



APPENDIX H

Road Transport Assessment



Dendrobium Mine - Plan for the Future: Coal for Steelmaking Road Transport Assessment

Client // Illawarra Coal Holdings Pty Ltd
Office // NSW
Reference // N113800
Date // 02/05/19

Dendrobium Mine - Plan for the Future:

Coal for Steelmaking

Road Transport Assessment


Issue: B 02/05/19

Client: Illawarra Coal Holdings Pty Ltd

Reference: N113800

GTA Consultants Office: NSW

Quality Record

Issue	Date	Description	Prepared By	Checked By	Approved By	Signed
A	21/02/18	Final	P Dalton	N Vukic	N Vukic	Nicole Vukic
B	02/05/19	Final – Additional Analysis	P Dalton A Modessa	N Vukic K McNatty	K McNatty	

© GTA Consultants (NSW) Pty Ltd [ABN 31 131 369 376] 2019

The information contained in this document is confidential and intended solely for the use of the client for the purpose for which it has been prepared and no representation is made or is to be implied as being made to any third party. Use or copying of this document in whole or in part without the written permission of GTA Consultants constitutes an infringement of copyright. The intellectual property contained in this document remains the property of GTA Consultants.



GTAconsultants

Melbourne | Sydney | Brisbane
Adelaide | Perth

Table of Contents

1. Introduction	1
2. Existing Mine Operations	3
2.1 Dendrobium Mine	3
2.2 Road Transport Aspects of Existing Operations	4
2.3 Dendrobium Pit Top	8
2.4 Kemira Valley Coal Loading Facility	10
2.5 Cordeaux Pit Top	10
2.6 Dendrobium CPP	10
2.7 Dendrobium Shaft Numbers 1, 2 and 3	10
3. Project Description	11
4. Existing Road Environment	12
4.1 Road Network	12
4.2 Historic Traffic Volumes	13
4.3 Traffic Survey Program	16
4.4 Road Safety History	19
4.5 Kemira Valley Rail Level Crossings	26
4.6 Dendrobium Mine and Cordeaux Pit Top Traffic	27
4.7 Intersection Operating Conditions	31
4.8 Midblock Operating Conditions	32
5. Project Traffic Generation	34
5.1 Construction Activity	34
5.2 Operational Activity	35
5.3 Road Transport Scenarios	36
5.4 Construction Vehicle Traffic	36
5.5 Operational Vehicle Traffic	38
5.6 Operational Vehicle Traffic with Primary Mine Access at Cordeaux Pit Top	39
6. Future Traffic Conditions	41
6.1 Non-Project Traffic Growth	41
6.2 Future Traffic Volumes	43
6.3 Intersection Operating Conditions	46
6.4 Future Midblock Operating Conditions	49
6.5 Car Parking	50
6.6 Kemira Valley Rail Level Crossings	51
6.7 Road Safety	51
6.8 Oversize Vehicles	52

6.9 Dangerous Goods	52
6.10 Cumulative Traffic Movements	52
6.11 Mitigation Measures	53
7. Summary and Conclusions	54
7.1 Summary	54
7.2 Conclusions	56

Appendices

- A: Traffic Survey Results Summary
- B: RMS Crash Data
- C: Picton Road Traffic Forecasts

Figures

Figure 2.1: Dendrobium Pit Top and Kemira Valley Coal Loading Facility Access Roads Location	5
Figure 2.2: Dendrobium CPP Access Road Location	6
Figure 2.3: Cordeaux Pit Top Access Road Location	8
Figure 4.1: Traffic Survey Locations	14

Tables

Table 2.1: Operational Shift Times at Dendrobium Pit Top 2017	8
Table 2.2: Employee Directional Travel to/from the Mine	9
Table 4.1: AADT Volumes (vehicles per day)	15
Table 4.2: Traffic Characteristics Picton Road North of Mount Keira Road	16
Table 4.3: Peak Hour Intersection Survey Results (vehicles per hour)	17
Table 4.4: Surveyed Daily Traffic by Day of the Week (vehicles per day)	18
Table 4.5: Surveyed Average Weekday Daily Traffic (vehicles per day)	18
Table 4.6: Surveyed Average Weekday Peak Hour Traffic (vehicles per hour)	19
Table 4.7: General Crash Types on Mine Access Routes (1 July 2011 to 30 June 2016)	20
Table 4.8: Cordeaux Road Crash Summary	21
Table 4.9: Harry Graham Drive Crash Summary	23
Table 4.10: Mount Keira Road Crash Summary	24
Table 4.11: Clive Bissell Drive Crash Summary	25
Table 4.12: Surveyed Daily Mine and Cordeaux Pit Top Vehicle Trip Generation (vehicles per day)	27
Table 4.13: Surveyed Average Mine and Cordeaux Pit Top Traffic Generation Monday to Thursday	27

Table 4.14:	Average Mine Traffic Monday to Thursday – Dendrobium Pit Top Access Only	28
Table 4.15:	Calculated Average Mine and Cordeaux Pit Top Traffic Generation Monday to Thursday	29
Table 4.16:	Average Day Vehicle Trips by Type Monday-Thursday	29
Table 4.17:	Vehicle Trip Distribution Monday-Thursday	30
Table 4.18:	Mine and Cordeaux Pit Top Contribution to Daily Traffic Monday to Thursday	30
Table 4.19:	Level of Service Criteria at Priority Intersections	31
Table 4.20:	Existing Peak Hour Intersection Operating Conditions	31
Table 4.21:	Assumed Level of Service Relationship with Volume to Capacity Ratio	32
Table 5.1:	Average Day Construction Trips by Type Monday-Thursday	37
Table 5.2:	Construction Trip Distribution Monday-Thursday	37
Table 5.3:	Average Day Total Project Operational Trips by Type Monday-Thursday	38
Table 5.4:	Average Day Total Project Operational Trip Distribution Monday-Thursday	39
Table 5.5:	Average Day Long Term Total Project Operational Trips by Type Monday-Thursday	40
Table 5.6:	Average Day Total Project Operational Trip Distribution Monday-Thursday with Primary Mine Access at Cordeaux Pit Top	40
Table 6.1:	Average Day Future Traffic Without the Project Monday-Thursday	42
Table 6.2:	Average Day Traffic in 2020 Monday-Thursday	43
Table 6.3:	Average Day Traffic in 2027 Monday-Thursday	44
Table 6.4:	Average Day Traffic in 2035 Monday-Thursday	45
Table 6.5:	Mine and Cordeaux Pit Top Contribution to Future Daily Traffic Monday to Thursday	46
Table 6.6:	Future Peak Hour Intersection Operating Conditions	47
Table 6.7:	Picton Road Project PM Peak Hour Midblock Conditions (Monday-Thursday)	49

References

ARRB Group (2011) *Road Safety Risk Reporter 15: Safety on rural roads: run-off-road, head-on and intersection crashes.*

Austroads (2013) *Guide to Traffic Management Part 3: Traffic Studies and Analysis.*

Austroads (2015) *Road Fatalities and Serious Injuries in Australia and New Zealand 2001-2010.*

Cardno Eppell Olsen (2008) *Environmental Assessment Traffic Study Existing Operations & Increased Road Receiving Hours for Port Kembla Coal Terminal.*

ERM (2013) *Gujarat NRE No.1 Mine Traffic Study Addendum Report.*

Masson Wilson Twiney (2008) *Metropolitan Colliery Traffic Assessment.*

NSW Government (2015) *Illawarra – Shoalhaven Regional Plan.*

NSW Government (2017) *SIX Maps.* <http://maps.six.nsw.gov.au/>

Parsons Brinckerhoff (2014) *Wilton Junction Development Transport Management and Accessibility Plan.*

Roads and Maritime Services (2016) *Additional Access Conditions for oversize and overmass heavy vehicles and loads.*

Roads and Traffic Authority (2002) *Guide to Traffic Generating Developments.*

Sinclair Merz Knight (2007) *Sydney-Wollongong Corridor Strategy.*

Traffix (2009) *Road Transport Assessment Relating to the Proposed Bulli Seam Operations.*

Transportation Research Board (2010) *Highway Capacity Manual.*

WorkCover (2005), *Storage and Handling of Dangerous Goods – Code of Practice 2005.*

<http://www.rms.nsw.gov.au/about/corporate-publications/statistics/traffic-volumes/aadt-map>

<http://www.rms.nsw.gov.au/projects/illawarra/picton-road-safety-improvements/completed-projects/index.html>

1. Introduction

This report has been prepared for Illawarra Coal Holdings Pty Ltd (Illawarra Coal), a wholly owned subsidiary of South32 Limited (South32). Illawarra Coal is seeking a new Development Consent for the Dendrobium Mine – Plan for the Future: Coal for Steelmaking (the Project), for the extraction of additional coal reserves within Consolidated Coal Lease (CCL) 768. This would be supported by development of supporting infrastructure and an extension to the life of the surface facilities at the Dendrobium Mine (the Mine).

This Road Transport Assessment report has been prepared to accompany an Environmental Impact Statement (EIS) prepared in accordance with the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act), with reference to the road transport components of the Secretary's Environmental Assessment Requirements (SEARs) issued for the Project.

The road transport components of the SEARs issued by the Department of Planning and Environment for the Project indicate that:

The EIS must address the following specific issues: [...]

*- **Transport** – including an assessment of the likely transport impacts of the development on the capacity, condition, safety and efficiency of the rail network and the local and State road network;*

An assessment of the potential impacts of the Project on the rail network will be provided in the main text of the EIS, and is not included in the road transport assessment.

Roads and Maritime Services (RMS) also provided input to the Department of Planning and Environment in response to the Preliminary Environmental Assessment, as follows.

- *A traffic impact study (TIS) is required. As a guide Table 2.1 of the RTA [RMS formerly Roads and Traffic Authority] Guide to Traffic Generating Developments outlines the key issues that may be considered in preparing a TIS.*
- *The applicant needs to identify suitable infrastructure required to ameliorate any traffic impacts and safety impacts associated with the development. Concept plans need to be provided for any works proposed within the road reserve prior to determination to demonstrate that they can be constructed within the road reserve. If the works could not be constructed within the road reserve, RMS would not support the proposal unless appropriate legally binding arrangements were in place to ensure that the appropriate land required to construct the works could be obtained.*
- *The Environmental Assessment needs to consider the environmental impacts of any roadworks within the road reserve that are required to manage the impacts of the development. These impacts include traffic and road safety impacts as well as other impacts such as noise, flora and fauna, heritage and impact to community.*

The remainder of this report is set out as follows:

- Section 2 summarises the existing operating conditions at the Mine and the Cordeaux Pit Top.
- Section 3 describes the proposed Project.

- Section 4 assesses the existing road transport environment in the vicinity, including the road network, historic and current traffic volumes, road safety history, Mine-generated traffic, the operation of key intersections and the general capacity of relevant routes.
- Section 5 reviews the implications of the proposed Project on Mine-generated traffic at key stages of the Project.
- Section 6 assesses the future road environment with the Project and other background changes to traffic conditions, including future intersection operating conditions, roadway capacity, and road safety. It identifies mitigation measures to satisfactorily accommodate the future traffic demands.
- Section 7 presents a summary of the investigation, and its conclusions.

2. Existing Mine Operations

2.1 Dendrobium Mine

The Mine is located in the Southern Coalfield of NSW, approximately 8 kilometres (km) west of Wollongong, in the vicinity of Mount Kembla Village. It is located within the Wollongong City Council, Wingecarribee Shire Council and Wollondilly Shire Council Local Government Areas (LGAs).

Existing approvals relating to the Mine include Development Consent DA 60-03-2001 (as modified) issued under the EP&A Act, Approval Decision (EPBC 2001/214) issued under the Commonwealth *Environment Protection and Biodiversity Conservation Act, 1999* (EPBC Act), and CCL 768, issued under the NSW *Mining Act, 1992*.

Construction of the Mine commenced in January 2002, with longwall mining commencing in April 2005. Five areas are approved for underground mining, namely Areas 1, 2, 3A, 3B and 3C. Longwall mining is currently being undertaken in Area 3B, with extraction being largely complete in Areas 1, 2 and 3A. Monitoring and remediation/rehabilitation activities continue to be undertaken by Illawarra Coal in previous mining areas.

Existing surface facilities for the Mine include:

- the Dendrobium Pit Top;
- Kemira Valley Coal Loading Facility;
- Kemira Valley Rail Line;
- Dendrobium Coal Preparation Plant (CPP), located within the Port Kembla Steelworks precinct south of the Wollongong city centre; and
- Dendrobium Shaft Numbers 1, 2 and 3.

The Mine extracts coal from the Wongawilli Seam, with an approved operational capacity of up to 5.2 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal. Mining under the Development Consent DA 60-03-2001 for the Mine expires on 31 December 2030.

ROM coal is transported from underground workings to the Kemira Valley Coal Loading Facility via an underground conveyor network reaching the surface via the Kemira Valley tunnel. Coal is then sized and stockpiled at the Kemira Valley Coal Loading Facility prior to transport to the Dendrobium CPP within the Port Kembla Steelworks via the Kemira Valley Rail Line.

ROM coal from the Mine is processed at the Dendrobium CPP, which is located within the Port Kembla Steelworks precinct. Product coal is delivered from the Dendrobium CPP to the Port Kembla Steelworks or Port Kembla Coal Terminal for export.

Coal wash is transported by road from the Dendrobium CPP to the West Cliff Colliery Coal Wash Emplacement. Coal wash is also supplied to third parties as an engineering fill material or for other beneficial uses.

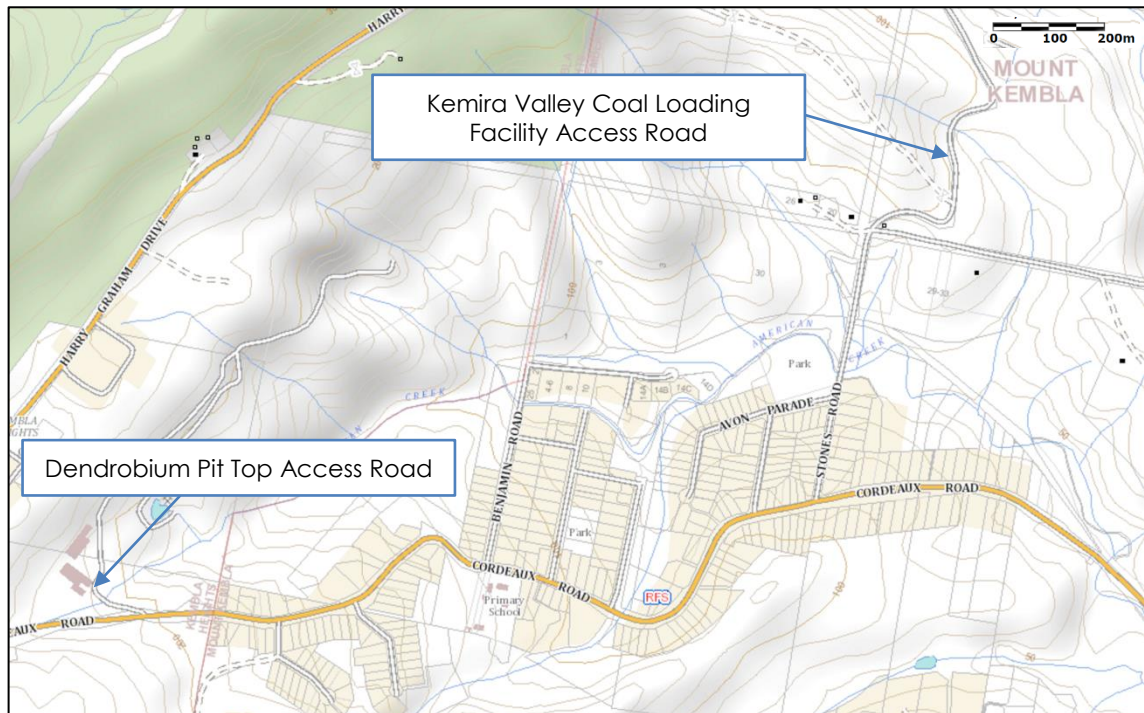
The Mine operates on a continuous basis (24 hours per day, seven days per week). Trains between the Kemira Valley Coal Loading Facility and Dendrobium CPP do not travel on the Kemira Valley Rail Line between 11 pm and 6 am unless written approval is obtained from the Environment Protection Authority (EPA) for emergency use of the rail line.

2.2 Road Transport Aspects of Existing Operations

Road traffic to and from the Mine is typically generated by employees, visitors and deliveries. Accesses to the main surface facilities of the Mine include:

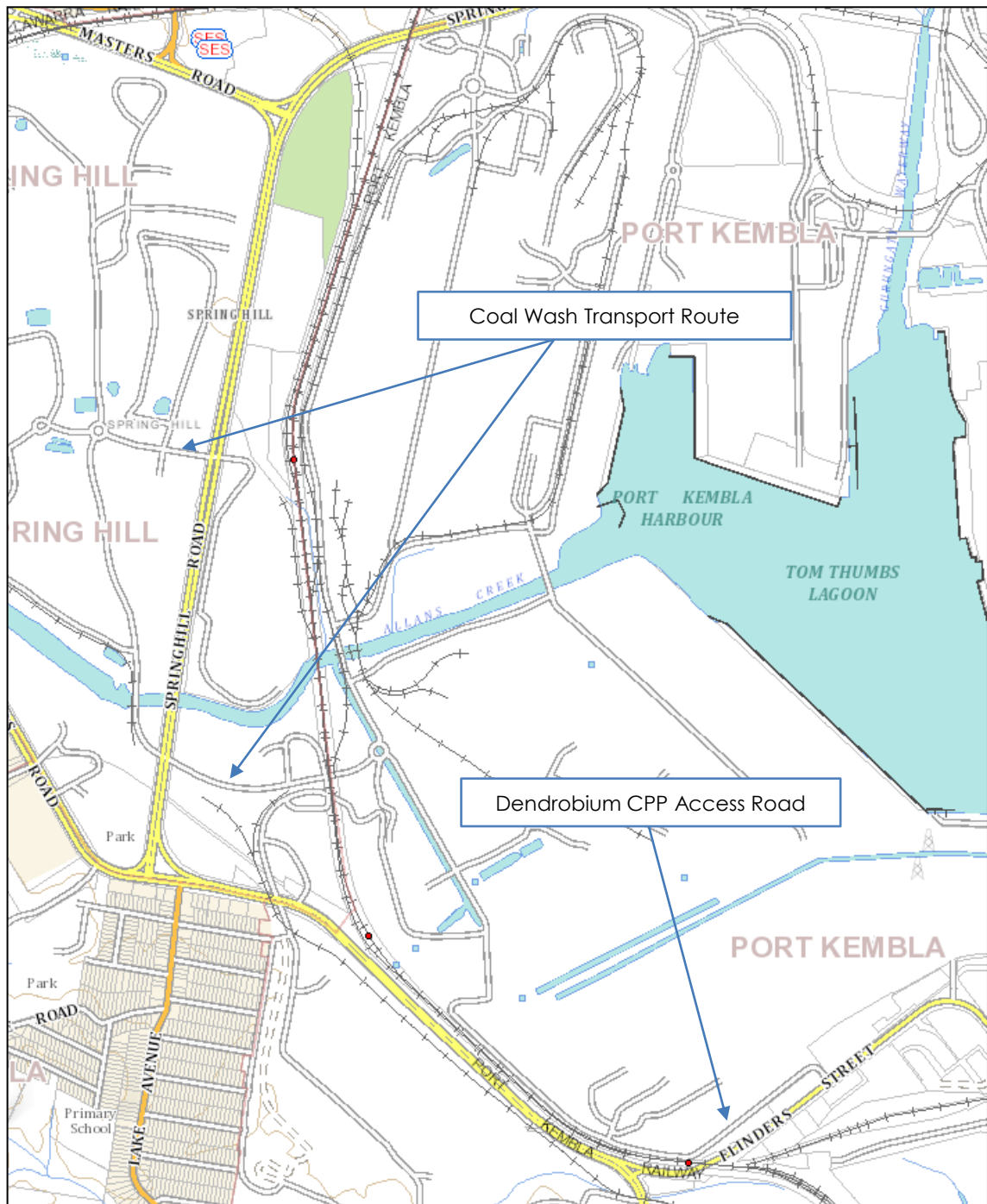
- **Dendrobium Pit Top Access** off Cordeaux Road (Figure 2.1), approximately 4 km from the Princes Highway. This is the main site access used by employees, contractors, visitors and delivery vehicles. The intersection of Cordeaux Road with the Dendrobium Pit Top access is a T-intersection with no auxiliary storage or turn lanes. At the intersection, the access road is very wide, and the road to the main car park lies at an acute angle to Cordeaux Road, rather than within the preferred range of 70 to 90 degrees. The impact of this alignment has been mitigated by providing a painted median and kerb extensions to assist drivers to align their vehicle when turning into or out of Cordeaux Road. Sight distance at the intersection is satisfactory for both entering and exiting vehicles. Exiting vehicles are controlled with a "STOP" sign and delineation.
- **Kemira Valley Coal Loading Facility Access** (Figure 2.1) provides access to the Kemira Valley Coal Loading Facility, and is used by a limited number of employees, visitors and delivery vehicles. Medium to heavy vehicles require access to the site to transport equipment and materials. Vehicles also regularly access the site for maintenance and environmental monitoring. The access road extends northwards from Stones Road, and contains a number of one lane sections, requiring drivers to stop and give way to traffic in the opposing direction. Signage relating to these requirements includes a standard "stop" sign, a non-standard sign stating "STOP & LOOK ONE LANE CARRIAGEWAY NO OVERTAKING OR PASSING ENTERING TRAFFIC HAS RIGHT OF WAY" as well as an advisory speed sign for trucks of 40 km/h.
- **Dendrobium CPP Access** (Figure 2.2) extends from the northern side of Flinders Street at Port Kembla. The T-intersection has a single approach and single departure lane on each approach, and vehicles exiting the access road are controlled with a "STOP" sign and pavement marking. The access road has a posted speed limit of 40 km/h and Flinders Street has a speed limit of 60 km/h. This employee access road to the Dendrobium CPP also services batteries and gas processing facilities unrelated to the Mine, which attract one or two vehicles per hour (two to four trips per hour). Coal wash from the Dendrobium CPP is transported to the West Cliff Colliery Coal Wash Emplacement in trucks used for coal haulage from West Cliff to Port Kembla. Trucks transporting coal wash travel on private roads within the Port Kembla Steelworks precinct and exit onto Springhill Road between Masters Road and Five Islands Road.

Figure 2.1: Dendrobium Pit Top and Kemira Valley Coal Loading Facility Access Roads Location



Base map sourced from NSW Government (2017)

Figure 2.2: Dendrobium CPP Access Road Location



Base map sourced from NSW Government (2017)

The Traffic Management Plan (TMP) for the Mine addresses the management of road traffic and rail movements associated with the operation of the Mine and associated infrastructure, and aims to:

- *Ensure compliance with Development Consent conditions and any undertakings made by South32 to the community with respect to traffic management;*
- *Ensure that South32's policies and internal company requirements are met with respect to traffic management;*
- *Minimise the potential for traffic conflict and/or personal injury resulting from traffic generated by the Dendrobium Mine;*
- *Create a road environment where all road users feel safe; and*
- *Successfully enforce a Drivers' Code of Conduct for all personnel associated with Dendrobium, including a monitoring and reporting process.*

The Dendrobium Drivers' Code of Conduct aims to:

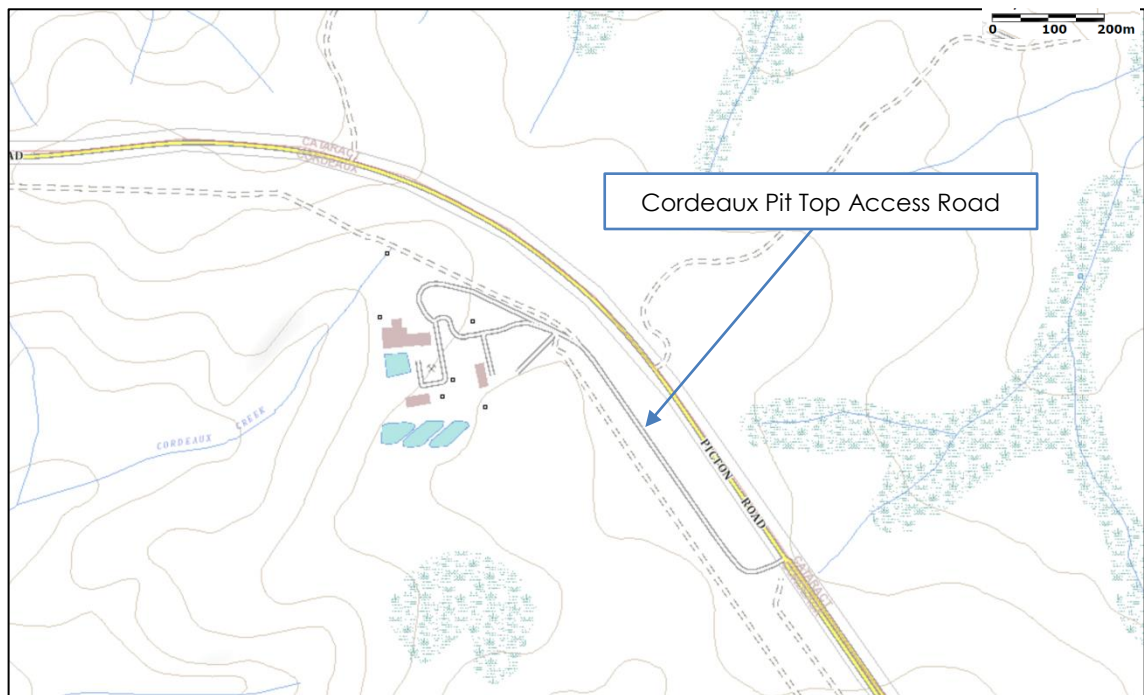
minimise the impacts of traffic associated with the Dendrobium Mine on local residents by reducing noise and limiting traffic, resulting in a safer traffic environment for everyone.

The Code of Conduct prohibits access to and from the Dendrobium Pit Top, Kemira Valley Coal Loading Facility and Dendrobium Shaft Number 1 by vehicles other than personnel passenger vehicles during specific hours. Allowable travel times for vehicles other than personnel passenger vehicles are:

- Monday to Friday 7.00 am to 8.00 am;
- Monday to Friday 9.30 am to 2.30 pm;
- Monday to Friday 4.00 pm to 5.00 pm; and
- Saturdays 8.00 am to 1.00 pm.

The **Cordeaux Pit Top** (Figure 2.3) is associated with the Cordeaux Colliery, which is a non-producing Illawarra Coal mine under care and maintenance. The Cordeaux Pit Top is not part of the existing Dendrobium Mine, but is used to support other Illawarra Coal operations such as exploration, survey and environmental monitoring. The Cordeaux Pit Top entry is off Picton Road approximately 16 km from its intersection with the Hume Motorway. The intersection of Picton Road with the Access Road is a seagull intersection. Picton Road is widened with dedicated left and right turn deceleration lanes for vehicles entering the Cordeaux Pit Top, and an acceleration lane for vehicles turning right exiting the Cordeaux Pit Top. Vehicles turning right out of the access do so into a dedicated lane and are not required to give way to, nor merge with, eastbound traffic on Picton Road.

Figure 2.3: Cordeaux Pit Top Access Road Location



Base map sourced from NSW Government (2017)

2.3 Dendrobium Pit Top

2.3.1 Workforce

The Mine currently directly employs approximately 265 personnel at the Dendrobium Pit Top. The current roster and shift arrangements are summarised in Table 2.1.

Table 2.1: Operational Shift Times at Dendrobium Pit Top 2017

Location and Shift	Employees	Shift Start Time	Shift End Time
Weekday (Monday to Thursday)			
Day Shift	55	6.00am	4.00pm
Afternoon Shift	43	2.00pm	12.00am
Night Shift	45	10.00pm	8.00am
Weekend (Friday to Sunday)			
Day Shift	42	6.00am	6.00pm
Night Shift	36	8.00pm	8.00am

In addition to the direct workforce, an average of 140 contractors work at the Dendrobium Pit Top each week.

The residential postcodes of the direct workforce were reviewed to determine the likely distribution of routes used by the workforce travelling to and from the Mine. The results are summarised in Table 2.2.

Table 2.2: Employee Directional Travel to/from the Mine

Route to/from	Per cent
North via Princes Highway	24.8
South via Princes Highway	7.8
South via Princes Motorway	36.0
South via Five Islands Road	11.2
East via The Avenue	7.0
West via Picton Road	2.7
Local (via Cordeaux Road east of Mine)	10.5

It is noted that a portion of the traffic to/from the north via the Princes Highway would use the Princes Motorway at West Wollongong. Some of those drivers travelling to/from the Princes Motorway (north) may choose to use Harry Graham Drive and Mount Keira Road to access Mount Ousley Road via Picton Road or Clive Bissell Drive. The latter would only be used by outbound traffic from the Mine, because only left turn movements are permitted between Clive Bissell Drive and Mount Ousley Road.

Alternatively, drivers travelling to/from the north along the Princes Highway may choose to use Gibsons Road between the Princes Highway and Cordeaux Road, or remain on Cordeaux Road to the Princes Highway when travelling between the Princes Highway and the Dendrobium Pit Top.

2.3.2 Deliveries and Visitors

On average, the Mine receives approximately 20 deliveries per day, with the majority being from local suppliers in the Wollongong region. Non-local deliveries come from Newcastle, and to a lesser extent from Sydney. Delivery vehicles would thus be expected to use the Princes Highway and Cordeaux Road to travel to and from the Mine. Those travelling from Newcastle or Sydney would access the Princes Highway from the Princes Motorway. Those travelling from the local Wollongong region would access the Princes Highway at various locations depending on the origin of the trip.

Deliveries are generally made by either rigid trucks or semitrailers. Deliveries by heavy vehicles must occur within the allowable times specified in the Drivers' Code of Conduct (Section 2.2).

The number of visitors to the Mine varies from day to day. Based on review of one month of sign-in data, there is an average of four visitors per day. The data indicates that on many days however, there are no visitors. On the days during which there were visitors to the Mine, there was an average of 11 to 12 visitors per day.

Dedicated visitor parking is provided in an area near the entry to the Dendrobium Pit Top, which is also occasionally used by employees and contractors.

2.4 Kemira Valley Coal Loading Facility

2.4.1 Workforce

The Kemira Valley Coal Loading Facility is used by a limited number of employees, visitors and delivery vehicles (primarily stockpile equipment operators and site supervisors).

2.4.2 Deliveries and Visitors

Medium to heavy vehicles require access to the site to transport equipment and materials (approximately three deliveries on a typical day). Vehicles also regularly access the site for maintenance and environmental monitoring.

2.5 Cordeaux Pit Top

The Cordeaux Pit Top is not part of the existing Dendrobium Mine, and is currently under care and maintenance. It is being used by Illawarra Coal for exploration and survey purposes, and by environmental teams.

2.6 Dendrobium CPP

The Dendrobium CPP is located within the Port Kembla Steelworks precinct. It operates 24 hours per day and seven days per week, with some 14 employees and up to seven contractors during normal operations. The workforce operates rotating 12-hour shifts (7.00 am to 7.00 pm and 7.00 pm to 7.00 am), and car parking is provided on site for the employees. The CPP attracts very few visitors. During occasional shutdowns, up to 200 workers may be at the CPP. However, typically the number of vehicle trips generated to and from the Dendrobium CPP is estimated at approximately 42 vehicle trips per day by employees and contractors via Flinders Street. It is estimated that access to battery service and gas processing facilities along the same employee access road generate approximately 50 vehicle trips per day (not associated with Mine activity).

There is some interaction between heavy vehicles associated with South32's operations and BlueScope Steel Limited's operations on the shared BlueScope Steel access road. Otherwise, South32 has had no particular concerns regarding road traffic or parking in and around the Dendrobium CPP.

2.7 Dendrobium Shaft Numbers 1, 2 and 3

The existing Dendrobium Shaft Sites are primarily unattended sites, with access generally limited to weekly maintenance inspections or for specific maintenance or upgrade works.

3. Project Description

A full description of the Project is provided in the main text of the EIS. The Project would involve the following (among other things):

- longwall mining of two new underground mining areas (Area 5 and Area 6);
- development of surface infrastructure associated with mine ventilation, gas management and abatement and other ancillary infrastructure (new Dendrobium Shaft Sites);
- handling and processing of up to 5.2 Mtpa of ROM coal;
- use of the existing Dendrobium Pit Top, Kemira Valley Coal Loading Facility, Dendrobium CPP and existing Dendrobium Shaft Sites with minor upgrades and extensions;
- construction of an additional car parking area at the Dendrobium Pit Top Access, located to the south of Cordeaux Road and accessed via Cordeaux Road east of the Dendrobium Pit Top Access Road;
- use of the Cordeaux Pit Top for mining support activities;
- augmentation of mine access arrangements, including upgrades to, and the use of, the Cordeaux Pit Top;
- transport of sized ROM coal from the Kemira Valley Coal Loading Facility to the Dendrobium CPP via the Kemira Valley Rail Line;
- delivery of product coal from the Dendrobium CPP to the Port Kembla Steelworks or Port Kembla Coal Terminal for export (via internal private roads); and
- transport of coal wash by road to customers for engineering purposes (e.g. civil construction fill), for other beneficial uses and/or for emplacement at the West Cliff Colliery Stage 3 and Stage 4 Coal Wash Emplacement.

The life of the Project is until the end of 2048. The Cordeaux Pit Top would be used in place of the Dendrobium Pit Top as the primary operational access to the underground mine for workers and materials from approximately 2035.

Access to the new Dendrobium Shaft Sites would be via the Cordeaux Dam Access Road, and then via fire trails and unsealed access roads. No other changes to current access arrangements are proposed as part of the Project.

Other than facilitating an extension in the life of the Dendrobium CPP, there would be no change to the number of employee, visitor, delivery or coal wash haulage movements to/from this site. The Project would not increase the number of trains per year compared to the current use of the Kemira Valley Rail Line.

4. Existing Road Environment

4.1 Road Network

The existing road network near the Project is described below.

Cordeaux Road is a local road, which provides access from Kembla Heights to the Princes Highway at Figtree, via Cordeaux Heights and Mount Kembla. The intersection of Cordeaux Road with the Princes Highway is controlled by a two-lane roundabout, with single entry and exit lanes on the Cordeaux Road leg. Most intersections along Cordeaux Road are priority-controlled T-intersections, with the exception of the signalised intersection with Central Road. Cordeaux Road typically has a single travel lane in each direction with kerbside parking permitted, and a speed limit of 60 km/h. A 40 km/h speed zone exists between the speed humps on Cordeaux Road, past Mount Kembla Public School. Signage in this area is somewhat contradictory, with signs suggesting a full time "high pedestrian activity" 40 km/h speed limit, a before and after school period 40 km/h speed limit, and a truck and bus speed limit of 40 km/h. Cordeaux Road climbs steeply through Mount Kembla to the Dendrobium Pit Top Access. An off-road cycleway is provided along the southern side of Cordeaux Road along most of its length from near the Princes Highway to the eastern end of the built-up area of Mount Kembla. West of the Dendrobium Pit Top Access, Cordeaux Road forms a two lane, two-way rural road, with a winding alignment, narrow or no shoulders, no footpaths, and several bends with advisory speeds of 35 km/h. West of the Dendrobium Pit Top Access, Cordeaux Road also provides a connection to Harry Graham Drive at a T-intersection, at which the western approach of Cordeaux Road forms the minor leg. At that intersection, Cordeaux Road west is signposted as "no through road" and provides only local access to a small number of residences and fire trails.

Harry Graham Drive is a local road, which provides a link from Cordeaux Road west of the Dendrobium Pit Top Access to Mount Keira Road. It typically has a two lane, sealed carriageway and is signposted with an 8 tonne (t) load limit. Harry Graham Drive has a speed limit of 50 km/h through Kembla Heights, increasing to 60 km/h and 80 km/h to Mount Keira Road. Within the Illawarra State Conservation Area, there are a number of short sections which are temporarily restricted to a single lane width, at which southbound traffic is required to give way.

Mount Keira Road is a local road that extends between Picton Road and the Princes Highway at West Wollongong, via Mount Keira. It is typically a two lane, two-way rural road, with varying shoulder widths, centre delineation and speed limits of 80 km/h and 60 km/h.

Clive Bissell Drive provides a link from Mount Keira Road to Mount Ousley Road (Princes Motorway), where only left turn movements between Clive Bissell Drive and Mount Ousley Road are permitted. Clive Bissell Drive is a sealed two lane, two-way rural road, with unsealed shoulders, centre delineation and a posted speed limit of 60 km/h.

Picton Road (Main Road 95) is a State Road, which extends from Mount Ousley Road at its south-eastern end to Picton at its north-western end. There is an interchange at the intersection of Picton Road with the Hume Motorway, which allows all vehicle movements between the two routes. Similarly, at the intersection with Mount Ousley Road, an interchange permits all movements between the two routes.

Near the Dendrobium Pit Top Access (via Mount Keira Road) and the Cordeaux Pit Top Access, Picton Road has a single travel lane eastbound and two travel lanes westbound, separated by a concrete barrier median. It has wide sealed travel lanes with sealed shoulders, and has a speed

limit of 100 km/h. The intersection of Picton Road with the Cordeaux Pit Top Access Road is a seagull intersection, at which vehicles turning right out of the minor road are not required to give way to eastbound through traffic on Picton Road. These vehicles turn into a dedicated lane which forms a second eastbound lane on Picton Road east of the access, i.e., there is no merge required.

Picton Road is identified in the Illawarra-Shoalhaven Regional Plan (NSW Government, 2015) as part of the primary freight route for the region. The Illawarra-Shoalhaven Regional Plan nominates a number of inter-regional transport infrastructure improvements to support growth, which includes duplication of Picton Road in the long term.

Princes Highway (HW1) is a State and Regional Road linking Sydney to the Victorian border. It is a State Road from the southern end of the Princes Motorway at the Bulli Tops interchange via Bulli Pass and Bulli to Bellambi Lane, then via Bellambi Lane and Memorial Drive to the on/off ramps at Flinders Street, North Wollongong, then via Flinders Street, Keira Street and Crown Street, Wollongong to the junction with Five Islands Road at Unanderra. It is a Regional Road from the intersection of Five Islands Road at Unanderra via Dapto, to the intersection with the F6 Southern Freeway at Yallah.

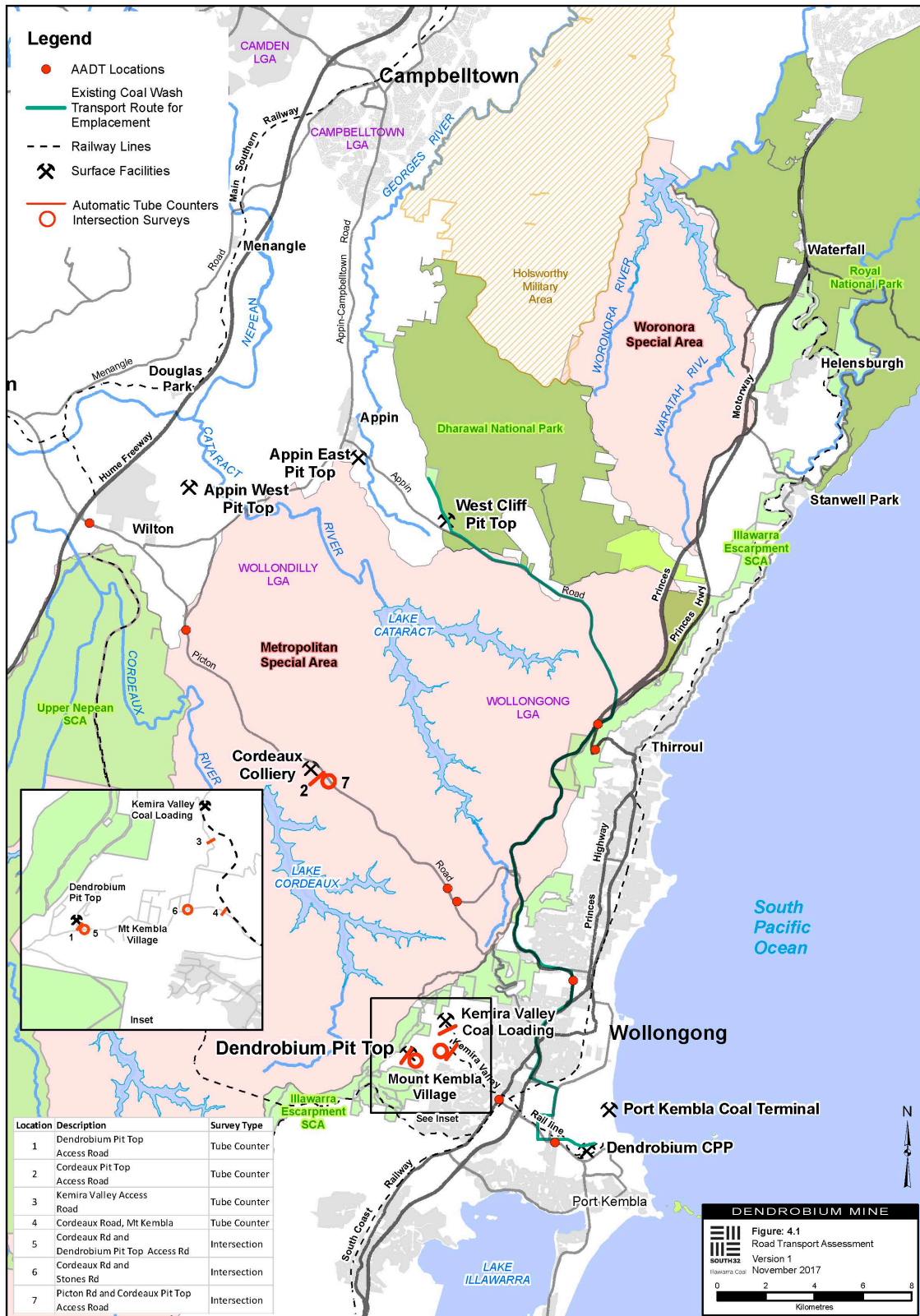
Princes Motorway (Route M1) is predominantly a dual carriageway motorway linking Waterfall in the south of Sydney to Mount Ousley Road and the Illawarra Highway at Yallah. It follows a roughly parallel route to the Princes Highway to the Bulli Tops interchange, bypassing the Wollongong CBD. **Mount Ousley Road** is the portion of the Princes Motorway between the top of Bulli Pass and North Wollongong, where Mount Ousley Road extends to the Princes Highway. Mount Ousley Road typically has two or three travel lanes in each direction, with truck and bus lanes for the slower moving vehicles on the steep grades.

A level crossing of the Kemira Valley Rail Line is located on **Central Road**, south of its intersection with Cordeaux Road. The crossing is actively controlled, with flashing lights and boom arms, and a dedicated gated pedestrian path on the western side. Yellow cross-hatching on the road surface indicates the area which drivers are expected to keep clear, noting that a queue of vehicles from the signals at the intersection of Central Road and Cordeaux Road could extend across the level crossing if not properly managed. Queuing space of approximately 40 metres (m) is provided between the signalised intersection stop line and the cross hatched area at the level crossing. North of the level crossing, Central Road has two northbound travel lanes, thus up to 12 cars could queue (six in each lane) at the signals and remain clear of the level crossing. Turn bays are provided on both approaches of Cordeaux Road, which allow any vehicles waiting to turn into Central Road to remain clear of the through lanes.

4.2 Historic Traffic Volumes

RMS collects and publishes traffic volume data on classified roads throughout NSW. Annual Average Daily Traffic (AADT) data on roads near the Mine has been collated from the RMS data. AADT is the average number of vehicles passing the survey location per day, measured over one year, with consideration of seasonal variations. At some locations, reported volumes are for one direction of travel only, which are noted in Table 4.1. Unless noted below, volumes are otherwise for two-way traffic. Survey locations are presented in Figure 4.1.

Figure 4.1: Traffic Survey Locations



Doc Path: W:\Workspace\Energy_Engineering\Mining_Approvals\Dendrobium\West_Coast\Supporting_projects\Road_Transport_Assessment\MD\Road_Transport_Assessment.mxd

Table 4.1: AADT Volumes (vehicles per day)

Road and Location	2012	2013	2014	2015	2016
Picton Road East of Janderra Lane, Wilton	15,586	8,580 ^A	-	-	-
Picton Road North of Mount Keira Road, Cordeaux	-	-	-	17,112	18,958
Picton Road East of Mount Keira Road, Cataract	10,484	-	-	-	-
Picton Road South of Macarthur Drive, Wilton	-	-	-	8,623 ^B	9,580 ^B
Princes Motorway (M1) West of Helen Street, North Wollongong	-	-	-	24,171 ^C	24,604 ^C
Princes Highway East of Five Islands Road, Unanderra	-	-	-	10,636 ^C	10,685 ^C
Five Islands Road East of Lake Avenue, Spring Hill	38,960	40,817	40,915	40,691	41,362
Mount Ousley Road (M1) West of Princes Highway, Cataract	-	-	-	16,742 ^C	17,779 ^C
Princes Highway South of Princes Motorway, Bulli	11,975	12,131	12,782	12,992	12,670

^A Westbound only^B Eastbound only^C Southbound only

Table 4.1 indicates that growth in traffic on the arterial roads has varied significantly over the different routes, with growth in the recorded volumes from 2015 to 2016 of:

- Picton Road – approximately 11 per cent;
- Mount Ousley Road – approximately 6.2 per cent;
- Princes Highway – approximately 1.8 per cent at North Wollongong, 0.5 per cent at Unanderra and approximately -2.5 per cent (decrease) at Bulli; and
- Five Islands Road – approximately 1.6 per cent.

The recorded growth on Picton Road and Mount Ousley Road is high for a single year and unlikely to be sustained on a long-term basis. By comparison, the RMS AADT data on Picton Road at Wilton shows average annual growth of 2.6 per cent per annum between 2006 and 2012, and on Picton Road east of Mount Keira Road shows a decline of 4.1 per cent per annum between 2008 and 2012 (note results prior to 2012 are not included in Table 4.1). The two locations on Five Islands Road and the Princes Highway Bulli, at which data is available from 2012 both showed growth over that extended period of an average of 1.5 per cent per annum.

The RMS survey station on Picton Road north of Mount Keira Road is a permanent classifier station, which provides additional data about the traffic characteristics at that location. A summary of the additional data for 2015 and 2016 is presented in Table 4.2.

Table 4.2: Traffic Characteristics Picton Road North of Mount Keira Road

	Eastbound	Westbound	Two-Way	Per cent Heavy Vehicles (%)
2015				
AM peak 6 am-10 am ^A	2,389	2,568	4,957	26.02
PM peak 3 pm-7 pm ^A	2,888	2,225	5,113	16.86
Weekdays ^B	9,163	8,822	17,985	24.90
Weekends ^B	7,380	7,278	14,658	9.52
All days ^B	8,685	8,427	17,112	21.21
2016				
AM peak 6 am-10 am ^A	2,607	2,796	5,403	25.91
PM peak 3 pm-7 pm ^A	3,287	2,442	5,729	16.97
Weekdays ^B	10,134	9,701	19,835	24.72
Weekends ^B	8,288	8,340	16,628	9.71
All days ^B	9,657	9,301	18,958	21.07

^A vehicles over four hour period

^B vehicles per day

This data demonstrates that the peak direction of traffic flow on Picton Road is westbound during the morning four-hour period, and eastbound during the evening four-hour period. The directional split during the morning four-hour period is approximately 52 per cent in the peak direction, which is less distinct than during the evening four-hour period, which is 57 per cent in the peak direction.

Traffic volumes on weekends are lower than on weekdays, with a notable difference being the proportion of heavy vehicles. On weekend days, heavy vehicles make up less than ten per cent of total vehicles on Picton Road, while on weekdays, heavy vehicles make up nearly 25 per cent of total vehicles on Picton Road.

Further review of the 2016 data indicates that the busiest hour during the morning occurred between 7.00 am and 8.00 am, with 1,236 vehicles, and the busiest hour during the evening occurred between 4.00 pm and 5.00 pm, with 1,550 vehicles (both measured over all days).

4.3 Traffic Survey Program

To quantify existing traffic conditions on routes of particular relevance to the Mine and the Project, a program of traffic surveys was undertaken during March and April 2017. The traffic survey program included surveys of peak period turning movements at key intersections, and automatic tube counter (ATC) surveys over one week.

The intersection surveys were conducted on Thursday 30 March 2017 between 5.30 am and 8.30 am, and between 2.00 pm and 5.00 pm at the intersections of:

- Cordeaux Road and the Dendrobium Pit Top Access Road;
- Cordeaux Road and Stones Road; and
- Picton Road and the Cordeaux Pit Top Access Road.

The ATC surveys were conducted continuously from 30 March to 5 April 2017 inclusive on:

- Dendrobium Pit Top Access Road (excluding visitor car park);
- Cordeaux Pit Top Access Road;
- Kemira Valley Coal Loading Facility Access Road; and
- Cordeaux Road in Mount Kembla.

The locations of the traffic surveys are presented in Figure 4.1. The results of the traffic surveys conducted in March to April 2017 are presented in Appendix A. Key results of the surveys are summarised below, noting that the ATC survey results were adjusted to consider the change from Australian Eastern Daylight Time to Australian Eastern Standard Time at 3.00am on the surveyed Sunday.

4.3.1 Intersection Surveys

The results of the intersection turning movement surveys have been reviewed, and the following observations made:

- At the intersection of the Dendrobium Pit Top Access with Cordeaux Road, distinct short peaks in traffic occurred as follows:
 - inbound between 5.30 am and 6.00 am;
 - outbound between 7.45 am and 8.45 am; and
 - outbound between 4.15 pm and 4.45 pm.
- At the intersection of the Cordeaux Pit Top Access with Picton Road:
 - there was no outbound traffic during the morning survey period;
 - the majority of inbound traffic arrived between 6.45 am and 8.15 am; and
 - the majority of outbound traffic departed between 3.15 pm and 4.45 pm.
- Over the six hours surveyed, approximately 95 per cent of traffic using the Dendrobium Pit Top Access Road approached from or departed to Cordeaux Road east, and approximately 89 per cent of traffic using the Cordeaux Pit Top Access Road approached from or departed to Picton Road east.

