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9th December 2016

P0727 TL Poultry Farm Pheasants Nest

Tattersall Lander Pty Ltd
PO Box 580,
Raymond Terrace 2324

Attention: Bob Lander

Dear Bob

Proposed poultry farm, 180 Mockingbird Road, Pheasants Nest, NSW.

Further to your email and following our site visit and review of the documentation provided for the proposed livestock industry development located at 180 Mockingbird Road, Pheasants Nest, we provide the following traffic impact statement. This assessment has been prepared in accordance with the Austroads Guidelines and Section 2.3 of the RTA Guide to Traffic Generating Developments which provides the structure for the reporting of key issues to be addressed when determining the impacts of traffic associated with a development. This guide indicates that the use of this format and checklist ensures that the most significant matters are considered by the relevant road authority.

The report has also taken into consideration the planning requirements outlined within the Wollondilly Development Control Plan 2016.

The proposed development is located at 180 Mockingbird Road, Pheasants Nest to the west of the Hume Motorway as shown in Figure 1.

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Figure 1 – Location of the subject site in the context of the local road network (Source: Google Maps).

Section	Comment
Existing Situation	
2.1.1 Site Location and Access	The project site is located at 180 Mockingbird Road, Pheasants Nest to the west of the Hume Highway as shown in Figure 1. It has frontage and access to Mockingbird Road.
2.2.1 Road Hierarchy	The main road through the locality is the **Hume Motorway** (M31) which forms part of the state road network providing the major road connection between Greater Sydney (including links to the Westlink M7 Motorway) and south through the Southern Highlands to Victoria. It carries a wide range of vehicles up to and including B-double combinations. In the locality of the subject site it provides a dual carriageway with two lanes of travel in each direction separated by a wide central median. Sealed shoulders are provided to both sides of the roadway which allow for broken down vehicles to stop. There are no pedestrian footpaths or street lighting provided. The Hume Motorway operates under the posted speed limit of 110 km/hr. To the south of the subject site, the Hume Motorway connects with **Avon Dam Road** via a grade separated interchange which allows for northern connection only. Avon Dam Road provides a single lane of travel in both

Section	Comment
	directions and operates under the posted speed limit of 80 km/h. No pedestrian footpaths or street lighting is provided. Approximately 300 metres west of the Hume Motorway, Avon Dam Road connects with Arina Road via a 4-way roundabout. **Arina Road**, **Dwyer Road** and **Mockingbird Road** are all local roads providing access to rural properties throughout the local area. Each of these roads operate under the posted speed limit of 80km/hr. They provide a sealed pavement with a single lane of travel in each direction and grass verges to each side. There are no pedestrian footpaths or street lighting provided along these roads. To the south of the subject site, Dwyer Road forms a 'Give Way' controlled T-intersection with Mockingbird Road where Dwyer Road has priority. West of this intersection, Dwyer Road also forms a 'Give Way' controlled T-intersection with Arina Road where Arina Road has priority.
2.2.2 Roadworks	No roadworks noted in the locality of the subject site.
2.2.3 Traffic Management Works	No traffic management works noted in the locality of the subject site.
2.2.4 Pedestrian and Cycling Facilities	No pedestrian or cyclists facilities provided. Due to the rural nature of the local area, there is generally low demand for pedestrian and cyclist movements.
2.2.5 Public Transport	No bus routes operate along Mockingbird Road except for local school buses. The nearest railway station is located at Bargo some 7km to the south of the subject site. This station is on the Southern Highlands Line which provides rail services between Campbelltown and Goulburn.
2.3 Traffic Flows	
2.3.1 Daily Traffic Flows	Traffic data from the RMS indicates that the Annual Average Daily Traffic (AADT) volumes along the Hume Motorway (at the Avon Dam Road interchange) were 32,300 vehicles per day in 2015 with traffic flows being reasonably balanced in both directions. Traffic flows along Avon Dam Road were significantly lower with 4,300 vehicles per day. Observations on site indicate that daily traffic flows along Mockingbird Road would be very low with less than 500 vehicles per day using this road.
2.3.2 Daily Traffic Flow Distribution	Traffic flows would be reasonably balanced throughout the day.
2.3.3 Vehicle Speeds	No speed surveys were completed as part of the site work. However, it is considered that traffic generally travels at or above the posted speed limit of 80 km/hr due to the road alignment and the low traffic volumes along the local roads.
2.3.4 Existing Site Flows	The existing site flows are very low, consisting predominately of truck movements associated the existing rural industry on the site (vegetable storage and distribution).
2.3.5 Heavy Vehicle Flows	There is a significant volume of trucks currently using the Hume Motorway in this location. The Hume Motorway forms part of the state road freight network providing the main road corridor between Sydney and Canberra as well as further south through to Victoria. Traffic data from the RMS indicates that heavy vehicle flows represent around 20% of the total flows along this road. Mockingbird Road, Dwyer Road and Arina Road do not provide a throughway for heavy vehicles. Load limits also apply along the local roads throughout the area. As such, there are limited heavy vehicle flows

