Buller Plateaux Continuation Project - Stockton Mine

Integrated Transport Assessment

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Bathurst Resources Limited

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Table of Contents

Executive Summary ..... **iii**

Abbreviations ..... **v**

References ..... **vi**

1 Introduction **1**
1.1 Project Overview 1

2 Stockton Mine **3**
2.1 Location 3
2.2 Existing Activity 4

3 State Highway 67 ..... **5**
3.1 Road Formation 5
3.2 Intersections 6
3.2.1 SH67 / Millerton Road 6
3.3 Railway Crossings 8
3.3.1 Millerton Road 8
3.3.2 SH67 Granity Ngakawau 9
3.3.3 SH67 Kerrs Road 10
3.3.4 SH67 Beach Road 11
3.4 Traffic Volumes 12
3.5 Road Safety Record 15
3.6 Safe System Comments 16

4 Millerton Road **17**
4.1 Formation 17
4.2 Traffic Volumes 17
4.3 Road Safety Record 21
4.4 Safe System Comments 21

5 Buller Plateaux Continuation Project **23**
5.1 Upper Waimangaroa Haul Road 23
5.2 Escarpment Extended Production Phase 23
5.3 Abnormal Event Operation 24
5.3.1 Railway Closure 24
5.3.2 Upper Waimangaroa Haul Road Closure 24
5.3.3 Aerial Ropeway Closure 24

6 Expected Transport Effects **25**
6.1 Construction Phase 25
6.1.1 Millerton Road 25
6.1.2 State Highway 67 25
6.2 Coal Production Phase 25
6.3 Abnormal Operating Conditions 25
6.3.1 Railway Closure 25
6.3.2 Upper Waimangaroa Haul Road Closure 26
6.3.3 Aerial Ropeway Closure 26
6.4 Rail Network Effects 27
6.5 Road Safety 27
6.6 Summary of Recommended Mitigation Measures 28

7 Conclusions 29

List of Tables

Table 5-1: Expected material quantities and two-way trips per day 23
Table A-1: Existing Situation 32

List of Figures

Figure 1-1: Project Areas (Source: Bathurst) 2
Figure 2-1: Project Transport Context 3
Figure 2-2: West Coast Railway Network 4
Figure 3-1: SH67 / Millerton Road 7
Figure 3-2: SH67 / Beach Road 11
Figure 3-3: Average Daily Traffic Volumes - SH67 North of Orowaiti River (Source: NZTA 06700009) 13
Figure 3-4: Daily traffic volumes 2023-2024 – SH67 North of Orowaiti River (Source: NZTA 06700009) 14
Figure 3-5: Hourly variation in traffic volumes - SH67 North of Orowaiti River (Source: NZTA 06700009) 15
Figure 3-6: Crash Locations, 2020-2024 (Source: NZTA Crash Analysis System) 16
Figure 4-1: Daily traffic volumes on Millerton Road, January to October 2025 18
Figure 4-2: Hourly traffic volumes on Millerton Road - October 2025 (Source: Bathurst) 19
Figure 4-3: Variation in hourly volumes on Millerton Road (January to October 2025) (Source: Bathurst) 19
Figure 4-4: Hourly movements by direction on Millerton Road – 2025 (Source: Bathurst) 20
Figure 4-5: Hourly volumes by vehicle type on Millerton Road – December 2024 (Source: Bathurst) 21

List of Photographs

Photograph 3-1: SH67 - Typical rural formation 5
Photograph 3-2: SH67 in Granity 6
Photograph 3-3: SH67 / Millerton Road intersection 7
Photograph 3-4: Millerton Road railway crossing 8
Photograph 3-5: SH67 Railway Crossing – Granity 9
Photograph 3-6: SH67/ Beach Road Railway crossing 12
Photograph 4-1: Millerton Road east of railway crossing 17

List of Appendices

Appendix A Safe System Assessment – Millerton Road

Executive Summary

Bathurst Resources Limited (including its subsidiary companies Bathurst Coal Ltd and Buller Coal Ltd) and joint venture BT Mining Ltd ("**Bathurst"**) are seeking approvals through the Fast-track Approvals Act 2024 ("**FTAA"**) for the Buller Plateaux Continuation Project (**"BPCP"**, or the **"Project"**).

The Project covers areas on both the Stockton Plateau and the Denniston Plateau (collectively referred to as the Buller Plateaux). The purpose of the Project is to reconsent the existing infrastructure and mining operations associated with the existing Stockton Mine and to provide access to additional coal mining areas across the Buller Plateaux.

Stockton Mine is located at the northern end of the Buller Plateaux and is accessed via Millerton Road from State Highway 67. The proposed extension to the mining areas includes the expansion of the existing consented Escarpment Mine on the Denniston Plateau (called Escarpment Extended) and the development of the new mining area Mount Frederick South. A new haul road, the Upper Waimangaroa Haul Road, will be constructed to link Escarpment Extended and Mount Frederick South with the existing infrastructure at Stockton.

Construction of the Upper Waimangaroa Haul Road (UWHR) will involve two teams with one working northward from the Denniston Plateau and one working southward from Stockton Mine. Since the construction works will involve a higher volume of staff movements on Millerton Road, the purpose of this report is to assess the transport impacts of those movements on Millerton Road and SH67. The transport effects associated with the construction of the UWHR and establishment of the new mining facilities on the Denniston Plateau are addressed in a separate report[1].

The construction activities are expected to generate low volumes of additional traffic, with up to 10 vehicle movements per day on Millerton Road and SH67, including a maximum of one articulated vehicle per day. These increases are minor and are not anticipated to impact the operation of the road network or railway crossings. SH67 as part of the strategic road network is well-suited to accommodate the expected construction traffic.

Although there are some existing safety concerns along Millerton Road and near the Millerton Road railway crossing, the limited scale and directional nature of construction traffic mean these issues are unlikely to be exacerbated. Overall, the proposed works are not expected to generate any noticeable transport effects.

Once the construction of the new haul road is complete, traffic volumes on Millerton Road will revert to existing levels because under normal operating conditions, the production activity at the new mining areas is not expected to require any additional vehicle movements on Millerton Road.

One adverse event operating scenario has been identified that would affect vehicle movements on Millerton Road and SH67 north of Millerton Road to Ngakawau. If coal cannot be transported from Stockton to Ngakawau using the aerial ropeway, coal would be transported by truck using Millerton

[1] Buller Plateaux Continuation Project - Denniston Plateau, Integrated Transport Assessment

Road to meet customer demands. For this to occur safely, it will be necessary for all drivers to complete an induction training course so that they are familiar with all communication protocols to avoid conflicts arising on the narrow section of Millerton Road. It is recommended that this training forms part of the overall traffic management for Buller Plateaux Continuation Project so that a consistent approach is applied on Millerton Road and Denniston Road.

Abbreviations

Bathurst	Bathurst Resources Limited (including its subsidiary companies: Bathurst Coal Ltd and Buller Coal Ltd) and joint venture BT Mining Ltd
BPCP	Buller Plateaux Continuation Project
CHPP	Coal Handling and Processing Plant
FLB	Flashing Lights and Bells
FTAA	Fast Track Approvals Act
HPMV	High Productivity Motor Vehicle
km	Kilometre(s)
km/h	Kilometres per hour
LCSIA	Level Crossing Safety Impact Assessment
m	metre(s)
NZTA	New Zealand Transport Agency Waka Kotahi
SH6	State Highway 6
SH67	State Highway 67
UWHR	Upper Waimangaroa Haul Road
vpd	Vehicles per day
vph	Vehicles per hour

References

1. Buller Plateaux Continuation Project - Denniston Plateau, Integrated Transport Assessment, Stantec July 2025
2. Level Crossing Safety Impact Assessment - Millerton Road, Ngakawau, Stantec, December 2024
3. Level Crossing Safety Impact Assessment – SH67 Granity Ngakawau, Stantec, December 2024
4. Level Crossing Safety Impact Assessment – SH67 Kerrs Road, Granity, Stantec, December 2024
5. Safe System Audit Guidelines, NZTA, August 2022.

1 Introduction

1.1 Project Overview

Bathurst Resources Limited (including its subsidiary companies Bathurst Coal Ltd, and Buller Coal Ltd) and joint venture BT Mining Ltd ("**Bathurst"**) are seeking approvals through the Fast-track Approvals Act 2024 ("**FTAA"**) for the Buller Plateaux Continuation Project (**"BPCP"**, or the **"Project"**). Full details are included in the BPCP Project Description.

The Project covers areas on both the Stockton Plateau and the Denniston Plateau (collectively referred to as the Buller Plateaux). The purpose of the Project is to reconsent the existing infrastructure and mining operations associated with the existing Stockton Mine and to provide access to additional coal mining areas across the Buller Plateaux.

Figure 1-1 shows the locations of the existing mine areas east of State Highway 67 (SH67). Stockton Mine is located at the northern end of the Buller Plateaux with the Cypress and Mt Fred South mines to the south. The proposed extension to the mining areas includes the expansion of the existing consented Escarpment Mine on the Denniston Plateau (called Escarpment Extended), and development of the new Mount Frederick South Project sub-area. A new haul road (the Upper Waimangaroa Haul Road) will be constructed to link Escarpment Extended and Mount Frederick South with the existing infrastructure at Stockton.

Since the construction works to establish the new haul road will involve additional staff travel to the Stockton Mine on Millerton Road and SH67, this report has been prepared to provide an assessment of the potential effects of the construction related traffic on the transport network. The report has been structured to provide:

- Description of the transport network;
- Description of traffic volumes on the network;
- Assessment of road and rail safety;
- Assessment of expected traffic generation; and,
- Assessment of expected effects and mitigation.

