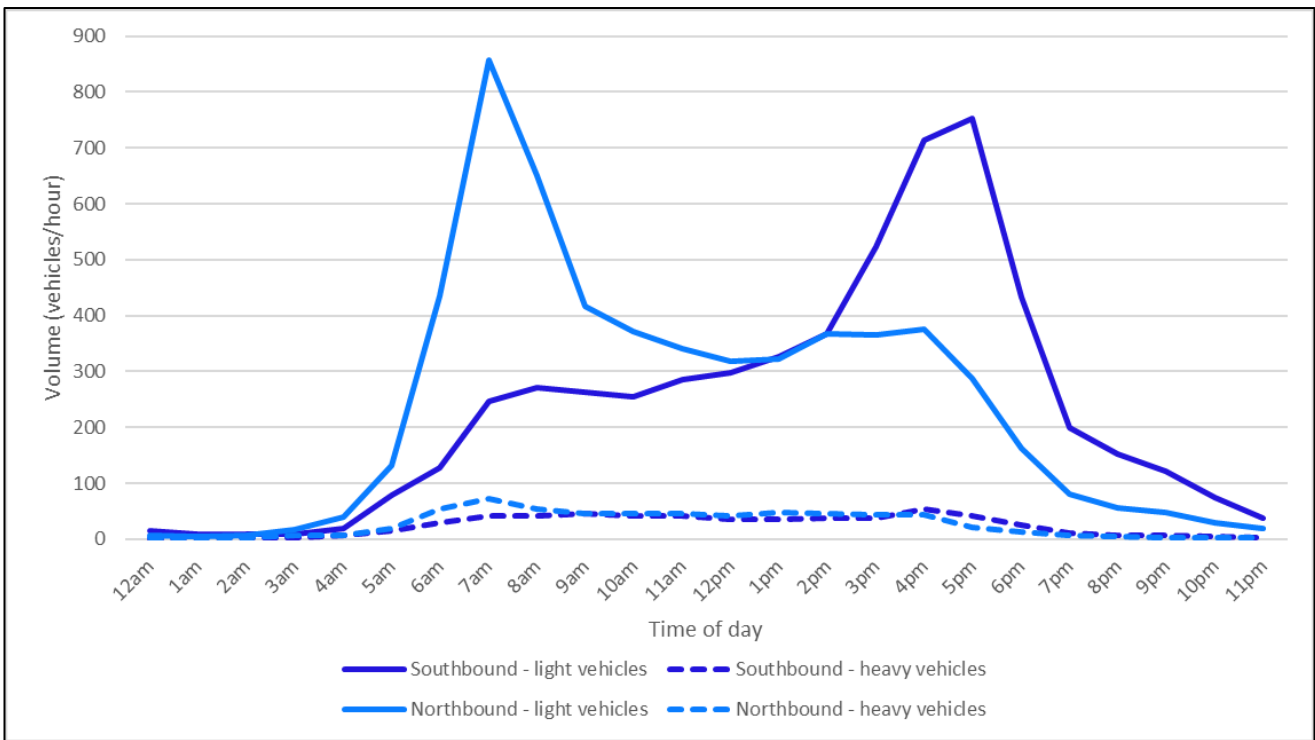


Figure 3-15: Directional daily volume profile – A0168145P – near Leslie Vale

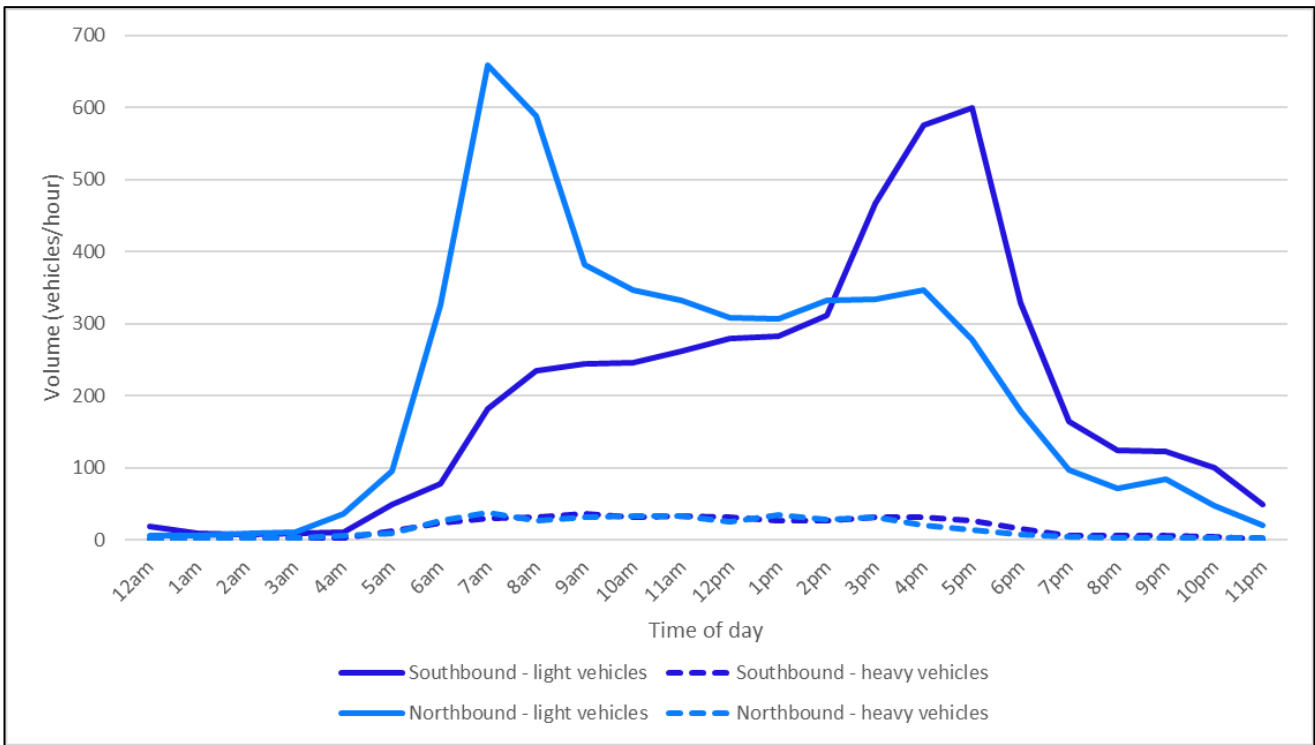


Figure 3-16: Directional daily volume profile – A0168130 – near Southern Outlet

As shown in Figure 3-17, small two axle trucks make up the majority (approximately 60 per cent to 80 per cent) of heavy vehicles along the corridor. The proportion of two axle trucks however decreases at the northern end of the corridor, with the proportion of larger heavy vehicles increasing near Leslie Vale and Southern Outlet.

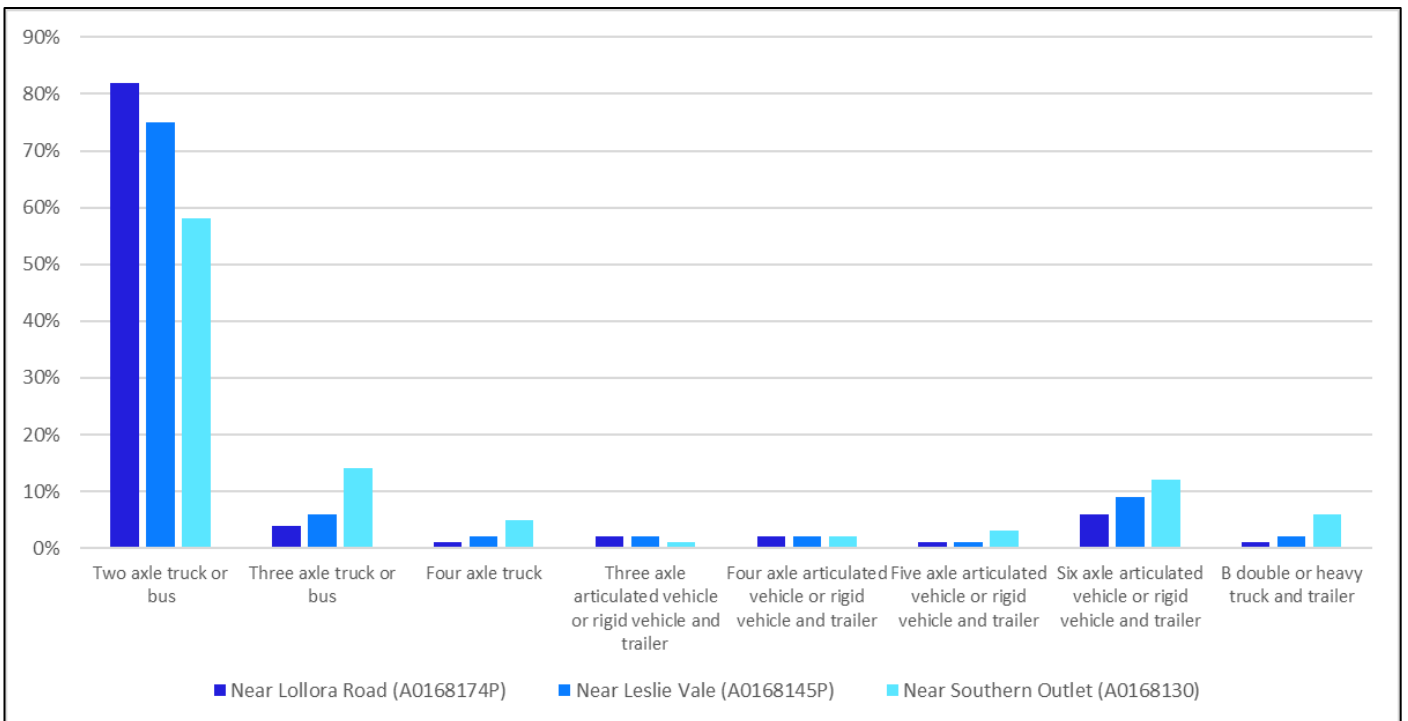


Figure 3-17: Heavy vehicle classes along the corridor (2019)

## Traffic surveys

To determine peak hour traffic volumes along the Huon Highway corridor, surveys were conducted at key locations. Table 3-4 details these traffic surveys. All surveys were conducted as turning movements surveys at key junctions, across the assumed morning and evening peak periods, except for Survey #6. This was instead conducted using vehicle counters across the Huon Highway corridor, at all times of the day.

Table 3-4: Huon Highway traffic surveys

Survey	Survey Location	Surveyor	Survey Date(s)	Survey Times
1	Lollara Road	Matrix Traffic and Transport Data	16/02/2021	06:30-08:30, 15:30-17:30
2	Mountain River Road/ Turn Creek Road	Matrix Traffic and Transport Data	16/02/2021	06:30-08:30, 15:30-17:30
3	Huon Road	Matrix Traffic and Transport Data	16/02/2021	06:30-08:30, 15:30-17:30
4	Sandfly Road	JMG Engineers and Planners	02/08/2018, 25/06/2019	07:30-09:30, 15:30-17:30
5	Leslie Road	Matrix Traffic and Transport Data	16/02/2021	06:30-08:30, 15:30-17:30
6	Summerleas Road Interchange	Austraffic	09/03/2021 – 15/03/2021	All day

It is noted that at the time of the surveys in mid-February 2021, Australia had less than 50 active cases of Covid 19 and was recording an average of six new cases per day (Australian Government 2021). Tasmania did have border restrictions in place at this time, which included restriction of entry from listed hot spots across Australia, and two week quarantine from medium risk locations. At this point in time there were no open borders to foreign visitors. An analysis of the classified counters along the corridor indicates that local peak hour traffic volumes reflected pre-pandemic levels when the traffic surveys were undertaken. The surveys are therefore considered representative of typical local peak hour traffic conditions.

Based on the traffic surveys, peak hour volumes along the corridor have been determined for an average weekday. These are illustrated in Figure 3-18 and Figure 3-19 for the AM (7:00am to 8:00am) and PM (4:00pm to 5:00pm) peak hour respectively. This data is reasonably consistent with the daily traffic profiles from the short term and continuous traffic counters. Variability between data can be attributed to short term/continuous traffic counters collecting data over a whole year or month, while the traffic surveys only collected data across a single day or week.

From the data, it is evident that there is a strong commuting movement from Huonville towards Kingston. This is seen in the higher volume of northbound traffic in the AM peak hour, and southbound traffic in the PM peak hour. Traffic volumes can range between approximately 500 to 1,000 vehicles per hour, per direction, along the corridor. A noted drop in traffic volumes is observed at the Sandfly Road intersection, most likely due to counts being conducted approximately two years prior to the others.

Traffic counts presented in Figure 3-18 and Figure 3-19 represent light and heavy vehicles, but do not include motorcycle movements. Isolating this vehicle class from the dataset shows that peak hourly volumes of motorcycles are less than ten vehicles per hour in either direction.



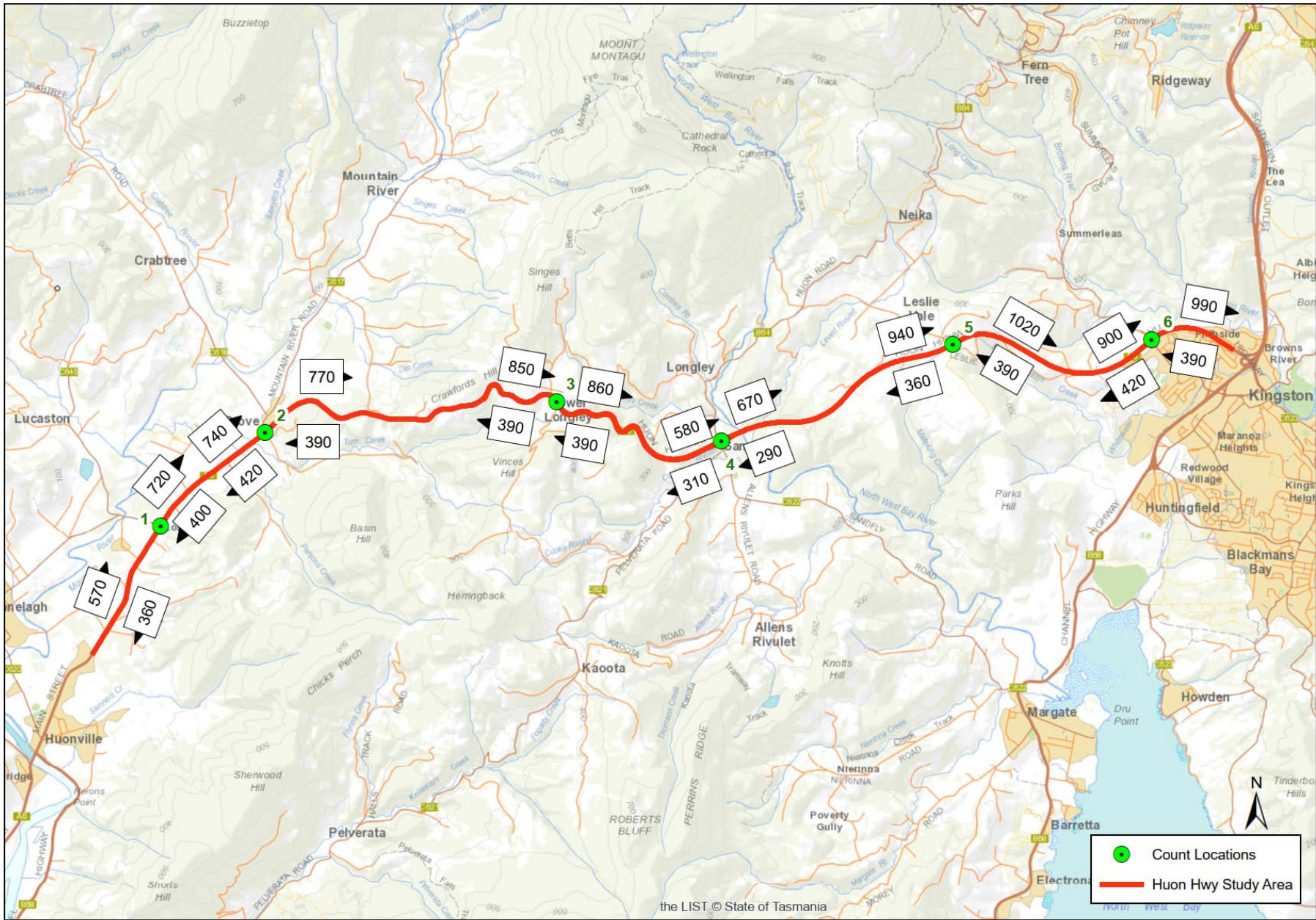


Figure 3-18: AM peak hour mid-block volumes on the Huon Highway





Figure 3-19: PM peak hour mid-block volumes on the Huon Highway

## Tasmanian Freight Survey

Data from the 2016-17 Tasmanian Freight Survey was obtained from State Growth. The Tasmanian Freight Survey is a regular survey of heavy vehicle freight movements across Tasmania, primarily gathered through interviews and reported data from businesses.

The proportion of heavy vehicle classes that travel along the corridor is summarised in Table 3-5, with the top five commodities transported summarised in Table 3-6. The Tasmanian Freight Survey captures freight movements for major businesses but is not a census of all truck movements on the highway. In comparison, classified counter data captures all heavy vehicle movements, including those which are not freight vehicles (e.g. buses), as well as unladen vehicle movements. Consequently, the proportions in Table 3-5 differ from those in Figure 3-17. Larger heavy vehicles represent a higher proportion of trips for those businesses surveyed as part of the Tasmanian Freight Survey, compared to the classified counter data.

The commodities transported highlight the importance of the corridor for construction and quarrying. The quarry at Leslie Vale in particular, is a key generator of freight movements. Since the survey, the Southwood veneer mill has closed and therefore the volume of boards, panels and veneer sheets is expected to have reduced. The survey also highlights the importance of the corridor for the aquaculture industry.

Table 3-5: Heavy vehicle classes along Huon Highway

Heavy vehicle class	Trip %
6 Axle Articulated Vehicle	34.5%
Non-HPV Truck and Trailer	27.5%
3 Axle Rigid Truck	16.6%
B-Double and Hi-Prod Comb	16.2%
4 Axle Rigid Truck	4.3%
5 Axle Articulated Vehicle	0.5%
3 Axle Articulated Vehicle	0.5%

Table 3-6: Top commodities transported by freight along Huon Highway

No.	Commodity
1	Stone, sand and clay
2	Premixed concrete
3	Boards, panels and veneer sheets
4	Fish, live, fresh or chilled
5	Hardwood logs

## Origin-destination

State Growth operates a system of Bluetooth detectors used to measure the movements of vehicles on the state road network. The system is linked to the Addinsight software, which receives the data and provides network-wide performance indicators in real time through a graphical user interface.

Data was collected over a 24 period on Tuesday 16 February 2021, the same day as the turning movement surveys. A detector site is located within the study area at the intersection of Huon Highway/Sandfly Road. The most popular destinations for vehicles travelling from Huon Highway/Sandfly Road were:

- Channel Highway/Sandfly Road (19 per cent)
- Huon Highway/Summerleas Road (15 per cent)
- Channel Highway/Summerleas Road (14 per cent)
- Huon Highway/Leslie Road (10 per cent)
- Beach Road/Roslyn Avenue (7 per cent)

The most popular origins for vehicles travelling to Huon Highway/Sandfly Road were:

- Channel Highway/Sandfly Road (16 per cent)
- Huon Highway/Leslie Road (14 per cent)
- Huon Highway/Summerleas Road (14 per cent)
- Channel Highway/Summerleas Road (10 per cent)
- Channel Highway/John Street (8 per cent).

It is noted that this survey is a snapshot in time and there may be variations across different days and times of the year. While traffic volumes had returned to pre-pandemic levels at the time of the survey, lower visitor numbers may also impact travel patterns observed.

### 3.4 Industry and economic activity

Workforce profiles based on key industries for Huon Valley Council and Kingborough Council are shown in Figure 3-20. This information aids in understanding the type of travel and vehicles expected on the corridor.

The three main industries in Huon Valley Council are:

1. agriculture, forestry and fishing
2. health care and social assistance
3. retail trade.

The three main industries in Kingborough Council are:

1. health care and social assistance
2. education and training
3. public administration and safety.

Agriculture, forestry and fishing represent nearly 15% of the workforce in the Huon Valley, over double the Tasmanian average. The Huon Highway is critical to supporting these industries and providing a link to the Southern Outlet.



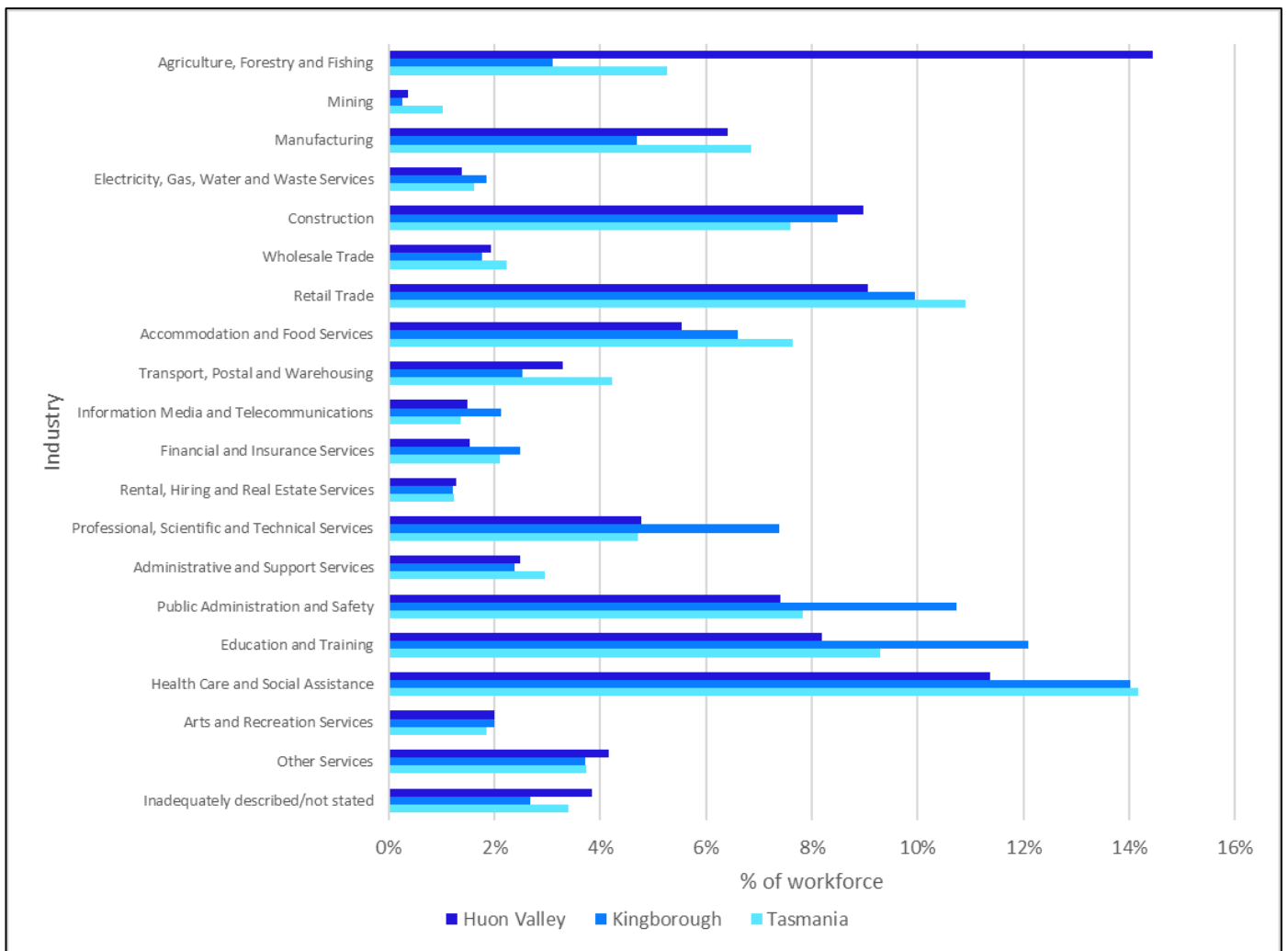


Figure 3-20: Key industries

Employment status data for Huon Valley Council and Kingborough Council for 2006 to 2016 is shown in Figure 3-21. Key insights are as follows.

- In 2016, the proportion of part time workers in Huon Valley Council and Kingborough Council was 42 per cent, compared to 35 per cent for the State – this indicates that Huon Valley Council and Kingborough Council would have increased non-peak work trips
- The proportion of part time employment in Huon Valley Council increased by five per cent between 2006 and 2016, which is less than that of the State of nine per cent
- The proportion of part time employment in Kingborough Council increased by 11 per cent between 2006 and 2016, which is higher than that of the State

Labour force figures were sourced from Small Area Labour Markets (SALM 2020) for Huon Valley Council and Kingborough Council. Figure 3-22 compares the total labour force in relation to population for both Councils between 2011 and 2020. Key insights are as follows.

- In 2020, Huon Valley Council has a labour force proportion of 52 per cent, compared to 50 per cent for the State
- In 2020, Kingborough Council had a labour force proportion of 48 per cent, which is lower than that of the State
- Labour force proportion increased by two per cent in Kingborough Council between 2011 and 2020, which is in line with that of the State.

- Labour force proportion increased by seven per cent in Huon Valley Council, which is higher than that of the State.

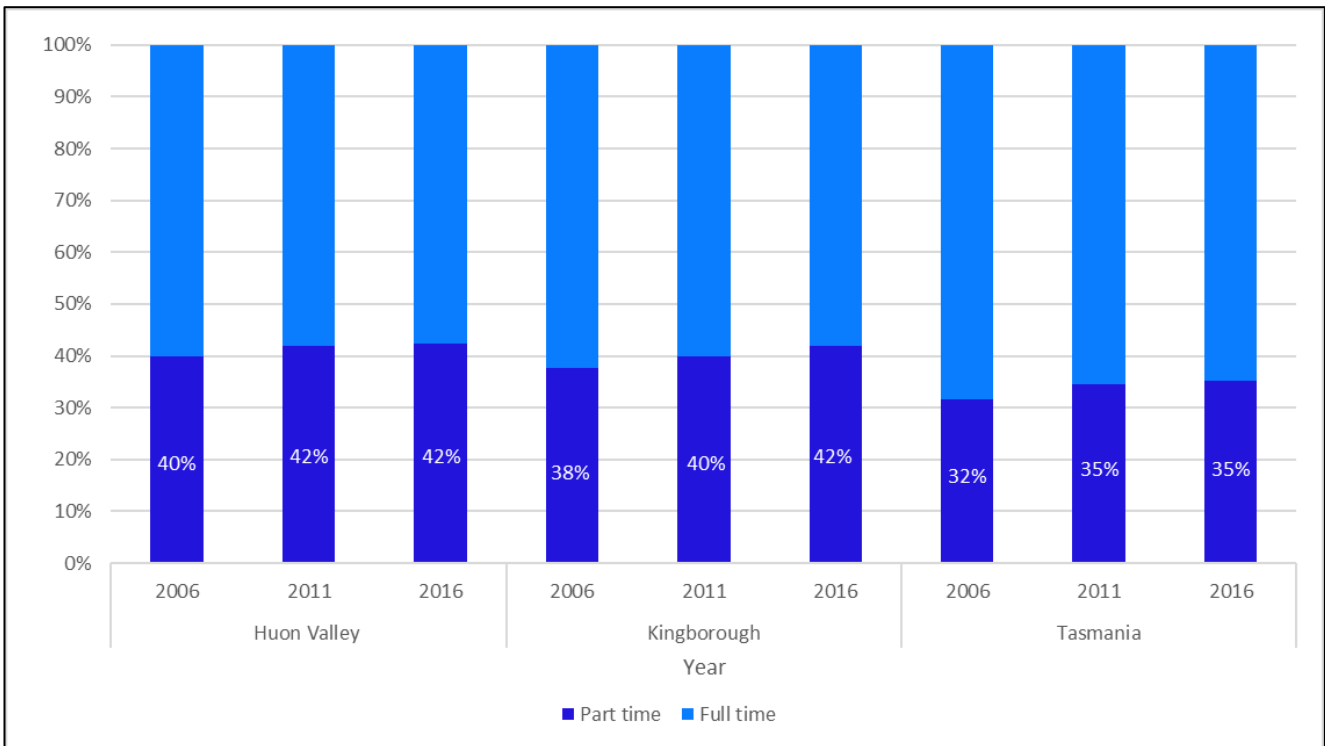


Figure 3-21: Part time vs full time employment (ABS 2006 – 2016)

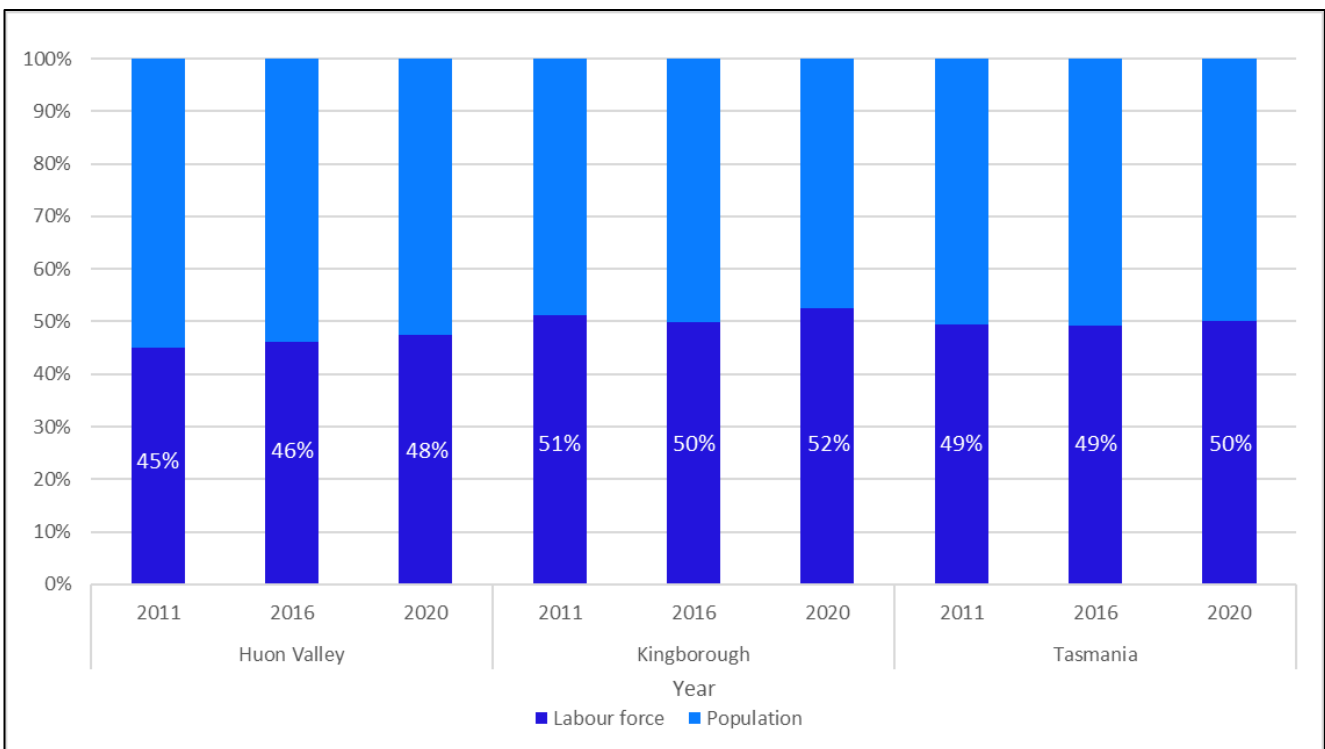


Figure 3-22: Labour force compared to population (SALM 2011 to 2020)

Journey to work data to and from Huonville-Franklin is shown in Figure 3-23. Key insights are as follows:

- The majority of work trips from Huonville – Franklin are within Huonville – Franklin, indicating a high proportion of local employment
- Hobart is the second most frequent destination from Huonville – Franklin, followed by Kingston – Huntingfield and Geeveston – Dover
- There are fewer work trips into Huonville – Franklin compared to out of Huonville Franklin.