The peak hour at each intersection was determined by comparing the total number of vehicles travelling through the intersection during any one-hour period. Table 4.3 summarises the surveyed vehicle turning movements during the peak hours at each of the intersections.

Table 4.3: Peak Hour Intersection Survey Results (vehicles per hour)

Intersection and Peak Time	Through Movements		Into Minor Road		Out from Minor Road	
	Eastbound	Westbound	Right In	Left In	Right Out	Left Out
Cordeaux Road and Dendrobium Pit Top Access Road						
7.15 am to 8.15 am	22	29	22	1	2	43
4.00 pm to 5.00 pm	35	17	2	2	1	49
Cordeaux Road and Stones Road						
7.30 am to 8.30 am	182	77	8	2	2	30
3.30 pm to 4.30 pm	164	126	9	3	5	14
Picton Road and Cordeaux Pit Top Access Road						
7.15 am to 8.15 am	883	861	1	13	0	0
3.45 pm to 4.45 pm	911	707	0	2	11	1

The survey results demonstrate that during the busiest hours at the Cordeaux Road intersection with the Dendrobium Pit Top Access Road, traffic volumes on all movements were relatively low, with up to 52 vehicles per hour travelling through on Cordeaux Road, and up to 68 vehicles per hour turning in or out of the access road.

During the busiest hours at the Cordeaux Road intersection with Stones Road, through traffic along Cordeaux Road was moderate, at up to 290 vehicles per hour, while turning volumes were low at up to 42 vehicles per hour turning into or out of Stones Road. The majority of vehicles in Stones Road turned to or from Cordeaux Road east of Stones Road.

Through traffic volumes on Picton Road were high during the busiest hours, reflecting its role in the regional road network. Picton Road carried up to 1,744 vehicles per hour past the Cordeaux Pit Top Access Road during the peak hours. The number of vehicles turning in and out of the access road was low, at 14 vehicles per hour.

4.3.2 Automatic Tube Counter Surveys

The results of the ATC surveys have been reviewed and the surveyed daily traffic volumes are summarised in Table 4.4.

Table 4.4: Surveyed Daily Traffic by Day of the Week (vehicles per day)

Location	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Dendrobium Pit Top Access Road ^A	526	601	569	545	401	195	192
Cordeaux Pit Top Access Road	107	116	123	97	73	6	4
Kemira Valley Coal Loading Facility Access Road	33	37	44	36	25	18	20
Cordeaux Road	3,230	3,574	3,758	3,509	3,774	3,412	2,894

^A excludes traffic to/from the visitor parking area at Dendrobium Pit Top

The results indicate that traffic conditions on the Mine access roads on weekdays are distinctly different from those on weekend days, and distinctly lower on the Friday compared with the other weekdays. In contrast, surveyed daily traffic on Cordeaux Road was at its highest on Friday and the surveyed volume on the Saturday was greater than on the Monday.

The traffic surveys also provide data on the composition of the traffic based on standard vehicle classifications. Light vehicles include motorcycles, cars, vans, four-wheel drives (4WDs), and utilities (including those towing a trailer or caravan). Heavy rigid vehicles include single unit trucks and buses including some of the longer wheelbase 4WDs and utilities, and articulated vehicles include semi-trailers, rigid trucks with trailers, B-doubles and road trains. Review of the surveyed traffic composition against the observed conditions indicates that many of the heavy rigid vehicles recorded on the Dendrobium Pit Top Access Road were utilities and 4WDs rather than trucks or buses.

Table 4.5 presents the contributions of light and heavy vehicles to average weekday daily traffic from the March to April 2017 surveys.

Table 4.5: Surveyed Average Weekday Daily Traffic (vehicles per day)

Location	Light	Heavy Rigid	Heavy Articulated	Heavy Vehicle Proportion (%)
Dendrobium Pit Top Access Road ^A	474	51	2	10.1
Cordeaux Pit Top Access Road	89	11	3	13.6
Kemira Valley Coal Loading Facility Access Road	29	6	0	17.1
Cordeaux Road	3,354	200	14	6.0

^A excludes traffic to/from the visitor parking area at Dendrobium Pit Top

The spread of traffic throughout the average weekday is such that the busiest hour at each of the surveyed locations does not necessarily coincide. Table 4.6 presents the volumes surveyed during the busiest hour in the morning (midnight to midday) and busiest hour in the evening (midday to midnight) on the average weekday and the time at which the busiest hour occurred.

Table 4.6: Surveyed Average Weekday Peak Hour Traffic (vehicles per hour)

Location	AM Peak Time ^A	Vehicles	PM Peak Time ^A	Vehicles
Dendrobium Pit Top Access Road	5.00am	69	4.00pm	56
Cordeaux Pit Top Access Road	7.00am	14	3.00pm	14
Kemira Valley Coal Loading Facility Access Road	7.00am	5	3.00pm	3
Cordeaux Road	8.00am	329	4.00pm	342

^A Hour starting

It is noted that during the morning, the busiest hours for traffic on the Dendrobium and Cordeaux Pit Top accesses do not coincide with the busiest hour on Cordeaux Road east of Mount Kembla. Background morning conditions on Cordeaux Road peak at between 8.00am and 9.00am, which is likely attributable to school activity and residents departing Mount Kembla to work in the local area or region.

4.4 Road Safety History

Validated crash data was obtained from RMS for the most recent five-year period available, being from 1 July 2011 to 30 June 2016. The data includes those crashes which conform with the national guidelines for reporting and classifying road vehicle crashes based on the following criteria:

- The crash was reported to the police.
- The crash occurred on a road open to the public.
- The crash involved at least one moving vehicle.
- The crash involved at least one person being killed or injured or at least one motor vehicle being towed away.

Crash data was obtained and reviewed for key roads likely to be used by vehicles travelling to and from the Mine:

- Cordeaux Road;
- Harry Graham Drive;
- Mount Keira Road between Picton Road and Clive Bissell Drive;
- Picton Road between Hume Motorway and Mount Ousley Road;
- Clive Bissell Drive; and
- Local roads in Mount Kembla.

Table 4.7 summarises the number and general types of crashes which occurred on the sections of road under consideration.

Table 4.7: General Crash Types on Mine Access Routes (1 July 2011 to 30 June 2016)

Road	Pedestrian	Multiple Vehicles					Single Vehicle			Other
		Adjacent Approaches	Opposing Directions	Same Direction	U-turn/Parking	Overtaking	On Path	Off Path on Straight	Off Path on Curve	
Cordeaux Road	1	6	5	10	0	0	2	13	9	0
Harry Graham Drive	0	0	1	0	0	0	2	1	4	0
Mount Keira Road Picton Road to Clive Bissell Drive ^A	0	3	0	0	0	0	1	2	2	0
Picton Road Hume Motorway to Mount Ousley Road	0	14 ^B	29 ^C	22	2	3 ^B	4	18	43	0
Clive Bissell Drive	0	0	0	0	0	0	0	0	3	0
Local Roads in Mount Kembla	0	0	0	0	0	0	0	0	1	0
Total Crashes by Type	1	23	35	32	2	3	9	34	62	0
Total People Injured	1	20	28	30	0	4	4	22	25	0
Total People Killed	0	1	5	0	0	1	0	0	0	0

^A includes crashes at the intersection with Picton Road

^B Includes one fatal crash

^C includes four fatal crashes

Over the five years and routes reviewed, a total of 201 crashes occurred on the combined routes, resulting in seven fatalities and 134 people being injured.

Picton Road accounted for approximately two-thirds of all the crashes. This would be expected as it carries significantly higher volumes of traffic than any of the other roads, and the length of road reviewed is significantly longer than the other routes, hence its exposure to crashes is inherently higher than that of the other roads.

On the "rural" roads with limited direct access to properties (Harry Graham Drive, Clive Bissell Drive and Mount Keira Road), the most common types of crashes involved single vehicles leaving the carriageway, known as run-off-road (ROR) crashes, which made up 63 per cent of the reported crashes, and 50 per cent of injured people on those roads. This is consistent with Austroads (2015), which found that in rural road environments in Australia, off-path crashes were the most likely. ARRB (2011) states that known causes of ROR crashes include:

- driver behaviours such as speed, inattention, avoidance manoeuvres, errant vehicles;
- driver impairment including fatigue, alcohol, drugs, mood state;
- road conditions such as horizontal alignment, shoulder deficiencies, slippery surface, poor delineation, damaged surfaces;
- vehicle failure; and
- environmental conditions such as rain, fog, snow, livestock or native fauna.

On these rural roads, crashes between vehicles travelling in adjacent directions at intersections are generally low in number, noting the three crashes reported on Mount Keira Road all occurred at the intersection with Picton Road.

A detailed review of the crashes on each route is provided in the following sections.

4.4.1 Cordeaux Road

As the Mine has its primary vehicular access from Cordeaux Road, the majority of traffic travelling to and from the Mine uses Cordeaux Road. The details of the crash history of Cordeaux Road between 1 July 2011 and 30 June 2016 are summarised in Table 4.8.

Table 4.8: Cordeaux Road Crash Summary

	Pedestrian	Multiple Vehicles					Single Vehicle			Other
		Adjacent Approaches	Opposing Directions	Same Direction	U-turn/Parking	Overtaking	On Path	Off Path on Straight	Off Path on Curve	
Total Crashes	1	6	5	10	-	-	2	13	9	-
Road Surface Condition										
Dry Road	1	6	4	10	-	-	2	11	5	-
Wet Road	-	-	1	-	-	-	-	2	4	-
Weather										
Fine	1	6	4	10	-	-	1	11	5	-
Overcast	-	-	-	-	-	-	1	-	-	-
Raining	-	-	1	-	-	-	-	2	3	-
Unknown	-	-	-	-	-	-	-	-	1	-
Vehicle Type										
Pedal cycle	-	-	-	-	-	-	-	2	-	-
Motorcycle	-	2	-	-	-	-	2	2	1	-
Car, station wagon, 4WD, van	1	8	6	11	-	-	-	9	6	-
Light or Large Truck or Bus	-	-	-	2	-	-	-	-	2	-
Articulated Vehicle	-	-	-	1	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
Severity of Crash										
Fatal	-	-	-	-	-	-	-	-	-	-
Injury	1	5	1	6	-	-	2	10	2	-
Non-injury	-	1	4	4	-	-	-	3	7	-
People Killed or Injured										
Killed	-	-	-	-	-	-	-	-	-	-
Injured	1	7	1	8	-	-	2	14	2	-
Factors^A										
Speed	-	2	2	-	-	-	-	1	6	-
Fatigue	-	-	-	-	-	-	-	2	-	-
None	1	4	3	10	-	-	2	10	3	-

^A Factors considered to have contributed to the crash. More than one factor can be nominated for a single crash.

The data indicates that over the five-year period investigated, 46 crashes occurred along Cordeaux Road, resulting in 35 people being injured. No fatal crashes occurred on the route.

Crashes were spread along the length of Cordeaux Road with no noticeable concentration in any one location. Approximately two-thirds of the crashes occurred at the eastern end of the

route, in Cordeaux Heights/Figtree/Unanderra, while the remaining one-third occurred in and around Mount Kembla and Kembla Heights. No crashes occurred at or close to the intersection of Cordeaux Road and the Dendrobium Pit Top Access Road, nor close to the intersection of Cordeaux Road and Stones Road.

The data reveals one crash on Cordeaux Road over the five-year period involving a pedestrian. This occurred at 9.20 pm on Saturday 20 July 2013. A westbound car struck a pedestrian who was crossing the carriageway of Cordeaux Road from north to south, approximately 100 m west of William James Drive. The location described is at or near the crossing of American Creek. At the time of the crash, there was no footpath on either side of Cordeaux Road along this section of Cordeaux Road. The shoulder on the northern side of Cordeaux Road is not suited to pedestrian access being of limited width and constrained by the safety fencing which separates the public from the railway line. At the time of the crash, "Armco" barrier railings were located on each side of Cordeaux Road at the creek crossing, which reduced the available road shoulder space, thus this location had very poor pedestrian amenity. Since then, the shared path has been constructed on the southern side of Cordeaux Road, providing a safe route for pedestrians travelling along Cordeaux Road.

The crash history of Cordeaux Road is not considered to highlight any particular concerns relating to pedestrian safety over the period investigated, noting that the construction of the shared path on the southern side of Cordeaux Road significantly improves conditions for pedestrians.

4.4.2 Local Roads in Mount Kembla

The crash history of Stones Road and the local roads in Mount Kembla was reviewed. Between 1 July 2011 and 30 June 2016, one crash occurred on these roads (excluding any crashes at intersections with Cordeaux Road, which are included in Section 4.4.1).

The crash occurred at the L-intersection of Benjamin Road and Kirkwood Place, and involved a single vehicle which left the carriageway while turning left and struck a fence. The crash occurred in daylight, during fine weather and on a dry road surface. Speed was nominated as a contributing factor.

No crashes occurred on Stones Road, and no crashes in the local Mount Kembla area involved a pedestrian.

4.4.3 Harry Graham Drive

The crash history of Harry Graham Drive between 1 July 2011 and 30 June 2016 is summarised in Table 4.9. The data indicates that over the five-year period investigated, eight crashes occurred along Henry Graham Drive, resulting in five people being injured. No fatal crashes occurred on the route.

Of the eight crashes, three occurred in the general vicinity of a hairpin bend which has an advisory speed of 25 km/h. Examination of the crashes indicates that two of these crashes occurred when a vehicle struck an object on the road (object not specified, non-fixed object, not a vehicle, animal or roadworks), and one involved loss of control of a motorcycle, with speed nominated as a contributing factor.

Table 4.9: Harry Graham Drive Crash Summary

	Pedestrian	Multiple Vehicles					Single Vehicle			Other
		Adjacent Approaches	Opposing Directions	Same Direction	U-turn/Parking	Overtaking	On Path	Off Path on Straight	Off Path on Curve	
Total Crashes	-	-	1	-	-	-	2	1	4	-
Road Surface Condition										
Dry Road	-	-	-	-	-	-	1	-	3	-
Wet Road	-	-	1	-	-	-	1	1	1	-
Weather										
Fine	-	-	-	-	-	-	1	-	4	-
Overcast	-	-	-	-	-	-	1	-	-	-
Raining	-	-	1	-	-	-	-	1	-	-
Unknown	-	-	-	-	-	-	-	-	-	-
Vehicle Type										
Pedal cycle	-	-	-	-	-	-	-	-	-	-
Motorcycle	-	-	1	-	-	-	1	-	1	-
Car, station wagon, 4WD, van	-	-	1	-	-	-	1	1	3	-
Light or Large Truck or Bus	-	-	-	-	-	-	-	-	-	-
Articulated Vehicle	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
Severity of Crash										
Fatal	-	-	-	-	-	-	-	-	-	-
Injury	-	-	1	-	-	-	1	1	2	-
Non-injury	-	-	-	-	-	-	1	-	2	-
People Killed or Injured										
Killed	-	-	-	-	-	-	-	-	-	-
Injured	-	-	1	-	-	-	1	1	2	-
Factors^A										
Speed	-	-	-	-	-	-	1	-	3	-
Fatigue	-	-	-	-	-	-	-	1	-	-
None	-	-	1	-	-	-	1	-	1	-

^A Factors considered to have contributed to the crash. More than one factor can be nominated for a single crash.

4.4.4 Mount Keira Road

The details of the crash history of Mount Keira Road from Picton Road to Clive Bissell Drive between 1 July 2011 and 30 June 2016 are summarised in Table 4.10. These include those crashes that occurred at the intersection with Picton Road.

Table 4.10: Mount Keira Road Crash Summary

	Pedestrian	Multiple Vehicles					Single Vehicle			Other
		Adjacent Approaches	Opposing Directions	Same Direction	U-turn/Parking	Overtaking	On Path	Off Path on Straight	Off Path on Curve	
Total Crashes	-	3	-	-	-	-	1	2	2	-
Road Surface Condition										
Dry Road	-	3	-	-	-	-	1	1	1	-
Wet Road	-	-	-	-	-	-	-	1	1	-
Weather										
Fine	-	2	-	-	-	-	1	2	-	-
Overcast	-	1	-	-	-	-	-	-	1	-
Raining	-	-	-	-	-	-	-	-	1	-
Unknown	-	-	-	-	-	-	-	-	-	-
Vehicle Type										
Pedal cycle	-	-	-	-	-	-	-	-	-	-
Motorcycle	-	-	-	-	-	-	-	-	-	-
Car, station wagon, 4WD, van	-	2	-	-	-	-	1	2	2	-
Light or Large Truck or Bus	-	1	-	-	-	-	-	-	-	-
Articulated Vehicle	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
Severity of Crash										
Fatal	-	-	-	-	-	-	-	-	-	-
Injury	-	3	-	-	-	-	-	-	1	-
Non-injury	-	-	-	-	-	-	1	2	1	-
People Killed or Injured										
Killed	-	-	-	-	-	-	-	-	-	-
Injured	-	3	-	-	-	-	-	-	1	-
Factors^A										
Speed	-	1	-	-	-	-	-	-	2	-
Fatigue	-	-	-	-	-	-	-	-	-	-
None	-	2	-	-	-	-	1	2	-	-

^A Factors considered to have contributed to the crash. More than one factor can be nominated for a single crash.

The data indicates that over the five-year period investigated, eight crashes occurred along Mount Keira Road between Picton Road and Clive Bissell Drive, resulting in four people being injured. No fatal crashes occurred on the route.

Five crashes occurred at the intersection with Picton Road, of which:

- three involved vehicles turning right from Mount Keira Road colliding with through traffic on Picton Road;
- one involved a vehicle striking a non-specified "falling object" on the road; and
- one involved loss of control of a westbound vehicle on a wet road in Picton Road striking the wire barrier in the median island.

Thus, three of the five crashes at the intersection were related to opposing traffic movements at the intersection, the others were apparently unrelated to the intersection itself. The remainder of crashes on Mount Keira Road were single vehicle crashes, with loss of control of the vehicle.

4.4.5 Clive Bissell Drive

The details of the crash history of Clive Bissell Drive between 1 July 2011 and 30 June 2016 are summarised in Table 4.11.

Table 4.11: Clive Bissell Drive Crash Summary

	Pedestrian	Multiple Vehicles					Single Vehicle			Other
		Adjacent Approaches	Opposing Directions	Same Direction	U-turn/Parking	Overtaking	On Path	Off Path on Straight	Off Path on Curve	
Total Crashes	-	-	-	-	-	-	-	-	3	-
Road Surface Condition										
Dry Road	-	-	-	-	-	-	-	-	2	-
Wet Road	-	-	-	-	-	-	-	-	1	-
Weather										
Fine	-	-	-	-	-	-	-	-	1	-
Overcast	-	-	-	-	-	-	-	-	1	-
Raining	-	-	-	-	-	-	-	-	1	-
Unknown	-	-	-	-	-	-	-	-	-	-
Vehicle Type										
Pedal cycle	-	-	-	-	-	-	-	-	-	-
Motorcycle	-	-	-	-	-	-	-	-	-	-
Car, station wagon, 4WD, van	-	-	-	-	-	-	-	-	2	-
Light or Large Truck or Bus	-	-	-	-	-	-	-	-	1	-
Articulated Vehicle	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
Severity of Crash										
Fatal	-	-	-	-	-	-	-	-	-	-
Injury	-	-	-	-	-	-	-	-	1	-
Non-injury	-	-	-	-	-	-	-	-	2	-
People Killed or Injured										
Killed	-	-	-	-	-	-	-	-	-	-
Injured	-	-	-	-	-	-	-	-	1	-
Factors^A										
Speed	-	-	-	-	-	-	-	-	2	-
Fatigue	-	-	-	-	-	-	-	-	-	-
None	-	-	-	-	-	-	-	-	1	-

^A Factors considered to have contributed to the crash. More than one factor can be nominated for a single crash.

The data indicates that over the five-year period investigated, three crashes occurred along Clive Bissell Drive, resulting in one person being injured. No fatal crashes occurred on Clive Bissell Drive. All three crashes occurred in darkness.

Two of the crashes occurred on the bends approximately 2 km south of Mount Ousley Road and involved single vehicles leaving the carriageway with speed nominated as a factor in both.

4.4.6 Picton Road

The key relevant sections of Picton Road are the intersections of Picton Road with Mount Keira Road, and with the Cordeaux Pit Top Access Road. The former is discussed in Section 4.4.4. The RMS data indicates two crashes occurred at or near the Cordeaux Pit Top Access Road intersection, as follows:

- 5.00 am on Sunday 22 April 2011, an eastbound car in Picton Road veered to the right and ran off the road. This occurred on a dry road surface in fog or misty conditions. One person was injured.
- 2.28 pm on Tuesday 24 March 2015, a southbound car in Picton Road left the carriageway to the left and struck an embankment. This occurred on a wet road in raining weather. No person was injured.

Neither of these crashes appear to be specifically related to vehicles turning at the intersection itself. Inappropriate speed or fatigue were not specified as contributing factors to either of these crashes.

As the Project proposes use of the Cordeaux Dam Access Road for access to the new Dendrobium Shaft Sites, the crash history of that intersection was also reviewed. One crash occurred at or near the Cordeaux Dam Access Road, as follows:

- 5.50 pm on Wednesday 16 November 2011, an eastbound in Picton Road left the carriageway to the right on a left bend and struck a fence. This occurred on a wet road in raining weather. No person was injured, and speed was nominated as a contributing factor.

It is noted that upgrade works were undertaken around this intersection during 2011, including pavement and shoulder widening, right hand storage lane construction, wire rope median installation and drainage installation. It is unknown whether the crash above occurred prior to completion of the upgrade works, however the "fence" struck by the vehicle was possibly the wire rope median fence.

4.5 Kemira Valley Rail Level Crossings

The Mine makes use of the Kemira Valley Rail Line to transport coal from the Kemira Valley Coal Loading Facility to the Dendrobium CPP, located within the Port Kembla Steelworks precinct. Between the Kemira Valley Coal Loading Facility and Port Kembla Steelworks, the Kemira Valley Rail Line crosses a number of roads, typically at grade-separated crossings. The two level crossings along the Kemira Valley Rail Line are:

- a level crossing on Central Road south of Cordeaux Road (refer to Section 4.1) which is actively controlled with boom arms and flashing lights; and
- a level crossing on an unnamed access road off Marley Place at Unanderra. The road provides access to a single industrial site and is controlled with signs and flashing lights.

4.6 Dendrobium Mine and Cordeaux Pit Top Traffic

4.6.1 Surveyed Mine and Cordeaux Pit Top Traffic Generation

The results of the traffic survey program allow the existing traffic generated by the Mine and Cordeaux Pit Top to be quantified. Table 4.12 summarises the daily vehicle trips made by light and heavy (rigid and articulated combined) vehicles over the surveyed period. A trip is a one-way movement, so a single vehicle arriving then departing generates two vehicle trips.

Table 4.12: Surveyed Daily Mine and Cordeaux Pit Top Vehicle Trip Generation (vehicles per day)

Day	Dendrobium Pit Top			Kemira Valley Coal Loading			Cordeaux Pit Top		
	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total
Monday	468	58	526	24	9	33	94	13	107
Tuesday	545	56	601	33	4	37	94	22	116
Wednesday	504	65	569	40	4	44	104	19	123
Thursday	489	56	545	31	5	36	91	6	97
Friday	365	36	401	19	6	25	63	10	73
Saturday	182	13	195	18	0	18	4	2	6
Sunday	181	11	192	20	0	20	2	2	4
Average Weekday	474	54	528	29	6	35	89	14	103

Note: excludes traffic to/from the visitor parking area at Dendrobium Pit Top

Review of the data demonstrates that traffic generation over the three sites on weekdays was an average of 666 vehicles per day, with approximately 80 per cent being to and from the Dendrobium Pit Top, 15 per cent to and from the Cordeaux Pit Top and five per cent to and from the Kemira Valley Coal Loading Facility. It is noted however, that with regard to traffic generation, the surveyed Friday traffic generation was significantly lower from the other weekdays. On Friday, the three sites generated 499 vehicle trips, while on the other weekdays, they generated between 666 and 754 (average 709) vehicle trips. This difference is due to the changed shift arrangements on Friday compared with the other weekdays.

To consider typical weekday conditions, Table 4.13 summarises the peak hourly and daily traffic surveyed on the average weekday excluding Fridays on the Mine and Cordeaux Pit Top access roads. The overall busiest hour during the morning for mine-generated traffic was between 5.00 am and 6.00 am, and the busiest hour during the afternoon was between 4.00 pm and 5.00 pm.

Table 4.13: Surveyed Average Mine and Cordeaux Pit Top Traffic Generation Monday to Thursday

Access Location	5.00am to 6.00am (vehicles/hour)			4.00pm to 5.00pm (vehicles/hour)			Daily (vehicles/day)		
	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total
Dendrobium Pit Top Access Road	68	7 ^A	75	61	5	66	501	59	560
Kemira Valley Coal Loading Facility Access Road	0	0	0	2	0	2	32	6	38
Cordeaux Pit Top Access Road	1	0	1	15	0	15	96	15	111
Total Traffic	69	7	76	78	5	83	629	80	709

Note: excludes traffic to/from visitor parking area at Dendrobium Pit Top

^A Observations indicate all heavy vehicles during the morning peak hour were large 4WDs and utilities.

4.6.2 Total Mine Traffic Generation

To correctly record vehicles entering and exiting at the Dendrobium Pit Top Access, the ATC was located west of the access, and so did not record vehicles entering or exiting the parking area to the east of the access. That car park contains some 30 formal and informal car parking spaces, of which six are signposted as "visitor" parking. Observations on site indicate that it is heavily used, with three to four spaces available in the middle of the day. The car park is used by a mix of staff and visitors.

To determine the total traffic generated by the Dendrobium Pit Top, the additional traffic to and from the visitor car park has been estimated. To estimate the additional vehicle trips made to and from that car park on a typical weekday, the following assumptions have been made:

- The surveyed traffic on the access road included all deliveries, and staff parking associated with the car parking spaces available within the main site.
- Approximately half of the surveyed heavy vehicles were small two axle trucks, some of which would be larger 4WDs and utilities used by staff and contractors as well as for smaller deliveries.
- The 24 non-visitor parking spaces in the visitor car park (formal and informal) are used by employees and contractors and would turn over at the same rate per day and per hour as the parking spaces in the main site. There are approximately 120 formal and informal car parking spaces in the main site.
- The six formal visitor spaces are used only by visitors, with up to 12 visitors per day on a busy day.

Table 4.14 presents the calculation of the total traffic generation of the Dendrobium Pit Top.

Table 4.14: Average Mine Traffic Monday to Thursday – Dendrobium Pit Top Access Only

	Surveyed Main Site	Visitor Car Park
Staff Parking Spaces	120	24
Staff Vehicle Trips per Day	520 (501 light and 19 small truck)	104 (100 light and 4 small truck)
Visitor Vehicle Trips per Day	0	24
Delivery Trips per Day	40	0

Thus, on a busy weekday, the Dendrobium Pit Top Access would be expected to generate

- 624 trips by employees and contractors;
- 24 trips by visitors; and
- 40 heavy vehicle delivery trips.

Table 4.15 presents the resulting peak hourly and daily traffic generation of the Mine and Cordeaux Pit Top.

Table 4.15: Calculated Average Mine and Cordeaux Pit Top Traffic Generation Monday to Thursday

Access Location	5.00am to 6.00am (vehicles/hour)			4.00pm to 5.00pm (vehicles/hour)			Daily (vehicles/day)		
	Light	Heavy	Total	Light	Heavy	Total	Light	Heavy	Total
Dendrobium Pit Top Access Road	68	7	75	61	5	66	501	59	560
Dendrobium Pit Top Visitor Carpark – Employees and Contractors	14	1	15	12	1	13	100	4	104
Dendrobium Pit Top Visitor Carpark - Visitors	0	0	0	0	0	0	24	0	24
Kemira Valley Coal Loading Facility Access Road	0	0	0	2	0	2	32	6	38
Cordeaux Pit Top Access Road	1	0	1	15	0	15	96	15	111
Total Traffic	83	8	91	90	6	96	753	84	837

Thus, on a typical weekday, the Mine and Cordeaux Pit Top are estimated to generate a combined total of 837 vehicle trips per day.

4.6.3 Dendrobium Mine and Cordeaux Pit Top Vehicle Trip Types

Using the surveyed traffic data and information on the use of each access, the number of vehicle trips generated by each of the types of vehicles has been estimated as shown in Table 4.16. Deliveries at the Kemira Valley Coal Loading Facility and the Cordeaux Pit Top are assumed to include the movement of equipment to and from the site.

Table 4.16: Average Day Vehicle Trips by Type Monday-Thursday

Access Location	Employees and Contractors ^A	Deliveries	Visitors
Daily (vehicles per day)			
Dendrobium Pit Top	624	40	24
Kemira Valley Coal Loading Facility	32	6	0
Cordeaux Pit Top	107	4	0
Total	763	50	24
5.00 am to 6.00 am (vehicles per hour)			
Dendrobium Pit Top	86	4	0
Kemira Valley Coal Loading Facility	0	0	0
Cordeaux Pit Top	1	0	0
Total	87	4	0
4.00 pm to 5.00 pm (vehicles per hour)			
Dendrobium Pit Top	76	3	0
Kemira Valley Coal Loading Facility	2	0	0
Cordeaux Pit Top	15	0	0
Total	93	3	0

^A Employee and contractor movements include light and heavy vehicle trips, and may include "internal" trips, for example employees or contractors leaving the site to undertake monitoring activities at another site or take smoking/lunch breaks, and then returning to site, or employees or contractors travelling between the various surface facilities.

4.6.4 Dendrobium Mine and Cordeaux Pit Top Traffic Distribution

The results of the intersection turning movement surveys provide insight into the directions in which vehicles travel to and from the various surface facilities. Over the six hours surveyed, approximately 95 per cent of traffic using the Dendrobium Pit Top Access Road approached from or departed to Cordeaux Road east, and approximately 89 per cent of traffic using the Cordeaux Pit Top Access Road approached from or departed to Picton Road east.

The results at the Dendrobium Pit Top Access Road are reasonably consistent with the routes expected to be used by employees travelling to and from the Mine as derived from the residential postcodes (Table 2.2). Review of that data suggested that 2.7 per cent of employees would travel to and from the west via Picton Road, and that some employees travelling to/from the north via the motorway may choose to use Harry Graham Drive and Mount Keira Road, and so would enter and exit the access road to and from the west.

The distribution of the Mine and Cordeaux Pit Top traffic onto the surrounding roads has been estimated as summarised in Table 4.17.

Table 4.17: Vehicle Trip Distribution Monday-Thursday

Route and Access Location	Employees and Contractors			Deliveries			Visitors		
	AM ^A	PM ^B	Daily ^C	AM ^A	PM ^B	Daily ^C	AM ^A	PM ^B	Daily ^C
Dendrobium Pit Top	86	76	624	4	3	40	0	0	24
Cordeaux Road West	5	4	32	0	0	0	0	0	0
Cordeaux Road East	81	72	592	4	3	40	0	0	24
Kemira Valley Coal Loading	0	2	32	0	0	6	0	0	0
Stones Road-Cordeaux Road West	0	0	2	0	0	0	0	0	0
Stones Road-Cordeaux Road East	0	2	30	0	0	6	0	0	0
Cordeaux Pit Top	1	15	107	0	0	4	0	0	0
Picton Road West	0	2	11	0	0	0	0	0	0
Picton Road East	1	13	96	0	0	4	0	0	0

^A 5.00am to 6.00am, vehicles per hour

^B 4.00pm to 5.00pm, vehicles per hour

^C vehicles per day

The contribution of the traffic generated by the Mine and Cordeaux Pit Top to total traffic conditions on the public roads in 2017 has been estimated and is summarised in Table 4.18.

Table 4.18: Mine and Cordeaux Pit Top Contribution to Daily Traffic Monday to Thursday

Road and Location	Daily Total	Mine-Generated	Per cent
Cordeaux Road East of Mt Kembla	3,518 ^A	692	19.7
Cordeaux Road West of Mt Kembla	700 ^B	34	4.9
Picton Road East of Cordeaux Pit Top	19,835 ^C	100	0.5
Picton Road West of Cordeaux Pit Top	19,746 ^D	11	<0.1

^A surveyed 2017

^B estimated from surveyed conditions in 2017

^C 2016 average weekday volume, refer Table 4.2

^D estimated from 2016 average weekday volume above

Beyond the local Mount Kembla area, the Mine traffic is distributed onto the arterial road network, including Princes Highway, Five Islands Road and Princes Motorway, and its contribution to total traffic on those routes is sufficiently low that further investigation of the implications of the Mine traffic on those routes is not warranted.

4.7 Intersection Operating Conditions

Intersections are the critical locations that impact the capacity of the road system, due to the need for conflicting movements to occupy the same road space. The surveyed traffic volumes at the two intersections on Cordeaux Road are sufficiently low that delays to vehicles would be low and spare capacity available, thus formal analysis is not warranted. However, the operation of each of the intersections has been assessed using the SIDRA Intersection analysis program, an analysis program that determines characteristics of intersections operating conditions including the degree of saturation, average delays, and levels of service. The degree of saturation, or x-value, is the ratio of the arrival rate of vehicles to the capacity. The operating characteristics can be compared with the performance criteria set out in Table 4.19. It is noted that average delay per vehicle is expressed in seconds per vehicle (sec/veh) and is measured for the movement with the highest average delay per vehicle at priority intersections such as the surveyed intersections.

Table 4.19: Level of Service Criteria at Priority Intersections

Level of Service	Worst Movement Average Delay per Vehicle (sec/veh)	Operational Character
A	less than 14	Good operation
B	15 to 28	Acceptable delays and spare capacity
C	29 to 42	Satisfactory, but accident study required
D	43 to 56	Near capacity and accident study required
E	57 to 70	At capacity, requires other control mode
F	> 70	Extreme delay, traffic signals or other major treatment required

The results of the analyses are summarised in Table 4.20, which were calibrated against conditions observed by GTA Consultants and against the conditions recorded on video during the intersection surveys. The relatively low turning volumes at the intersection resulted in negligible queues of vehicles waiting to turn out of the minor road at most times.

Table 4.20: Existing Peak Hour Intersection Operating Conditions

Intersection	X-value		Average Delay (sec/veh) ^A		Level of Service	
	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
Cordeaux Road and Dendrobium Pit Top Access Road	0.04	0.04	5.6	6.2	A	A
Picton Road and Cordeaux Pit Top Access Road	0.53	0.53	12.0	20.0	A	B
Cordeaux Road and Stones Road	0.10	0.09	8.3	8.3	A	A

^A for the movement with highest average delay per vehicle

The SIDRA Intersection results indicate that during the surveyed peak hours, the intersections operate at good levels of service, with low delays to vehicles and spare capacity. The average delays reported at the intersection of Picton Road with the Cordeaux Pit Top Access Road are experienced by vehicles turning right into (morning) or right out of (afternoon) the access road. Through traffic on Picton Road experiences negligible delays at the intersection.

4.8 Midblock Operating Conditions

The existing capacity of the public roads and the extent to which existing traffic volumes use that capacity has been reviewed, taking into consideration the analysis methods of the Austroads Guide to Traffic Management and the Transportation Research Board's Highway Capacity Manual. Based on these, the capacity of the travel lanes on the surveyed public roads are estimated as below:

- Cordeaux Road is an undivided collector road: 900 vehicles per hour per lane; and
- Picton Road is a divided and undivided highway with negligible interruptions: 1,600 vehicles per hour per lane.

Level of Service is defined as a qualitative measure describing the operational conditions within a traffic stream as perceived by drivers and/or passengers. A Level of Service definition generally describes these conditions in terms of factors such as speed and travel time, freedom to manoeuvre, traffic interruptions, comfort, convenience and safety. Level of Service A provides the best traffic conditions, with no restriction on desired travel speed or overtaking. Levels of Service B to D describes progressively worse traffic conditions. Level of Service E occurs when traffic conditions are at or close to capacity, and there is virtually no freedom to select desired speeds or to manoeuvre in the traffic stream. The service flow rate for Level of Service E is taken as the capacity of a lane or roadway. In rural situations, Level of Service C is generally considered to be acceptable. At Level of Service C, most vehicles are travelling in platoons, and travel speeds are curtailed.

As a general guide, the relationship between Level of Service and the volume to capacity ratio of a road can be taken as shown in Table 4.21.

Table 4.21: Assumed Level of Service Relationship with Volume to Capacity Ratio

Level of Service	Volume to Capacity Ratio
A	0.35
B	0.50
C	0.75
D	0.90
E	1.00
F	>1.00

During the ATC surveys, the highest volumes recorded in any one hour in each direction on Cordeaux Road were 200 and 241 vehicles per hour northbound and southbound respectively. These peak volumes represent approximately 22 and 27 per cent of the capacity of Cordeaux Road respectively. At less than 35 per cent of capacity, a lane is generally considered to be operating at Level of Service A, which represents good conditions.

The intersection survey on Picton Road found peak volumes in each direction on Picton Road of 911 vehicles per hour eastbound and 874 vehicles per hour westbound (not occurring simultaneously). These peak volumes represent approximately 57 and 55 per cent, respectively of the capacity of a single travel lane of Picton Road. West of the Cordeaux Pit Top Access Road, Picton Road has two westbound and one eastbound lane, and east of the Cordeaux Pit Top Access Road, Picton Road has one westbound and two eastbound lanes. At between 50 and 75 per cent of capacity, a lane is considered to be operating at Level of Service C, which represents busy conditions, in which vehicles travel in platoons and speeds may be curtailed as a result. Observations on Picton Road indicate that in the one-lane sections, vehicles do tend to travel in

platoons, with gaps between groups. In the two-lane sections, there is more freedom for drivers to select their speed, and less platooning.

The volumes on these public roads therefore represent acceptable conditions with regard to the midblock capacity of the travel lanes. It is noted that the Mine's contribution to traffic volumes on these roads is sufficiently small that it does not result in a "worse" Level of Service than might otherwise be experienced.

Peak hour traffic volumes on Cordeaux Road are below the 500 vehicles per hour threshold at which traffic volumes typically start to impact on the amenity of residents. The 40 km/h speed zone through Mount Kembla further reduces the impact of moving vehicles on the amenity of residents, by creating a slow speed environment which assists pedestrians when crossing the road.

5. Project Traffic Generation

5.1 Construction Activity

Construction activities would involve additional workers, deliveries and visitors to the surface facilities. Construction movements would primarily be associated with the Dendrobium Pit Top and new Dendrobium Shaft Sites. Other minor construction and development works would occur at the Cordeaux Pit Top, the Kemira Valley Coal Loading Facility, Dendrobium CPP, existing Dendrobium Shaft Sites and along the Kemira Valley Rail Line.

Dendrobium Pit Top Access

Initial Project construction activity would result in additional workers, deliveries and visitors accessing the Mine via the Dendrobium Pit Top access off Cordeaux Road:

- 142 additional people on development of underground roadways to access Project mining areas and development of coal clearance infrastructure and other ancillary infrastructure to support the Project underground mining areas, working 24 hours per day, seven days per week in line with the existing shift times; and
- 10 additional people on construction and upgrades to parking and bath house facilities, working day shift (Monday to Thursday 6.00 am to 4.00 pm, Friday to Sunday 6.00 am to 6.00 pm);
- Additional 10 to 12 heavy vehicle deliveries per day; and
- Additional 5 visitors per day.

New Dendrobium Shaft Sites

Construction activity would result in workers and deliveries accessing the new Dendrobium Shaft Sites via the Cordeaux Dam Access Road off Picton Road:

- 40 additional people for shaft construction, working 24 hours per day, seven days per week in line with the existing shift times at the Dendrobium Pit Top;
- 15 additional people for general other services, working day shift (Monday to Thursday 6.00 am to 4.00 pm, Friday to Sunday 6.00 am to 6.00 pm);
- Additional 20 heavy vehicle deliveries per day; and
- No additional visitors.

Other Surface Facilities

Construction and development activities would occur at the Cordeaux Pit Top, the Kemira Valley Coal Loading Facility, Dendrobium CPP, existing Dendrobium Shaft Sites and along the Kemira Valley Rail Line.

With regard to road transport implications, the works at the Kemira Valley Coal Loading Facility, Dendrobium CPP, existing Dendrobium Shaft Sites and along the Kemira Valley Rail Line are expected to be minor, and consistent with short term maintenance and upgrade works which currently occur as part of the Mine's operations.

Construction and development activities at the Cordeaux Pit Top would involve approximately 10 construction personnel and an increase in heavy vehicle movements. These construction and development activities would occur immediately prior to the use of Cordeaux Pit Top for mine access (in approximately 2035) and would be significantly less than the subsequent operational movements.

5.2 Operational Activity

Following the initial construction activities, operational activity at the Mine is expected to increase then fluctuate based on production levels throughout the life of the Project, which would extend to the end of 2048. The Project operational activity would involve additional workers, deliveries and visitors accessing the Mine. Minor upgrades to plant and equipment would occur throughout the operational phase of the Project.

Dendrobium Pit Top Access

Project operational activity would result in additional workers accessing the Mine via the Dendrobium Pit Top access off Cordeaux Road:

- 100 additional (full time equivalent) people on development units, supervisory and gas drainage activities, working 24 hours per day, seven days per week in line with the existing shift times; and
- Two additional people on maintenance, working day shift (Monday to Thursday 6.00 am to 4.00 pm, Friday to Sunday 6.00 am to 6.00 pm).

The level of delivery and visitor activity is expected to remain similar to existing levels, as the overall production level of the Mine would remain unchanged. However, for the purpose of this assessment, it has been conservatively assumed that a 20 per cent increase in deliveries and visitors may also result from the Project:

- Additional four heavy vehicle deliveries per day; and
- Additional two visitors per day.

Cordeaux Pit Top Access

The existing mining support activities at the Cordeaux Pit Top would continue. Project operational activity would not immediately result in additional workers, deliveries and visitors accessing the Mine via the Cordeaux Pit Top access off Picton Road. In the longer term, the Cordeaux Pit Top would be used in place of the Dendrobium Pit Top as the primary operational access to the underground mine for workers and materials. This would result in approximately 80 per cent of the workforce and materials accessing the mine via the Cordeaux Pit Top. This would be expected to occur in approximately 2035.

Kemira Valley Coal Loading Facility

The Kemira Valley Coal Loading Facility would continue to be used by a limited number of employees, visitors and delivery vehicles, with regular access for maintenance and environmental monitoring. No changes are expected to the number or distribution of vehicle trips to and from the Kemira Valley Coal Loading Facility as a result of the Project.

Dendrobium CPP

The Dendrobium CPP is located within the Port Kembla Steelworks precinct (an industrial precinct in the Wollongong LGA). The Dendrobium CPP would continue to operate as it does currently, and the Project would not materially change the number of employee, visitor, deliveries or coal wash haulage movements to and from this site. Coal wash haulage between Dendrobium CPP and West Cliff Coal Wash Emplacement is currently completed by haul trucks operating under Bulli Seam Operations Project Approval 08_0150. This haulage would continue until the planned end of the Bulli Seam Operations in 2041. Should the Bulli Seam Operations not be extended, corresponding coal wash haulage for the Project would be undertaken by Project trucks for the Projects' final years (i.e. post-2041). The number of coal wash haulage movements associated with the Project coal wash production are expected to vary, however movements between West

Cliff and Port Kembla would be significantly lower than existing approved movements under the Bulli Seam Operations (as coal wash backloading only uses a portion of the Bulli Seam Operations total fleet of product haul trucks that move up to 9.3 Mtpa). The haulage would continue to use a high traffic volume route. As there is no increase predicted to arise in comparison to the number or distribution of vehicle trips to and from Port Kembla, no further assessment has been conducted on this aspect of the Project.

Dendrobium Shaft Sites

The existing and new Shaft Sites would operate as primarily unattended sites, with weekly maintenance inspections and infrequent other visits for specific works. No material road transport implications are therefore expected due to vehicle trips to and from the Dendrobium Shaft Sites as a result of the Project.

5.3 Road Transport Scenarios

Three scenarios for the assessment of the implications of the Project have been identified, based on the major component of traffic generated, being the movement of employees and contractors to and from the Project:

- Peak construction workforce at Dendrobium Pit Top and a new Dendrobium Shaft Site (combined) plus the current operational workforce – nominally Year 2020.
- Maximum operational workforce at the Dendrobium Pit Top with 10 years of background traffic growth – nominally Year 2027.
- Operational movements following the transfer of the primary underground mine access to the Cordeaux Pit Top (noting this scenario would involve greater traffic at the Cordeaux Pit Top than the construction scenario) – nominally Year 2035.

5.4 Construction Vehicle Traffic

The Dendrobium Pit Top construction workers would typically drive to the Mine, with some level of car pooling likely. For the purpose of this assessment of traffic impacts of the Project, it is assumed that the construction workers would travel with an average of 1.1 people per vehicle. On this basis, the peak of 152 construction workers per day at the Dendrobium Pit Top would travel in 138 vehicles.

As the Dendrobium Pit Top construction workforce would be working the same shift times as the existing operational workforce, the trips made by the construction workforce during the peak hours are assumed to be a similar proportion of the daily total as that of the existing operational workforce.

Due to the remote location of the new Dendrobium Shaft Sites, it is anticipated that the construction workers would travel by private vehicles to a meeting point, from which they would be transported in dedicated work vehicles capable of carrying multiple personnel. For the purpose of this assessment it is anticipated that the meeting point would be at the Cordeaux Dam, which has previously been used with the agreement of WaterNSW for this purpose. The Cordeaux Dam is accessed via an access road from Picton Road (Cordeaux Dam Access Road), approximately 4 km north-west of the Cordeaux Pit Top Access.

On this basis, and assuming the same level of car pooling as the rest of the construction workforce, the peak of 55 construction workers would travel in 50 vehicles to the Cordeaux Dam from Picton Road. From there, they would be transported in a combination of utilities and personnel carriers to the construction site via fire trails, which are not public roads.

Table 5.1 summarises the estimated average day vehicle trips generated by the Project construction activity.

Table 5.1: Average Day Construction Trips by Type Monday-Thursday

Access Location	Construction Employees and Contractors	Construction Deliveries	Construction Visitors
Daily (vehicles per day)			
Dendrobium Pit Top	276	24	10
Dendrobium Shaft Site	100	40	0
Total	376	64	10
5.00am to 6.00am (vehicles per hour)			
Dendrobium Pit Top	38	3	0
Dendrobium Shaft Site	14	4	0
Total	52	7	0
4.00pm to 5.00pm (vehicles per hour)			
Dendrobium Pit Top	34	2	0
Dendrobium Shaft Site	12	3	0
Total	46	5	0

The distribution of the additional construction traffic onto the surrounding roads has been estimated as summarised in Table 5.2. This assumes that approximately 90 per cent of traffic using the Cordeaux Dam Access Road would approach from or depart to Picton Road east, as surveyed at the Cordeaux Pit Top access.

It would be expected that some of the trips generated to and from Mount Kembla and Cordeaux Heights would use Cordeaux Road – Harry Graham Drive – Mount Keira Road to travel to and from Picton Road to access the Cordeaux Dam Access Road. For the purpose of this assessment, it has been assumed that approximately 10 per cent of the trips to and from the east on Picton Road would be made via this route, using Cordeaux Road both east and west of the Dendrobium Pit Top and Stones Road intersections (noting for clarity that these trips are included as both “Picton Road East” and “via Harry Graham Drive in the summary in Table 5.2).

Table 5.2: Construction Trip Distribution Monday-Thursday

Route and Access Location	Construction Employees and Contractors			Construction Deliveries			Construction Visitors		
	AM ^A	PM ^B	Daily ^C	AM ^A	PM ^B	Daily ^C	AM ^A	PM ^B	Daily ^C
Dendrobium Pit Top	38	34	276	3	2	24	0	0	10
Cordeaux Road West	2	2	14	0	0	0	0	0	0
Cordeaux Road East	36	32	262	3	2	24	0	0	10
Dendrobium Shaft Site (Cordeaux Dam)	14	12	100	4	3	40	0	0	0
Picton Road West	1	2	10	0	1	4	0	0	0
Picton Road East	13	10	90	4	2	36	0	0	0
via Harry Graham Drive	1	1	10	0	0	4	0	0	0

^A 5.00am to 6.00am, vehicles per hour

^B 4.00pm to 5.00pm, vehicles per hour

^C vehicles per day

5.5 Operational Vehicle Traffic

For the purpose of this assessment, it is assumed that the additional operational workers would travel with an average of 1.1 people per vehicle. On this basis, the additional 102 workers per day at the Dendrobium Pit Top would travel in 93 vehicles, generating 186 vehicle trips per day. As the additional operational workforce would be working the same shift times as the existing operational workforce at the Dendrobium Pit Top, the trips made by the additional operational workforce during the peak hours are assumed to be a similar proportion of the daily total as that of the existing operational workforce.

Table 5.3 summarises the total average day vehicle trips generated by the Project's operational activity.

Table 5.3: Average Day Total Project Operational Trips by Type Monday-Thursday

Access Location	Employees and Contractors ^A	Deliveries	Visitors
Daily (vehicles per day)			
Dendrobium Pit Top	810	48	28
Kemira Valley Coal Loading Facility	32	6	0
Cordeaux Pit Top	107	4	0
Total	949	58	28
5.00am to 6.00am (vehicles per hour)			
Dendrobium Pit Top	112	5	0
Kemira Valley Coal Loading Facility	0	0	0
Cordeaux Pit Top	1	0	0
Total	113	5	0
4.00pm to 5.00pm (vehicles per hour)			
Dendrobium Pit Top	99	4	0
Kemira Valley Coal Loading Facility	2	0	0
Cordeaux Pit Top	15	0	0
Total	116	4	0

^AIncludes "internal" trips, for example employees or contractors leaving the site to undertake monitoring activities at another site or take smoking/lunch breaks, and then returning to site, or employees or contractors travelling between the various surface facilities.

Table 5.4 presents the total Project traffic generation and distribution by trip type with the Project.