This report also includes assessment of the effects on the road network of a range of abnormal operating conditions for the wider mining area including:

- Temporary closure of the railway line
- Temporary closure of the Upper Waimangaroa haul road
- Temporary closure of the aerial ropeway

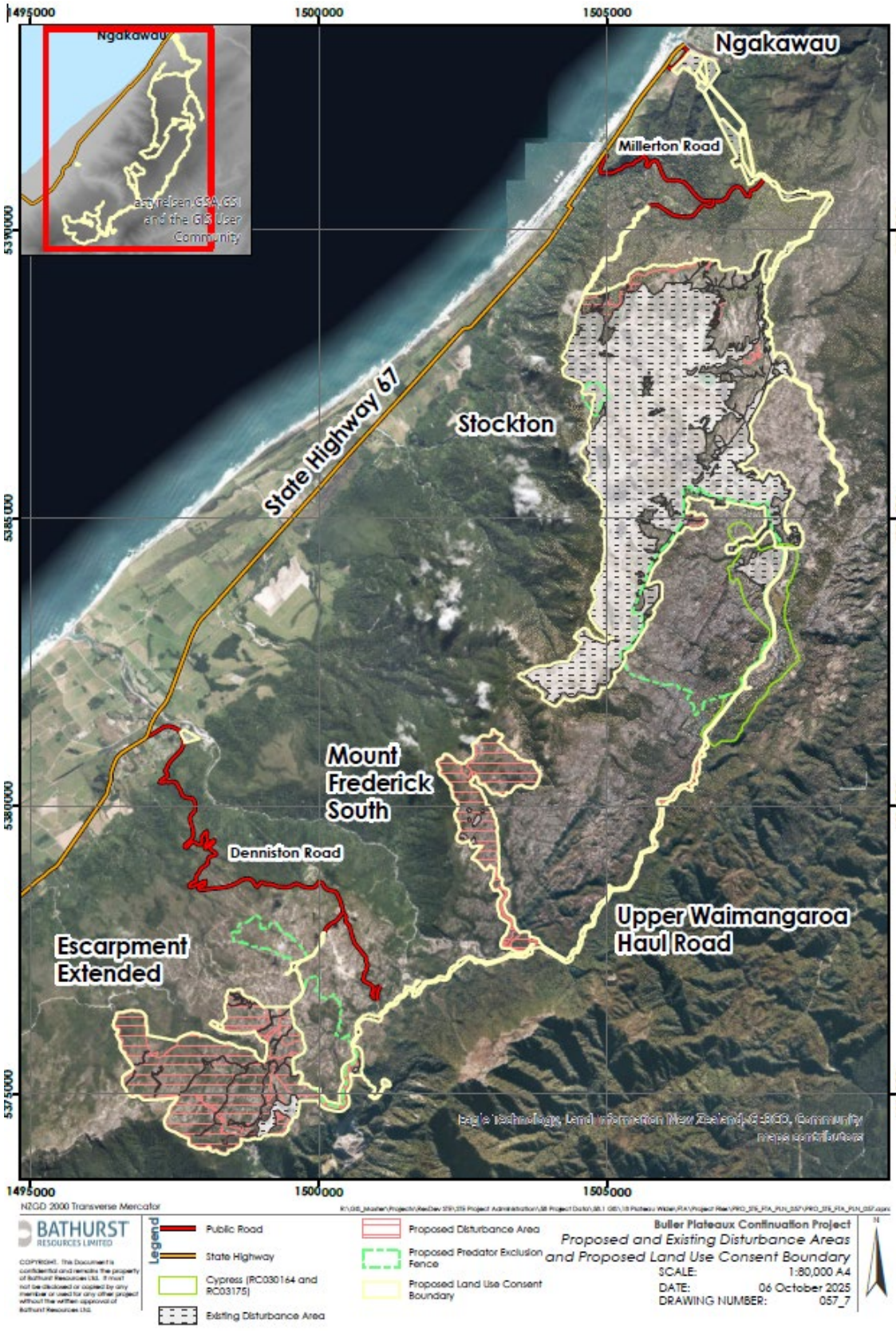

Figure 1-1: Project Areas (Source: Bathurst)

2 Stockton Mine

2.1 Location

Figure 2-1 shows the transport context for Stockton Mine. State Highway 67 (SH67) provides the only strategic road link in the area and links State Highway 6 (SH6) to Westport before continuing north along the coast. SH67 follows an alignment that passes beside Waimangaroa and through the smaller settlements of Granity and Ngakawau. There are three railway level crossings on SH67 between Westport and Ngakawau. There are also level crossings on many of the side roads to the east of SH67 between Waimangaroa and Ngakawau including Millerton Road which provides the access to Stockton mine.

The Stockton Mine ("the mine") is located on a plateau to the east of Granity and Ngakawau. Coal from the mine is transported from the mine via an aerial ropeway system to the loadout facility in Ngakawau for onward transport by rail.

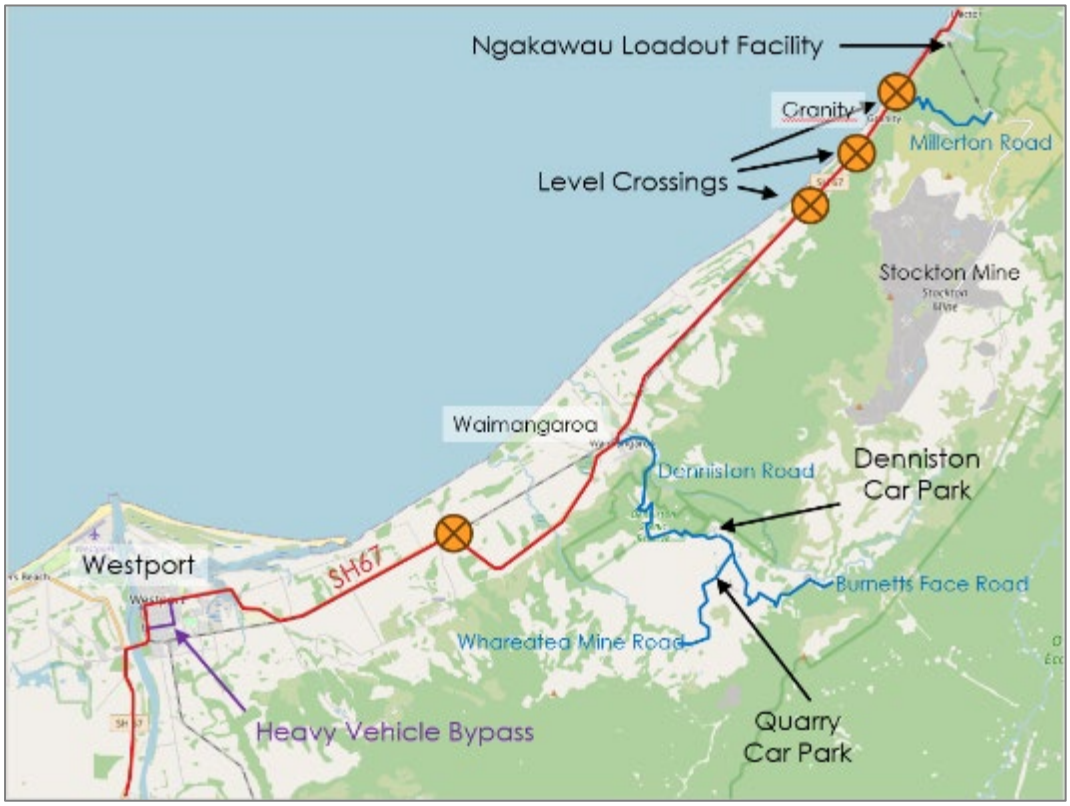

Figure 2-1: Project Transport Context

The Denniston Plateau is located south-east of Waimangaroa with the only road access being via the Denniston Track which comprises Banbury Street, Denniston Road and Burnetts Face Road. There is a parking area at the top of the Denniston Road for visitors to the historic mining area and another visitor car park at the eastern end of Burnetts Face Road. Whareatea Mine Road provides access to the Escarpment Mine which is currently under care and maintenance. A range of mountain bike tracks

have been established on either side of this road and an informal parking area (known as the “Quarry car park”) exists at the end of the public road section, about 500 m south of Burnetts Face Road.

Figure 2-2 shows the railway network for the West Coast area. The railway broadly follows an alignment close to the SH67 to Westport before heading inland via the Buller Gorge to Inangahua. The railway then heads south via Reefton and Ikamatua towards Greymouth. There is a secondary coal loadout facility in Ikamatua which is used in the event of a closure of the railway line between Ngakawau and Ikamatua.