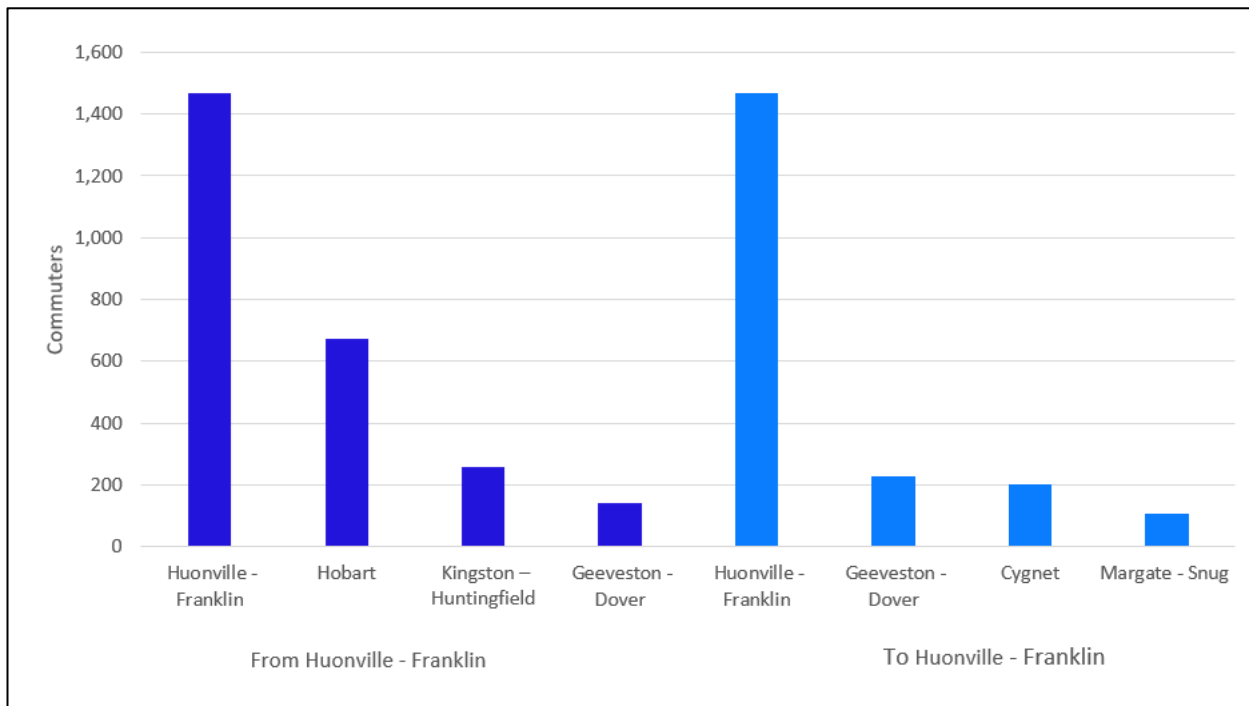


Figure 3-23: Work trips to and from Huonville-Franklin (ABS 2016)

### 3.5 Public transport and active transport

Although the predominant means of transport along the corridor is by private vehicle, there are also public and active transport facilities. Travel mode to work to and from Huonville-Franklin is summarised in Table 3-7. Key insights are as follows.

- Huonville – Franklin is heavily reliant on car travel, accounting for over 90 per cent of commuting trips to and from the region
- Slightly more people travel by active transport compared to public transport, which reflects the high proportion of local employment.

Table 3-7: Travel mode to and from Huonville-Franklin (ABS 2016)

Mode	From Huonville-Franklin		To Huonville-Franklin	
	Counts	Percentage	Counts	Percentage
Public transport	66	2%	36	2%
Vehicle	2,686	94%	1,808	93%
Active transport	92	3%	83	4%
Other mode	13	0%	9	0%
Worked at home	596		436	
Mode not stated	51		36	

### 3.5.1 Public transport

The study corridor is serviced by nine bus routes which run from the Huon Valley to Hobart, as shown in Figure 3-24. In addition to these routes, there are a small number of school bus operators that travel between the Huon Valley and Hobart.

The X710 is an express bus service from Huonville to Hobart, which commenced in July 2021. Unlike the other routes, this service does not stop in Kingston. This service runs four times in each direction, with the first bus departing Huonville at 6:05am and then every hour until 9:05am. The first bus from Hobart departs at 3:17pm and then every hour with the last bus at 6:17pm.

The bus timetable generally caters for full-time workers better than part-time workers. For example, services departing Hobart in the evening are most frequent between 5-6PM and less frequent earlier in the afternoon.

There are 14 public bus stops (including both directions) along the corridor, as shown in Figure 3-25. In addition, there are also numerous school bus stops. The location of school bus stops can vary depending on where students live. Currently, bus stops are very informal, with no shelter, seating, timetable information or pedestrian crossing infrastructure. The location of bus stops is difficult to determine without prior local knowledge. Bus stops are also not Disability Discrimination Act 1992 (DDA) compliant. DDA requirements for a standard bus stop include (Department of State Growth 2022):

- bus stop signage which includes pole and blade
- signage has the appropriate text size and any text or graphics has a luminance contrast against the background
- tactile ground surface indicators
- seamless and unobstructed transition between the bus stop and footpath and/or road
- firm (usually hardstand), as level as possible boarding point, with sufficient width.

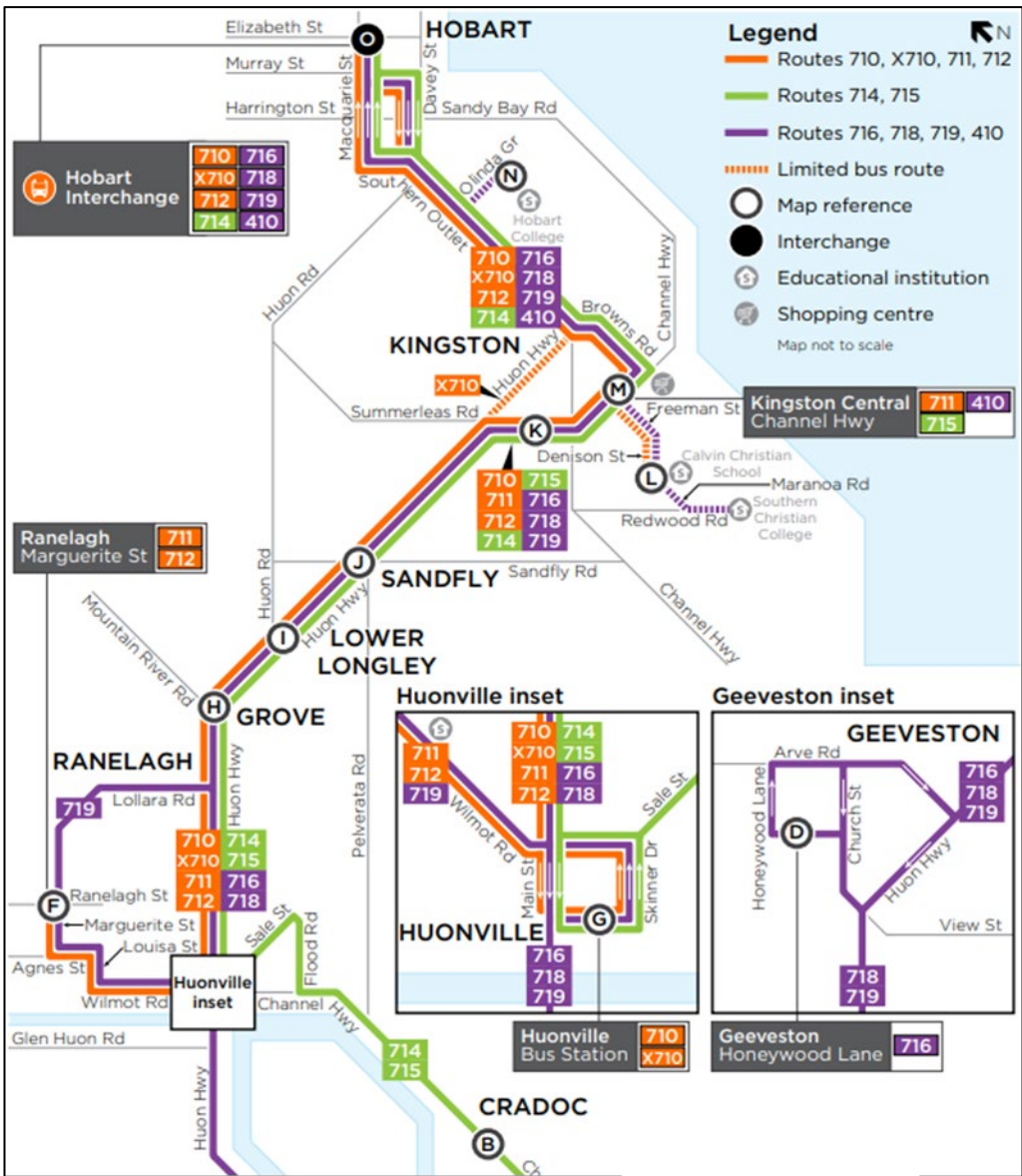


Figure 3-24: Bus map (Source: State Growth)



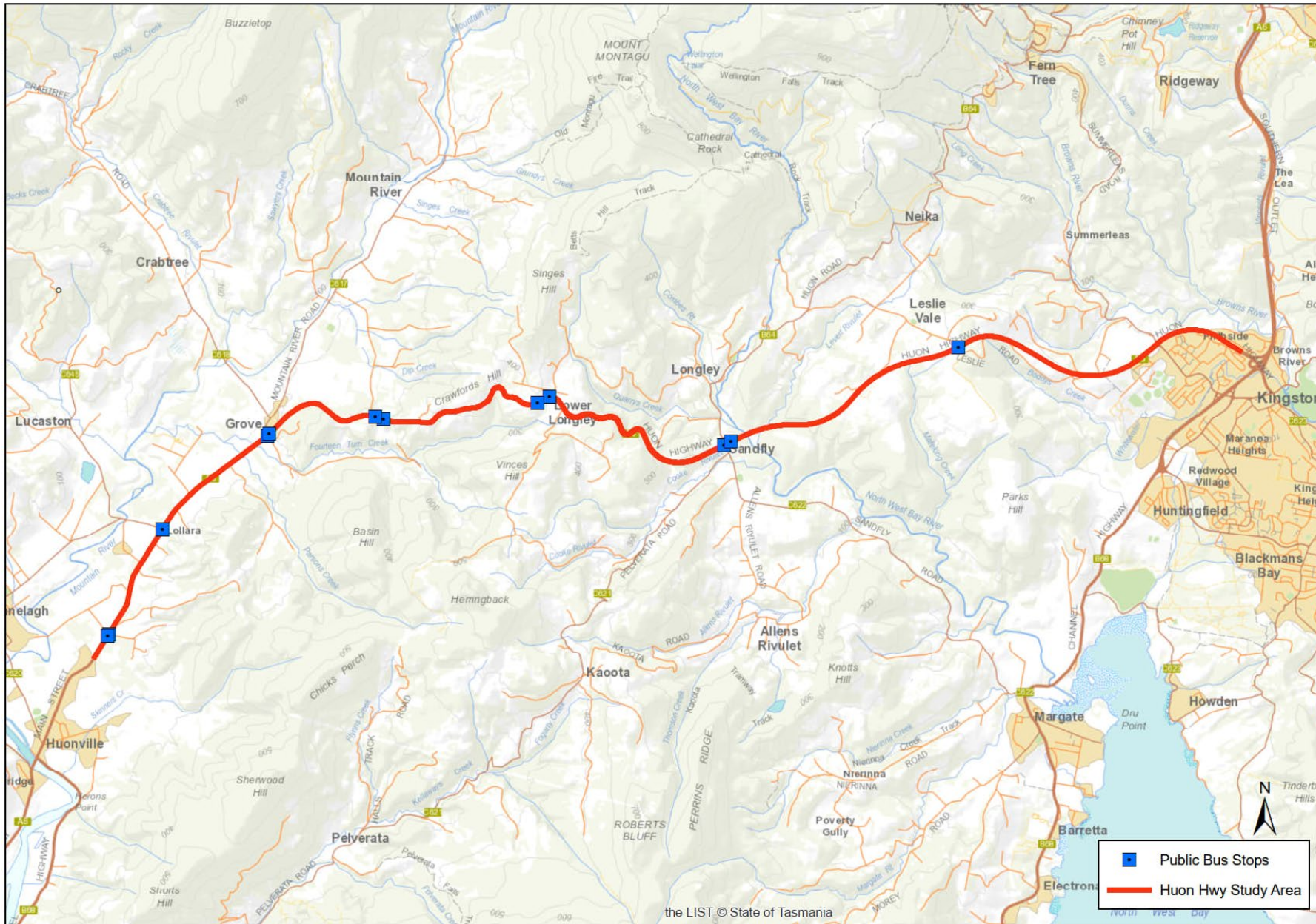


Figure 3-25: Bus stops

### 3.5.2 Active transport

As a Category 2 road, the Huon Highway has few pedestrian or cyclist provisions. Pedestrian and cyclist infrastructure along the corridor includes:

- Shared user path and crossing points at the Summerleas Road intersection, as shown in Figure 3-26
- Bicycle crossing point and fenced footpath at the Sandfly Road intersection, as shown in Figure 3-27
- Pedestrian underpass at the school bus stops between Summerleas Road and Southern Outlet, as shown in Figure 3-28
- Pedestrian underpass connecting Kinston View Drive with Leslie Road, as shown in Figure 3-29.

Although most of the corridor has no formal pedestrian provisions, there are bus stops, shops, residential properties and other facilities such as post boxes that attract pedestrians.

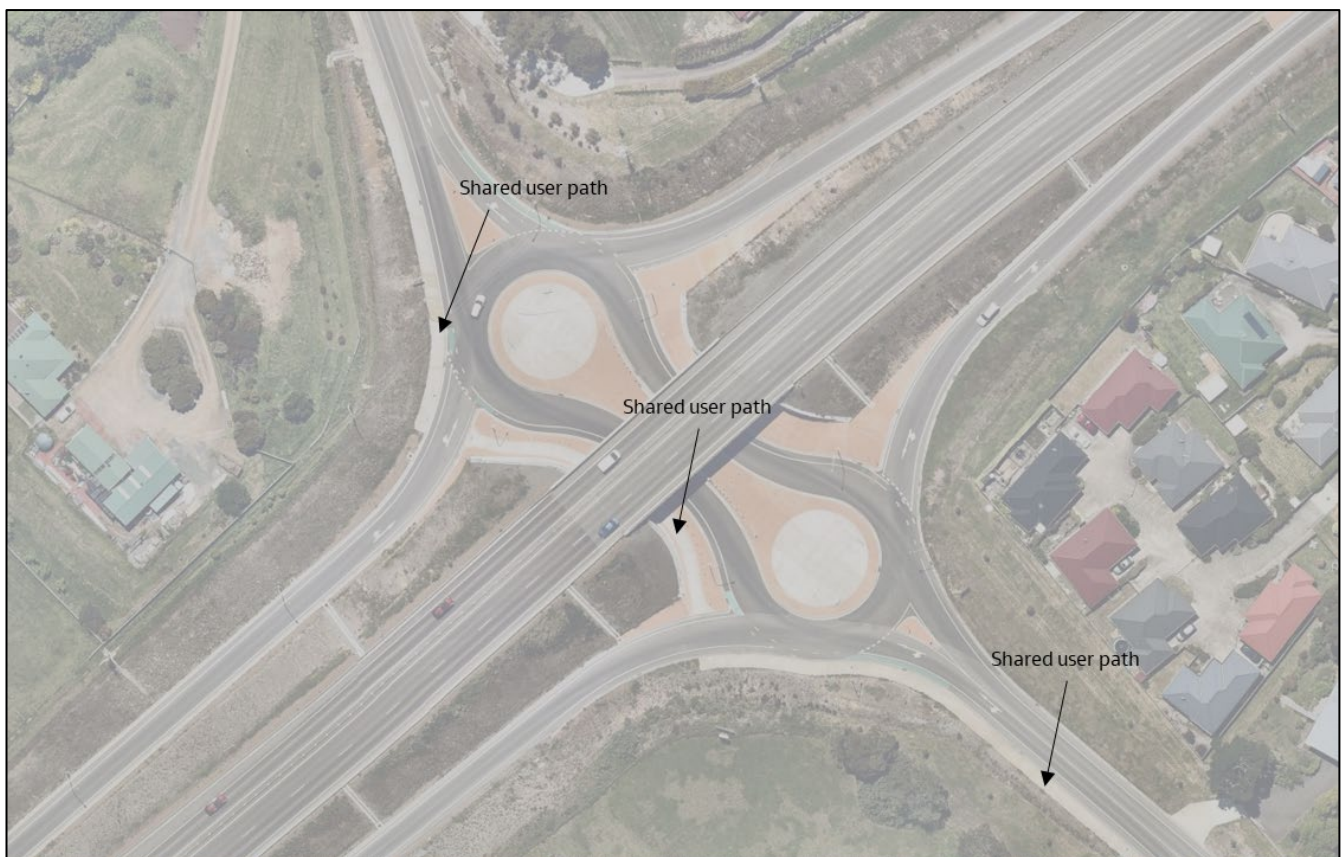


Figure 3-26: Active travel provisions at the Summerleas Road intersection



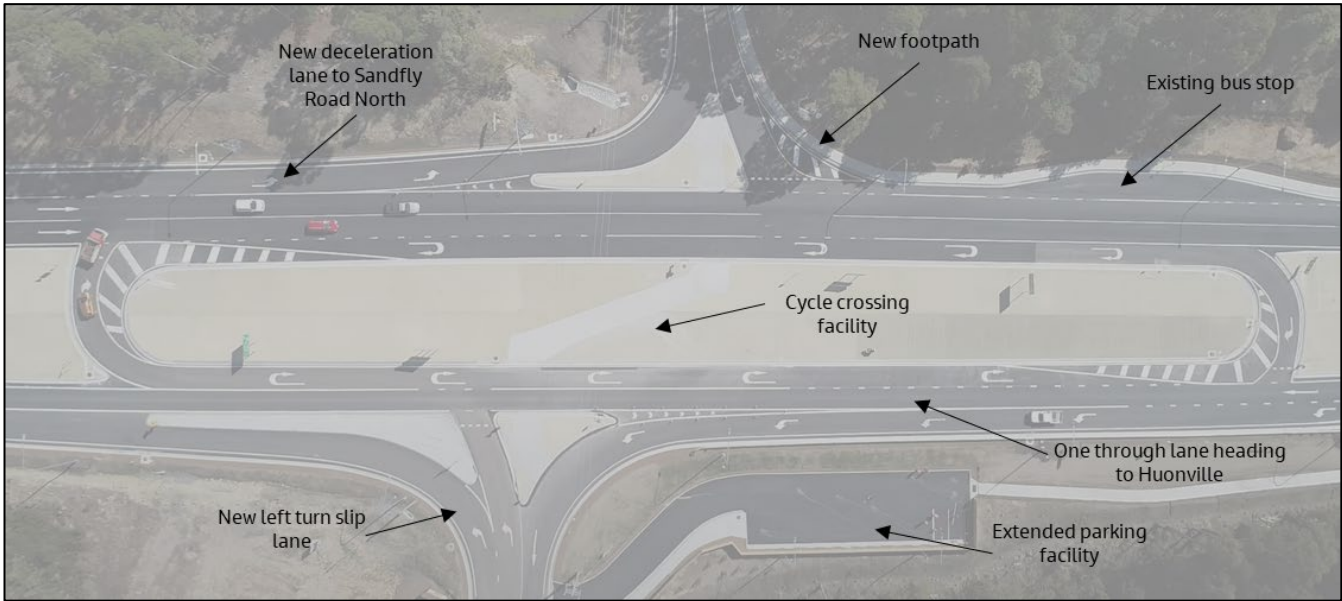


Figure 3-27: Sandfly Road intersection upgrade



Figure 3-28: Pedestrian underpass between Summerleas Road and Southern Outlet



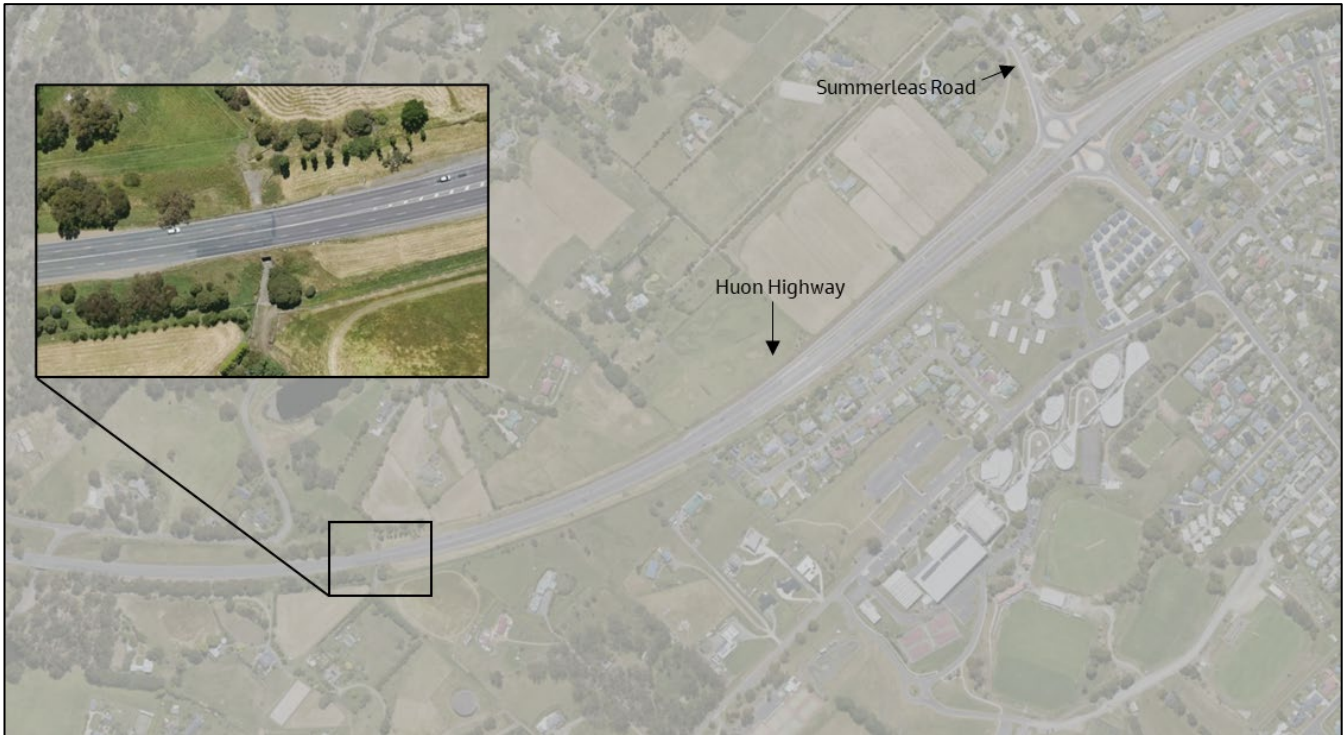


Figure 3-29: Pedestrian underpass between Kingston View Drive and Leslie Road

### 3.6 Recent projects

Recently constructed and planned upgrades along the corridor are summarised in this section. The upgrades have been undertaken to address particular improvement needs along the corridor and to meet future needs. These needs have assisted in developing the framework for the development of priorities for this strategy. The locations of the projects along the corridor are shown in Figure 3-30.



Figure 3-30: Projects along the corridor

### **Summerleas Road Intersection Upgrade**

In July 2018, the intersection of Huon Highway and Summerleas Road was upgraded to improve safety and travel times. The intersection had a history of accidents, notably those related to right-turn movements from Huon Highway to Summerleas Road and cross-highway traffic on Summerleas Road. The intersection improvement works included:

- grade separating the intersection by lowering Summerleas Road below Huon Highway
- construction of two roundabouts on Summerleas Road and four entry / exit ramps
- installation of a new southbound overtaking lane on the Huon Highway
- installation of flexible safety barriers and improved bus, pedestrian and cycling facilities.

The upgraded intersection is shown in Figure 3-31.



Figure 3-31: Summerleas Road intersection (Source: ListMap)

### **Speed limit reduction, Vince's Saddle**

In February 2020, the speed limit at Vince's Saddle on the Huon Highway was reduced from 100km/h to 80km/h. This section of the Huon Highway is steep, winding and has one of the highest crash rates on the entire State Road network. Between 2012 and 2020, there had been 73 crashes within the 4.1km length in question. The predominant crash type was single vehicle loss of control, indicating vehicles were exceeding speeds appropriate for the road environment. The crashes were not linked to weather conditions, or times of day or seasons.

### **Sandfly Road Intersection Upgrade**

The intersection of Huon Highway and Sandfly Road was upgraded in September 2021. The intersection had a history of crashes, with 24 crashes between 2012 and 2020. The predominant crash type involved vehicles turning right from Sandfly Road onto Huon Highway towards Kingston.

The intersection was upgraded to improve road safety and provide safer bus and freight movements. Intersection improvement works included:

- installing a left turn slip lane from Sandfly Road onto Huon Highway towards Huonville



- relocating the southbound bus stop to the northern (Hobart) side of the intersection
- relocating the pedestrian crossing such that the number of lanes needed to cross is reduced
- a new fenced footpath connecting the bus stop to the pedestrian crossing
- increasing the existing parking facility
- installing bicycle crossing points at the intersection.

A plan of the upgrades is shown in Figure 3-32.

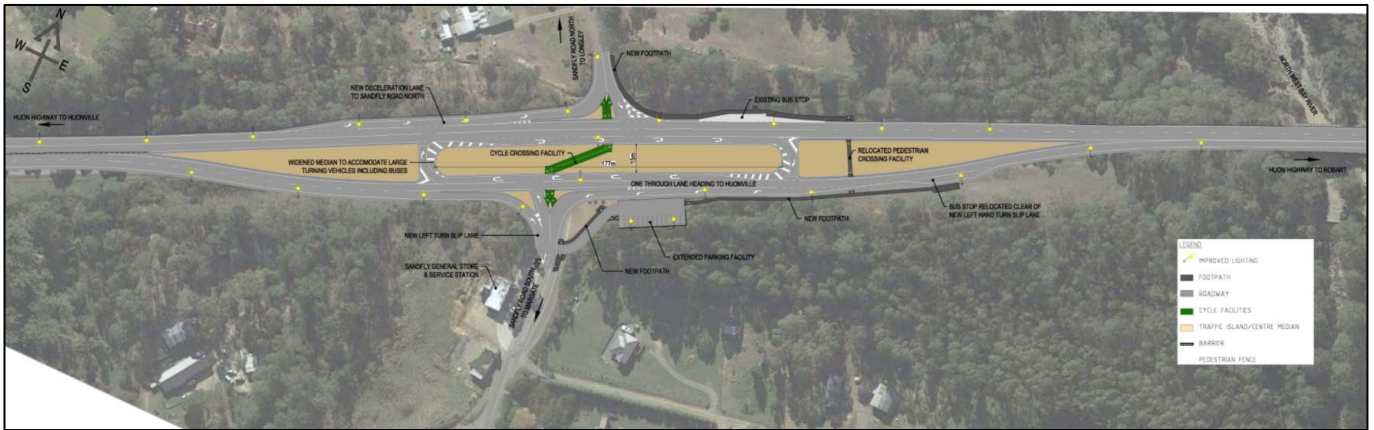


Figure 3-32: Sandfly Road intersection upgrade (source: State Growth)

### **Speed limit reduction, Dover**

Following a request from a local resident in January 2019, State Growth applied to the Commissioner for Transport to reduce the speed limit along the Huon Highway at Dover from 80km/h to 60km/h. In November 2019, the speed limit on the Huon Highway at Dover was reduced for a 1.8km section from Francistown Road travelling south. Dover’s residential footprint has been increasing along the Huon Highway and the 80km/h speed limit that was set more than ten years ago is no longer suitable given the changed residential environment.

### **Dowlings Road Intersection Upgrade**

In June 2020, the intersection of Huon Highway and Dowlings Road was upgraded to improve safety for road users. The project involved widening the northbound lane to provide safe turning lane space for vehicles waiting to turn right into Dowlings Road, which provides access to Kate Hill Winery. Local and tourist traffic in the area is increasing due to an increase in tourism businesses along the Huon Highway north of Huonville.

### **Willie Smith’s Apple Shed (Apple Shed) – right turn lane**

During a five-year period, there were four reported crashes where vehicles waiting to turn right into the Apple Shed were struck from behind. To improve safety at this location, in June 2020, the southbound lane was widened for approximately 300 metres, to create a dedicated right turn lane into the Apple Shed. A small pull-off area for vehicles turning left into the Apple Shed was also sealed, and a new safety barrier was installed along this section of the highway.

### **Basic Right Turn Treatment at Reid Fruits**

The safety upgrade of the southern access to Reid Fruits was completed in May 2021. This project involved widening the southbound lane to provide safer turning movements for vehicles waiting to turn right into Reid Fruits.

### **Huon Link Road**

This project is outside the study area; however, will be an important new road in the vicinity of the corridor. This project will provide a link road east of the town centre of Huonville, to divert Hobart – Cygnet traffic from the existing Channel Highway/Huon Highway intersection and Main Street. The link road will directly connect the Channel Highway south of Huonville to the Huon Highway north of Huonville. It will improve traffic flow and enhance pedestrian safety in the town centre and provide traffic a reliable alternative route when part of the Channel Highway is flooded.

In addition, this link road is also important for heavy vehicles as it bypasses two deficient structures along the Esplanade. Due to these two deficient structures, Channel Highway south of Huonville does not currently allow HML loads. The new link road will allow the HML network to extend onto the Channel Highway from the Huon Highway. This will result in fewer heavy vehicles along the Huon Highway due to higher payloads on vehicles entering from the Channel Highway.

Construction is expected to be completed by late 2024.

### **North West Bay River Bridge**

The bridge located along the Huon Highway in Sandfly was strengthened in 2020 as part of the Freight Access Bridge Upgrades Program to allow for high-productivity freight vehicles. Another project that is part of this initiative is the Leslie Road Bridge, Leslie Vale.

## 4 Current corridor performance

This section reviews the current performance and condition of the northern section of the corridor. As the southern section of the corridor has already been reviewed as part of the Huon Highway Road Corridor Strategy (2012), a high-level summary of performance is provided in Section 7.

The northern section of the corridor has been broken into 17 segments for the basis of analysing current performance.

### 4.1 Road safety

#### 4.1.1 Existing crash data analysis

A review of the available crash data between 2012 and 2020 was undertaken for the northern section of the corridor, as summarised in Figure 4-1. The location of injury only crashes (i.e. excluding property damage only crashes) for the predominant crash types are shown in Figure 4-2 to Figure 4-7. In addition, a summary of crashes along segments and intersections along the corridor is provided in Table 4-1 and Table 4-2 (intersections with two or more crashes included). Key findings from the crash data analysis are as follows.

- There were 374 total crashes (including property damage only) along Huon Highway between Kingston and Huonville between 2012 and 2020
- Vehicles losing control on a curve is the most frequent crash type (35 per cent), followed by vehicles colliding from the same direction (17 per cent) and vehicles colliding from adjacent directions (15 per cent)
- Off road on curve crashes are concentrated along the bends near Lower Longley
- There was one fatality off road on curve crash at the bend between Summerleas Road and Southern Outlet in 2012
- The majority of intersection crashes are at Summerleas Road and Sandfly Road (upgrade completed in September 2021). All crashes at the Summerleas Road intersection were before the intersection upgrade in 2018
- There was one serious pedestrian crash at the intersection with Summerleas Road in 2016, before the intersection upgrade
- There was a high number of rear end collisions between Grove and Huonville, where there is a high frequency of access points.