Table 5.4: Average Day Total Project Operational Trip Distribution Monday-Thursday

Route and Access Location	Employees and Contractors			Deliveries			Visitors		
	AM ^A	PM ^B	Daily ^C	AM ^A	PM ^B	Daily ^C	AM ^A	PM ^B	Daily ^C
Dendrobium Pit Top	112	99	810	5	4	48	0	0	28
Cordeaux Road West	7	6	42	0	0	0	0	0	0
Cordeaux Road East	105	93	768	5	4	48	0	0	28
Kemira Valley Coal Loading	0	2	32	0	0	6	0	0	0
Stones Road-Cordeaux Road West	0	0	2	0	0	0	0	0	0
Stones Road-Cordeaux Road East	0	2	30	0	0	6	0	0	0
Cordeaux Pit Top	1	15	107	0	0	4	0	0	0
Picton Road West	0	2	11	0	0	0	0	0	0
Picton Road East	1	13	96	0	0	4	0	0	0

^A 5.00am to 6.00am, vehicles per hour

^B 4.00pm to 5.00pm, vehicles per hour

^C vehicles per day

5.6 Operational Vehicle Traffic with Primary Mine Access at Cordeaux Pit Top

In the longer term, the Cordeaux Pit Top would be used in place of the Dendrobium Pit Top as the primary operational access to the underground mine for workers and materials. This would result in approximately 80 per cent of the workforce and materials accessing the mine via the Cordeaux Pit Top, however this is not expected to occur until approximately 2035.

The total trip generation of the Project would not change. However, the distribution of the vehicle trips would change with use of the Cordeaux Pit Top. Table 5.5 summarises the total average day vehicle trips generated by the Project operational activity in the longer term. This assumes that the current level of mining support activity at the Cordeaux Pit Top would continue in the longer term, and that 80 per cent of the trips previously made to and from the Dendrobium Pit Top would transfer to the Cordeaux Pit Top.

The relocation of activity to the Cordeaux Pit Top would result in some changes to the directional distribution of traffic, with (for example) some delivery trips and visitors from Sydney and Newcastle to the Cordeaux Pit Top being more likely to approach via the Hume Motorway and Picton Road rather than via the Princes Motorway as they do when travelling to the Dendrobium Pit Top. This long-term scenario assumes that approximately 90 per cent of traffic using the Cordeaux Pit Top Access Road would approach from or depart to Picton Road east, as surveyed, and as would be expected based on the residential postcodes of the workforce.

Table 5.5: Average Day Long Term Total Project Operational Trips by Type Monday-Thursday

Access Location	Employees and Contractors	Deliveries	Visitors
Daily (vehicles per day)			
Dendrobium Pit Top	162	10	6
Kemira Valley Coal Loading Facility	32	6	0
Cordeaux Pit Top	755	42	22
Total	949	58	28
5.00 am to 6.00 am (vehicles per hour)			
Dendrobium Pit Top	22	1	0
Kemira Valley Coal Loading Facility	0	0	0
Cordeaux Pit Top	91	4	0
Total	113	5	0
4.00 pm to 5.00 pm (vehicles per hour)			
Dendrobium Pit Top	20	1	0
Kemira Valley Coal Loading Facility	2	0	0
Cordeaux Pit Top	94	3	0
Total	116	4	0

Table 5.6 presents the total Project traffic generation and distribution by trip type with the Project in the long term. It would be expected that some of the trips generated to and from Mount Kembla and Cordeaux Heights would use Cordeaux Road – Harry Graham Drive – Mount Keira Road to travel to and from Picton Road to access the Cordeaux Pit Top. For the purpose of this assessment, it has been assumed that approximately 10 per cent of the trips to and from the east on Picton Road would be made via this route, using Cordeaux Road both east and west of the Dendrobium Pit Top and Stones Road intersections (noting for clarity that these trips are included as both "Picton Road East" and "via Harry Graham Drive" in the summary in Table 5.6).

Table 5.6: Average Day Total Project Operational Trip Distribution Monday-Thursday with Primary Mine Access at Cordeaux Pit Top

Route and Access Location	Employees and Contractors			Deliveries			Visitors		
	AM ^A	PM ^B	Daily ^C	AM ^A	PM ^B	Daily ^C	AM ^A	PM ^B	Daily ^C
Dendrobium Pit Top	22	20	162	1	1	10	0	0	6
Cordeaux Road West	2	1	9	0	0	0	0	0	0
Cordeaux Road East	20	19	153	1	1	10	0	0	6
Kemira Valley Coal Loading	0	2	32	0	0	6	0	0	0
Stones Road-Cordeaux Road West	0	1	2	0	0	0	0	0	0
Stones Road-Cordeaux Road East	0	1	30	0	0	6	0	0	0
Cordeaux Pit Top	91	94	755	4	3	42	0	0	22
Picton Road West	9	9	76	0	0	4	0	0	2
Picton Road East	82	85	679	4	3	38	0	0	20
Via Harry Graham Drive	8	8	68	0	0	4	0	0	2

^A 5.00am to 6.00am, vehicles per hour

^B 4.00pm to 5.00pm, vehicles per hour

^C vehicles per day

6. Future Traffic Conditions

6.1 Non-Project Traffic Growth

Traffic volumes on the roads serving the Mine are expected to increase over time, regardless of the operations of the Mine. Background traffic growth may be associated with growth in the population and industries in the region, as well as changes in people's travel behaviour. The review of historical traffic volume data (Section 4.2) demonstrates that the growth in traffic on individual arterial routes has varied considerably over time. It is likely that growth rates on the routes would continue to vary in the future, due to the roles of the different routes in the road network, and the connections they provide within the region or local area. GTA has reviewed assessments undertaken for known or proposed major developments in the region of the Mine, with the aim of quantifying non-Project traffic changes on the road network over the period of relevance to the Project.

Non-Project growth in traffic on Cordeaux Road and within the local Mount Kembla region would be constrained as no major development is expected within that area. Future traffic forecasts on the roads in the local Mount Kembla area were developed assuming a background growth rate of 1.0 per cent per annum for non-Mine traffic.

In its assessment of the proposed Bulli Seam Operations, Traffix (2009) applied a background growth rate of 2.6 per cent per annum on Picton Road west of Mount Keira Road, based on growth in AADT between 2000 and 2003. Traffix (2009) also found that the Bulli Seam Operations would generate some 777 vehicle movements per day on Picton Road from 2013 onwards, thus no further increase in traffic attributable to the Bulli Seam Operation is anticipated. In its assessment, Traffix (2009) also refers to background growth forecasts included in the Sydney-Wollongong Corridor Strategy (SWCS) (Sinclair Knight Merz, 2007), the traffic assessment for the Port Kembla Coal Terminal (Cardno Eppell Olsen, 2008) and the road transport assessment for the Metropolitan Colliery (Masson Wilson Twiney [MWT], 2008). The MWT (2008) study used traffic forecasts to 2026 from MWT's traffic model of the Sydney region. That model assumed some changes to the regional road network which have not occurred, including construction of an interchange between Menangle Road and the Hume Motorway, and a road extension from that interchange to Burragorang Road. The Cardno Eppell Olsen (2008) study used a combination of historic growth rates, the forecasts from the SWCS and model results to 2026 from the study undertaken for the extension of the Northern Distributor. These modelled results were also used in the ERM (2013) assessment of background growth associated with proposed changes to the Gajurat NRE No. 1 colliery.

The Wilton area located near the Hume Highway/Picton Road interchange has been identified by the NSW Government as a Priority Growth Area. The creation of additional dwellings, retail developments, community facilities and employment and commercial drivers may generate additional traffic along Picton Road between Wilton and Wollongong associated with travel for employment and/or recreation. Parson Brinkerhoff (2014) prepared a Transport Management and Accessibility Plan for the development, which was prepared in consultation with Transport for NSW, RMS and Wollondilly Shire Council. This assessment describes a proposed widening of Picton Road east of Macarthur Drive to two lanes in each direction.

The SWCS considers the key road links in the corridor from Sydney to Wollongong, and so does not include Picton Road. The growth scenario projected total traffic volume growth on the corridor of 2.0 per cent per annum until 2025, with heavy vehicle traffic growth of 2.7 per cent per annum.

Overall, assessments of major development in the region do not provide a clear indication of an appropriate background rate of growth in traffic on Picton Road. The developments being considered in those assessments do not generally result in an increase in traffic on Picton Road. For the purpose of this assessment, an average growth rate of 2.5 per cent per annum has been applied to traffic on Picton Road over the period being investigated.

Three future time horizons have been assessed as outlined in Section 5.3.

Table 6.1 summarises the forecast daily and peak hourly traffic volumes at key locations, assuming the Project does not proceed. The peak hours relate to the busiest hours currently associated with the existing Mine and anticipated to be associated with the Project. Without the Project, the Mine would cease operation at the end of 2030, and these forecasts assume it would not generate any vehicular traffic in 2035. A low level of traffic would be expected to be generated as a result of care and maintenance activity following closure of the Mine. These forecasts assume that the care and maintenance activity at the Cordeaux Pit Top (not part of the Mine) would continue at its current level until 2035.

Table 6.1: Average Day Future Traffic Without the Project Monday-Thursday

	AM Peak ^A	PM Peak ^B	Daily ^C
Existing			
Cordeaux Road East of Mount Kembla (2017)	139	352	3,518
Picton Road West of Mount Keira Road (2016)	873	1,576	19,289
Picton Road West of Cordeaux Pit Top (2016 estimate)	872	1,565	19,200
Forecast Year 2020			
Cordeaux Road East of Mount Kembla	141	361	3,603
Picton Road West of Mount Keira Road	961	1,733	21,208
Picton Road West of Cordeaux Pit Top	960	1,722	21,119
Forecast Year 2027			
Cordeaux Road East of Mount Kembla	145	380	3,801
Picton Road West of Mount Keira Road	1,113	2,006	24,566
Picton Road West of Cordeaux Pit Top	1,112	1,995	24,477
Forecast Year 2035 (Mine Closed)			
Cordeaux Road East of Mount Kembla	64	388	3,886
Picton Road West of Mount Keira Road	1,288	2,319	28,404
Picton Road West of Cordeaux Pit Top	1,287	2,308	28,315

^A 5.00am to 6.00am, vehicles per hour

^B 4.00pm to 5.00pm, vehicles per hour

^C vehicles per day

The forecast volumes in Table 6.1 on Picton Road have been compared against forecasts presented in Parsons Brinckerhoff (2014) as part of an assessment of the proposed Wilton Junction Development, and the results discussed in Appendix C.

6.2 Future Traffic Volumes

The future traffic volumes on the key routes with the combined effects of background traffic growth and the Project are presented in this section.

6.2.1 Peak Project Construction Year 2020

Table 6.2 summarises the forecast daily and peak hourly traffic volumes at key locations during the peak construction phase in 2020, and compares these against the forecast volumes should the Project not proceed. The peak hours relate to the busiest hours currently associated with the Mine and anticipated to be associated with the Project.

Table 6.2: Average Day Traffic in 2020 Monday-Thursday

	AM Peak ^A	PM Peak ^B	Daily ^C
No Project			
Dendrobium Pit Top Access	90	79	688
Kemira Valley Coal Loading Facility Access	0	2	38
Cordeaux Pit Top Access	1	15	111
Cordeaux Road East of Mount Kembla	141	361	3,603
Picton Road West of Mount Keira Road	961	1,733	21,208
Picton Road West of Cordeaux Pit Top	960	1,722	21,119
With Project Construction			
Dendrobium Pit Top Access	131	115	998
Kemira Valley Coal Loading Facility Access	0	2	38
Cordeaux Pit Top Access	1	15	111
Cordeaux Dam Access Road	18	15	140
Cordeaux Road East of Stones Road	181	396	3,912
Picton Road West of Mount Keira Road	978	1,745	21,334
Picton Road West of Cordeaux Pit Top	977	1,734	21,245
Picton Road West of Cordeaux Dam Access	961	1,725	21,133

^A 5.00am to 6.00am, vehicles per hour

^B 4.00pm to 5.00pm, vehicles per hour

^C vehicles per day

6.2.2 Project Operational Year 2027

Table 6.3 summarises the forecast daily and peak hourly traffic volumes at key locations during the operational phase in 2027, and compares these against the forecast volumes should the Project not proceed. The peak hours relate to the busiest hours currently associated with the Mine and anticipated to be associated with the Project.

Table 6.3: Average Day Traffic in 2027 Monday-Thursday

	AM Peak ^A	PM Peak ^B	Daily ^C
No Project			
Dendrobium Pit Top Access	90	79	688
Kemira Valley Coal Loading Facility Access	0	2	38
Cordeaux Pit Top Access	1	15	111
Cordeaux Road East of Mount Kembla	145	380	3,801
Picton Road West of Mount Keira Road	1,113	2,006	24,566
Picton Road West of Cordeaux Pit Top	1,112	1,995	24,477
With Project Operational			
Dendrobium Pit Top Access	117	103	886
Kemira Valley Coal Loading Facility Access	0	2	38
Cordeaux Pit Top Access	1	15	111
Cordeaux Road East of Stones Road	170	402	3,989
Picton Road West of Mount Keira Road	1,113	2,006	24,566
Picton Road West of Cordeaux Pit Top	1,112	1,995	24,477

^A 5.00am to 6.00am, vehicles per hour

^B 4.00pm to 5.00pm, vehicles per hour

^C vehicles per day

6.2.3 Project Operational with Primary Mine Access at Cordeaux Pit Top Year 2035

Table 6.4 summarises the forecast daily and peak hourly traffic volumes at key locations once the primary mine access relocates to the Cordeaux Pit Top, and compares these against the forecast volumes should the Project not proceed. It is noted that in the absence of the Project, the Mine would no longer be operational in 2035, and for the purpose of this assessment has been assumed to generate no traffic in 2035 if the Project does not proceed. There will be some minor Project construction activities occurring in 2035 related to the proposed Area 6 ventilation shaft sites. Access to the construction site, that is expected to have up to approximately 55 workers, will be via Cordeaux Dam Access Road. The peak hours relate to the busiest hours currently associated with the Mine and anticipated to be associated with the Project.

Table 6.4: Average Day Traffic in 2035 Monday-Thursday

	AM Peak ^A	PM Peak ^B	Daily ^C
No Project			
Dendrobium Pit Top Access	0	0	0
Kemira Valley Coal Loading Facility Access	0	0	0
Cordeaux Pit Top Access	1	15	111
Cordeaux Road East of Mount Kembla	64	325	3,335
Picton Road West of Mount Keira Road	1,288	2,319	28,404
Picton Road West of Cordeaux Pit Top	1,287	2,307	28,315
With Project Operational – Long Term			
Dendrobium Pit Top Access	23	21	178
Kemira Valley Coal Loading Facility Access	0	2	38
Cordeaux Pit Top Access	95	97	819
Cordeaux Dam Access Road	18	15	111
Cordeaux Road East of Stones Road	93	354	3,614
Picton Road West of Mount Keira Road	1,373	2,393	29,041
Picton Road West of Cordeaux Pit Top	1,296	2,314	28,386
Picton Road West of Cordeaux Dam Access	1,276	2,304	28,400

^A 5.00am to 6.00am, vehicles per hour

^B 4.00pm to 5.00pm, vehicles per hour

^C vehicles per day

6.2.4 Project Contribution to Total Traffic

Table 6.5 summarises the Project's contribution to total daily traffic at key locations on the road network.

Table 6.5: Mine and Cordeaux Pit Top Contribution to Future Daily Traffic Monday to Thursday

Road and Location	Daily Total	Mine-Generated	Per cent
Existing Conditions^A			
Cordeaux Road East of Mt Kembla	3,518	692	19.7
Cordeaux Road West of Mt Kembla	700	34	4.9
Picton Road East of Cordeaux Pit Top	19,835	100	0.5
Picton Road West of Cordeaux Pit Top	19,746	11	<0.1
2020 With Project Operational			
Cordeaux Road East of Mt Kembla	3,912	1,002	25.6
Cordeaux Road West of Mt Kembla	735	48	6.5
Picton Road East of Cordeaux Pit Top	21,334	226	1.1
Picton Road West of Cordeaux Pit Top	21,245	137	0.6
Picton Road West of Cordeaux Dam	21,133	25	0.1
2027 With Project Operational			
Cordeaux Road East of Mt Kembla	3,989	880	22.1
Cordeaux Road West of Mt Kembla	780	44	5.6
Picton Road East of Cordeaux Pit Top	24,566	100	0.4
Picton Road West of Cordeaux Pit Top	24,477	11	0.1
2035 With Project Operational			
Cordeaux Road East of Mt Kembla	3,614	279	7.7
Cordeaux Road West of Mt Kembla	863	85	9.8
Picton Road East of Cordeaux Pit Top	29,041	737	2.5
Picton Road West of Cordeaux Pit Top	28,386	82	0.3
Picton Road West of Cordeaux Dam	28,400	96	0.3

^A Refer to Table 4.18

This demonstrates that during the construction phase, the contribution of the Mine traffic to total traffic on Cordeaux Road would increase slightly, however would decrease significantly following the proposed change to the primary operational access to the underground mine for workers and materials. The Project and Cordeaux Pit Top contribution to total traffic on Picton Road would remain small, with an increase following the proposed change to primary access.

Based on the current contributions of the Mine traffic to total traffic and the Project contribution to total traffic, there is not anticipated to be any material change in the condition of the roads in the region.

6.3 Intersection Operating Conditions

The operation of the key intersections has been analysed using SIDRA Intersection to quantify the future operating conditions with and without the Project during the Project peak hours. The reported delays are the sum of the delays for the two movements.

Table 6.6: Future Peak Hour Intersection Operating Conditions

Intersection		X-value		Average Delay (sec/veh) ^A		Level of Service	
		AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
Project Peak Construction 2020							
Cordeaux Road and Dendrobium Pit Top Access Road	No Project With Project	0.04 0.06	0.05 0.07	5.6 6.3	5.9 5.8	A A	A A
Picton Road and Cordeaux Dam Access Road	No Project With Project	- 0.44	- 0.60	- 21.7	- 34.9	- B	- C
Picton Road and Cordeaux Pit Top Access Road	No Project With Project	0.44 0.44	0.60 0.61	7.8 9.4	24.6 24.5	A A	B B
Cordeaux Road and Stones Road	No Project With Project	0.04 0.05	0.06 0.07	7.6 7.6	7.8 7.9	A A	A A
Project Operational 2027							
Cordeaux Road and Dendrobium Pit Top Access Road	No Project With Project	0.04 0.05	0.05 0.07	5.6 5.6	5.9 6.2	A A	A A
Picton Road and Cordeaux Pit Top Access Road	No Project With Project	0.50 0.50	0.70 0.70	7.8 7.8	35.5 35.5	A A	C C
Cordeaux Road and Stones Road	No Project With Project	0.04 0.03	0.06 0.07	7.6 7.6	7.8 7.9	A A	A A
Project Operational 2035							
Cordeaux Road and Dendrobium Pit Top Access Road	No Project With Project	- 0.02	- 0.03	- 5.6	- 5.6	- A	A A
Picton Road and Cordeaux Dam Access Road	No Project With Project	- 0.57	- 0.77	- 58.0	- >70	- E	- F
Picton Road and Cordeaux Pit Top Access Road	No Project With Project	0.57 0.57	0.78 0.99	38.6 54.6	53.4 >70	C D	D F
Cordeaux Road and Stones Road	No Project With Project	0.01 0.02	0.07 0.08	7.5 7.5	7.9 8.1	A A	A A

^A for the movement with highest average delay per vehicle

The results demonstrate that the operation of the intersections of Cordeaux Road with Stones Road and with the Dendrobium Pit Top Access Road are expected to operate at good levels of service with or without the proposed Project.

In 2020, the intersection of Picton Road with the Cordeaux Dam Access Road would operate at a satisfactory Level of Service during the Project construction phase. At Level of Service C, a review of accidents is warranted. The review of historic crash data on Picton Road (Section 4.4.6) found that over the five-year period under investigation, one crash occurred at or near the intersection of Picton Road with the Cordeaux Dam Access Road. That crash was not associated with turning vehicles at the intersection, rather was the result of inappropriate speed of an eastbound car in Picton Road in wet conditions. This suggests that there are no particular safety concerns with that intersection, noting that upgrade works were completed at and near the intersection in 2011.

The operation of the intersection of Picton Road with the Cordeaux Pit Top Access Road and with Cordeaux Dam Access Road (to be used temporarily in 2035 for construction activities) would decline to an unacceptable Level of Service in the longer term with or without the Project. This is a result of the assumed background growth in westbound through traffic on Picton Road, which leaves few gaps large enough for a driver in the side road to exit. The average delay per vehicle reported in Table 6.6 in 2035 with the Project would be experienced by drivers turning right out of the access road onto Picton Road. Those drivers are required to give way only to westbound through traffic on Picton Road, as they turn into a dedicated eastbound lane, with no merge into the eastbound through traffic required. Drivers turning left out of Cordeaux Dam Access Road will

also experience delay, affected by right turning vehicles. All other movements at these intersections would experience acceptable delays, with Level of Service C for the vehicles turning left out of the Cordeaux Pit Top Access Road, and Level of Service A or B for all other movements, with or without the Project during the afternoon peak.

The assessment above assumes that in the longer term, the distribution of Project-related traffic throughout the day would remain the same as that which currently occurs at the Dendrobium Pit Top. It further assumes that the growth rate of 2.5 per cent per annum would occur evenly throughout all hours of the day, including the peak hours on Picton Road. Growth often occurs via spreading of peaks, as drivers choose to change their travel patterns to minimise their personal travel time. This assumption results in the peak of afternoon outbound traffic from the Project in the longer term occurring at the same time as the peak in westbound through traffic on Picton Road, which is considered to result in a conservatively high result with regard to the combination of conflicting movements at the intersection.

Based on the forecast method however, should the forecast peak in Project traffic occur one hour earlier in the afternoon, the through movements on Picton Road would be lower, and the resulting delay to vehicles exiting the Project to the east would reduce to 69.0 seconds per vehicle (Level of Service E). Should the Project traffic peak occur two hours earlier than forecast, the resulting delay to vehicles exiting the Project to the east would be 27.7 seconds per vehicle (Level of Service B). Similarly, if the assumed average background growth rate during peak hours to 2035 is less than the assumed rate of 2.5 per cent per annum, the resulting delay to vehicles exiting the Project to the east would be reduced. A sensitivity test was conducted that found that Level of Service C would result with the coincidence of Project and background peak traffic if the growth in background traffic averaged 1.2 per cent per annum over the longer term to 2035.

Thus, it can be expected that by reducing the Project-generated traffic demand during the time of peak westbound traffic on Picton Road in the afternoon, the longer-term transfer of activity from the Dendrobium Pit Top Access Road to the Cordeaux Pit Top could be achieved with acceptable outcomes for the operation of the road network. Options to reduce the peak demand in the afternoon may include:

- modifying the shift times for the Project so that they do not coincide with the Picton Road afternoon traffic peak;
- providing incentives for carpooling for the workforce; or
- providing shuttle bus services for the workforce for travel to and from the Cordeaux Pit Top Access to and from the Dendrobium Pit Top Access.

Given that future performance of this intersection in 2035 is highly dependent on background growth assumptions and the possible coincidence of peak Project traffic with peak background traffic, the most appropriate means of managing the future operation of the intersection would be best determined prior to the transfer of activity to the Cordeaux Pit Top, in consultation with RMS. That assessment should take into account any changes that may have occurred to Picton Road and its traffic demands in the interim, noting that the NSW Government (2015) has identified duplication of Picton Road in the long term as a means of supporting growth in the region. Should sufficient management of the demand be unable to be achieved, upgrading of the intersection may then be required to provide additional capacity. Such upgrading may include:

- widening of Picton Road westbound to two travel lanes;
- provision of a grade-separated access for the right turn exit movement; or
- banning of the right turn exit (either full or part time) and provision of a U-turn facility elsewhere on Picton Road.

Although not specifically modelled for this assessment, traffic increases would also be expected through the signalised intersection of Cordeaux Road and Central Road, which lies adjacent to the railway level crossing, prior to the transfer of the primary underground mine access to the Cordeaux Pit Top. The increase in volumes during the background peak hours as a result of the Project would be relatively low, and are not expected to significantly impact the peak hourly operation of that intersection. As a matter of course, timing of the signal phases would adjust as demands vary to optimise its performance. No specific upgrades to that intersection are considered to be warranted as a result of the Project.

6.4 Future Midblock Operating Conditions

The future traffic volumes have been reviewed with regard to the midblock capacity during the Project peak hours.

On Picton Road, the future traffic volumes are higher during the Project PM peak hour than the AM peak hour, thus the Project PM peak hour will be the more critical with respect to spare capacity on the road. Table 6.7 summarises the forecast traffic volumes east and west of the Cordeaux Pit Top Access Road both with and without the Project, and compares these against the capacity to estimate the future Level of Service.

Table 6.7: Picton Road Project PM Peak Hour Midblock Conditions (Monday-Thursday)

	Vehicles per Hour ^A		Volume/Capacity ^B		Level of Service	
	Eastbound	Westbound	Eastbound	Westbound	Eastbound	Westbound
East of Cordeaux Pit Top Access Road (2 lanes eastbound, 1 lane westbound)						
No Project						
Year 2020	978	755	0.31	0.48	A	B
Year 2027	1,132	874	0.35	0.55	B	C
Year 2035	1,307	1,011	0.41	0.63	B	C
With Project						
Year 2020	984	761	0.31	0.48	A	B
Year 2027	1,132	874	0.35	0.55	B	C
Year 2035	1,368	1,025	0.43	0.64	B	C
West of Cordeaux Pit Top Access Road (1 lane eastbound, 2 lanes westbound)						
No Project						
Year 2020	967	755	0.61	0.24	C	A
Year 2027	1,121	874	0.70	0.27	C	A
Year 2035	1,296	1,011	0.81	0.32	D	A
With Project						
Year 2020	973	761	0.61	0.24	C	A
Year 2027	1,121	874	0.70	0.27	C	A
Year 2035	1,297	1,017	0.81	0.32	D	A

^A 4.00pm to 5.00pm

^B Capacity 1,600 vehicles per hour per lane

Table 6.7 indicates that the future Levels of Service experienced along Picton Road during the Project PM peak hour would be expected to be C to D for eastbound traffic west of the Cordeaux Pit Top Access and for westbound traffic east of the Cordeaux Pit Top Access. The Project traffic would have negligible effect on the volume to capacity ratio nor the Level of Service on Picton Road. Level of Service C represents busy conditions, in which vehicles travel in platoons and speeds may be curtailed as a result, and is forecast to occur with or without the Project on those sections of Picton Road that have only a single travel lane. Level of Service D is

approaching the limit of stable traffic flow, in which drivers become restricted in their desired travel speed and freedom to manoeuvre in the traffic stream, and is forecast in the longer term with or without the Project eastbound on Picton Road west of the Cordeaux Pit Top where only a single travel lane is provided.

As noted, the Illawarra-Shoalhaven Regional Plan (NSW Government, 2015) nominates duplication of Picton Road in the long term as a means to support growth in the region. The assessment above assumes that Picton Road remains in its current arrangement. Given that the performance of the intersection deteriorates even in the absence of the Project, it is envisaged that any upgrades or duplication of Picton Road undertaken by RMS should include any necessary intersection upgrades to accommodate eastbound traffic exiting the Cordeaux Pit Top. Treatments could include provision of appropriate shelter lanes, implementing a left-hand turn only with a later U-turn facility or grade separation. An example of a local right-hand turn treatment across two lanes of traffic is the intersection of Mount Ousley Road and the Princes Motorway.

6.5 Car Parking

Additional Dendrobium Pit Top car parking is proposed to be provided in an area south of Cordeaux Road, accessed via a new access road east of the Dendrobium Pit Top Access Road. The capacity of the new car park will be dependent on its detailed design, however given the space available, it is estimated that it may accommodate in the order of 100 to 120 car parking spaces. This would increase the total parking available at the Dendrobium Pit Top from approximately 150 spaces to 250-270 spaces.

The total workforce employed at the Dendrobium Pit Top would change from the current 265 employees and 140 contractors (405 people) as follows:

- Increase by 152 people (38 per cent increase from existing) during construction;
- Increase by 102 people (25 per cent increase from existing) once operational; and
- Decrease by 304 people (75 per cent decrease from existing) in the longer term with the proposed transfer of primary underground mine access to the Cordeaux Pit Top.

The anticipated additional parking capacity represents an increase of some 66 to 80 per cent above the existing car parking provision at the Dendrobium Pit Top. As the additional workforce would operate the same shift times as the existing workforce, the peak parking demand can be expected to increase in proportion with the change in workforce. The additional capacity at the proposed car park is thus expected to satisfactorily accommodate the additional parking demand forecast to occur with the changes in the workforce with the Project, with excess accommodating the existing overflow which occurs at peak times.

The proposed access driveway and car park would be designed in accordance with the requirements of the Australian Standard for Parking Facilities – Off-street car parking (AS2890.1, 2004). A formal pedestrian route between the proposed car park and the main Dendrobium Pit Top would be provided, including a dedicated footpath which directs pedestrians across Cordeaux Road at a suitable location.

In the longer term, the transfer of activity to the Cordeaux Pit Top would increase the demand for parking at that site, with a transfer of a workforce of some 304 people. Based on the existing parking demand and workforce at the Dendrobium Pit Top, the transferred workforce at the Cordeaux Pit Top would generate a demand for approximately 113 car parking spaces. The existing car park at the Cordeaux Pit Top has approximately 60 line marked car parking spaces, with space available for additional parking which is not line marked within the dedicated car

parking area. The capacity of that area is dependent on detailed design of formal car parking, however given the space available, it is estimated that it may accommodate approximately 200 car parking spaces and so would meet the demand for parking in the longer term. Line marking of the car park to formalise the parking layout would be implemented prior to the transfer of activity to that site, with the layout to be designed in accordance with the aforementioned AS2890.1 (2004).

6.6 Kemira Valley Rail Level Crossings

The Project would continue to make use of the Kemira Valley Rail Line to transport coal from the Kemira Valley Coal Loading Facility to the Dendrobium CPP, with Project trains using the existing level crossings on Central Road south of Cordeaux Road and off Marley Place at Unanderra.

The Project would not increase the number of trains using the rail line and level crossings, rather would extend the number of years over which the trains would use the rail line at the current frequency. The number of vehicles using the level crossing at Central Road would be expected to increase over the life of the Project due to non-specific traffic growth and to a small extent by growth in employees drawn from the local east Unanderra area who might use that level crossing to access Cordeaux Road when travelling to and from the Mine. The number of vehicles using the level crossing at Marley Place is limited by the development on the adjacent land which is accessed via the level crossing and so is not expected to change significantly over the life of the Project.

The probability of a car driver being delayed by a train at a level crossing is a function of the number of vehicles and trains using the crossing, and would thus expected to increase only slightly over the life of the Project at the Central Road level crossing, and to remain at the current level at the Marley Place level crossing. Both crossings have space available for vehicles to queue without blocking through traffic on the nearby roads. The impact of the Project on the operation of the level crossings is low and would not warrant upgrading of the level crossings.

6.7 Road Safety

The review of the road crash history of roads relevant to the Project (Section 4.4) found no particular concerns with the access intersections for the surface facilities or specific locations along the routes investigated.

Over the five years investigated, two crashes occurred near the intersection of Picton Road with the Cordeaux Pit Top Access Road, however neither was related to the intersection itself. The increased use of that access by Project traffic is therefore not expected to exacerbate any existing safety concerns with its layout or operation. Recommendations have been proposed to reduce the delays at the intersection, which would mitigate against drivers taking unnecessary risks entering Picton Road.

The five-year road crash history of Cordeaux Road through Mount Kembla found no crashes occurred at or close to the intersection of Cordeaux Road with the Dendrobium Pit Top Access road, thus the increase in traffic using the Dendrobium Pit Top Access Road is not expected to exacerbate any existing safety issues with the intersection layout. The existing traffic management measures along Cordeaux Road (such as reduced speed limits and speed humps) would continue to manage the behaviour of drivers along the route. It is recommended that regardless of the Project, South32 request that Wollongong City Council review the signage along Cordeaux Road with any contradictory signs to be removed or updated.

The proposed intersection of Cordeaux Road with the car park access driveway near the Dendrobium Pit Top would be designed in accordance with the requirements of the Australian Standard AS2890.1 (2004), including sight distances and driveway width, to ensure the safe and efficient movement of vehicles and pedestrians at that location.

The existing TMP for the Mine addresses the management of road traffic associated with the operation of the Mine and associated infrastructure, to ensure compliance with Consent conditions and undertakings with regard to traffic management. It is appropriate that the TMP be reviewed prior to commencement of the Project, and prior to transfer of activity to the Cordeaux Pit Top in the longer term to determine whether any changes are required to create a road environment where all road users feel safe.

6.8 Oversize Vehicles

A number of oversize vehicle movements may be generated on an occasional basis during the life of the Project. These oversize vehicle movements would be associated with the transport of mining equipment and infrastructure to and from the Project.

The proposed movement for any oversize vehicles would be negotiated with RMS and relevant local councils on a case-by-case basis. All oversize loads would be transported with the relevant permits and load declarations obtained in accordance with *Additional Access Conditions for oversize and overmass heavy vehicles and loads* (RMS, 2016), and any other licences and escorts as required by regulatory authorities.

6.9 Dangerous Goods

The transportation, handling and storage of all dangerous goods at the Project would be conducted in accordance with the requirements of the *Storage and Handling of Dangerous Goods – Code of Practice 2005* (WorkCover, 2005).

Dangerous goods required for the Project would be transported in accordance with relevant legislation.

6.10 Cumulative Traffic Movements

As discussed in Section 6.1, assessments of major developments in the region infer they do not generally result in an increase in traffic on Picton Road, and no major developments are proposed near the Dendrobium Pit Top that would result in a material increase in traffic on Cordeaux Road. Any minor local traffic increases that may arise from these developments have been captured by conservative background traffic growth assumptions.

Cumulative traffic impacts have also been considered for activities at the Dendrobium CPP due to the proximity to other existing and future proposed developments. The Dendrobium CPP is located within the Port Kembla Industrial Precinct, and as such, the local road network surrounding this site has high traffic volumes, including heavy vehicle movements from existing developments such as BlueScope Steel and the Port Kembla Coal Terminal. Additionally, there are a number of proposed future developments proximal to the Dendrobium CPP, including the Port Kembla Gas Terminal, Port Kembla Bulk Liquids Terminal and the Port Kembla Outer Harbour Development.

Given the surrounding road network has high traffic volumes currently and there are no anticipated Project changes to the current number or distribution of vehicle trips to and from the Dendrobium CPP, no further assessment is required.

6.11 Mitigation Measures

Based on the findings of this assessment, the impacts of the Project on the road system can be satisfactorily accommodated, with the following measures:

- Prior to the transfer of primary underground mine access to the Cordeaux Pit Top, review operational shift arrangements and peak traffic demands on Picton Road, and implement measures to reduce the Project's peak demand for exit movements during the Picton Road peak times, and/or implement necessary upgrades to the intersection, in consultation with RMS.
- Review the Mine's TMP prior to commencement of the Project and prior to the transfer of primary underground mine access to the Cordeaux Pit Top to determine whether it requires revision.
- The proposed car park off Cordeaux Road and its access to be designed in accordance with AS2890.1 (2004), with a pedestrian route provided between the car park and the main Dendrobium Pit Top area.
- The car park at Cordeaux Pit Top for the longer term to be designed in accordance with AS2890.1 (2004).

7. Summary and Conclusions

7.1 Summary

Existing Mine Operations

- The Mine is located approximately eight kilometres west of Wollongong, and operates on a continuous basis. Its surface facilities include the Dendrobium Pit Top, Kemira Valley Coal Loading Facility, Kemira Valley Rail Line, Dendrobium CPP, and Dendrobium Shaft Numbers 1, 2 and 3.
- Access to the Dendrobium Pit Top is off Cordeaux Road (main access used by employees, visitors and deliveries) and access to the Kemira Valley Coal Loading Facility is off Stones Road (used by a limited number of employees, visitors and delivery vehicles).
- ROM coal is transported from the underground areas via a tunnel to the Kemira Valley Coal Loading Facility then to the Dendrobium CPP via the Kemira Valley Rail Line, then to the Port Kembla Steelworks for domestic use or Port Kembla Coal Terminal for export.
- The Cordeaux Pit Top off Picton Road is associated with Cordeaux Colliery, a non-producing Illawarra Coal mine under care and maintenance. The Cordeaux Pit Top is used to support other Illawarra Coal operations such as exploration, survey and environmental monitoring.

Existing Road Environment

- Historically, growth in daily traffic volumes has varied significantly on arterial roads in the Wollongong region.
- The existing road network, including midblock and intersection locations has spare capacity and operates at satisfactory levels of service at the times during which the Mine generates its greatest volumes of traffic.
- The crash history of the surrounding road network does not reveal any specific concerns with the safety of the key routes and accesses used by mine-related traffic.
- On a typical busy weekday, the breakdown of vehicle trips generated by the Mine and the Cordeaux Pit Top in March 2017 is estimated as:

Dendrobium Pit Top

- 624 trips by employees and contractors;
- 40 trips by delivery vehicles; and
- 24 trips by visitors.

Kemira Valley Coal Loading Facility

- 32 trips by employees and contractors; and
- six trips by delivery vehicles (includes transport of equipment).

Cordeaux Pit Top (under care and maintenance, exploration and survey activity)

- 107 trips by employees and contractors; and
- four trips by delivery vehicles (includes transport of equipment).

Dendrobium CPP

- approximately 42 vehicle trips by employees and contractors; and
- transport of coal wash from the Dendrobium CPP to the West Cliff Colliery Coal Wash Emplacement in trucks used for coal haulage from West Cliff to Port Kembla (i.e. backhauled) and to customers for engineering purposes or other beneficial uses.

Dendrobium Shaft Numbers 1, 2 and 3

- up to two vehicle trips per day for weekly maintenance inspection only.

Project Construction and Operations

- The Project involves two proposed future underground mining areas within CCL 768 and use of the existing Mine surface facilities and the Cordeaux Pit Top. The life of the Project is until the end of 2048.
- Project construction activity would result in additional workers, deliveries and visitors accessing the Dendrobium Pit Top, and the new Dendrobium Shaft Sites via the Cordeaux Dam access road off Picton Road.
- Project operational activity would result in additional workers accessing the Dendrobium Pit Top access.
- In the longer term, Project operational activity would result in the Cordeaux Pit Top being the primary access to the underground mining areas rather than the Dendrobium Pit Top.
- The Project would not change the number or distribution of vehicle trips to and from the Kemira Valley Coal Facility and the Dendrobium CPP, nor the number of trains on the Kemira Valley Rail Line.
- Project Impacts on Average Daily Mine and Cordeaux Pit Top Traffic Generation (Monday to Thursday):

Access Location	Employees and Contractors ^A	Deliveries	Visitors
Existing 2017			
Dendrobium Pit Top	624	40	24
Cordeaux Pit Top	107	4	0
Project Construction 2020			
Dendrobium Pit Top	900	64	34
Cordeaux Pit Top	107	4	0
Dendrobium Shaft Site (Cordeaux Dam)	100	40	0
Project Operations 2027			
Dendrobium Pit Top	810	48	28
Cordeaux Pit Top	107	4	0
Project Operations 2035			
Dendrobium Pit Top	162	10	6
Cordeaux Pit Top	755	42	22

No impact at Kemira Valley Coal Loading Facility and Dendrobium CPP

^AIncludes "internal" trips, for example employees or contractors leaving the site to undertake monitoring activities at another site or take smoking/lunch breaks, and then returning to site, or employees or contractors travelling between the various surface facilities.

Future Traffic Conditions

- Growth in traffic not associated with the Project has been forecast to occur at a rate of 1.0 per cent per annum for roads in the local Mount Kembla area, and at 2.5 per cent per annum on Picton Road.
- With the combined impacts of background growth and Project traffic, the intersections of Cordeaux Road with Stones Road and the Dendrobium Pit Top Access Road would operate at good levels of service in the future with spare capacity and short delays.
- The operation of the intersection of Picton Road with the Cordeaux Pit Top access and with the Cordeaux Dam Access Road in the future is highly dependent on the background growth on Picton Road over the period until 2035, the extent to which peak Project traffic may coincide with peak background traffic and the configuration

of the intersection following proposed upgrades of Picton Road. It is noted that the performance of these intersections would deteriorate as a result of background growth regardless of the Project. To maintain a satisfactory Level of Service and safe operation of these intersections in the future, it is recommended that the most appropriate means of managing the future operation of the intersection is determined prior to the transfer of primary underground mine access to the Cordeaux Pit Top. Measures could be implemented to minimise the overlap between peak Project traffic exiting the Cordeaux Pit Top and peak through traffic on Picton Road, notably during the afternoon peak, or upgrading of the intersection may be required to provide additional capacity.

- Additional car parking proposed at the Dendrobium Pit Top is expected to satisfactorily accommodate the changes in the workforce associated with the Project.
- With formalising of the car parking at the Cordeaux Pit Top, there is expected to be sufficient parking to accommodate the longer-term parking demand at that site with the Project.
- The Project would have only a low impact on the operation of the level crossings used by Project trains, and no upgrading of those facilities would be warranted for the Project.
- The Project is not expected to exacerbate any existing safety issues with the operation of the road network, subject to management of traffic exiting at the Cordeaux Pit Top access and Cordeaux Dam Access Road in the long term.
- Any potential cumulative traffic impacts on Picton Road or Cordeaux Road associated with other major developments are likely to be captured by background growth assumptions and traffic movements at the Dendrobium CPP would be unchanged by the Project.
- The existing TMP for the Mine adequately addresses the management of road traffic associated with the Mine. The TMP should be reviewed to manage the future transfer of the primary underground mine access to the Cordeaux Pit Top.
- Mitigation measures are recommended with the Project:
 - Prior to the transfer of primary underground mine access to the Cordeaux Pit Top, review operational shift arrangements and peak traffic demands on Picton Road, and implement measures to reduce the Project's peak demand for exit movements during the Picton Road peak times, and/or implement necessary upgrades to the intersection.
 - Review the Mine's TMP prior to commencement of the Project and prior to the transfer of primary underground mine access to the Cordeaux Pit Top to determine whether it requires revision.
 - The proposed car park off Cordeaux Road and its access to be designed in accordance with AS2890.1 (2004), with a pedestrian route provided between the car park and the main Dendrobium Pit Top area.
 - The driveway access and car park at Cordeaux Pit Top for the longer term to be designed in accordance with AS2890.1 (2004).

7.2 Conclusions


Based on analysis and discussions presented within this report, it is concluded that subject to the mitigation measures described above and in Section 6.8, the Project can be satisfactorily accommodated by the road network, with acceptable impacts on the capacity, efficiency and safety of the road network.

Appendix A

Traffic Survey Results Summary

Electronic copies of full survey results are available on request.

Job No	N3060
Client	GTA
Site	Dendrobium Mine Access - north of Cordeaux Rd
Location	Mt Kembla
Site No	1
Start Date	30-Mar-17
Description	Volume Summary
Direction	Combined



Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	3-Apr	4-Apr	5-Apr	30-Mar	31-Mar	1-Apr	2-Apr		
AM Peak	72	82	77	67	53	37	43		
PM Peak	60	88	57	57	40	28	42	528	433
0:00	0	28	24	37	14	1	1	21	15
1:00	0	2	0	0	2	0	0	1	1
2:00	1	0	0	0	1	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0
4:00	6	8	6	8	9	7	6	7	7
5:00	72	82	77	67	47	37	43	69	61
6:00	14	34	12	16	7	9	4	17	14
7:00	25	66	49	52	53	13	7	49	38
8:00	41	35	45	38	23	21	20	36	32
9:00	19	14	9	16	25	0	4	17	12
10:00	24	30	19	23	23	3	6	24	18
11:00	26	13	20	18	20	1	2	19	14
12:00	42	27	37	33	18	1	0	31	23
13:00	53	38	41	36	18	1	0	37	27
14:00	20	24	13	21	17	2	1	19	14
15:00	39	28	42	32	12	3	2	31	23
16:00	60	88	57	57	18	4	1	56	41
17:00	15	15	17	16	22	18	19	17	17
18:00	3	0	7	2	40	26	42	10	17
19:00	1	0	1	0	28	15	26	6	10
20:00	5	5	7	3	3	28	3	5	8
21:00	40	45	44	43	1	3	4	35	26
22:00	4	4	5	4	0	2	1	3	3
23:00	16	15	37	23	0	0	0	18	13
Total	526	601	569	545	401	195	192	528	433

7-19	367	378	356	344	289	93	104	347	276
6-22	427	462	420	406	328	148	141	409	333
6-24	447	481	462	433	328	150	142	430	349
0-24	526	601	569	545	401	195	192	528	433

Job No N3060
Client GTA
Site Kemira Valley Access Rd - -34.42351 150.82701
Location Mt Kembla
Site No 2
Start Date 30-Mar-17
Description Volume Summary
Direction Combined



Hour Starting	Day of Week							W'Day Ave 35	7 Day Ave 30
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	3-Apr	4-Apr	5-Apr	30-Mar	31-Mar	1-Apr	2-Apr		
AM Peak	9	11	5	5	6	2	2		
PM Peak	6	4	5	5	4	4	4		
0:00	2	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0
4:00	0	0	0	1	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0
6:00	0	1	4	3	1	2	2	2	2
7:00	5	11	5	4	1	0	0	5	4
8:00	2	4	2	3	0	0	0	2	2
9:00	1	3	1	5	1	0	2	2	2
10:00	0	4	3	2	3	0	0	2	2
11:00	9	0	2	4	6	0	0	4	3
12:00	0	1	4	0	1	0	1	1	1
13:00	2	0	1	5	0	4	1	2	2
14:00	6	3	2	2	4	2	2	3	3
15:00	4	2	4	3	0	2	4	3	3
16:00	0	0	5	2	2	4	1	2	2
17:00	0	0	5	0	4	2	3	2	2
18:00	0	4	2	0	0	0	0	1	1
19:00	0	2	0	0	0	0	2	0	1
20:00	0	0	2	0	2	0	2	1	1
21:00	0	0	2	0	0	2	0	0	1
22:00	2	2	0	2	0	0	0	1	1
23:00	0	0	0	0	0	0	0	0	0
Total	33	37	44	36	25	18	20	35	30

7-19	29	32	36	30	22	14	14	30	25
6-22	29	35	44	33	25	18	20	33	29
6-24	31	37	44	35	25	18	20	34	30
0-24	33	37	44	36	25	18	20	35	30

Job No	N3060
Client	GTA
Site	Cordeaux Pit Access Rd - Parralell with Picton Rd
Location	Mt Kembla
Site No	4
Start Date	30-Mar-17
Description	Volume Summary
Direction	Combined



Hour Starting	Day of Week							W'Day Ave 103	7 Day Ave 75
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	3-Apr	4-Apr	5-Apr	30-Mar	31-Mar	1-Apr	2-Apr		
AM Peak	12	19	12	15	17	2	2		
PM Peak	15	16	21	11	13	1	1		
0:00	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0
5:00	2	1	1	2	1	2	0	1	1
6:00	12	19	12	7	5	0	2	11	8
7:00	12	14	12	15	17	2	0	14	10
8:00	11	13	12	6	5	0	0	9	7
9:00	4	11	5	10	8	0	0	8	5
10:00	10	6	8	14	4	0	0	8	6
11:00	5	5	3	8	4	0	0	5	4
12:00	6	1	12	8	4	0	0	6	4
13:00	13	4	13	0	1	0	0	6	4
14:00	4	11	5	4	8	0	0	6	5
15:00	9	14	21	11	13	0	0	14	10
16:00	15	16	18	10	2	0	1	12	9
17:00	3	1	1	1	1	1	1	1	1
18:00	1	0	0	1	0	1	0	0	0
19:00	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0
Total	107	116	123	97	73	6	4	103	75

7-19	93	96	110	88	67	4	2	91	66
6-22	105	115	122	95	72	4	4	102	74
6-24	105	115	122	95	72	4	4	102	74
0-24	107	116	123	97	73	6	4	103	75

Job No	N3060
Client	GTA
Site	Cordeaux Rd - approx 450m east of Stones Rd
Location	Mt Kembla
Site No	3
Start Date	30-Mar-17
Description	Volume Summary
Direction	Combined



Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	3-Apr	4-Apr	5-Apr	30-Mar	31-Mar	1-Apr	2-Apr		
AM Peak	317	342	331	347	310	213	228		
PM Peak	320	380	384	324	321	275	244	3569	3450
0:00	2	44	43	67	34	64	51	38	44
1:00	3	5	7	14	11	22	31	8	13
2:00	5	3	7	4	6	14	8	5	7
3:00	6	4	8	7	7	4	6	6	6
4:00	28	30	21	20	23	17	13	24	22
5:00	130	151	150	125	91	58	60	129	109
6:00	129	131	126	128	102	56	50	123	103
7:00	229	259	255	232	214	80	62	238	190
8:00	317	342	331	347	310	162	159	329	281
9:00	198	151	211	175	180	193	176	183	183
10:00	193	178	148	149	198	197	204	173	181
11:00	148	163	160	158	202	213	228	166	182
12:00	166	157	195	176	192	275	219	177	197
13:00	191	184	208	197	167	257	237	189	206
14:00	208	198	190	224	205	238	236	205	214
15:00	258	282	327	278	321	208	244	293	274
16:00	320	380	384	324	302	251	215	342	311
17:00	242	322	308	275	312	267	227	292	279
18:00	159	198	232	203	303	258	165	219	217
19:00	94	148	124	113	218	155	123	139	139
20:00	74	80	123	89	103	115	73	94	94
21:00	85	105	101	130	107	94	62	106	98
22:00	26	32	32	35	109	97	34	47	52
23:00	19	27	67	39	57	117	11	42	48
Total	3230	3574	3758	3509	3774	3412	2894	3569	3450

7-19	2629	2814	2949	2738	2906	2599	2372	2807	2715
6-22	3011	3278	3423	3198	3436	3019	2680	3269	3149
6-24	3056	3337	3522	3272	3602	3233	2725	3358	3250
0-24	3230	3574	3758	3509	3774	3412	2894	3569	3450

Job No.