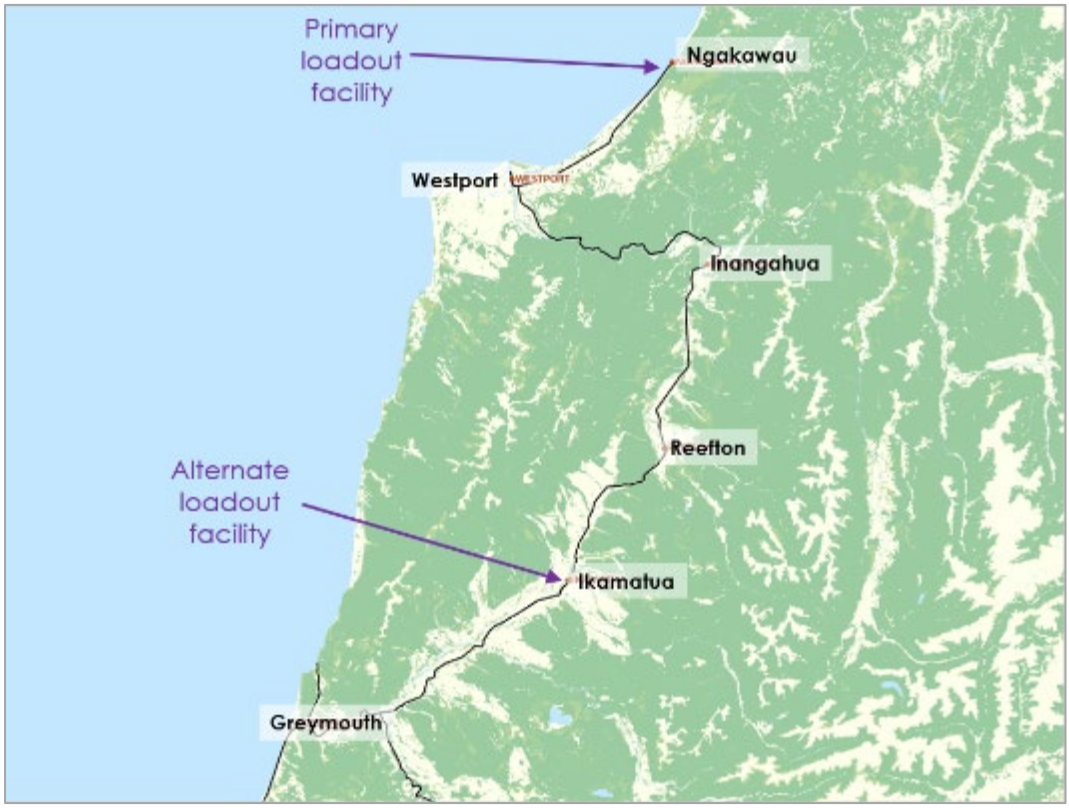

Figure 2-2: West Coast Railway Network

2.2 Existing Activity

The existing mine infrastructure is located at Stockton and Ngakawau. Coal is mined from multiple blocks within the Stockton mining area and is transported to the CHPP by truck on internal haul roads prior to transfer to Ngakawau using the aerial ropeway.

The Ngakawau Coal Handling Facility includes a product stockpile area and rail loading facility. Under normal operating conditions, all coal is taken from Ngakawau via rail to the export facility at Lyttelton Port. The Ngakawau facility normally loads 19 trains per week over 6 days.

3 State Highway 67

3.1 Road Formation

SH67 provides the only road connection between Westport and Ngakawau. It has been generally formed as a two-lane, rural highway with centre line and edge line markings (Photograph 3-1). The highway has been constructed with a typical carriageway width of 6.8 m (MobileRoad) with narrow sealed shoulders. There are grassed berms that separate the carriageway from deep road-side drains.

Photograph 3-1: SH67 - Typical rural formation

Within the small townships of Granity and Ngakawau, SH67 has been formed with wide shoulders that provide sufficient space for road-side parking (Photograph 3-2).

SH67 is classified by New Zealand Transport Agency Waka Kotahi (NZTA) as a High Productivity Motor Vehicle (HPMV) route south of Waimangaroa, which means that it is suitable for movement of trucks carrying heavier loads (up to 50 tonnes).

Photograph 3-2: SH67 in Granity

3.2 Intersections

3.2.1 SH67 / Millerton Road

Figure 3-1 shows an aerial view of the SH67 / Millerton Road intersection and the adjacent railway crossing. Millerton Road meets SH67 at a Give-way controlled tee intersection within the urban limits of Granity. SH67 has a straight and level alignment in this location which provides very good sightlines in both directions. There are wide, sealed shoulders on both sides of the SH67 traffic lanes which provide space for on-street parking (Photograph 3-2). The railway line crosses Millerton Road about 20 m to the east of the intersection (Photograph 3-3).

Long articulated trucks such as fuel tankers need to utilise the full width of the railway crossing to traverse the curve on Millerton Road. The separation between the highway and railway is insufficient for a truck longer than 20 m to stop clear of both the traffic lanes and railway.

Photograph 3-3: SH67 / Millerton Road intersection

Figure 3-1: SH67 / Millerton Road

3.3 Railway Crossings

3.3.1 Millerton Road

The railway line crosses Millerton Road about 20 m east of SH67 as shown in Photograph 3-4. There are pavement warning markings on Millerton Road for the crossing and warning signs on SH67. The level crossing includes flashing lights and bells (FLBs).

The short separation between the crossing and SH67 represents a safety concern because it does not provide sufficient space for long trucks to stop safely clear of the railway line and the highway.

Photograph 3-4: Millerton Road railway crossing

The Level Crossing Safety Impact Assessment (LCSIA) for the Millerton Road[2] crossing also raised safety concerns relating to maintenance of signage, control of vegetation and the road surface but did not identify any Red Flag issues. Red Flag issues represent serious safety concerns and are defined as follows in the Level Crossing Risk Assessment Guide.

[2] Level Crossing Safety Impact Assessment - Millerton Road, Ngakawau, Stantec, December 2024

A3.1 Red Flag Scenarios

If any of the following instances apply at the crossing being assessed, then the overall SSSS defaults to a minimum of 24/30 (or 8/10). This better captures the safety risk of the Red Flag scenario and stops it from being minimised if the other SSSS categories score lowly.

Score	Red Flag Scenario
24	If grounding out is known to have occurred at the level crossing previously and no changes to the road have occurred since.
24	If a short stacking HCV was hit by a train at the level crossing previously and no safety improvements have occurred since.
24	If a queued vehicle was hit by a train at the level crossing previously and no safety improvements have occurred since.
24	If a level crossing has an accessway located in between the form of control and the railway line. This means the accessway is behind the control measures and has no protection.

3.3.2 SH67 Granity Ngakawau

The railway line crossing at the southern end of Granity is shown in Photograph 3-5. The crossing comprises a pedestrian facility and vehicle facility. There are pavement warning markings and warning signs on SH67. The crossing includes flashing lights and bells.

The crossing is located at the centre of an S-bend which restricts the advance visibility of the lights but this is mitigated to some extent by the small radius curves on the approaches which requires vehicles to slow to less than 30 km per hour (km/h).

Photograph 3-5: SH67 Railway Crossing – Granity

The following safety concerns were identified in the LCSIA of the vehicle crossing[3].

1. **Poor quality and placement of road markings and signage.** Both approaches have appropriate road signage, however many of the signs are old, damaged and non-reflective which reduces awareness. Some of the road markings near the level crossing are faded and require repainting. As the signposts are close to the level crossing, they are obscured from the view of approaching vehicles until they take the corner bend.
2. **Vegetation obscuring up track sightlines.** The up-track visibility for motorists approaching from the north is significantly reduced due to trees obscuring the line of sight, presenting a hazard from oncoming southbound trains.

The LCSIA also identified maintenance issues with the pedestrian crossing which is adjacent to the vehicle crossing.

3.3.3 SH67 Kerrs Road

SH67 crosses the railway line at the middle of an S-bend about 2 km south of Granity. Although the speed limit on this section of the highway is 100 km/h, there are advance warning signs on the approaches with an advisory speed of 25 km/h for the curves. The positions of the warning signs do not appear to provide sufficient separation from the curves to allow drivers to decelerate comfortably to 25 km/h in advance of the curves as there have been a number of crashes in this location associated with the curves.

The LCSIA identified the following safety concerns at the crossing[4].

1. **Curve advisory signs too close to curve.** The curve advisory signs (PW20 signs) are too close to the start of the curve. With the large speed differential, motorists need more time to slow down.
2. **Advanced warning signs placed too close together.** The advanced warning signs are placed close to the level crossing and in close proximity from one another providing only a short distance for drivers to slow down before reaching the level crossing.
3. **Speed advisory through level crossing too slow.** The 25 km/h speed advisory on the bend through the level crossing may be too slow for drivers to slow down to from a 100 km/h environment. During the site visit vehicles were observed to be travelling through the level crossing at a speed greater than 25 km/h.
4. **Non-compliance with level crossing controls.** The KiwiRail incident reporting system has documented several instances where road users have ignored the level crossing FLBs and made risky crossings in front of oncoming trains.
5. **Damaged, non-reflective and old signage**. The majority of the signage for the level crossing dates to 1999, has lichen growing on both the sign and pole, have lost their reflectivity, as well as being damaged.

[3] Level Crossing Safety Impact Assessment – SH67 Granity Ngakawau, Stantec, December 2024
[4] Level Crossing Safety Impact Assessment – SH67 Kerrs Road, Granity, Stantec, December 2024

6. **Misleading road markings**. The old ‘GIVE WAY triangle road’ markings are still present even after upgrading the level crossing from ‘GIVE WAY’ control to FLBs in 2014/15.
7. **Narrow width of road over the level crossing**. The road width is narrow on the approaches and over the level crossing. There are no sealed shoulders on either side of road.
8. **Average condition of crossing panel.** The crossing panel is starting to show signs of wear / deterioration. This needs to be monitored so that a renewal can be programmed when required.
9. **No lighting of level crossing**. There is no lighting provision at or near the level crossing as it is in a rural area.

All the recommendations relate to general maintenance for the crossing and there were no Red Flag issues raised.