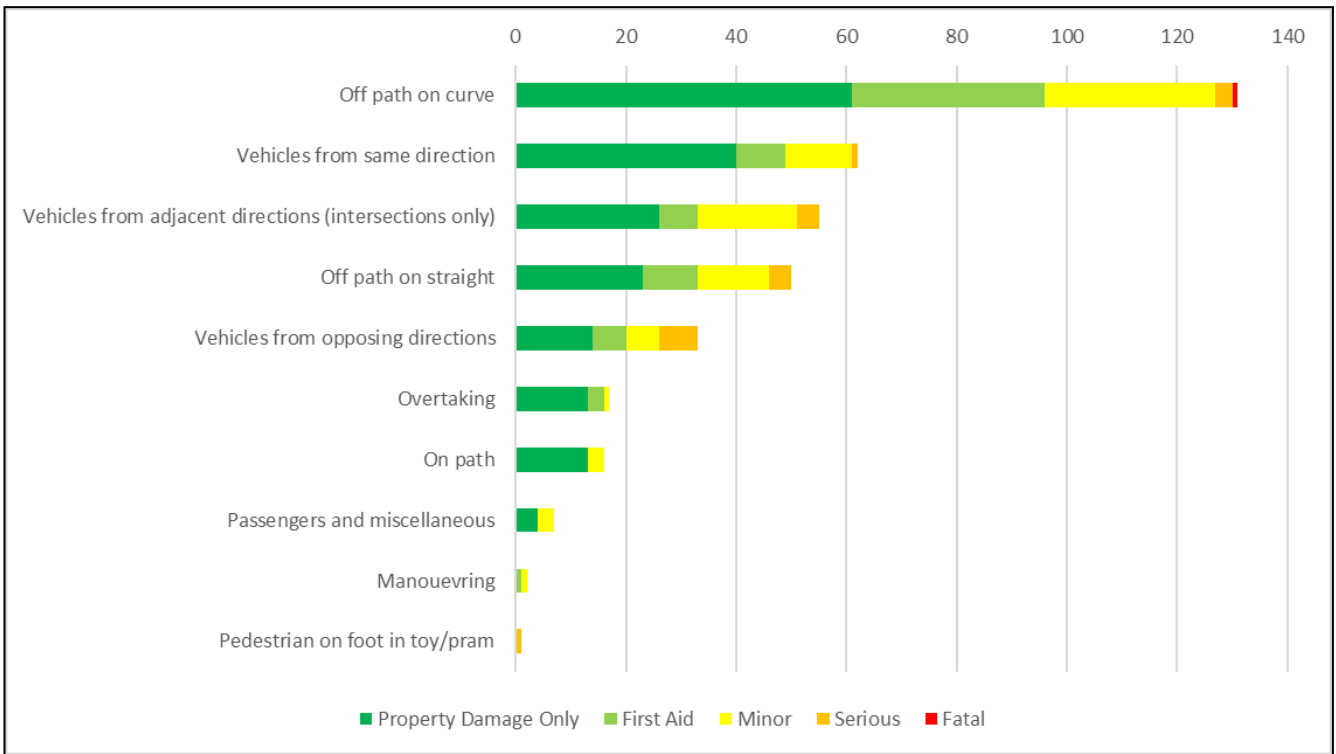


Figure 4-1: Summary of crashes along Huon Highway between Kingston and Huonville – 2012 to 2020

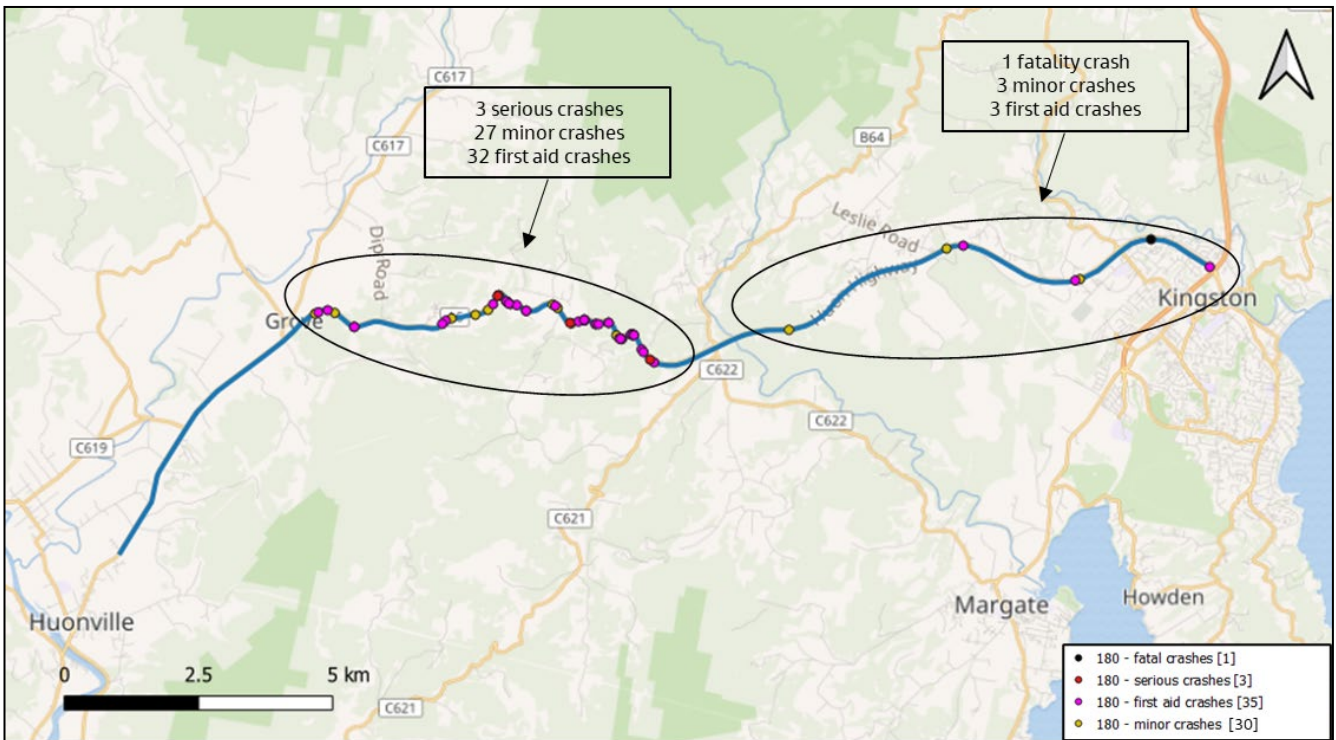


Figure 4-2: Off path on curve crashes – 2012 to 2020





Figure 4-3: Crashes between vehicles travelling in the same direction – 2012 to 2020



Figure 4-4: Crashes at intersections by vehicles travelling from adjacent directions – 2012 to 2020

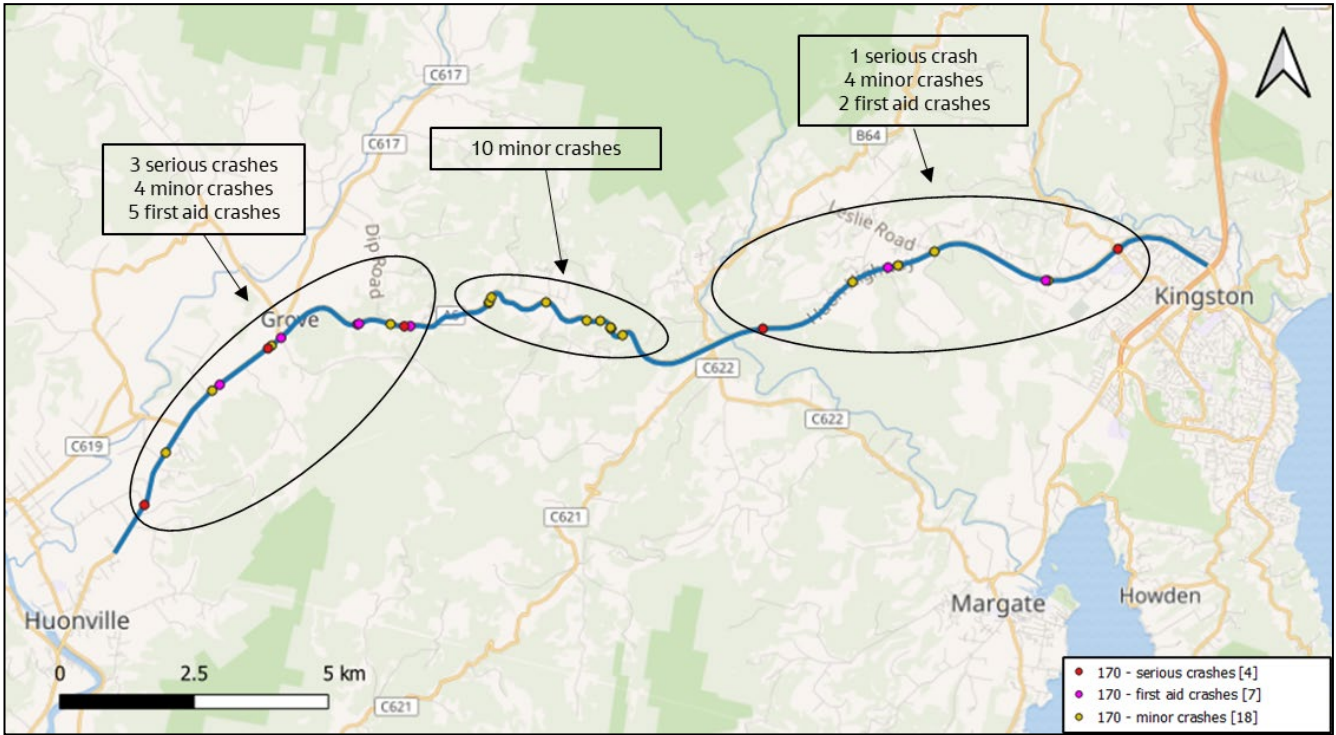


Figure 4-5: Vehicles veering from road whilst travelling on a straight road – 2012 to 2020

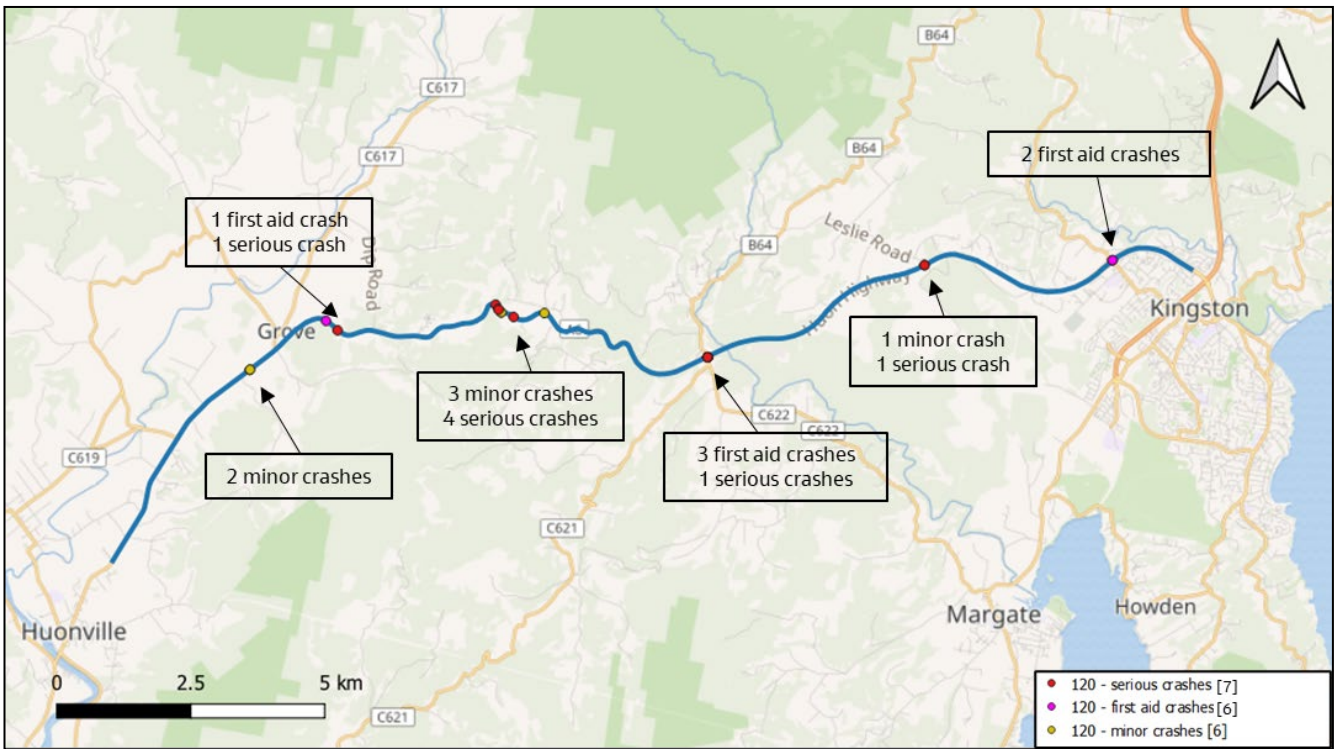


Figure 4-6: Head on crashes – 2012 to 2020



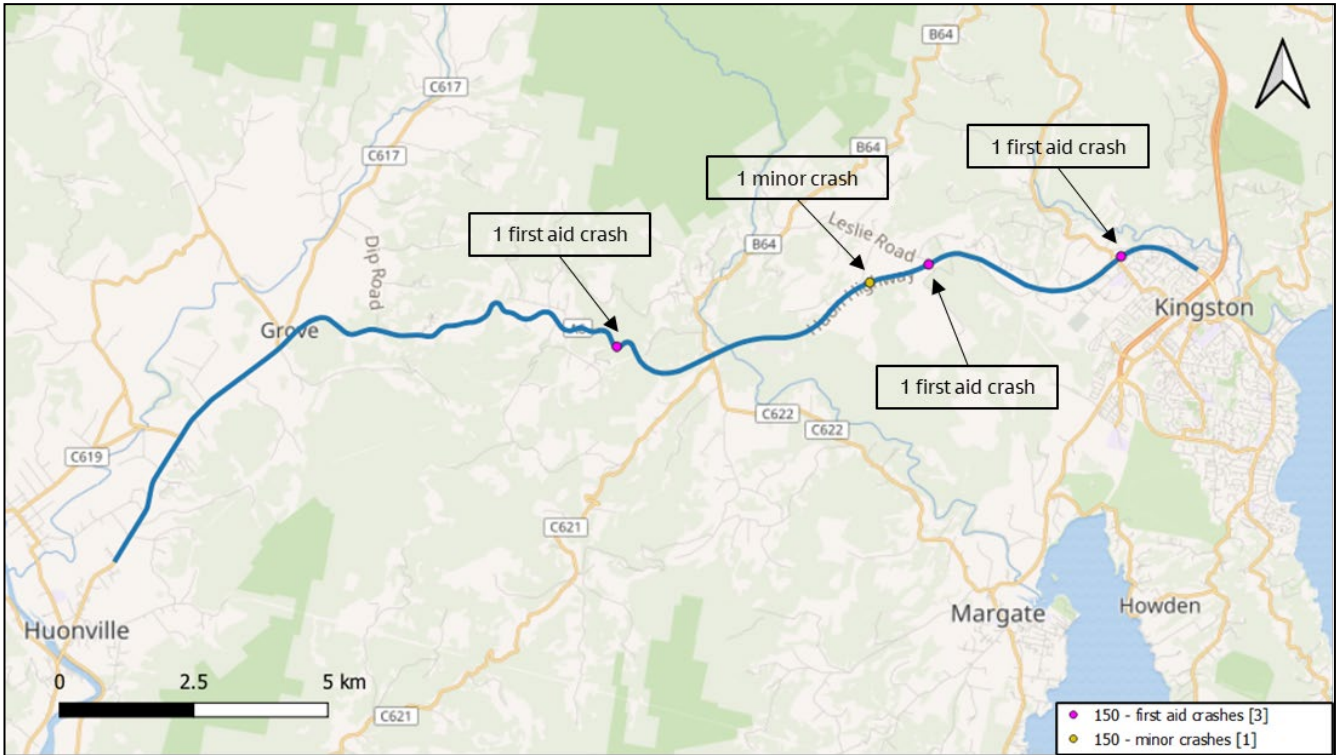


Figure 4-7: Crashes involving overtaking manoeuvres – 2012 to 2020

Table 4-1: Corridor segment crash summary

Segment	Total crashes	Injury crashes	Predominant crash types
Kingston to Leslie Vale	40	18	<ul style="list-style-type: none"> <li>Off path on curve (10)</li> <li>Off path on straight (9)</li> <li>Vehicles from same direction (7)</li> </ul>
Leslie Vale to Sandfly	24	11	<ul style="list-style-type: none"> <li>Off path on straight (6)</li> <li>Off path on curve (5)</li> </ul>
Sandfly to Krauses Road	92	44	<ul style="list-style-type: none"> <li>Off path on curve (63)</li> <li>Off path on straight (12)</li> </ul>
Krasuses Road to Dip Road	71	38	<ul style="list-style-type: none"> <li>Head on (12)</li> <li>Off path on curve (42)</li> </ul>
Dip Road to Mountain River Road	21	12	<ul style="list-style-type: none"> <li>Off path on straight (4)</li> <li>Off path on curve (9)</li> </ul>
Mountain River Road to Orchard Avenue	53	21	<ul style="list-style-type: none"> <li>Vehicles from same direction (28)</li> <li>Off path on straight (11)</li> </ul>

Table 4-2: Corridor intersection crash summary

Intersection	Total crashes	Injury crashes	Predominant crash types
Sandfly Road	32	16	<ul style="list-style-type: none"> <li>• Vehicles from adjacent direction (17)</li> <li>• Vehicles from opposing directions (6)</li> </ul>
Summerleas Road	31	15	<ul style="list-style-type: none"> <li>• Vehicles from adjacent direction (23)</li> </ul>
Leslie Road	5	4	<ul style="list-style-type: none"> <li>• Vehicles from opposing directions (2)</li> </ul>
Lollara Road	5	2	<ul style="list-style-type: none"> <li>• Vehicles from adjacent direction (3)</li> <li>• Vehicles from same direction (2)</li> </ul>
Voss Road	4	2	<ul style="list-style-type: none"> <li>• Vehicles from same direction (2)</li> <li>• Vehicles from adjacent direction (1)</li> <li>• Overtaking (1)</li> </ul>
Krauses Road	3	2	<ul style="list-style-type: none"> <li>• Vehicles from same direction (2)</li> </ul>
Huon Road	3	1	<ul style="list-style-type: none"> <li>• Vehicles from opposing directions (1)</li> <li>• Vehicles from adjacent directions (1)</li> <li>• Off path on curve (1)</li> </ul>
Mountain River Road	2	0	<ul style="list-style-type: none"> <li>• Vehicles from opposing directions (1)</li> <li>• Vehicles from adjacent directions (1)</li> </ul>
Longleys Road	1	1	<ul style="list-style-type: none"> <li>• Vehicles from same direction (1)</li> </ul>

#### 4.1.2 Road safety hazard identification

##### Road Safety Audit

A Road Safety Audit (RSA) of the existing road was conducted to inform the strategy. In accordance with Austroads, a risk rating was determined for each deficiency identified based on the likelihood of a crash occurring and the likely severity of that crash. Each issue was categorised as low, medium or high risk (no issues were identified as intolerable). The following issues were identified as high-risk.

Table 4-3 Key road safety risks

Key risks	
Road geometry / cross-section	No separation of opposing traffic flows between Kingston and Sandfly. Potential for a head-on collision at a speed of 100km/h.
	Narrow sealed shoulders between Kingston and Sandfly. Potential for a run-off road collision at a speed of 100km/h due to lack of recovery space.
	Horizontal geometry in a number of locations within 80km/h speed zone between Sandfly and Lower Longley deficient for posted speed limit. Potential for run-off road collisions on curves.
	Horizontal geometry in a number of locations within 100km/h speed zone between Lower Longley and Huon View Road deficient for posted speed limit. Potential for run-off road collisions on curves.
	Merge at end of two-lane section, north of Krauses Road, located on curve. Merge sight distance restricted by horizontal geometry. Potential for collisions with merging vehicles. Potential for rear end collisions due to proximity to Krauses Road junction.
	No separation of opposing traffic flows between Lower Longley and Grove. Potential for a head-on collision at a speed of 100km/h
	Limited shoulder width between Lower Longley and Grove. Potential for a run-off road collision at a speed of 100km/h due to lack of recovery space

Key risks	
	No separation of opposing traffic flows between Grove and Lollara Road. Potential for a head-on collision at a speed of 100km/h.
Intersections / accesses	Northbound vehicles turning into Krauses Road junction must turn right turn from the overtaking lane. Potential for rear end collisions with accelerating vehicles in overtaking lane. Safe intersection sight distance to the north of intersection impacted by horizontal geometry. Potential for collisions with turning vehicles.
	Property accesses, between Huon Road and Mountain River Road, require northbound vehicles to turn right from overtaking lane. Sight distance at some accesses limited by horizontal geometry. Potential for rear end collisions with accelerating vehicles in overtaking lanes.
	Numerous property accesses and service road access on northbound side of highway (uphill) between Mountain River Road and Dip Road. No space to pass southbound vehicles turning right into accesses or service road. Sight distance at some accesses limited by horizontal geometry. Potential for rear end collisions between vehicles turning right into accesses and vehicles travelling downhill at 100km/h.
	High frequency of property accesses within 100km/h speed limit between Turn Creek Road and Allens Road. Potential for conflicts with turning vehicles.
Road surface	Ice hazard in winter at Vince's Saddle
Active and public transport	Informal gravel bus stops on either side of the road at Leslie Road junction (just north of intersection). Narrow width provides minimal waiting room for pedestrians clear of bus stopping zone at southbound stop. Sight distance at bus stops limited due to crest. Potential for pedestrians to be struck by a vehicle when accessing the bus stop or crossing the highway with a speed limit of 100km/h.

## Speed limit review

An assessment was undertaken, in accordance with *Austrroads Guide to Traffic Management Part 5 – Link Management*, to determine whether current posted speed limits on the corridor are appropriate. The assessment considered crash rates, traffic volumes, road users, road features, surrounding land use and vehicle speeds.

Based on the assessment, current posted speed limits along the corridor are generally considered appropriate. It is recommended that consideration is given to lowering the speed limit from 100km/h to 80km/h between Mountain River Road and Lollara Road based on the following:

- mean speed is well below the existing speed limit
- high frequency of access points
- high level of pedestrian activity at Mountain River Road intersection.

## 4.2 Traffic

### 4.2.1 Corridor capacity

#### Level of Service assessment

The capacity of the highway and the associated level of service (LoS) for different highway segments was determined through methods outlined in the Highway Capacity Manual (HCM) 2016. The corridor was treated as a two-lane highway with passing lanes. There are six categories of LoS, designated from A (free flow) to F



(demand exceeds capacity). Descriptions of each LoS for different highway classes are provided in Table 4-4. Average Travel Speed (ATS) and Percent Time Spent Following (PTSF) were the metrics used to define LoS for different highway classes, as summarised in Table 4-5.

Table 4-4: LoS descriptions

LoS Category	Description
A	Motorists experience high operating speeds on Class I Highways and little difficulty in passing. Platoons of three or more vehicles are rare. On Class II highways, speed is controlled primarily by roadway conditions, but a small amount of platooning would be expected.
B	Passing demand and passing capacity are balanced. The degree of platooning becomes noticeable. Some speed reductions are present on Class I highways.
C	Most vehicles travel in platoons. Speeds are noticeably curtailed.
D	Platooning increases significantly and passing demand is high but passing capacity approaches zero. A high percentage of vehicles travel in platoons, and PTSF is noticeable.
E	Demand is approaching capacity, passing on highways is virtually impossible and PTSF is more than 80%. Speeds are seriously curtailed.
F	Demand flow in one or both directions exceed the segment's capacity. Operating conditions are unstable, and heavy congestion exists.

Table 4-5: LoS metrics

LoS	Class I Highways		Class II Highways
	ATS	PTSF (%)	PTSF (%)
A	> 88.5	≤ 35	≤ 40
B	> 80.5-88.5	> 35-50	> 40-55
C	> 72.4-80.5	> 50-65	> 55-70
D	> 64.4-72.4	> 65-80	> 70-85
E	≤ 64.4	> 80	> 85
F	Demand exceeds capacity		

The northern section of the corridor was split into different segments based on speed limits and number of lanes, as shown in Figure 4-8. Each segment was classified as either a Class I or Class II highway, depending on its characteristics. The highway classifications are described below.

- **Class I:** Highways where motorists expect to travel at relatively high speeds. Two-lane highways that are major intercity routes, primary connectors of major traffic generators, daily commuter routes, or major links in state or national highway networks are generally assigned to Class I. These facilities serve mostly long-distance trips or provide the connections between facilities that serve long-distance trips.
- **Class II:** Highways where motorists do not necessarily expect to travel at high speeds. Two-lane highways that are access routes to Class I facilities, that serve as scenic or recreational routes (and not as primary arterials), or that pass through rugged terrain (where high-speed operation would be impossible) are assigned to Class II. These facilities most often serve relatively short trips, the beginning or ending portions of longer trips, or trips for which sightseeing plays a significant role.

Table 4-6 provides a summary of the LoS and capacity for each corridor segment. LoS along the corridor is also summarised in Figure 4-9. Vehicle speeds used to determine LoS and capacity were obtained through querying google travel times along each corridor segment between 16-23 February 2021. Vehicle volumes were obtained through traffic surveys, with locations shown in Figure 4-8. Traffic survey volumes were used as these were higher than the continuous counter data.

The corridor mainly performs at LoS C and LoS D, with LoS B southbound between Southern Outlet and Summerleas Road. The corridor performs at LoS E northbound from Summerleas Road to the Southern Outlet, where traffic volumes are relatively high, and the highway is not duplicated. This is due to the percent time spent

following, while the peak hour volume of 990 veh/h is well below the capacity of 1700 veh/h. Existing peak hour volumes are well below capacity across the entire northern corridor.

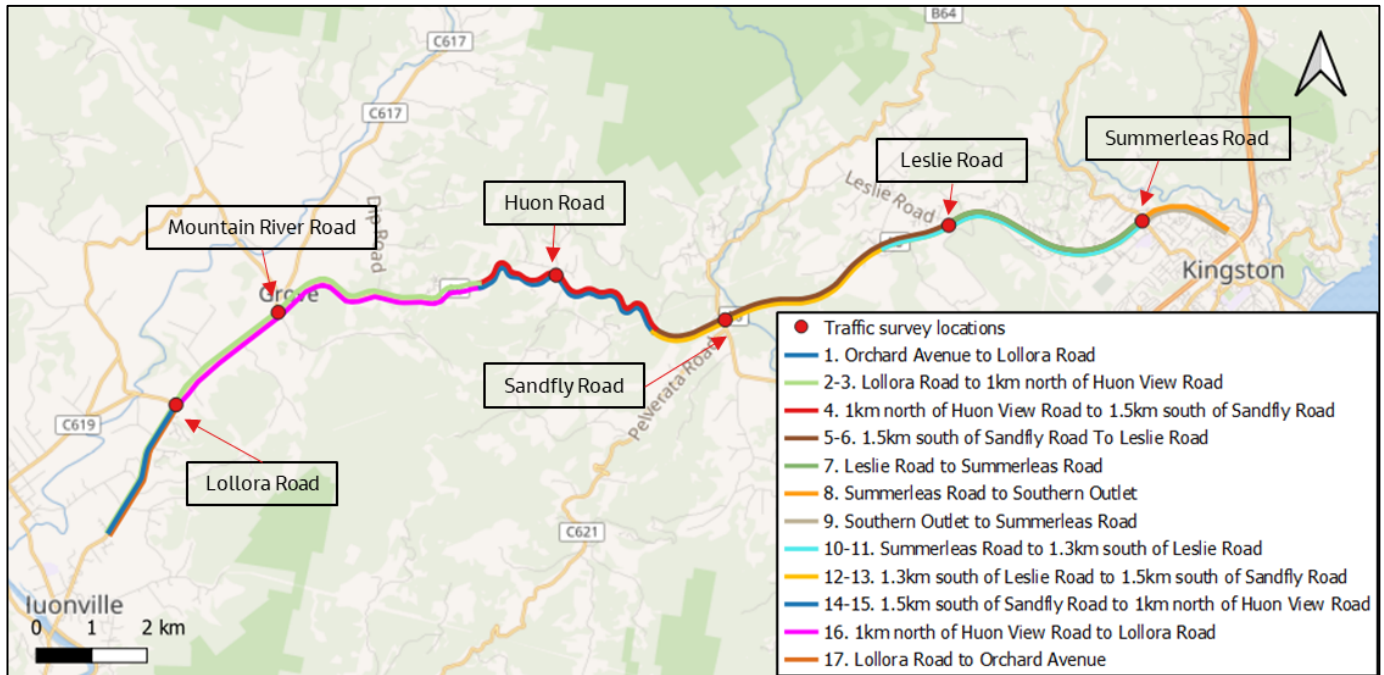


Figure 4-8: LoS corridor segments

Table 4-6: LoS and capacity

Direction	Segment	Road section	Highway Class	Section features	Peak hour volume (veh/h)	Capacity (veh/h)	LoS
Northbound	1	Orchard Avenue to Lollora Road	II	Forms the start of the corridor close to Huonville where motorists do not necessary expect to travel at high speeds. This section is single lane.	570	1700	D
Northbound	2-3	Lollora Road to 1km north of Huon View Road	II	Section of the corridor with high frequency of accesses between Lollara Road and Grove and rugged terrain from Grove to Huon View Road. This section is dual lane north of Grove.	770	1695	C
Northbound	4	1km north of Huon View Road to 1.5km south of Sandfly Road	II	Passes through rugged terrain with several sharp bends which does not facilitate high speed travel. This section is dual lane.	860	1700	C
Northbound	5-6	1.5km south of Sandfly Road to Leslie Road	I	Section of the corridor with few access points where motorists expect to travel at high speeds. This section is mostly dual lane.	940	1700	C
Northbound	7	Leslie Road to Summerleas Road	I	Section of the corridor with few access points where motorists expect to travel at high speeds. This section is dual lane.	1020	1700	C
Northbound	8	Summerleas Road to Southern Outlet	II	Forms the end of the corridor close to Kingston where motorists do not necessary expect to travel at high speeds. This section is single lane.	990	1700	E
Southbound	9	Southern Outlet to Summerleas Road	II	Forms the end of the corridor close to Kingston where motorists do not necessary expect to travel at high speeds. This section is dual lane.	810	1700	B
Southbound	10-11	Summerleas Road to 1.3km south of Leslie Road	I	Section of the corridor with few access points where motorists expect to travel at high speeds. This section is partially dual lane.	880	1695	C
Southbound	12-13	1.3km south of Leslie Road to 1.5km south of Sandfly Road	I	Section of the corridor with few access points where motorists expect to travel at high speeds. This section is partially dual lane.	820	1685	D
Southbound	14-15	1.5km south of Sandfly Road to 1km north of Huon View Road	II	Passes through rugged terrain with several sharp bends which does not facilitate high speed travel. This section is partially dual lane	690	1675	C
Southbound	16	1km north of Huon View Road to Lollora Road	II	Section of the corridor with rugged terrain from Huon View Road to Grove and high frequency of accesses between Grove and Lollara Road. This section is single lane.	660	1700	D

Direction	Segment	Road section	Highway Class	Section features	Peak hour volume (veh/h)	Capacity (veh/h)	LoS
Southbound	17	Lollora Road to Orchard Road	II	Forms the start of the corridor close to Huonville where motorists do not necessary expect to travel at high speeds. This section is single lane.	570	1700	D



Figure 4-9: LoS along corridor



## Average delays and travel speed

Average delays and vehicle speeds along the corridor across the day, were reviewed based on the February 2021 travel time surveys. Average delay along the corridor is generally low and below 15 seconds for most of the corridor. Delays along the corridor are worse between 9am and 2pm.

Between 8am and 9am, the section between Summerleas Road and Southern Outlet performs noticeably worse than the other corridor segments, however the delay is still less than 15 seconds. The average speed profile is also consistent for all corridor segments and there are no significant fluctuations in average speed across the day.

Modelling was undertaken to understand average travel speeds for different vehicle types along the corridor based on the road geometry. Speed differences between cars and trucks typically occur on sections of road with steep gradients. A high differential speed may indicate the need for overtaking lanes.

In the southbound direction, substantial differences in speed between cars and trucks occur on two uphill sections: between Summerleas Road and Leslie Road, and south of Sandfly Road. Both sections are duplicated in the southbound direction.

In the northbound direction, a speed differential is evident uphill between Mountain River Road and Huon Road, as well as on approach to Leslie Road junction. A speed differential is also noted between light vehicles and a car towing a caravan downhill, between Leslie Road and Summerleas Road. Each of these sections are duplicated in the northbound direction.

### 4.2.2 Overtaking opportunities

Dual lane sections of the corridor are shown in Figure 4-10 and summarised in Table 4-7. Based on the LoS and capacity calculations in Section 4.2.1, the existing overtaking opportunities are considered sufficient for current traffic volumes. Although Summerleas Road to Southern Outlet in the northbound direction (segment 8) performs at LoS E, this is due to the percent time spent following (the percentage of time vehicle speeds are restricted by travelling behind slower vehicles), while the peak hour volume of 990 veh/h is well below the capacity of 1700 veh/h. This short section at the end of the highway follows a duplicated section which performs at LoS C. As detailed in Section 4.2.1, sections where there are substantial differences in speed between cars and trucks are already duplicated.

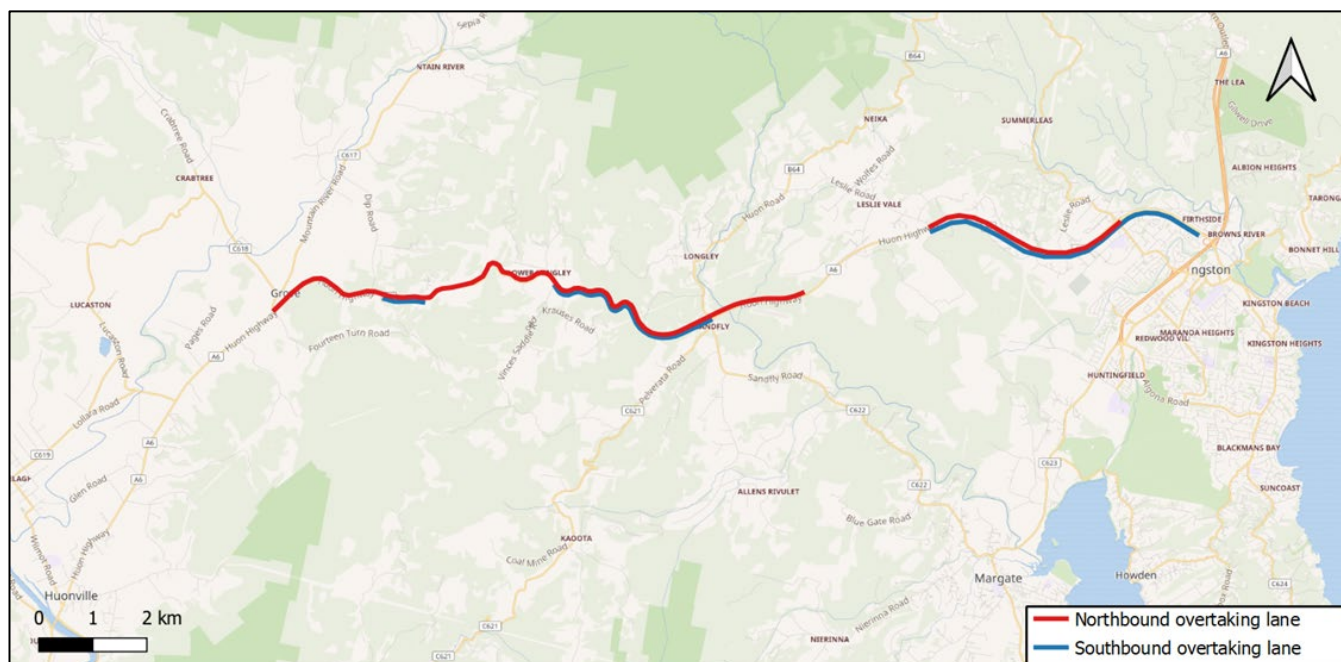


Figure 4-10: Overtaking lanes

Table 4-7: Overtaking lanes

Corridor segment	Direction	Length (km)
Mountain River Road to 1.3km south of Leslie Road	Northbound	12.7
Leslie Road to Summerleas Road	Northbound	3.9
Southern Outlet to Leslie Road	Southbound	5.7
Sandfly Road to Krauses Road	Southbound	3.5
Huon View Road to Dip Road	Southbound	0.4

As identified in the RSA, there is a very short (~400 m) southbound overtaking lane between Huon View Road and Dip Road. In accordance with Austroads Guide to Road Design Part 3, for an operating speed of 100km/h, the minimum length for an overtaking lane (excluding tapers) is 550 m and the desirable length is 950 m. Given the insufficient overtaking length, there is potential for conflict between vehicles at the merge.