: N3060

Client

: GTA

Suburb

: Mt Kembla

Location

: 1. Cordeaux Rd / Dendrobium Mine Access

Day/Date

: Thursday, 30th Mar 2017

Weather

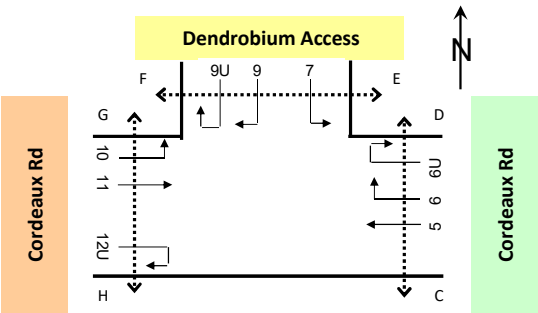
: Fine

Description

: Classified Intersection Count

: 15 mins Data

	Class 1	Class 2	Class 3
Classifications	Cars	Trucks	Buses

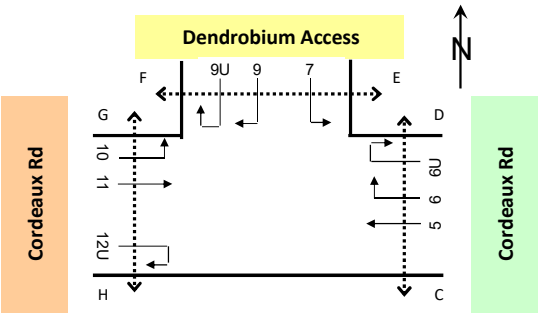


Approach		Cordeaux Rd											
Direction													
Time Period		Direction 5 (Through)				Direction 6 (Right Turn)				Direction 6U (U Turn)			
		Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
5:30	to 5:45	1	0	0	1	34	0	0	34	0	0	0	0
5:45	to 6:00	5	0	0	5	14	0	0	14	0	0	0	0
6:00	to 6:15	3	0	0	3	5	0	0	5	0	0	0	0
6:15	to 6:30	7	0	0	7	4	0	0	4	0	0	0	0
6:30	to 6:45	2	0	0	2	2	0	0	2	0	0	0	0
6:45	to 7:00	6	0	0	6	3	0	0	3	0	0	0	0
7:00	to 7:15	1	0	0	1	8	0	0	8	0	0	0	0
7:15	to 7:30	9	0	0	9	4	1	0	5	0	0	0	0
7:30	to 7:45	6	0	1	7	9	0	0	9	0	0	0	0
7:45	to 8:00	6	0	1	7	1	0	0	1	0	0	0	0
8:00	to 8:15	6	0	0	6	7	0	0	7	0	0	0	0
8:15	to 8:30	2	0	0	2	3	0	0	3	0	0	0	0
AM Totals		54	0	2	56	94	1	0	95	0	0	0	0
14:00	to 14:15	1	0	0	1	1	0	0	1	0	0	0	0
14:15	to 14:30	6	2	0	8	1	0	0	1	0	0	0	0
14:30	to 14:45	6	0	0	6	2	0	0	2	0	0	0	0
14:45	to 15:00	6	0	3	9	2	0	0	2	0	0	0	0
15:00	to 15:15	5	0	0	5	0	0	0	0	0	0	0	0
15:15	to 15:30	3	0	0	3	0	0	0	0	0	0	0	0
15:30	to 15:45	6	0	1	7	2	0	0	2	0	0	0	0
15:45	to 16:00	4	0	0	4	0	0	0	0	1	0	0	1
16:00	to 16:15	3	0	0	3	1	1	0	2	1	0	0	1
16:15	to 16:30	4	0	0	4	0	0	0	0	0	0	0	0
16:30	to 16:45	3	0	1	4	0	0	0	0	0	0	0	0
16:45	to 17:00	6	0	0	6	0	0	0	0	0	0	0	0
PM Totals		53	2	5	60	9	1	0	10	2	0	0	2

Approach	Dendrobium Access								Cordeaux Rd								Crossing Pedestrians														
Direction	Direction 7 (Left Turn)					Direction 9 (Right Turn)				Direction 9U (U Turn)				Direction 10 (Left Turn)				Direction 11 (Through)					Direction 12U (U Turn)								
Time Period	Cars	Trucks	Buses	Total		Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total		Cars	Trucks	Buses	Total					
5:30 to 5:45	1	0	0	1		0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0		0	0	0	0	0				
5:45 to 6:00	2	0	0	2		0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0		0	0	0	0	0				
6:00 to 6:15	5	0	0	5		0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0		0	0	0	0	2				
6:15 to 6:30	1	0	0	1		0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0		0	0	0	0	1				
6:30 to 6:45	0	0	0	0		0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0		0	0	0	0	0				
6:45 to 7:00	0	0	0	0		0	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0		0	0	0	0	0				
7:00 to 7:15	2	0	0	2		0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0		0	0	0	0	0				
7:15 to 7:30	0	0	0	0		0	0	0	0	0	0	0	0	0	5	2	0	7	0	0	0		0	0	0	0	0				
7:30 to 7:45	1	1	0	2		2	0	0	0	0	0	0	0	0	3	0	1	4	0	0	0		0	0	0	0	0				
7:45 to 8:00	19	0	0	19		0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0		0	0	0	0	0				
8:00 to 8:15	22	0	0	22		0	0	0	0	0	1	0	0	1	7	0	1	8	0	0	0		0	0	0	0	0				
8:15 to 8:30	6	0	0	6		2	0	0	2	0	0	0	0	0	6	0	0	6	0	0	0		0	0	0	0	0				
AM Totals	59	1	0	60		4	0	0	4	0	0	0	0	1	0	0	1	37	2	2	41		0	0	0	0	0	3			
14:00 to 14:15	1	0	0	1		0	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0		0	0	0	0	0				
14:15 to 14:30	2	0	0	2		2	0	0	2	0	0	0	0	0	6	0	0	6	0	0	0		0	0	0	0	1				
14:30 to 14:45	5	0	0	5		0	0	0	0	0	1	0	0	1	4	0	0	4	0	0	0		0	0	0	0	0				
14:45 to 15:00	1	0	0	1		0	0	0	0	0	0	0	0	0	1	2	2	5	0	0	0		0	0	0	0	0				
15:00 to 15:15	0	0	0	0		1	0	0	0	0	0	0	0	0	4	0	1	5	0	0	0		0	0	0	0	0				
15:15 to 15:30	0	0	0	0		0	0	0	0	0	0	0	0	0	9	0	0	9	0	0	0		0	0	0	0	0				
15:30 to 15:45	2	0	0	2		1	0	0	1	0	0	0	0	0	5	0	1	6	0	0	0		0	0	0	0	0				
15:45 to 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0						
16:00 to 16:15	1	1	0	2	0	0	0	0	0	2	0	0	2	8	0	0	8	0	0	0	0	0	0	0	1						
16:15 to 16:30	19	0	0	19	1	0	0	1	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0						
16:30 to 16:45	22	0	0	22	0	0	0	0	0	0	0	0	0	13	0	1	14	0	0	0	0	0	0	0	1						
16:45 to 17:00	6	0	0	6	0	0	0	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	0	0						
PM Totals	59	1	0	60	5	0	0	5	0	0	0	0	3	0	0	3	74	2	5	81	0	0	0	0	2	1	0	0	0	0	3

Job No. : N3060
Client : GTA
Suburb : Mt Kembla
Location : 1. Cordeaux Rd / Dendrobium Mine Access

Day/Date : Thursday, 30th Mar 2017
Weather : Fine
Description : Classified Intersection Count
: Hourly Summary



Approach	Cordeaux Rd											
Direction												
Time Period												
5:30 to 6:30	Direction 5 (Through)				Direction 6 (Right Turn)				Direction 6U (U Turn)			
5:45 to 6:45	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
6:00 to 7:00	16	0	0	16	57	0	0	57	0	0	0	0
6:15 to 7:15	17	0	0	17	25	0	0	25	0	0	0	0
6:30 to 7:30	18	0	0	18	14	0	0	14	0	0	0	0
6:45 to 7:45	16	0	0	16	17	0	0	17	0	0	0	0
7:00 to 8:00	18	0	0	18	17	1	0	18	0	0	0	0
7:15 to 8:15	22	0	1	23	24	1	0	25	0	0	0	0
7:30 to 8:30	22	0	2	24	22	1	0	23	0	0	0	0
AM Totals	27	0	2	29	21	1	0	22	0	0	0	0
14:00 to 15:00	20	0	2	22	20	0	0	20	0	0	0	0
14:15 to 15:15	54	0	2	56	94	1	0	95	0	0	0	0
14:30 to 15:30	19	2	3	24	6	0	0	6	0	0	0	0
14:45 to 15:45	23	2	3	28	5	0	0	5	0	0	0	0
15:00 to 16:00	20	0	3	23	4	0	0	4	0	0	0	0
15:15 to 16:15	20	0	4	24	4	0	0	4	0	0	0	0
15:30 to 16:30	18	0	1	19	2	0	0	2	1	0	0	1
15:45 to 16:45	16	0	1	17	3	1	0	4	2	0	0	2
16:00 to 17:00	17	0	1	18	3	1	0	4	2	0	0	2
PM Totals	14	0	1	15	1	1	0	2	2	0	0	2
	16	0	1	17	1	1	0	2	1	0	0	1
	53	2	5	60	9	1	0	10	2	0	0	2

Approach	Dendrobium Access												Cordeaux Rd										Crossing Pedestrians											
Direction	Direction 7 (Left Turn)					Direction 9 (Right Turn)				Direction 9U (U Turn)				Direction 10 (Left Turn)				Direction 11 (Through)													Direction 12U (U Turn)			
Time Period	Cars	Trucks	Buses	Total		Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total		Cars	Trucks	Buses	Total	C	D	E	F	G	H	Total	
5:30 to 6:30	9	0	0	9		0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6		0	0	0	0	0	3	0	0	0	0	0	3
5:45 to 6:45	8	0	0	8		0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6		0	0	0	0	0	3	0	0	0	0	0	3
6:00 to 7:00	6	0	0	6		0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9		0	0	0	0	0	3	0	0	0	0	0	3
6:15 to 7:15	3	0	0	3		0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8		0	0	0	0	0	1	0	0	0	0	0	1
6:30 to 7:30	2	0	0	2		0	0	0	0	0	0	0	0	0	0	0	0	12	2	0	14		0	0	0	0	0	0	0	0	0	0	0	0
6:45 to 7:45	3	1	0	4		2	0	0	2	0	0	0	0	0	0	0	0	14	2	1	17		0	0	0	0	0	0	0	0	0	0	0	0
7:00 to 8:00	22	1	0	23		2	0	0	2	0	0	0	0	0	0	0	0	12	2	1	15		0	0	0	0	0	0	0	0	0	0	0	0
7:15 to 8:15	42	1	0	43		2	0	0	2	0	0	0	0	1	0	0	1	18	2	2	22		0	0	0	0	0	0	0	0	0	0	0	0
7:30 to 8:30	48	1	0	49		4	0	0	4	0	0	0	0	1	0	0	1	19	0	2	21		0	0	0	0	0	0	0	0	0	0	0	0
AM Totals	59	1	0	60		4	0	0	4	0	0	0	0	1	0	0	1	37	2	2	41		0	0	0	0	0	3	0	0	0	0	0	3
14:00 to 15:00	9	0	0	9		2	0	0	2	0	0	0	0	1	0	0	1	16	2	2	20		0	0	0	0	0	1	0	0	0	0	0	1
14:15 to 15:15	8	0	0	8		3	0	0	3	0	0	0	0	1	0	0	1	15	2	3	20		0	0	0	0	0	1	0	0	0	0	0	1
14:30 to 15:30	6	0	0	6		1	0	0	1	0	0	0	0	1	0	0	1	18	2	3	23		0	0	0	0	0	0	0	0	0	0	0	0
14:45 to 15:45	3	0	0	3		2	0	0	2	0	0	0	0	0	0	0	0	19	2	4	25		0	0	0	0	0	0	0	0	0	0	0	0
15:00 to 16:00	2	0	0	2		2	0	0	2	0	0	0	0	0	0	0	0	24	0	2	26		0	0	0	0	0	0	0	0	0	0	0	0
15:15 to 16:15	3	1	0	4		1	0	0	1	0	0	0	0	2	0	0	2	28	0	1	29		0	0	0	0	0	1	0	0	0	0	0	1
15:30 to 16:30	22	1	0	23		2	0	0	2	0	0	0	0	2	0	0	2	24	0	1	25		0	0	0	0	0	1	0	0	0	0	0	1
15:45 to 16:45	42	1	0	43		1	0	0	1	0	0	0	0	2	0	0	2	32	0	1	33		0	0	0	0	0	2	0	0	0	0	0	2
16:00 to 17:00	48	1	0	49	1	0	0	1	0	0	0	0	2	0	0	2	34	0	1	35	0	0	0	0	0	2	0	0	0	0	0	2		
PM Totals	59	1	0	60	5	0	0	5	0	0	0	0	3	0	0	3	74	2	5	81	0	0	0	0	0	2	1	0	0	0	0	3		

Job No.

: N3060

Client

: GTA

Suburb

: Mt Kembla

Location

: 2. Cordeaux Rd / Stones Rd

Day/Date

: Thursday, 30th Mar 2017

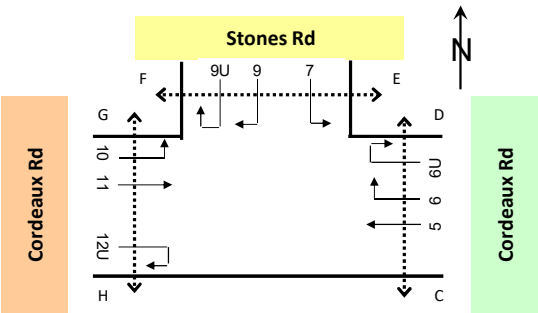
Weather

: Fine

Description

: Classified Intersection Count

: 15 mins Data



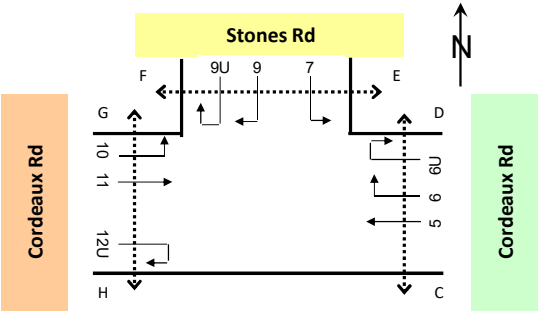
	Class 1	Class 2	Class 3
Classifications	Cars	Trucks	Buses

Approach		Cordeaux Rd											
Direction													
Time Period		Direction 5 (Through)				Direction 6 (Right Turn)				Direction 6U (U Turn)			
		Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
5:30	to 5:45	34	0	0	34	0	0	0	0	0	0	0	0
5:45	to 6:00	16	0	0	16	0	0	0	0	0	0	0	0
6:00	to 6:15	5	0	0	5	0	0	0	0	0	0	0	0
6:15	to 6:30	13	0	0	13	2	0	0	2	0	0	0	0
6:30	to 6:45	10	0	0	10	1	1	0	2	0	0	0	0
6:45	to 7:00	10	0	0	10	1	0	0	1	0	0	0	0
7:00	to 7:15	10	0	1	11	2	1	0	3	0	0	0	0
7:15	to 7:30	16	1	1	18	2	0	0	2	0	0	0	0
7:30	to 7:45	16	1	0	17	0	0	0	0	0	0	0	0
7:45	to 8:00	18	0	1	19	4	0	0	4	0	0	0	0
8:00	to 8:15	18	1	0	19	2	0	0	2	1	0	0	1
8:15	to 8:30	22	0	0	22	2	0	0	2	0	0	0	0
AM Totals		188	3	3	194	16	2	0	18	1	0	0	1
14:00	to 14:15	8	0	0	8	0	0	0	0	0	0	0	0
14:15	to 14:30	21	2	0	23	0	0	0	0	1	0	0	1
14:30	to 14:45	27	0	2	29	0	0	0	0	1	0	0	1
14:45	to 15:00	39	1	2	42	2	0	0	2	1	0	0	1
15:00	to 15:15	22	0	0	22	1	1	0	2	0	0	0	0
15:15	to 15:30	8	0	0	8	1	0	0	1	0	0	0	0
15:30	to 15:45	37	0	2	39	2	1	0	3	0	0	0	0
15:45	to 16:00	35	0	0	35	2	0	0	2	0	0	0	0
16:00	to 16:15	20	1	0	21	0	0	0	0	0	0	0	0
16:15	to 16:30	31	0	0	31	4	0	0	4	1	0	0	1
16:30	to 16:45	24	1	1	26	2	0	0	2	1	0	0	1
16:45	to 17:00	24	0	0	24	2	0	0	2	0	0	0	0
PM Totals		296	5	7	308	16	2	0	18	5	0	0	5

Approach	Stones Rd								Cordeaux Rd								Crossing Pedestrians														
Direction	Direction 7 (Left Turn)				Direction 9 (Right Turn)				Direction 9U (U Turn)				Direction 10 (Left Turn)												Direction 11 (Through)				Direction 12U (U Turn)		
Time Period	Cars	Trucks	Buses	Total		Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total		C	D	E	F	G	H	Total		
5:30 to 5:45	0	0	0	0		0	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0		0	0	0	0	0	0	0	0	0
5:45 to 6:00	1	0	0	1		0	0	0	0	0	0	0	0	0	11	0	0	11	0	0	0		0	0	0	0	0	0	0	0	0
6:00 to 6:15	0	0	0	0		0	0	0	0	0	1	0	0	1	17	0	0	17	0	0	0		0	0	0	0	0	0	0	0	0
6:15 to 6:30	2	0	0	2		0	0	0	0	0	2	0	0	2	14	0	0	14	0	0	0		0	0	0	1	0	0	0	0	1
6:30 to 6:45	4	0	0	4		0	0	0	0	0	0	0	0	0	11	2	0	13	0	0	0		0	0	0	0	0	0	0	0	0
6:45 to 7:00	7	0	0	7		0	0	0	0	0	0	0	0	0	19	0	0	19	0	0	0		0	0	0	0	1	0	0	0	1
7:00 to 7:15	4	0	0	4		1	0	0	0	0	0	0	0	0	17	0	0	17	0	0	0		0	0	0	0	0	0	0	0	0
7:15 to 7:30	6	0	0	6		4	0	0	0	4	0	0	0	0	18	0	1	19	0	0	0		0	0	0	0	0	0	0	0	0
7:30 to 7:45	6	0	0	6		1	0	0	0	1	0	0	0	1	26	1	1	28	0	0	0		0	0	0	1	1	0	0	0	2
7:45 to 8:00	7	0	0	7		1	0	0	0	1	0	0	0	0	52	0	0	52	0	0	0		0	0	0	1	0	0	0	0	1
8:00 to 8:15	9	1	0	10		0	0	0	0	0	0	0	0	0	60	1	1	62	0	0	0		0	0	0	1	0	0	0	0	1
8:15 to 8:30	7	0	0	7		0	0	0	0	0	1	0	0	1	40	0	0	40	0	0	0		0	0	0	0	2	0	0	0	2
AM Totals	53	1	0	54		7	0	0	7	0	6	0	0	6	290	4	3	297	0	0	0		0	0	0	7	1	0	0	0	8
14:00 to 14:15	1	0	0	1		1	0	0	0	0	1	0	0	1	19	1	0	20	0	0	0		0	0	0	0	0	0	0	0	0
14:15 to 14:30	2	0	0	2		1	0	0	0	0	0	0	0	0	17	1	0	18	0	0	0		0	0	0	0	1	0	0	0	1
14:30 to 14:45	2	0	0	2		0	0	0	0	0	1	0	0	1	15	0	0	15	1	0	0		1	0	2	0	0	0	0	0	2
14:45 to 15:00	1	0	0	1		1	0	0	0	0	1	0	0	1	26	2	2	30	0	0	0		0	0	0	0	0	0	0	0	0
15:00 to 15:15	3	0	0	3		0	0	0	0	0	1	0	0	1	31	0	2	33	0	0	0		0	0	0	0	1	0	0	0	1
15:15 to 15:30	7	0	0	7		0	0	0	0	0	3	0	0	3	32	0	0	32	0	0	0		0	0	0	0	0	0	0	0	0
15:30 to 15:45	6	0	0	6		2	0	0	0	0	1	0	0	1	23	0	2	25	1	0	0		1	0	0	0	0	0	0	0	0
15:45 to 16:00	3	0	0	3		1	0	0	0	0	0	0	0	0	38	0	0	38	0	0	0		0	0	0	0	0	0	0	0	0
16:00 to 16:15	2	0	0	2		1	0	0	0	0	1	0	0	1	70	0	0	70	0	0	0		0	0	0	0	0	0	0	0	0
16:15 to 16:30	3	0	0	3		1	0	0	0	0	1	0	0	1	31	0	0	31	0	0	0		0	0	0	0	0	0	0	0	0
16:30 to 16:45	2	0	0	2		1	0	0	0	0	2	0	0	2	39	1	1	41	0	0	0		0	0	0	0	1	0	0	0	1
16:45 to 17:00	5	0	0	5		0	0	0	0	0	2	0	0	2	21	0	0	21	0	0	0		0	0	0	0	0	0	0	0	0
PM Totals	37	0	0	37	9	0	0	9	0	14	0	0	14	362	5	7	374	2	0	0	2	0	3	0	1	1	0	0	5		

Job No. : N3060
Client : GTA
Suburb : Mt Kembla
Location : 2. Cordeaux Rd / Stones Rd

Day/Date : Thursday, 30th Mar 2017
Weather : Fine
Description : Classified Intersection Count
: Hourly Summary

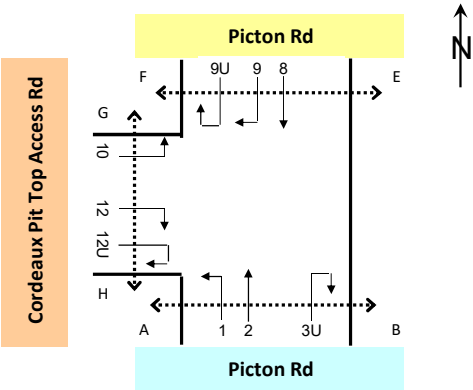


Approach	Cordeaux Rd											
Direction												
Time Period												
5:30 to 6:30	Direction 5 (Through)				Direction 6 (Right Turn)				Direction 6U (U Turn)			
5:45 to 6:45	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
6:00 to 7:00	68	0	0	68	2	0	0	2	0	0	0	0
6:15 to 7:15	44	0	0	44	3	1	0	4	0	0	0	0
6:30 to 7:30	38	0	0	38	4	1	0	5	0	0	0	0
6:45 to 7:45	43	0	1	44	6	2	0	8	0	0	0	0
7:00 to 8:00	46	1	2	49	6	2	0	8	0	0	0	0
7:15 to 8:15	52	2	2	56	5	1	0	6	0	0	0	0
7:30 to 8:30	60	2	3	65	8	1	0	9	0	0	0	0
AM Totals	68	3	2	73	8	0	0	8	1	0	0	1
14:00 to 15:00	74	2	1	77	8	0	0	8	1	0	0	1
14:15 to 15:15	188	3	3	194	16	2	0	18	1	0	0	1
14:30 to 15:30	95	3	4	102	2	0	0	2	3	0	0	3
14:45 to 15:45	109	3	4	116	3	1	0	4	3	0	0	3
15:00 to 16:00	96	1	4	101	4	1	0	5	2	0	0	2
15:15 to 16:15	106	1	4	111	6	2	0	8	1	0	0	1
15:30 to 16:30	102	0	2	104	6	2	0	8	0	0	0	0
15:45 to 16:45	100	1	2	103	5	1	0	6	0	0	0	0
16:00 to 17:00	123	1	2	126	8	1	0	9	1	0	0	1
PM Totals	110	2	1	113	8	0	0	8	2	0	0	2
	99	2	1	102	8	0	0	8	2	0	0	2
	296	5	7	308	16	2	0	18	5	0	0	5

Approach	Stones Rd										Cordeaux Rd										Crossing Pedestrians													
Direction	Direction 7 (Left Turn)					Direction 9 (Right Turn)				Direction 9U (U Turn)				Direction 10 (Left Turn)				Direction 11 (Through)												Direction 12U (U Turn)				
Time Period	Cars	Trucks	Buses	Total		Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	C	D	E		F	G	H	Total	
5:30 to 6:30	3	0	0	3		0	0	0	0	0	0	0	0	3	0	0	3	47	0	0	0	47	0	0	0	0	0	0		1	0	0	0	1
5:45 to 6:45	7	0	0	7		0	0	0	0	0	0	0	0	3	0	0	3	53	2	0	0	55	0	0	0	0	0	0		1	0	0	0	1
6:00 to 7:00	13	0	0	13		0	0	0	0	0	0	0	0	3	0	0	3	61	2	0	0	63	0	0	0	0	0	0		2	0	0	0	2
6:15 to 7:15	17	0	0	17		1	0	0	1	0	0	0	0	2	0	0	2	61	2	0	0	63	0	0	0	0	0	0		2	0	0	0	2
6:30 to 7:30	21	0	0	21		5	0	0	5	0	0	0	0	1	0	0	1	65	2	1	0	68	0	0	0	0	0	0		1	0	0	0	1
6:45 to 7:45	23	0	0	23		6	0	0	6	0	0	0	0	2	0	0	2	80	1	2	0	83	0	0	0	0	0	0		2	1	0	0	3
7:00 to 8:00	23	0	0	23		7	0	0	7	0	0	0	0	2	0	0	2	113	1	2	0	116	0	0	0	0	0	0		2	1	0	0	3
7:15 to 8:15	28	1	0	29		6	0	0	6	0	0	0	0	2	0	0	2	156	2	3	0	161	0	0	0	0	0	0		3	1	0	0	4
7:30 to 8:30	29	1	0	30		2	0	0	2	0	0	0	0	2	0	0	2	178	2	2	0	182	0	0	0	0	0	0		5	1	0	0	6
AM Totals	53	1	0	54		7	0	0	7	0	0	0	0	6	0	0	6	290	4	3	0	297	0	0	0	0	0	0		7	1	0	0	8
14:00 to 15:00	6	0	0	6		3	0	0	3	0	0	0	0	3	0	0	3	77	4	2	0	83	1	0	0	1	0	2		0	1	0	0	3
14:15 to 15:15	8	0	0	8		2	0	0	2	0	0	0	0	3	0	0	3	89	3	4	0	96	1	0	0	1	0	2		0	1	1	0	4
14:30 to 15:30	13	0	0	13		1	0	0	1	0	0	0	0	6	0	0	6	104	2	4	0	110	1	0	0	1	0	2		0	0	1	0	3
14:45 to 15:45	17	0	0	17		3	0	0	3	0	0	0	0	6	0	0	6	112	2	6	0	120	1	0	0	1	0	0		0	0	1	0	1
15:00 to 16:00	19	0	0	19		3	0	0	3	0	0	0	0	5	0	0	5	124	0	4	0	128	1	0	0	1	0	0		0	0	1	0	1
15:15 to 16:15	18	0	0	18		4	0	0	4	0	0	0	0	5	0	0	5	163	0	2	0	165	1	0	0	1	0	0		0	0	0	0	0
15:30 to 16:30	14	0	0	14		5	0	0	5	0	0	0	0	3	0	0	3	162	0	2	0	164	1	0	0	1	0	0		0	0	0	0	0
15:45 to 16:45	10	0	0	10		4	0	0	4	0	0	0	0	4	0	0	4	178	1	1	0	180	0	0	0	0	0	1		0	0	0	0	1
16:00 to 17:00	12	0	0	12	3	0	0	3	0	0	0	0	6	0	0	6	161	1	1	0	163	0	0	0	0	0	1	0	0	0	0	1		
PM Totals	37	0	0	37	9	0	0	9	0	0	0	0	14	0	0	14	362	5	7	0	374	2	0	0	2	0	3	0	1	1	0	5		

Job No.	: N3060
Client	: GTA
Suburb	: Mt Kembla
Location	: 3. Picton Rd / Cordeaux Pit Top Access Rd
Day/Date	: Thursday, 30th Mar 2017
Weather	: Fine
Description	: Classified Intersection Count
	: 15 mins Data

Classifications	Class 1	Class 2	Class 3
	Cars	Trucks	Buses

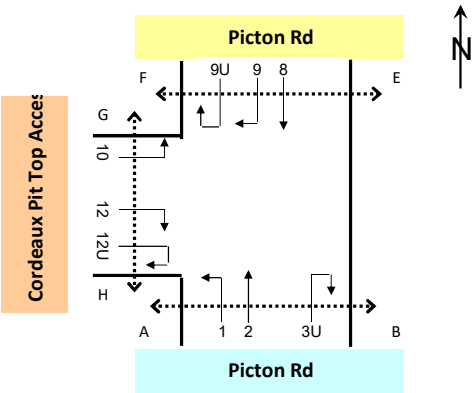


Approach	Picton Rd											
Direction	Direction 1 (Left Turn)				Direction 2 (Through)				Direction 3U (U Turn)			
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
5:30 to 5:45	1	0	0	1	153	32	0	185	0	0	0	0
5:45 to 6:00	0	0	0	0	138	23	0	161	0	0	0	0
6:00 to 6:15	1	0	0	1	182	20	0	202	0	0	0	0
6:15 to 6:30	0	0	0	0	185	30	0	215	0	0	0	0
6:30 to 6:45	1	0	0	1	167	31	0	198	0	0	0	0
6:45 to 7:00	4	0	0	4	194	25	0	219	0	0	0	0
7:00 to 7:15	4	0	0	4	171	38	1	210	0	0	0	0
7:15 to 7:30	5	0	0	5	183	37	0	220	0	0	0	0
7:30 to 7:45	0	0	0	0	189	38	0	227	0	0	0	0
7:45 to 8:00	5	0	0	5	178	27	2	207	0	0	0	0
8:00 to 8:15	3	0	0	3	168	39	0	207	0	0	0	0
8:15 to 8:30	1	0	0	1	126	20	1	147	0	0	0	0
AM Totals	25	0	0	25	2,034	360	4	2,398	0	0	0	0
14:00 to 14:15	0	0	0	0	104	26	0	130	0	0	0	0
14:15 to 14:30	0	0	0	0	87	23	0	110	0	0	0	0
14:30 to 14:45	1	0	0	1	107	22	2	131	0	0	0	0
14:45 to 15:00	0	0	0	0	100	31	1	132	0	0	0	0
15:00 to 15:15	0	0	0	0	133	18	2	153	0	0	0	0
15:15 to 15:30	0	0	0	0	130	27	0	157	0	0	0	0
15:30 to 15:45	0	0	0	0	137	18	0	155	0	0	0	0
15:45 to 16:00	0	0	0	0	162	23	0	185	0	0	0	0
16:00 to 16:15	0	0	0	0	142	28	0	170	0	0	0	0
16:15 to 16:30	1	0	0	1	163	25	0	188	0	0	0	0
16:30 to 16:45	1	0	0	1	145	19	0	164	0	0	0	0
16:45 to 17:00	0	0	0	0	156	19	1	176	0	0	0	0
PM Totals	3	0	0	3	1,566	279	6	1,851	0	0	0	0

[illegible]

Job No. : N3060
Client : GTA
Suburb : Mt Kembla
Location : 3. Picton Rd / Cordeaux Pit Top Access Rd

Day/Date : Thursday, 30th Mar 2017
Weather : Fine
Description : Classified Intersection Count
: Hourly Summary



Approach	Picton Rd											
Direction	Direction 1 (Left Turn)				Direction 2 (Through)				Direction 3U (U Turn)			
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
5:30 to 6:30	2	0	0	2	658	105	0	763	0	0	0	0
5:45 to 6:45	2	0	0	2	672	104	0	776	0	0	0	0
6:00 to 7:00	6	0	0	6	728	106	0	834	0	0	0	0
6:15 to 7:15	9	0	0	9	717	124	1	842	0	0	0	0
6:30 to 7:30	14	0	0	14	715	131	1	847	0	0	0	0
6:45 to 7:45	13	0	0	13	737	138	1	876	0	0	0	0
7:00 to 8:00	14	0	0	14	721	140	3	864	0	0	0	0
7:15 to 8:15	13	0	0	13	718	141	2	861	0	0	0	0
7:30 to 8:30	9	0	0	9	661	124	3	788	0	0	0	0
AM Totals	25	0	0	25	2,034	360	4	2,398	0	0	0	0
14:00 to 15:00	1	0	0	1	398	102	3	503	0	0	0	0
14:15 to 15:15	1	0	0	1	427	94	5	526	0	0	0	0
14:30 to 15:30	1	0	0	1	470	98	5	573	0	0	0	0
14:45 to 15:45	0	0	0	0	500	94	3	597	0	0	0	0
15:00 to 16:00	0	0	0	0	562	86	2	650	0	0	0	0
15:15 to 16:15	0	0	0	0	571	96	0	667	0	0	0	0
15:30 to 16:30	1	0	0	1	604	94	0	698	0	0	0	0
15:45 to 16:45	2	0	0	2	612	95	0	707	0	0	0	0
16:00 to 17:00	2	0	0	2	606	91	1	698	0	0	0	0
PM Totals	3	0	0	3	1,566	279	6	1,851	0	0	0	0

Approach	Picton Rd												Cordeaux Pit Top Access Rd												Crossing Pedestrians									
Direction		Direction 8 (Through)				Direction 9 (Right Turn)				Direction 9U (U Turn)				Direction 10 (Left Turn)					Direction 12 (Right Turn)				Direction 12U (U Turn)											
Time Period		Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total		Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	A	B		E	F	G	H	Total
5:30 to 6:30		328	127	0	455	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
5:45 to 6:45		390	137	0	527	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
6:00 to 7:00		437	122	1	560	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
6:15 to 7:15		485	115	1	601	1	0	0	1	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
6:30 to 7:30		455	121	1	577	1	0	0	1	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
6:45 to 7:45		588	128	1	717	2	0	0	2	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
7:00 to 8:00		667	147	0	814	2	0	0	2	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
7:15 to 8:15		724	159	0	883	1	0	0	1	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
7:30 to 8:30		796	153	1	950	1	0	0	1	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
AM Totals	1,579	401	2	1,982	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0		
14:00 to 15:00	511	121	0	632	1	0	0	1	0	0	0	0	1	0	0	1		3	0	0	3	0	0	0	0	0	0		0	0	0	0	0	
14:15 to 15:15	544	120	1	665	1	0	0	1	0	0	0	0	1	0	0	1		3	0	0	3	0	0	0	0	0	0		0	0	0	0	0	
14:30 to 15:30	547	121	1	669	0	0	0	0	0	0	0	0	1	0	0	1		5	0	0	5	0	0	0	0	0	0		0	0	0	0	0	
14:45 to 15:45	575	130	3	708	0	0	0	0	0	0	0	0	0	0	0	0		7	0	0	7	0	0	0	0	0	0		0	0	0	0	0	
15:00 to 16:00	630	122	3	755	0	0	0	0	0	0	0	0	0	0	0	0		8	0	0	8	0	0	0	0	0	0		0	0	0	0	0	
15:15 to 16:15	682	124	2	808	0	0	0	0	0	0	0	0	0	0	0	0		10	0	0	10	0	0	0	0	0	0		0	0	0	0	0	
15:30 to 16:30	761	113	3	877	0	0	0	0	0	0	0	0	1	0	0	1		12	0	0	12	0	0	0	0	0	0		0	0	0	0	0	
15:45 to 16:45	808	102	1	911	0	0	0	0	0	0	0	0	1	0	0	1		11	0	0	11	0	0	0	0	0	0		0	0	0	0	0	
16:00 to 17:00	796	102	1	899	0	0	0	0	0	0	0	0	2	0	0	2		10	0	0	10	0	0	0	0	0	0		0	0	0	0	0	
PM Totals	1,937	345	4	2,286	1	0	0	1	0	0	0	0	3	0	0	3		21	0	0	21	0	0	0	0	0	0		0	0	0	0	0	

Job No	N3060
Client	GTA
Site	Dendrobium Mine Access - north of Cordeaux Rd
Location	Mt Kembla
Site No	1
Start Date	30-Mar-17
Description	Volume Summary
Direction	Combined



Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	3-Apr	4-Apr	5-Apr	30-Mar	31-Mar	1-Apr	2-Apr		
AM Peak	72	82	77	67	53	37	43		
PM Peak	60	88	57	57	40	28	42	528	433
0:00	0	28	24	37	14	1	1	21	15
1:00	0	2	0	0	2	0	0	1	1
2:00	1	0	0	0	1	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0
4:00	6	8	6	8	9	7	6	7	7
5:00	72	82	77	67	47	37	43	69	61
6:00	14	34	12	16	7	9	4	17	14
7:00	25	66	49	52	53	13	7	49	38
8:00	41	35	45	38	23	21	20	36	32
9:00	19	14	9	16	25	0	4	17	12
10:00	24	30	19	23	23	3	6	24	18
11:00	26	13	20	18	20	1	2	19	14
12:00	42	27	37	33	18	1	0	31	23
13:00	53	38	41	36	18	1	0	37	27
14:00	20	24	13	21	17	2	1	19	14
15:00	39	28	42	32	12	3	2	31	23
16:00	60	88	57	57	18	4	1	56	41
17:00	15	15	17	16	22	18	19	17	17
18:00	3	0	7	2	40	26	42	10	17
19:00	1	0	1	0	28	15	26	6	10
20:00	5	5	7	3	3	28	3	5	8
21:00	40	45	44	43	1	3	4	35	26
22:00	4	4	5	4	0	2	1	3	3
23:00	16	15	37	23	0	0	0	18	13
Total	526	601	569	545	401	195	192	528	433

7-19	367	378	356	344	289	93	104	347	276
6-22	427	462	420	406	328	148	141	409	333
6-24	447	481	462	433	328	150	142	430	349
0-24	526	601	569	545	401	195	192	528	433

Job No N3060
Client GTA
Site Kemira Valley Access Rd - -34.42351 150.82701
Location Mt Kembla
Site No 2
Start Date 30-Mar-17
Description Volume Summary
Direction Combined



Hour Starting	Day of Week							W'Day Ave 35	7 Day Ave 30
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	3-Apr	4-Apr	5-Apr	30-Mar	31-Mar	1-Apr	2-Apr		
AM Peak	9	11	5	5	6	2	2		
PM Peak	6	4	5	5	4	4	4		
0:00	2	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0
4:00	0	0	0	1	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0
6:00	0	1	4	3	1	2	2	2	2
7:00	5	11	5	4	1	0	0	5	4
8:00	2	4	2	3	0	0	0	2	2
9:00	1	3	1	5	1	0	2	2	2
10:00	0	4	3	2	3	0	0	2	2
11:00	9	0	2	4	6	0	0	4	3
12:00	0	1	4	0	1	0	1	1	1
13:00	2	0	1	5	0	4	1	2	2
14:00	6	3	2	2	4	2	2	3	3
15:00	4	2	4	3	0	2	4	3	3
16:00	0	0	5	2	2	4	1	2	2
17:00	0	0	5	0	4	2	3	2	2
18:00	0	4	2	0	0	0	0	1	1
19:00	0	2	0	0	0	0	2	0	1
20:00	0	0	2	0	2	0	2	1	1
21:00	0	0	2	0	0	2	0	0	1
22:00	2	2	0	2	0	0	0	1	1
23:00	0	0	0	0	0	0	0	0	0
Total	33	37	44	36	25	18	20	35	30

7-19	29	32	36	30	22	14	14	30	25
6-22	29	35	44	33	25	18	20	33	29
6-24	31	37	44	35	25	18	20	34	30
0-24	33	37	44	36	25	18	20	35	30

Job No	N3060
Client	GTA
Site	Cordeaux Pit Access Rd - Parralell with Picton Rd
Location	Mt Kembla
Site No	4
Start Date	30-Mar-17
Description	Volume Summary
Direction	Combined



Hour Starting	Day of Week							W'Day Ave 103	7 Day Ave 75
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	3-Apr	4-Apr	5-Apr	30-Mar	31-Mar	1-Apr	2-Apr		
AM Peak	12	19	12	15	17	2	2		
PM Peak	15	16	21	11	13	1	1		
0:00	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0
5:00	2	1	1	2	1	2	0	1	1
6:00	12	19	12	7	5	0	2	11	8
7:00	12	14	12	15	17	2	0	14	10
8:00	11	13	12	6	5	0	0	9	7
9:00	4	11	5	10	8	0	0	8	5
10:00	10	6	8	14	4	0	0	8	6
11:00	5	5	3	8	4	0	0	5	4
12:00	6	1	12	8	4	0	0	6	4
13:00	13	4	13	0	1	0	0	6	4
14:00	4	11	5	4	8	0	0	6	5
15:00	9	14	21	11	13	0	0	14	10
16:00	15	16	18	10	2	0	1	12	9
17:00	3	1	1	1	1	1	1	1	1
18:00	1	0	0	1	0	1	0	0	0
19:00	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0
Total	107	116	123	97	73	6	4	103	75

7-19	93	96	110	88	67	4	2	91	66
6-22	105	115	122	95	72	4	4	102	74
6-24	105	115	122	95	72	4	4	102	74
0-24	107	116	123	97	73	6	4	103	75

Job No	N3060
Client	GTA
Site	Cordeaux Rd - approx 450m east of Stones Rd
Location	Mt Kembla
Site No	3
Start Date	30-Mar-17
Description	Volume Summary
Direction	Combined



Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	3-Apr	4-Apr	5-Apr	30-Mar	31-Mar	1-Apr	2-Apr		
AM Peak	317	342	331	347	310	213	228		
PM Peak	320	380	384	324	321	275	244	3569	3450
0:00	2	44	43	67	34	64	51	38	44
1:00	3	5	7	14	11	22	31	8	13
2:00	5	3	7	4	6	14	8	5	7
3:00	6	4	8	7	7	4	6	6	6
4:00	28	30	21	20	23	17	13	24	22
5:00	130	151	150	125	91	58	60	129	109
6:00	129	131	126	128	102	56	50	123	103
7:00	229	259	255	232	214	80	62	238	190
8:00	317	342	331	347	310	162	159	329	281
9:00	198	151	211	175	180	193	176	183	183
10:00	193	178	148	149	198	197	204	173	181
11:00	148	163	160	158	202	213	228	166	182
12:00	166	157	195	176	192	275	219	177	197
13:00	191	184	208	197	167	257	237	189	206
14:00	208	198	190	224	205	238	236	205	214
15:00	258	282	327	278	321	208	244	293	274
16:00	320	380	384	324	302	251	215	342	311
17:00	242	322	308	275	312	267	227	292	279
18:00	159	198	232	203	303	258	165	219	217
19:00	94	148	124	113	218	155	123	139	139
20:00	74	80	123	89	103	115	73	94	94
21:00	85	105	101	130	107	94	62	106	98
22:00	26	32	32	35	109	97	34	47	52
23:00	19	27	67	39	57	117	11	42	48
Total	3230	3574	3758	3509	3774	3412	2894	3569	3450

7-19	2629	2814	2949	2738	2906	2599	2372	2807	2715
6-22	3011	3278	3423	3198	3436	3019	2680	3269	3149
6-24	3056	3337	3522	3272	3602	3233	2725	3358	3250
0-24	3230	3574	3758	3509	3774	3412	2894	3569	3450

Job No.

: N3060

Client

: GTA

Suburb

: Mt Kembla

Location

: 1. Cordeaux Rd / Dendrobium Mine Access

Day/Date

: Thursday, 30th Mar 2017

Weather

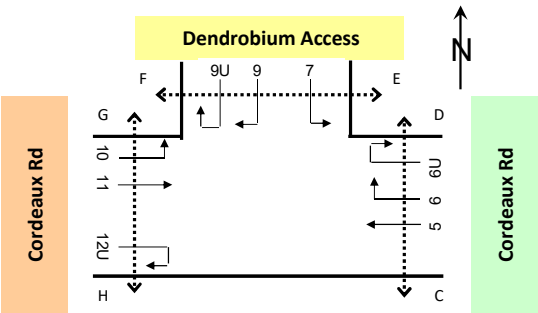
: Fine

Description

: Classified Intersection Count

: 15 mins Data

	Class 1	Class 2	Class 3
Classifications	Cars	Trucks	Buses

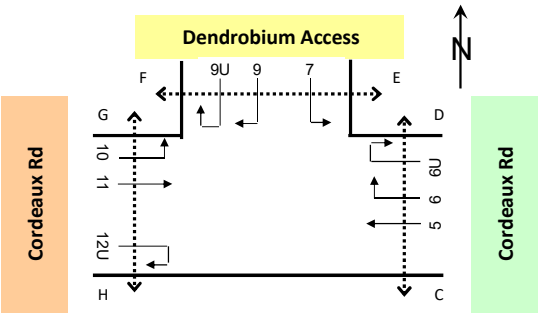


Approach		Cordeaux Rd											
Direction													
Time Period		Direction 5 (Through)				Direction 6 (Right Turn)				Direction 6U (U Turn)			
		Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
5:30	to 5:45	1	0	0	1	34	0	0	34	0	0	0	0
5:45	to 6:00	5	0	0	5	14	0	0	14	0	0	0	0
6:00	to 6:15	3	0	0	3	5	0	0	5	0	0	0	0
6:15	to 6:30	7	0	0	7	4	0	0	4	0	0	0	0
6:30	to 6:45	2	0	0	2	2	0	0	2	0	0	0	0
6:45	to 7:00	6	0	0	6	3	0	0	3	0	0	0	0
7:00	to 7:15	1	0	0	1	8	0	0	8	0	0	0	0
7:15	to 7:30	9	0	0	9	4	1	0	5	0	0	0	0
7:30	to 7:45	6	0	1	7	9	0	0	9	0	0	0	0
7:45	to 8:00	6	0	1	7	1	0	0	1	0	0	0	0
8:00	to 8:15	6	0	0	6	7	0	0	7	0	0	0	0
8:15	to 8:30	2	0	0	2	3	0	0	3	0	0	0	0
AM Totals		54	0	2	56	94	1	0	95	0	0	0	0
14:00	to 14:15	1	0	0	1	1	0	0	1	0	0	0	0
14:15	to 14:30	6	2	0	8	1	0	0	1	0	0	0	0
14:30	to 14:45	6	0	0	6	2	0	0	2	0	0	0	0
14:45	to 15:00	6	0	3	9	2	0	0	2	0	0	0	0
15:00	to 15:15	5	0	0	5	0	0	0	0	0	0	0	0
15:15	to 15:30	3	0	0	3	0	0	0	0	0	0	0	0
15:30	to 15:45	6	0	1	7	2	0	0	2	0	0	0	0
15:45	to 16:00	4	0	0	4	0	0	0	0	1	0	0	1
16:00	to 16:15	3	0	0	3	1	1	0	2	1	0	0	1
16:15	to 16:30	4	0	0	4	0	0	0	0	0	0	0	0
16:30	to 16:45	3	0	1	4	0	0	0	0	0	0	0	0
16:45	to 17:00	6	0	0	6	0	0	0	0	0	0	0	0
PM Totals		53	2	5	60	9	1	0	10	2	0	0	2

Approach	Dendrobium Access								Cordeaux Rd								Crossing Pedestrians														
Direction	Direction 7 (Left Turn)					Direction 9 (Right Turn)				Direction 9U (U Turn)				Direction 10 (Left Turn)				Direction 11 (Through)					Direction 12U (U Turn)								
Time Period	Cars	Trucks	Buses	Total		Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total		Cars	Trucks	Buses	Total					
5:30 to 5:45	1	0	0	1		0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0		0	0	0	0	0				
5:45 to 6:00	2	0	0	2		0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0		0	0	0	0	0				
6:00 to 6:15	5	0	0	5		0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0		0	0	0	0	2				
6:15 to 6:30	1	0	0	1		0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0		0	0	0	0	1				
6:30 to 6:45	0	0	0	0		0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0		0	0	0	0	0				
6:45 to 7:00	0	0	0	0		0	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0		0	0	0	0	0				
7:00 to 7:15	2	0	0	2		0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0		0	0	0	0	0				
7:15 to 7:30	0	0	0	0		0	0	0	0	0	0	0	0	0	5	2	0	7	0	0	0		0	0	0	0	0				
7:30 to 7:45	1	1	0	2		2	0	0	2	0	0	0	0	0	3	0	1	4	0	0	0		0	0	0	0	0				
7:45 to 8:00	19	0	0	19		0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0		0	0	0	0	0				
8:00 to 8:15	22	0	0	22		0	0	0	0	0	1	0	0	1	7	0	1	8	0	0	0		0	0	0	0	0				
8:15 to 8:30	6	0	0	6		2	0	0	2	0	0	0	0	0	6	0	0	6	0	0	0		0	0	0	0	0				
AM Totals	59	1	0	60		4	0	0	4	0	0	0	0	1	0	0	1	37	2	2	41		0	0	0	0	0	3			
14:00 to 14:15	1	0	0	1		0	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0		0	0	0	0	0				
14:15 to 14:30	2	0	0	2		2	0	0	2	0	0	0	0	0	6	0	0	6	0	0	0		0	0	0	0	1				
14:30 to 14:45	5	0	0	5		0	0	0	0	0	1	0	0	1	4	0	0	4	0	0	0		0	0	0	0	0				
14:45 to 15:00	1	0	0	1		0	0	0	0	0	0	0	0	0	1	2	2	5	0	0	0		0	0	0	0	0				
15:00 to 15:15	0	0	0	0		1	0	0	1	0	0	0	0	0	4	0	1	5	0	0	0		0	0	0	0	0				
15:15 to 15:30	0	0	0	0		0	0	0	0	0	0	0	0	0	9	0	0	9	0	0	0		0	0	0	0	0				
15:30 to 15:45	2	0	0	2		1	0	0	1	0	0	0	0	0	5	0	1	6	0	0	0		0	0	0	0	0				
15:45 to 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0						
16:00 to 16:15	1	1	0	2	0	0	0	0	0	0	0	0	2	8	0	0	8	0	0	0	0	0	0	0	1						
16:15 to 16:30	19	0	0	19	1	0	0	1	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0						
16:30 to 16:45	22	0	0	22	0	0	0	0	0	0	0	0	0	13	0	1	14	0	0	0	0	0	0	0	1						
16:45 to 17:00	6	0	0	6	0	0	0	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	0	0						
PM Totals	59	1	0	60	5	0	0	5	0	0	0	0	3	0	0	3	74	2	5	81	0	0	0	0	2	1	0	0	0	0	3

Job No. : N3060
Client : GTA
Suburb : Mt Kembla
Location : 1. Cordeaux Rd / Dendrobium Mine Access

Day/Date : Thursday, 30th Mar 2017
Weather : Fine
Description : Classified Intersection Count
: Hourly Summary



Approach	Cordeaux Rd											
Direction												
Time Period												
5:30 to 6:30	Direction 5 (Through)				Direction 6 (Right Turn)				Direction 6U (U Turn)			
5:45 to 6:45	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
6:00 to 7:00	16	0	0	16	57	0	0	57	0	0	0	0
6:15 to 7:15	17	0	0	17	25	0	0	25	0	0	0	0
6:30 to 7:30	18	0	0	18	14	0	0	14	0	0	0	0
6:45 to 7:45	16	0	0	16	17	0	0	17	0	0	0	0
7:00 to 8:00	18	0	0	18	17	1	0	18	0	0	0	0
7:15 to 8:15	22	0	1	23	24	1	0	25	0	0	0	0
7:30 to 8:30	22	0	2	24	22	1	0	23	0	0	0	0
AM Totals	27	0	2	29	21	1	0	22	0	0	0	0
14:00 to 15:00	20	0	2	22	20	0	0	20	0	0	0	0
14:15 to 15:15	54	0	2	56	94	1	0	95	0	0	0	0
14:30 to 15:30	19	2	3	24	6	0	0	6	0	0	0	0
14:45 to 15:45	23	2	3	28	5	0	0	5	0	0	0	0
15:00 to 16:00	20	0	3	23	4	0	0	4	0	0	0	0
15:15 to 16:15	20	0	4	24	4	0	0	4	0	0	0	0
15:30 to 16:30	18	0	1	19	2	0	0	2	1	0	0	1
15:45 to 16:45	16	0	1	17	3	1	0	4	2	0	0	2
16:00 to 17:00	17	0	1	18	3	1	0	4	2	0	0	2
PM Totals	14	0	1	15	1	1	0	2	2	0	0	2
	16	0	1	17	1	1	0	2	1	0	0	1
	53	2	5	60	9	1	0	10	2	0	0	2

Approach	Dendrobium Access												Cordeaux Rd										Crossing Pedestrians											
Direction	Direction 7 (Left Turn)					Direction 9 (Right Turn)				Direction 9U (U Turn)				Direction 10 (Left Turn)				Direction 11 (Through)													Direction 12U (U Turn)			
Time Period	Cars	Trucks	Buses	Total		Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total		Cars	Trucks	Buses	Total	C	D	E	F	G	H	Total	
5:30 to 6:30	9	0	0	9		0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6		0	0	0	0	0	3	0	0	0	0	0	3
5:45 to 6:45	8	0	0	8		0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6		0	0	0	0	0	3	0	0	0	0	0	3
6:00 to 7:00	6	0	0	6		0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9		0	0	0	0	0	3	0	0	0	0	0	3
6:15 to 7:15	3	0	0	3		0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8		0	0	0	0	0	1	0	0	0	0	0	1
6:30 to 7:30	2	0	0	2		0	0	0	0	0	0	0	0	0	0	0	0	12	2	0	14		0	0	0	0	0	0	0	0	0	0	0	0
6:45 to 7:45	3	1	0	4		2	0	0	2	0	0	0	0	0	0	0	0	14	2	1	17		0	0	0	0	0	0	0	0	0	0	0	0
7:00 to 8:00	22	1	0	23		2	0	0	2	0	0	0	0	0	0	0	0	12	2	1	15		0	0	0	0	0	0	0	0	0	0	0	0
7:15 to 8:15	42	1	0	43		2	0	0	2	0	0	0	0	1	0	0	1	18	2	2	22		0	0	0	0	0	0	0	0	0	0	0	0
7:30 to 8:30	48	1	0	49		4	0	0	4	0	0	0	0	1	0	0	1	19	0	2	21		0	0	0	0	0	0	0	0	0	0	0	0
AM Totals	59	1	0	60		4	0	0	4	0	0	0	0	1	0	0	1	37	2	2	41		0	0	0	0	0	3	0	0	0	0	0	3
14:00 to 15:00	9	0	0	9		2	0	0	2	0	0	0	0	1	0	0	1	16	2	2	20		0	0	0	0	0	1	0	0	0	0	0	1
14:15 to 15:15	8	0	0	8		3	0	0	3	0	0	0	0	1	0	0	1	15	2	3	20		0	0	0	0	0	1	0	0	0	0	0	1
14:30 to 15:30	6	0	0	6		1	0	0	1	0	0	0	0	1	0	0	1	18	2	3	23		0	0	0	0	0	0	0	0	0	0	0	0
14:45 to 15:45	3	0	0	3		2	0	0	2	0	0	0	0	0	0	0	0	19	2	4	25		0	0	0	0	0	0	0	0	0	0	0	0
15:00 to 16:00	2	0	0	2		2	0	0	2	0	0	0	0	0	0	0	0	24	0	2	26		0	0	0	0	0	0	0	0	0	0	0	0
15:15 to 16:15	3	1	0	4		1	0	0	1	0	0	0	0	2	0	0	2	28	0	1	29		0	0	0	0	0	1	0	0	0	0	0	1
15:30 to 16:30	22	1	0	23		2	0	0	2	0	0	0	0	2	0	0	2	24	0	1	25		0	0	0	0	0	1	0	0	0	0	0	1
15:45 to 16:45	42	1	0	43		1	0	0	1	0	0	0	0	2	0	0	2	32	0	1	33		0	0	0	0	0	2	0	0	0	0	0	2
16:00 to 17:00	48	1	0	49	1	0	0	1	0	0	0	0	2	0	0	2	34	0	1	35	0	0	0	0	0	2	0	0	0	0	0	2		
PM Totals	59	1	0	60	5	0	0	5	0	0	0	0	3	0	0	3	74	2	5	81	0	0	0	0	0	2	1	0	0	0	0	3		

Job No.