3.3.4 SH67 Beach Road

Figure 3-2 shows an aerial view of the railway crossing close to SH67 / Beach Road. SH67 crosses the railway east of a curve and the Beach Road intersection. The Beach Road intersection includes a short auxiliary left turn lane and a flush median on SH67 that will provide some storage space for vehicles waiting to turn into Beach Road.

Figure 3-2: SH67 / Beach Road

There are 35 km/h advisories on the chevron boards at the curve, along with pavement warning markings and warning signs on SH67. Photograph 3-6 shows that the crossing includes FLBs.

While there is good approach visibility to the flashing lights from the south, the approach sight distance from the west is constrained by the curve in the highway and vegetation between the highway and railway to about 100 m. The shortfall compared with a required sight distance of 180 m for a 100 km/h road is mitigated to some extent by the speed advisories for the curve.

Photograph 3-6: SH67/ Beach Road Railway crossing

3.4 Traffic Volumes

Figure 3-3 shows the annual daily traffic volumes on SH67 recorded by NZTA at their count site north of the Orowaiti River since 2018 (06700009). The average daily volume over that time has risen from about 2,100 vehicles per day (vpd) in 2018 to about 2,500 vpd in 2024. The 90th and 98th percentile volumes represent traffic volumes during the busiest five and two weeks of the year, respectively. The difference between these and average volumes indicates that there is a strong seasonal variation in traffic volumes. The 90th percentile volume was about 3,000 vpd during the 2023-2024 period compared with about 2,500 vpd prior to 2022.

In the 6-month period, July to December 2024, the average weekday traffic volume on SH67 north of Orowaiti River was about 2,720 vpd with a 98th percentile volume of 3,160 vpd. These volumes were higher than during the similar period in 2023 due to the closure of the railway between Reefton and Ikamatua in June 2024 for tunnel repairs which has resulted in the need for more truck movements to transport coal from Ngakawau to Ikamatua.

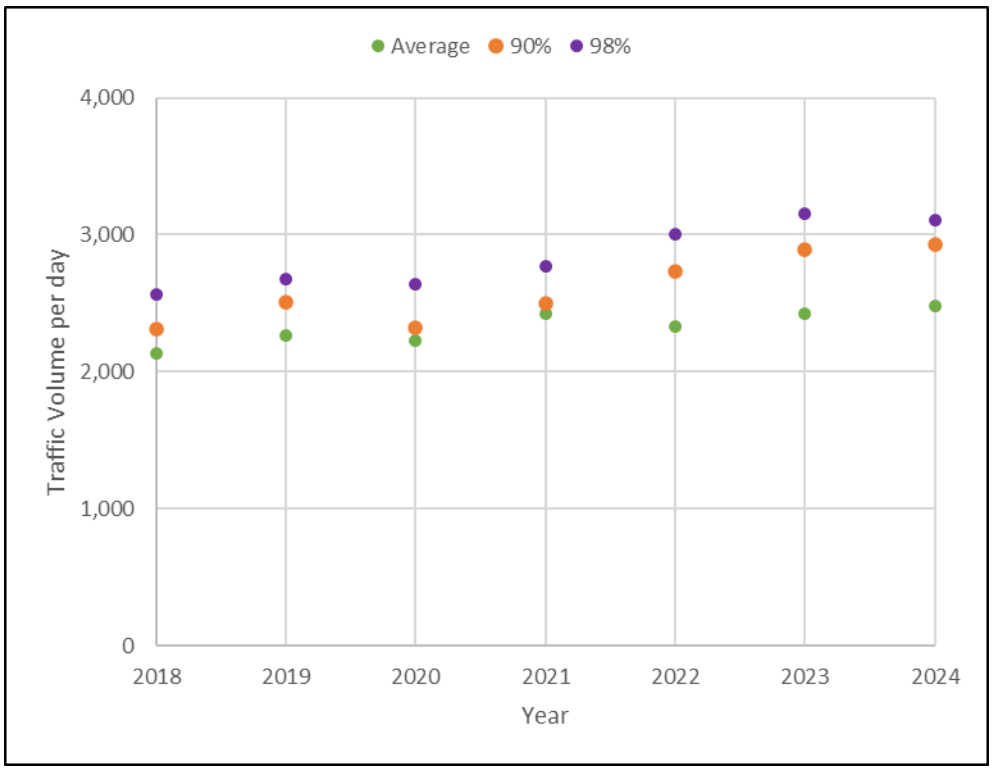

Figure 3-3: Average Daily Traffic Volumes - SH67 North of Orowaiti River (Source: NZTA 06700009)

Figure 3-4 shows the daily traffic volumes recorded on SH67 north of the Orowaiti River over the 2023-24 period. The weekday volumes show a seasonal variation with higher volumes during the summer months, typically about 2,900 vpd, and the lowest volumes in the winter months. Weekend traffic volumes are lower than on weekdays at 1,500-2,000 vpd.

The daily weekday traffic volumes since June 2024 have been highlighted as these demonstrate the effects of the railway closure. In the six month period July to December 2024, the average weekday traffic volume was 2,720 vpd compared with an average volume of 2,550 for the equivalent period in 2023. This represents an increase in the weekday volume of about 170 vpd. This can be directly attributed to the higher number of truck and trailer units using the road over that time to transport coal to Ikamatua, as a result of the rail line closure for tunnel repairs.

Based on traffic counts recorded in the ten month period, January to October 2025, traffic volumes on SH67 have reverted to earlier levels with an average weekday volume of about 2,700 vpd and weekend volumes of about 2,000 vpd.

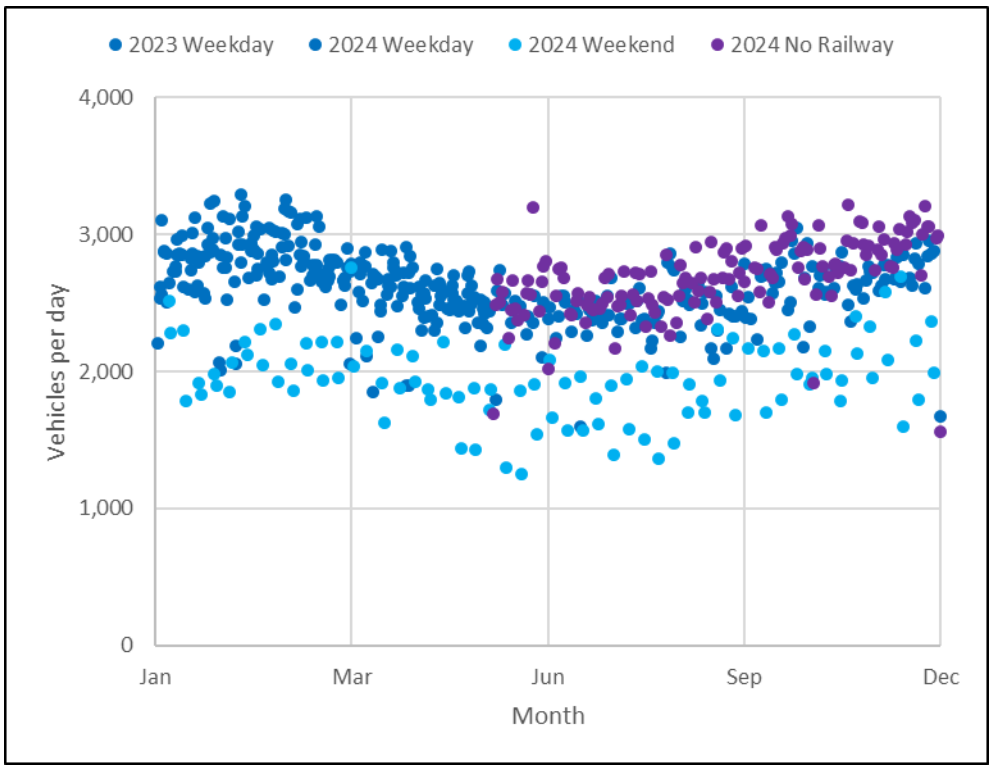

Figure 3-4: Daily traffic volumes 2023-2024 – SH67 North of Orowaiti River (Source: NZTA 06700009)

Figure 3-5 shows the hourly variation in traffic volumes on SH67 in early October 2025. There are clear differences in the volumes on weekdays compared with the weekend. On weekdays, the traffic volumes rise from the early morning to a broad peak from about 9:00 AM to 5:00 PM of about 200 to 220 vehicles per hour (vph). There is some evidence for work-based travel patterns with small peaks in the travel volumes at 8:00 AM and in the mid to late afternoon period. The weekend volumes show a late morning peak of about 220 vph but then fall gradually for the rest of the day. Overall, the traffic volumes are well below the capacity of the highway.