In addition, the overtaking lane does not have a designated section for vehicles to diverge and instead begins at the end of the right turn lane for Huon View Road junction (Figure 4-11). There is potential for vehicles to use the right turn lane as additional overtaking space, leading to potential rear end collisions with right turning vehicles.



Figure 4-11 Deficient length southbound overtaking lane starting at Huon View Road

### 4.2.3 Pedestrian and cycling facilities

There are minimal active transport trips undertaken along the corridor. Shown in Table 4-8 are daily counts of cycle trips along Huon Highway to the south of the Summerleas Road interchange, in the northbound direction. Cycle movements are noted to make up less than one per cent of all vehicles.

Table 4-8: Daily cycle counts on Huon Highway, south of Summerleas Road interchange (northbound direction only)

Date	Count	Proportion of total traffic
23/02/2021	25	0.3%
24/02/2021	28	0.5%
25/02/2021	0	0.0%
26/02/2021	11	0.2%
27/02/2021 (weekend)	17	0.3%
28/02/2021 (weekend)	9	0.2%
1/03/2021	61	0.9%
<b>Average</b>	<b>22</b>	<b>0.4%</b>

Cyclist and pedestrian counts were also obtained as part of the turning movement counts at other key intersections along the corridor, as shown in Table 4-9. Cyclist volumes during peak periods were zero and pedestrian volumes were low, except for at Mountain River Road, where 31 pedestrian crossing movements were recorded during 6:30am to 8:30am and 3:30pm to 5:30pm. The majority (28) of these crossing movements were in the afternoon peak, including 13 movements crossing the Huon Highway. These movements are most likely associated with access to the bus stop.

Table 4-9: Total peak hour cyclist and pedestrian counts (16/02/2021, 6:30am to 8:30am and 3:30pm to 5:30pm)

Intersection road	Cyclist	Pedestrians
Lollora Road	0	0
Mountain River Road / Turn Creek Road	0	28
Huon Road	0	1
Leslie Road	0	0

The absence of cyclists during the peak periods aligns with 2016 census data. Shown in Table 4-10 are the number of work trips that were undertaken by bicycle on census day, for three statistical areas in the region. Less than 1 per cent of trips are undertaken by cycle.

The available data suggests that most cycling on the corridor is recreational rather than commuting. While no cyclist movements were identified during the peak hour counts, cyclists were identified in the daily counts near Summerleas Road, including on weekends.

Table 4-10: Work journeys undertaken by cycle

From Statistical Area Level 2	Count	Proportion
Huonville – Franklin	12	0.3%
Margate - Snug	8	0.2%
Kingston - Huntingfield	20	0.4%

As shown in Figure 3-23, approximately 42 per cent of work trips originating from Huonville-Franklin are to areas outside of Huonville-Franklin, including Hobart, Kingston-Huntingfield and Geeveston-Dover. Based on ABS data, the average commuting distance for cyclists in Australia is approximately 7km. As Hobart, Kingston-Huntingfield and Geeveston-Dover are significantly more than 7km from Huonville-Franklin, it is expected that there are low levels of commuting cyclist activity along the corridor.

The locality of Grove is 6.5km from the centre of Huonville, making this a commutable distance by active transport. Attractions such as Willie Smith's Apple Shed also increase the potential for active transport activity on this section of the corridor.

#### 4.2.4 Public transport facilities

As detailed in Section 3.5.1, there are nine bus routes that service the corridor that run from the Huon Valley to Hobart. The travel time by public transport between Huonville and Kingston in peak periods is approximately 30 minutes (based on the timetable), which is comparable to the travel time by car which is approximately 25 minutes.

As shown in Table 4-11, the average daily patronage numbers from February 2020 (provided by State Growth) for these buses are low and are typically around 25 patrons/bus on average across the corridor.

The bus fare to Hobart from Huonville is \$10.40 one-way (adult fare) which is approximately 2.5 times that from Kingston at \$3.84. Given the price difference, commuters with access to a car may decide to drive to Kingston and catch a bus to Hobart, instead of taking a bus from Huonville. Alternatively, they may choose to drive to Hobart, with all-day parking in the CBD (~\$14), less than a two-way bus fare from Huonville.

Table 4-11: Bus routes and patronage

Route	Huon Valley to Hobart			Hobart of Huon Valley		
	Starting stop	Depart time	Daily average patronage	Starting stop	Depart time	Daily average patronage
710	Huonville, Bu Station, Skinner Dr	8:48am	11	Hobart City, Franklin Sq, Stop P	7:56am	8
		5:45pm	7		4:39pm	26
711				Kingston, Channel Hwy/John St	s3:20pm*	51
712	Ranelagh, Marguerite St	7:35am	32	Hobart City, Franklin Sq, Stop P	8:20am	4
		9:18am	13		11:08am	9
		12:05pm	11		5:09pm	37
714	Cygnet, Esplanade Rd/Channel Hwy	6:50am	43	Hobart City, Franklin Sq, Stop P	9:08am	6
		10:35am	23		1:08pm	55
					5:23pm	26
715	Cygnet, Esplanade Rd/Channel Hwy	2:20pm	8			
716	Geeveston, Honeywood Ln	6:20am	43	Hobart City, Franklin Sq, Stop P	10:08am	7
		v/s7:23am*	85		2:08am	18
		12:35pm	13		v/s3:08pm*	65
		3:40pm	10		5:40pm	22
		4:45pm	28		6:40pm	
718	Dover, Huon Hwy near Station Rd	v/s6:43am*	67	Hobart City, Franklin Sq, Stop P	12:08pm	15
		9:33am	22		v/s4:09pm*	37
719	Dover, Huon Hwy near Station Rd	2:20pm	22	Hobart City, Franklin Sq, Stop P	7:36am	12
X710 (express)	Huonville, Bus Station, Skinner Dr	6:05am	No data	Hobart Interchange, Macquarie St, Stop D1	3:17pm	No data
		7:05am			4:17pm	
		8:05am			5:17pm	
		9:05am			6:17pm	

\*s = school days only, v = school holidays only,



## 4.3 Road design and geometry

### 4.3.1 Horizontal and vertical curves

Curves in the roadway can be described as horizontal or vertical. A horizontal curve is a bend in the road which veers to the left or right, whereas a vertical curve is a change in grade, either up or down (such as driving up and down a hill). The curve radius measures the size or tightness of a curve.

Horizontal and vertical geometry is influenced by the adjacent topography. Along the length of the Huon Highway corridor the topography varies from flat agricultural land through to undulating forested sections.

The safety of a curve depends on the vehicle operating speed, super elevation (angle of the rise or fall of the slope) and friction of the roadway surface. An estimate of the design speed achieved by the existing highway has been undertaken, based on the assessment of horizontal and vertical curves.

The posted speed limit does not fully align with the horizontal geometry in numerous locations. The alignment is winding between Sandfly Road and Mountain River Road at Grove, particularly on either side of Vince's Saddle. The speed limit at Vince's Saddle was recently reduced from 100km/h to 80km/h due to a high rate of loss of control crashes.

The posted speed limit does not fully align with the vertical geometry in only one location, at the crest just south of Dip Road.

Due to the terrain, design speed cannot always match the posted speed limit. The section of road between Sandfly and Grove, which comprises all the deficient horizontal curves, is continuously winding. This means individual curves are generally not out of context for the driver. Isolated, unusually sharp curves, tend to attract run-off road and head-on crashes. Shoulder widening on curves may assist in reducing loss of control crashes by providing additional recovery room. Given the challenging terrain, major realignment works to improve deficient curves are unlikely to be cost effective.

### 4.3.2 Vertical gradients

The rolling and mountainous terrain of the Huon Highway between Kingston and Huonville results in steep vertical gradients. From the beginning of the Huon Highway at the Southern Outlet, the highway rises steadily to a crest near Leslie Vale Road. The highway then falls toward the North West Bay River just south of the Sandfly Road junction, before rising to another crest at Vince's Saddle and falling again to Grove. The highway is generally flat from Grove to Huonville.

Due to the natural topography between Kingston and Huonville, these vertical gradients exceed desirable lengths. These extended lengths may contribute to an increased risk of crashes due to brake or engine failure, or slow moving vehicles, as well as premature pavement deterioration and/or flushing of sprayed seals. Given the challenging terrain, major realignment works to reduce grades are unlikely to be cost effective.

### 4.3.3 Roadside environment and road safety barriers

Between the Southern Outlet and Sandfly Road the roadside environment varies between cut batters, shallow fill embankments and established trees and vegetation. There are significant lengths of roadside safety barriers between the Southern Outlet and Summerleas Road, installed as part of the Summerleas Road junction upgrade. Roadside safety barriers between Summerleas Road and Sandfly Road are less common, generally provided at significant hazards such as bridges, culverts and steep embankments.



Between Sandfly Road and Mountain River Road the roadside environment is typically characterised by sheer cut batters (earthen and rock), retaining walls, steep fill embankments, densely established trees, power poles and frequent lengths of safety barriers. South of Vince’s Saddle, there are residential properties close to the roadside.

Between Mountain River Road and Orchard Avenue the roadside environment is typically flat or has shallow embankments. Residential, commercial and agricultural properties are immediately adjacent to, and accessed from, the highway. Powerlines are present on one or both sides of the highway. Safety barriers are typically provided for bridges, culverts or structures at risk of being struck by errant vehicles.

#### 4.3.4 Lane widths and road shoulders

The northern section of the corridor has a varying road cross section. Lane widths are typically 3.5 m, with narrowing in some locations. Sealed shoulder widths vary from 0 to 1 m.

On rural roads with an AADT greater than 3,000, Austroads recommends 3.5 m traffic lanes and a minimum 1.5 m sealed shoulder. Sealed shoulder widening on the outside of curves is also recommended. While lane widths are generally appropriate, narrow sealed shoulders throughout the corridor present a safety concern. Sealed shoulders provide an initial recovery area for errant vehicles, as well as space for cyclists.

The corridor is divided in two locations. As part of the upgrade to the Summerleas Road junction, a central median flexible safety barrier was installed between the Southern Outlet and south of the junction. Between Sandfly Road and Krauses Road, where the terrain is particularly challenging, the carriageway is divided by either W-beam safety barriers or concrete barriers. The remainder of the highway is undivided.

The lack of a separation between opposing traffic on undivided sections poses the risk of high-speed, head-on crashes. As shown in Section 4.1, most crashes between vehicles from opposing directions on the corridor occurred between Krauses Road and Mountain River Road, including 12 ‘head-on’ crashes between Krauses Road and Dip Road.

#### 4.3.5 Intersections

As detailed in Section 3.3, traffic surveys were conducted at key intersections. The volume of traffic observed on the side roads at these intersection sites are detailed in Table 4-12. Side road traffic volumes are relatively low, compared to peak hour volumes on the highway which are the order of 1,100-1,400 vehicles (two-way). Summerleas Road and Sandfly Road junctions have the highest side road traffic volume. As detailed previously, each of these intersections has been upgraded recently.

Table 4-12: Side road traffic volumes

Intersection	Two-way Volume (veh/hour)	
	AM Peak (7:00am to 8:00am)	PM Peak (4:00pm to 5:00pm)
Lollara Road	230	200
Mountain River Road	200	240
Turn Creek Road	30	30
Huon Road	40	30
Sandfly Road (north approach)	40	50
Sandfly Road (south approach)	270	280
Leslie Road (north approach)	110	110
Leslie Road (south approach)	50	30
Summerleas Road (north approach)	190	200

Intersection	Two-way Volume (veh/hour)	
	AM Peak (7:00am to 8:00am)	PM Peak (4:00pm to 5:00pm)
Summerleas Road (south approach)	530	660

The existing treatments at these junctions have been assessed against Austroads guidelines<sup>1</sup>, based on existing traffic volumes. Generally, most intersections have an appropriate treatment. Based on the assessment, left turn treatments do not meet current design standards at Turn Creek Road, Huon Road and Leslie Road. Right turn treatments do not meet current design standards at Huon Road and Leslie Road.

Safety considerations were identified at several junctions in the RSA. Sight distance is restricted on approach to Dip Road from the south, leading to potential conflict with turning vehicles.

The short overtaking lane between Huon View Road and Dip Road (refer to Section 4.2.2) starts at the end of the right turn treatment for Huon View Road. There is potential for vehicles to use the right turn lane as additional overtaking space, leading to 'rear end' crashes.

Krauses Road has no right turn treatment and therefore requires a right turn from the overtaking lane.

There is a higher frequency of junctions between Grove and Huonville. As detailed in Section 3.6, several upgrades (Dowlings Road, Willie Smith's Apple Shed, Reid Fruits) have been completed to improve safety at junctions on this section. As identified in the RSA, several junctions do not have right turn treatments, leading to potential 'rear end' crashes.

#### 4.3.6 Sight distances

Detailed sight distance assessments along the corridor have not been undertaken, however, limited sight distances can be inferred from other geometric assessments undertaken along the highway. Repeated horizontal curves result in roadside and median features impeding sight lines between Sandfly Road and Mountain River Road. Sight distance is impeded by the vertical crest curve just south of Dip Road.

The following key junctions may exhibit Safe Intersection Sight Distance (SISD) deficiencies based on current design guidelines.

- Leslie Vale Road; the vertical crest curve north of the junction may impede sight lines
- Krauses Road; the horizontal curve and central median barrier north of the junction may impede sight lines. Established vegetation adjacent to the junction may also be of concern
- Huon Road; the horizontal curve south of the junction may impede sight lines
- Huon View Road; the horizontal curve, established vegetation, safety barrier and cut batter north of the junction, and the horizontal curve and vertical crest curve south of junction, may impede sight lines
- North Glen Road; the acute angle of North Glen Road to the Huon Highway and the residential property with a high boundary fence on the northwest corner of the junction may impede sight lines
- Voss Road; established vegetation on the northeast corner of the junction may impede sight lines

There are numerous residential, commercial and agricultural property accesses onto the Huon Highway, with a higher frequency south of Huon Road. It is expected that SISD is deficient at many of these accesses between Huon Road and Mountain River Road due to the road geometry.

<sup>1</sup> Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings Management, Austroads, 2020

## 4.4 Heavy vehicle driver rest areas

There are two Heavy Vehicle Driver Rest Areas within the corridor, as identified in the Tasmanian Heavy Vehicle Driver Rest Area Strategy (2020), located at:

- Huon Highway (northbound) – at Vince’s Saddle
- Huon Highway (southbound) – at Vince’s Saddle.

The location of these Heavy Vehicle Driver Rest Areas is shown in Figure 4-12. In the strategy, these rest areas have been identified as having medium volumes, with pedestrian safety issues for the northbound rest area. Both rest areas are also used as public bus stops, which creates potential conflicts with pedestrians. Consistent with other heavy vehicle driver rest areas in Tasmania, both rest areas are classified as informal. The southbound rest area is sign posted, whilst the northbound rest area is not.

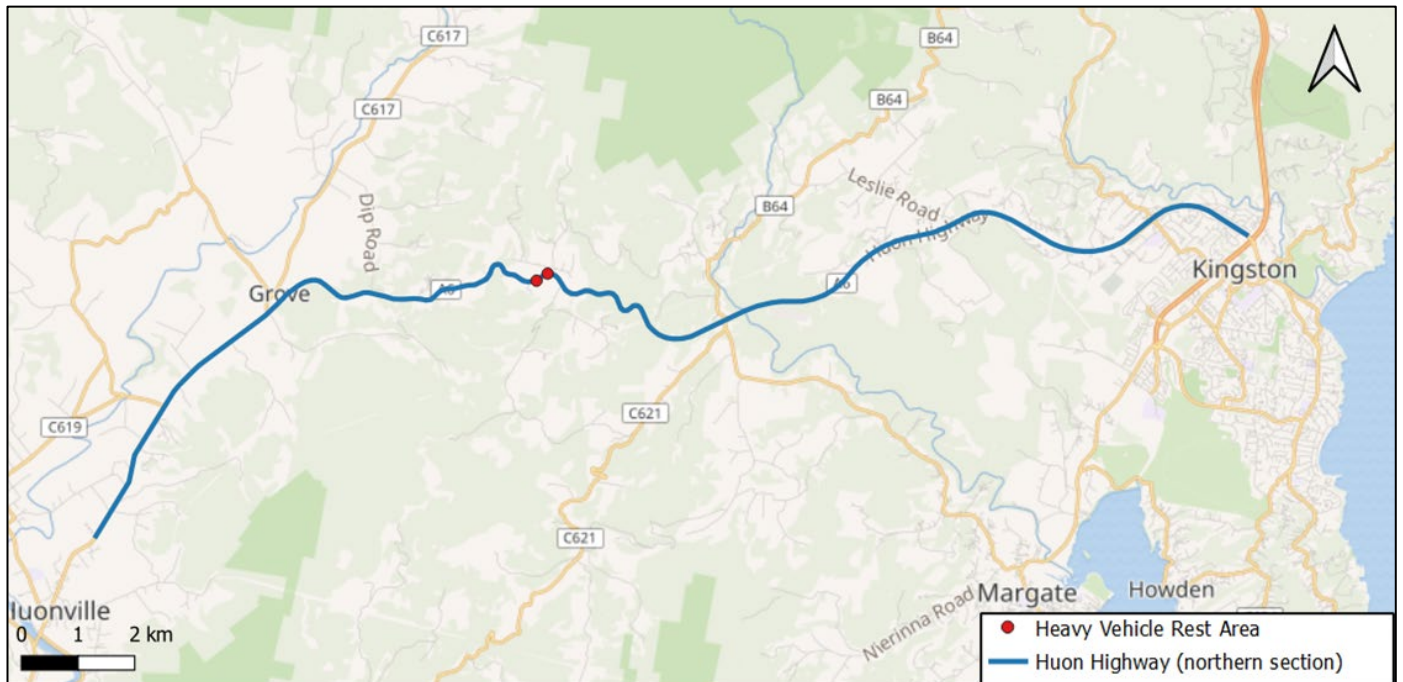


Figure 4-12: Heavy Vehicle Driver Rest Areas

## 4.5 Road pavement condition

A visual inspection of the road pavement condition was undertaken during a site visit. Some minor issues with surface condition were identified. Pavement condition issues are addressed by State Growth through regular maintenance activities on the highway.

The only pavement issue of note in the corridor, outside of issues that could be addressed through routine maintenance, was pavement deformations (rutting) identified near Kyalami corner (Lower Longley). The pavement condition in this location was also identified as a concern through the stakeholder consultation.



Figure 4-13: Pavement deformations near Kyalami corner, Lower Longley

## 4.6 Environment and heritage

### 4.6.1 Introduction and summary

The existing Huon Highway traverses developed residential areas, cleared agricultural lands and orchards along with large tracts of remnant vegetation. The highway crosses the North West Bay River, Fourteen Turn Creek and Parsons Creek, with the Huon River at the western extent of the study area.

The highway traverses challenging topography, particularly over Vince's Saddle, where the highway climbs to an elevation of 376 m. Views of the Huon Valley are provided as the highway descends from Vince's Saddle towards Grove.

The Huon Estuary Conservation Area is located at the western extent of the study area. The Conservation Area is registered on the Tasmanian Heritage Register (THR).

Large tracts of remnant vegetation that border the Huon Highway between Grove and Leslie Vale have potential to support threatened ecological communities, threatened flora and threatened fauna species. The existing highway stretches across a width of 20 m and fragments habitat from one side of the highway to the other for non-avian species, including the Eastern Barred Bandicoot (*Perameles gunnii*), Tasmanian Devil (*Sarcophilus harrisii*) and Eastern Quoll (*Dasyurus viverrinus*) that are likely to inhabit the corridor.

### 4.6.2 Aboriginal and non-Aboriginal heritage

An Aboriginal Heritage Tasmania desktop search has been completed and no sites were identified within the corridor. Any improvement works on the corridor should follow the management of unanticipated discoveries of Aboriginal relics in accordance with the Aboriginal Heritage Act 1975 and the Coroners Act 1995.

A desktop assessment identified that a number of buildings adjacent to the corridor are listed on the Tasmanian Heritage Register, as shown in Table 4-13. Prior to commencing any improvement works that may impact a property listed on the register, it is recommended that approval be gained from the Heritage Council under the *Historical Cultural Heritage Act 1995*.

Liaison will also be required with Heritage Tasmania to either ascertain a certificate of exemption or obtain planning approval for works undertaken on land within the Huon Estuary Conservation Area (THR ID 11342).

Table 4-13 Tasmanian Heritage Register sites

Name	Address	Title	THR ID
House	2090 Huon Hwy, Grove	47365/3	3,571
Huon Manor	2-4 Short St, Huonville	31882/3	3,560
House	1465 Huon Hwy, Lower Longley	100084/1	3,572
House	155 Main Rd, Huonville	19071/2	3,562
Lower Longley Cemetery	1460 Huon Hwy, Lower Longley	134193/1	10,485
House	108 Main St, Huonville	7980/3	3,564
House	108 Main St, Huonville	7980/2	3,564
Grove House (Riversdale)	Huon Hwy, Grove	114914/1	3,548
Four Winds	21 Dowlings Rd, Huonville	23827/15	3,566
House	1536 Huon Hwy, Lower Longley	244712/1	3,573
House	172 Main St, Huonville	11396/1	3,561
Huon Municipal Chambers	40 Main St, Huonville	153362/1	3,565

#### 4.6.3 Flora and Fauna

The following environmental legislation and policies apply to the corridor:

- *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*
- *Nature Conservation Act 2002 (NC Act)*
- *Threatened Species Protection Act 1995 (TSPA)*
- *Weeds Management Act 1999 (WMA)*
- *Nature Conservation Wildlife Regulations 2021*
- *Land Use Planning and Approvals Act 1993 (LUPA Act).*

The Huon Valley Interim Planning Scheme 2015 and the Kingborough Interim Planning Scheme 2015 currently apply, however the Tasmanian Planning Scheme is currently being rolled out across the state as Local Provisions Schedules are approved.

The Natural Values Atlas Report (DPIPWE, 2021) indicates that tracts of vegetation bordering the highway are dominated by:

- eucalyptus ovata forest and woodland
- eucalyptus pulcella forest and woodland
- eucalyptus obliqua dry forest.

A Protected Matters Search Tool (PMST) (DAWE, 2022) identified that two threatened ecological communities listed as critically endangered under the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)* are likely to be present within the corridor as identified in Table 4-14.



Table 4-14 Threatened ecological communities listed under the EPBC Act modelled as likely to occur within the corridor

Threatened Ecological Community	Conservation Status	Modelled likelihood of being present within the corridor	Likelihood of being present in the corridor based on TASVEG 3.0 mapping
Tasmanian Forests and Woodlands dominated by black gum or Brookers gum ( <i>Eucalyptus ovata</i> / <i>E. brookeriana</i> )	Critically Endangered	Likely	High - Potential to be present, as <i>Eucalyptus ovata</i> forest and woodland mapped throughout much of the corridor.
Tasmanian white gum ( <i>Eucalyptus viminalis</i> ) wet forest	Critically Endangered	Likely	High – Small patch mapped as present to the southeast of the Huon Highway and Leslie Road in Kingston.

The Natural Values Atlas Report (Tasmanian Government, 2021) identifies that the following vegetation communities listed as threatened under the Tasmanian *Nature Conservation Act 2002* are likely to be present:

- *Eucalyptus amygdalina* forest and woodland on sandstone (listed as threatened) – mapped as likely to occur in the vicinity of Gildering Land in Grove
- *Eucalyptus ovata* forest and woodland (listed as threatened)– mapped as likely to occur to the north of Sandfly-Huon Airport in Sandfly.

There are five EPBC Act listed threatened flora species modelled as potentially occurring within the corridor (DAWE, 2022). There are an additional seven state listed flora species that have been recorded within 500 m of the alignment. Four threatened flora species are considered to have a moderate to high likelihood of being present in areas that support remnant vegetation (Table 4-15).

A flora survey is recommended to identify the presence and extent of populations of threatened flora and threatened vegetation communities.

Table 4-15 Threatened flora species with a moderate to high likelihood of occurring within the corridor

Scientific Name	Common Name	TSP Act	EPBC Act	Preferred habitat.	Likelihood of occurring within the corridor.
<i>Diuris palustris</i>	Swamp Doubletail	E		In Tasmania, the species occurs in coastal areas in grassy open eucalypt forest, sedgy grassland and heathland with tea-tree and paperbark on poorly- to moderately-drained sandy peat and loams, usually in sites that are wet in winter.	Moderate. Predominantly found in coastal locations.
<i>Epacris virgata</i> (Kettering)	Pretty Heath	V	E	<i>Epacris virgata</i> (Kettering) occurs among foothills in southeastern Tasmania in dry sclerophyll forest on hilly terrain at elevations of 10 to 300 m above sea level, mainly on Jurassic dolerite, though sometimes close to the geological boundary of dolerite and Permian mudstone. It is generally associated with grassy/heathy <i>Eucalyptus ovata</i> woodland/forest, but is also occasionally found in grassy/heathy <i>Eucalyptus pulchella</i> woodland/forest.	High. Many records and suitable habitat within the corridor.
<i>Pterostylis squamata</i>	Ruddy Greenhood	V		The species grows in open forest, woodland and heathland with a sparse to dense heathy to grassy understorey, often in proximity to rock outcrops (Jones 1998, Jones et al. 1999). Vegetation types supporting the species include heathy-grassy <i>Eucalyptus amygdalina</i> forest/woodland on sandstone or granite. <sup>1</sup>	Moderate. Desktop identified suitable habitat within the corridor.
<i>Lepidium hyssopifolium</i>	Basalt Pepper- -cress	E	E	The native habitat of <i>Lepidium hyssopifolium</i> is the growth suppression zone beneath large trees in grassy woodlands and grasslands. In Tasmania, the species is now found primarily under large exotic trees on roadsides and home yards on farms. It occurs in the eastern part of Tasmania at an altitude of 40 to 500 metres in dry, warm and fertile areas on flat ground on weakly acid to alkaline soils derived from a range of rock types. <sup>1</sup>	Moderate. Potential habitat present within the corridor.

<sup>1</sup> DPIPWE (2020). "Threatened Species Link."

There are 17 EPBC Act listed threatened fauna species modelled as potentially occurring within the corridor (DAWE, 2022). One additional state listed fauna species not identified by the PMST has been recorded within 500 m of the corridor. It is considered that eight threatened fauna species have a moderate to high likelihood of being present in areas that support remnant vegetation within the study area (Table 4-16). A field survey is recommended to determine the presence of suitable habitat for threatened fauna. Where suitable habitat is identified particularly nesting and denning sites, additional targeted survey may be required. The following considerations should be given to the timing of assessment:

- Planning for raptor nest checks should be done in June/July prior to construction season, with checks for breeding activity being done in October/November
- If nests are active, no works are to be undertaken within 500m to 1000m line of sight until the breeding season has ended (January/February).

Areas of either high roadkill or threatened fauna records should be considered during design phases, as these are indicative of natural wildlife corridors.

Table 4-16 Threatened fauna species with a moderate to high likelihood of occurring within the corridor

Species name	Common name	TSP Act	EPBC Act	Preferred habitat	Likelihood of occurring in the corridor
<i>Accipiter novaehollandiae</i>	Grey Goshawk	E		The species nests in mature wet forest, usually in the vicinity of a watercourse. <sup>1</sup>	Moderate - may be present along watercourses that cross the alignment.
<i>Aquila audax subsp. fleayi</i>	Tasmanian Wedge-tailed Eagle	E	E	Occurs only in Tasmania, across a wide range of habitats, from the coast to highland areas. <sup>1</sup>	Moderate - recorded within proximity to the highway
<i>Dasyurus maculatus</i>	Spotted-tail Quoll	R	V	Habitat important to the species includes large patches of forest containing adequate denning sites and high densities of mammalian prey. <sup>1</sup>	Moderate - desktop review indicates suitable habitat in proximity to the corridor.
<i>Dasyurus viverrinus</i>	Eastern Quoll		E	A range of open forests, woodlands and grasslands, where they would build a den amongst fallen logs or rock piles. <sup>1</sup>	High - many recent records within proximity to the corridor.
<i>Lathamus discolor</i>	Swift Parrot	E	CE	Migrate to Tasmania in late winter/early spring to breed. During the breeding season, nectar from Tasmanian blue gum ( <i>Eucalyptus globulus</i> ) and black gum ( <i>Eucalyptus ovata</i> ) flowers is the primary food source for the species. <sup>1</sup>	Moderate - recorded within proximity to the highway. Corridor provides suitable habitat for the species. <i>Eucalyptus ovata</i> provides a food resource.
<i>Perameles gunnii</i>	Eastern Barred Bandicoot		V	Originally occurred in native grasslands and grassy woodlands in Tasmania's Midlands. Now in agricultural areas in the state's south-east, north-east and north-west. In these areas, the species occurs in	High- many recent records within proximity to the corridor.

Species name	Common name	TSP Act	EPBC Act	Preferred habitat	Likelihood of occurring in the corridor
				mosaic habitats of pasture and remnant native forest, often with a significant amount of cover provided by weeds such as gorse and blackberry. <sup>1</sup>	
<i>Sarcophilus harrisii</i>	Tasmanian Devil	E	E	It lives in a wide range of habitats across Tasmania, especially in landscapes with a mosaic of pasture and woodland. <sup>1</sup>	High - many recent records within proximity to the corridor.
<i>Tyto novaehollandiae</i>	Masked Owl	E	V	Found in a range of habitats which contain some mature forest, usually below 600 m altitude - these include native forests and woodlands as well as agricultural areas with a mosaic of native vegetation and pasture. <sup>1</sup>	Moderate - recorded within proximity to the highway. Corridor provides suitable habitat for the species.

<sup>1</sup> DPIPWE (2020). "Threatened Species Link."

The location of threatened flora, fauna and vegetation sites are mapped in Figure 4-14.

There is potential for a variety of weeds to occur within the corridor. The following weed species have been monitored for and treated; however further assessments should be undertaken prior to works to confirm their presence and extent:

- African Lovegrass
- African Feathergrass.

Appropriate measures should be implemented during the proposed works to prevent the spread and establishment of weed species.

The following approvals may be required where works are planned within the corridor for impacts to flora and fauna values.

- Referral under the EPBC Act where a significant impact is considered likely to an EPBC Act listed threatened ecological community or species
- Approval under the LUPA Act for the removal of state threatened communities, listed under the NC Act
- A permit from the Department of Natural Resources and Environment Tasmania (NRE Tas) for the removal of threatened flora species listed under the TSP Act and a permit to take products of wildlife such as dens and tree hollows under the NC Act
- Approval for development and use (unless a relevant exemption applies) which includes the clearing of vegetation (not threatened) from the relevant council under the LUPA Act
- Preparation of a Weed Management Plan for all declared weed species under the WM Act.



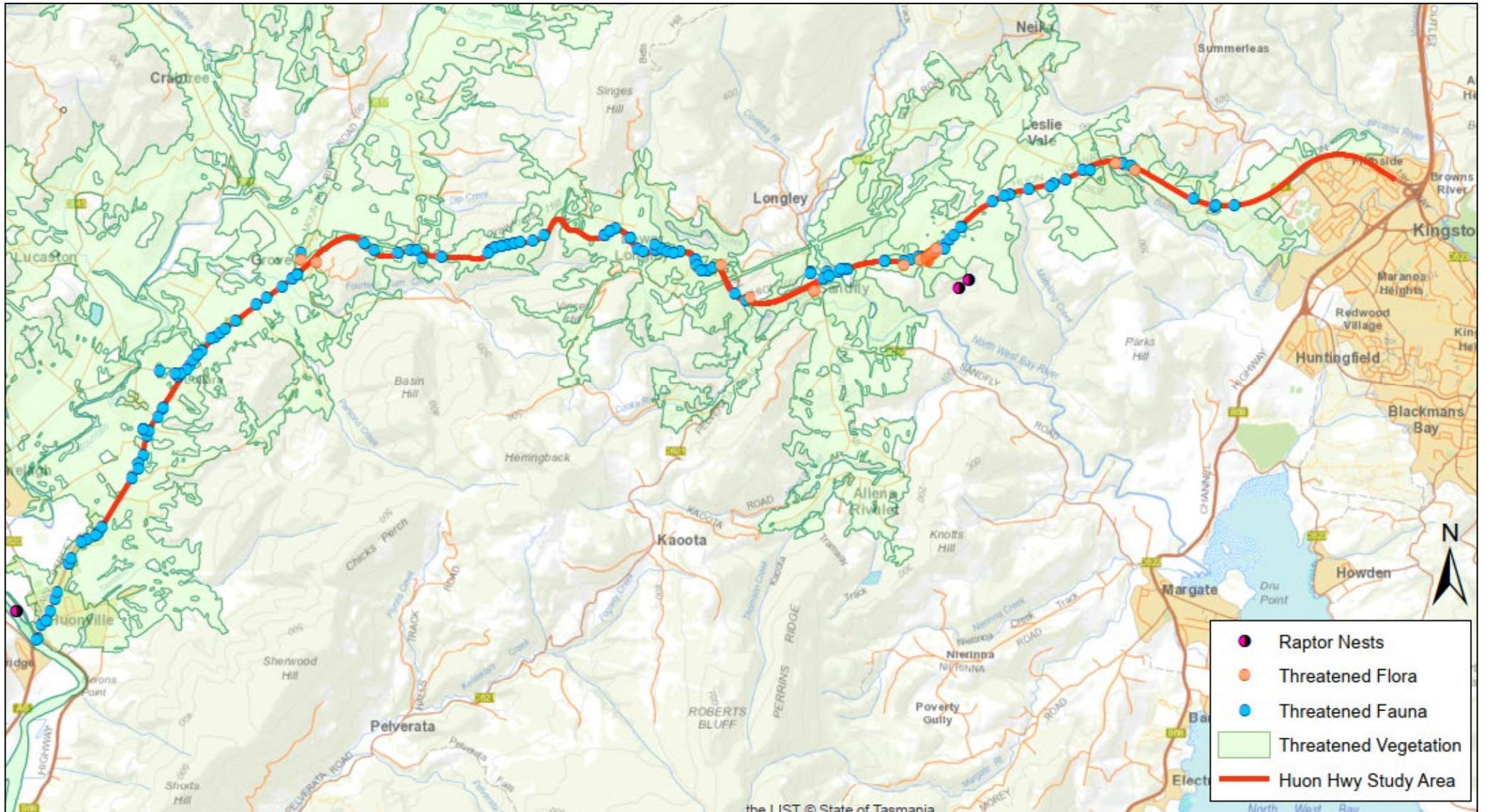


Figure 4-14 Threatened flora, fauna and vegetation sites

#### 4.6.4 Other environmental matters

The study area includes areas mapped as low and extremely low probability of supporting Acid Sulphate Soils. Dispersive soils are mapped as potentially present between Sandfly and Grove.