: N3060

Client

: GTA

Suburb

: Mt Kembla

Location

: 2. Cordeaux Rd / Stones Rd

Day/Date

: Thursday, 30th Mar 2017

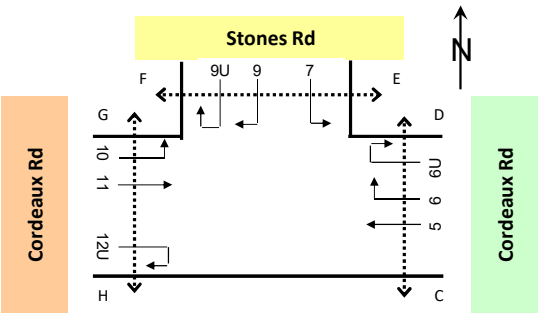
Weather

: Fine

Description

: Classified Intersection Count

: 15 mins Data



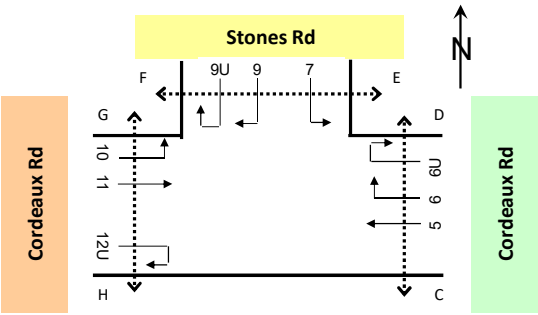
	Class 1	Class 2	Class 3
Classifications	Cars	Trucks	Buses

Approach		Cordeaux Rd											
Direction													
Time Period		Direction 5 (Through)				Direction 6 (Right Turn)				Direction 6U (U Turn)			
		Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
5:30	to 5:45	34	0	0	34	0	0	0	0	0	0	0	0
5:45	to 6:00	16	0	0	16	0	0	0	0	0	0	0	0
6:00	to 6:15	5	0	0	5	0	0	0	0	0	0	0	0
6:15	to 6:30	13	0	0	13	2	0	0	2	0	0	0	0
6:30	to 6:45	10	0	0	10	1	1	0	2	0	0	0	0
6:45	to 7:00	10	0	0	10	1	0	0	1	0	0	0	0
7:00	to 7:15	10	0	1	11	2	1	0	3	0	0	0	0
7:15	to 7:30	16	1	1	18	2	0	0	2	0	0	0	0
7:30	to 7:45	16	1	0	17	0	0	0	0	0	0	0	0
7:45	to 8:00	18	0	1	19	4	0	0	4	0	0	0	0
8:00	to 8:15	18	1	0	19	2	0	0	2	1	0	0	1
8:15	to 8:30	22	0	0	22	2	0	0	2	0	0	0	0
AM Totals		188	3	3	194	16	2	0	18	1	0	0	1
14:00	to 14:15	8	0	0	8	0	0	0	0	0	0	0	0
14:15	to 14:30	21	2	0	23	0	0	0	0	1	0	0	1
14:30	to 14:45	27	0	2	29	0	0	0	0	1	0	0	1
14:45	to 15:00	39	1	2	42	2	0	0	2	1	0	0	1
15:00	to 15:15	22	0	0	22	1	1	0	2	0	0	0	0
15:15	to 15:30	8	0	0	8	1	0	0	1	0	0	0	0
15:30	to 15:45	37	0	2	39	2	1	0	3	0	0	0	0
15:45	to 16:00	35	0	0	35	2	0	0	2	0	0	0	0
16:00	to 16:15	20	1	0	21	0	0	0	0	0	0	0	0
16:15	to 16:30	31	0	0	31	4	0	0	4	1	0	0	1
16:30	to 16:45	24	1	1	26	2	0	0	2	1	0	0	1
16:45	to 17:00	24	0	0	24	2	0	0	2	0	0	0	0
PM Totals		296	5	7	308	16	2	0	18	5	0	0	5

Approach	Stones Rd								Cordeaux Rd								Crossing Pedestrians													
Direction	Direction 7 (Left Turn)					Direction 9 (Right Turn)				Direction 9U (U Turn)				Direction 10 (Left Turn)				Direction 11 (Through)					Direction 12U (U Turn)							
Time Period	Cars	Trucks	Buses	Total		Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total		C	D	E	F	G	H	Total	
5:30 to 5:45	0	0	0	0		0	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0		0	0	0	0	0	0	0	0
5:45 to 6:00	1	0	0	1		0	0	0	0	0	0	0	0	0	11	0	0	11	0	0	0		0	0	0	0	0	0	0	0
6:00 to 6:15	0	0	0	0		0	0	0	0	0	1	0	0	1	17	0	0	17	0	0	0		0	0	0	0	0	0	0	0
6:15 to 6:30	2	0	0	2		0	0	0	0	0	2	0	0	2	14	0	0	14	0	0	0		0	0	1	0	0	0	0	1
6:30 to 6:45	4	0	0	4		0	0	0	0	0	0	0	0	0	11	2	0	13	0	0	0		0	0	0	0	0	0	0	0
6:45 to 7:00	7	0	0	7		0	0	0	0	0	0	0	0	0	19	0	0	19	0	0	0		0	0	1	0	0	0	0	1
7:00 to 7:15	4	0	0	4		1	0	0	0	0	0	0	0	0	17	0	0	17	0	0	0		0	0	0	0	0	0	0	0
7:15 to 7:30	6	0	0	6		4	0	0	0	0	1	0	0	1	18	0	1	19	0	0	0		0	0	0	0	0	0	0	0
7:30 to 7:45	6	0	0	6		1	0	0	0	0	1	0	0	1	26	1	1	28	0	0	0		0	0	1	1	0	0	0	2
7:45 to 8:00	7	0	0	7		1	0	0	0	0	0	0	0	0	52	0	0	52	0	0	0		0	0	1	0	0	0	0	1
8:00 to 8:15	9	1	0	10		0	0	0	0	0	0	0	0	0	60	1	1	62	0	0	0		0	0	1	0	0	0	0	1
8:15 to 8:30	7	0	0	7		0	0	0	0	0	1	0	0	1	40	0	0	40	0	0	0		0	0	2	0	0	0	0	2
AM Totals	53	1	0	54		7	0	0	7	0	6	0	0	6	290	4	3	297	0	0	0		0	0	7	1	0	0	0	8
14:00 to 14:15	1	0	0	1		1	0	0	0	0	1	0	0	1	19	1	0	20	0	0	0		0	0	0	0	0	0	0	0
14:15 to 14:30	2	0	0	2		1	0	0	0	0	0	0	0	0	17	1	0	18	0	0	0		0	0	0	1	0	0	0	1
14:30 to 14:45	2	0	0	2		0	0	0	0	0	1	0	0	1	15	0	0	15	1	0	0		1	0	2	0	0	0	0	2
14:45 to 15:00	1	0	0	1		1	0	0	0	0	1	0	0	1	26	2	2	30	0	0	0		0	0	0	0	0	0	0	0
15:00 to 15:15	3	0	0	3		0	0	0	0	0	1	0	0	1	31	0	2	33	0	0	0		0	0	0	1	0	0	0	1
15:15 to 15:30	7	0	0	7	0	0	0	0	0	3	0	0	3	32	0	0	32	0	0	0	0	0	0	0	0	0	0	0		
15:30 to 15:45	6	0	0	6	2	0	0	0	0	1	0	0	1	23	0	2	25	1	0	0	1	0	0	0	0	0	0	0		
15:45 to 16:00	3	0	0	3	1	0	0	0	0	0	0	0	0	38	0	0	38	0	0	0	0	0	0	0	0	0	0	0		
16:00 to 16:15	2	0	0	2	1	0	0	0	0	1	0	0	1	70	0	0	70	0	0	0	0	0	0	0	0	0	0	0		
16:15 to 16:30	3	0	0	3	1	0	0	0	0	1	0	0	1	31	0	0	31	0	0	0	0	0	0	0	0	0	0	0		
16:30 to 16:45	2	0	0	2	1	0	0	0	0	2	0	0	2	39	1	1	41	0	0	0	0	0	0	0	0	0	0	1		
16:45 to 17:00	5	0	0	5	0	0	0	0	0	2	0	0	2	21	0	0	21	0	0	0	0	0	0	0	0	0	0	0		
PM Totals	37	0	0	37	9	0	0	9	0	14	0	0	14	362	5	7	374	2	0	0	2		0	3	0	1	1	0	5	

Job No. : N3060
Client : GTA
Suburb : Mt Kembla
Location : 2. Cordeaux Rd / Stones Rd

Day/Date : Thursday, 30th Mar 2017
Weather : Fine
Description : Classified Intersection Count
: Hourly Summary

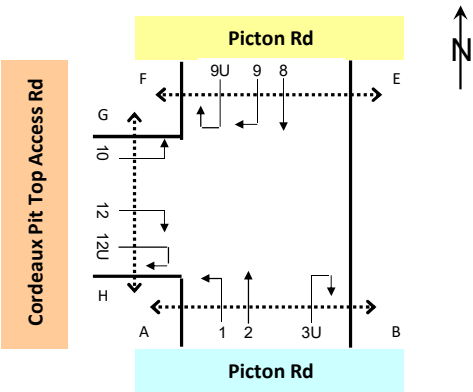


Approach	Cordeaux Rd											
Direction												
Time Period												
5:30 to 6:30	Direction 5 (Through)				Direction 6 (Right Turn)				Direction 6U (U Turn)			
5:45 to 6:45	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
6:00 to 7:00	68	0	0	68	2	0	0	2	0	0	0	0
6:15 to 7:15	44	0	0	44	3	1	0	4	0	0	0	0
6:30 to 7:30	38	0	0	38	4	1	0	5	0	0	0	0
6:45 to 7:45	43	0	1	44	6	2	0	8	0	0	0	0
7:00 to 8:00	46	1	2	49	6	2	0	8	0	0	0	0
7:15 to 8:15	52	2	2	56	5	1	0	6	0	0	0	0
7:30 to 8:30	60	2	3	65	8	1	0	9	0	0	0	0
AM Totals	68	3	2	73	8	0	0	8	1	0	0	1
14:00 to 15:00	74	2	1	77	8	0	0	8	1	0	0	1
14:15 to 15:15	188	3	3	194	16	2	0	18	1	0	0	1
14:30 to 15:30	95	3	4	102	2	0	0	2	3	0	0	3
14:45 to 15:45	109	3	4	116	3	1	0	4	3	0	0	3
15:00 to 16:00	96	1	4	101	4	1	0	5	2	0	0	2
15:15 to 16:15	106	1	4	111	6	2	0	8	1	0	0	1
15:30 to 16:30	102	0	2	104	6	2	0	8	0	0	0	0
15:45 to 16:45	100	1	2	103	5	1	0	6	0	0	0	0
16:00 to 17:00	123	1	2	126	8	1	0	9	1	0	0	1
PM Totals	110	2	1	113	8	0	0	8	2	0	0	2
	99	2	1	102	8	0	0	8	2	0	0	2
	296	5	7	308	16	2	0	18	5	0	0	5

Approach	Stones Rd								Cordeaux Rd								Crossing Pedestrians												
Direction	Direction 7 (Left Turn)					Direction 9 (Right Turn)				Direction 9U (U Turn)				Direction 10 (Left Turn)				Direction 11 (Through)					Direction 12U (U Turn)						
Time Period	Cars	Trucks	Buses	Total		Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total		C	D	E	F	G	H	Total
5:30 to 6:30	3	0	0	3		0	0	0	0	0	0	0	0	3	0	0	3	47	0	0	47		0	0	1	0	0	0	1
5:45 to 6:45	7	0	0	7		0	0	0	0	0	0	0	3	0	0	3	53	2	0	55	0		0	0	0	0	0	1	
6:00 to 7:00	13	0	0	13		0	0	0	0	0	0	0	3	0	0	3	61	2	0	63	0		0	2	0	0	0	2	
6:15 to 7:15	17	0	0	17		1	0	0	1	0	0	0	2	0	0	2	61	2	0	63	0		0	2	0	0	0	2	
6:30 to 7:30	21	0	0	21		5	0	0	5	0	0	0	1	0	0	1	65	2	1	68	0		0	1	0	0	0	1	
6:45 to 7:45	23	0	0	23		6	0	0	6	0	0	0	2	0	0	2	80	1	2	83	0		0	2	1	0	0	3	
7:00 to 8:00	23	0	0	23		7	0	0	7	0	0	0	2	0	0	2	113	1	2	116	0		0	2	1	0	0	3	
7:15 to 8:15	28	1	0	29		6	0	0	6	0	0	0	2	0	0	2	156	2	3	161	0		0	3	1	0	0	4	
7:30 to 8:30	29	1	0	30		2	0	0	2	0	0	0	2	0	0	2	178	2	2	182	0		0	5	1	0	0	6	
AM Totals	53	1	0	54		7	0	0	7	0	0	0	6	0	0	6	290	4	3	297	0		0	7	1	0	0	8	
14:00 to 15:00	6	0	0	6		3	0	0	3	0	0	0	3	0	0	3	77	4	2	83	1		0	0	1	0	0	3	
14:15 to 15:15	8	0	0	8		2	0	0	2	0	0	0	3	0	0	3	89	3	4	96	1		0	0	1	1	0	4	
14:30 to 15:30	13	0	0	13		1	0	0	1	0	0	0	6	0	0	6	104	2	4	110	1		0	0	1	0	1	3	
14:45 to 15:45	17	0	0	17		3	0	0	3	0	0	0	6	0	0	6	112	2	6	120	1		0	0	1	0	0	1	
15:00 to 16:00	19	0	0	19		3	0	0	3	0	0	0	5	0	0	5	124	0	4	128	1		0	0	1	1	0	1	
15:15 to 16:15	18	0	0	18		4	0	0	4	0	0	0	5	0	0	5	163	0	2	165	1		0	0	1	0	0	0	
15:30 to 16:30	14	0	0	14		5	0	0	5	0	0	0	3	0	0	3	162	0	2	164	1		0	0	1	0	0	0	
15:45 to 16:45	10	0	0	10		4	0	0	4	0	0	0	4	0	0	4	178	1	1	180	0		0	0	0	0	0	1	
16:00 to 17:00	12	0	0	12	3	0	0	3	0	0	0	6	0	0	6	161	1	1	163	0	0	0	0	0	0	1			
PM Totals	37	0	0	37	9	0	0	9	0	0	0	14	0	0	14	362	5	7	374	2	0	0	2	0	3	0	5		

Job No.	: N3060
Client	: GTA
Suburb	: Mt Kembla
Location	: 3. Picton Rd / Cordeaux Pit Top Access Rd
Day/Date	: Thursday, 30th Mar 2017
Weather	: Fine
Description	: Classified Intersection Count
	: 15 mins Data

Classifications	Class 1	Class 2	Class 3
	Cars	Trucks	Buses

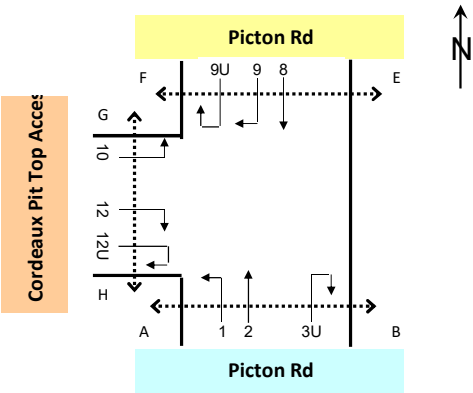


Approach	Picton Rd											
Direction	Direction 1 (Left Turn)				Direction 2 (Through)				Direction 3U (U Turn)			
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
5:30 to 5:45	1	0	0	1	153	32	0	185	0	0	0	0
5:45 to 6:00	0	0	0	0	138	23	0	161	0	0	0	0
6:00 to 6:15	1	0	0	1	182	20	0	202	0	0	0	0
6:15 to 6:30	0	0	0	0	185	30	0	215	0	0	0	0
6:30 to 6:45	1	0	0	1	167	31	0	198	0	0	0	0
6:45 to 7:00	4	0	0	4	194	25	0	219	0	0	0	0
7:00 to 7:15	4	0	0	4	171	38	1	210	0	0	0	0
7:15 to 7:30	5	0	0	5	183	37	0	220	0	0	0	0
7:30 to 7:45	0	0	0	0	189	38	0	227	0	0	0	0
7:45 to 8:00	5	0	0	5	178	27	2	207	0	0	0	0
8:00 to 8:15	3	0	0	3	168	39	0	207	0	0	0	0
8:15 to 8:30	1	0	0	1	126	20	1	147	0	0	0	0
AM Totals	25	0	0	25	2,034	360	4	2,398	0	0	0	0
14:00 to 14:15	0	0	0	0	104	26	0	130	0	0	0	0
14:15 to 14:30	0	0	0	0	87	23	0	110	0	0	0	0
14:30 to 14:45	1	0	0	1	107	22	2	131	0	0	0	0
14:45 to 15:00	0	0	0	0	100	31	1	132	0	0	0	0
15:00 to 15:15	0	0	0	0	133	18	2	153	0	0	0	0
15:15 to 15:30	0	0	0	0	130	27	0	157	0	0	0	0
15:30 to 15:45	0	0	0	0	137	18	0	155	0	0	0	0
15:45 to 16:00	0	0	0	0	162	23	0	185	0	0	0	0
16:00 to 16:15	0	0	0	0	142	28	0	170	0	0	0	0
16:15 to 16:30	1	0	0	1	163	25	0	188	0	0	0	0
16:30 to 16:45	1	0	0	1	145	19	0	164	0	0	0	0
16:45 to 17:00	0	0	0	0	156	19	1	176	0	0	0	0
PM Totals	3	0	0	3	1,566	279	6	1,851	0	0	0	0

Approach	Picton Rd												Cordeaux Pit Top Access Rd								Crossing Pedestrians													
Direction	Time Period	Direction 8 (Through)				Direction 9 (Right Turn)				Direction 9U (U Turn)				Direction 10 (Left Turn)					Direction 12 (Right Turn)				Direction 12U (U Turn)											
Time Period		Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total		Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	A	B		E	F	G	H	Total
5:30 to 5:45		50	24	0	74	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
5:45 to 6:00		55	32	0	87	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
6:00 to 6:15		85	36	0	121	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
6:15 to 6:30		138	35	0	173	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
6:30 to 6:45		112	34	0	146	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
6:45 to 7:00		102	17	1	120	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
7:00 to 7:15		133	29	0	162	1	0	0	1	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
7:15 to 7:30		108	41	0	149	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
7:30 to 7:45		245	41	0	286	1	0	0	1	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
7:45 to 8:00		181	36	0	217	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
8:00 to 8:15		190	41	0	231	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
8:15 to 8:30		180	35	1	216	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
AM Totals		1,579	401	2	1,982	2	0	0	2	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
14:00 to 14:15		121	28	0	149	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
14:15 to 14:30		127	35	0	162	1	0	0	1	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
14:30 to 14:45		131	26	0	157	0	0	0	0	0	0	0	0	1	0	0	1		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
14:45 to 15:00		132	32	0	164	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
15:00 to 15:15		154	27	1	182	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
15:15 to 15:30		130	36	0	166	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
15:30 to 15:45		159	35	2	196	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
15:45 to 16:00		187	24	0	211	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
16:00 to 16:15		206	29	0	235	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
16:15 to 16:30		209	25	1	235	0	0	0	0	0	0	0	0	1	0	0	1		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
16:30 to 16:45		206	24	0	230	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
16:45 to 17:00		175	24	0	199	0	0	0	0	0	0	0	0	1	0	0	1		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
PM Totals		1,937	345	4	2,286	1	0	0	1	0	0	0	0	3	0	0	3		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0

Job No. : N3060
Client : GTA
Suburb : Mt Kembla
Location : 3. Picton Rd / Cordeaux Pit Top Access Rd

Day/Date : Thursday, 30th Mar 2017
Weather : Fine
Description : Classified Intersection Count
: Hourly Summary



Approach	Picton Rd											
Direction	Direction 1 (Left Turn)				Direction 2 (Through)				Direction 3U (U Turn)			
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
5:30 to 6:30	2	0	0	2	658	105	0	763	0	0	0	0
5:45 to 6:45	2	0	0	2	672	104	0	776	0	0	0	0
6:00 to 7:00	6	0	0	6	728	106	0	834	0	0	0	0
6:15 to 7:15	9	0	0	9	717	124	1	842	0	0	0	0
6:30 to 7:30	14	0	0	14	715	131	1	847	0	0	0	0
6:45 to 7:45	13	0	0	13	737	138	1	876	0	0	0	0
7:00 to 8:00	14	0	0	14	721	140	3	864	0	0	0	0
7:15 to 8:15	13	0	0	13	718	141	2	861	0	0	0	0
7:30 to 8:30	9	0	0	9	661	124	3	788	0	0	0	0
AM Totals	25	0	0	25	2,034	360	4	2,398	0	0	0	0
14:00 to 15:00	1	0	0	1	398	102	3	503	0	0	0	0
14:15 to 15:15	1	0	0	1	427	94	5	526	0	0	0	0
14:30 to 15:30	1	0	0	1	470	98	5	573	0	0	0	0
14:45 to 15:45	0	0	0	0	500	94	3	597	0	0	0	0
15:00 to 16:00	0	0	0	0	562	86	2	650	0	0	0	0
15:15 to 16:15	0	0	0	0	571	96	0	667	0	0	0	0
15:30 to 16:30	1	0	0	1	604	94	0	698	0	0	0	0
15:45 to 16:45	2	0	0	2	612	95	0	707	0	0	0	0
16:00 to 17:00	2	0	0	2	606	91	1	698	0	0	0	0
PM Totals	3	0	0	3	1,566	279	6	1,851	0	0	0	0

Approach	Picton Rd												Cordeaux Pit Top Access Rd												Crossing Pedestrians							
Direction	Direction 8 (Through)				Direction 9 (Right Turn)				Direction 9U (U Turn)				Direction 10 (Left Turn)				Direction 12 (Right Turn)				Direction 12U (U Turn)											
Time Period	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	A	B		E	F	G	H	Total
5:30 to 6:30	328	127	0	455	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
5:45 to 6:45	390	137	0	527	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
6:00 to 7:00	437	122	1	560	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
6:15 to 7:15	485	115	1	601	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
6:30 to 7:30	455	121	1	577	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
6:45 to 7:45	588	128	1	717	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
7:00 to 8:00	667	147	0	814	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
7:15 to 8:15	724	159	0	883	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
7:30 to 8:30	796	153	1	950	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
AM Totals	1,579	401	2	1,982	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
14:00 to 15:00	511	121	0	632	1	0	0	1	0	0	0	0	1	0	0	1												0	0	0	0	0
14:15 to 15:15	544	120	1	665	1	0	0	1	0	0	0	0	1	0	0	1												0	0	0	0	0
14:30 to 15:30	547	121	1	669	0	0	0	0	0	0	0	0	1	0	0	1												0	0	0	0	0
14:45 to 15:45	575	130	3	708	0	0	0	0	0	0	0	0	0	0	0	0												0	0	0	0	0
15:00 to 16:00	630	122	3	755	0	0	0	0	0	0	0	0	0	0	0	0												0	0	0	0	0
15:15 to 16:15	682	124	2	808	0	0	0	0	0	0	0	0	0	0	0	0												0	0	0	0	0
15:30 to 16:30	761	113	3	877	0	0	0	0	0	0	0	0	1	0	0	1												0	0	0	0	0
15:45 to 16:45	808	102	1	911	0	0	0	0	0	0	0	0	1	0	0	1												0	0	0	0	0
16:00 to 17:00	796	102	1	899	0	0	0	0	0	0	0	0	2	0	0	2												0	0	0	0	0
PM Totals	1,937	345	4	2,286	1	0	0	1	0	0	0	0	3	0	0	3												0	0	0	0	0

Appendix B

RMS Crash Data

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors		
S F																							
Southern Region			Wollongong LGA				Mount Keira				Clive Bissell Dr												
1054227 S	20/10/2014	Mon	21:15	500 m	N	MOUNT KEIRA RD	2WY	CRV	Raining	Wet	60	1	CAR	M28	N in CLIVE BISSELL DR	Unk	Proceeding in lane	N	0	0	S		
E56701767							RUM:	81	Off left/rt bnd=>obj				Tree/bush										
Southern Region			Wollongong LGA				Mt Keira				Clive Bissell Dr												
766814 P	03/09/2011	Sat	03:30	1.06 km	S	MT OUSLEY RD	2WY	CRV	Fine	Dry	60	1	CAR	M22	S in CLIVE BISSELL DR	60	Proceeding in lane	N	0	0			
E45493572							RUM:	87	Off lft/lft bnd=>obj				Embankment										
Southern Region			Wollongong LGA				Mt Keira				Clive Bissell Dr												
827661 P	07/01/2013	Mon	22:15	2 km	S	MT OUSLEY RD	2WY	CRV	Overcast	Dry	60	1	TRK	M17	S in CLIVE BISSELL DR	60	Proceeding in lane	I	0	1	S		
E49821715							RUM:	85	Off rt/lft bnd=>obj				Tree/bush										
Report Totals:			Total Crashes: 3				Fatal Crashes: 0				Injury Crashes: 1				Killed: 0				Injured: 1				

Crashid dataset Clive Bissell Dr

Crash self reporting, including self reported injuries began in Oct 2014. Trends from 2014 are expected to vary from previous years. More unknowns are expected in self reported data. For further information refer to Data Manual or report provider.

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors
Southern Region Wollongong LGA Unanderra Cordeaux Rd																					
1041346 P	16/09/2014	Tue	13:05	5 m	E	AMAROO AVE	TJN	CRV	Fine	Dry	50	2	UTE	M31	W in CORDEAUX RD	50	Proceeding in lane	N	0	0	
E56044531							RUM:	32	Right rear				CAR	F19	W in CORDEAUX RD	0	Wait turn right				
Southern Region Wollongong LGA Figtree Cordeaux Rd																					
1020178 P	17/04/2014	Thu	12:00	50 m	W	AMAROO AVE	2WY	STR	Fine	Dry	50	2	CAR	F18	E in CORDEAUX RD	50	Proceeding in lane	N	0	0	
E55042742							RUM:	32	Right rear				CAR	F49	E in CORDEAUX RD	0	Wait turn right				
Southern Region Wollongong LGA Mt Kembla Cordeaux Rd																					
842323 P	21/06/2013	Fri	15:15	30 m	E	BENJAMIN RD	DIV	CRV	Fine	Dry	50	1	P/C	M20	E in CORDEAUX RD		Proceeding in lane	I	0	1	
E51937859							RUM:	88	Out of cont on bend												
Southern Region Wollongong LGA Mt Kembla Cordeaux Rd																					
845959 P	28/07/2013	Sun	08:45	75 m	W	BENJAMIN RD	2WY	STR	Fine	Dry	50	1	P/C	M20	E in CORDEAUX RD		Proceeding in lane	I	0	1	
E100635101							RUM:	74	On road-out of cont.												
Southern Region Wollongong LGA Cordeaux Heights Cordeaux Rd																					
1039221 P	05/07/2014	Sat	21:10	200 m	N	BOOREEA BVD	2WY	CRV	Fine	Dry	60	1	CAR	F19	W in CORDEAUX RD	80	Proceeding in lane	N	0	0	S
E55231707							RUM:	80	Off left/right bend												
Southern Region Wollongong LGA Cordeaux Heigh Cordeaux Rd																					
765492 P	27/08/2011	Sat	15:25	130 m	E	BOOREEA BVD	2WY	CRV	Fine	Dry	60	2	CAR	M19	W in CORDEAUX RD	65	Incorrect side	I	0	1	S
E211857793							RUM:	20	Head on				CAR	F48	E in CORDEAUX RD	50	Proceeding in lane				
Southern Region Wollongong LGA Mt Kembla Cordeaux Rd																					
762693 P	20/07/2011	Wed	12:40	290 m	N	BOOREEA BVD	2WY	CRV	Fine	Wet	50	1	CAR	M17	W in CORDEAUX RD	40	Proceeding in lane	N	0	0	S
E45303303							RUM:	87	Off lft/lft bnd=>obj						Drain/culvert						
Southern Region Wollongong LGA Figtree Cordeaux Rd																					
842392 P	23/06/2013	Sun	01:20	1 m	E	CENTRAL RD	TJN	STR	Raining	Wet	60	1	WAG	M20	W in CORDEAUX RD	40	Proceeding in lane	I	0	1	
E100583602							RUM:	71	Off rd left => obj						Signal pole						
Southern Region Wollongong LGA Unanderra Cordeaux Rd																					
842232 P	14/06/2013	Fri	20:30	5 m	E	CENTRAL RD	TJN	STR	Fine	Dry	50	2	TRK	M45	W in CORDEAUX RD	30	Proceeding in lane	I	0	1	
E444329991							RUM:	31	Left rear				CAR	M25	W in CORDEAUX RD	Unk	Turning left				
Southern Region Wollongong LGA Figtree Cordeaux Rd																					
769307 P	25/09/2011	Sun	12:45	80 m	W	CENTRAL RD	2WY	CRV	Raining	Wet	50	1	TRK	F17	W in CORDEAUX RD	50	Proceeding in lane	N	0	0	S
E45922646							RUM:	81	Off left/rt bnd=>obj						Fence (prior to 2014)						

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
S F																						
Southern Region			Wollongong LGA				Figtree				Cordeaux Rd											
1001539 P	10/11/2013	Sun	23:10	100 m	W	CENTRAL RD	2WY	CRV	Raining	Wet	50	1	CAR	M32	W in CORDEAUX RD	50	Proceeding in lane	N	0	0		
E53753867							RUM:	83	Off rt/rt bnd=>obj				Signpost									
Southern Region			Wollongong LGA				Unanderra				Princes Hwy											
791344 P	13/04/2012	Fri	12:40			at CORDEAUX RD	RDB	STR	Fine	Dry	60	2	CAR	F17	S in PRINCES HWY	30	Turning right	N	0	0		
E47797838							RUM:	21	Right through				CAR F48 N in PRINCES HWY		50 Proceeding in lane							
Southern Region			Wollongong LGA				Cordeaux Heigh				Booreea Bvd											
802401 P	21/06/2012	Thu	10:58			at CORDEAUX RD	TJN	STR	Fine	Dry	50	1	CAR	M41	E in BOOREEA BVD	20	Proceeding in lane	I	0	1		
E48046222							RUM:	75	Off end of road				Fence (prior to 2014)									
Southern Region			Wollongong LGA				Unanderra				Princes Hwy											
824963 P	16/01/2013	Wed	10:05			at CORDEAUX RD	RDB	STR	Fine	Dry	60	1	CAR	F39	N in PRINCES HWY	60	Proceeding in lane	N	0	0	F	
E240651793							RUM:	73	Off rd rght => obj				Signpost									
Southern Region			Wollongong LGA				Unanderra				Princes Hwy											
840981 P	07/06/2013	Fri	14:43			at CORDEAUX RD	RDB	CRV	Fine	Dry	60	3	SEM	M51	N in PRINCES HWY	5	Veering left	N	0	0		
E51261925							RUM:	35	Lane change left				UTE M28 N in PRINCES HWY		0 Waiting turn left							
														CAR F U N in PRINCES HWY		0 Waiting turn left						
Southern Region			Wollongong LGA				Cordeaux Heigh				Booreea Bvd											
853936 P	28/09/2013	Sat	07:15			at CORDEAUX RD	TJN	CRV	Fine	Dry	50	2	4WD	M49	E in BOOREEA BVD	10	Turning right	I	0	1		
E53225051							RUM:	13	Right near				P/C M38 N in CORDEAUX RD		Proceeding in lane							
Southern Region			Wollongong LGA				Unanderra				Princes Hwy											
1005323 P	07/11/2013	Thu	16:45			at CORDEAUX RD	RDB	STR	Fine	Dry	60	3	4WD	U U	W in CORDEAUX RD	10	Proceeding in lane	I	0	2		
E102410601							RUM:	10	Cross traffic				CAR M36 N in PRINCES HWY		Unk Proceeding in lane							
														CAR M38 N in PRINCES HWY		Unk Proceeding in lane						
Southern Region			Wollongong LGA				Figtree				Princes Hwy											
1007844 P	17/11/2013	Sun	21:20			at CORDEAUX RD	RDB	STR	Raining	Wet	60	1	CAR	M72	S in PRINCES HWY	40	Proceeding in lane	I	0	1		
E53068047							RUM:	73	Off rd rght => obj				Traffic island etc									
Southern Region			Wollongong LGA				Cordeaux Heights				Booreea Bvd											
1019483 P	04/04/2014	Fri	13:25			at CORDEAUX RD	TJN	CRV	Raining	Wet	60	2	CAR	M20	E in CORDEAUX RD	15	Turning right	N	0	0		
E54586019							RUM:	21	Right through				CAR F30 W in CORDEAUX RD		50 Proceeding in lane							

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors
Southern Region Wollongong LGA Unanderra Princes Hwy																					
1030101 P	29/05/2014	Thu	14:35		at	CORDEAUX RD	RDB	STR	Fine	Dry	60	1	M/C	F19	N in PRINCES HWY	10	Proceeding in lane	I	0	1	
E57203084							RUM:	74		On road-out of cont.											
Southern Region Wollongong LGA Figtree Central Rd																					
1027719 P	29/05/2014	Thu	23:10		at	CORDEAUX RD	TJN	STR	Fine	Dry	50	2	WAG	M34	N in CENTRAL RD	45	Proceeding in lane	I	0	1	
E55360829							RUM:	30		Rear end			CAR	M22	N in CENTRAL RD	0	Stationary				
Southern Region Wollongong LGA Cordeaux Heights Booreea Bvd																					
1054860 S	20/10/2014	Mon	07:45		at	CORDEAUX RD	TJN	CRV	Fine	Dry	60	2	TRK	M19	E in CORDEAUX RD	Unk	Proceeding in lane	I	0	2	
E109191602							RUM:	30		Rear end			CAR	F53	E in CORDEAUX RD	0	Stationary				
Southern Region Wollongong LGA Figtree Princes Hwy																					
1070552 S	03/06/2015	Wed	16:30		at	CORDEAUX RD	RDB	STR	Fine	Dry	60	2	CAR	F17	S in PRINCES HWY	Unk	Proceeding in lane	I	0	1	
E59017341							RUM:	30		Rear end			CAR	F51	S in PRINCES HWY	0	Stationary				
Southern Region Wollongong LGA Figtree Central Rd																					
1096155 P	10/02/2016	Wed	05:30		at	CORDEAUX RD	TJN	STR	Fine	Dry	50	2	CAR	M19	N in CENTRAL RD	15	Turning right	I	0	1	S
E60407376							RUM:	13		Right near			WAG	M33	W in CORDEAUX RD	60	Proceeding in lane				
Southern Region Wollongong LGA Figtree Princes Hwy																					
1099243 P	13/04/2016	Wed	15:30		at	CORDEAUX RD	RDB	STR	Fine	Dry	60	2	CAR	M35	S in PRINCES HWY	10	Turning right	N	0	0	S
E60772004							RUM:	21		Right through			WAG	M U	N in PRINCES HWY	900	Proceeding in lane				
Southern Region Wollongong LGA Figtree Princes Hwy																					
1105265 S	19/05/2016	Thu	14:20		at	CORDEAUX RD	RDB	STR	Fine	Dry	60	2	CAR	F36	E in CORDEAUX RD	Unk	Proceeding in lane	N	0	0	
E119300102							RUM:	32		Right rear			CAR	F63	E in CORDEAUX RD	Unk	Turning right				
Southern Region Wollongong LGA Mt Kembla Araluen Ave																					
838939 P	03/05/2013	Fri	21:30		5 m S	CORDEAUX RD	TJN	STR	Fine	Dry	60	1	4WD	M18	E in CORDEAUX RD	65	Turning right	N	0	0	S
E51206605							RUM:	81		Off left/rt bnd=>obj			Tree/bush								
Southern Region Wollongong LGA Figtree Cordeaux Rd																					
1043554 P	23/08/2014	Sat	09:00		at	GIBSONS RD	TJN	STR	Fine	Dry	50	2	CAR	M56	S in GIBSONS RD	10	Turning right	N	0	0	
E56096829							RUM:	13		Right near			CAR	M32	E in CORDEAUX RD	50	Proceeding in lane				
Southern Region Wollongong LGA Figtree Cordeaux Rd																					
1081379 P	30/08/2015	Sun	02:30		at	GIBSONS RD	TJN	STR	Fine	Dry	50	1	4WD	F21	S in GIBSONS RD	60	Proceeding in lane	N	0	0	S
E58941376							RUM:	75		Off end of road			Signpost								

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
																						S F
Southern Region		Wollongong LGA					Kembla Heights					Cordeaux Rd										
1023476 P	08/04/2014	Tue	23:13	110 m	E	HARRY GRAHAM DR	2WY	CRV	Unk	Dry	60	1	CAR	U U	E in CORDEAUX RD	50	Proceeding in lane	N	0	0	S	
E54796358	RUM: 83 Off rt/rt bnd=>obj Utility pole																					
Southern Region		Wollongong LGA					Mt Kembla					Cordeaux Rd										
779871 P	30/11/2011	Wed	22:30	150 m	E	HARRY GRAHAM DR	2WY	CRV	Raining	Wet	50	1	TRK	M21	E in CORDEAUX RD	50	Proceeding in lane	I	0	1		
E46161036	RUM: 80 Off left/right bend																					
Southern Region		Wollongong LGA					Kembla Heights					Cordeaux Rd										
1110421 P	23/02/2016	Tue	18:30	100 m	W	HARRY GRAHAM DR	2WY	STR	Fine	Dry	60	1	CAR	M17	W in CORDEAUX RD	Unk	Proceeding in lane	I	0	1	F	
E61842957	RUM: 71 Off rd left => obj Tree/bush																					
Southern Region		Wollongong LGA					Unanderra					Cordeaux Rd										
841096 P	16/06/2013	Sun	09:30			at NUMBER 22A HN	2WY	CRV	Fine	Dry	50	2	CAR	M45	W in CORDEAUX RD	20	Turning right	N	0	0		
E51891657	RUM: 21 Right through CAR F64 E in CORDEAUX RD																					
Southern Region		Wollongong LGA					Mount Kembla					Cordeaux Rd										
1088975 S	20/12/2015	Sun	18:16			at NUMBER 295 HN	2WY	CRV	Fine	Dry	60	1	4WD	M61	W in CORDEAUX RD	Unk	Proceeding in lane	N	0	0	S	
E60839478	RUM: 81 Off left/rt bnd=>obj Tree/bush																					
Southern Region		Wollongong LGA					Unanderra					Cordeaux Rd										
1034977 P	25/07/2014	Fri	16:30	30 m	W	PRINCES HWY	2WY	STR	Fine	Dry	50	3	CAR	F79	E in CORDEAUX RD	10	Proceeding in lane	I	0	2		
E55136636	RUM: 30 Rear end CAR F47 E in CORDEAUX RD 4WD M45 E in CORDEAUX RD																					
Southern Region		Wollongong LGA					Unanderra					Cordeaux Rd										
789789 P	31/03/2012	Sat	21:30			at RACHEL CRES	TJN	CRV	Fine	Dry	50	2	VAN	M68	N in RACHEL CRES	5	Turning left	I	0	1		
E47196744	RUM: 16 Left near P/C M30 W in CORDEAUX RD																					
Southern Region		Wollongong LGA					Unanderra					Cordeaux Rd										
826815 P	07/12/2012	Fri	20:30			at RACHEL CRES	TJN	STR	Fine	Dry	40	2	CAR	M33	E in RACHEL CRES	10	Turning right	I	0	2	S	
E51765787	RUM: 11 Right far CAR M17 S in CORDEAUX RD																					
Southern Region		Wollongong LGA					Mt Kembla					Cordeaux Rd										
766526 P	06/08/2011	Sat	06:00	200 m	E	STONES RD	2WY	STR	Fine	Dry	60	1	M/C	M28	E in CORDEAUX RD	Unk	Proceeding in lane	I	0	1		
E45493007	RUM: 71 Off rd left => obj Utility pole																					
Southern Region		Wollongong LGA					Mount Kembla					Cordeaux Rd										
1063520 P	07/03/2015	Sat	16:55	200 m	E	STONES RD	2WY	STR	Fine	Dry	60	2	4WD	F52	W in CORDEAUX RD	Unk	Proceeding in lane	I	0	1		
E57353634	RUM: 30 Rear end WAG M30 W in CORDEAUX RD																					

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
S F																						
Southern Region			Wollongong LGA				Mount Kembla				Cordeaux Rd											
1015512 P	07/01/2014	Tue	09:00		UnkUnk	UNKNOWN UK	2WY	STR	Fine	Dry	60	1	P/C	M40	E in CORDEAUX RD		Proceeding in lane	I	0	1		
E53099660							RUM:	74	On road-out of cont.													
Southern Region			Wollongong LGA				Mount Kembla				Cordeaux Rd											
1100558 P	26/03/2016	Sat	05:40		100 m	E WILLIAM JAMES DR	2WY	CRV	Fine	Dry	60	1	P/C	M55	E in CORDEAUX RD		Proceeding in lane	I	0	1		
E60939345							RUM:	67	Struck animal Other large animal													
Southern Region			Wollongong LGA				Mount Kembla				Cordeaux Rd											
1092535 P	18/01/2016	Mon	15:00		400 m	E WILLIAM JAMES DR	2WY	STR	Fine	Dry	60	1	CAR	M58	E in CORDEAUX RD	40	Proceeding in lane	I	0	1		
E60512962							RUM:	73	Off rd rght => obj Fence													
Southern Region			Wollongong LGA				Mount Kembla				Cordeaux Rd											
1103271 P	18/05/2016	Wed	14:35		50 m	N WILLIAM JAMES DR	2WY	STR	Fine	Dry	60	1	CAR	M58	S in CORDEAUX RD	60	Proceeding in lane	N	0	0		
E61296656							RUM:	71	Off rd left => obj Roadwork equipment													
Southern Region			Wollongong LGA				Cordeaux Heigh				Cordeaux Rd											
844914 P	20/07/2013	Sat	21:20		100 m	N WILLIAM JAMES DR	2WY	CRV	Fine	Dry	60	2	CAR	F51	N in CORDEAUX RD	60	Proceeding in lane	I	0	1		
E52010512							RUM:	2	Ped far side PED M48 W in CORDEAUX RD													
Southern Region			Wollongong LGA				Cordeaux Heigh				Cordeaux Rd											
855397 P	14/10/2013	Mon	05:26		10 m	W WILLIAM JAMES DR	TJN	STR	Overcast	Dry	50	1	P/C	M39	E in CORDEAUX RD		Proceeding in lane	I	0	1		
E52888421							RUM:	67	Struck animal Other large animal													
Southern Region			Wollongong LGA				Mt Kembla				Cordeaux Rd											
831546 P	24/03/2013	Sun	23:10		480 m	W WILLIAM JAMES DR	2WY	STR	Fine	Dry	60	1	CAR	M18	W in CORDEAUX RD	60	Proceeding in lane	I	0	5		
E51800639							RUM:	71	Off rd left => obj Tree/bush													
Report Totals:			Total Crashes: 46				Fatal Crashes: 0				Injury Crashes: 27				Killed: 0				Injured: 35			

Crashid dataset Cordeaux Road

Crash self reporting, including self reported injuries began in Oct 2014. Trends from 2014 are expected to vary from previous years. More unknowns are expected in self reported data. For further information refer to Data Manual or report provider.