Section	Comment
	along these roads which are associated with existing rural industry throughout the area.
2.3.6 Current Road Network Operation	The local road network in this location operates very well with no delays and congestion due to the very low traffic flows along the local roads.
2.4 Traffic Safety and Accident History	A review of the local roads shows no safety concerns with roads and intersections well laid out providing suitable visibility. A review of accident data provided by the RMS for the past five years shows that there has been 11 accidents along the route between the site and the freeway along Mockingbird, Dwyers and Arina Roads. Three of these have occurred at the intersection of Lupton Road and Avon Dam Road. This intersection has been upgraded in recent years to provide a roundabout.
2.5 Parking Supply and Demand	
2.5.1 On-street Parking Provision	There is no designated on-street parking along Mockingbird Road or along the local roads in the locality of the site. Vehicles can pull off the roadway onto the unsealed verge to stop as required.
2.5.3 Parking Demand and Utilisation	There is no demand for parking noted within the vicinity of the site. Given the rural nature of the locality, parking for the various dwellings and rural users along this road can be accommodated within the boundaries of the individual sites.
2.5.4 Set down or pick up areas	There are no designated set down areas in the immediate locality of the subject site.
2.6 Public Transport	
2.6.1 Rail Station Locations	The nearest station is located at Bargo some 7km to the south of the subject site. Bargo Station is on Southern Highlands Line which provides regular services between Campbelltown and Goulburn along the intercity rail network.
2.6.2 Bus Stops and Associated Facilities	There are no bus stops or facilities within the vicinity of the site.
2.6.3 Pedestrians	There are no pedestrian footpaths within the vicinity reflecting the rural nature of the area and the limited demand.
2.7 Other Proposed Developments	No other significant developments noted in the locality.
The Development	
3.1.1 Nature of Development	The proposed development allows for the construction of a new poultry farm with the capacity for up to 375,000 birds per cycle. Development of the site will consist of the demolition of existing structures on the site to allow for the construction of 7 new tunnel ventilated poultry sheds and associated infrastructure.
3.1.2 Access and Circulation Requirements	All access to the site will be provided via an upgraded driveway access off Mockingbird Road. The internal road layout shall allow for manoeuvring to be completed within the site with all vehicles able to enter and exit the site in a forward direction.
3.2 Access	
3.2.1 Driveway Location	There is no change to the location of the driveway associated with the proposed development. The existing driveway will be upgraded to accommodate the heavy vehicle movements into and out of the site. The existing driveway is located on an outside curve on the western boundary of the site which provides good visibility in both directions for drivers exiting the site.
3.2.2 Sight Distances	The sight distances for the existing access have been reviewed on site as part of the site work for this project. A review of the existing driveway indicates that visibility exceeds 105 meters in both direction along