One site of geoconservation significance is mapped within the Study Area, Summerleas Basalt and Boulder Beds (DPIPWE, 2021). Where works are planned within proximity to this site, consultation with NRE Tas is to be undertaken.

The corridor crosses a number of NRE Tas waterways. Assessment of impact to waterways will form part of a planning permit required from the relevant Council under the LUPA Act. A separate permit is not required for these waterway crossings. However, Crown land consent (as a form of landholder consent) under the *Crown Lands Act 1976* (CL Act) would be required for the corridor to traverse the waterways (Crown land) to enable a planning permit application for the development and use to proceed. Works on waterways must consider the *Waterways and Wetlands Works Manual* (DPIPWE, 2003).

A number of reserves are present within the study area, including:

- informal Reserve on public land relating to land to the east of Northwest Bay River in Sandfly
- land subject to a Conservation Covenant in the vicinity of Quarrys Creek in Longley
- Huon Estuary Conservation Area to the west of Huonville.

Consent will be required from the relevant authority/landowner where works are required within any of the above reserves. Works on NRE Tas reserves will require the preparation of an Environmental Impact Statement (EIS) under the *Environmental Management and Pollution Control Act 1994* (EMPC Act).

## 4.7 Bridges

There are 10 bridge structures on the Huon Highway between Kingston and Huonville, nine of which are either culverts (box) or stock underpasses. The bridge structures vary in age from 39 to 76 years.

A key performance indicator (KPI) of these structures is their ability to carry a wide variety of heavy vehicles. The ability to provide safe passage for Tasmanian Class I Load Carrying Vehicles (oversize overmass, also known as OSOM) and Class I Special Purpose Vehicles (SPV's) is a measure of this KPI. Based on a review of State Growth's online heavy vehicle access maps, all the bridge and culvert structures on the northern corridor do not appear to have any conditions of travel or restriction to the suite of Class I OSOM and SPV's.

## 5 Future corridor changes

The future changes to the northern section of the corridor are explored in this section. Population, traffic growth, safety, travel time and environmental projections have been analysed to understand the characteristics and issues of the northern section of the corridor, which inform the priorities developed as part of this strategy. Future projections are based on modelling and historical data.

### 5.1 Population and demographics

Demographic projections were obtained from the Greater Hobart Urban Travel Demand Model (GHUTDM). The Greater Hobart Urban Travel Demand Model was originally developed in 2011 (later updated in 2019) and provides travel demand forecasts across the Greater Hobart Region. The boundary of the GHUTDM is on the Huon Highway at Lower Longley, south of Huon Road. ABS 2016 data and Greater Hobart Household Survey of Travel data were used to inform the GHUTDM.

Demographic projections from the GHUTDM for the Kingborough local government area are shown in Figure 5-1. Key findings are:

- Yearly population growth is 0.67 per cent (2019 - 2050)
- Yearly employment growth is one per cent (2019 - 2050)
- Yearly education enrolment growth is 0.41 per cent (2019 - 2050)
- Population and employment growth are projected to be strongest in the 2019-30 period.

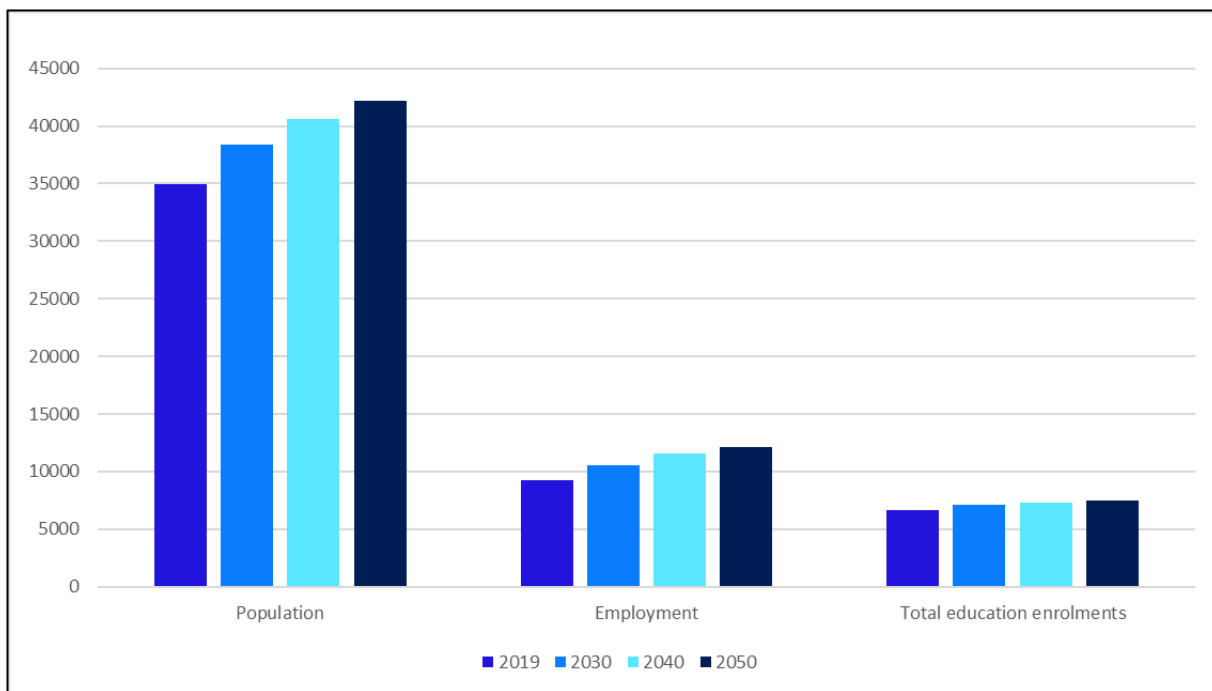


Figure 5-1: Demographic projections for Kingborough local government area (source: Greater Hobart Urban Travel Demand Model)

The Department of Treasury and Finance published population projections for Tasmanian local government areas in 2019. The projected growth rate for Kingborough, between 2017 and 2042, is similar to that forecast in the GHUTDM, at 0.70 per cent per annum. The projected growth rate for the Huon Valley, between 2017 and 2042, is 0.78 per cent per annum.

## 5.2 Land use and economic development

There are several land use developments planned for the corridor and surrounding areas.

- A new residential subdivision is being developed on Turn Creek Road at Grove
- The Huonville Link Road will provide a link east of the town centre of Huonville, to divert Hobart - Cygnet traffic from the existing Channel Highway/Huon Highway intersection and Main Street (refer to Section 3.6)
- The Huonville Ranelagh Master Plan (2018) identifies that the Council owned land located between the business area of Huonville and the Huon River is to be utilised to create a key attractor to Huonville to facilitate economic activity beyond its role as a service centre
- The Huonville Ranelagh Master Plan (2018) also identifies town centre improvements, including footpath widening along Main Street and improvements of the streetscape quality including landscaping, outdoor dining opportunities and street furniture to improve the visual appeal of the centre of town
- A new residential subdivision is being developed on Coolstore Road, south of Huon River Bridge
- Revitalisation of the esplanade (Channel Highway) on completion of the Huon Link Road.

As detailed in Section 3, Southern Tasmania had 869,000 visitors, in the year ending March 2020, which is the highest of any region in Tasmania. Tourism growth in Southern Tasmania is relatively low at one per cent. It is expected that tourist traffic along the corridor will increase in the future. Several recently completed and planned tourism developments south of Huonville, which are expected to impact visitor numbers, are detailed in Section 7.2.

## 5.3 Traffic growth

### 5.3.1 General traffic growth

The future light vehicle projections along Huon Highway near Sandfly Road and Summerleas Road are shown in Figure 5-2. These projections were obtained from the GHUTDM which uses demographic and land use data to predict traffic generation and distribution. On average, daily two-way light vehicle volumes are projected to increase by 72 vehicles each year between 2019 and 2050.



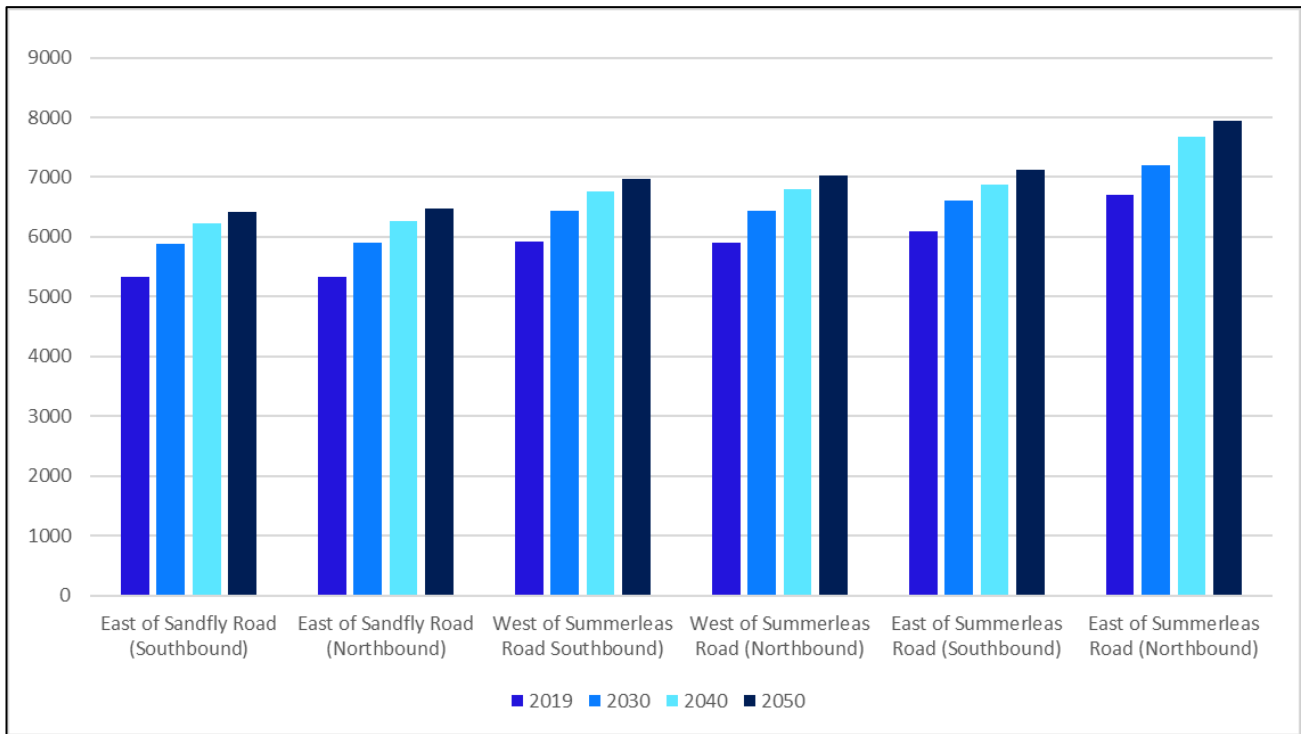


Figure 5-2: Daily light vehicle absolute volume projections

LoS along the corridor was determined for the horizon year 2051, based on the traffic volume projections from the GHUTDM. As shown in Table 5-1, the LoS remains the same in 2051 for most sections of highway. Forecast traffic volumes for the horizon year are still well below the capacity of 1700 veh/h.

A sensitivity analysis was undertaken to consider the impact if traffic growth is higher than forecast by the GHUTDM. A linear growth rate of 2 per cent for the peak hour, based on historic traffic growth from the continuous traffic counters, was used. This growth rate is considered conservative, noting that population growth for Kingborough and the Huon Valley is projected to be 0.70-0.78 per cent per annum. The results based on the 2 per cent linear growth rate are also shown in Table 5-1.

Generally, no sections are considered to require the construction of overtaking lanes based on the forecast traffic volumes from the GHUTDM. Summerleas Road to Southern Outlet in the northbound direction (segment 8) remains at LoS E, with a small increase in the percent time spent following. The peak hour volume of 1120 veh/h is still well below the capacity of 1700 veh/h. Under the higher growth scenario however, this section approaches capacity. Traffic growth should be monitored and if higher traffic growth is experienced an overtaking lane may be warranted. This section was upgraded recently as part of the Summerleas Road intersection upgrade. Duplicating this entire section would require major works, including widening the bridge over Summerleas Road. Consideration may be given to an overtaking lane starting north of the Summerleas Road interchange.

The southbound section between Leslie Road and Sandfly Road is borderline between LoS D and E in 2051 based on the forecast traffic volumes from the GHUTDM. The sections either side have passing lanes and perform well at LoS C. The peak hour volume of 935 veh/h is still well below the capacity of 1700 veh/h. Under the higher growth scenario, this section performs at LoS E. This section should be monitored and if higher traffic growth is experienced an overtaking lane may be warranted.

It is noted that the challenging terrain would make construction of additional overtaking lanes along the corridor difficult. In addition, the remaining single lane sections are generally not appropriate for the construction of overtaking lanes. The southbound section of highway between Lower Longley and Grove has steep downhill gradients, while the section between Grove and Lollara Road has a high density of access points.

Table 5-1: Future LoS

Direction	Road segment	2021		2051 (GHUTDM)		2051 (Historical traffic growth)	
		Peak hour volume (veh/h)	LoS	Peak hour volume (veh/h)	LoS	Peak hour volume (veh/h)	LoS
Northbound	Orchard Avenue to Lollora Road	570	D	685	D	935	E
Northbound	Lollora Road to 1km north of Huon View Road	770	C	885	D	1265	D
Northbound	1km north of Huon View Road to 1.5km south of Sandfly Road	860	C	975	C	1410	C
Northbound	1.5km south of Sandfly Road to Leslie Road	940	C	1135	C	1540	D
Northbound	Leslie Road to Summerleas Road	1020	C	1135	C	1675	D
Northbound	Summerleas Road to Southern Outlet	990	E	1120	E	1625	E
Southbound	Southern Outlet to Summerleas Road	810	B	920	B	1330	C
Southbound	Summerleas Road to 1.3km south of Leslie Road	880	C	990	C	1445	C
Southbound	1.3km south of Leslie Road to 1.5km south of Sandfly Road	820	D	935	D/E	1345	E
Southbound	1.5km south of Sandfly Road to 1km north of Huon View Road	690	C	805	C	1130	D
Southbound	1km north of Huon View Road to Lollora Road	660	D	775	D	1080	E
Southbound	Lollora Road to Orchard Road	570	D	685	D	935	D



Figure 5-3: 2051 LoS along corridor (GHUTDM traffic volume projections)

### 5.3.2 Future freight task

Future heavy vehicle projections along Huon Highway near Sandfly Road and Summerleas Road were obtained from the GHUTDM which uses demographic and land use data to predict traffic generation and distribution. On average, daily two-way heavy vehicle volumes are projected to increase by 11 vehicles each year between 2019 and 2050. The heavy vehicle projections from the GHUTDM appear to be low. In comparison, historical heavy vehicle growth between 2013 and 2019, from the continuous traffic counters, is a daily volume increase of approximately 50 vehicles each year.

As detailed in Section 3, the corridor is critical to supporting the construction, agriculture, forestry and fishing industries. The northern corridor is included in a range of HPFV networks and is also part of the Tasmanian Declared HML network. As detailed in Section 4.7, no bridge or culvert structures on the northern corridor appear to have any conditions of travel or restriction to the suite of Class I OSOM and SPV's.

The Huon Highway is identified as a key regional freight connection in the Tasmanian Integrated Freight Strategy (2016). The strategy identifies target outcomes for key regional freight connections as safe, efficient regional freight networks, including:

- general access for standard higher productivity vehicles only; larger vehicles remain subject to access controls
- oversize/ over-mass vehicles on gazetted routes with access controls.

Investment principles for key regional freight connections include:

- Prioritise maintenance and renewal, and small-scale upgrades in support of moderate freight growth
- Targeted investment to remove significant constraints
- Consider non-infrastructure solutions
- Some vehicles prohibited under certain conditions.

## 5.4 Future public transport and active transport needs

### 5.4.1 Public transport

As summarised in Section 3.5, approximately two per cent of trips to work to and from Huonville-Franklin are made by public transport. This aligns with the low public transport patronage numbers summarised in Section 4.2.4. If bus services along the Huon Highway are improved in the future, such as providing more off-peak trips to accommodate part-time workers, this may increase patronage, however private vehicles are expected to remain the dominant mode.

As detailed in Section 3.5.1, bus stops are currently very informal with limited infrastructure or amenities. State Growth is undertaking a program to upgrade all bus stops to meet DDA compliance requirements.

### 5.4.2 Active transport

As summarised in section 3.5.2, cyclist volumes on the corridor are low. Given the distance between population and employment centres, commuting cyclist activity along the corridor is expected to remain low. While it is not anticipated that the corridor will be a major cycling route in the foreseeable future, some improvements could be made to increase cyclist safety such as the provision of wider shoulders. Separate cyclist facilities may be considered in locations where demand is higher, such as in townships. As detailed in Section 3.5.2, Grove to Huonville is a commutable distance by active transport.

Although there is little pedestrian activity along the corridor, there is localised demand for pedestrian facilities near public bus stops. In addition to the intersections of Summerleas Road and Sandfly Road which have dedicated crossing points for pedestrians, there are also two pedestrian underpasses, connecting Kinston View Drive with Leslie Road and Willowbend Road with Campbell Street. There are no other dedicated crossing facilities along the corridor, and movement along the roadside is generally within the road shoulder or verge. Improvements are required to improve pedestrian access to bus stops, particularly where pedestrian volumes are higher.

### 5.4.3 Electric vehicles

Electric vehicles are becoming more common on Tasmanian roads. As they are cheaper to run, quieter to drive and have zero emissions when powered by Tasmania's renewable electricity sources, emerging electric vehicles should be considered as part of the strategy.

There are currently three electric vehicle charging stations along the corridor located in Grove, Geeveston, and Dover. Consideration should be given for the installation of additional charging stations as the number of electric vehicles increase in the coming years.

In addition, autonomous and connected vehicles are also emerging technologies that will impact Tasmanian roads in the future, and as such it is recommended that an emerging vehicles plan is developed.

## 5.5 Climate change

Temperatures in Tasmania have risen since the 1950s. Tasmanian temperature is projected to rise by between 1.6 and 2.9 °C in the 21st century<sup>2</sup>.

The expected impacts of climate change include increased frequency of severe weather events, increased frequency of bushfires and changing weather conditions. Climate projections show a pattern of increased rainfall over eastern Tasmania<sup>3</sup>.

Extreme heat can cause road buckling and freeze-thaw cycles can cause pavement cracking and potholes. As roads are designed for particular climates, extreme weather events may cause the roads infrastructure to fail more quickly. Potential road impacts from climatic conditions should be continually monitored.

Vince's Saddle is subject to icy conditions which is a safety issue, especially given the curved horizontal geometry. Due to the elevation, this section of road is also subject to snow. Vince's Saddle can be impassable during snowfalls, leading to highway closures and isolation of the Huon Valley community. As detailed in Section 3.1, the alternative route to Hobart via the Channel Highway is substantially longer. As severe weather conditions become more frequent, instances of snow and ice may increase. A shorter alternate route could be investigated in the long term as warranted when vehicle numbers increase.

Several locations along the corridor have also been identified as being subject to rockfall hazards. Increased rainfall events may increase the risk of rockfall hazards along these sections of the corridor.

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<sup>2</sup> Antarctic Climate and Ecosystems Cooperative Research Centre, Climate Futures for Tasmania, General Climate Impacts, October 2010

<sup>3</sup> Antarctic Climate and Ecosystems Cooperative Research Centre, Climate Futures for Tasmania, General Climate Impacts, October 2010





Figure 5-4 Rockfall hazard, south of Sandfly Road

## 6 Corridor challenges and priorities

### 6.1 Corridor objectives

As detailed in Section 1.5, the objectives for the corridor are to:

- Improve safety outcomes for all road users recognising the varied user groups
- Improve efficiency, reliability and resilience by providing a consistent driving experience for all user groups
- Enable economic growth and development by providing a road network that will meet the future needs of the community.

### 6.2 Key challenges

Based on the review of current corridor performance and future transport demand, key corridor challenges are summarised in Table 6-1. Proposed strategic responses to address the challenges and meet the corridor objectives are provided. Improvement targets have also been developed, as summarised in Table 6-2.

Table 6-1 Corridor challenges and strategic response

Key challenges	Strategic response
<b>Safety</b>	
Narrow shoulders throughout the corridor present a safety concern	<ul style="list-style-type: none"> <li>• Provide sealed shoulders (e.g. 1.5 m) where appropriate and feasible to provide an initial recovery area for errant vehicles, as well as space for cyclists</li> </ul>
The lack of a separation between opposing traffic on undivided sections poses the risk of high-speed, head-on crashes	<ul style="list-style-type: none"> <li>• Provide central median flexible safety barrier to separate opposing traffic flows</li> </ul>
Winding horizontal geometry, between Sandfly and Grove, increases the risk of loss of control crashes	<ul style="list-style-type: none"> <li>• Where feasible, widen shoulders to provide additional recovery room</li> <li>• Ensure adequate warning signage and delineation at all substandard curves</li> <li>• Remove or protect roadside hazards on the outside of curves</li> </ul>
Substandard intersection alignment in several locations poses a road safety risk	<ul style="list-style-type: none"> <li>• Implement safety upgrades at substandard intersections, particularly where volumes are higher</li> </ul>
Roadside hazards along the corridor pose a safety risk	<ul style="list-style-type: none"> <li>• Remove or protect roadside hazards, particularly on the outside of curves</li> </ul>
Many property accesses require right turns from overtaking lanes, creating the potential for rear end collisions with accelerating vehicles	<ul style="list-style-type: none"> <li>• Provide central median flexible safety barrier to separate opposing traffic flows and make property accesses left in / left out. Provide turn facilities at regular intervals to enable property access by a left turn.</li> </ul>

Key challenges	Strategic response
The elevation of the road at Vince's Saddle creates a potential ice hazard in winter	<ul style="list-style-type: none"> <li>Consider ITS solutions to provide improved warning of hazardous conditions</li> </ul>
There is a high frequency of property accesses within the 100km/h zone between Mountain River Road and Allens Road, creating the potential for conflicts with turning vehicles.	<ul style="list-style-type: none"> <li>Consider lowering the speed limit to 80km/h</li> </ul>
<i>Active and public transport</i>	
Interaction between the mix of road users, including cyclists, pedestrians and vehicles, can cause potential conflict	<ul style="list-style-type: none"> <li>Provide 1.5 m sealed shoulders to provide space for cyclists where feasible and appropriate</li> <li>Provide separate active transport infrastructure in target locations where demand is higher</li> </ul>
Substandard bus stops adjacent to the highway create the potential for pedestrian / vehicle conflicts	<ul style="list-style-type: none"> <li>Upgrade bus stops to improve safety and achieve DDA compliance</li> <li>Provide amenity improvements (shelter, seating, information) commensurate with bus stop usage</li> <li>Provide pedestrian infrastructure as required (crossing points, footpaths) commensurate with bus stop usage</li> <li>Provide signage to alert drivers to the presence of pedestrians</li> </ul>
Bus service frequency and pricing are barriers to the uptake of public transport on the corridor	<ul style="list-style-type: none"> <li>Work with service providers to assess and potentially improve the frequency and affordability of bus services, including off-peak services for part time workers</li> </ul>
<i>Traffic efficiency</i>	
Different users on the highway, including commuters, tourists and heavy vehicles, have different desired speeds	<ul style="list-style-type: none"> <li>Maintain existing overtaking opportunities</li> <li>Adjust start and termination points for overtaking lanes where required to ensure safe overtaking opportunities</li> </ul>
<i>Resilience</i>	
Vince's Saddle can be impassable during snowfalls, leading to highway closures and isolation of the Huon Valley community.	<ul style="list-style-type: none"> <li>Highway closures are infrequent and generally for short periods only</li> <li>There is an alternative route to Hobart via the Channel Highway, although it is substantially longer.</li> </ul>

Table 6-2 Corridor improvement targets

Item	Target improvements
Cross-section	<ul style="list-style-type: none"> <li>• Provide sealed shoulders (e.g. 1.5 m) where appropriate and feasible</li> <li>• Provide central median barrier to prevent head on collisions</li> </ul>
Horizontal and vertical geometry	<ul style="list-style-type: none"> <li>• Ensure adequate warning signage and delineation at large curves</li> </ul>
Junction treatments	<ul style="list-style-type: none"> <li>• Implement upgrades as warranted to contemporary safety standards</li> </ul>
Roadside safety	<ul style="list-style-type: none"> <li>• Provide signage and delineation to meet contemporary standards</li> <li>• Protect or remove roadside hazards</li> </ul>
Overtaking lanes	<ul style="list-style-type: none"> <li>• Maintain existing overtaking opportunities</li> <li>• Adjust start and termination points where required to improve safety</li> </ul>
Heavy vehicle driver rest areas	<ul style="list-style-type: none"> <li>• Retain existing heavy vehicle driver rest areas and undertake capacity and safety improvements as required</li> </ul>
Pavement condition	<ul style="list-style-type: none"> <li>• Rehabilitate pavement where condition falls below required quality</li> </ul>
Active transport	<ul style="list-style-type: none"> <li>• Provide 1.5 m sealed shoulders where appropriate and feasible</li> <li>• Provide separate active transport infrastructure in target locations</li> </ul>
Public transport	<ul style="list-style-type: none"> <li>• Upgrade existing general access bus stops to be compliant with DDA requirements</li> <li>• Improve safety and amenity at bus stops</li> <li>• Provide car parking at high use stops</li> </ul>

## 7 Southern Corridor

The southern section of the corridor, between Huonville and Southport, was reviewed as part of the previous Huon Highway Corridor Study (2012). The outcome of this study was a prioritised list of road improvement opportunities.

This section provides a brief overview of the southern section of the corridor, including updated traffic volumes and crash data, as well as land use changes since the previous study. Progress against the priorities identified in the previous study is also documented.

For the full assessment of the southern section, refer to the previous Huon Highway Corridor Study (2012) report.

### 7.1 Corridor role and demand

#### 7.1.1 Road classification

The corridor from Huonville to Dover, including Scotts Road, is defined as a Category 3 – Regional Access Road. Regional Access Roads are of strategic importance to regional and local communities and economies. They provide safe and efficient access to Tasmania's regions and facilitate:

- connection of smaller regional resource bases with trunk and regional freight roads
- local commercial interaction
- sub-regional and inter-regional freight movement by connecting with trunk and regional freight roads
- sub-regional passenger vehicle movement and connection to trunk and regional freight roads
- sub-regional tourist movement and connection to trunk and regional freight roads.

South of Dover, as well as between Geeveston and the Scotts Road southern intersection, the highway is defined as a Category 4 – Feeder Road. Feeder Roads provide safe passenger vehicle and tourist movement within the regions of Tasmania. They facilitate connection to Trunk, Regional Freight and Regional Access roads for:

- local commercial interaction
- local freight movement
- smaller regional resource bases
- local passenger vehicle movement
- tourists and major tourist destinations.

The most southern section of the corridor between Hastings Caves Road junction and Southport is classified as a Category 5 – Other Road. Other Roads are primarily access roads, with some being used for comparatively low frequency heavy freight vehicle transport.

The Huon Highway, between Huonville and Arve Road, Geeveston, provides gazetted access for a range of HPFVs and is part of the HML network. Additionally, similar gazetted access is provided on Scotts Road and a short section of the Huon Highway connecting Hermons Road to the southern end of Scotts Road, which is an important connection for forestry freight.



Whilst the section of the Huon Highway south of Waterloo is not currently a gazetted route for longer freight vehicles, it is part of the HML network. Any network improvements to extend access for higher productivity freight vehicles would be beneficial for industry.

### 7.1.2 Traffic volumes

Daily traffic volumes were obtained from six short term traffic counters as shown in Figure 7-1 (sourced June 2022). A summary of volumes is provided in Table 7-1 and the directional daily traffic profiles are shown in Figure 7-2 to Figure 7-5. For the southern section of the corridor the AADT is 6,330 near Huonville and decreases to 390 near Southport.

The southern section has no directional commuter peak, unlike the northern section which had a northbound peak in the AM and southbound peak in the PM. The southern section has a similar trend for southbound and northbound volumes across the day. There is a wide afternoon peak period, generally between 12pm and 5pm, indicating that traffic is more spread out across the day. Industry operations may contribute to the timing of the peak on the southern section.