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors
Southern Region Wollongong LGA Kembla Heights Harry Graham Dr																					
842415 P	25/06/2013	Tue	07:40		at AMERICA CK		2WY	STR	Raining	Wet	60	1	CAR	M80	N in HARRY GRAHAM DR	60	Proceeding in lane	I	0	1	F
E52213173 RUM: 72 Off road to right																					
Southern Region Wollongong LGA Cordeaux Dam Harry Graham Dr																					
807095 P	11/08/2012	Sat	18:30	1.635 km	S CLIVE BISSELL DR		2WY	CRV	Fine	Dry	60	1	CAR	M28	S in HARRY GRAHAM DR	70	Proceeding in lane	N	0	0	S
E48794045 RUM: 85 Off rt/lft bnd=>obj Tree/bush																					
Southern Region Wollongong LGA Kembla Heights Harry Graham Dr																					
1094681 P	28/02/2016	Sun	13:30	3 km	N CORDEAUX RD		2WY	CRV	Fine	Dry	60	1	M/C	F48	N in HARRY GRAHAM DR	40	Proceeding in lane	I	0	1	S
E60184052 RUM: 66 Object on road Other non fixed object																					
Southern Region Wollongong LGA Kembla Heights Harry Graham Dr																					
849642 P	23/08/2013	Fri	21:30	5 km	N CORDEAUX RD		2WY	CRV	Fine	Dry	60	1	CAR	M19	N in HARRY GRAHAM DR	60	Proceeding in lane	I	0	1	
E54817383 RUM: 87 Off lft/lft bnd=>obj Tree/bush																					
Southern Region Wollongong LGA Mt Kembla Harry Graham Dr																					
785366 P	29/01/2012	Sun	17:00	690 m	E MOTORCYCLE TRA OT		2WY	CRV	Fine	Dry	60	1	M/C	M26	E in HARRY GRAHAM DR	20	Proceeding in lane	I	0	1	S
E48940989 RUM: 81 Off left/rt bnd=>obj Fence (prior to 2014)																					
Southern Region Wollongong LGA Mount Keira Harry Graham Dr																					
1066514 P	26/04/2015	Sun	07:30	100 m	S MOUNT KEIRA RD		2WY	CRV	Raining	Wet	60	2	P/C	M58	S in HARRY GRAHAM DR		Incorrect side	I	0	1	
E57607533 RUM: 20 Head on 4WD F35 N in HARRY GRAHAM DR 50 Proceeding in lane																					
Southern Region Wollongong LGA Cordeaux Harry Graham Dr																					
1098667 P	21/03/2016	Mon	04:45	1.85 km	S MOUNT KEIRA RD		2WY	CRV	Fine	Wet	60	1	CAR	M35	N in HARRY GRAHAM DR	50	Proceeding in lane	N	0	0	S
E61224668 RUM: 88 Out of cont on bend																					
Southern Region Wollongong LGA Mt Kembla Harry Graham Dr																					
778698 P	12/12/2011	Mon	06:50	970 m	S WOLLONGONG MOT OT		2WY	STR	Overcast	Wet	60	1	CAR	M20	S in HARRY GRAHAM DR	60	Proceeding in lane	N	0	0	
E46576546 RUM: 66 Object on road Other non fixed object																					
Report Totals: Total Crashes: 8 Fatal Crashes: 0 Injury Crashes: 5 Killed: 0 Injured: 5																					

Crashid dataset Harry Graham Drive
Crash self reporting, including self reported injuries began in Oct 2014. Trends from 2014 are expected to vary from previous years. More unknowns are expected in self reported data. For further information refer to Data Manual or report provider.

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors																				
Southern Region																						Wollongong LGA		Cataract		Mount Keira Rd															
1022177 P	10/12/2013	Tue	22:50	50 m	N	CLIVE BISSELL DR	2WY	CRV	Overcast	Dry	60	1	CAR	F19	S in MOUNT KEIRA RD	50	Proceeding in lane	I	0	1	S																				
E55941388	RUM: 81 Off left/rt bnd=>obj Tree/bush																																								
Southern Region																						Wollongong LGA		Cataract		Picton Rd															
1039199 P	26/08/2014	Tue	06:00			at MOUNT KEIRA RD	TJN	CRV	Raining	Wet	80	1	UTE	M35	W in PICTON RD	95	Proceeding in lane	N	0	0	S																				
E55387606	RUM: 83 Off rt/rt bnd=>obj S/Barrier - Wrope/brifen																																								
Southern Region																						Wollongong LGA		Cataract		Picton Rd															
1095711 P	10/03/2016	Thu	15:50			at MOUNT KEIRA RD	TJN	CRV	Overcast	Dry	100	2	CAR	M76	N in MOUNT KEIRA RD	10	Turning right	I	0	1																					
E301603893	RUM: 13 Right near CAR M39 W in PICTON RD																																								
Southern Region																						Wollongong LGA		Cataract		Picton Rd															
1098047 P	05/04/2016	Tue	17:15			at MOUNT KEIRA RD	TJN	CRV	Fine	Dry	80	2	M/C	M20	N in MOUNT KEIRA RD	15	Turning right	I	0	1	S																				
E364343492	RUM: 13 Right near CAR M25 W in PICTON RD																																								
Southern Region																						Wollongong LGA		Cataract Creek		Picton Rd															
760447 P	14/07/2011	Thu	05:25			at MT KEIRA RD	TJN	CRV	Fine	Dry	60	2	CAR	M22	N in MT KEIRA RD	10	Turning right	I	0	1																					
E45317931	RUM: 11 Right far LOR M37 E in PICTON RD																																								
Southern Region																						Wollongong LGA		Cataract Creek		Picton Rd															
808340 P	20/08/2012	Mon	16:00			at MT KEIRA RD	TJN	STR	Fine	Dry	90	1	WAG	M28	W in PICTON RD	90	Proceeding in lane	N	0	0																					
E49421874	RUM: 69 Other on path Falling object																																								
Southern Region																						Wollongong LGA		Cordeaux Dam		Mt Keira Rd															
779093 P	23/12/2011	Fri	19:30	500 m	S	PICTON RD	2WY	STR	Fine	Wet	70	1	4WD	M30	N in MT KEIRA RD	70	Proceeding in lane	N	0	0																					
E46355636	RUM: 70 Off road to left																																								
Southern Region																						Wollongong LGA		Cordeaux		Mount Keira Rd															
1060520 S	08/03/2015	Sun	17:30	8 km	W	YATES AVE	2WY	STR	Fine	Dry	80	1	4WD	M17	E in MOUNT KEIRA RD	Unk	Proceeding in lane	N	0	0																					
E58167265	RUM: 74 On road-out of cont.																																								
Report Totals:			Total Crashes: 8				Fatal Crashes: 0				Injury Crashes: 4				Killed: 0				Injured: 4																						

Crashid dataset Mount Keira Rd

Crash self reporting, including self reported injuries began in Oct 2014. Trends from 2014 are expected to vary from previous years. More unknowns are expected in self reported data. For further information refer to Data Manual or report provider.

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors		
S F																							
Southern Region			Wollongong LGA					Mount Kembla					Benjamin Rd										
1073767 P	04/07/2015	Sat	12:15	at KIRKWOOD PL			LJN	CRV	Fine	Dry	50	1	CAR	U U	S in BENJAMIN RD	20	Proceeding in lane	N	0	0	S		
E58386703							RUM:	87	Off lft/lft bnd=>obj				Fence										
Report Totals:			Total Crashes: 1			Fatal Crashes: 0			Injury Crashes: 0			Killed: 0			Injured: 0								

Crashid dataset Mount Kembla

Crash self reporting, including self reported injuries began in Oct 2014. Trends from 2014 are expected to vary from previous years. More unknowns are expected in self reported data. For further information refer to Data Manual or report provider.

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
																						S F
Southern Region						Wollondilly LGA						Wilton						Picton Rd				
793053 P	27/04/2012	Fri	19:00		at ALMOND ST		XJN	STR	Fine	Dry	90	2	CAR	M32	W in PICTON RD	15	Turning right	I	0	1		
E50354886							RUM:	21	Right through				TRK	M36	E in PICTON RD	90	Proceeding in lane					
Southern Region						Wollondilly LGA						Wilton						Picton Rd				
824896 P	05/01/2013	Sat	09:30		at ALMOND ST		TJN	STR	Fine	Dry	90	2	TRK	M77	W in ALMOND ST	Unk	Turning right	I	0	2		
E49781825							RUM:	13	Right near				CAR	F27	S in PICTON RD	Unk	Proceeding in lane					
Southern Region						Wollondilly LGA						Wilton						Picton Rd				
1001179 P	13/11/2013	Wed	07:40		at ALMOND ST		TJN	STR	Fine	Dry	100	2	TRK	M U	S in ALMOND ST	50	Turning right	N	0	0		
E174661998							RUM:	11	Right far				SEM	F43	W in PICTON RD	80	Proceeding in lane					
Southern Region						Wollondilly LGA						Wilton						Picton Rd				
1044250 P	15/08/2014	Fri	15:00		at ALMOND ST		TJN	STR	Fine	Dry	60	1	CAR	F21	W in PICTON RD	30	Turning right	N	0	0	S	
E107915802							RUM:	80	Off left/right bend													
Southern Region						Wollondilly LGA						Wilton						Picton Rd				
835674 P	30/04/2013	Tue	07:40	200 m E	ALMOND ST		2WY	STR	Overcast	Dry	90	2	WAG	M18	E in PICTON RD	80	Incorrect side	N	0	0	F	
E51515638							RUM:	20	Head on				CAR	F26	W in PICTON RD	80	Proceeding in lane					
Southern Region						Wollondilly LGA						Wilton						Picton Rd				
775582 P	15/11/2011	Tue	05:45	1 km E	ALMOND ST		2WY	CRV	Overcast	Dry	90	1	CAR	M24	W in PICTON RD	90	Proceeding in lane	N	0	0		
E46360826							RUM:	87	Off lft/lft bnd=>obj				Tree/bush									
Southern Region						Wollongong LGA						Cataract Creek						Picton Rd				
827628 P	24/02/2013	Sun	23:25	10.3 km E	ALMOND ST		2WY	STR	Raining	Wet	80	2	LOR	U U	E in PICTON RD	Unk	Pull out opposite	I	0	1		
E50769748							RUM:	55	Pulling out rear end				4WD	M42	E in PICTON RD	80	Proceeding in lane					
Southern Region						Wollondilly LGA						Wilton						Picton Rd				
794051 P	03/04/2012	Tue	14:10	300 m W	ALMOND ST		2WY	CRV	Fine	Dry	90	4	CAR	M32	W in PICTON RD	90	Incorrect side	I	0	1		
E47344927							RUM:	20	Head on				SEM	M35	E in PICTON RD	80	Proceeding in lane					
													WAG	M59	W in PICTON RD	Unk	Proceeding in lane					
													CAR	F25	E in PICTON RD	87	Proceeding in lane					
Southern Region						Wollongong LGA						Cordeaux						Picton Rd				
1025300 P	10/04/2014	Thu	11:00	2 km E	CATARACT DAM ENT		2WY	CRV	Raining	Wet	100	1	CAR	F34	W in PICTON RD	80	Proceeding in lane	I	0	2	S	
E56934183							RUM:	81	Off left/rt bnd=>obj				Drain/culvert									

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
																						S F
Southern Region			Wollongong LGA				Cordeaux				Picton Rd											
1003589 P	18/11/2013	Mon	21:30	2.2 km	E	COLLIERY ENT	DIV	CRV	Raining	Wet	100	1	CAR	F19	E in PICTON RD	70	Proceeding in lane	N	0	0	S	
E257099593							RUM:	83	Off rt/rt bnd=>obj			S/Barrier - Concr/Jersey										
Southern Region			Wollongong LGA				Cataract Creek				Picton Rd											
799318 P	22/04/2012	Sun	05:00			at CORDEAUX COLLI ENT	DIV	STR	Fog or mist	Dry	60	1	CAR	M76	E in PICTON RD	60	Veering right	I	0	1		
E157770097							RUM:	72	Off road to right													
Southern Region			Wollongong LGA				Cordeaux Dam				Picton Rd											
779861 P	27/11/2011	Sun	17:06	250 m	S	CORDEAUX COLLI OT	2WY	STR	Fine	Dry	60	2	TRK	M66	S in PICTON RD	70	Incorrect side	I	0	3	S F	
E46143775							RUM:	20	Head on			CAR F62 N in PICTON RD										
Southern Region			Wollongong LGA				Cordeaux				Picton Rd											
1062892 P	24/03/2015	Tue	14:28			at CORDEAUX COLLIERY ENT	2WY	STR	Raining	Wet	100	1	CAR	M22	S in PICTON RD	90	Proceeding in lane	N	0	0		
E57120235							RUM:	71	Off rd left => obj			Embankment										
Southern Region			Wollongong LGA				Cordeaux				Picton Rd											
1098433 S	06/04/2016	Wed	06:10	1 km	W	CORDEAUX COLLIERY ENT	2WY	CRV	Fine	Dry	100	2	TRK	M37	E in PICTON RD	Unk	Incorrect side	N	0	0		
E60542005							RUM:	20	Head on			WAG F25 W in PICTON RD										
Southern Region			Wollondilly LGA				Cataract				Picton Rd											
1041993 P	24/07/2014	Thu	05:30	1 km	E	CORDEAUX DAM ENT	2WY	STR	Fine	Dry	100	2	LOR	M40	E in PICTON RD	80	Incorrect side	N	0	0		
E55531819							RUM:	20	Head on			CAR M34 W in PICTON RD										
Southern Region			Wollongong LGA				Cordeaux				Picton Rd											
1016001 P	17/03/2014	Mon	14:50	1.5 km	E	CORDEAUX DAM ENT	DIV	CRV	Fine	Dry	100	1	M/C	M58	E in PICTON RD	100	Proceeding in lane	I	0	1	S	
E53197760							RUM:	83	Off rt/rt bnd=>obj			S/Barrier - Concr/Jersey										
Southern Region			Wollongong LGA				Cordeaux				Picton Rd											
1079218 P	09/08/2015	Sun	08:00	2 km	E	CORDEAUX DAM ENT	2WY	STR	Fine	Dry	100	2	OMV	M19	W in PICTON RD	130	Proceeding in lane	I	0	2	S	
E58929564							RUM:	30	Rear end			4WD F45 W in PICTON RD										
Southern Region			Wollondilly LGA				Cataract				Picton Rd											
1019422 P	19/03/2014	Wed	23:50	500 m	S	CORDEAUX DAM ENT	2WY	STR	Raining	Wet	100	1	CAR	M37	S in PICTON RD	90	Proceeding in lane	N	0	0		
E54249433							RUM:	73	Off rd rght => obj			S/Barrier - Guardrail										
Southern Region			Wollondilly LGA				Cataract				Picton Rd											
1073554 P	09/07/2015	Thu	20:44	1.365 km	N	CORDEAUX DAM OT	2WY	STR	Fine	Dry	100	1	CAR	M38	N in PICTON RD	80	Proceeding in lane	I	0	1		
E61099881							RUM:	73	Off rd rght => obj			S/Barrier - Guardrail										

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
																						S F
Southern Region			Wollondilly LGA				Wilton				Picton Rd											
775590 P	16/11/2011	Wed	17:50		at	CORDEAUX DAM RD	TJN	CRV	Raining	Wet	90	1	CAR	M30	E in PICTON RD	80	Proceeding in lane	N	0	0	S	
E46319859	RUM: 85 Off rt/lft bnd=>obj Fence (prior to 2014)																					
Southern Region			Wollongong LGA				Cordeaux Dam				Picton Rd											
759551 P	26/08/2011	Fri	16:38	2 km	E	CORDEAUX DAM RD	2WY	STR	Fine	Dry	90	2	TRK	M28	E in PICTON RD	90	Incorrect side	F	1	1	F	
E46366653	RUM: 20 Head on SEM M39 W in PICTON RD 90 Proceeding in lane																					
Southern Region			Wollondilly LGA				Wilton				Picton Rd											
1082395 S	19/10/2015	Mon	08:10		at	HUME HIGHWAY OP	DIV	STR	Fine	Dry	110	2	TRK	M44	E in PICTON RD	Unk	Other forward	I	0	1		
E59810029	RUM: 29 Other opposing CAR F36 W in PICTON RD Unk Other forward																					
Southern Region			Wollondilly LGA				Wilton				Picton Rd											
816508 P	13/07/2012	Fri	14:10	100 m	E	HUME HIGHWAY OP	DIV	CRV	Fine	Dry	80	2	CAR	F41	W in PICTON RD	60	Proceeding in lane	I	0	1	S	
E48861773	RUM: 30 Rear end CAR M26 W in PICTON RD 0 Stationary																					
Southern Region			Wollondilly LGA				Wilton				Picton Rd											
1056613 S	02/12/2014	Tue	11:00	200 m	E	HUME HIGHWAY OP	DIV	STR	Fine	Dry	80	1	TRK	M62	E in PICTON RD	Unk	Proceeding in lane	I	0	1		
E57375477	RUM: 71 Off rd left => obj Other fixed object																					
Southern Region			Wollondilly LGA				Wilton				Picton Rd											
1089975 S	23/12/2015	Wed	10:45		at	HUME HIGHWAY TO	DIV	STR	Fine	Dry	110	2	WAG	M47	W in PICTON RD	Unk	Merging	I	0	1		
E60072656	RUM: 34 Lane change right WAG M39 W in PICTON RD Unk Proceeding in lane																					
Southern Region			Wollondilly LGA				Wilton				Picton Rd											
843983 P	05/07/2013	Fri	00:50	50 m	W	HUME HIGHWAY TO	DIV	CRV	Fine	Dry	80	1	WAG	F38	E in PICTON RD	70	Proceeding in lane	N	0	0	F	
E52213131	RUM: 87 Off lft/lft bnd=>obj Fence (prior to 2014)																					
Southern Region			Wollondilly LGA				Wilton				Picton Rd											
763571 P	05/08/2011	Fri	13:20		at	HUME HWY	TJN	STR	Fine	Dry	80	2	CAR	F22	S in HUME HWY	1	Turning right	N	0	0		
E46053578	RUM: 13 Right near TRK M44 E in PICTON RD 80 Proceeding in lane																					
Southern Region			Wollondilly LGA				Wilton				Picton Rd											
772953 P	06/10/2011	Thu	08:30		at	HUME HWY	TJN	STR	Fine	Dry	80	2	CAR	M20	E in PICTON RD	10	Turning right	I	0	1		
E88739802	RUM: 21 Right through TRK M35 W in PICTON RD 75 Proceeding in lane																					
Southern Region			Wollondilly LGA				Wilton				Picton Rd											
778668 P	11/11/2011	Fri	18:15		at	HUME HWY	TJN	STR	Fine	Dry	80	2	CAR	M44	N in HUME HWY	10	Turning right	I	0	1		
E47083153	RUM: 13 Right near CAR F35 W in PICTON RD 80 Proceeding in lane																					

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
																						S F
Southern Region			Wollondilly LGA				Wilton								Picton Rd							
790503 P	23/02/2012	Thu	19:00		at HUME HWY		TJN	STR	Fine	Dry	80	2	4WD	F37	N in HUME HWY	15	Turning right	I	0	3		
E47937339							RUM:	13	Right near				CAR	M21	W in PICTON RD	70	Proceeding in lane					
Southern Region			Wollondilly LGA				Wilton								Picton Rd							
786207 P	24/02/2012	Fri	07:30		at HUME HWY		TJN	CRV	Fine	Dry	80	2	WAG	M40	W in PICTON RD	10	Turning right	I	0	1	S	
E46810835							RUM:	21	Right through				CAR	F56	E in PICTON RD	60	Proceeding in lane					
Southern Region			Wollondilly LGA				Wilton								Picton Rd							
797040 P	02/05/2012	Wed	10:30		at HUME HWY		TJN	STR	Fine	Dry	80	2	4WD	F44	E in PICTON RD	10	Turning right	N	0	0		
E47913261							RUM:	21	Right through				4WD	M70	W in PICTON RD	50	Proceeding in lane					
Southern Region			Wollondilly LGA				Wilton								Picton Rd							
812113 P	02/09/2012	Sun	16:15		at HUME HWY		TJN	STR	Fine	Dry	80	2	UTE	M23	N in HUME HWY	5	Turning right	N	0	0		
E49108446							RUM:	13	Right near				CAR	M47	W in PICTON RD	70	Proceeding in lane					
Southern Region			Wollondilly LGA				Wilton								Picton Rd							
814107 P	08/10/2012	Mon	12:00		at HUME HWY		TJN	STR	Fine	Dry	80	2	WAG	F53	N in HUME HWY	20	Turning right	N	0	0		
E48922124							RUM:	11	Right far				SEM	M61	E in PICTON RD	75	Proceeding in lane					
Southern Region			Wollondilly LGA				Wilton								Picton Rd							
808822 P	09/11/2012	Fri	06:25		at HUME HWY		TJN	STR	Fine	Dry	80	2	CAR	M62	E in PICTON RD	Unk	Turning right	F	1	2		
E49450605							RUM:	21	Right through				LOR	M52	W in PICTON RD	Unk	Proceeding in lane					
Southern Region			Wollondilly LGA				Wilton								Picton Rd							
832067 P	27/02/2013	Wed	17:50		at HUME HWY		TJN	STR	Fine	Dry	80	2	CAR	F19	S in HUME HWY	10	Proceeding in lane	N	0	0		
E51578153							RUM:	10	Cross traffic				CAR	M66	E in PICTON RD	80	Proceeding in lane					
Southern Region			Wollondilly LGA				Wilton								Picton Rd							
831371 P	10/03/2013	Sun	16:31		at HUME HWY		TJN	STR	Fine	Dry	80	2	WAG	M51	E in PICTON RD	20	Turning right	I	0	3		
E51210758							RUM:	21	Right through				TRK	M57	W in PICTON RD	40	Proceeding in lane					
Southern Region			Wollondilly LGA				Wilton								Picton Rd							
836973 P	22/04/2013	Mon	07:45		at HUME HWY		TJN	STR	Overcast	Wet	80	2	CAR	M58	W in PICTON RD	10	Turning right	N	0	0		
E52072739							RUM:	21	Right through				OMV	M29	E in PICTON RD	80	Proceeding in lane					
Southern Region			Wollondilly LGA				Wilton								Picton Rd							
838995 P	30/05/2013	Thu	17:40		at HUME HWY		TJN	STR	Fine	Dry	80	2	CAR	M45	N in HUME HWY	5	Turning right	N	0	0		
E52032579							RUM:	13	Right near				CAR	F36	W in PICTON RD	70	Proceeding in lane					

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
																						S F
Southern Region			Wollondilly LGA				Wilton								Picton Rd							
853498 P	18/06/2013	Tue	23:18		at HUME HWY		TJN	STR	Fine	Dry	100	1	LOR	M37	W in PICTON RD	100	Proceeding in lane	I	0	1	F	
E51956364	RUM: 71 Off rd left ==> obj Fence (prior to 2014)																					
Southern Region			Wollondilly LGA				Picton								Picton Rd							
850262 P	17/08/2013	Sat	07:30		at HUME HWY		TJN	STR	Fine	Dry	80	1	CAR	M24	N in HUME HWY	80	Proceeding in lane	N	0	0		
E52798568	RUM: 71 Off rd left ==> obj Signpost																					
Southern Region			Wollondilly LGA				Wilton								Picton Rd							
1025618 P	04/05/2014	Sun	15:00		at HUME HWY		TJN	STR	Fine	Dry	80	2	4WD	M52	W in PICTON RD	5	Proceeding in lane	N	0	0		
E55020473	RUM: 32 Right rear 4WD F54 W in PICTON RD																					
Southern Region			Wollondilly LGA				Wilton								Picton Rd							
1023519 P	13/05/2014	Tue	19:35		at HUME HWY		TJN	STR	Fine	Dry	80	2	CAR	M61	W in PICTON RD	20	Turning right	N	0	0		
E56489480	RUM: 21 Right through WAG M52 E in PICTON RD																					
Southern Region			Wollondilly LGA				Wilton								Picton Rd							
1026356 P	26/05/2014	Mon	18:00		at HUME HWY		TJN	STR	Fine	Dry	80	2	CAR	M88	E in PICTON RD	10	Turning right	N	0	0		
E54650922	RUM: 21 Right through CAR M20 W in PICTON RD																					
Southern Region			Wollondilly LGA				Wilton								Picton Rd							
1035646 P	29/07/2014	Tue	07:55		at HUME HWY		TJN	STR	Fine	Dry	110	2	UTE	F21	N in HUME HWY	10	Turning right	I	0	1		
E54512420	RUM: 13 Right near CAR M27 W in PICTON RD																					
Southern Region			Wollondilly LGA				Wilton								Picton Rd							
1039311 P	08/08/2014	Fri	15:00		at HUME HWY		TJN	STR	Fine	Dry	80	2	TRK	M25	E in PICTON RD	10	Turning right	N	0	0		
E55545556	RUM: 21 Right through UTE M72 W in PICTON RD																					
Southern Region			Wollondilly LGA				Wilton								Picton Rd							
1049083 P	26/11/2014	Wed	15:21		at HUME HWY		TJN	STR	Overcast	Dry	80	2	CAR	M21	N in HUME HWY	Unk	Turning right	F	1	1		
E57109774	RUM: 13 Right near M/C M68 W in PICTON RD																					
Southern Region			Wollondilly LGA				Wilton								Picton Rd							
1060459 S	13/02/2015	Fri	07:45		at HUME HWY		TJN	STR	Fine	Dry	80	2	TRK	M64	E in PICTON RD	Unk	Turning right	I	0	1		
E57057472	RUM: 21 Right through CAR M58 W in PICTON RD																					
Southern Region			Wollondilly LGA				Wilton								Picton Rd							
1064609 S	14/04/2015	Tue	16:10		at HUME HWY		TJN	STR	Fine	Dry	80	2	CAR	F22	N in PICTON RD	Unk	Turning right	N	0	0		
E58536553	RUM: 21 Right through LOR M67 S in PICTON RD																					

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
																						S F
Southern Region Wollondilly LGA							Wilton					Picton Rd										
1070958 P	20/05/2015	Wed	17:25		at HUME HWY		TJN	STR	Fine	Dry	80	3	CAR	M77	E in PICTON RD	20 Turning right		I	0	3		
E58935778							RUM:	21	Right through				4WD	M68	W in PICTON RD	60 Proceeding in lane						
													TRK	M51	W in PICTON RD	0 Wait turn right						
Southern Region Wollondilly LGA							Wilton					Picton Rd										
1078749 P	02/09/2015	Wed	06:00		at HUME HWY		TJN	STR	Fine	Dry	80	2	LOR	M58	E in PICTON RD	10 Turning right		I	0	1		
E59585374							RUM:	21	Right through				CAR	F22	W in PICTON RD	80 Proceeding in lane						
Southern Region Wollondilly LGA							Wilton					Picton Rd										
1083918 S	04/11/2015	Wed	21:00		at HUME HWY		TJN	STR	Raining	Wet	80	2	UTE	M22	E in PICTON RD	Unk Turning right		I	0	1		
E59898777							RUM:	21	Right through				PLT	M23	W in PICTON RD	Unk Proceeding in lane						
Southern Region Wollondilly LGA							Wilton					Picton Rd										
1085847 S	21/11/2015	Sat	13:00		at HUME HWY		TJN	STR	Fine	Dry	80	2	WAG	M50	E in PICTON RD	Unk Turning right		I	0	1		
E60085928							RUM:	36	Right turn sideswipe				CAR	M26	E in PICTON RD	Unk Proceeding in lane						
Southern Region Wollondilly LGA							Wilton					Picton Rd										
1096507 P	22/02/2016	Mon	07:00		at HUME HWY		TJN	STR	Fine	Dry	60	2	TRK	M21	N in HUME HWY	5 Turning right		I	0	1		
E63009883							RUM:	13	Right near				4WD	F42	W in PICTON RD	50 Proceeding in lane						
Southern Region Wollondilly LGA							Wilton					Picton Rd										
1098868 P	16/03/2016	Wed	06:30		at HUME HWY		TJN	STR	Fine	Dry	80	2	TRK	M43	E in PICTON RD	5 Turning right		I	0	1		
E61387363							RUM:	21	Right through				CAR	M31	W in PICTON RD	60 Proceeding in lane						
Southern Region Wollondilly LGA							Wilton					Picton Rd										
845742 P	12/05/2013	Sun	08:20		5 m E HUME HWY		TJN	STR	Fog or mist	Dry	80	2	BDBL	M51	N in HUME HWY	20 Turning right		I	0	1		
E51283305							RUM:	13	Right near				CAR	M26	W in PICTON RD	50 Proceeding in lane						
Southern Region Wollondilly LGA							Wilton					Picton Rd										
812168 P	28/09/2012	Fri	21:30		50 m E HUME HWY		DIV	STR	Raining	Wet	80	1	UTE	U U	E in PICTON RD	Unk Proceeding in lane		N	0	0	F	
E49561779							RUM:	71	Off rd left ==> obj				Tree/bush									
Southern Region Wollondilly LGA							Wilton					Picton Rd										
830543 P	06/03/2013	Wed	14:30		85 m E HUME HWY		OTH	CRV	Fine	Dry	Unk	1	SEM	M44	E in PICTON RD	Unk Proceeding in lane		I	0	1	S	
E50586122							RUM:	88	Out of cont on bend													
Southern Region Wollondilly LGA							Wilton					Picton Rd										
836265 P	05/05/2013	Sun	03:00		100 m E HUME HWY		OTH	CRV	Fine	Dry	80	1	CAR	M28	E in PICTON RD	60 Proceeding in lane		N	0	0	S	
E53665884							RUM:	86	Off left/left bend													

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors		
																						S F	
Southern Region			Wollondilly LGA				Wilton				Picton Rd												
779079 P	22/12/2011	Thu	09:30	2.5 km	E	HUME HWY	2WY	CRV	Overcast	Dry	80	1	TRK	M30	E in PICTON RD	80	Proceeding in lane	I	0	1	S F		
E49061488							RUM:	81	Off left/rt bnd=>obj				Tree/bush										
Southern Region			Wollondilly LGA				Wilton				Picton Rd												
1003402 P	25/09/2013	Wed	17:20	5 km	E	HUME HWY	2WY	STR	Fine	Dry	100	2	SEM	M59	E in PICTON RD	95	Incorrect side	I	0	1			
E53490565							RUM:	20	Head on				CAR F57 W in PICTON RD				100 Proceeding in lane						
Southern Region			Wollondilly LGA				Wilton				Picton Rd												
1041992 P	29/08/2014	Fri	14:30	6.7 km	E	HUME HWY	2WY	CRV	Overcast	Dry	100	1	TRK	M37	W in PICTON RD	70	Proceeding in lane	N	0	0	S		
E55296224							RUM:	80	Off left/right bend														
Southern Region			Wollondilly LGA				Cataract				Picton Rd												
1091878 P	07/02/2016	Sun	14:40	10 km	E	HUME HWY	2WY	STR	Fine	Dry	100	3	TRK	M47	W in PICTON RD	90	Pull out opposite	F	1	3			
E60725849							RUM:	50	Head on (overtake)				4WD F45 E in PICTON RD				100 Proceeding in lane						
													4WD M75 W in PICTON RD				100 Proceeding in lane						
Southern Region			Wollondilly LGA				Wilton				Picton Rd												
1075282 P	01/07/2015	Wed	15:59			at JANDERRA LANE	TJN	STR	Fine	Dry	80	3	UTE	M67	E in PICTON RD	75	Proceeding in lane	I	0	5			
E60581289							RUM:	30	Rear end				CAR M29 E in PICTON RD				0 Stationary						
													CAR F23 E in PICTON RD				0 Wait turn right						
Southern Region			Wollondilly LGA				Wilton				Picton Rd												
1078155 S	10/08/2015	Mon	16:55			at JANDERRA LANE	TJN	STR	Fine	Wet	80	2	TRK	F34	E in PICTON RD	Unk	Other forward	N	0	0			
E213345096							RUM:	39	Other same direction				CAR F19 E in PICTON RD				Unk Proceeding in lane						
Southern Region			Wollondilly LGA				Wilton				Picton Rd												
1089878 P	26/11/2015	Thu	15:45			at JANDERRA LANE	TJN	STR	Fine	Dry	80	3	CAR	M20	E in PICTON RD	100	Proceeding in lane	I	0	1	S		
E61370380							RUM:	30	Rear end				TRK M75 E in PICTON RD				0 Stationary						
													CAR M53 E in PICTON RD				0 Wait turn right						
Southern Region			Wollondilly LGA				Wilton				Picton Rd												
1090022 S	04/01/2016	Mon	17:20			at JANDERRA LANE	TJN	STR	Raining	Wet	80	2	OMV	M U	E in PICTON RD	Unk	Other forward	N	0	0			
E60867953							RUM:	29	Other opposing				TRK M29 W in PICTON RD				Unk Proceeding in lane						
Southern Region			Wollondilly LGA				Wilton				Picton Rd												
1039111 P	05/09/2014	Fri	13:55	3.8 km	E	MACARTHUR DR	2WY	CRV	Overcast	Dry	100	2	CAR	M18	E in PICTON RD	100	Incorrect side	F	2	1			
E56229243							RUM:	20	Head on				CAR F66 W in PICTON RD				100 Proceeding in lane						

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors
S F																					
Southern Region						Wollondilly LGA						Wilton						Picton Rd			
1079260 P	15/09/2015	Tue	19:25	430 m	S	MACARTHUR DR	2WY	CRV	Fine	Dry	100	2	4WD	M35	N in PICTON RD	100	Incorrect side	F	1	2	
E58606917							RUM:	20	Head on				CAR	F64	S in PICTON RD	100	Proceeding in lane				
Southern Region						Wollondilly LGA						Wilton						Picton Rd			
1005807 P	30/12/2013	Mon	04:00	1 km	S	MACARTHUR DR	2WY	CRV	Fine	Dry	100	1	WAG	F40	S in PICTON RD	100	Proceeding in lane	N	0	0	
E258765693							RUM:	67	Struck animal				Wombat								
Southern Region						Wollondilly LGA						Wilton						Picton Rd			
824305 P	19/01/2013	Sat	16:40	3 km	S	MACARTHUR DR	2WY	STR	Overcast	Wet	90	2	WAG	M53	N in PICTON RD	40	Proceeding in lane	N	0	0	
E52958481							RUM:	30	Rear end				VAN	M65	N in PICTON RD	30	Proceeding in lane				
Southern Region						Wollondilly LGA						Cataract						Picton Rd			
1096723 P	18/01/2016	Mon	07:30	5 km	S	MACARTHUR DR	2WY	STR	Fine	Dry	100	2	TRK	M65	N in PICTON RD	80	Proceeding in lane	I	0	2	
E60403431							RUM:	30	Rear end				4WD	F43	N in PICTON RD	Unk	Proceeding in lane				
Southern Region						Wollondilly LGA						Wilton						Picton Rd			
762314 P	26/07/2011	Tue	19:15	3.85 km	E	MACARTHUR RD	2WY	CRV	Fine	Dry	90	1	CAR	M19	W in PICTON RD	90	Proceeding in lane	N	0	0	S
E187401794							RUM:	84	Off right/left bend												
Southern Region						Wollondilly LGA						Cataract						Picton Rd			
1051900 P	31/08/2014	Sun	00:30	4 km	E	MACARTHUR RD	2WY	CRV	Fine	Dry	80	1	TRK	M23	E in PICTON RD	80	Proceeding in lane	I	0	1	S F
E56204642							RUM:	83	Off rt/rt bnd=>obj				Tree/bush								
Southern Region						Wollondilly LGA						Wilton						Picton Rd			
783327 P	03/02/2012	Fri	06:30	100 m	N	MACARTHUR RD	2WY	CRV	Raining	Wet	100	1	WAG	F25	S in PICTON RD	90	Proceeding in lane	N	0	0	F
E47432043							RUM:	87	Off lft/lft bnd=>obj				Tree/bush								
Southern Region						Wollondilly LGA						Wilton						Picton Rd			
777779 P	10/12/2011	Sat	17:45	500 m	N	MACARTHUR RD	2WY	CRV	Fine	Dry	100	1	UTE	M26	S in PICTON RD	90	Proceeding in lane	N	0	0	F
E46423976							RUM:	83	Off rt/rt bnd=>obj				Tree/bush								
Southern Region						Wollondilly LGA						Wilton						Picton Rd			
1018401 P	17/02/2014	Mon	10:55	2 km	S	MACARTHUR RD	2WY	CRV	Raining	Wet	100	1	TRK	M35	N in PICTON RD	95	Proceeding in lane	N	0	0	S
E53451715							RUM:	81	Off left/rt bnd=>obj				Tree/bush								
Southern Region						Wollongong LGA						Cataract						Picton Rd			
1039199 P	26/08/2014	Tue	06:00			at MOUNT KEIRA RD	TJN	CRV	Raining	Wet	80	1	UTE	M35	W in PICTON RD	95	Proceeding in lane	N	0	0	S
E55387606							RUM:	83	Off rt/rt bnd=>obj				S/Barrier - Wrope/brifen								

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors
S F																					
Southern Region			Wollongong LGA			Cataract			Picton Rd												
1095711 P	10/03/2016	Thu	15:50		at	MOUNT KEIRA RD	TJN	CRV	Overcast	Dry	100	2	CAR	M76	N in MOUNT KEIRA RD	10	Turning right	I	0	1	
E301603893							RUM:	13	Right near				CAR	M39	W in PICTON RD	100	Proceeding in lane				
Southern Region			Wollongong LGA			Cataract			Picton Rd												
1098047 P	05/04/2016	Tue	17:15		at	MOUNT KEIRA RD	TJN	CRV	Fine	Dry	80	2	M/C	M20	N in MOUNT KEIRA RD	15	Turning right	I	0	1	S
E364343492							RUM:	13	Right near				CAR	M25	W in PICTON RD	90	Proceeding in lane				
Southern Region			Wollongong LGA			Cataract			Picton Rd												
1029959 P	20/06/2014	Fri	09:55	500 m	E	MOUNT KEIRA RD	2WY	STR	Fine	Dry	100	3	LOR	M74	W in PICTON RD	80	Proceeding in lane	I	0	1	
E53970060							RUM:	30	Rear end				SEM	M37	W in PICTON RD	50	Proceeding in lane				
													SEM	M41	E in PICTON RD	80	Proceeding in lane				
Southern Region			Wollongong LGA			Cataract			Picton Rd												
1011108 P	15/02/2014	Sat	17:00	1 km	E	MOUNT KEIRA RD	2WY	CRV	Fine	Dry	100	3	TRK	M34	E in PICTON RD	80	Proceeding in lane	N	0	0	S
E53403870							RUM:	87	Off lft/lft bnd=>obj				CAR	F49	E in PICTON RD	0	Stationary				
													CAR	M48	E in PICTON RD	0	Stationary				
													S/Barrier - Guardrail								
Southern Region			Wollongong LGA			Cataract			Picton Rd												
1101793 P	04/05/2016	Wed	09:01	1.8 km	E	MOUNT KEIRA RD	2WY	STR	Fine	Dry	100	3	SEM	M22	E in PICTON RD	60	Cutting back	N	0	0	
E60959304							RUM:	54	Cutting in				SEM	M29	E in PICTON RD	25	Proceeding in lane				
													OMV	U U	W in PICTON RD	Unk	Proceeding in lane				
Southern Region			Wollongong LGA			Cataract			Picton Rd												
1090903 S	22/12/2015	Tue	18:30	2 km	E	MOUNT KEIRA RD	DIV	CRV	Raining	Wet	100	1	4WD	M28	W in PICTON RD	Unk	Proceeding in lane	I	0	1	S
E59497117							RUM:	83	Off rt/rt bnd=>obj				S/Barrier - Concr/Jersey								
Southern Region			Wollongong LGA			Cordeaux			Picton Rd												
1083882 S	04/11/2015	Wed	10:10	1 km	N	MOUNT KEIRA RD	DIV	STR	Raining	Wet	100	1	TRK	M27	N in PICTON RD	Unk	Proceeding in lane	N	0	0	
E58143510							RUM:	71	Off rd left => obj				S/Barrier - Guardrail								
Southern Region			Wollongong LGA			Cataract			Picton Rd												
1014166 P	05/03/2014	Wed	15:20	2 km	N	MOUNT KEIRA RD	DIV	CRV	Raining	Wet	100	1	TRK	M34	N in PICTON RD	70	Proceeding in lane	N	0	0	S
E53886636							RUM:	87	Off lft/lft bnd=>obj				S/Barrier - Guardrail								
Southern Region			Wollongong LGA			Cataract			Picton Rd												
1016917 P	25/03/2014	Tue	03:00	2 km	N	MOUNT KEIRA RD	DIV	STR	Raining	Wet	80	1	CAR	F22	N in PICTON RD	70	Proceeding in lane	N	0	0	
E189736197							RUM:	71	Off rd left => obj				Embankment								

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
																						S F
Southern Region Wollongong LGA						Cataract						Picton Rd										
1019083 P	04/04/2014	Fri	14:22	2 km	N	MOUNT KEIRA RD	DIV	CRV	Raining	Wet	100	1	UTE	M24	W in PICTON RD	104	Proceeding in lane	I	0	1	S	
E190634697						RUM:	87	Off lft/lft bnd=>obj						S/Barrier - Guardrail								
Southern Region Wollongong LGA						Cordeaux						Picton Rd										
1006374 P	15/10/2013	Tue	14:55	3.3 km	N	MOUNT KEIRA RD	DIV	CRV	Fine	Dry	100	1	UTE	M21	S in PICTON RD	Unk	Proceeding in lane	I	0	1		
E781101190						RUM:	85	Off rt/lft bnd=>obj						S/Barrier - Concr/Jersey								
Southern Region Wollongong LGA						Cordeaux						Picton Rd										
1017131 P	22/03/2014	Sat	17:20	4 km	N	MOUNT KEIRA RD	DIV	CRV	Raining	Wet	100	1	CAR	F22	N in PICTON RD	50	Proceeding in lane	I	0	3	S	
E54036114						RUM:	85	Off rt/lft bnd=>obj						S/Barrier - Concr/Jersey								
Southern Region Wollongong LGA						Cordeaux						Picton Rd										
1017571 P	07/03/2014	Fri	15:40	5 km	N	MOUNT KEIRA RD	DIV	CRV	Raining	Wet	100	1	CAR	F41	N in PICTON RD	90	Proceeding in lane	I	0	3	S	
E54228107						RUM:	85	Off rt/lft bnd=>obj						S/Barrier - Concr/Jersey								
Southern Region Wollongong LGA						Cordeaux						Picton Rd										
1054481 S	28/10/2014	Tue	05:15	5 km	N	MOUNT KEIRA RD	DIV	CRV	Fine	Dry	100	1	WAG	M47	N in PICTON RD	Unk	Proceeding in lane	N	0	0	S	
E56291526						RUM:	85	Off rt/lft bnd=>obj						S/Barrier - Concr/Jersey								
Southern Region Wollongong LGA						Cordeaux						Picton Rd										
1042402 P	24/09/2014	Wed	09:38	125 m	W	MOUNT KEIRA RD	DIV	CRV	Fine	Dry	100	1	SEM	M59	E in PICTON RD	100	Proceeding in lane	N	0	0	F	
E55504624						RUM:	85	Off rt/lft bnd=>obj						S/Barrier - Concr/Jersey								
Southern Region Wollongong LGA						Cordeaux						Picton Rd										
1039031 P	03/08/2014	Sun	04:25	150 m	W	MOUNT KEIRA RD	DIV	STR	Fine	Dry	100	1	CAR	F18	W in PICTON RD	80	Proceeding in lane	N	0	0	F	
E106942901						RUM:	73	Off rd rght => obj						S/Barrier - Concr/Jersey								
Southern Region Wollongong LGA						Cordeaux						Picton Rd										
1025109 P	12/05/2014	Mon	07:30	500 m	W	MOUNT KEIRA RD	DIV	STR	Fine	Dry	100	1	CAR	M23	W in PICTON RD	90	Proceeding in lane	N	0	0		
E54271525						RUM:	66	Object on road						Other non fixed object								
Southern Region Wollongong LGA						Cataract						Picton Rd										
1101320 P	25/04/2016	Mon	21:48	1 km	W	MOUNT KEIRA RD	2WY	CRV	Fine	Dry	100	1	TRK	M24	W in PICTON RD	100	Proceeding in lane	N	0	0		
E61507328						RUM:	81	Off left/rt bnd=>obj						S/Barrier - Guardrail								
Southern Region Wollongong LGA						Cordeaux						Picton Rd										
1043196 P	02/09/2014	Tue	22:20	1.7 km	W	MOUNT KEIRA RD	DIV	CRV	Raining	Wet	100	1	WAG	M47	W in PICTON RD	100	Proceeding in lane	N	0	0	S	
E56168029						RUM:	87	Off lft/lft bnd=>obj						S/Barrier - Guardrail								

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors
S F																					
Southern Region			Wollongong LGA				Cataract				Picton Rd						90 Proceeding in lane	N	0	0	S
1039747 P	17/08/2014	Sun	12:40	2 km W	MOUNT KEIRA RD	DIV	CRV	Raining	Wet	90	1	TRK	M56	W in PICTON RD							
E55814266						RUM:	87	Off lft/lft bnd=>obj					S/Barrier - Guardrail								
Southern Region			Wollongong LGA				Cordeaux				Picton Rd						90 Proceeding in lane	I	0	1	
1074781 P	17/07/2015	Fri	06:30	2.95 km W	MOUNT KEIRA RD	DIV	STR	Raining	Wet	100	1	UTE	M20	W in PICTON RD							
E58187905						RUM:	71	Off rd left => obj					Embankment								
Southern Region			Wollongong LGA				Cordeaux				Picton Rd						100 Proceeding in lane	I	0	1	S
1085303 P	12/11/2015	Thu	15:00	3 km W	MOUNT KEIRA RD	DIV	CRV	Raining	Wet	100	1	CAR	M41	E in PICTON RD							
E59654948						RUM:	81	Off left/rt bnd=>obj					S/Barrier - Concr/Jersey								
Southern Region			Wollongong LGA				Cordeaux				Picton Rd						90 Proceeding in lane	I	0	1	
1093977 P	16/01/2016	Sat	10:30	3 km W	MOUNT KEIRA RD	DIV	STR	Raining	Wet	90	1	WAG	M30	W in PICTON RD							
E59441970						RUM:	71	Off rd left => obj					S/Barrier - Guardrail								
Southern Region			Wollongong LGA				Cataract Creek				Picton Rd						80 Proceeding in lane	N	0	0	
775668 P	22/11/2011	Tue	08:30	270 m W	MOUNT OUSLEY R OP	2WY	STR	Overcast	Dry	80	1	CAR	F32	E in PICTON RD							
E47107365						RUM:	73	Off rd rght => obj					Signpost								
Southern Region			Wollongong LGA				Cataract				Picton Rd						60 Proceeding in lane 0 Stationary	N	0	0	
1037416 P	19/08/2014	Tue	08:00	300 m W	MOUNT OUSLEY RD	2WY	STR	Raining	Wet	80	2	CAR	M22	E in PICTON RD							
E56105142						RUM:	30	Rear end					CAR M19 E in PICTON RD								
Southern Region			Wollongong LGA				Cataract				Picton Rd						Unk Proceeding in lane 60 Proceeding in lane	I	0	1	S
1075894 P	16/07/2015	Thu	20:27	300 m W	MOUNT OUSLEY ROAD OP	DIV	CRV	Raining	Wet	80	2	TRK	M18	W in PICTON RD							
E60362887						RUM:	87	Off lft/lft bnd=>obj					4WD M45 E in PICTON RD								
													Other non fixed object								
													S/Barrier - Guardrail								
Southern Region			Wollongong LGA				Cataract				Picton Rd						70 Veering right 70 Proceeding in lane	I	0	1	
1013201 P	15/02/2014	Sat	16:00	380 m W	MOUNT OUSLEY ROAD OP	2WY	CRV	Raining	Wet	80	2	WAG	M27	W in PICTON RD							
E191818396						RUM:	34	Lane change right					4WD M73 W in PICTON RD								
Southern Region			Wollongong LGA				Cataract Creek				Picton Rd						10 Turning right 60 Proceeding in lane	I	0	1	
760447 P	14/07/2011	Thu	05:25		at MT KEIRA RD	TJN	CRV	Fine	Dry	60	2	CAR	M22	N in MT KEIRA RD							
E45317931						RUM:	11	Right far					LOR M37 E in PICTON RD								

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors
Southern Region Wollongong LGA Cataract Creek Picton Rd																					
808340 P	20/08/2012	Mon	16:00		at MT KEIRA RD		TJN	STR	Fine	Dry	90	1	WAG	M28	W in PICTON RD	90	Proceeding in lane	N	0	0	
E49421874							RUM:	69	Other on path						Falling object						
Southern Region Wollongong LGA Cataract Creek Picton Rd																					
839816 P	03/03/2013	Sun	17:00		100 m E MT KEIRA RD		2WY	CRV	Fine	Dry	90	2	CAR	M46	E in PICTON RD	80	Incorrect side	N	0	0	
E50030430							RUM:	20	Head on						VAN M49 W in PICTON RD	90	Proceeding in lane				
Southern Region Wollongong LGA Cataract Creek Picton Rd																					
855237 P	18/09/2013	Wed	11:00		5.3 km E MT KEIRA RD		2WY	CRV	Fine	Dry	100	2	CAR	M51	E in PICTON RD	100	Proceeding in lane	I	0	3	
E52945049							RUM:	30	Rear end						OMV M33 E in PICTON RD	100	Proceeding in lane				
Southern Region Wollongong LGA Cordeaux Dam Picton Rd																					
843909 P	03/07/2013	Wed	08:00		1 km N MT KEIRA RD		2WY	STR	Fine	Dry	90	2	OMV	U U	PICTON RD	Unk	Proceeding in lane	N	0	0	
E53853185							RUM:	62	Accident						CAR N in PICTON RD	0	Broken down				
Southern Region Wollongong LGA Cordeaux Dam Picton Rd																					
817819 P	14/11/2012	Wed	16:50		2.8 km N MT KEIRA RD		2WY	CRV	Fine	Dry	80	3	TRK	M51	S in PICTON RD	70	Incorrect side	I	0	1	
E49906919							RUM:	20	Head on						BDBL M49 N in PICTON RD	70	Proceeding in lane				
															CAR M49 S in PICTON RD	70	Proceeding in lane				
Southern Region Wollongong LGA Cataract Creek Picton Rd																					
831329 P	05/12/2012	Wed	15:30		5 km N MT KEIRA RD		2WY	STR	Fine	Dry	40	1	M/C	M27	S in PICTON RD	40	Proceeding in lane	I	0	1	
E51265316							RUM:	74	On road-out of cont.												
Southern Region Wollongong LGA Cordeaux Dam Picton Rd																					
814071 P	04/10/2012	Thu	15:45		50 m W MT KEIRA RD		DIV	CRV	Fine	Dry	90	1	CAR	M20	E in PICTON RD	80	Proceeding in lane	N	0	0	F
E51360689							RUM:	85	Off rt/lft bnd=>obj						Fence (prior to 2014)						
Southern Region Wollongong LGA Cordeaux Dam Picton Rd																					
792146 P	23/03/2012	Fri	16:47		3 km W MT KEIRA RD		2WY	CRV	Fine	Dry	90	1	CAR	F18	W in PICTON RD	90	Veering left	I	0	1	S
E47764458							RUM:	87	Off lft/lft bnd=>obj						Embankment						
Southern Region Wollongong LGA Cataract Creek Picton Rd																					
835649 P	29/04/2013	Mon	14:45		9 km W MT KIERA RD		2WY	CRV	Fine	Dry	90	1	CAR	F18	W in PICTON RD	85	Proceeding in lane	N	0	0	S
E50762509							RUM:	86	Off left/left bend												
Southern Region Wollongong LGA Mt Ousley Picton Rd																					
820688 P	06/10/2012	Sat	13:15		15 m W MT OUSLEY RD		OTH	CRV	Raining	Wet	100	1	CAR	M63	W in PICTON RD	60	Proceeding in lane	N	0	0	S
E51082187							RUM:	85	Off rt/lft bnd=>obj						Signpost						