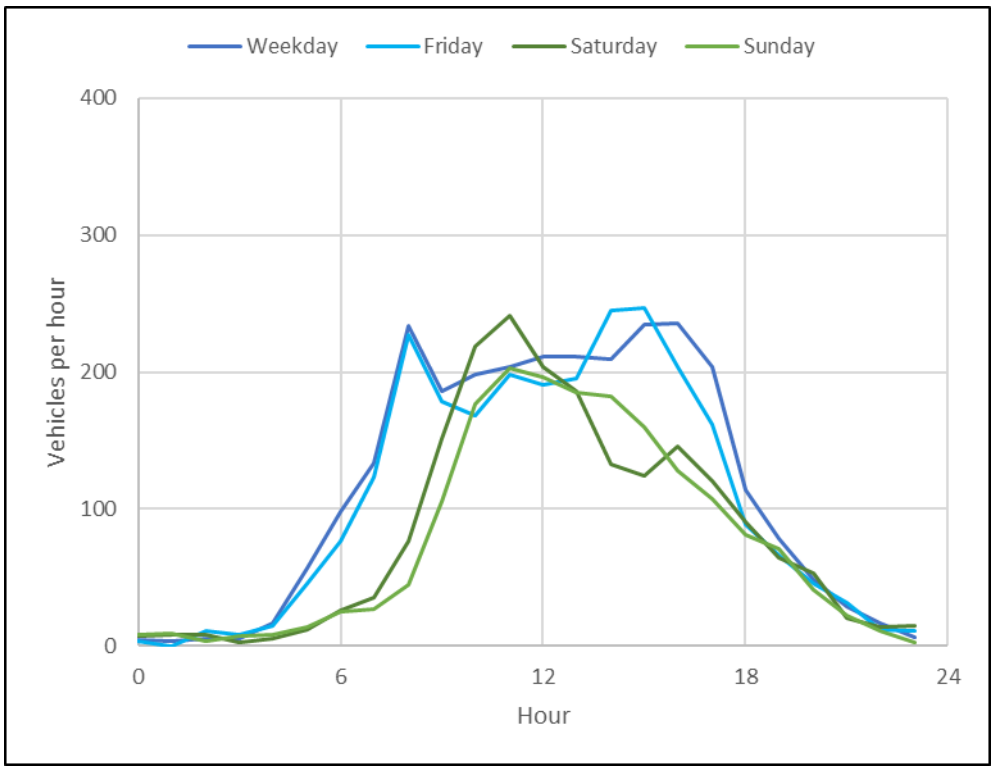

Figure 3-5: Hourly variation in traffic volumes - SH67 North of Orowaiti River (Source: NZTA 06700009)

3.5 Road Safety Record

The NZTA Crash Analysis System has been used to review the nature and number of crashes that have been reported on SH67 between Hector and Westport. Over the five year period 2020 to 2024, there were 38 reported crashes with two crashes causing serious injuries and seven crashes causing minor injuries. No injuries were reported for the other crashes. There have been four crashes reported in the ten month period, January to October in 2025.

The majority of crashes involved a single vehicle only and were a consequence of the driver losing control of their vehicle while turning. Excess speed and alcohol were identified as contributing factors in several crashes.

Figure 3-6 shows the locations of all reported crashes for the 2020 to 2024 period. One serious injury crash involved a novice motorcyclist who lost control of the motorcycle turning into SH67 from McGill Street. The other serious injury crash occurred when a vehicle left the road and collided with a parked vehicle. This crash was attributed to driver impairment due to drugs and alcohol.

Six of the minor injury crashes involved a single vehicle only when the driver has left the carriageway. There were a wide variety of factors that contributed to each of the crashes. One minor injury crash involved a cyclist that was potentially intoxicated and turned across the path of a following vehicle. The other minor injury crash involved a pedestrian who walked into the carriageway without due regard for the traffic.

None of the reported crashes involved trucks associated with the mine's activity.

Figure 3-6: Crash Locations, 2020-2024 (Source: NZTA Crash Analysis System)

3.6 Safe System Comments

SH67 between Westport and Ngakawau comprises a series of generally straight and level sections of road linked by moderate radius curves. The straight alignment will contribute to drivers adopting high speeds which will result in greater severity injuries in the event of a crash. The high speeds are likely to be a contributing factor to crashes at or close to the curves which have signposted advisory speeds of less than 100 km/h.

The narrow shoulders provide little opportunity for a driver to return to the carriageway if they stray from the traffic lane which increases the risk of run-off road type crashes. The shoulders include sections with significant hazards in the form of deep drains and trees.

The carriageway widths are not generous but provide sufficient space for two-way movement of trucks. The generally straight alignments reduce the risk of head-on collisions.

It has been noted that many of the signs along the highway are old and have been poorly maintained. One consequence is that the effectiveness of the advance warnings will be reduced, particularly in low light conditions.

4 Millerton Road

4.1 Formation

Millerton Road has generally been formed as a two-lane, two-way road with a moderate uphill grade from SH67 ascending over 300 m in a distance of about 4 km (Photograph 4-1). There is a 150 m long section of carriageway about 100 m south of the railway crossing with a width that is signposted for one-way movement. Appropriate sight distance is provided for this road section.

Photograph 4-1: Millerton Road east of railway crossing

South of the narrow section of road, the carriageway has centre line and edge line markings. The sealed shoulders vary in width along the road.

Operating speeds on Millerton Road are reported to be about 45 km/h on the lowest section of the road rising to 55 km/h on the central section and then falling to 35 km/h above Calliope Street.

4.2 Traffic Volumes

Millerton Road is used for service vehicle movements at the Stockton Mine and also for all staff movements. Figure 4-1 shows the traffic volumes recorded by Bathurst on Millerton Road over the ten month period January to October 2025. The average weekday volume over the seven months to July was 290 vpd. The higher volumes recorded in August were a result of the need to transport coal by truck from Stockton to Ngakawau because the aerial ropeway could not be used. Weekend volumes were typically in the range 60 to 80 vpd.

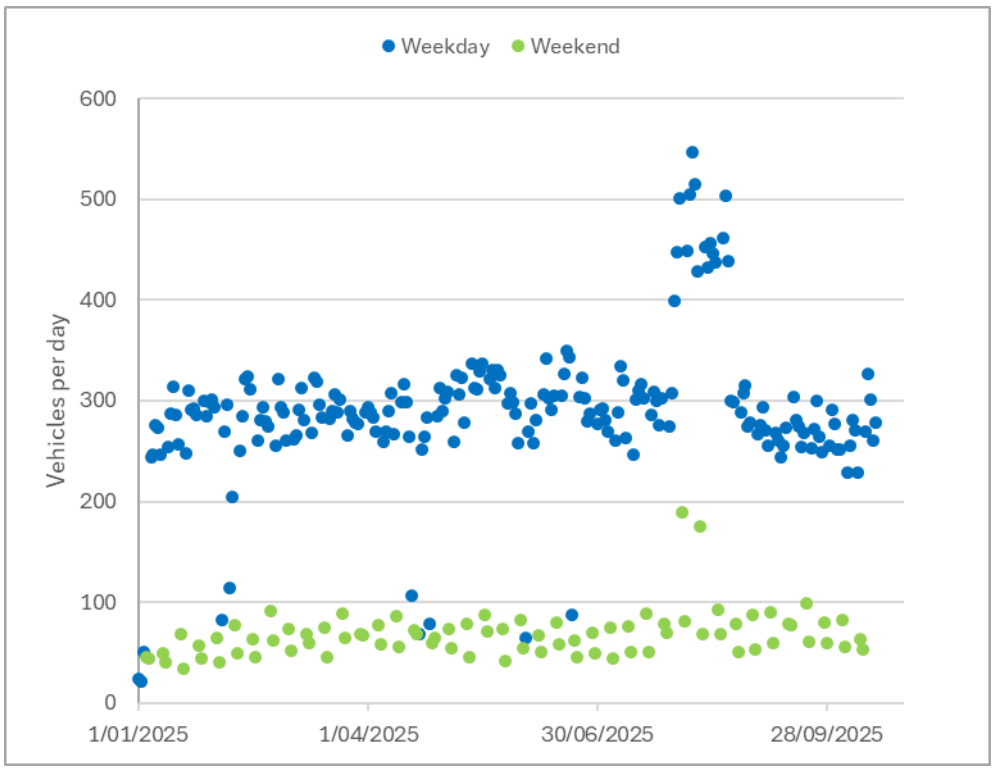

Figure 4-1: Daily traffic volumes on Millerton Road, January to October 2025

Figure 4-2 shows the typical hourly variation in traffic volumes on Millerton Road with Figure 4-3 showing the typical range of volumes that occurs in terms of the 25th and 75th percentile volumes. Figure 4-4 shows the movement volumes by direction. On a weekday, there is an early morning peak flow of 30 to 40 vph predominantly towards the mine associated with staff travel. There is a similar sized flow in the mid-afternoon with the movements being predominantly towards Granity as staff return home. During the day, two-way volumes on Millerton Road are typically 10 to 15 vph. Traffic volumes at the weekend are significantly lower and typically involve less than 5 vph through the day.

The average weekday traffic volume on Millerton Road based on Bathurst count information from September to December in 2024 was about 270 vpd compared with less than 50 vpd at the weekend. About 25% of movements are heavy vehicles with the majority being rigid trucks. Articulated trucks account for 5 to 10 movements per day.