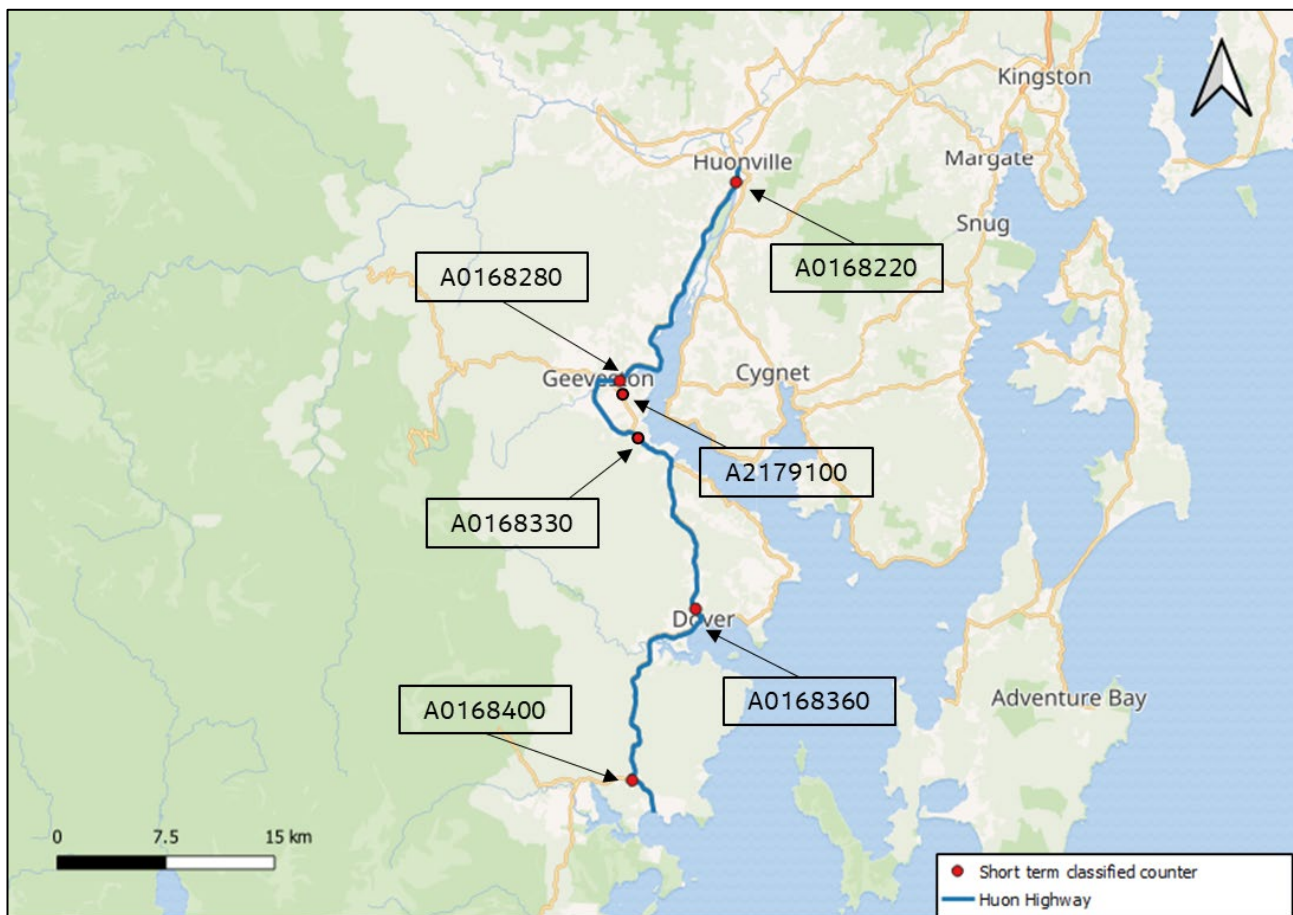


Figure 7-1: Location of short term traffic counters

Table 7-1: Summary of traffic volumes along the Huon Highway Corridor

Traffic counter	Location	Year	AADT	% Heavy vehicles
A0168400	120m south of Hastings Caves Rd, Southport	2021	390	12.2
A0168360	290m south of Worsleys Rd, Dover	2021	1,550	12.7
A0168330	Huon Highway 100m east of Scotts Road (south junction)	2021	2,169	15.2
A2179100	Scotts Road 140m south of Huon Highway (north junction)	2021	1,869	15.9
A0168280	350m east of Scotts Rd, Geeveston	2021	3,830	16.9
A0168220	530m south of Scenic Hill Rd, Huonville	2019	6,330	10.7

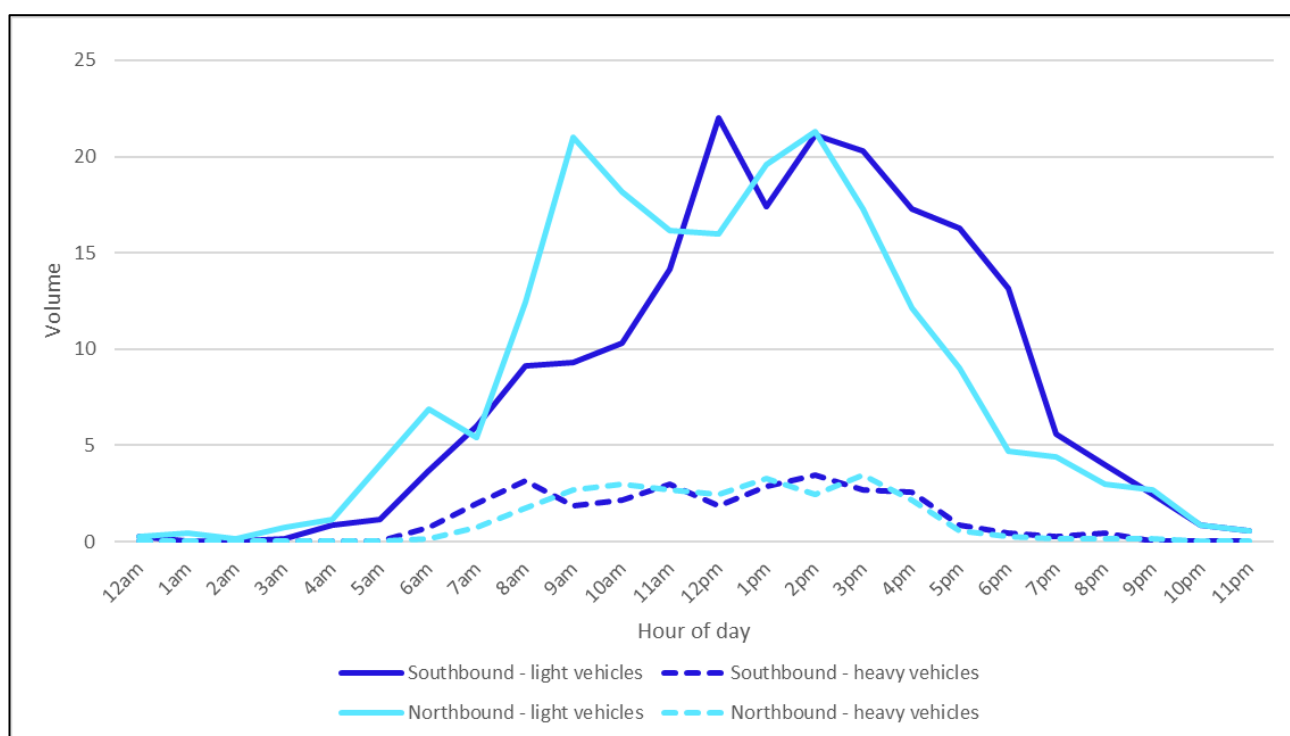


Figure 7-2: Directional daily volume profile – A0168400 – 120m south of Hastings Caves Road, Southport

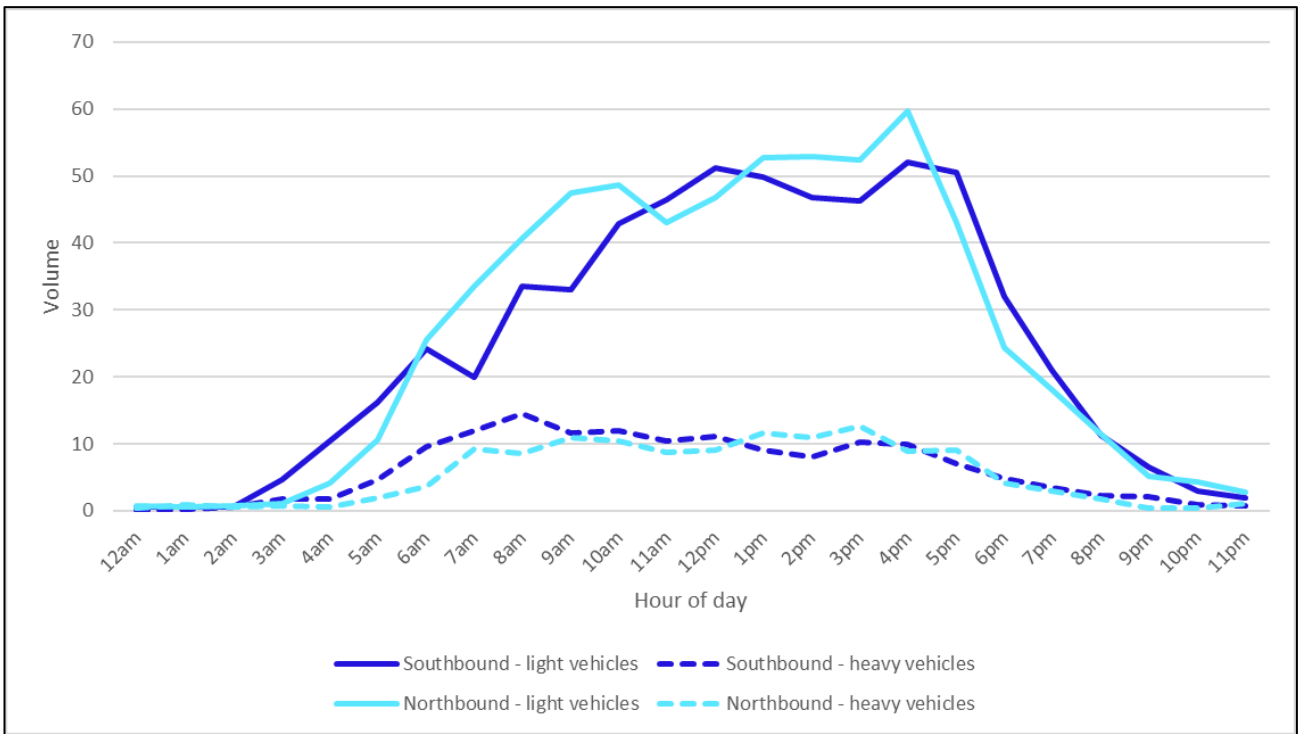


Figure 7-3: Directional daily volume profile – A0168360 – 290m south of Worsleys Road, Dover

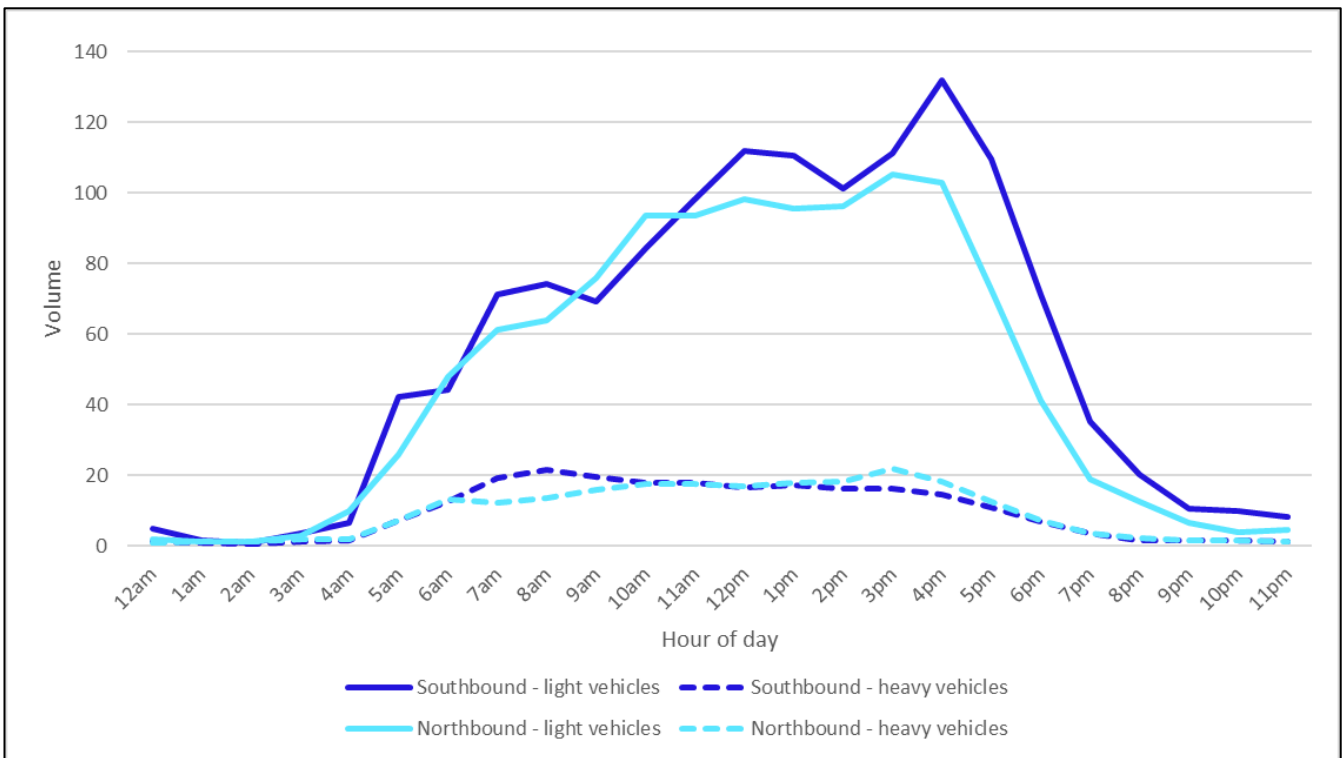


Figure 7-4: Directional daily volume profile – A0168280 – 350m east of Scotts Road, Geeveston

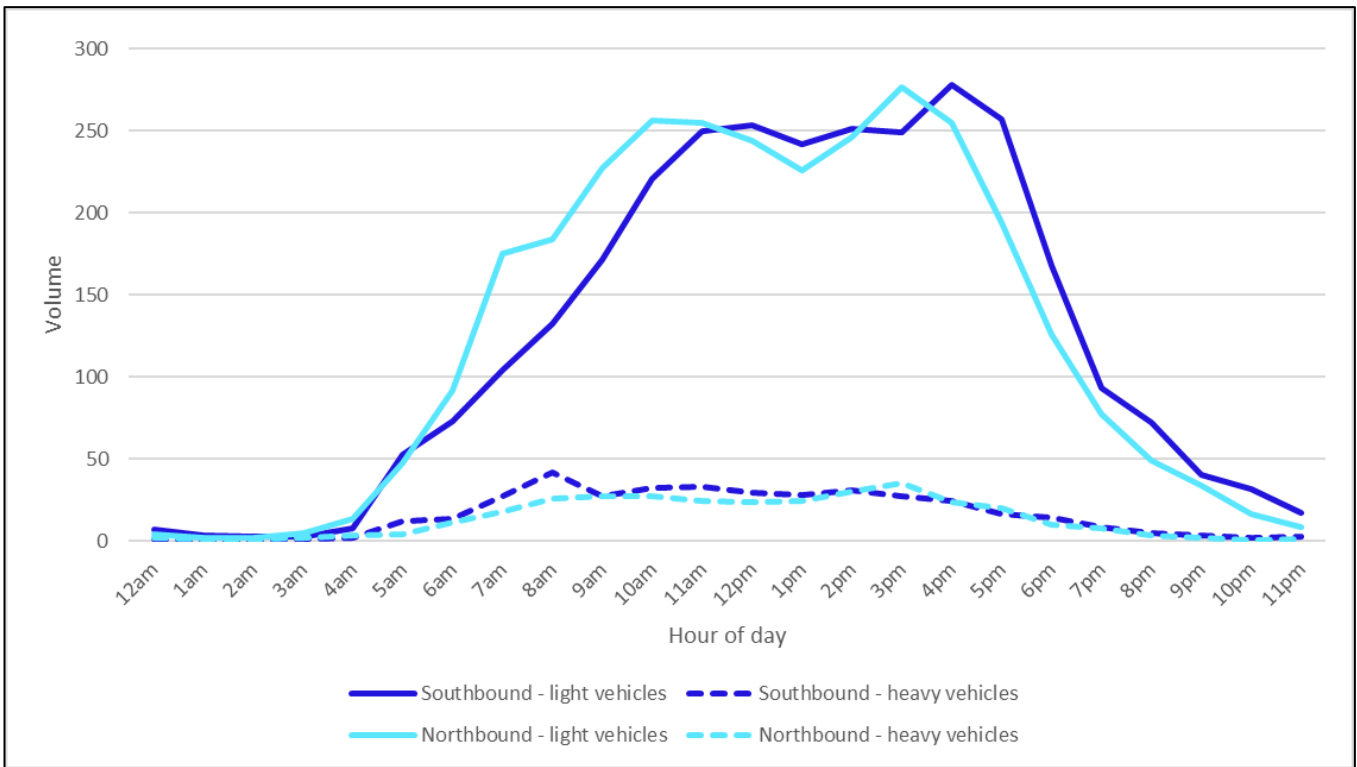


Figure 7-5: Directional daily volume profile – A0168220 – 530m south of Scenic Hill Road, Huonville

### 7.1.3 Heavy vehicles

The Huon Highway facilitates sub-regional freight movements between Huonville and Southport and is a key freight link in Southern Tasmania. The corridor extends past Huonville to the Hobart Port and Brighton Transport Hub. Agriculture, construction, and forestry inputs are major components of the freight movements along the Huon Highway.

As detailed in Table 7-1, heavy vehicle percentages are high between Southport and Huonville, ranging from 11 per cent near Huonville to 17 per cent near Geeveston, highlighting the importance of the corridor for industry operations.

### 7.1.4 Speed limit

The speed limits along Huon Highway are shown in Figure 7-6. A large proportion of the highway south of Huonville has a speed limit of 100km/h, with reduced speed limits through towns.





Figure 7-6: Posted speed limits (in km/h) along the Huon Highway Corridor



## 7.2 Land use developments

The Huon Highway corridor serves a major movement function for tourist traffic in the southern region of Tasmania. The southern section of the corridor in particular, is a gateway to many tourist attractions beyond Huonville. A number of recently completed and planned developments, which are expected to impact visitor numbers, are detailed in the following sections. There are also several planned developments which will provide pedestrian infrastructure and improve community access to key locations.

### 7.2.1 Hastings Caves

Hastings Caves is a world heritage-listed natural landmark and thermal springs pool. Hastings Caves is visioned to be a *hero experience* within the southern region of Tasmania as it further capitalises on its value by adding to the visitor experience and improving accessibility to the location<sup>4</sup>. At the time of the previous study, Hastings Caves Road, the sole access road to the attraction, was unsealed. This restricted the ability of visitors in rental cars getting to Hastings Caves due to the conditions of their lease. In January 2020 however, Hastings Caves Road was fully sealed as part of the Visitor Economy Roads Package<sup>5</sup>. This project is expected to increase visitor traffic to Hastings Caves, given that approximately 40 per cent of visitors utilise rental vehicles while in the region<sup>6</sup>.

### 7.2.2 Tahune Forest Adventures

Tahune Forest Adventures, near Geeveston, reopened in February 2020 following a 13-month closure due to bushfire damage. This renewed attraction is expected to work collectively with improvements to Hastings Caves to attract visitors to the region.

### 7.2.3 Project X

Further changes to the tourism landscape are planned to come from *Project X*, an initiative slated to draw tourists back to the Huon Valley following the 2019 bushfires and COVID pandemic. Project X plans to have a series of permanent art installations in the region that will form a touring circuit and encourage extended stays. The project was planned to open in January 2022, however a development application was rejected in September 2021 delaying the project.

### 7.2.4 Cockle Creek

Cockle Creek is located at the southernmost point of mainland Tasmania and within the Tasmanian Wilderness World Heritage Area (TWWHA). Its natural values and selling point of being at the 'edge of the world' are already popular amongst the caravan and camping market. The Cockle Creek Improvements Project, completed in late 2020, included upgraded shelter and toilet facilities as well as improvements to access roads and carparks.

### 7.2.5 Huonville to Franklin Shared Pathway Project

The Huonville to Franklin Shared Pathway Project is a proposed 7.5km shared path from Coolstore Road in Huonville which follows the curve of the riverbank through to Franklin. The Shared Pathway strongly aligns with several goals of both Huon Valley Council and the Tasmanian Government in improving active transport,

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<sup>4</sup> *Reimagining Our Regions Tasmania's Far South*, Tourism Tasmania, February 2020

<sup>5</sup> [https://www.transport.tas.gov.au/projectsplanning/Recently\\_completed\\_road\\_projects](https://www.transport.tas.gov.au/projectsplanning/Recently_completed_road_projects)

<sup>6</sup> *Reimagining Our Regions Tasmania's Far South*, Tourism Tasmania, February 2020

liveability, and tourism appeal. The Shared Path will accommodate pedestrians, cyclists as well as kayakers and will have disability access provisions along key sections of the path.

### 7.2.6 Franklin Foreshore

The Franklin Foreshore is situated a little over 5km from Huonville and sits along the banks of the Huon River. It has been master planned as a hub for local food and wine, as well as maritime activities such as boatbuilding and kayaking<sup>7</sup>. During the 2018 Tasmanian state election, \$750,000 worth of government funding was secured to be used for the rehabilitation and development of the foreshore area<sup>8</sup>. The rehabilitation and development plan aims to improve community access to the foreshore and promote the area for event use.

### 7.2.7 Port Huon to Geeveston Walking Track

This project addresses the desire of the Huon Valley community to have a walking path that connects Port Huon to Geeveston. The project includes a gravel walking track that connects the existing Brownell Street, Geeveston footpath to Sacred Heart School and providing a pedestrian bridge over the Kermandie River. The track crosses the Huon Highway and continues along the water via a raised walking track. This project has been completed and the walking track is now open for use.

## 7.3 Corridor performance

### 7.3.1 Road safety

A review of the available crash data between 2010 and 2020 was undertaken for the corridor, as summarised in Figure 7-7. The location of fatal and serious crashes along the corridor is shown in Figure 7-8 to Figure 7-10. In addition, a summary of crashes along segments and intersections along the corridor is provided in Table 7-2 and Table 7-3 (including intersections with three or more crashes).

Key findings from the crash data analysis are as follows.

- There were 352 crashes along Huon Highway between Huonville and Southport between 2010 and 2020.
- Vehicles losing control on a curve is the most frequent crash type (37 per cent), followed by vehicles travelling in the same direction colliding (15 per cent) and vehicles losing control on a straight (13 per cent)
- There were five fatality and 27 serious injury crashes
- Three of the fatality crashes occurred near Dover (two vehicles off path on curve, one vehicle from opposing directions)
- The other two fatality crashes were near Geeveston (off path on straight) and Huonville (manoeuvring)
- Serious crashes are concentrated on the bends near Geeveston and Dover.

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<sup>7</sup> *Reimagining Our Regions Tasmania's Far South*, Tourism Tasmania, February 2020

<sup>8</sup> <https://www.huonvalley.tas.gov.au/consultations/franklin-foreshore-rehabilitation-and-development-plan/>

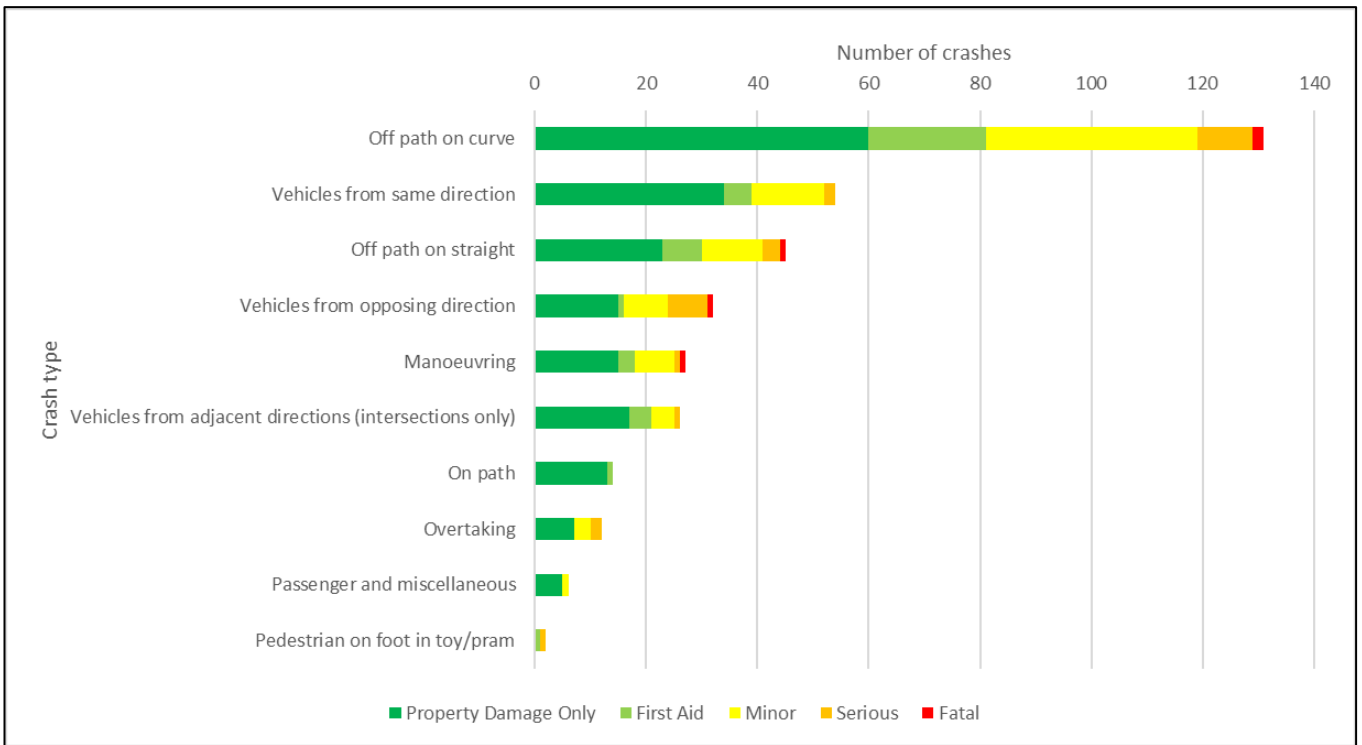


Figure 7-7: Summary of crashes along Huon Highway between Huonville and Southport – 2010 to 2020



Figure 7-8: Fatality and serious crashes – Huonville to Geeveston - 2010 to 2020

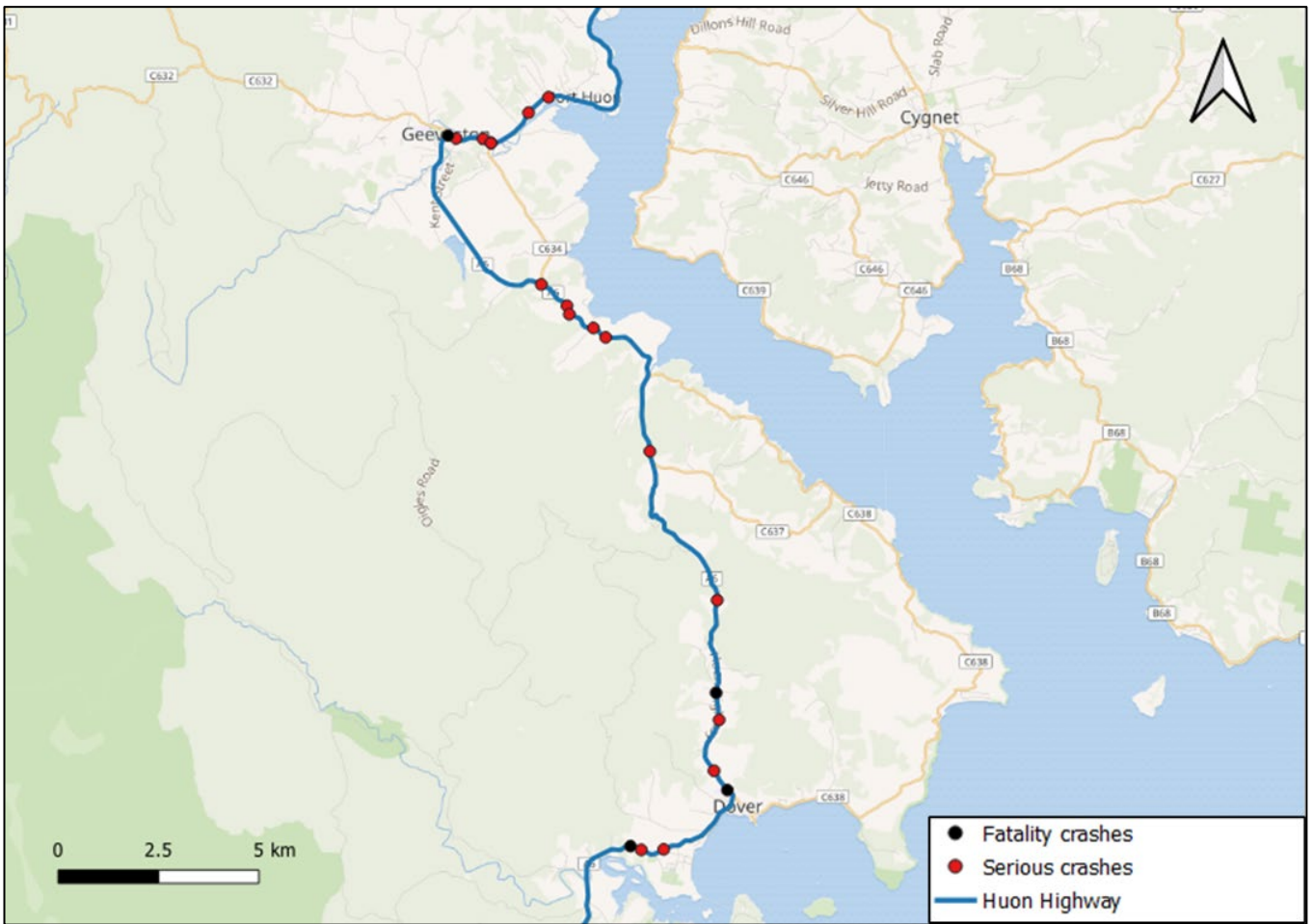


Figure 7-9: Fatality and serious crashes – Geeveston to Dover - 2010 to 2020



Figure 7-10: Fatality and serious crashes – Dover to Southport - 2010 to 2020

Table 7-2: Corridor segment crash summary

Segment	Total crashes	Injury crashes	Predominant crash types
Huonville to Geeveston	195	83	<ul style="list-style-type: none"> <li>Off path on curve (52)</li> <li>Vehicles from same direction (45)</li> </ul>
Geeveston to Dover (excl Scotts Road)	122	61	<ul style="list-style-type: none"> <li>Off path on curve (61)</li> <li>Off path on straight (15)</li> <li>Vehicles from opposing directions (14)</li> </ul>
Scotts Road	13	5	<ul style="list-style-type: none"> <li>Off path on straight (4)</li> </ul>
Dover to Southport	35	19	<ul style="list-style-type: none"> <li>Off path on curve (19)</li> <li>Off path on straight (9)</li> </ul>

Table 7-3: Corridor intersection crash summary

Intersection	Total crashes	Injury crashes	Predominant crash types
Glen Huon Road/Coolstore Road	7	2	<ul style="list-style-type: none"> <li>Vehicles from same direction (5)</li> </ul>
Esperance Coast Road	5	1	<ul style="list-style-type: none"> <li>Vehicles from adjacent directions (4)</li> </ul>
Scotts Road (northern intersection)	5	3	<ul style="list-style-type: none"> <li>Vehicles from adjacent directions (3)</li> </ul>
New Road	3	2	<ul style="list-style-type: none"> <li>Off path on straight (1)</li> <li>Vehicles from same direction (1)</li> <li>Vehicles from adjacent directions (1)</li> </ul>



Intersection	Total crashes	Injury crashes	Predominant crash types
Scenic Hill Road	3	2	<ul style="list-style-type: none"> <li>• Off path on curve (1)</li> <li>• Vehicles from same direction (1)</li> <li>• Vehicles from adjacent directions (1)</li> </ul>

### 7.3.2 Seal widths

An analysis of seal widths was undertaken as part of the previous study. Seal widths between Huonville and Geeveston were typically between six to eight metres, while a large proportion of the highway south of Geeveston had a seal width of less than six metres. Shoulder sealing was a key priority identified during the previous study and a number of shoulder sealing projects have since been implemented. Further details of projects implemented since the previous study are provided in Section 7.4.

### 7.3.3 Overtaking opportunities

There are limited overtaking opportunities on the Huon Highway between Huonville and Southport. At the time of the previous study, there were no overtaking lanes on the highway south of Huonville and improved overtaking opportunities were identified as the highest priority for stakeholders. While traffic volumes are not high, the mix of traffic on the highway means there are differences in desired travel speeds.

The previous study included an assessment of the highway using the TRAffic on Rural Roads (TRARR) program. This allowed analysis of the percentage of vehicles following along the highway, which represents the percentage of vehicles which are restricted to the speed of the vehicle in front. In addition, the speed differential between cars and heavy vehicles along the corridor was reviewed. This modelling was used to assist in identifying and assessing potential overtaking lanes.

Since the previous study, climbing lanes in either direction have been constructed at Glendevie, between Dover and Geeveston. Further details of projects implemented since the previous study are provided in Section 7.4.

### 7.3.4 Bridges

There are 21 bridge structures on the Huon Highway between Huonville and Southport, six of which are culverts (box). The bridge structures vary in age from 35 to 84 years.

A key performance indicator of these structures is their ability to carry a wide variety of heavy vehicles. The ability to provide safe passage for Tasmanian Class I Load Carrying Vehicles (OSOM) and Class I SPV's is a measure of this KPI.

Unlike the northern corridor, where all the bridge and culvert structures do not appear to have any conditions of travel or restriction to the suite of Class I OSOM and SPV's, some restrictions are in place on the southern corridor. An assessment of the bridges with respect to heavy vehicle access was undertaken<sup>9</sup> and found that under a theoretical 56 tonne 5 axle all terrain crane, seven bridges do not allow access and another three bridges only allow access with conditions of travel. The results are shown in Figure 7-11. A 56 tonne 5 axle all terrain crane is one of the larger vehicles within the suite of Class I OSOM and SPV's and was chosen as an example to highlight access constraints on the southern corridor.

Bridges on the Huon Highway were previously assessed as part of the Review of Emergency Bridges in Tasmania project, which aimed to identify a bridge's importance and susceptibility to failure. The assessment ultimately

<sup>9</sup> Based on a review of State Growth's heavy vehicle access maps ([https://www.transport.tas.gov.au/vehicles\\_and\\_vehicle\\_inspections/heavy\\_vehicles/Heavy\\_vehicle\\_access](https://www.transport.tas.gov.au/vehicles_and_vehicle_inspections/heavy_vehicles/Heavy_vehicle_access)).

determined the criticality of the structure, with each bridge assigned to one of five categories from AA (most critical) to D (least critical).

The criticality ratings for the southern corridor bridges are shown in Table 7-4. Two bridges, Higgins Creek Bridge and Surges Creek Bridge, had the highest “AA” rating and are most at risk regarding the importance to the road network and susceptibility to failure. Surges Creek Bridge also has access restrictions for some vehicle classes (Figure 7-11). The remaining bridges fit within the “A” rating (16 bridges) or “B” rating (three bridges).

Table 7-4: Bridge criticality ratings

Bridge Number	Bridge Name	Criticality Rating
SG 1070	Huon River Bridge	A
SG 1148	Prices Creek Culvert	A
SG 1301	Wilcox Creek Culvert	A
SG 1370	Dover Rivulet Bridge	A
SG 1383	Bates Creek Culvert	A
SG 1386	Craggs Creek Culvert	A
SG 1409	Dover Rivulet Bridge	A
SG 1413	Kermandie River Bridge	B
SG 1470	Castle Forbes Bay Rivt Bridge	A
SG 1543	Surges Creek Culvert	A
SG 2005	Jackson Creek Bridge	A
SG 2039	Higgins Creek Bridge	AA
SG 2589	Settlement Creek Bridge	A
SG 2796	Rileys Creek Bridge	B
SG 298	Surges Creek Bridge	AA
SG 326	Kermandie River Bridge	B
SG 5248	Fleurty's Rivulet Culvert	A
SG 546	Esperance River Bridge	A
SG 575	Kermandie River Bridge	A
SG 678	Creekton Rivulet Bridge	A
SG 95	Clarks Rivulet Bridge	A

Valid for **day travel** until: 30/03/2022 23:59

Travel from **A6, Kingston** to **Huon Hwy, Southport** [1]

5 Axle All Terrain Crane



Vehicle Code: **A40183921**



### Roads

With access [2]

— 0 Pilots & 0 Escorts

— 1 Pilot & 0 Escorts

With no access [3]

— No access on road

### Structures

With conditional access [4]

— 1 Pilot & 0 Escorts

With no access [5]

— No access on structure

### Other



Start



Finish



Direction

Figure 7-11: Bridges that most significantly impact Heavy Vehicle Access

## 7.4 Previous study priorities

The outcome of the previous study was a prioritised list of road improvement opportunities for the Huon Highway between Huonville and Southport. These improvement opportunities were grouped into three categories as follows:

- passing opportunities
- junction / access improvements
- road width and curve related improvements.

Since the previous study, several higher priority upgrades have been implemented, as summarised in Table 7-5. The remaining improvement opportunities have been reviewed, alongside opportunities developed for the northern section of the corridor, and form part of the corridor strategy for the Huon Highway, from Kingston to Southport, as detailed in Section 8.