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
																						S F
Southern Region			Wollongong LGA				Cataract Creek				Picton Rd											
767438 P	02/09/2011	Fri	14:45	325 m	W	MT OUSLEY RD	OTH	STR	Fine	Dry	80	1	CAR	F66	W in PICTON RD	80	Proceeding in lane	N	0	0	F	
E47717584																						
Southern Region			Wollongong LGA				Cataract Creek				Picton Rd											
769714 P	21/09/2011	Wed	13:00	400 m	W	MT OUSLEY RD	2WY	STR	Fine	Dry	90	2	CAR	M69	E in PICTON RD	90	Proceeding in lane	N	0	0		
E46321163																						
Southern Region			Wollongong LGA				Cataract Creek				Picton Rd											
855272 P	30/09/2013	Mon	15:55	470 m	W	MT OUSLEY RD	OTH	CRV	Fine	Dry	80	2	CAR	F17	W in PICTON RD	70	Perform U-turn	N	0	0		
E52134509																						
Southern Region			Wollongong LGA				Cataract Creek				Picton Rd											
811546 P	27/08/2012	Mon	05:35	500 m	W	MT OUSLEY RD	2WY	CRV	Fine	Dry	80	2	TRK	M43	W in PICTON RD	80	Proceeding in lane	I	0	1		
E49009557																						
Southern Region			Wollongong LGA				Cataract Creek				Picton Rd											
811650 P	14/09/2012	Fri	15:10	800 m	W	MT OUSLEY RD	2WY	CRV	Fine	Dry	90	2	SEM	M37	W in PICTON RD	45	Veering right	N	0	0	S	
E170635196																						
Southern Region			Wollongong LGA				Cataract Creek				Picton Rd											
800287 P	18/05/2012	Fri	11:00	500 m	W	MT OUSLEY ROAD OP	2WY	CRV	Fine	Dry	80	2	UTE	M34	W in PICTON RD	5	Pulling out	N	0	0		
E47833433																						
Southern Region			Wollongong LGA				Cataract Creek				Picton Rd											
788348 P	19/02/2012	Sun	21:00	580 m	W	MT OUSLEY ROAD OP	DIV	CRV	Raining	Wet	80	1	CAR	M22	E in PICTON RD	60	Proceeding in lane	N	0	0	S	
E46892623																						
Southern Region			Wollongong LGA				Cordeaux Dam				Picton Rd											
772770 P	15/09/2011	Thu	16:40	1 km	S	NO 4 SHAFT ENT	2WY	STR	Fine	Dry	90	2	CAR	F30	S in PICTON RD	80	Proceeding in lane	N	0	0		
E46061868																						
Southern Region			Wollongong LGA				Cordeaux				Picton Rd											
1058786 P	24/11/2014	Mon	15:45	300 m	E	NUMBER 1 COLLIERY NUMI	DIV	CRV	Raining	Wet	100	1	LOR	M34	S in PICTON RD	75	Veering left	N	0	0	S	
E55527830																						
Southern Region			Wollongong LGA				Cordeaux Dam				Picton Rd											
826172 P	24/01/2013	Thu	14:30	500 m	S	NUMBER 4 SHAFT GTE	DIV	CRV	Fine	Dry	60	1	TRK	M35	S in PICTON RD	90	Pulling out	N	0	0	S	
E51239939																						

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
S F																						
Southern Region			Wollondilly LGA				Wilton				Picton Rd											
1037151 P	16/06/2014	Mon	16:47		at	NUMBER 990 HN	2WY	CRV	Fine	Dry	80	3	CAR	M26	E in PICTON RD	100	Proceeding in lane	I	0	1	S	
E54828822						RUM:	32	Right rear				CAR	M21	E in PICTON RD	0	Wait turn right						
												CAR	M53	W in PICTON RD	80	Proceeding in lane						
						Southern Region			Wollondilly LGA				Wilton				Picton Rd					
1001426 P	15/10/2013	Tue	16:40		at	PEMBROKE PDE	TJN	STR	Fine	Dry	100	2	CAR	M46	W in PICTON RD	10	Turning right	N	0	0		
E53089631						RUM:	14	2 right turning				CAR	F22	S in PEMBROKE PDE	5	Turning right						
						Southern Region			Wollondilly LGA				Wilton									
1068426 S	22/05/2015	Fri	08:20		at	PEMBROKE PDE	TJN	STR	Raining	Wet	80	2	CAR	F22	W in PICTON RD	Unk	Turning right	I	0	2		
E58083576						RUM:	36	Right turn sideswipe				CAR	M22	W in PICTON RD	Unk	Turning right						
						Southern Region			Wollondilly LGA				Wilton									
1096653 S	08/03/2016	Tue	08:40	100 m	E	PEMBROKE PDE	DIV	STR	Fine	Dry	80	2	CAR	F18	E in PICTON RD	Unk	Proceeding in lane	I	0	1		
E59698620						RUM:	30	Rear end				WAG	M51	E in PICTON RD	0	Stationary						
						Southern Region			Wollondilly LGA				Wilton									
1018138 P	27/02/2014	Thu	14:30	400 m	E	PEMBROKE PDE	2WY	CRV	Overcast	Dry	100	1	LOR	M42	W in PICTON RD	95	Proceeding in lane	I	0	1	F	
E53965813						RUM:	85	Off rt/lft bnd=>obj				Tree/bush										
						Southern Region			Wollondilly LGA				Wilton								Picton Rd	
1078941 S	04/09/2015	Fri	16:35	50 m	W	PEMBROKE PDE	DIV	STR	Fine	Dry	80	3	TRK	M18	E in PICTON RD	Unk	Proceeding in lane	N	0	0		
E58992321						RUM:	30	Rear end				CAR	F54	E in PICTON RD	0	Stationary						
												TRK	M20	E in PICTON RD	0	Stationary						
						Southern Region			Wollongong LGA				Cataract				Picton Rd					
1022927 P	10/05/2014	Sat	10:50		at	PICTON RD	TJN	CRV	Fine	Dry	80	1	4WD	M20	W in PICTON RD	60	Turning right	N	0	0	S	
E54972066						RUM:	81	Off left/rt bnd=>obj				Signpost										
						Southern Region			Wollondilly LGA				Wilton								Almond St	
775564 P	12/11/2011	Sat	07:25	10 m	E	PICTON RD	XJN	STR	Fine	Dry	80	1	SEM	M51	S in PICTON RD	Unk	Proceeding in lane	N	0	0	F	
E48034987						RUM:	71	Off rd left => obj				Signpost										
						Southern Region			Wollondilly LGA				Wilton								Hume Hwy	
1042253 P	05/06/2014	Thu	15:00	15 m	S	PICTON RD	OTH	CRV	Raining	Wet	80	1	TRK	M50	S in HUME HWY	60	Proceeding in lane	N	0	0	S	
E105995301						RUM:	87	Off lft/lft bnd=>obj				S/Barrier - Guardrail										

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors		
																						S F	
Southern Region						Wollondilly LGA						Wilton						Hume Hwy					
762204 P	22/07/2011	Fri	20:17	40 m	S	PICTON RD	OTH	CRV	Raining	Wet	80	1	CAR	M26	S in HUME HWY	30	Proceeding in lane	N	0	0	S		
E47028085							RUM:	81	Off left/rt bnd=>obj				Fence (prior to 2014)										
Southern Region						Wollondilly LGA						Wilton						Hume Hwy					
808088 P	11/06/2012	Mon	14:00	50 m	S	PICTON RD	OTH	CRV	Raining	Wet	80	1	CAR	M17	S in HUME HWY	50	Proceeding in lane	N	0	0	S		
E48358757							RUM:	87	Off lft/lft bnd=>obj				Fence (prior to 2014)										
Southern Region						Wollongong LGA						Cataract Creek						Mt Ousley Rd					
802391 P	15/06/2012	Fri	08:00	270 m	S	PICTON RD	OTH	CRV	Fine	Dry	80	1	TRK	M23	S in MT OUSLEY RD	70	Proceeding in lane	N	0	0	S		
E159802397							RUM:	87	Off lft/lft bnd=>obj				Drain/culvert										
Southern Region						Wollondilly LGA						Wilton						Hume Hwy					
1057846 S	08/02/2015	Sun	21:00	at PICTON ROAD OP			D F	STR	Overcast	Dry	110	1	WAG	F43	N in HUME HWY	Unk	Proceeding in lane	N	0	0			
E204023497							RUM:	72	Off road to right														
Southern Region						Wollondilly LGA						Wilton						Hume Hwy					
1075249 S	05/08/2015	Wed	07:25	at PICTON ROAD OP			D F	STR	Fine	Dry	110	2	CAR	M39	S in HUME HWY	Unk	Proceeding in lane	N	0	0			
E58620007							RUM:	30	Rear end				TRK M24 S in HUME HWY										
Report Totals:			Total Crashes: 140			Fatal Crashes: 6			Injury Crashes: 59			Killed: 7			Injured: 92								

Crashid dataset Picton Rd

Crash self reporting, including self reported injuries began in Oct 2014. Trends from 2014 are expected to vary from previous years. More unknowns are expected in self reported data. For further information refer to Data Manual or report provider.

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors		
S F																							
Southern Region			Wollongong LGA				Mount Keira				Clive Bissell Dr												
1054227 S	20/10/2014	Mon	21:15	500 m	N	MOUNT KEIRA RD	2WY	CRV	Raining	Wet	60	1	CAR	M28	N in CLIVE BISSELL DR	Unk	Proceeding in lane	N	0	0	S		
E56701767							RUM:	81	Off left/rt bnd=>obj				Tree/bush										
Southern Region			Wollongong LGA				Mt Keira				Clive Bissell Dr												
766814 P	03/09/2011	Sat	03:30	1.06 km	S	MT OUSLEY RD	2WY	CRV	Fine	Dry	60	1	CAR	M22	S in CLIVE BISSELL DR	60	Proceeding in lane	N	0	0			
E45493572							RUM:	87	Off lft/lft bnd=>obj				Embankment										
Southern Region			Wollongong LGA				Mt Keira				Clive Bissell Dr												
827661 P	07/01/2013	Mon	22:15	2 km	S	MT OUSLEY RD	2WY	CRV	Overcast	Dry	60	1	TRK	M17	S in CLIVE BISSELL DR	60	Proceeding in lane	I	0	1	S		
E49821715							RUM:	85	Off rt/lft bnd=>obj				Tree/bush										
Report Totals:			Total Crashes: 3			Fatal Crashes: 0			Injury Crashes: 1			Killed: 0			Injured: 1								

Crashid dataset Clive Bissell Dr

Crash self reporting, including self reported injuries began in Oct 2014. Trends from 2014 are expected to vary from previous years. More unknowns are expected in self reported data. For further information refer to Data Manual or report provider.

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors
Southern Region Wollongong LGA Unanderra Cordeaux Rd																					
1041346 P	16/09/2014	Tue	13:05	5 m	E	AMAROO AVE	TJN	CRV	Fine	Dry	50	2	UTE	M31	W in CORDEAUX RD	50	Proceeding in lane	N	0	0	
E56044531							RUM:	32	Right rear				CAR	F19	W in CORDEAUX RD	0	Wait turn right				
Southern Region Wollongong LGA Figtree Cordeaux Rd																					
1020178 P	17/04/2014	Thu	12:00	50 m	W	AMAROO AVE	2WY	STR	Fine	Dry	50	2	CAR	F18	E in CORDEAUX RD	50	Proceeding in lane	N	0	0	
E55042742							RUM:	32	Right rear				CAR	F49	E in CORDEAUX RD	0	Wait turn right				
Southern Region Wollongong LGA Mt Kembla Cordeaux Rd																					
842323 P	21/06/2013	Fri	15:15	30 m	E	BENJAMIN RD	DIV	CRV	Fine	Dry	50	1	P/C	M20	E in CORDEAUX RD		Proceeding in lane	I	0	1	
E51937859							RUM:	88	Out of cont on bend												
Southern Region Wollongong LGA Mt Kembla Cordeaux Rd																					
845959 P	28/07/2013	Sun	08:45	75 m	W	BENJAMIN RD	2WY	STR	Fine	Dry	50	1	P/C	M20	E in CORDEAUX RD		Proceeding in lane	I	0	1	
E100635101							RUM:	74	On road-out of cont.												
Southern Region Wollongong LGA Cordeaux Heights Cordeaux Rd																					
1039221 P	05/07/2014	Sat	21:10	200 m	N	BOOREEA BVD	2WY	CRV	Fine	Dry	60	1	CAR	F19	W in CORDEAUX RD	80	Proceeding in lane	N	0	0	S
E55231707							RUM:	80	Off left/right bend												
Southern Region Wollongong LGA Cordeaux Heigh Cordeaux Rd																					
765492 P	27/08/2011	Sat	15:25	130 m	E	BOOREEA BVD	2WY	CRV	Fine	Dry	60	2	CAR	M19	W in CORDEAUX RD	65	Incorrect side	I	0	1	S
E211857793							RUM:	20	Head on				CAR	F48	E in CORDEAUX RD	50	Proceeding in lane				
Southern Region Wollongong LGA Mt Kembla Cordeaux Rd																					
762693 P	20/07/2011	Wed	12:40	290 m	N	BOOREEA BVD	2WY	CRV	Fine	Wet	50	1	CAR	M17	W in CORDEAUX RD	40	Proceeding in lane	N	0	0	S
E45303303							RUM:	87	Off lft/lft bnd=>obj					Drain/culvert							
Southern Region Wollongong LGA Figtree Cordeaux Rd																					
842392 P	23/06/2013	Sun	01:20	1 m	E	CENTRAL RD	TJN	STR	Raining	Wet	60	1	WAG	M20	W in CORDEAUX RD	40	Proceeding in lane	I	0	1	
E100583602							RUM:	71	Off rd left => obj					Signal pole							
Southern Region Wollongong LGA Unanderra Cordeaux Rd																					
842232 P	14/06/2013	Fri	20:30	5 m	E	CENTRAL RD	TJN	STR	Fine	Dry	50	2	TRK	M45	W in CORDEAUX RD	30	Proceeding in lane	I	0	1	
E444329991							RUM:	31	Left rear				CAR	M25	W in CORDEAUX RD	Unk	Turning left				
Southern Region Wollongong LGA Figtree Cordeaux Rd																					
769307 P	25/09/2011	Sun	12:45	80 m	W	CENTRAL RD	2WY	CRV	Raining	Wet	50	1	TRK	F17	W in CORDEAUX RD	50	Proceeding in lane	N	0	0	S
E45922646							RUM:	81	Off left/rt bnd=>obj					Fence (prior to 2014)							

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors			
																						S F		
Southern Region Wollongong LGA							Figtree							Cordeaux Rd										
1001539 P	10/11/2013	Sun	23:10	100 m	W	CENTRAL RD	2WY	CRV	Raining	Wet	50	1	CAR	M32	W in CORDEAUX RD	50	Proceeding in lane		N	0	0			
E53753867							RUM:	83	Off rt/rt bnd=>obj				Signpost											
Southern Region Wollongong LGA							Unanderra							Princes Hwy										
791344 P	13/04/2012	Fri	12:40			at CORDEAUX RD	RDB	STR	Fine	Dry	60	2	CAR	F17	S in PRINCES HWY	30	Turning right		N	0	0			
E47797838							RUM:	21	Right through				CAR F48 N in PRINCES HWY				50 Proceeding in lane							
Southern Region Wollongong LGA							Cordeaux Heigh							Booreea Bvd										
802401 P	21/06/2012	Thu	10:58			at CORDEAUX RD	TJN	STR	Fine	Dry	50	1	CAR	M41	E in BOOREEA BVD	20	Proceeding in lane		I	0	1			
E48046222							RUM:	75	Off end of road				Fence (prior to 2014)											
Southern Region Wollongong LGA							Unanderra							Princes Hwy										
824963 P	16/01/2013	Wed	10:05			at CORDEAUX RD	RDB	STR	Fine	Dry	60	1	CAR	F39	N in PRINCES HWY	60	Proceeding in lane		N	0	0	F		
E240651793							RUM:	73	Off rd rght => obj				Signpost											
Southern Region Wollongong LGA							Unanderra							Princes Hwy										
840981 P	07/06/2013	Fri	14:43			at CORDEAUX RD	RDB	CRV	Fine	Dry	60	3	SEM	M51	N in PRINCES HWY	5	Veering left		N	0	0			
E51261925							RUM:	35	Lane change left				UTE M28 N in PRINCES HWY CAR F U N in PRINCES HWY				0 Waiting turn left 0 Waiting turn left							
Southern Region Wollongong LGA							Cordeaux Heigh							Booreea Bvd										
853936 P	28/09/2013	Sat	07:15			at CORDEAUX RD	TJN	CRV	Fine	Dry	50	2	4WD	M49	E in BOOREEA BVD	10	Turning right		I	0	1			
E53225051							RUM:	13	Right near				P/C M38 N in CORDEAUX RD				Proceeding in lane							
Southern Region Wollongong LGA							Unanderra							Princes Hwy										
1005323 P	07/11/2013	Thu	16:45			at CORDEAUX RD	RDB	STR	Fine	Dry	60	3	4WD	U U W in CORDEAUX RD	10	Proceeding in lane		I	0	2				
E102410601							RUM:	10	Cross traffic				CAR M36 N in PRINCES HWY CAR M38 N in PRINCES HWY				Unk Proceeding in lane Unk Proceeding in lane							
Southern Region Wollongong LGA							Figtree							Princes Hwy										
1007844 P	17/11/2013	Sun	21:20			at CORDEAUX RD	RDB	STR	Raining	Wet	60	1	CAR	M72	S in PRINCES HWY	40	Proceeding in lane		I	0	1			
E53068047							RUM:	73	Off rd rght => obj				Traffic island etc											
Southern Region Wollongong LGA							Cordeaux Heights							Booreea Bvd										
1019483 P	04/04/2014	Fri	13:25			at CORDEAUX RD	TJN	CRV	Raining	Wet	60	2	CAR	M20	E in CORDEAUX RD	15	Turning right		N	0	0			
E54586019							RUM:	21	Right through				CAR F30 W in CORDEAUX RD				50 Proceeding in lane							

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors
Southern Region Wollongong LGA Unanderra Princes Hwy																					
1030101 P	29/05/2014	Thu	14:35		at	CORDEAUX RD	RDB	STR	Fine	Dry	60	1	M/C	F19	N in PRINCES HWY	10	Proceeding in lane	I	0	1	
E57203084							RUM:	74		On road-out of cont.											
Southern Region Wollongong LGA Figtree Central Rd																					
1027719 P	29/05/2014	Thu	23:10		at	CORDEAUX RD	TJN	STR	Fine	Dry	50	2	WAG	M34	N in CENTRAL RD	45	Proceeding in lane	I	0	1	
E55360829							RUM:	30		Rear end			CAR	M22	N in CENTRAL RD	0	Stationary				
Southern Region Wollongong LGA Cordeaux Heights Booreea Bvd																					
1054860 S	20/10/2014	Mon	07:45		at	CORDEAUX RD	TJN	CRV	Fine	Dry	60	2	TRK	M19	E in CORDEAUX RD	Unk	Proceeding in lane	I	0	2	
E109191602							RUM:	30		Rear end			CAR	F53	E in CORDEAUX RD	0	Stationary				
Southern Region Wollongong LGA Figtree Princes Hwy																					
1070552 S	03/06/2015	Wed	16:30		at	CORDEAUX RD	RDB	STR	Fine	Dry	60	2	CAR	F17	S in PRINCES HWY	Unk	Proceeding in lane	I	0	1	
E59017341							RUM:	30		Rear end			CAR	F51	S in PRINCES HWY	0	Stationary				
Southern Region Wollongong LGA Figtree Central Rd																					
1096155 P	10/02/2016	Wed	05:30		at	CORDEAUX RD	TJN	STR	Fine	Dry	50	2	CAR	M19	N in CENTRAL RD	15	Turning right	I	0	1	S
E60407376							RUM:	13		Right near			WAG	M33	W in CORDEAUX RD	60	Proceeding in lane				
Southern Region Wollongong LGA Figtree Princes Hwy																					
1099243 P	13/04/2016	Wed	15:30		at	CORDEAUX RD	RDB	STR	Fine	Dry	60	2	CAR	M35	S in PRINCES HWY	10	Turning right	N	0	0	S
E60772004							RUM:	21		Right through			WAG	M U	N in PRINCES HWY	900	Proceeding in lane				
Southern Region Wollongong LGA Figtree Princes Hwy																					
1105265 S	19/05/2016	Thu	14:20		at	CORDEAUX RD	RDB	STR	Fine	Dry	60	2	CAR	F36	E in CORDEAUX RD	Unk	Proceeding in lane	N	0	0	
E119300102							RUM:	32		Right rear			CAR	F63	E in CORDEAUX RD	Unk	Turning right				
Southern Region Wollongong LGA Mt Kembla Araluen Ave																					
838939 P	03/05/2013	Fri	21:30		5 m S	CORDEAUX RD	TJN	STR	Fine	Dry	60	1	4WD	M18	E in CORDEAUX RD	65	Turning right	N	0	0	S
E51206605							RUM:	81		Off left/rt bnd=>obj			Tree/bush								
Southern Region Wollongong LGA Figtree Cordeaux Rd																					
1043554 P	23/08/2014	Sat	09:00		at	GIBSONS RD	TJN	STR	Fine	Dry	50	2	CAR	M56	S in GIBSONS RD	10	Turning right	N	0	0	
E56096829							RUM:	13		Right near			CAR	M32	E in CORDEAUX RD	50	Proceeding in lane				
Southern Region Wollongong LGA Figtree Cordeaux Rd																					
1081379 P	30/08/2015	Sun	02:30		at	GIBSONS RD	TJN	STR	Fine	Dry	50	1	4WD	F21	S in GIBSONS RD	60	Proceeding in lane	N	0	0	S
E58941376							RUM:	75		Off end of road			Signpost								

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
																						S F
Southern Region		Wollongong LGA					Kembla Heights					Cordeaux Rd										
1023476 P	08/04/2014	Tue	23:13	110 m	E	HARRY GRAHAM DR	2WY	CRV	Unk	Dry	60	1	CAR	U U	E in CORDEAUX RD	50	Proceeding in lane	N	0	0	S	
E54796358		RUM: 83 Off rt/rt bnd=>obj Utility pole																				
Southern Region		Wollongong LGA					Mt Kembla					Cordeaux Rd										
779871 P	30/11/2011	Wed	22:30	150 m	E	HARRY GRAHAM DR	2WY	CRV	Raining	Wet	50	1	TRK	M21	E in CORDEAUX RD	50	Proceeding in lane	I	0	1		
E46161036		RUM: 80 Off left/right bend																				
Southern Region		Wollongong LGA					Kembla Heights					Cordeaux Rd										
1110421 P	23/02/2016	Tue	18:30	100 m	W	HARRY GRAHAM DR	2WY	STR	Fine	Dry	60	1	CAR	M17	W in CORDEAUX RD	Unk	Proceeding in lane	I	0	1	F	
E61842957		RUM: 71 Off rd left => obj Tree/bush																				
Southern Region		Wollongong LGA					Unanderra					Cordeaux Rd										
841096 P	16/06/2013	Sun	09:30			at NUMBER 22A HN	2WY	CRV	Fine	Dry	50	2	CAR	M45	W in CORDEAUX RD	20	Turning right	N	0	0		
E51891657		RUM: 21 Right through CAR F64 E in CORDEAUX RD																				
Southern Region		Wollongong LGA					Mount Kembla					Cordeaux Rd										
1088975 S	20/12/2015	Sun	18:16			at NUMBER 295 HN	2WY	CRV	Fine	Dry	60	1	4WD	M61	W in CORDEAUX RD	Unk	Proceeding in lane	N	0	0	S	
E60839478		RUM: 81 Off left/rt bnd=>obj Tree/bush																				
Southern Region		Wollongong LGA					Unanderra					Cordeaux Rd										
1034977 P	25/07/2014	Fri	16:30	30 m	W	PRINCES HWY	2WY	STR	Fine	Dry	50	3	CAR	F79	E in CORDEAUX RD	10	Proceeding in lane	I	0	2		
E55136636		RUM: 30 Rear end CAR F47 E in CORDEAUX RD 4WD M45 E in CORDEAUX RD																				
Southern Region		Wollongong LGA					Unanderra					Cordeaux Rd										
789789 P	31/03/2012	Sat	21:30			at RACHEL CRES	TJN	CRV	Fine	Dry	50	2	VAN	M68	N in RACHEL CRES	5	Turning left	I	0	1		
E47196744		RUM: 16 Left near P/C M30 W in CORDEAUX RD																				
Southern Region		Wollongong LGA					Unanderra					Cordeaux Rd										
826815 P	07/12/2012	Fri	20:30			at RACHEL CRES	TJN	STR	Fine	Dry	40	2	CAR	M33	E in RACHEL CRES	10	Turning right	I	0	2	S	
E51765787		RUM: 11 Right far CAR M17 S in CORDEAUX RD																				
Southern Region		Wollongong LGA					Mt Kembla					Cordeaux Rd										
766526 P	06/08/2011	Sat	06:00	200 m	E	STONES RD	2WY	STR	Fine	Dry	60	1	M/C	M28	E in CORDEAUX RD	Unk	Proceeding in lane	I	0	1		
E45493007		RUM: 71 Off rd left => obj Utility pole																				
Southern Region		Wollongong LGA					Mount Kembla					Cordeaux Rd										
1063520 P	07/03/2015	Sat	16:55	200 m	E	STONES RD	2WY	STR	Fine	Dry	60	2	4WD	F52	W in CORDEAUX RD	Unk	Proceeding in lane	I	0	1		
E57353634		RUM: 30 Rear end WAG M30 W in CORDEAUX RD																				

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
S F																						
Southern Region			Wollongong LGA				Mount Kembla				Cordeaux Rd											
1015512 P	07/01/2014	Tue	09:00		UnkUnk	UNKNOWN UK	2WY	STR	Fine	Dry	60	1	P/C	M40	E in CORDEAUX RD		Proceeding in lane	I	0	1		
E53099660							RUM:	74	On road-out of cont.													
Southern Region			Wollongong LGA				Mount Kembla				Cordeaux Rd											
1100558 P	26/03/2016	Sat	05:40		100 m	E WILLIAM JAMES DR	2WY	CRV	Fine	Dry	60	1	P/C	M55	E in CORDEAUX RD		Proceeding in lane	I	0	1		
E60939345							RUM:	67	Struck animal Other large animal													
Southern Region			Wollongong LGA				Mount Kembla				Cordeaux Rd											
1092535 P	18/01/2016	Mon	15:00		400 m	E WILLIAM JAMES DR	2WY	STR	Fine	Dry	60	1	CAR	M58	E in CORDEAUX RD	40	Proceeding in lane	I	0	1		
E60512962							RUM:	73	Off rd rght => obj Fence													
Southern Region			Wollongong LGA				Mount Kembla				Cordeaux Rd											
1103271 P	18/05/2016	Wed	14:35		50 m	N WILLIAM JAMES DR	2WY	STR	Fine	Dry	60	1	CAR	M58	S in CORDEAUX RD	60	Proceeding in lane	N	0	0		
E61296656							RUM:	71	Off rd left => obj Roadwork equipment													
Southern Region			Wollongong LGA				Cordeaux Heigh				Cordeaux Rd											
844914 P	20/07/2013	Sat	21:20		100 m	N WILLIAM JAMES DR	2WY	CRV	Fine	Dry	60	2	CAR	F51	N in CORDEAUX RD	60	Proceeding in lane	I	0	1		
E52010512							RUM:	2	Ped far side PED M48 W in CORDEAUX RD													
Southern Region			Wollongong LGA				Cordeaux Heigh				Cordeaux Rd											
855397 P	14/10/2013	Mon	05:26		10 m	W WILLIAM JAMES DR	TJN	STR	Overcast	Dry	50	1	P/C	M39	E in CORDEAUX RD		Proceeding in lane	I	0	1		
E52888421							RUM:	67	Struck animal Other large animal													
Southern Region			Wollongong LGA				Mt Kembla				Cordeaux Rd											
831546 P	24/03/2013	Sun	23:10		480 m	W WILLIAM JAMES DR	2WY	STR	Fine	Dry	60	1	CAR	M18	W in CORDEAUX RD	60	Proceeding in lane	I	0	5		
E51800639							RUM:	71	Off rd left => obj Tree/bush													
Report Totals:			Total Crashes: 46				Fatal Crashes: 0				Injury Crashes: 27				Killed: 0				Injured: 35			

Crashid dataset Cordeaux Road

Crash self reporting, including self reported injuries began in Oct 2014. Trends from 2014 are expected to vary from previous years. More unknowns are expected in self reported data. For further information refer to Data Manual or report provider.

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
Southern Region Wollongong LGA Kembla Heights Harry Graham Dr																						
842415 P	25/06/2013	Tue	07:40		at AMERICA CK		2WY	STR	Raining	Wet	60	1	CAR	M80	N in HARRY GRAHAM DR	60	Proceeding in lane	I	0	1	F	
E52213173							RUM:	72	Off road to right													
Southern Region Wollongong LGA Cordeaux Dam Harry Graham Dr																						
807095 P	11/08/2012	Sat	18:30	1.635 km	S CLIVE BISSELL DR		2WY	CRV	Fine	Dry	60	1	CAR	M28	S in HARRY GRAHAM DR	70	Proceeding in lane	N	0	0	S	
E48794045							RUM:	85	Off rt/lft bnd=>obj Tree/bush													
Southern Region Wollongong LGA Kembla Heights Harry Graham Dr																						
1094681 P	28/02/2016	Sun	13:30	3 km	N CORDEAUX RD		2WY	CRV	Fine	Dry	60	1	M/C	F48	N in HARRY GRAHAM DR	40	Proceeding in lane	I	0	1	S	
E60184052							RUM:	66	Object on road Other non fixed object													
Southern Region Wollongong LGA Kembla Heights Harry Graham Dr																						
849642 P	23/08/2013	Fri	21:30	5 km	N CORDEAUX RD		2WY	CRV	Fine	Dry	60	1	CAR	M19	N in HARRY GRAHAM DR	60	Proceeding in lane	I	0	1		
E54817383							RUM:	87	Off lft/lft bnd=>obj Tree/bush													
Southern Region Wollongong LGA Mt Kembla Harry Graham Dr																						
785366 P	29/01/2012	Sun	17:00	690 m	E MOTORCYCLE TRA OT		2WY	CRV	Fine	Dry	60	1	M/C	M26	E in HARRY GRAHAM DR	20	Proceeding in lane	I	0	1	S	
E48940989							RUM:	81	Off left/rt bnd=>obj Fence (prior to 2014)													
Southern Region Wollongong LGA Mount Keira Harry Graham Dr																						
1066514 P	26/04/2015	Sun	07:30	100 m	S MOUNT KEIRA RD		2WY	CRV	Raining	Wet	60	2	P/C	M58	S in HARRY GRAHAM DR		Incorrect side	I	0	1		
E57607533							RUM:	20	Head on 4WD F35 N in HARRY GRAHAM DR													
Southern Region Wollongong LGA Cordeaux Harry Graham Dr																						
1098667 P	21/03/2016	Mon	04:45	1.85 km	S MOUNT KEIRA RD		2WY	CRV	Fine	Wet	60	1	CAR	M35	N in HARRY GRAHAM DR	50	Proceeding in lane	N	0	0	S	
E61224668							RUM:	88	Out of cont on bend													
Southern Region Wollongong LGA Mt Kembla Harry Graham Dr																						
778698 P	12/12/2011	Mon	06:50	970 m	S WOLLONGONG MOT OT		2WY	STR	Overcast	Wet	60	1	CAR	M20	S in HARRY GRAHAM DR	60	Proceeding in lane	N	0	0		
E46576546							RUM:	66	Object on road Other non fixed object													
Report Totals:			Total Crashes: 8			Fatal Crashes: 0			Injury Crashes: 5			Killed: 0			Injured: 5							

Crashid dataset Harry Graham Drive
Crash self reporting, including self reported injuries began in Oct 2014. Trends from 2014 are expected to vary from previous years. More unknowns are expected in self reported data. For further information refer to Data Manual or report provider.

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors																				
Southern Region																						Wollongong LGA	Cataract	Mount Keira Rd																	
1022177 P	10/12/2013	Tue	22:50	50 m	N	CLIVE BISSELL DR	2WY	CRV	Overcast	Dry	60	1	CAR	F19	S in MOUNT KEIRA RD	50	Proceeding in lane	I	0	1	S																				
E55941388	RUM: 81 Off left/rt bnd=>obj Tree/bush																																								
Southern Region																						Wollongong LGA	Cataract	Picton Rd																	
1039199 P	26/08/2014	Tue	06:00			at MOUNT KEIRA RD	TJN	CRV	Raining	Wet	80	1	UTE	M35	W in PICTON RD	95	Proceeding in lane	N	0	0	S																				
E55387606	RUM: 83 Off rt/rt bnd=>obj S/Barrier - Wrope/brifen																																								
Southern Region																						Wollongong LGA	Cataract	Picton Rd																	
1095711 P	10/03/2016	Thu	15:50			at MOUNT KEIRA RD	TJN	CRV	Overcast	Dry	100	2	CAR	M76	N in MOUNT KEIRA RD	10	Turning right	I	0	1																					
E301603893	RUM: 13 Right near CAR M39 W in PICTON RD																																								
Southern Region																						Wollongong LGA	Cataract	Picton Rd																	
1098047 P	05/04/2016	Tue	17:15			at MOUNT KEIRA RD	TJN	CRV	Fine	Dry	80	2	M/C	M20	N in MOUNT KEIRA RD	15	Turning right	I	0	1	S																				
E364343492	RUM: 13 Right near CAR M25 W in PICTON RD																																								
Southern Region																						Wollongong LGA	Cataract Creek	Picton Rd																	
760447 P	14/07/2011	Thu	05:25			at MT KEIRA RD	TJN	CRV	Fine	Dry	60	2	CAR	M22	N in MT KEIRA RD	10	Turning right	I	0	1																					
E45317931	RUM: 11 Right far LOR M37 E in PICTON RD																																								
Southern Region																						Wollongong LGA	Cataract Creek	Picton Rd																	
808340 P	20/08/2012	Mon	16:00			at MT KEIRA RD	TJN	STR	Fine	Dry	90	1	WAG	M28	W in PICTON RD	90	Proceeding in lane	N	0	0																					
E49421874	RUM: 69 Other on path Falling object																																								
Southern Region																						Wollongong LGA	Cordeaux Dam	Mt Keira Rd																	
779093 P	23/12/2011	Fri	19:30	500 m	S	PICTON RD	2WY	STR	Fine	Wet	70	1	4WD	M30	N in MT KEIRA RD	70	Proceeding in lane	N	0	0																					
E46355636	RUM: 70 Off road to left																																								
Southern Region																						Wollongong LGA	Cordeaux	Mount Keira Rd																	
1060520 S	08/03/2015	Sun	17:30	8 km	W	YATES AVE	2WY	STR	Fine	Dry	80	1	4WD	M17	E in MOUNT KEIRA RD	Unk	Proceeding in lane	N	0	0																					
E58167265	RUM: 74 On road-out of cont.																																								
Report Totals:			Total Crashes: 8				Fatal Crashes: 0				Injury Crashes: 4				Killed: 0				Injured: 4																						

Crashid dataset Mount Keira Rd

Crash self reporting, including self reported injuries began in Oct 2014. Trends from 2014 are expected to vary from previous years. More unknowns are expected in self reported data. For further information refer to Data Manual or report provider.

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors		
S F																							
Southern Region			Wollongong LGA					Mount Kembla					Benjamin Rd										
1073767 P	04/07/2015	Sat	12:15	at KIRKWOOD PL			LJN	CRV	Fine	Dry	50	1	CAR	U U	S in BENJAMIN RD	20	Proceeding in lane	N	0	0	S		
E58386703							RUM:	87	Off lft/lft bnd=>obj				Fence										
Report Totals:			Total Crashes: 1			Fatal Crashes: 0			Injury Crashes: 0			Killed: 0			Injured: 0								

Crashid dataset Mount Kembla

Crash self reporting, including self reported injuries began in Oct 2014. Trends from 2014 are expected to vary from previous years. More unknowns are expected in self reported data. For further information refer to Data Manual or report provider.

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
																						S F
Southern Region						Wollondilly LGA						Wilton						Picton Rd				
793053 P	27/04/2012	Fri	19:00		at ALMOND ST		XJN	STR	Fine	Dry	90	2	CAR	M32	W in PICTON RD	15	Turning right	I	0	1		
E50354886							RUM:	21	Right through				TRK	M36	E in PICTON RD	90	Proceeding in lane					
Southern Region						Wollondilly LGA						Wilton						Picton Rd				
824896 P	05/01/2013	Sat	09:30		at ALMOND ST		TJN	STR	Fine	Dry	90	2	TRK	M77	W in ALMOND ST	Unk	Turning right	I	0	2		
E49781825							RUM:	13	Right near				CAR	F27	S in PICTON RD	Unk	Proceeding in lane					
Southern Region						Wollondilly LGA						Wilton						Picton Rd				
1001179 P	13/11/2013	Wed	07:40		at ALMOND ST		TJN	STR	Fine	Dry	100	2	TRK	M U	S in ALMOND ST	50	Turning right	N	0	0		
E174661998							RUM:	11	Right far				SEM	F43	W in PICTON RD	80	Proceeding in lane					
Southern Region						Wollondilly LGA						Wilton						Picton Rd				
1044250 P	15/08/2014	Fri	15:00		at ALMOND ST		TJN	STR	Fine	Dry	60	1	CAR	F21	W in PICTON RD	30	Turning right	N	0	0	S	
E107915802							RUM:	80	Off left/right bend													
Southern Region						Wollondilly LGA						Wilton						Picton Rd				
835674 P	30/04/2013	Tue	07:40	200 m E	ALMOND ST		2WY	STR	Overcast	Dry	90	2	WAG	M18	E in PICTON RD	80	Incorrect side	N	0	0	F	
E51515638							RUM:	20	Head on				CAR	F26	W in PICTON RD	80	Proceeding in lane					
Southern Region						Wollondilly LGA						Wilton						Picton Rd				
775582 P	15/11/2011	Tue	05:45	1 km E	ALMOND ST		2WY	CRV	Overcast	Dry	90	1	CAR	M24	W in PICTON RD	90	Proceeding in lane	N	0	0		
E46360826							RUM:	87	Off lft/lft bnd=>obj				Tree/bush									
Southern Region						Wollongong LGA						Cataract Creek						Picton Rd				
827628 P	24/02/2013	Sun	23:25	10.3 km E	ALMOND ST		2WY	STR	Raining	Wet	80	2	LOR	U U	E in PICTON RD	Unk	Pull out opposite	I	0	1		
E50769748							RUM:	55	Pulling out rear end				4WD	M42	E in PICTON RD	80	Proceeding in lane					
Southern Region						Wollondilly LGA						Wilton						Picton Rd				
794051 P	03/04/2012	Tue	14:10	300 m W	ALMOND ST		2WY	CRV	Fine	Dry	90	4	CAR	M32	W in PICTON RD	90	Incorrect side	I	0	1		
E47344927							RUM:	20	Head on				SEM	M35	E in PICTON RD	80	Proceeding in lane					
													WAG	M59	W in PICTON RD	Unk	Proceeding in lane					
													CAR	F25	E in PICTON RD	87	Proceeding in lane					
Southern Region						Wollongong LGA						Cordeaux						Picton Rd				
1025300 P	10/04/2014	Thu	11:00	2 km E	CATARACT DAM ENT		2WY	CRV	Raining	Wet	100	1	CAR	F34	W in PICTON RD	80	Proceeding in lane	I	0	2	S	
E56934183							RUM:	81	Off left/rt bnd=>obj				Drain/culvert									

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
																						S F
Southern Region			Wollongong LGA				Cordeaux				Picton Rd											
1003589 P	18/11/2013	Mon	21:30	2.2 km	E	COLLIERY ENT	DIV	CRV	Raining	Wet	100	1	CAR	F19	E in PICTON RD	70	Proceeding in lane	N	0	0	S	
E257099593							RUM:	83	Off rt/rt bnd=>obj			S/Barrier - Concr/Jersey										
Southern Region			Wollongong LGA				Cataract Creek				Picton Rd											
799318 P	22/04/2012	Sun	05:00			at CORDEAUX COLLI ENT	DIV	STR	Fog or mist	Dry	60	1	CAR	M76	E in PICTON RD	60	Veering right	I	0	1		
E157770097							RUM:	72	Off road to right													
Southern Region			Wollongong LGA				Cordeaux Dam				Picton Rd											
779861 P	27/11/2011	Sun	17:06	250 m	S	CORDEAUX COLLI OT	2WY	STR	Fine	Dry	60	2	TRK	M66	S in PICTON RD	70	Incorrect side	I	0	3	S F	
E46143775							RUM:	20	Head on			CAR F62 N in PICTON RD										
Southern Region			Wollongong LGA				Cordeaux				Picton Rd											
1062892 P	24/03/2015	Tue	14:28			at CORDEAUX COLLIERY ENT	2WY	STR	Raining	Wet	100	1	CAR	M22	S in PICTON RD	90	Proceeding in lane	N	0	0		
E57120235							RUM:	71	Off rd left => obj			Embankment										
Southern Region			Wollongong LGA				Cordeaux				Picton Rd											
1098433 S	06/04/2016	Wed	06:10	1 km	W	CORDEAUX COLLIERY ENT	2WY	CRV	Fine	Dry	100	2	TRK	M37	E in PICTON RD	Unk	Incorrect side	N	0	0		
E60542005							RUM:	20	Head on			WAG F25 W in PICTON RD										
Southern Region			Wollondilly LGA				Cataract				Picton Rd											
1041993 P	24/07/2014	Thu	05:30	1 km	E	CORDEAUX DAM ENT	2WY	STR	Fine	Dry	100	2	LOR	M40	E in PICTON RD	80	Incorrect side	N	0	0		
E55531819							RUM:	20	Head on			CAR M34 W in PICTON RD										
Southern Region			Wollongong LGA				Cordeaux				Picton Rd											
1016001 P	17/03/2014	Mon	14:50	1.5 km	E	CORDEAUX DAM ENT	DIV	CRV	Fine	Dry	100	1	M/C	M58	E in PICTON RD	100	Proceeding in lane	I	0	1	S	
E53197760							RUM:	83	Off rt/rt bnd=>obj			S/Barrier - Concr/Jersey										
Southern Region			Wollongong LGA				Cordeaux				Picton Rd											
1079218 P	09/08/2015	Sun	08:00	2 km	E	CORDEAUX DAM ENT	2WY	STR	Fine	Dry	100	2	OMV	M19	W in PICTON RD	130	Proceeding in lane	I	0	2	S	
E58929564							RUM:	30	Rear end			4WD F45 W in PICTON RD										
Southern Region			Wollondilly LGA				Cataract				Picton Rd											
1019422 P	19/03/2014	Wed	23:50	500 m	S	CORDEAUX DAM ENT	2WY	STR	Raining	Wet	100	1	CAR	M37	S in PICTON RD	90	Proceeding in lane	N	0	0		
E54249433							RUM:	73	Off rd rght => obj			S/Barrier - Guardrail										
Southern Region			Wollondilly LGA				Cataract				Picton Rd											
1073554 P	09/07/2015	Thu	20:44	1.365 km	N	CORDEAUX DAM OT	2WY	STR	Fine	Dry	100	1	CAR	M38	N in PICTON RD	80	Proceeding in lane	I	0	1		
E61099881							RUM:	73	Off rd rght => obj			S/Barrier - Guardrail										

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
																						S F
Southern Region			Wollondilly LGA				Wilton				Picton Rd											
775590 P	16/11/2011	Wed	17:50		at	CORDEAUX DAM RD	TJN	CRV	Raining	Wet	90	1	CAR	M30	E in PICTON RD	80	Proceeding in lane	N	0	0	S	
E46319859	RUM: 85 Off rt/lft bnd=>obj Fence (prior to 2014)																					
Southern Region			Wollongong LGA				Cordeaux Dam				Picton Rd											
759551 P	26/08/2011	Fri	16:38	2 km	E	CORDEAUX DAM RD	2WY	STR	Fine	Dry	90	2	TRK	M28	E in PICTON RD	90	Incorrect side	F	1	1	F	
E46366653	RUM: 20 Head on SEM M39 W in PICTON RD 90 Proceeding in lane																					
Southern Region			Wollondilly LGA				Wilton				Picton Rd											
1082395 S	19/10/2015	Mon	08:10		at	HUME HIGHWAY OP	DIV	STR	Fine	Dry	110	2	TRK	M44	E in PICTON RD	Unk	Other forward	I	0	1		
E59810029	RUM: 29 Other opposing CAR F36 W in PICTON RD Unk Other forward																					
Southern Region			Wollondilly LGA				Wilton				Picton Rd											
816508 P	13/07/2012	Fri	14:10	100 m	E	HUME HIGHWAY OP	DIV	CRV	Fine	Dry	80	2	CAR	F41	W in PICTON RD	60	Proceeding in lane	I	0	1	S	
E48861773	RUM: 30 Rear end CAR M26 W in PICTON RD 0 Stationary																					
Southern Region			Wollondilly LGA				Wilton				Picton Rd											
1056613 S	02/12/2014	Tue	11:00	200 m	E	HUME HIGHWAY OP	DIV	STR	Fine	Dry	80	1	TRK	M62	E in PICTON RD	Unk	Proceeding in lane	I	0	1		
E57375477	RUM: 71 Off rd left => obj Other fixed object																					
Southern Region			Wollondilly LGA				Wilton				Picton Rd											
1089975 S	23/12/2015	Wed	10:45		at	HUME HIGHWAY TO	DIV	STR	Fine	Dry	110	2	WAG	M47	W in PICTON RD	Unk	Merging	I	0	1		
E60072656	RUM: 34 Lane change right WAG M39 W in PICTON RD Unk Proceeding in lane																					
Southern Region			Wollondilly LGA				Wilton				Picton Rd											
843983 P	05/07/2013	Fri	00:50	50 m	W	HUME HIGHWAY TO	DIV	CRV	Fine	Dry	80	1	WAG	F38	E in PICTON RD	70	Proceeding in lane	N	0	0	F	
E52213131	RUM: 87 Off lft/lft bnd=>obj Fence (prior to 2014)																					
Southern Region			Wollondilly LGA				Wilton				Picton Rd											
763571 P	05/08/2011	Fri	13:20		at	HUME HWY	TJN	STR	Fine	Dry	80	2	CAR	F22	S in HUME HWY	1	Turning right	N	0	0		
E46053578	RUM: 13 Right near TRK M44 E in PICTON RD 80 Proceeding in lane																					
Southern Region			Wollondilly LGA				Wilton				Picton Rd											
772953 P	06/10/2011	Thu	08:30		at	HUME HWY	TJN	STR	Fine	Dry	80	2	CAR	M20	E in PICTON RD	10	Turning right	I	0	1		
E88739802	RUM: 21 Right through TRK M35 W in PICTON RD 75 Proceeding in lane																					
Southern Region			Wollondilly LGA				Wilton				Picton Rd											
778668 P	11/11/2011	Fri	18:15		at	HUME HWY	TJN	STR	Fine	Dry	80	2	CAR	M44	N in HUME HWY	10	Turning right	I	0	1		
E47083153	RUM: 13 Right near CAR F35 W in PICTON RD 80 Proceeding in lane																					