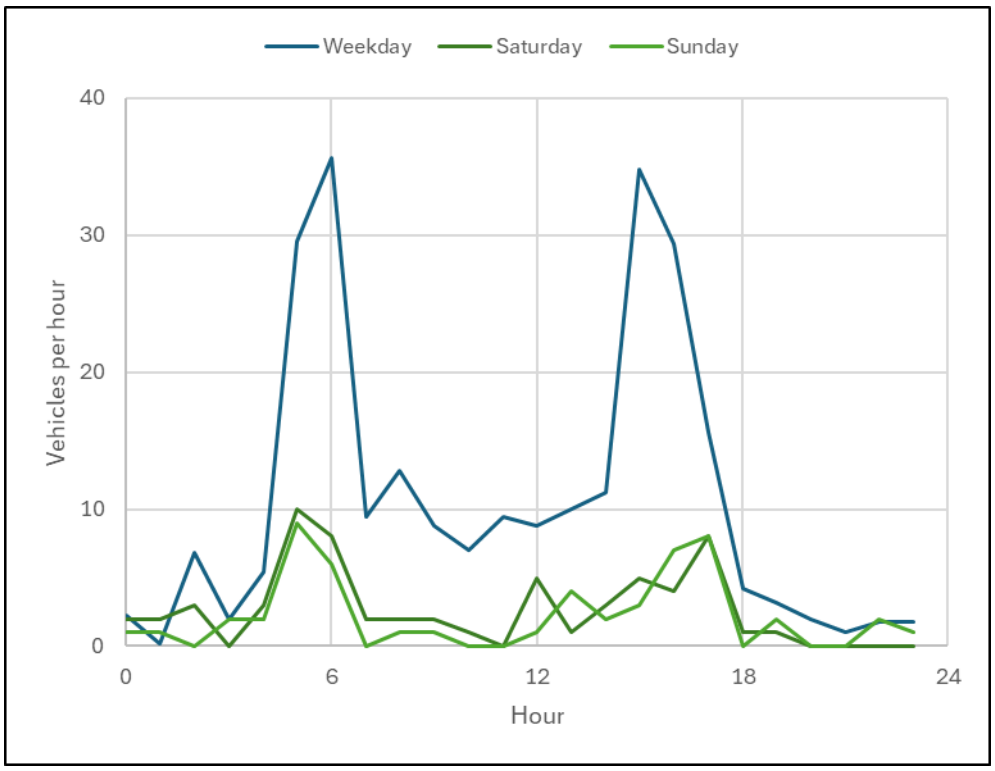

Figure 4-2: Hourly traffic volumes on Millerton Road - October 2025 (Source: Bathurst)

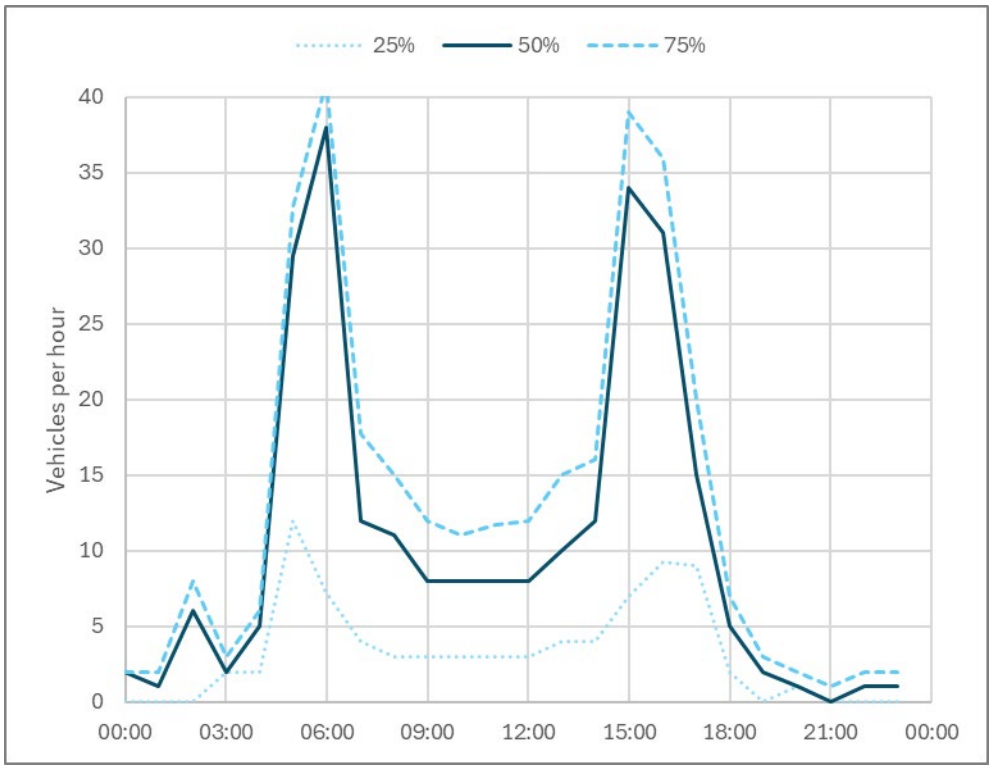

Figure 4-3: Variation in hourly volumes on Millerton Road (January to October 2025) (Source: Bathurst)

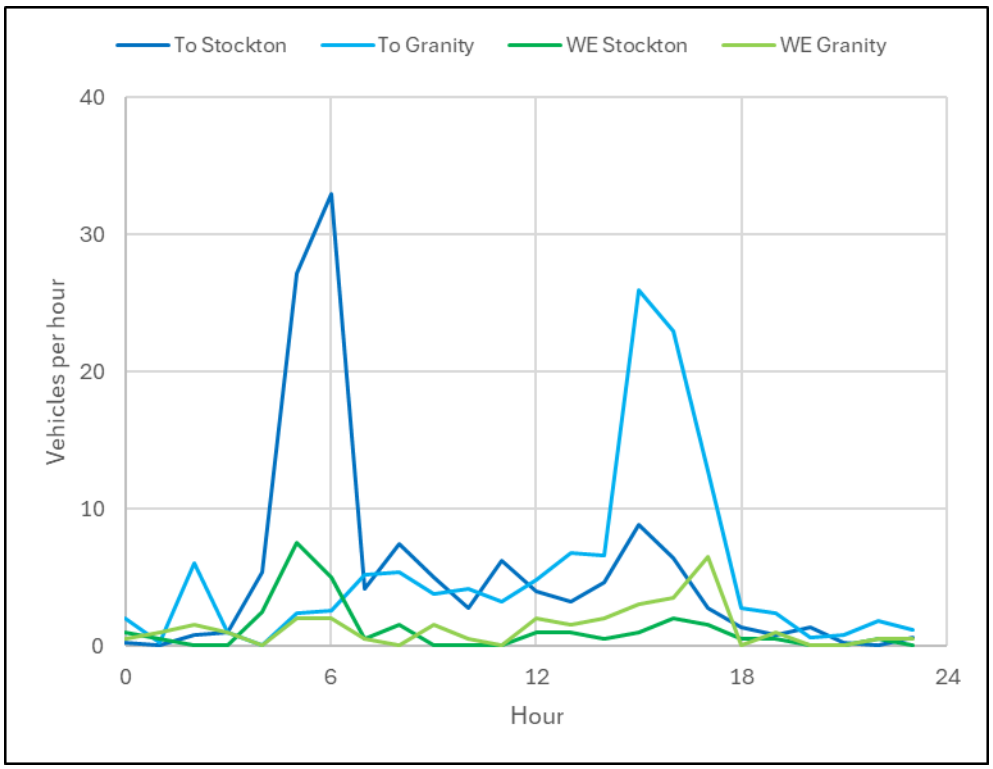

Figure 4-4: Hourly movements by direction on Millerton Road – 2025 (Source: Bathurst)

Figure 4-5 shows the average hourly traffic volumes by vehicle type recorded on Millerton Road in October 2025. There is an early morning peak of about 35 vph from 5:00 AM to 7:00 AM which is attributed to workers travelling to the mine. There is a similar size peak in the afternoon as workers depart. After an early morning peak in the heavy vehicle volumes, the typical hourly volume of heavy vehicles is less than 5 vph but can be as high as 10 vph. Articulated vehicle volumes of up to 2 vph were recorded.

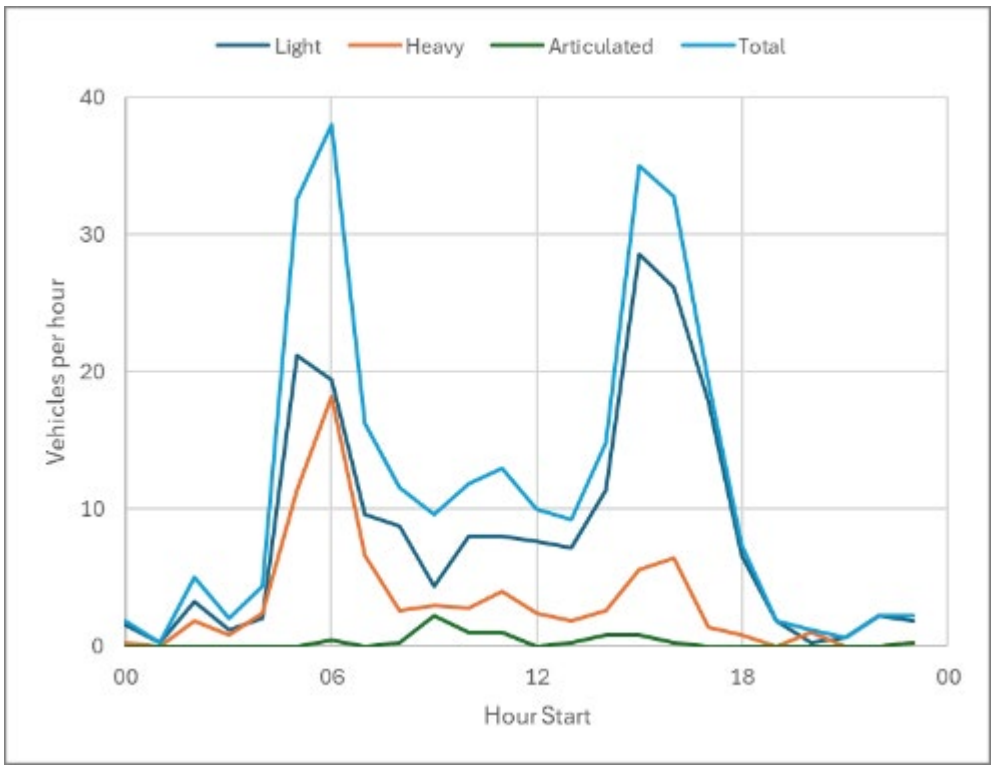

Figure 4-5: Hourly volumes by vehicle type on Millerton Road – December 2024 (Source: Bathurst)

The Millerton Road vehicle movements form part of the existing traffic volumes using SH67 between Granity and Westport.