Table 7-5 Projects completed since previous study

Opportunity type	Name
Passing opportunities	Somers Straight sight distance improvements
	Scotts Road junction pullover area
	Southbound slow vehicle passing lane north of Hopetoun Rd
	Northbound slow vehicle passing lane south of Hopetoun Rd
Junction / access improvements	Right turn treatment Maxfields Rd junction
	Right turn treatment Swamp Road
	Right turn treatment Jacksons Road Junction
	Right turn treatment Palmers Rd junction north
	Right turn treatment Sacred Heart School access
	Increase set-back to safety barrier Arve Rd junction
Road width and curve related improvements	Shoulder Sealing - Huonville Sth to Swamp Rd
	Shoulder Sealing - Swamp Rd to Castle Forbes Rd
	Shoulder Sealing - Castle Forbes Rd to Port Huon (South)
	Shoulder Sealing - Port Huon (South) to Arve Rd
	Curve realignment south of Hopetoun Rd

## 8 Corridor Strategy

### 8.1 Key improvement opportunities

#### 8.1.1 Northern corridor

Potential improvement opportunities have been identified to address the key challenges for the northern corridor detailed in Section 6. The improvement opportunities have been grouped into three categories as described below. The identified improvement opportunities are summarised in Table 8-1.

#### **Junction / access improvements opportunities**

A number of junction improvement opportunities have been identified. These include providing left and right turn treatments for turning vehicles, as well as alignment and delineation improvements.

#### **Road width and curve related improvements opportunities**

Road width and curve related improvement opportunities include shoulder widening, to meet the target of 1.5 m sealed shoulders, and the provision of a central median flexible safety barrier. Other improvements include pavement rehabilitation and some adjustments to overtaking opportunities to improve safety.

#### **Pedestrian / public transport improvement opportunities**

Pedestrian and public transport improvement opportunities include upgrades to public bus stops to improve safety and amenity and ensure bus stops comply with DDA requirements. A separated shared user path for cyclists and pedestrians is proposed to connect Grove and Huonville, where there is potential for higher active transport demand.

Table 8-1 Northern corridor identified improvement opportunities

Name	Description
<i>Junction / Access Improvement Opportunities</i>	
Leslie Road junction alignment improvements	Terminate southbound overtaking lane prior to junction. Provide left turn treatments for both directions. Improve existing channelised right turn treatments.
Krauses Road junction improvements	Terminate northbound overtaking lane prior to Huon Road in order to provide channelised right turn treatment. Terminate southbound overtaking lane earlier to provide greater separation from junction and provide auxiliary left turn treatment.
Huon Road junction improvements	Terminate northbound overtaking lane prior to Huon Road in order to provide channelised right turn treatment. Provide auxiliary left turn treatment.
Huon View Road junction improvements	Increase length of channelised right turn lane and improve intersection line marking
Dip Road junction improvements	Improve existing channelised right turn treatment, provide a basic left turn treatment, and realign Dip Road to improve visibility
Longleys Road junction improvements	Provide channelised right turn treatment (CHR)
North Glen Road junction improvements	Provide channelised right turn treatment (CHR)



Name	Description
Lighting at key intersections	Provide flag lighting at key intersections, including Krauses Road, Huon Road, Dip Road and Huon View Road, to highlight the presence of intersections at night
<i>Road Width and Curve Related Improvement Opportunities</i>	
Shoulder widening Kingston to Leslie Vale	Widen and provide 1.5m sealed shoulders to provide additional recovery room
Central Median Barrier Kingston to Leslie Vale	Widen and provide central median flexible safety barrier to prevent head on collisions. Provide turn facilities for property access.
Central Median Barrier Leslie Vale to Sandfly	Widen and provide central median flexible safety barrier to prevent head on collisions. Provide turn facilities for property access.
Shoulder widening Leslie Vale to Sandfly	Widen and provide 1.5m sealed shoulders to provide additional recovery room
Pavement rehabilitation near Kyalami Corner	Pavement rehabilitation to address rutting on either side of Kyalami corner
Shoulder widening Lower Longley to Grove	Widen and provide 1.5m sealed shoulders to provide additional recovery room
Central Median Barrier Huon Road to Dip Road	Widen and provide central median flexible safety barrier to prevent head on collisions. Provide turn facilities for property access.
Huon View Road to Dip Road dual lane removal	Remove the deficient overtaking lane between Huon View Road and Dip Road
Central Median Barrier Dip Road to Mountain River Road	Widen and provide central median flexible safety barrier to prevent head on collisions. Provide turn facilities for property access.
Line marking changes north of Grove	Change the median line marking to double barrier (B2) to prohibit overtaking for southbound traffic in the opposing overtaking lane
Shoulder widening Grove to Orchard Avenue	Widen and provide 1.5m sealed shoulders to provide additional recovery room
Median turn lane between Grove and Huonville	Provide a median turn lane between Mountain River Road and Orchard Avenue to allow turning vehicles to diverge from the through lane
<i>Pedestrian / Public Transport Improvement Opportunities</i>	
Improve Leslie Road bus stops	Provide new off-highway facility with turning space and car parking. Improve bus stop amenity (shelter, seating, information etc). Provide lighting.
Improve Huon Road bus stops	Relocate bus stops to the Hobart side of the junction, to remove conflicts with the heavy vehicle driver rest areas. Improve bus stop amenity (shelter, seating, information etc). New bus stops to be DDA compliant.
Improve Dip Road bus stops	Widen and seal pavement to provide formal stopping bays for buses in both directions. Improve bus stop amenity (shelter, seating, information etc). Improved bus stops to be DDA compliant.
Improve Mountain River Road bus stops	Provide new off-highway facility with turning space and car parking. Improve bus stop amenity (shelter, seating, information etc). Provide lighting.
Improve Lollara Road bus stops	Widen and seal pavement to provide formal stopping bays for buses in both directions. Improve bus stop amenity (shelter, seating, information etc). Improved bus stops to be DDA compliant.

Name	Description
Shared path Grove to Huonville	Provide a separated shared user path for cyclists and pedestrians, between Mountain River Road and Orchard Avenue
Improve Voss Road bus stops	Widen and seal pavement to provide formal stopping bays for buses in both directions. Improve bus stop amenity (shelter, seating, information etc). Improved bus stops to be DDA compliant.

### 8.1.2 Southern corridor

The stakeholder feedback received for the southern corridor identified similar priorities to the previous study, with many of the issues raised already addressed by the previously identified opportunities. A small number of new improvement opportunities were identified based on the stakeholder feedback received, as summarised in Table 8-2.

Table 8-2 New improvement opportunities Huonville to Southport

Name	Description
<i>Junction / Access Improvement Opportunities</i>	
Wooden Boat Centre, Franklin	Formalise entry and exit points to Wooden Boat Centre, Franklin
Crowthers Road intersection	Formalise / seal existing right turn treatment at Crowthers Road intersection, Castle Forbes Bay
Francistown Road intersection	Provide channelised right turn treatment (CHR)
Esperance River Road intersection	Provide shoulder sealing / pseudo Basic Right Turn (BAR) treatment
Darcy Link intersection	Clear vegetation on inside of curve to improve intersection sight distance
<i>Road Width and Curve Related Improvement Opportunities</i>	
Curve improvements at Surges Bay (near 5720 Huon Highway)	Widen shoulder on outside of horizontal curve
Surges Creek Bridge replacement	Replace Surges Creek Bridge
<i>Pedestrian / Public Transport Improvement Opportunities</i>	
Bridge near Kermandie River Road	Provide separate footbridge for pedestrians to safely cross the Kermandie River

## 8.2 Corridor wide improvement opportunities

Several corridor wide improvement opportunities were identified. A substantial volume of stakeholder feedback was received about the need for roadkill prevention. It is recommended that a roadkill mitigation plan is developed for the corridor.

With continuing advances in electric, connected and autonomous vehicles, it is recommended that an emerging vehicles plan is developed. This may have a broader scope than the Huon Highway corridor.

Bus service frequency and pricing were identified as barriers to the uptake of public transport on the corridor. It is recommended that the Department work with service providers to improve the quality and affordability of bus services. In particular, consideration may be given to providing off peak trips to accommodate part-time workers.

Stakeholder feedback was received regarding issues such as vegetation removal, road delineation and road surface condition. These issues are addressed through regular maintenance on the corridor.

The bridges along the corridor vary significantly with age, condition and structural capacity. A high-level assessment shows that there are numerous bridge structures that are limiting certain heavy vehicle access and that there are strategically important bridges in the road network that should be considered for upgrade. It is recommended that further investigation be undertaken to establish which bridges need attention in the short-term and a bridge upgrade program be developed.

State Growth has recently undertaken a network wide risk assessment of all bridge barriers. The bridge upgrade program could also include prioritisation of bridge barrier upgrades on the corridor.

### 8.3 Implementation prioritisation

To develop one consolidated corridor strategy for the Huon Highway between Kingston and Southport, the new improvement opportunities identified in Section 8.1 have been combined with the improvement opportunities identified in the 2012 study. A comprehensive assessment process has been undertaken to prioritise the long list of improvement opportunities, as described in the following sections.

#### Multi-Criteria Analysis

A Multi-Criteria Analysis (MCA) was undertaken to assess each improvement opportunity against a range of criteria. The MCA process includes the assessment themes social, environment and economic. Each theme comprises several criteria which are scored individually. The scores are combined based on the weightings applied to each criterion, to provide the overall theme score. The criteria and weightings used are shown in Table 8-3.

Table 8-3 Adopted MCA themes and criterion weightings

Theme	Theme weighting (%)	Criterion	Criterion weighting (%)
Social	30	Impact on Landowners	20
		Broader Community Acceptance	30
		Land Use Impacts	20
		Community Benefit	30
		Subtotal	100
Environment	30	Flora and Fauna	35
		Heritage Impacts (Aboriginal and European)	30
		Visual Amenity	35
		Subtotal	100
Economic	40	Transport Efficiency / Reliability (VOC)	25
		Road Safety Performance	25
		Engineering / Constructability	20
		Construction Cost	30
		Subtotal	100
Total	100		

## Investment Logic Mapping assessment

In addition to the MCA, each improvement opportunity was also assessed against the desired benefits that were identified through the ILM process (refer to Section 2). The benefits sought and weightings identified through the ILM workshops are shown in Table 8-4. This assessment helps to identify the improvement opportunities that most align with the strategic objectives for the corridor.

Table 8-4 ILM benefits sought and weightings

Location	Criterion	Weighting (%)
Kingston to Huonville	Improved public safety and comfort for all road users, including walkers and cyclists	35
	Improved transport efficiency and reliability for all modes and users including freight	35
	More inclusive and liveable local communities	15
	Attraction of business and industry within and near the corridor	15
Huonville to Southport	Increased safety for all road users	45
	Improved transport efficiency for commuters and freight	35
	Attraction of business and industry within and near the corridor	10
	Increased community satisfaction with journeys	10

## Improvement opportunities

Based on the assessment against the MCA and ILM, improvement opportunities have been classified as high, medium, low or long-term priority. Improvement opportunities were grouped into four categories, to allow comparison of similar types of upgrades:

- junction / access improvements
- road width and curve related improvements
- passing opportunities
- pedestrian / public transport improvement projects.

The following tables show the prioritised list of improvement opportunities for each category. Upgrades identified in the 2012 study that are now complete are also included. The location of improvement opportunities is shown in Figure 8-1 to Figure 8-8.

Table 8-5 Junction / access improvement opportunities prioritisation

Junction / Access Improvement Opportunities		
Location	Name	Priority
Huonville to Geeveston	Right turn treatment Maxfields Rd junction	Complete
	Right turn treatment Swamp Road	Complete
	Right turn treatment Jacksons Road Junction	Complete
	Right turn treatment Palmers Road junction north	Complete
	Right turn treatment Sacred Heart School access	Complete
	Increase set-back to safety barrier Arve Road junction	Complete
Kingston to Huonville	Leslie Road junction alignment improvements	High
	Krauses Road junction improvements	High

Junction / Access Improvement Opportunities		
Location	Name	Priority
	Huon Road junction improvements	High
	Dip Road junction improvements	High
Geeveston to Dover	Church St junction roundabout	High
Dover to Southport	Hold line and bus stop sealing Narrows Rd junction	High
	Priority change Hastings Caves Rd junction	High
Kingston to Huonville	Huon View Road junction improvements	Medium
Huonville to Geeveston	North Glen Road junction improvements	Medium
	Right turn treatment Franklin Eldercare access	Medium
	Wooden Boat Centre, Franklin	Medium
	Crowthers Road intersection	Medium
	Sight distance improvements Shipwrights Point access	Medium
Geeveston to Dover	Right turn treatment Hermons Rd Junction	Medium
	Realign Scotts Road junction (south)	Medium
	Right turn treatment Calvert Bros Orchard access	Medium
	Side road access sealing Jetty Rd	Medium
	Improve BAR width Esperance Coast Rd Junction	Medium
Dover to Southport	Esperance River Road intersection	Medium
Kingston to Huonville	Lighting at key intersections	Low
	Longleys Road junction improvements	Low
Huonville to Geeveston	Cool Store Rd junction roundabout	Low
Geeveston to Dover	Right turn treatment Kermandie River Rd junction	Low
	Sight distance improvements property access Waterloo	Low
	Station Rd junction roundabout	Low
Dover to Southport	Francistown Road intersection	Low
	Darcy Link intersection	Low
Huonville to Geeveston	Relocate Fleurty's Rd junction	Long Term
Geeveston to Dover	Relocate Pillings Rd junction	Long Term
	Relocate Police Point Rd junction	Long Term



Table 8-6 Road width and curve related improvement opportunities prioritisation

Road Width and Curve Related Improvement Opportunities		
Location	Name	Priority
Huonville to Geeveston	Shoulder Sealing - Huonville Sth to Swamp Rd	Complete
	Shoulder Sealing - Swamp Rd to Castle Forbes Rd	Complete
	Shoulder Sealing - Castle Forbes Rd to Port Huon (South)	Complete
	Shoulder Sealing - Port Huon (South) to Arve Rd	Complete
Geeveston to Dover	Curve realignment south of Hopetoun Rd	Complete
Kingston to Huonville	Shoulder widening Leslie Vale to Sandfly	High
	Huon View Road to Dip Road dual lane removal	High
	Line marking changes north of Grove	High
Geeveston to Dover	Shoulder Sealing - Kermandie River Rd to Scotts Rd	High
	Road Widening - Scotts Rd (Sth) to Esperance Coast Rd	High
	Super elevation correction north of Esperance Rd	High
	Widen Rd - Esperance Coast Rd to "Waterfall Bend" (Glendevie)	High
	Widen Rd - "Waterfall Bend" (Sth Glendevie) to Sledge Hill Road	High
	Road Widening - Sledge Hill Road to north of Dover	High
Kingston to Huonville	Shoulder widening Kingston to Leslie Vale	Medium
	Pavement rehabilitation near Kyalami Corner	Medium
Huonville to Geeveston	Guard fence reduction Black Bridge	Medium
Geeveston to Dover	Curve realignment Scotts Rd to Waterloo	Medium
	Curve improvements at Surges Bay (near 5720 Huon Highway)	Medium
Dover to Southport	Road Widening - Chapman Ave (Dover) to North of Peacock Rd	Medium
	Super elevation correction Dover	Medium
	Shoulder widening south of Tylers Rd	Medium
Kingston to Huonville	Central Median Barrier Kingston to Leslie Vale	Long Term
	Central Median Barrier Leslie Vale to Sandfly	Long Term
	Shoulder widening Lower Longley to Grove	Long Term
	Central Median Barrier Huon Road to Dip Road	Long Term
	Central Median Barrier Dip Road to Mountain River Road	Long Term

Road Width and Curve Related Improvement Opportunities		
Location	Name	Priority
	Shoulder widening Grove to Orchard Avenue	Long Term
Geeveston to Dover	Curve realignment north of Ida Rd	Long Term
Kingston to Huonville	Median turn lane between Grove and Huonville	Long Term
Huonville to Geeveston	Curve realignment north of Fleurty's Rd	Long Term
Geeveston to Dover	Surges Creek Bridge replacement	Long Term
Dover to Southport	Road Widening - Hastings Caves Rd to Southport	Long Term

Table 8-7 Passing opportunity opportunities prioritisation

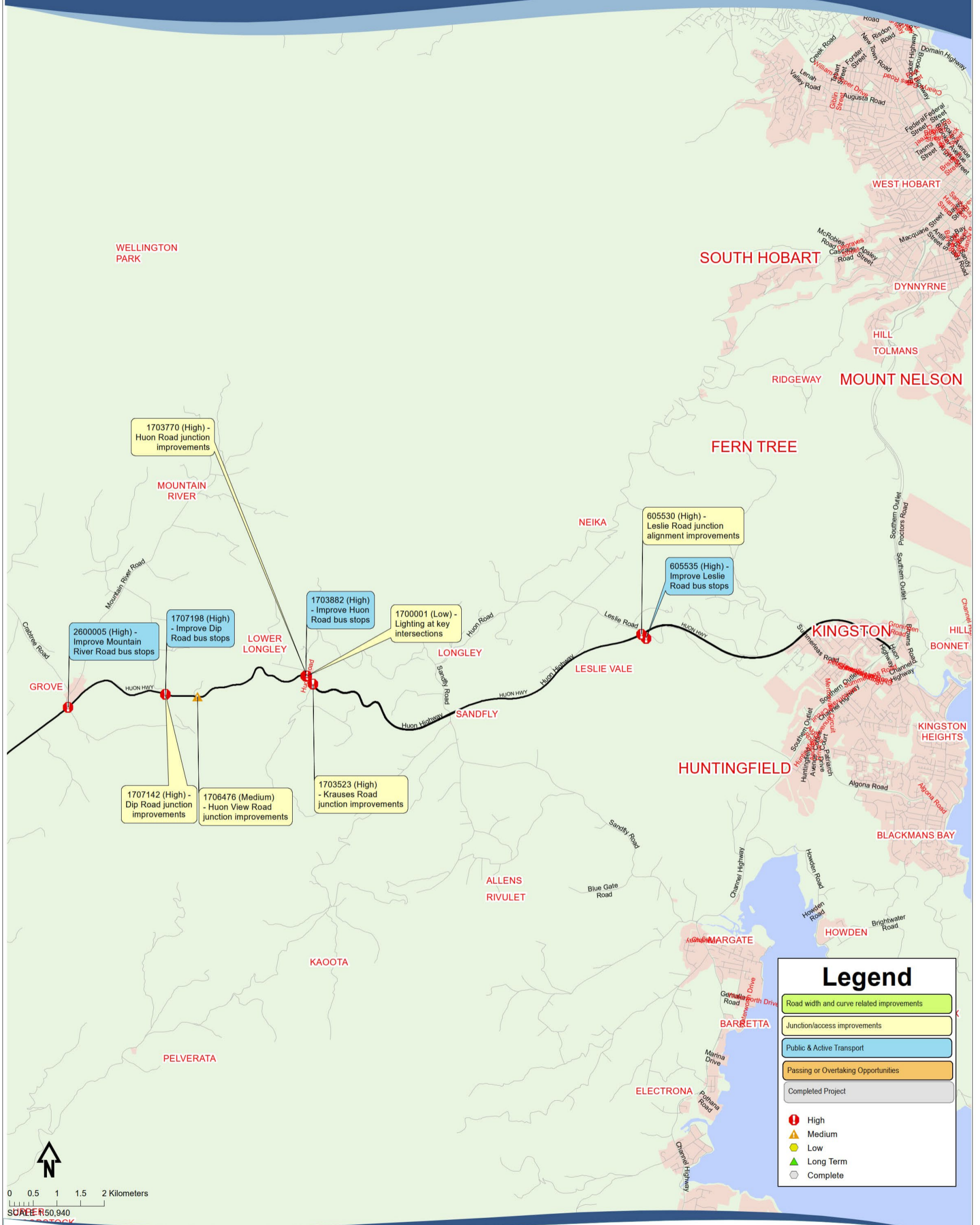
Passing Opportunities		
Location	Name	Priority
Huonville to Geeveston	Somers Straight sight distance improvements	Complete
Geeveston to Dover	Scotts Road junction pullover area	Complete
	Southbound slow vehicle passing lane north of Hopetoun Rd	Complete
	Northbound slow vehicle passing lane south of Hopetoun Rd	Complete
Huonville to Geeveston	Southbound overtaking lane north of Swamp Rd junction	High
	Northbound overtaking lane north of Castle Forbes Bay	High
Geeveston to Dover	Slow vehicle passing lane Scotts Road	Medium
	Northbound slow vehicle passing lane Waterloo to Scotts Rd	Medium
Huonville to Geeveston	Southbound overtaking lane south of Port Huon	Long Term
Dover to Southport	Sight distance improvements near Hays Rd	Long Term
	Northbound overtaking lane near Peacock Rd	Long Term
Huonville to Geeveston	Reopen Palmers Rd to through traffic	Long Term

Table 8-8 Pedestrian / public transport improvement opportunities prioritisation

Pedestrian / Public Transport Improvement Opportunities		
location	Name	Priority
Kingston to Huonville	Improve Leslie Road bus stops	High
	Improve Huon Road bus stops	High
	Improve Dip Road bus stops	High
	Improve Mountain River Road bus stops	High
	Improve Lollara Road bus stops	High
	Improve Voss Road bus stops	High
	Shared path Grove to Huonville	Long Term
Geeveston to Dover	Bridge near Kermandie River Road	Long Term

# Huon Highway Corridor Strategy - Potential Improvement Opportunities: Junction & Access and Public & Active Transport

Map 1 of 4 - Kingston to Grove



Department of State Growth



Figure 8-1 Junction / access and public / active transport improvement opportunities – Kingston to Grove



# Huon Highway Corridor Strategy - Potential Improvement Opportunities: Junction & Access and Public & Active Transport

Map 2 of 4 - Grove to Port Huon

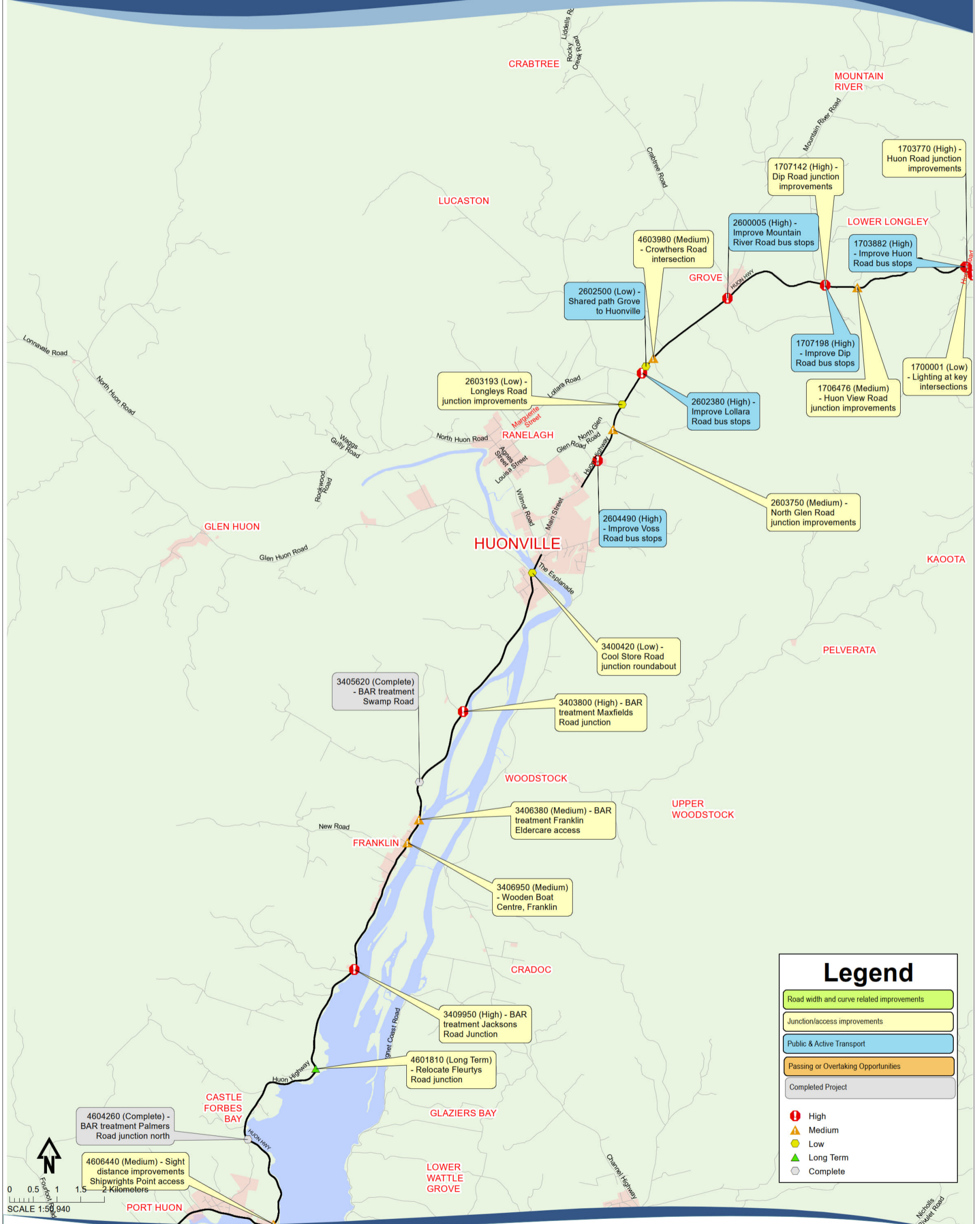


Figure 8-2 Junction / access and public / active transport improvement opportunities – Grove to Port Huon



# Huon Highway Corridor Strategy - Potential Improvement Opportunities: Junction & Access and Public & Active Transport

Map 3 of 4 - Port Huon to Dover

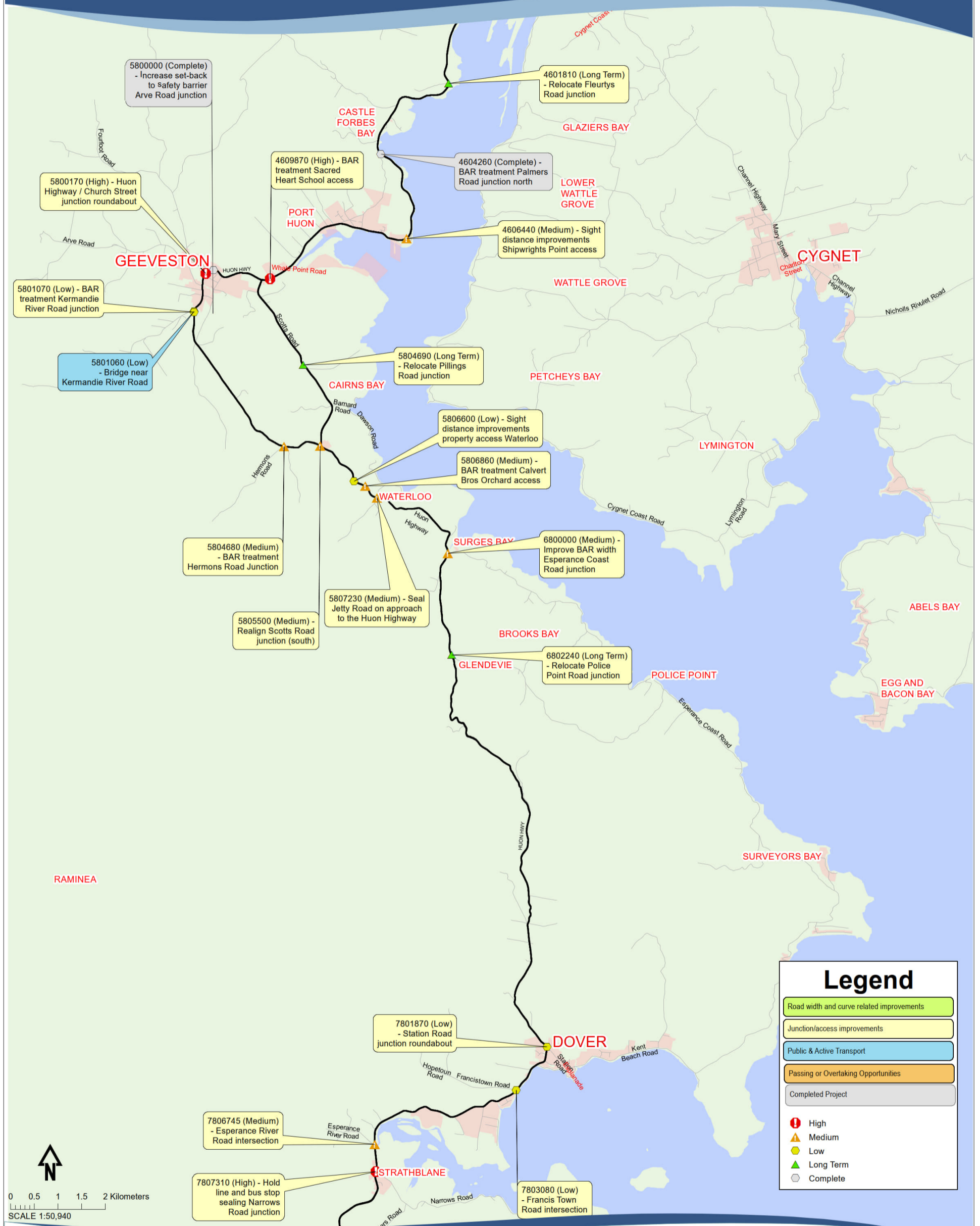


Figure 8-3 Junction / access and public / active transport improvement opportunities – Port Huon to Dover

# Huon Highway Corridor Strategy - Potential Improvement Opportunities: Junction & Access and Public & Active Transport

Map 4 of 4 - Dover to Southport

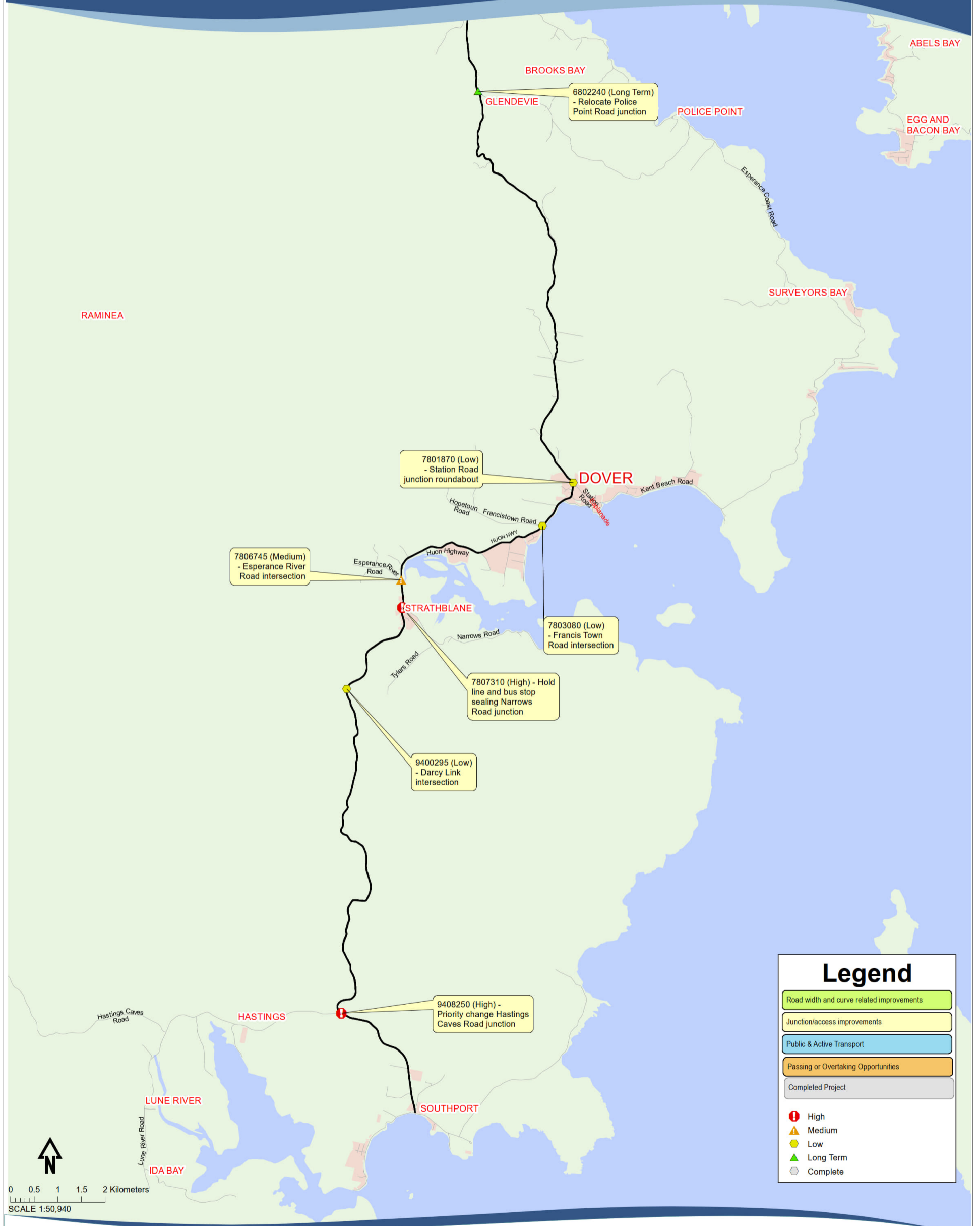


Figure 8-4 Junction / access and public / active transport improvement opportunities – Dover to Southport