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors
S F																					
Southern Region			Wollondilly LGA				Wilton				Picton Rd										
790503 P	23/02/2012	Thu	19:00		at HUME HWY		TJN	STR	Fine	Dry	80	2	4WD	F37	N in HUME HWY	15	Turning right	I	0	3	
E47937339							RUM:	13	Right near				CAR	M21	W in PICTON RD	70	Proceeding in lane				
Southern Region			Wollondilly LGA				Wilton				Picton Rd										
786207 P	24/02/2012	Fri	07:30		at HUME HWY		TJN	CRV	Fine	Dry	80	2	WAG	M40	W in PICTON RD	10	Turning right	I	0	1	S
E46810835							RUM:	21	Right through				CAR	F56	E in PICTON RD	60	Proceeding in lane				
Southern Region			Wollondilly LGA				Wilton				Picton Rd										
797040 P	02/05/2012	Wed	10:30		at HUME HWY		TJN	STR	Fine	Dry	80	2	4WD	F44	E in PICTON RD	10	Turning right	N	0	0	
E47913261							RUM:	21	Right through				4WD	M70	W in PICTON RD	50	Proceeding in lane				
Southern Region			Wollondilly LGA				Wilton				Picton Rd										
812113 P	02/09/2012	Sun	16:15		at HUME HWY		TJN	STR	Fine	Dry	80	2	UTE	M23	N in HUME HWY	5	Turning right	N	0	0	
E49108446							RUM:	13	Right near				CAR	M47	W in PICTON RD	70	Proceeding in lane				
Southern Region			Wollondilly LGA				Wilton				Picton Rd										
814107 P	08/10/2012	Mon	12:00		at HUME HWY		TJN	STR	Fine	Dry	80	2	WAG	F53	N in HUME HWY	20	Turning right	N	0	0	
E48922124							RUM:	11	Right far				SEM	M61	E in PICTON RD	75	Proceeding in lane				
Southern Region			Wollondilly LGA				Wilton				Picton Rd										
808822 P	09/11/2012	Fri	06:25		at HUME HWY		TJN	STR	Fine	Dry	80	2	CAR	M62	E in PICTON RD	Unk	Turning right	F	1	2	
E49450605							RUM:	21	Right through				LOR	M52	W in PICTON RD	Unk	Proceeding in lane				
Southern Region			Wollondilly LGA				Wilton				Picton Rd										
832067 P	27/02/2013	Wed	17:50		at HUME HWY		TJN	STR	Fine	Dry	80	2	CAR	F19	S in HUME HWY	10	Proceeding in lane	N	0	0	
E51578153							RUM:	10	Cross traffic				CAR	M66	E in PICTON RD	80	Proceeding in lane				
Southern Region			Wollondilly LGA				Wilton				Picton Rd										
831371 P	10/03/2013	Sun	16:31		at HUME HWY		TJN	STR	Fine	Dry	80	2	WAG	M51	E in PICTON RD	20	Turning right	I	0	3	
E51210758							RUM:	21	Right through				TRK	M57	W in PICTON RD	40	Proceeding in lane				
Southern Region			Wollondilly LGA				Wilton				Picton Rd										
836973 P	22/04/2013	Mon	07:45		at HUME HWY		TJN	STR	Overcast	Wet	80	2	CAR	M58	W in PICTON RD	10	Turning right	N	0	0	
E52072739							RUM:	21	Right through				OMV	M29	E in PICTON RD	80	Proceeding in lane				
Southern Region			Wollondilly LGA				Wilton				Picton Rd										
838995 P	30/05/2013	Thu	17:40		at HUME HWY		TJN	STR	Fine	Dry	80	2	CAR	M45	N in HUME HWY	5	Turning right	N	0	0	
E52032579							RUM:	13	Right near				CAR	F36	W in PICTON RD	70	Proceeding in lane				

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors		
																						S F	
Southern Region			Wollondilly LGA				Wilton				Picton Rd												
853498 P	18/06/2013	Tue	23:18		at HUME HWY		TJN	STR	Fine	Dry	100	1	LOR	M37	W in PICTON RD	100	Proceeding in lane	I	0	1	F		
E51956364	RUM: 71 Off rd left ==> obj Fence (prior to 2014)																						
Southern Region			Wollondilly LGA				Picton				Picton Rd												
850262 P	17/08/2013	Sat	07:30		at HUME HWY		TJN	STR	Fine	Dry	80	1	CAR	M24	N in HUME HWY	80	Proceeding in lane	N	0	0			
E52798568	RUM: 71 Off rd left ==> obj Signpost																						
Southern Region			Wollondilly LGA				Wilton				Picton Rd												
1025618 P	04/05/2014	Sun	15:00		at HUME HWY		TJN	STR	Fine	Dry	80	2	4WD	M52	W in PICTON RD	5	Proceeding in lane	N	0	0			
E55020473	RUM: 32 Right rear 4WD F54 W in PICTON RD																						
Southern Region			Wollondilly LGA				Wilton				Picton Rd												
1023519 P	13/05/2014	Tue	19:35		at HUME HWY		TJN	STR	Fine	Dry	80	2	CAR	M61	W in PICTON RD	20	Turning right	N	0	0			
E56489480	RUM: 21 Right through WAG M52 E in PICTON RD																						
Southern Region			Wollondilly LGA				Wilton				Picton Rd												
1026356 P	26/05/2014	Mon	18:00		at HUME HWY		TJN	STR	Fine	Dry	80	2	CAR	M88	E in PICTON RD	10	Turning right	N	0	0			
E54650922	RUM: 21 Right through CAR M20 W in PICTON RD																						
Southern Region			Wollondilly LGA				Wilton				Picton Rd												
1035646 P	29/07/2014	Tue	07:55		at HUME HWY		TJN	STR	Fine	Dry	110	2	UTE	F21	N in HUME HWY	10	Turning right	I	0	1			
E54512420	RUM: 13 Right near CAR M27 W in PICTON RD																						
Southern Region			Wollondilly LGA				Wilton				Picton Rd												
1039311 P	08/08/2014	Fri	15:00		at HUME HWY		TJN	STR	Fine	Dry	80	2	TRK	M25	E in PICTON RD	10	Turning right	N	0	0			
E55545556	RUM: 21 Right through UTE M72 W in PICTON RD																						
Southern Region			Wollondilly LGA				Wilton				Picton Rd												
1049083 P	26/11/2014	Wed	15:21		at HUME HWY		TJN	STR	Overcast	Dry	80	2	CAR	M21	N in HUME HWY	Unk	Turning right	F	1	1			
E57109774	RUM: 13 Right near M/C M68 W in PICTON RD																						
Southern Region			Wollondilly LGA				Wilton				Picton Rd												
1060459 S	13/02/2015	Fri	07:45		at HUME HWY		TJN	STR	Fine	Dry	80	2	TRK	M64	E in PICTON RD	Unk	Turning right	I	0	1			
E57057472	RUM: 21 Right through CAR M58 W in PICTON RD																						
Southern Region			Wollondilly LGA				Wilton				Picton Rd												
1064609 S	14/04/2015	Tue	16:10		at HUME HWY		TJN	STR	Fine	Dry	80	2	CAR	F22	N in PICTON RD	Unk	Turning right	N	0	0			
E58536553	RUM: 21 Right through LOR M67 S in PICTON RD																						

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
																						S F
Southern Region Wollondilly LGA							Wilton					Picton Rd										
1070958 P	20/05/2015	Wed	17:25		at HUME HWY		TJN	STR	Fine	Dry	80	3	CAR	M77	E in PICTON RD	20	Turning right	I	0	3		
E58935778							RUM:	21	Right through				4WD	M68	W in PICTON RD	60	Proceeding in lane					
													TRK	M51	W in PICTON RD	0	Wait turn right					
Southern Region Wollondilly LGA							Wilton					Picton Rd										
1078749 P	02/09/2015	Wed	06:00		at HUME HWY		TJN	STR	Fine	Dry	80	2	LOR	M58	E in PICTON RD	10	Turning right	I	0	1		
E59585374							RUM:	21	Right through				CAR	F22	W in PICTON RD	80	Proceeding in lane					
Southern Region Wollondilly LGA							Wilton					Picton Rd										
1083918 S	04/11/2015	Wed	21:00		at HUME HWY		TJN	STR	Raining	Wet	80	2	UTE	M22	E in PICTON RD	Unk	Turning right	I	0	1		
E59898777							RUM:	21	Right through				PLT	M23	W in PICTON RD	Unk	Proceeding in lane					
Southern Region Wollondilly LGA							Wilton					Picton Rd										
1085847 S	21/11/2015	Sat	13:00		at HUME HWY		TJN	STR	Fine	Dry	80	2	WAG	M50	E in PICTON RD	Unk	Turning right	I	0	1		
E60085928							RUM:	36	Right turn sideswipe				CAR	M26	E in PICTON RD	Unk	Proceeding in lane					
Southern Region Wollondilly LGA							Wilton					Picton Rd										
1096507 P	22/02/2016	Mon	07:00		at HUME HWY		TJN	STR	Fine	Dry	60	2	TRK	M21	N in HUME HWY	5	Turning right	I	0	1		
E63009883							RUM:	13	Right near				4WD	F42	W in PICTON RD	50	Proceeding in lane					
Southern Region Wollondilly LGA							Wilton					Picton Rd										
1098868 P	16/03/2016	Wed	06:30		at HUME HWY		TJN	STR	Fine	Dry	80	2	TRK	M43	E in PICTON RD	5	Turning right	I	0	1		
E61387363							RUM:	21	Right through				CAR	M31	W in PICTON RD	60	Proceeding in lane					
Southern Region Wollondilly LGA							Wilton					Picton Rd										
845742 P	12/05/2013	Sun	08:20	5 m	E HUME HWY		TJN	STR	Fog or mist	Dry	80	2	BDBL	M51	N in HUME HWY	20	Turning right	I	0	1		
E51283305							RUM:	13	Right near				CAR	M26	W in PICTON RD	50	Proceeding in lane					
Southern Region Wollondilly LGA							Wilton					Picton Rd										
812168 P	28/09/2012	Fri	21:30	50 m	E HUME HWY		DIV	STR	Raining	Wet	80	1	UTE	U U	E in PICTON RD	Unk	Proceeding in lane	N	0	0	F	
E49561779							RUM:	71	Off rd left => obj				Tree/bush									
Southern Region Wollondilly LGA							Wilton					Picton Rd										
830543 P	06/03/2013	Wed	14:30	85 m	E HUME HWY		OTH	CRV	Fine	Dry	Unk	1	SEM	M44	E in PICTON RD	Unk	Proceeding in lane	I	0	1	S	
E50586122							RUM:	88	Out of cont on bend													
Southern Region Wollondilly LGA							Wilton					Picton Rd										
836265 P	05/05/2013	Sun	03:00	100 m	E HUME HWY		OTH	CRV	Fine	Dry	80	1	CAR	M28	E in PICTON RD	60	Proceeding in lane	N	0	0	S	
E53665884							RUM:	86	Off left/left bend													

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
																						S F
Southern Region Wollondilly LGA							Wilton						Picton Rd									
779079 P	22/12/2011	Thu	09:30	2.5 km	E	HUME HWY	2WY	CRV	Overcast	Dry	80	1	TRK	M30	E in PICTON RD	80	Proceeding in lane	I	0	1	S F	
E49061488							RUM:	81	Off left/rt bnd=>obj			Tree/bush										
Southern Region Wollondilly LGA							Wilton						Picton Rd									
1003402 P	25/09/2013	Wed	17:20	5 km	E	HUME HWY	2WY	STR	Fine	Dry	100	2	SEM	M59	E in PICTON RD	95	Incorrect side	I	0	1		
E53490565							RUM:	20	Head on			CAR F57 W in PICTON RD										
Southern Region Wollondilly LGA							Wilton						Picton Rd									
1041992 P	29/08/2014	Fri	14:30	6.7 km	E	HUME HWY	2WY	CRV	Overcast	Dry	100	1	TRK	M37	W in PICTON RD	70	Proceeding in lane	N	0	0	S	
E55296224							RUM:	80	Off left/right bend													
Southern Region Wollondilly LGA							Cataract						Picton Rd									
1091878 P	07/02/2016	Sun	14:40	10 km	E	HUME HWY	2WY	STR	Fine	Dry	100	3	TRK	M47	W in PICTON RD	90	Pull out opposite	F	1	3		
E60725849							RUM:	50	Head on (overtake)			4WD F45 E in PICTON RD										
															4WD M75 W in PICTON RD	100	Proceeding in lane					
Southern Region Wollondilly LGA							Wilton						Picton Rd									
1075282 P	01/07/2015	Wed	15:59			at JANDERRA LANE	TJN	STR	Fine	Dry	80	3	UTE	M67	E in PICTON RD	75	Proceeding in lane	I	0	5		
E60581289							RUM:	30	Rear end			CAR M29 E in PICTON RD										
															CAR F23 E in PICTON RD	0	Stationary					
															0	Wait turn right						
Southern Region Wollondilly LGA							Wilton						Picton Rd									
1078155 S	10/08/2015	Mon	16:55			at JANDERRA LANE	TJN	STR	Fine	Wet	80	2	TRK	F34	E in PICTON RD	Unk	Other forward	N	0	0		
E213345096							RUM:	39	Other same direction			CAR F19 E in PICTON RD										
Southern Region Wollondilly LGA							Wilton						Picton Rd									
1089878 P	26/11/2015	Thu	15:45			at JANDERRA LANE	TJN	STR	Fine	Dry	80	3	CAR	M20	E in PICTON RD	100	Proceeding in lane	I	0	1	S	
E61370380							RUM:	30	Rear end			TRK M75 E in PICTON RD										
															CAR M53 E in PICTON RD	0	Stationary					
															0	Wait turn right						
Southern Region Wollondilly LGA							Wilton						Picton Rd									
1090022 S	04/01/2016	Mon	17:20			at JANDERRA LANE	TJN	STR	Raining	Wet	80	2	OMV	M U	E in PICTON RD	Unk	Other forward	N	0	0		
E60867953							RUM:	29	Other opposing			TRK M29 W in PICTON RD										
Southern Region Wollondilly LGA							Wilton						Picton Rd									
1039111 P	05/09/2014	Fri	13:55	3.8 km	E	MACARTHUR DR	2WY	CRV	Overcast	Dry	100	2	CAR	M18	E in PICTON RD	100	Incorrect side	F	2	1		
E56229243							RUM:	20	Head on			CAR F66 W in PICTON RD										
																100	Proceeding in lane					

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors		
																						S F	
Southern Region						Wollondilly LGA						Wilton						Picton Rd					
1079260 P	15/09/2015	Tue	19:25	430 m	S	MACARTHUR DR	2WY	CRV	Fine	Dry	100	2	4WD	M35	N in PICTON RD	100	Incorrect side		F	1	2		
E58606917							RUM:	20	Head on				CAR	F64	S in PICTON RD	100	Proceeding in lane						
Southern Region						Wollondilly LGA						Wilton						Picton Rd					
1005807 P	30/12/2013	Mon	04:00	1 km	S	MACARTHUR DR	2WY	CRV	Fine	Dry	100	1	WAG	F40	S in PICTON RD	100	Proceeding in lane		N	0	0		
E258765693							RUM:	67	Struck animal				Wombat										
Southern Region						Wollondilly LGA						Wilton						Picton Rd					
824305 P	19/01/2013	Sat	16:40	3 km	S	MACARTHUR DR	2WY	STR	Overcast	Wet	90	2	WAG	M53	N in PICTON RD	40	Proceeding in lane		N	0	0		
E52958481							RUM:	30	Rear end				VAN	M65	N in PICTON RD	30	Proceeding in lane						
Southern Region						Wollondilly LGA						Cataract						Picton Rd					
1096723 P	18/01/2016	Mon	07:30	5 km	S	MACARTHUR DR	2WY	STR	Fine	Dry	100	2	TRK	M65	N in PICTON RD	80	Proceeding in lane		I	0	2		
E60403431							RUM:	30	Rear end				4WD	F43	N in PICTON RD	Unk	Proceeding in lane						
Southern Region						Wollondilly LGA						Wilton						Picton Rd					
762314 P	26/07/2011	Tue	19:15	3.85 km	E	MACARTHUR RD	2WY	CRV	Fine	Dry	90	1	CAR	M19	W in PICTON RD	90	Proceeding in lane		N	0	0	S	
E187401794							RUM:	84	Off right/left bend														
Southern Region						Wollondilly LGA						Cataract						Picton Rd					
1051900 P	31/08/2014	Sun	00:30	4 km	E	MACARTHUR RD	2WY	CRV	Fine	Dry	80	1	TRK	M23	E in PICTON RD	80	Proceeding in lane		I	0	1	S F	
E56204642							RUM:	83	Off rt/rt bnd=>obj				Tree/bush										
Southern Region						Wollondilly LGA						Wilton						Picton Rd					
783327 P	03/02/2012	Fri	06:30	100 m	N	MACARTHUR RD	2WY	CRV	Raining	Wet	100	1	WAG	F25	S in PICTON RD	90	Proceeding in lane		N	0	0	F	
E47432043							RUM:	87	Off lft/lft bnd=>obj				Tree/bush										
Southern Region						Wollondilly LGA						Wilton						Picton Rd					
777779 P	10/12/2011	Sat	17:45	500 m	N	MACARTHUR RD	2WY	CRV	Fine	Dry	100	1	UTE	M26	S in PICTON RD	90	Proceeding in lane		N	0	0	F	
E46423976							RUM:	83	Off rt/rt bnd=>obj				Tree/bush										
Southern Region						Wollondilly LGA						Wilton						Picton Rd					
1018401 P	17/02/2014	Mon	10:55	2 km	S	MACARTHUR RD	2WY	CRV	Raining	Wet	100	1	TRK	M35	N in PICTON RD	95	Proceeding in lane		N	0	0	S	
E53451715							RUM:	81	Off left/rt bnd=>obj				Tree/bush										
Southern Region						Wollongong LGA						Cataract						Picton Rd					
1039199 P	26/08/2014	Tue	06:00			at MOUNT KEIRA RD	TJN	CRV	Raining	Wet	80	1	UTE	M35	W in PICTON RD	95	Proceeding in lane		N	0	0	S	
E55387606							RUM:	83	Off rt/rt bnd=>obj				S/Barrier - Wrope/brifen										

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors
S F																					
Southern Region			Wollongong LGA			Cataract			Picton Rd												
1095711 P	10/03/2016	Thu	15:50		at	MOUNT KEIRA RD	TJN	CRV	Overcast	Dry	100	2	CAR	M76	N in MOUNT KEIRA RD	10	Turning right	I	0	1	
E301603893							RUM:	13	Right near					CAR	M39	W in PICTON RD	100	Proceeding in lane			
Southern Region			Wollongong LGA			Cataract			Picton Rd												
1098047 P	05/04/2016	Tue	17:15		at	MOUNT KEIRA RD	TJN	CRV	Fine	Dry	80	2	M/C	M20	N in MOUNT KEIRA RD	15	Turning right	I	0	1	S
E364343492							RUM:	13	Right near					CAR	M25	W in PICTON RD	90	Proceeding in lane			
Southern Region			Wollongong LGA			Cataract			Picton Rd												
1029959 P	20/06/2014	Fri	09:55	500 m	E	MOUNT KEIRA RD	2WY	STR	Fine	Dry	100	3	LOR	M74	W in PICTON RD	80	Proceeding in lane	I	0	1	
E53970060							RUM:	30	Rear end					SEM	M37	W in PICTON RD	50	Proceeding in lane			
														SEM	M41	E in PICTON RD	80	Proceeding in lane			
Southern Region			Wollongong LGA			Cataract			Picton Rd												
1011108 P	15/02/2014	Sat	17:00	1 km	E	MOUNT KEIRA RD	2WY	CRV	Fine	Dry	100	3	TRK	M34	E in PICTON RD	80	Proceeding in lane	N	0	0	S
E53403870							RUM:	87	Off lft/lft bnd=>obj					CAR	F49	E in PICTON RD	0	Stationary			
														CAR	M48	E in PICTON RD	0	Stationary			
														S/Barrier - Guardrail							
Southern Region			Wollongong LGA			Cataract			Picton Rd												
1101793 P	04/05/2016	Wed	09:01	1.8 km	E	MOUNT KEIRA RD	2WY	STR	Fine	Dry	100	3	SEM	M22	E in PICTON RD	60	Cutting back	N	0	0	
E60959304							RUM:	54	Cutting in					SEM	M29	E in PICTON RD	25	Proceeding in lane			
														OMV	U U	W in PICTON RD	Unk	Proceeding in lane			
Southern Region			Wollongong LGA			Cataract			Picton Rd												
1090903 S	22/12/2015	Tue	18:30	2 km	E	MOUNT KEIRA RD	DIV	CRV	Raining	Wet	100	1	4WD	M28	W in PICTON RD	Unk	Proceeding in lane	I	0	1	S
E59497117							RUM:	83	Off rt/rt bnd=>obj					S/Barrier - Concr/Jersey							
Southern Region			Wollongong LGA			Cordeaux			Picton Rd												
1083882 S	04/11/2015	Wed	10:10	1 km	N	MOUNT KEIRA RD	DIV	STR	Raining	Wet	100	1	TRK	M27	N in PICTON RD	Unk	Proceeding in lane	N	0	0	
E58143510							RUM:	71	Off rd left => obj					S/Barrier - Guardrail							
Southern Region			Wollongong LGA			Cataract			Picton Rd												
1014166 P	05/03/2014	Wed	15:20	2 km	N	MOUNT KEIRA RD	DIV	CRV	Raining	Wet	100	1	TRK	M34	N in PICTON RD	70	Proceeding in lane	N	0	0	S
E53886636							RUM:	87	Off lft/lft bnd=>obj					S/Barrier - Guardrail							
Southern Region			Wollongong LGA			Cataract			Picton Rd												
1016917 P	25/03/2014	Tue	03:00	2 km	N	MOUNT KEIRA RD	DIV	STR	Raining	Wet	80	1	CAR	F22	N in PICTON RD	70	Proceeding in lane	N	0	0	
E189736197							RUM:	71	Off rd left => obj					Embankment							

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
																						S F
Southern Region			Wollongong LGA				Cataract				Picton Rd											
1019083 P	04/04/2014	Fri	14:22	2 km	N	MOUNT KEIRA RD	DIV	CRV	Raining	Wet	100	1	UTE	M24	W in PICTON RD	104	Proceeding in lane	I	0	1	S	
E190634697							RUM:	87	Off lft/lft bnd=>obj			S/Barrier - Guardrail										
Southern Region			Wollongong LGA				Cordeaux				Picton Rd											
1006374 P	15/10/2013	Tue	14:55	3.3 km	N	MOUNT KEIRA RD	DIV	CRV	Fine	Dry	100	1	UTE	M21	S in PICTON RD	Unk	Proceeding in lane	I	0	1		
E781101190							RUM:	85	Off rt/lft bnd=>obj			S/Barrier - Concr/Jersey										
Southern Region			Wollongong LGA				Cordeaux				Picton Rd											
1017131 P	22/03/2014	Sat	17:20	4 km	N	MOUNT KEIRA RD	DIV	CRV	Raining	Wet	100	1	CAR	F22	N in PICTON RD	50	Proceeding in lane	I	0	3	S	
E54036114							RUM:	85	Off rt/lft bnd=>obj			S/Barrier - Concr/Jersey										
Southern Region			Wollongong LGA				Cordeaux				Picton Rd											
1017571 P	07/03/2014	Fri	15:40	5 km	N	MOUNT KEIRA RD	DIV	CRV	Raining	Wet	100	1	CAR	F41	N in PICTON RD	90	Proceeding in lane	I	0	3	S	
E54228107							RUM:	85	Off rt/lft bnd=>obj			S/Barrier - Concr/Jersey										
Southern Region			Wollongong LGA				Cordeaux				Picton Rd											
1054481 S	28/10/2014	Tue	05:15	5 km	N	MOUNT KEIRA RD	DIV	CRV	Fine	Dry	100	1	WAG	M47	N in PICTON RD	Unk	Proceeding in lane	N	0	0	S	
E56291526							RUM:	85	Off rt/lft bnd=>obj			S/Barrier - Concr/Jersey										
Southern Region			Wollongong LGA				Cordeaux				Picton Rd											
1042402 P	24/09/2014	Wed	09:38	125 m	W	MOUNT KEIRA RD	DIV	CRV	Fine	Dry	100	1	SEM	M59	E in PICTON RD	100	Proceeding in lane	N	0	0	F	
E55504624							RUM:	85	Off rt/lft bnd=>obj			S/Barrier - Concr/Jersey										
Southern Region			Wollongong LGA				Cordeaux				Picton Rd											
1039031 P	03/08/2014	Sun	04:25	150 m	W	MOUNT KEIRA RD	DIV	STR	Fine	Dry	100	1	CAR	F18	W in PICTON RD	80	Proceeding in lane	N	0	0	F	
E106942901							RUM:	73	Off rd rght => obj			S/Barrier - Concr/Jersey										
Southern Region			Wollongong LGA				Cordeaux				Picton Rd											
1025109 P	12/05/2014	Mon	07:30	500 m	W	MOUNT KEIRA RD	DIV	STR	Fine	Dry	100	1	CAR	M23	W in PICTON RD	90	Proceeding in lane	N	0	0		
E54271525							RUM:	66	Object on road			Other non fixed object										
Southern Region			Wollongong LGA				Cataract				Picton Rd											
1101320 P	25/04/2016	Mon	21:48	1 km	W	MOUNT KEIRA RD	2WY	CRV	Fine	Dry	100	1	TRK	M24	W in PICTON RD	100	Proceeding in lane	N	0	0		
E61507328							RUM:	81	Off left/rt bnd=>obj			S/Barrier - Guardrail										
Southern Region			Wollongong LGA				Cordeaux				Picton Rd											
1043196 P	02/09/2014	Tue	22:20	1.7 km	W	MOUNT KEIRA RD	DIV	CRV	Raining	Wet	100	1	WAG	M47	W in PICTON RD	100	Proceeding in lane	N	0	0	S	
E56168029							RUM:	87	Off lft/lft bnd=>obj			S/Barrier - Guardrail										

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors
S F																					
Southern Region			Wollongong LGA				Cataract				Picton Rd										
1039747 P	17/08/2014	Sun	12:40	2 km	W	MOUNT KEIRA RD	DIV	CRV	Raining	Wet	90	1	TRK	M56	W in PICTON RD	90	Proceeding in lane	N	0	0	S
E55814266							RUM:	87	Off lft/lft bnd=>obj			S/Barrier - Guardrail									
Southern Region			Wollongong LGA				Cordeaux				Picton Rd										
1074781 P	17/07/2015	Fri	06:30	2.95 km	W	MOUNT KEIRA RD	DIV	STR	Raining	Wet	100	1	UTE	M20	W in PICTON RD	90	Proceeding in lane	I	0	1	
E58187905							RUM:	71	Off rd left => obj			Embankment									
Southern Region			Wollongong LGA				Cordeaux				Picton Rd										
1085303 P	12/11/2015	Thu	15:00	3 km	W	MOUNT KEIRA RD	DIV	CRV	Raining	Wet	100	1	CAR	M41	E in PICTON RD	100	Proceeding in lane	I	0	1	S
E59654948							RUM:	81	Off left/rt bnd=>obj			S/Barrier - Concr/Jersey									
Southern Region			Wollongong LGA				Cordeaux				Picton Rd										
1093977 P	16/01/2016	Sat	10:30	3 km	W	MOUNT KEIRA RD	DIV	STR	Raining	Wet	90	1	WAG	M30	W in PICTON RD	90	Proceeding in lane	I	0	1	
E59441970							RUM:	71	Off rd left => obj			S/Barrier - Guardrail									
Southern Region			Wollongong LGA				Cataract Creek				Picton Rd										
775668 P	22/11/2011	Tue	08:30	270 m	W	MOUNT OUSLEY R OP	2WY	STR	Overcast	Dry	80	1	CAR	F32	E in PICTON RD	80	Proceeding in lane	N	0	0	
E47107365							RUM:	73	Off rd right => obj			Signpost									
Southern Region			Wollongong LGA				Cataract				Picton Rd										
1037416 P	19/08/2014	Tue	08:00	300 m	W	MOUNT OUSLEY RD	2WY	STR	Raining	Wet	80	2	CAR	M22	E in PICTON RD	60	Proceeding in lane	N	0	0	
E56105142							RUM:	30	Rear end			CAR M19 E in PICTON RD									
Southern Region			Wollongong LGA				Cataract				Picton Rd										
1075894 P	16/07/2015	Thu	20:27	300 m	W	MOUNT OUSLEY ROAD OP	DIV	CRV	Raining	Wet	80	2	TRK	M18	W in PICTON RD	Unk	Proceeding in lane	I	0	1	S
E60362887							RUM:	87	Off lft/lft bnd=>obj			4WD M45 E in PICTON RD									
																Other non fixed object					
																S/Barrier - Guardrail					
Southern Region			Wollongong LGA				Cataract				Picton Rd										
1013201 P	15/02/2014	Sat	16:00	380 m	W	MOUNT OUSLEY ROAD OP	2WY	CRV	Raining	Wet	80	2	WAG	M27	W in PICTON RD	70	Veering right	I	0	1	
E191818396							RUM:	34	Lane change right			4WD M73 W in PICTON RD									
Southern Region			Wollongong LGA				Cataract Creek				Picton Rd										
760447 P	14/07/2011	Thu	05:25			at MT KEIRA RD	TJN	CRV	Fine	Dry	60	2	CAR	M22	N in MT KEIRA RD	10	Turning right	I	0	1	
E45317931							RUM:	11	Right far			LOR M37 E in PICTON RD									

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors
Southern Region Wollongong LGA Cataract Creek Picton Rd																					
808340 P	20/08/2012	Mon	16:00		at MT KEIRA RD		TJN	STR	Fine	Dry	90	1	WAG	M28	W in PICTON RD	90	Proceeding in lane	N	0	0	
E49421874							RUM:	69	Other on path						Falling object						
Southern Region Wollongong LGA Cataract Creek Picton Rd																					
839816 P	03/03/2013	Sun	17:00		100 m E MT KEIRA RD		2WY	CRV	Fine	Dry	90	2	CAR	M46	E in PICTON RD	80	Incorrect side	N	0	0	
E50030430							RUM:	20	Head on						VAN M49 W in PICTON RD	90	Proceeding in lane				
Southern Region Wollongong LGA Cataract Creek Picton Rd																					
855237 P	18/09/2013	Wed	11:00		5.3 km E MT KEIRA RD		2WY	CRV	Fine	Dry	100	2	CAR	M51	E in PICTON RD	100	Proceeding in lane	I	0	3	
E52945049							RUM:	30	Rear end						OMV M33 E in PICTON RD	100	Proceeding in lane				
Southern Region Wollongong LGA Cordeaux Dam Picton Rd																					
843909 P	03/07/2013	Wed	08:00		1 km N MT KEIRA RD		2WY	STR	Fine	Dry	90	2	OMV	U U	PICTON RD	Unk	Proceeding in lane	N	0	0	
E53853185							RUM:	62	Accident						CAR N in PICTON RD	0	Broken down				
Southern Region Wollongong LGA Cordeaux Dam Picton Rd																					
817819 P	14/11/2012	Wed	16:50		2.8 km N MT KEIRA RD		2WY	CRV	Fine	Dry	80	3	TRK	M51	S in PICTON RD	70	Incorrect side	I	0	1	
E49906919							RUM:	20	Head on						BDBL M49 N in PICTON RD	70	Proceeding in lane				
															CAR M49 S in PICTON RD	70	Proceeding in lane				
Southern Region Wollongong LGA Cataract Creek Picton Rd																					
831329 P	05/12/2012	Wed	15:30		5 km N MT KEIRA RD		2WY	STR	Fine	Dry	40	1	M/C	M27	S in PICTON RD	40	Proceeding in lane	I	0	1	
E51265316							RUM:	74	On road-out of cont.												
Southern Region Wollongong LGA Cordeaux Dam Picton Rd																					
814071 P	04/10/2012	Thu	15:45		50 m W MT KEIRA RD		DIV	CRV	Fine	Dry	90	1	CAR	M20	E in PICTON RD	80	Proceeding in lane	N	0	0	F
E51360689							RUM:	85	Off rt/lft bnd=>obj						Fence (prior to 2014)						
Southern Region Wollongong LGA Cordeaux Dam Picton Rd																					
792146 P	23/03/2012	Fri	16:47		3 km W MT KEIRA RD		2WY	CRV	Fine	Dry	90	1	CAR	F18	W in PICTON RD	90	Veering left	I	0	1	S
E47764458							RUM:	87	Off lft/lft bnd=>obj						Embankment						
Southern Region Wollongong LGA Cataract Creek Picton Rd																					
835649 P	29/04/2013	Mon	14:45		9 km W MT KIERA RD		2WY	CRV	Fine	Dry	90	1	CAR	F18	W in PICTON RD	85	Proceeding in lane	N	0	0	S
E50762509							RUM:	86	Off left/left bend												
Southern Region Wollongong LGA Mt Ousley Picton Rd																					
820688 P	06/10/2012	Sat	13:15		15 m W MT OUSLEY RD		OTH	CRV	Raining	Wet	100	1	CAR	M63	W in PICTON RD	60	Proceeding in lane	N	0	0	S
E51082187							RUM:	85	Off rt/lft bnd=>obj						Signpost						

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
																						S F
Southern Region			Wollongong LGA				Cataract Creek				Picton Rd											
767438 P	02/09/2011	Fri	14:45	325 m	W	MT OUSLEY RD	OTH	STR	Fine	Dry	80	1	CAR	F66	W in PICTON RD	80	Proceeding in lane	N	0	0	F	
E47717584																						
Southern Region			Wollongong LGA				Cataract Creek				Picton Rd											
769714 P	21/09/2011	Wed	13:00	400 m	W	MT OUSLEY RD	2WY	STR	Fine	Dry	90	2	CAR	M69	E in PICTON RD	90	Proceeding in lane	N	0	0		
E46321163																						
Southern Region			Wollongong LGA				Cataract Creek				Picton Rd											
855272 P	30/09/2013	Mon	15:55	470 m	W	MT OUSLEY RD	OTH	CRV	Fine	Dry	80	2	CAR	F17	W in PICTON RD	70	Perform U-turn	N	0	0		
E52134509																						
Southern Region			Wollongong LGA				Cataract Creek				Picton Rd											
811546 P	27/08/2012	Mon	05:35	500 m	W	MT OUSLEY RD	2WY	CRV	Fine	Dry	80	2	TRK	M43	W in PICTON RD	80	Proceeding in lane	I	0	1		
E49009557																						
Southern Region			Wollongong LGA				Cataract Creek				Picton Rd											
811650 P	14/09/2012	Fri	15:10	800 m	W	MT OUSLEY RD	2WY	CRV	Fine	Dry	90	2	SEM	M37	W in PICTON RD	45	Veering right	N	0	0	S	
E170635196																						
Southern Region			Wollongong LGA				Cataract Creek				Picton Rd											
800287 P	18/05/2012	Fri	11:00	500 m	W	MT OUSLEY ROAD OP	2WY	CRV	Fine	Dry	80	2	UTE	M34	W in PICTON RD	5	Pulling out	N	0	0		
E47833433																						
Southern Region			Wollongong LGA				Cataract Creek				Picton Rd											
788348 P	19/02/2012	Sun	21:00	580 m	W	MT OUSLEY ROAD OP	DIV	CRV	Raining	Wet	80	1	CAR	M22	E in PICTON RD	60	Proceeding in lane	N	0	0	S	
E46892623																						
Southern Region			Wollongong LGA				Cordeaux Dam				Picton Rd											
772770 P	15/09/2011	Thu	16:40	1 km	S	NO 4 SHAFT ENT	2WY	STR	Fine	Dry	90	2	CAR	F30	S in PICTON RD	80	Proceeding in lane	N	0	0		
E46061868																						
Southern Region			Wollongong LGA				Cordeaux				Picton Rd											
1058786 P	24/11/2014	Mon	15:45	300 m	E	NUMBER 1 COLLIERY NUMI	DIV	CRV	Raining	Wet	100	1	LOR	M34	S in PICTON RD	75	Veering left	N	0	0	S	
E55527830																						
Southern Region			Wollongong LGA				Cordeaux Dam				Picton Rd											
826172 P	24/01/2013	Thu	14:30	500 m	S	NUMBER 4 SHAFT GTE	DIV	CRV	Fine	Dry	60	1	TRK	M35	S in PICTON RD	90	Pulling out	N	0	0	S	
E51239939																						

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors	
																						S F
Southern Region						Wollondilly LGA				Wilton				Picton Rd								
1037151 P	16/06/2014	Mon	16:47		at	NUMBER 990 HN	2WY	CRV	Fine	Dry	80	3	CAR	M26	E in PICTON RD	100	Proceeding in lane	I	0	1	S	
E54828822							RUM:	32	Right rear					CAR	M21	E in PICTON RD	0	Wait turn right				
Southern Region						Wollondilly LGA				Wilton				Picton Rd								
1001426 P	15/10/2013	Tue	16:40		at	PEMBROKE PDE	TJN	STR	Fine	Dry	100	2	CAR	M46	W in PICTON RD	10	Turning right	N	0	0		
E53089631							RUM:	14	2 right turning					CAR	F22	S in PEMBROKE PDE	5	Turning right				
Southern Region						Wollondilly LGA				Wilton				Picton Rd								
1068426 S	22/05/2015	Fri	08:20		at	PEMBROKE PDE	TJN	STR	Raining	Wet	80	2	CAR	F22	W in PICTON RD	Unk	Turning right	I	0	2		
E58083576							RUM:	36	Right turn sideswipe					CAR	M22	W in PICTON RD	Unk	Turning right				
Southern Region						Wollondilly LGA				Wilton				Picton Rd								
1096653 S	08/03/2016	Tue	08:40	100 m	E	PEMBROKE PDE	DIV	STR	Fine	Dry	80	2	CAR	F18	E in PICTON RD	Unk	Proceeding in lane	I	0	1		
E59698620							RUM:	30	Rear end					WAG	M51	E in PICTON RD	0	Stationary				
Southern Region						Wollondilly LGA				Wilton				Picton Rd								
1018138 P	27/02/2014	Thu	14:30	400 m	E	PEMBROKE PDE	2WY	CRV	Overcast	Dry	100	1	LOR	M42	W in PICTON RD	95	Proceeding in lane	I	0	1	F	
E53965813							RUM:	85	Off rt/lft bnd=>obj						Tree/bush							
Southern Region						Wollondilly LGA				Wilton				Picton Rd								
1078941 S	04/09/2015	Fri	16:35	50 m	W	PEMBROKE PDE	DIV	STR	Fine	Dry	80	3	TRK	M18	E in PICTON RD	Unk	Proceeding in lane	N	0	0		
E58992321							RUM:	30	Rear end					CAR	F54	E in PICTON RD	0	Stationary				
Southern Region						Wollongong LGA				Cataract				Picton Rd								
1022927 P	10/05/2014	Sat	10:50		at	PICTON RD	TJN	CRV	Fine	Dry	80	1	4WD	M20	W in PICTON RD	60	Turning right	N	0	0	S	
E54972066							RUM:	81	Off left/rt bnd=>obj						Signpost							
Southern Region						Wollondilly LGA				Wilton				Almond St								
775564 P	12/11/2011	Sat	07:25	10 m	E	PICTON RD	XJN	STR	Fine	Dry	80	1	SEM	M51	S in PICTON RD	Unk	Proceeding in lane	N	0	0	F	
E48034987							RUM:	71	Off rd left => obj						Signpost							
Southern Region						Wollondilly LGA				Wilton				Hume Hwy								
1042253 P	05/06/2014	Thu	15:00	15 m	S	PICTON RD	OTH	CRV	Raining	Wet	80	1	TRK	M50	S in HUME HWY	60	Proceeding in lane	N	0	0	S	
E105995301							RUM:	87	Off lft/lft bnd=>obj						S/Barrier - Guardrail							

Detailed Crash Report - sorted

Crash No.	Data Source	Date	Day of Week	Time	Distance	ID Feature	Loc Type	Alignment	Weather	Surface Condition	Speed Limit	No. of Tus	Tu Type/Obj	Age/Sex	Street Travelling	Speed Travelling	Manoeuvre	Degree of Crash	Killed	Injured	Factors		
																						S F	
Southern Region			Wollondilly LGA				Wilton				Hume Hwy												
762204 P	22/07/2011	Fri	20:17	40 m	S	PICTON RD	OTH	CRV	Raining	Wet	80	1	CAR	M26	S in HUME HWY	30	Proceeding in lane	N	0	0	S		
E47028085							RUM:	81	Off left/rt bnd=>obj				Fence (prior to 2014)										
Southern Region			Wollondilly LGA				Wilton				Hume Hwy												
808088 P	11/06/2012	Mon	14:00	50 m	S	PICTON RD	OTH	CRV	Raining	Wet	80	1	CAR	M17	S in HUME HWY	50	Proceeding in lane	N	0	0	S		
E48358757							RUM:	87	Off lft/lft bnd=>obj				Fence (prior to 2014)										
Southern Region			Wollongong LGA				Cataract Creek				Mt Ousley Rd												
802391 P	15/06/2012	Fri	08:00	270 m	S	PICTON RD	OTH	CRV	Fine	Dry	80	1	TRK	M23	S in MT OUSLEY RD	70	Proceeding in lane	N	0	0	S		
E159802397							RUM:	87	Off lft/lft bnd=>obj				Drain/culvert										
Southern Region			Wollondilly LGA				Wilton				Hume Hwy												
1057846 S	08/02/2015	Sun	21:00	at PICTON ROAD OP			D F	STR	Overcast	Dry	110	1	WAG	F43	N in HUME HWY	Unk	Proceeding in lane	N	0	0			
E204023497							RUM:	72	Off road to right														
Southern Region			Wollondilly LGA				Wilton				Hume Hwy												
1075249 S	05/08/2015	Wed	07:25	at PICTON ROAD OP			D F	STR	Fine	Dry	110	2	CAR	M39	S in HUME HWY	Unk	Proceeding in lane	N	0	0			
E58620007							RUM:	30	Rear end				TRK	M24	S in HUME HWY	Unk	Proceeding in lane						
Report Totals:			Total Crashes: 140			Fatal Crashes: 6			Injury Crashes: 59			Killed: 7			Injured: 92								

Crashid dataset Picton Rd

Crash self reporting, including self reported injuries began in Oct 2014. Trends from 2014 are expected to vary from previous years. More unknowns are expected in self reported data. For further information refer to Data Manual or report provider.

Appendix C

Picton Road Traffic Forecasts

As requested by RMS, the forecast volumes in Table 6.1 of background traffic growth on Picton Road have been compared against forecasts presented in Parsons Brinckerhoff (2014) as part of the assessment of the proposed Wilton Junction Development. That assessment included forecasts of AM and PM peak traffic volumes in passenger car units (pcu) per hour on Picton Road east of Macarthur Avenue, approximately 9.5 km from the Cordeaux Pit Top Access Road.

To compare the forecasts, the peak hourly traffic volumes in Table 6.1 were converted to pcu using the same weighting factor of one heavy vehicle being equivalent to two pcu.

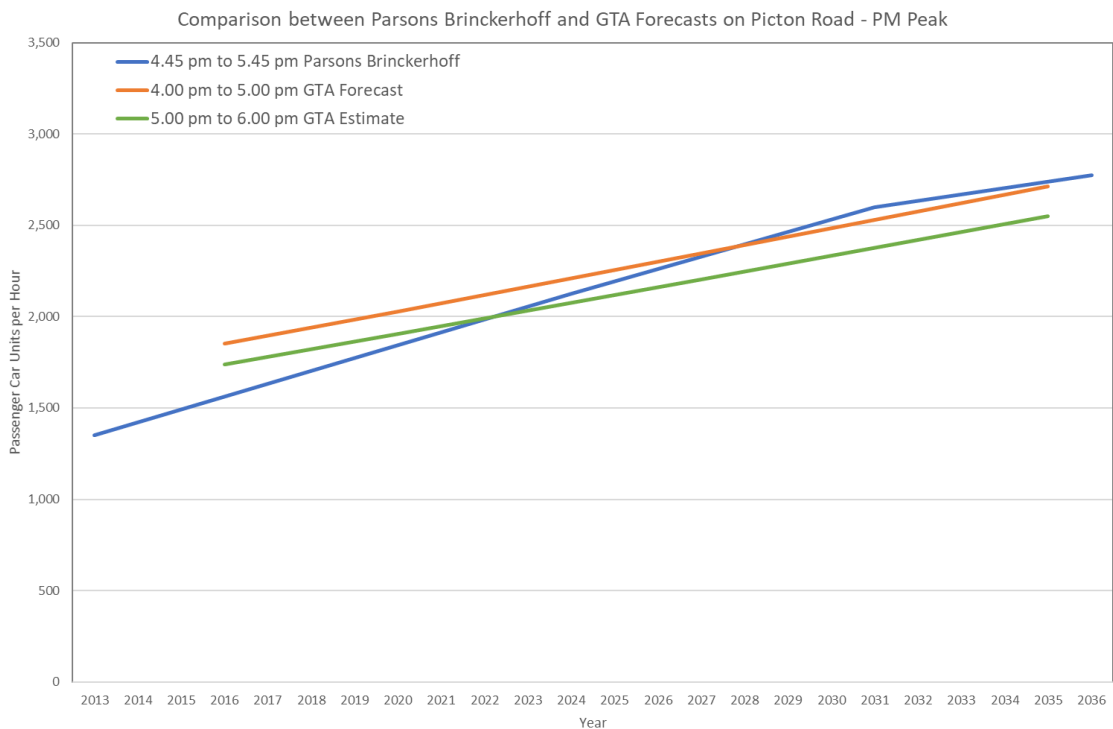
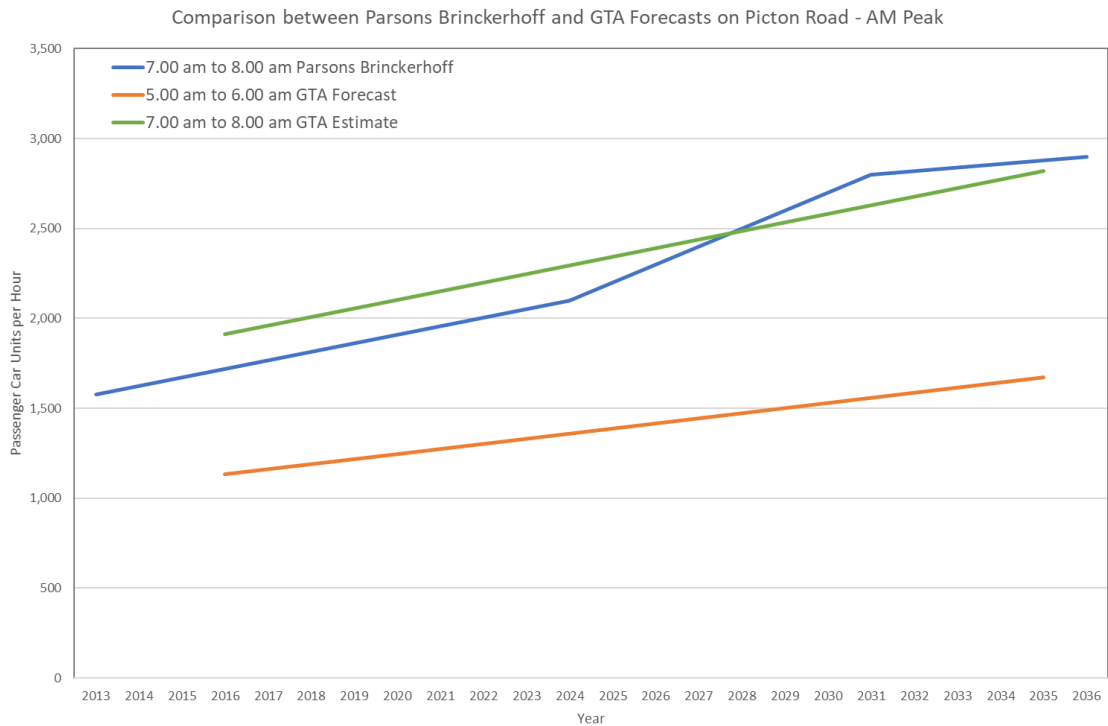
The two sets of forecasts do not represent the same hours of the day so should not be directly compared. The GTA forecasts relate to the busiest hours associated with the Mine of 5.00 am to 6.00 am and 4.00 pm to 5.00 pm. The Wilton Junction forecasts are for 7.00 am to 8.00 am and 4.45 pm to 5.45 pm. The RMS survey data on Picton Road north of Mount Keira Road (refer to Section 4.2) demonstrate that the two way volume during the morning Mine peak hour (5.00 am to 6.00 am) is approximately 60 per cent of that during the peak hour assessed for the Wilton Junction Development (7.00 am to 8.00 am). The volume during the afternoon Mine peak hour (4.00 pm to 5.00 pm) is approximately six per cent higher than between 5.00 pm to 6.00 pm. The RMS data does not allow direct comparison with the selected hour for the Wilton Junction development (4.45 pm to 5.45 pm).

In order to compare the two sets of forecasts, the GTA forecasts were factored using the results of the RMS survey on Picton Road as above to estimate the volume during the same hours as the Parsons Brinckerhoff forecasts.

The resulting pcu forecasts are presented in the table below, and the graphs following.

Year	Morning Peak Hour (pcu)			Evening Peak Hour (pcu)		
	7.00 am to 8.00 am PB Forecast	5.00 am to 6.00 am GTA Forecast	7.00 am to 8.00 am GTA Estimate	4.45 pm to 5.45 pm PB Forecast	4.00 pm to 5.00 pm GTA Forecast	5.00 pm to 6.00 pm GTA Estimate
2013	1,575	-	-	1,350	-	-
2016	-	1,150	1,925	-	1,850	1,740
2020	-	1,250	2,100	-	2,025	1,900
2024	2,100	-	-	2,125	-	-
2031	-	1,450	2,450	-	2,350	2,200
2035	-	1,675	2,825	-	2,725	2,550
2036	2,900	-	-	2,775	-	-

Note GTA forecasts and estimates are rounded to nearest multiple of 25



The results indicate that the two sets of forecasts are generally consistent, taking into account the variations in the time of day that each represent. In the longer term, the two sets of forecasts for similar hours of the day are very similar for 2035/2036.

Melbourne
A Level 25, 55 Collins Street
PO Box 24055
MELBOURNE VIC 3000
P +613 9851 9600
E melbourne@gta.com.au

Sydney
A Level 16, 207 Kent Street
SYDNEY NSW 2000
P +612 8448 1800
E sydney@gta.com.au

Brisbane
A Ground Floor, 283 Elizabeth Street
BRISBANE QLD 4000
GPO Box 115
BRISBANE QLD 4001
P +617 3113 5000
E brisbane@gta.com.au

Canberra
A Tower A, Level 5,
7 London Circuit
Canberra ACT 2600
P +612 6243 4826
E canberra@gta.com.au

Adelaide
A Suite 4, Level 1, 136 The Parade
PO Box 3421
NORWOOD SA 5067
P +618 8334 3600
E adelaide@gta.com.au

Gold Coast
A Level 9, Corporate Centre 2
Box 37, 1 Corporate Court
BUNDALL QLD 4217
P +617 5510 4800
F +617 5510 4814
E goldcoast@gta.com.au

Townsville
A Level 1, 25 Sturt Street
PO Box 1064
TOWNSVILLE QLD 4810
P +617 4722 2765
E townsville@gta.com.au

Perth
A Level 2, 5 Mill Street
PERTH WA 6000
PO Box 7025, Cloisters Square
PERTH WA 6850
P +618 6169 1000
E perth@gta.com.au