4.3 Road Safety Record

The NZTA Crash Analysis System has reports for only two crashes on Millerton Road over the ten-year period 2015 to 2024 with no injuries reported at either crash. One crash was attributed to excess speed and the other to excess alcohol.

One crash was reported at the SH67 / Millerton Road intersection when a driver on SH67 attempted a U-turn without checking that the road was clear.

4.4 Safe System Comments

Appendix A includes a tabulated summary of the Safe System assessment for Millerton Road.

There are multiple hazards on the road that could increase the severity of injuries in the event of a crash. These include:

- Moderate road gradients that contribute to high downhill speeds;
- Small radius curves, often with restricted visibility of approaching vehicles;
- Steep, unprotected drops; and,
- Narrow sections of carriageway.

The likelihood of a crash occurring is mitigated to some extent by the low operating speed of the road (between 35 and 55 km/h) as well as the low volumes which are generally below 40 vph.

5 Buller Plateaux Continuation Project

5.1 Upper Waimangaroa Haul Road

The Upper Waimangaroa Haul Road (UWHR) is proposed as a private road to link Denniston Plateau with the existing Stockton Mine infrastructure. Construction of the UWHR will progress south from the Stockton Plateau and in parallel, north from the Deniston Plateau. The northern UWHR construction team will travel to the Stockton Mine in a mix of buses and private vehicles. It is anticipated that construction staff travel will generate up to five vehicle movements inbound in the morning with a similar volume of outbound movements in the afternoon.

Although the bulk of construction materials such as aggregates will be sourced from the Stockton Plateau, the construction will require some external deliverables such as culvert sections and geo-fabrics. Culvert sections will be delivered using a large, articulated vehicle while geo-fabrics will be delivered using a rigid truck. Deliveries will be scheduled to meet the construction demands but would typically involve less than one return trip per day.

Table 5-1: Expected material quantities and two-way trips per day

Activity / Materials	Quantity	Total Trips	Days	Light Vehicle	Heavy Rigid Vehicle	Other[5]
Staff						
Employees (Buses per day)				<5	<5	
Contractors (Daily)				<5		
Upper Haul Road Materials						
Culvert Sections	375	75	200			<1
Geo Fabrics	150	10	200		<1	

The construction works for the UWHR are expected to take less than one year.

5.2 Escarpment Extended Production Phase

Once coal production begins on the Denniston Plateau, coal will be transported from the Denniston Plateau to the Stockton Mine via the UWHR. This means that the coal production phase will not generate a demand for any new vehicle movements on Millerton Road.

[5] Articulated vehicles, e.g. fuel tankers, truck and trailer units

5.3 Abnormal Event Operation

5.3.1 Railway Closure

In the event of a railway closure between Ngakawau and Ikamatua, Bathurst will operate under a contingency plan that involves transporting coal by truck. In order to meet typical customer demands, Bathurst anticipates there could be a need to transport up to 90,000 tonnes of coal per month. This could involve up to 3,000 truck loads per month travelling from Ngakawau to another train loading facility such as the one in Ikamatua with a similar volume of return movement. This could require up to about 250 truck two-way movements per day on SH67 based on 6 day working. An event of this nature would not be expected to generate any additional vehicle movements on Millerton Road.

Although the likelihood of this type of event is expected to be rare, less than once in ten years on average, the most recent closure of the railway lasted for seven months.

5.3.2 Upper Waimangaroa Haul Road Closure

If the Upper Waimangaroa Haul Road was closed or obstructed for any reason that prevented the movement of coal to the Stockton CHPP for an extended period of time, then it may become necessary to transport bypass coal to Ngakawau from the Denniston Plateau.

In this scenario, Bathurst anticipates a need to transport about 15,000 tonnes of coal per month via the public road network from Denniston to Ngakawau for loading onto trains. This represents up to 500 truck loads per month or about 25 loads per day on average. Although this would increase truck volumes on SH67 between Waimangaroa and Ngakawau by about 50 movements per day, it would not be expected to generate any additional vehicle movements on Millerton Road.

The likelihood of this type of event is expected to be rare and short duration, typically measured in days rather than weeks

5.3.3 Aerial Ropeway Closure

The aerial ropeway is used to transport coal from the Stockton plateau to the load-out facility at Ngakawau. In the event that the ropeway cannot be used for an extended period of time, then it may become necessary to transport coal by truck from the CHPP to Ngakawau. In this scenario, Bathurst anticipates a need to transport up to 4,000 tonnes of coal per day to meet customer demands. This would require about 140 laden truck movements per day based on an average load of 28 tonnes with a similar volume of return movements. Since truck movements will typically operate for 10 to 12 hours per day on weekdays, average two-way hourly volumes of 25 to 30 movements per hour could be expected.

Although closure of the aerial ropeway may be required for maintenance activity, this is typically short duration and will not trigger the need for coal transport by road. The need for an extended closure of the aerial ropeway, e.g. more than one week, is expected to be a rare event. It was necessary in August 2025 for safety reasons with the effects on traffic volumes reflected in Figure 4-1.

6 Expected Transport Effects

6.1 Construction Phase

6.1.1 Millerton Road

Construction staff travel is expected to require up to five light vehicle return trips per day and one minivan return trip on Millerton Road. Travel to Stockton will occur early in the morning with homebound travel occurring in the late afternoon. If all inbound vehicle movements and outbound movements occurred within a one hour period, this would represent one additional vehicle every 12 minutes on average during the peak hours. Since the existing peak hour volumes are typically less than 40 vph, this increase is not expected to have any noticeable impact on the operation or performance of Millerton Road.

6.1.2 State Highway 67

As SH67 is part of the strategic road network, truck movements along this route are expected and consistent with its intended use. The addition of construction-related traffic between Granity and Waimangaroa may result in a modest increase of approximately 10 vpd. This increase is minimal and will not be perceptible to road users. The daily traffic volumes on this section of SH67 will remain low and well within the road's capacity.

6.2 Coal Production Phase

Since the normal production activity at the new mining areas on the Denniston Plateau will not generate any new movements on Millerton Road or SH67 north of Waimangaroa, the focus of this assessment has been on the construction works for the UWHR.

Once coal production commences on the Denniston Plateau, coal will be transported to the Stockton CPPP on the UWHR prior to being transported to Ngakawau for loading onto trains. Under normal operating conditions, this will not require any additional vehicle movements at Stockton compared with the existing operations at Stockton.

6.3 Abnormal Operating Conditions

6.3.1 Railway Closure

In the event of a railway closure between Ngakawau and Inangahua, it would be necessary for Bathurst to transport coal via road. This would not affect traffic volumes at Stockton but could increase the daily traffic volumes on the state highway network between Ngakawau and Inangahua by up to 250 vpd with this increase all being heavy vehicles.

The majority of the affected sections of the state highway network are classified for HPMV use and generally carry volumes of 1,000-1,500 vpd outside the larger urban centres of Westport and Reefton.

Since the highways are intended to support freight transport and there are no capacity constraints along the highway, it is considered that the higher volume of truck movements could be accommodated without giving rise to adverse effects on the highway.

The section of SH67 between Ngakawau and Waimangaroa has not been classified as a HPMV route. While this section of highway has capacity to accommodate the higher volumes, the higher volume of heavy vehicles could contribute to more damage to the road surface. If the rail closure is expected to be for longer than one month, then it is recommended that Bathurst work with NZTA and the BDC to develop an action plan for road condition monitoring and repairs.

6.3.2 Upper Waimangaroa Haul Road Closure

If the Upper Waimangaroa Haul Road cannot be used for coal transport for an extended period of time, it may be necessary to use Denniston Track and SH67 to transport coal to the train loading facility at Ngakawau. Bathurst have indicated that this could require transport of about 25 truckloads of coal which represents 50 additional truck and trailer movements per day.

As with a railway closure, SH67 has ample capacity to accommodate this level of additional truck movement and the primary effects are likely to be associated with greater wear to the SH67 carriageway.

6.3.3 Aerial Ropeway Closure

If the aerial ropeway cannot be used for coal transport and trucks are used to move coal from the CHPP to Ngakawau, this will increase truck movement volumes on Millerton Road by 200 to 280 per day. Hourly truck volumes could be in the range 25 to 30 vph to meet an anticipated demand of 4,000 tonnes.

Although Millerton Road generally has sufficient width to accommodate two-way movement, the 200 m long section of road immediately east of the railway crossing is narrow and typically sufficient to accommodate one-way movement only. Based on the anticipated hourly volumes, a two-way conflict could be expected twice an hour on average if movements or trucks are not coordinated or managed.

There are existing priority controls in place to manage conflicts in this location with uphill vehicles having priority. However, it has been noted that a clear sight line from the upper limit line is not available to the approaching traffic because of the curves in the road and vegetation. Although there is a very low risk of conflict with the existing traffic and generally tidal nature of flows at the start and end of the working day, this would not be the case with the higher volume of truck movements which increases the likelihood of two trucks meeting within the narrower section of road. This represents an undesirable outcome because it is impractical for trucks to perform reverse manoeuvres on this section of road.