# Huon Highway Corridor Strategy - Potential Improvement Opportunities: Road Width & Curve Related and Passing Opportunities

Map 1 of 4 - Kingston to Grove

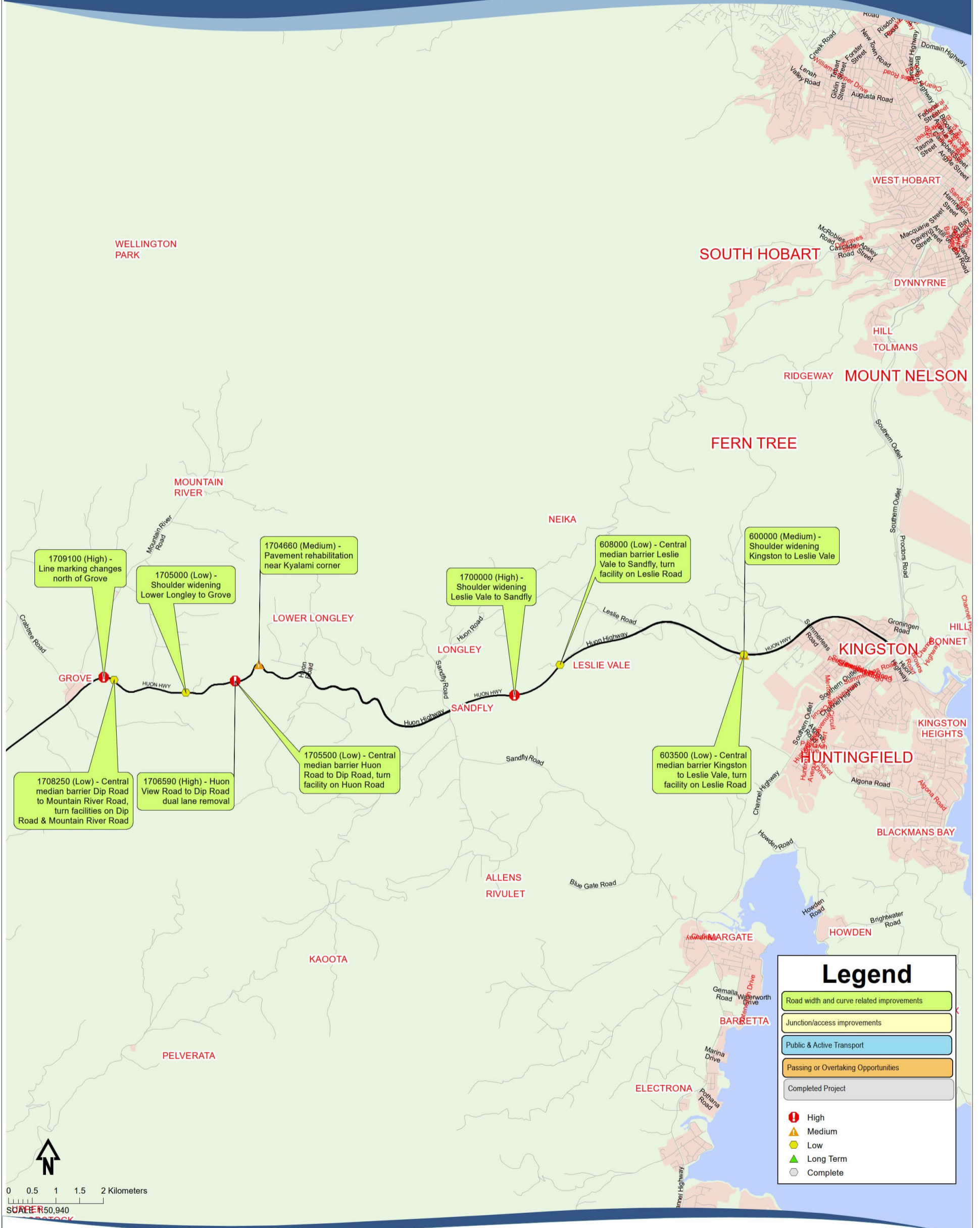
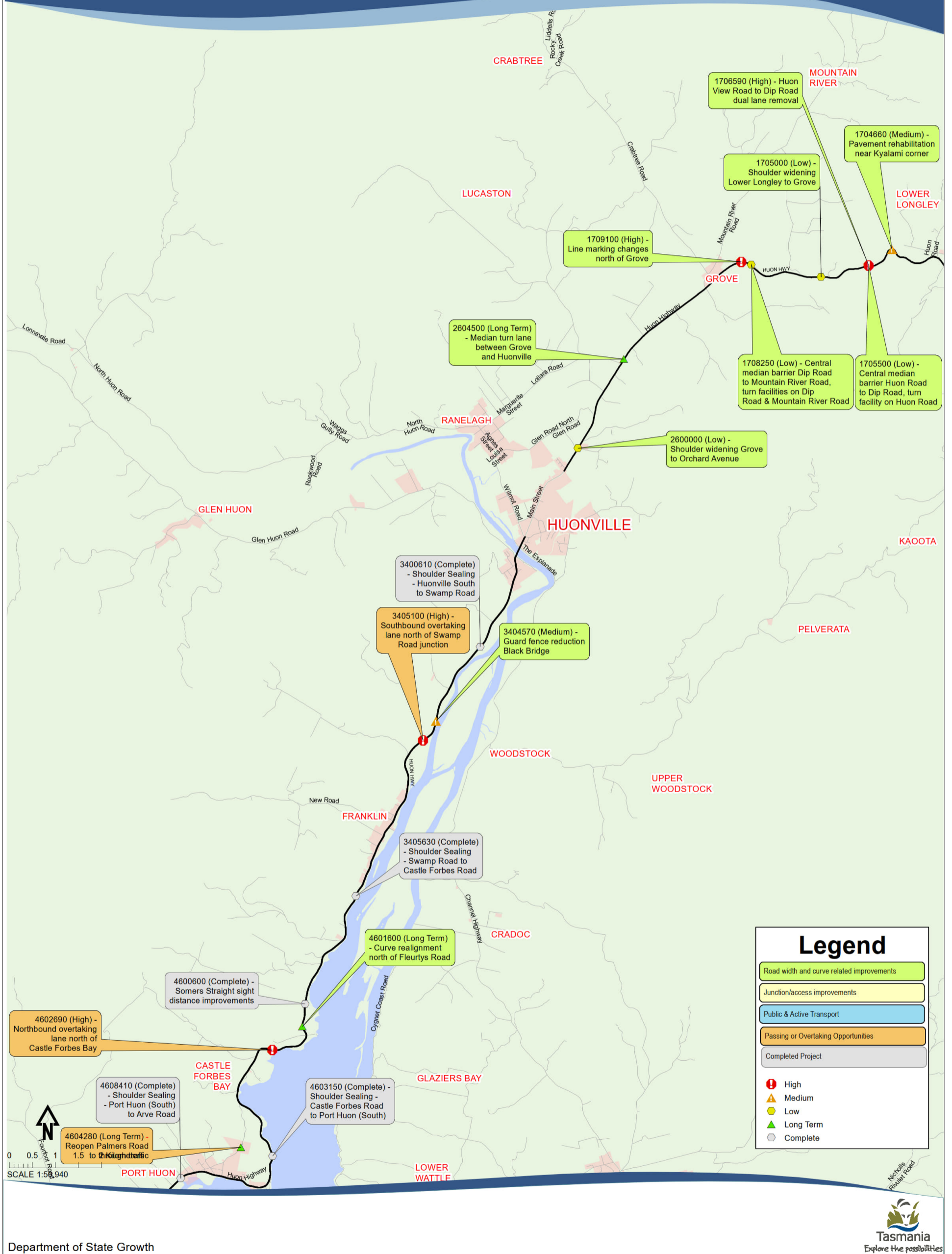


Figure 8-5 Road width / curve related and passing improvement opportunities – Kingston to Grove



# Huon Highway Corridor Strategy - Potential Improvement Opportunities: Road Width & Curve Related and Passing Opportunities

Map 2 of 4 - Grove to Port Huon



Department of State Growth

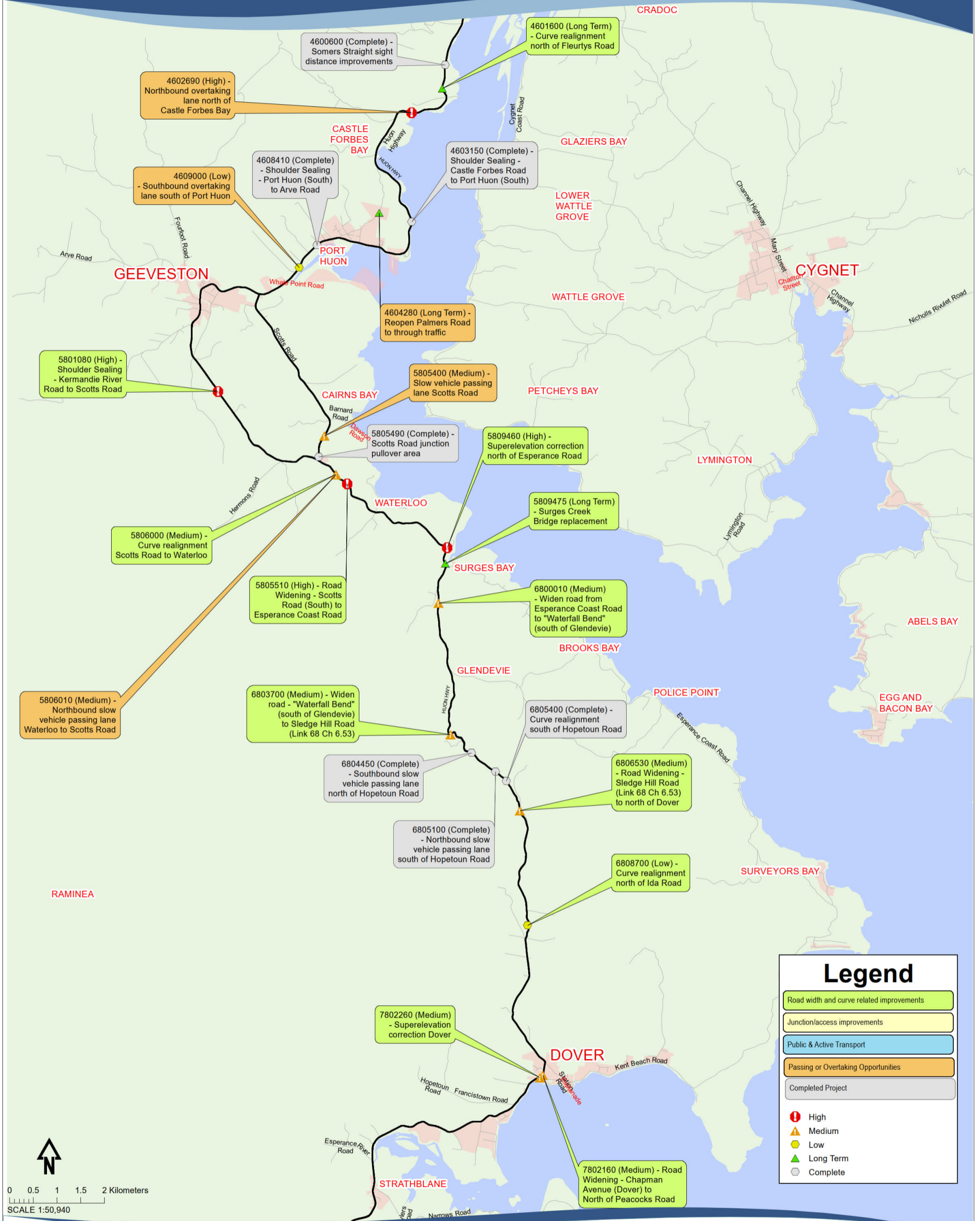


Figure 8-6 Road width / curve related and passing improvement opportunities – Grove to Port Huon



# Huon Highway Corridor Strategy - Potential Improvement Opportunities: Road Width & Curve Related and Passing Opportunities

Map 3 of 4 - Port Huon to Dover



Department of State Growth



Figure 8-7 Road width / curve related and passing improvement opportunities – Port Huon to Dover



# Huon Highway Corridor Strategy - Potential Improvement Opportunities: Road Width & Curve Related and Passing Opportunities

Map 4 of 4 - Dover to Southport



## 8.4 Delivery efficiencies

Delivery efficiencies are achievable for potential upgrades located nearby. Where a bus stop upgrade overlaps with a junction improvement, it is recommended that these upgrades are undertaken simultaneously. It is recommended that opportunities are considered along side each other to achieve efficiencies during the design and construction phases.

## 9 Summary of strategy recommendations

### 9.1 Next steps

#### 9.1.1 Short term recommendations

High priority opportunities are recommended for delivery in the short term, approximately in the next seven years. Opportunities categorised as high priority are summarised in Table 9-1.

Table 9-1 Short-term improvement opportunities

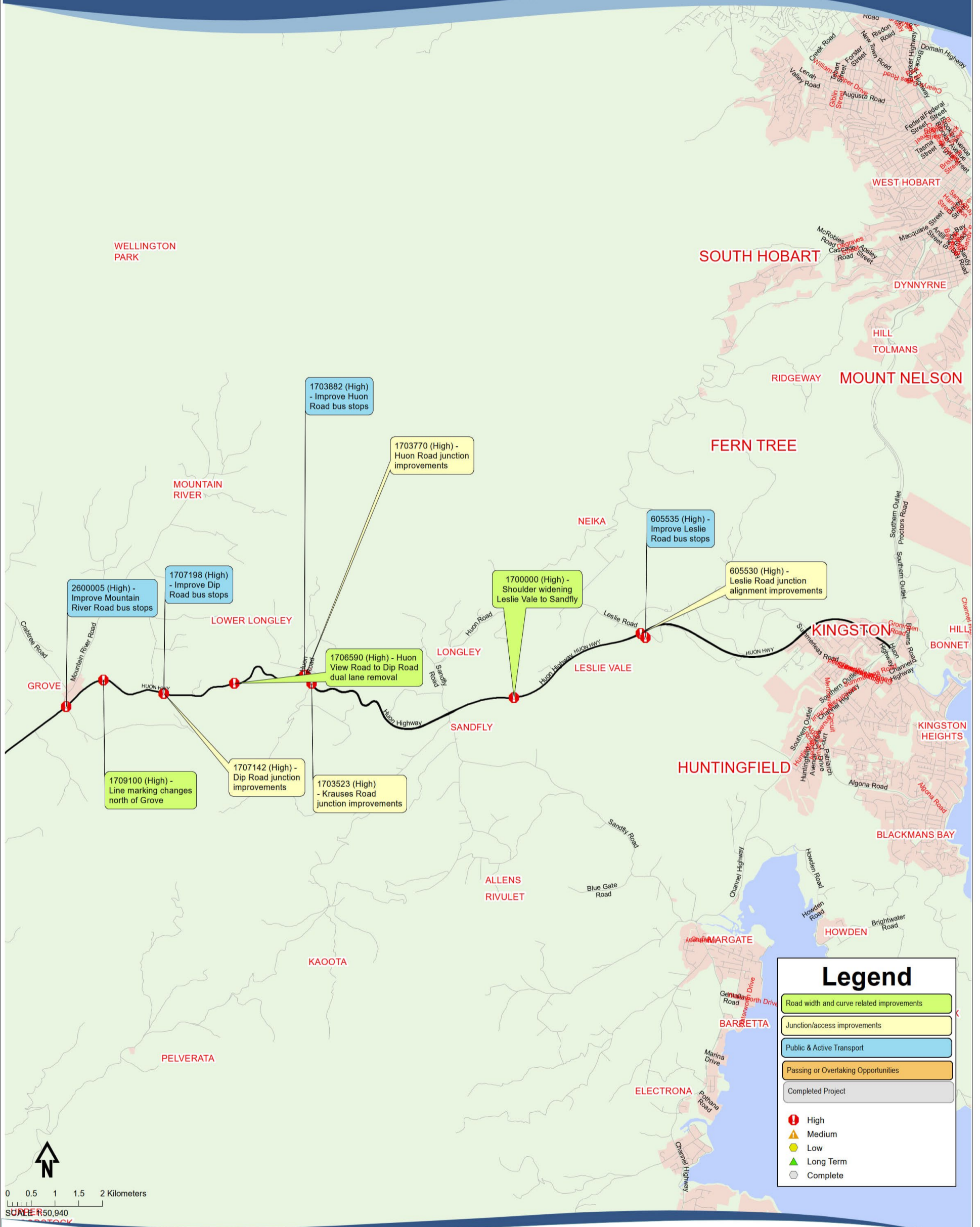
Location	Name
<i>Junction / Access Improvement Opportunities</i>	
Kingston to Huonville	Leslie Road junction alignment improvements
	Krauses Road junction improvements
	Huon Road junction improvements
	Dip Road junction improvements
Geeveston to Dover	Church Street junction roundabout
Dover to Southport	Hold line and bus stop sealing Narrows Road junction
	Priority change Hastings Caves Road junction
<i>Road Width and Curve Related Improvement Opportunities</i>	
Kingston to Huonville	Shoulder widening Leslie Vale to Sandfly
	Huon View Road to Dip Road dual lane removal
	Line marking changes north of Grove
Geeveston to Dover	Shoulder Sealing - Kermandie River Road to Scotts Rd
	Road Widening - Scotts Road (south) to Esperance Coast Road
	Super elevation correction north of Esperance Road
	Widen Rd - Esperance Coast Rd to "Waterfall Bend" (Glendevie)
	Widen Rd - "Waterfall Bend" (Sth Glendevie) to Sledge Hill Road
	Road Widening - Sledge Hill Road to north of Dover
<i>Passing Opportunities</i>	
Huonville to Geeveston	Southbound overtaking lane north of Swamp Road junction
	Northbound overtaking lane north of Castle Forbes Bay
<i>Pedestrian / Public Transport Improvement Opportunities</i>	
Kingston to Huonville	Improve Leslie Road bus stops
	Improve Huon Road bus stops
	Improve Dip Road bus stops
	Improve Mountain River Road bus stops
	Improve Lollara Road bus stops

Location	Name
	Improve Voss Road bus stops



# Huon Highway Corridor Strategy High Priority Improvement Opportunities

Map 1 of 4 - Kingston to Grove



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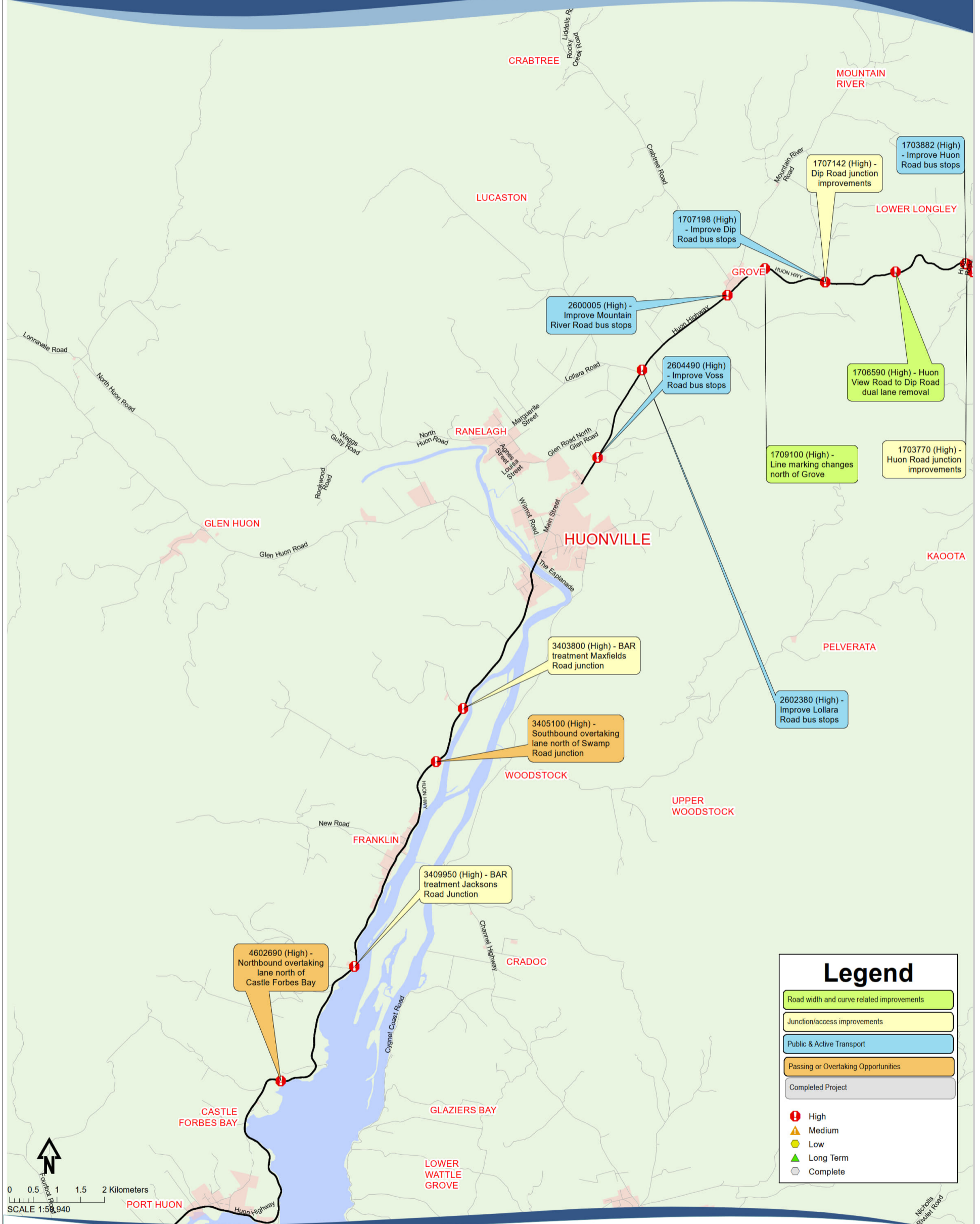


Figure 9-1 High priority improvement opportunities – Kingston to Grove



# Huon Highway Corridor Strategy High Priority Improvement Opportunities

Map 2 of 4 - Grove to Port Huon



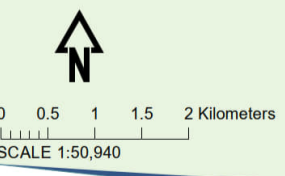
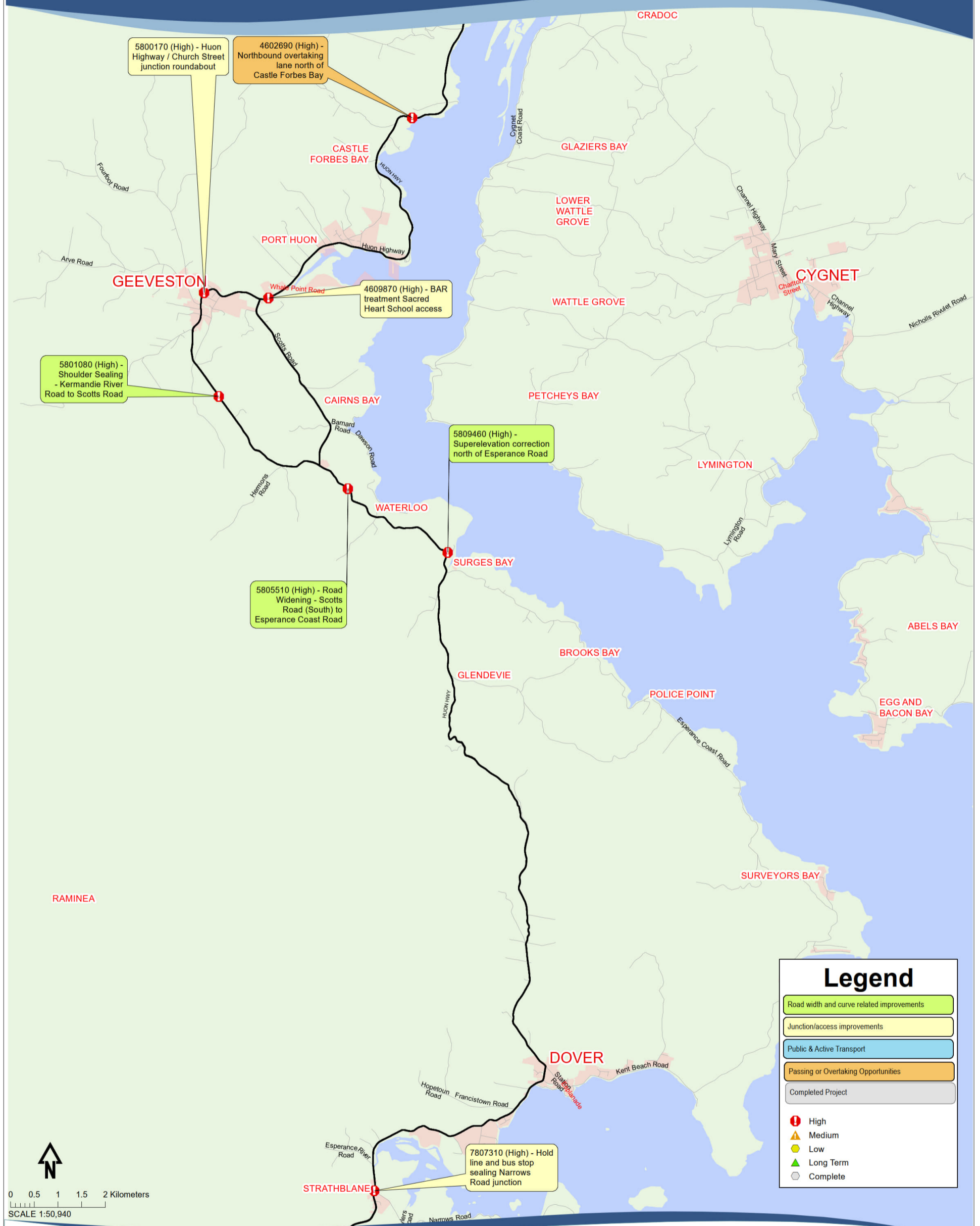
Department of State Growth



Figure 9-2 High priority improvement opportunities –Grove to Port Huon

# Huon Highway Corridor Strategy High Priority Improvement Opportunities

Map 3 of 4 - Port Huon to Dover



### Legend

- Road width and curve related improvements
- Junction/access improvements
- Public & Active Transport
- Passing or Overtaking Opportunities
- Completed Project
- High
- Medium
- Low
- Long Term
- Complete

Department of State Growth

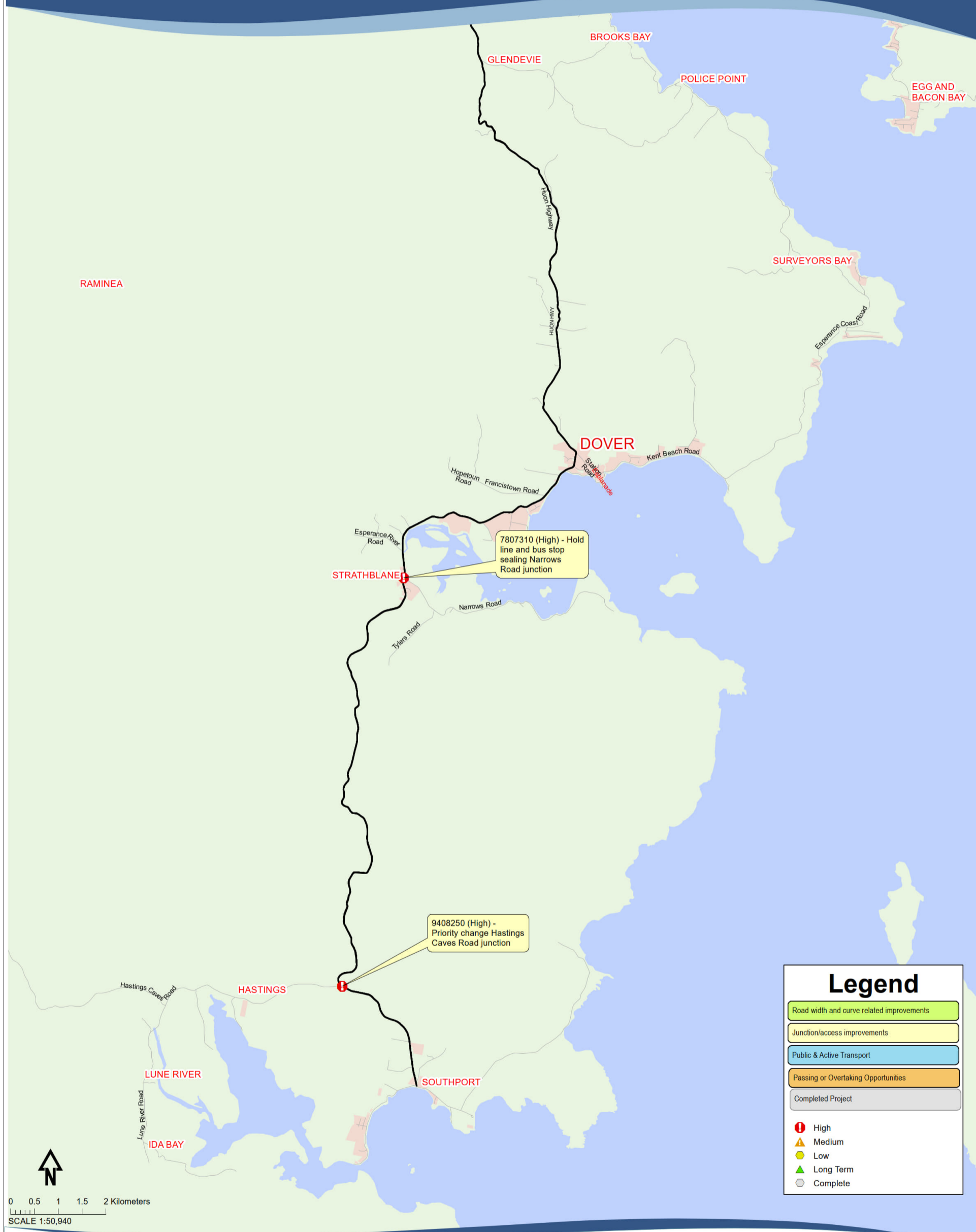


Figure 9-3 High priority improvement opportunities – Port Huon to Dover



# Huon Highway Corridor Strategy High Priority Improvement Opportunities

Map 4 of 4 - Dover to Southport



### 9.1.2 Medium term recommendations

Medium priority improvement opportunities are recommended for delivery approximately between years eight and 15. Improvement opportunities categorised as medium priority are summarised in Table 9-2.

Table 9-2 Medium-term improvement opportunities

Location	Name
<i>Junction / Access Improvement Opportunities</i>	
Kingston to Huonville	Huon View Road junction improvements
Huonville to Geeveston	North Glen Road junction improvements
	Right turn treatment Franklin Eldercare access
	Wooden Boat Centre, Franklin
	Crowthers Road intersection
	Sight distance improvements Shipwrights Point access
Geeveston to Dover	Right turn treatment Hermons Road Junction
	Realign Scotts Road junction (south)
	Right turn treatment Calvert Bros Orchard access
	Side road access sealing Jetty Road
	Widen right turn treatment at Esperance Coast Road Junction
Dover to Southport	Esperance River Road intersection
<i>Road Width and Curve Related Improvement Opportunities</i>	
Kingston to Huonville	Shoulder widening Kingston to Leslie Vale
	Pavement rehabilitation near Kyalami Corner
Huonville to Geeveston	Guard fence reduction Black Bridge
Geeveston to Dover	Curve realignment Scotts Road to Waterloo
	Curve improvements at Surges Bay (near 5720 Huon Highway)
Dover to Southport	Road Widening - Chapman Ave (Dover) to North of Peacock Road
	Super elevation correction Dover
	Shoulder widening south of Tylers Road
<i>Passing Opportunities</i>	
Geeveston to Dover	Slow vehicle passing lane Scotts Road
	Northbound slow vehicle passing lane Waterloo to Scotts Road

### 9.1.3 Long term recommendations

Low and long-term priority improvement opportunities are recommended for delivery after 15 years. Improvement opportunities categorised as low or long-term priority are summarised in Table 9-3.



Table 9-3 Long-term improvement opportunities

Location	Name
<b>Junction / Access Improvement Opportunities</b>	
Kingston to Huonville	Lighting at key intersections
	Longleys Road junction improvements
Huonville to Geeveston	Cool Store Rd junction roundabout
	Relocate Fleurty's Road junction
Geeveston to Dover	Right turn treatment Kermadie River Rd junction
	Relocate Pillings Road junction
	Sight distance improvements property access Waterloo
	Relocate Police Point Road junction
	Station Rd junction roundabout
Dover to Southport	Francistown Road intersection
	Darcy Link intersection
<b>Road Width and Curve Related Improvement Opportunities</b>	
Kingston to Huonville	Median turn lane between Grove and Huonville
Huonville to Geeveston	Curve realignment north of Fleurty's Road
Geeveston to Dover	Surges Creek Bridge replacement
Dover to Southport	Road Widening - Hastings Caves Road to Southport
<b>Passing Opportunities</b>	
Huonville to Geeveston	Reopen Palmers Road to through traffic
	Southbound overtaking lane south of Port Huon
Dover to Southport	Sight distance improvements near Hays Rd
	Northbound overtaking lane near Peacock Rd
<b>Pedestrian / Public Transport Improvement Opportunities</b>	
Kingston to Huonville	Shared path Grove to Huonville
Geeveston to Dover	Bridge near Kermadie River Road

## 9.2 Review of strategy

This strategy should be reviewed periodically to monitor changes in traffic conditions and land use adjacent to the corridor. Some adjustments to priorities may be required as conditions change. The execution of improvement opportunities should be monitored to ensure continuing progress against the strategy.

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