The likelihood of a two-way conflict arising can be mitigated with a driver communications protocol that requires drivers to report their positions before entering the narrow section of road. It is recommended that all drivers complete an induction training session so that they are aware of the hazards that are present within the Stockton site and aware of Bathurst expectations in terms of driver behaviour on the public road network and in particular at the lower section of Millerton Road.

Since the higher volume of truck movements will increase the potential for a conflict with train movements, it is recommended that truck movements are dispersed in time as far as practical to avoid the potential for queuing arising at the SH67 / Millerton Road intersection.

This type of event will increase truck movements on SH67 between Millerton Road and Ngakawau. This section of SH67 has not been classified as a HPMV route. While this section of highway has capacity to accommodate the higher volumes, the higher volume of heavy vehicles could contribute to more damage to the road surface. If the closure of the aerial ropeway is expected to be for longer than one month, then it is recommended that Bathurst work with NZTA and the BDC to develop an action plan for road condition monitoring and repairs.

6.4 Rail Network Effects

The construction works may result in an increase of approximately 10 vpd day at the SH67 railway crossings at Millerton Road, Granity–Ngakawau, Kerrs Road, and Beach Road. Given the existing traffic volumes at these locations, this increase is not expected to have any noticeable impact on the operation of the crossings.

The short distance between the Millerton Road railway crossing and SH67 presents a safety concern, as it does not provide adequate clearance for a long vehicle to stop safely between the railway line and the highway. However, since the construction activity is expected to generate less than one articulated vehicle trip per day, this will not contribute to any noticeable change in the level of risk at the railway crossing.

6.5 Road Safety

Although there are existing safety hazards along Millerton Road, the risk of crashes will remain low due to the low traffic volumes and moderate to low operating speeds.

The construction works are expected to generate fewer than 10 additional vehicle movements per day, including at most one trip by a large articulated vehicle per day. Traffic associated with the construction will also follow a predominantly one-directional pattern with staff travelling towards the mine in the morning and returning toward Granity in the afternoon.

Given these factors, the likelihood of crashes, particularly head-on or run-off-road incidents associated with narrow carriageway sections and tight curves, is not expected to increase as a result of the construction activity.

In the event that there is a need to use Millerton Road to transport coal from Stockton to Ngakawau, there will be a need to coordinate truck movements to avoid two-way conflicts on the narrow section of road above the railway crossing. This can be managed using a driver communications protocol that requires drivers to report their positions before entering the narrow section of road. This approach was successfully implemented in August 2025 when the use of the aerial ropeway was suspended for safety reasons.

6.6 Summary of Recommended Mitigation Measures

With the small change in traffic volumes and short duration of construction works, no specific road improvements are considered necessary to accommodate the construction traffic movements.

Once coal production begins at Denniston, any need to increase traffic volumes on SH67 north of Waimangaroa due to an abnormal event such as a railway closure or UWHR closure should be addressed as part of the overall traffic management plan for the Buller Plateaux Continuation Project.

In the event that coal transport is required on Millerton Road, then it is recommended that all drivers complete an induction training session so that they understand all communication protocols for travel on Millerton Road, site specific hazards at Stockton and expectations in terms of movement on the public road network. The driver induction training will form part of the overall project traffic management plan.

If coal transport on Millerton Road is required for more than a month, then it is it is recommended that Bathurst work with NZTA and the BDC to develop an action plan for road condition monitoring and repairs.

7 Conclusions

The Upper Waimangaroa Haul Road is proposed as a private link between the Denniston Plateau and Stockton Mine infrastructure, with construction advancing simultaneously from both ends. The northern construction team will commute to the Stockton Mine using a mix of buses and private vehicles, generating up to five vehicle movements in each direction daily. While most construction materials will be sourced from the Stockton Plateau, some external deliveries, such as culvert sections (via articulated vehicles) and geo-fabrics (via rigid trucks), will be required, typically resulting in no more than two return trips per day by heavy vehicles and averaging fewer than one.

The construction activities are expected to generate low volumes of additional traffic, with up to 10 vehicle movements per day on Millerton Road and SH67, including a maximum of one articulated vehicle movement per day on average. These increases are small and are not anticipated to impact the operation of the road network or railway crossings. SH67, being part of the strategic road network, is well-suited to accommodate the expected construction traffic. Although existing safety concerns have been identified along Millerton Road and near the Millerton Road railway crossing, the limited scale and directional nature of construction traffic mean these issues are unlikely to be exacerbated. Overall, the proposed construction works are not expected to generate any noticeable transport effects.

Once the construction works for the UWHR are complete, normal operations at the BPCP will not generate a demand for any new vehicle movements on Millerton Road or SH67 north of Waimangaroa. On that basis, the BPCP will not create a need for any new transport related conditions to be applied at Stockton Mine.

One adverse event operating scenario has been identified that would affect vehicle movements on Millerton Road and SH67 north of Millerton Road to Ngakawau. If coal cannot be transported from Stockton to Ngakawau using the aerial ropeway for an extended period of time, coal would be transported by truck to Ngakawau via Millerton Road to meet customer demands. For this to occur safely, it will be necessary for all drivers to complete an induction training course so that they are familiar with all communication protocols to avoid conflicts arising on the narrow section of Millerton Road. It is recommended that this training forms part of the overall traffic management for Buller Plateaux Continuation Project so that a consistent approach is applied on Millerton Road and Denniston Road. This approach was successfully implemented in August 2025 when the aerial ropeway could not be used for safety reasons.

Appendices

Appendix A Safe System Assessment – Millerton Road

The Safe System audit methodology brings together the Safe System assessment and safety concern ratings into one report.

The Safe System assessment evaluates a project's alignment with Safe System principles and identifies ways to improve alignment with a focus on minimising fatal and serious injuries. It investigates the inherent risk of the infrastructure and includes consideration of road user exposure.

The safety concern ratings are to identify individual aspects of the project that are a concern with an associated risk profile as per the concern ratings matrix. The assessment matrix is used to determine the extent to which existing conditions and potential project options align with the Safe System principles. This is achieved through a scoring system which considers seven crash types and the exposure, likelihood and severity of injury associated with crash type. Each combination is assigned a score out of four. The exposure, likelihood and severity scores for each crash type are multiplied to give a product out of 64. These are then added to determine the total safe system assessment score with a maximum of 448.

A score of zero or close to zero indicates a high level of alignment with the Safe System principles with the level of alignment decreasing as the assessment score increases.

Table A-1: Existing Situation

	Run-off road	Head-on	Intersection	Other	Pedestrian	Cyclist	Motorcyclists
Exposure Comments:	Millerton Road – < 300 vpd	Millerton Road – < 300 vpd	Millerton Road – < 300 vpd SH67 – 1,200 vpd	Millerton Road – < 300 vpd 38 train movements per week	Millerton Raad - < 10 ppd	Millerton Road < 10 cpd	Millerton Road < 10 vpd
Exposure Score:	1/4	1/4	2/4	2/4	1/4	1/4	1/4
Likelihood Comments:	Factors that increase the likelihood include: • Narrow sections of road • Unprotected drops • Moderate gradients • Overheating of brakes	Factors that increase the likelihood include: • Narrow section of road • Small radius curves • Poor visibility on curves • Vehicle sizes • Overheating of brakes	Factors that increase the likelihood include: • Worn line marking	Factors that increase the likelihood include: • Short stacking distance • Poor sign maintenance • Obstructed sightlines	Factors that increase the likelihood include: • No footpaths	Factors that increase the likelihood include: • Gradient (Speed) • Road surface	Factors that increase the likelihood include: • Gradient (Speed) • Road surface
	Factors that decrease the likelihood include: • Barriers on some curves • Some edge line markings • Reflector posts • Wide shoulders on some sections of road	Factors that decrease the likelihood include: • Centre line marking • Wide shoulders on some sections of road	Factors that decrease the likelihood include: • Good sightlines • 70 km/h speed limit	Factors that decrease the likelihood include: • Advance warning signs • Flashing lights and bells	Factors that decrease the likelihood include: • Very low demand	Factors that decrease the likelihood include: • Uphill gradient	Factors that decrease the likelihood include: •
Likelihood Score:	3/4	2/4	2/4	2/4	1/4	3/4	3/4
Severity Comments:	Factors that increase the severity include: • Steep drop-offs • Trees • Steep banks	Factors that increase the severity include: • Downhill speed	Factors that increase the severity include: • 70 km/h on SH67 • Side impact crashes	Factors that increase the severity include: • Trains	Factors that increase the severity include: • Vulnerable road user	Factors that increase the severity include: • Vulnerable road user	Factors that increase the severity include: • Vulnerable road user
	Factors that decrease the severity include: • Low / Moderate speeds	Factors that decrease the severity include: • Low / Moderate speeds	Factors that decrease the severity include: •	Factors that decrease the severity include: • Low train speeds	Factors that decrease the severity include: • Moderate traffic speeds	Factors that decrease the severity include: • Moderate traffic speeds	Factors that decrease the severity include: • Moderate traffic speeds
Severity Score:	2/4	2/4	2/4	4/4	3/4	3/4	3/4
Product **(multiply scores above for crash type)**	**6/64**	**4/64**	**8/64**	**16/64**	**3/64**	**9/64**	**9/64**
						TOTAL	**55/448**

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