Section	Comment
	Mockingbird Road with visibility to the right (north) along Mockingbird Road being more than 150 meters. These distances satisfy the requirements of AS2890 which specifies a minimum sight distance of 105 meters for the posted speed limit of 80 km/hr along Mockingbird Road with 111 meters being desirable.
3.2.3 Service Vehicle Access	Trucks are able to enter and exit the site in a forward direction with manoeuvring able to be accommodated within the site.
3.2.4 Queuing at entrance to site	No vehicle queues expected at site entry / exit point due to the low overall traffic flows from the site and the available capacity within the local road network.
3.2.5 Comparison with existing site access	No change to the location of the existing vehicle access to the site. As part of the development the existing access driveway will be upgraded to accommodate the heavy vehicle movements (i.e. semi-trailers) associated with the development.
3.2.6 Access to Public Transport	The rural nature and location of the site generates very limited demand for public transport. The use of public transport to access the site is not considered appropriate.
3.3 Circulation	
3.3.1 Pattern of circulation	All vehicles are able enter and exit the site in a forward direction with the internal road allowing for all vehicles including trucks to complete a turn to exit the site in a forward direction.
3.3.2 Road width	As part of the development of the site, the existing access driveway to Mockingbird Road will be widened to allow access for heavy rigid vehicles including semi-trailers. The proposed driveway shall be designed in accordance with AS2890 to allow for two way movements into and out of the site. The central roadway within the site is in the order of 30m wide, adequate to accommodate the turning movements of the largest vehicles on site.
3.3.3 Internal Bus Movements	No internal bus movements are required for the proposed development.
3.3.4 Service Area Layout	No specific service area layout is required. Vehicles can stand adjacent to the future sheds as appropriate while loading or unloading within the site.
3.4 Parking	
3.4.1 Proposed Supply	Parking for staff or visitors can be accommodated within the site adjacent to the future buildings with no external impacts to Mockingbird Road.
3.4.2 Authority Parking	The Wollondilly Development Control Plan 2016 does not provide a specific parking requirement for developments of this nature. The parking demands associated with normal levels of activity / ongoing operations of the proposed development should be accommodated within the site.
3.4.3 Parking Layout	No specific parking will be constructed on site. Vehicles will be able to park adjacent to the future buildings within the site as required.
3.4.4 Parking Demand	Normal parking demands can be accommodated within the site with no external impacts to the surrounding road network.
3.4.5 Service Vehicle Parking	Service vehicles and trucks can be accommodated within the site adjacent to the future buildings while loading or unloading.
3.4.6 Pedestrian and Bicycle Facilities	Consistent with the existing facilities and the rural nature of the site. Due to the low demands, no specific pedestrian or cycling facilities will be required.
Traffic Impacts	
4.1 Traffic Generation	There are no standard traffic generation rates provided by the RTA Guide to Traffic Generating Development and as such traffic generation

Section	Comment
	for the site will be calculated from first principles based on similar poultry farms assessed by Seca Solution. The production of poultry generally occurs over a 52-54 day cycle which concludes with a cleanout followed by a period for waste removal and restocking. The traffic generated throughout this cycle varies depending upon the stage of production. Over a year there would be on average 5.5 of these growing cycles. Advice from the study team indicates that the proposed poultry farm would generate the following traffic movements during a typical cycle. These numbers are based on a capacity of 375,000 birds per cycle: • Feed truck – 3 trucks inbound and 3 outbound per week. These movements would occur during the day. • Poultry trucks – The first thinning occurs at 32-34 days, with further thinnings, subject to market demand, until the final cleanout, which at latest occurs at 52-54 days. Assuming a 30% first thinning, a further 35% thinning and a 35% final cleanout, the truck movements associated with this would be up to 8 vehicles (inbound and outbound) over a 24 hour period during each thinning or cleanout. Truck movements would occur over 3-4 nights over the course of a fortnight. • Waste Removal – the removal of waste following a cleanout would require approximately 27 trucks (inbound and outbound). This would occur over several days following the cleanout of a shed with 5-7 trucks per day. These movements would occur during the day. • Restocking – two truck and trailer combinations per week (inbound and outbound) over two weeks • Litter – 5 trucks per cycle (ad-hoc over 9-10 weeks) for the delivery of litter which is stockpiled within the site. These do not occur on specific days or at specified times. It is considered that peak movements would occur if a feed truck delivery was to occur on the same day that poultry is being transferred off site (i.e. during a thinning or cleanout). This would result in a worst case of 9 inbound and 9 outbound truck movements spread across a 24-hour day (32 movements in total). A cleanout would occur once every 9-10 weeks (allowing up to 2 weeks between batches for cleaning of sheds and preparation for restocking). Poultry movements would typically occur at night (for the welfare of the birds) which is when the traffic volumes along the local roads would be low. Truck movements are carefully timed so that there is usually only one truck on site at any one time. Waste removal and the delivery of feed and litter would typically occur during the daytime. There would also be a small number of light vehicle movements during each thinning / cleanout associated with workers arriving on the site. Workers would arrive at the beginning of a shift (before the trucks arrive) and would leave at the end of the shift (after most truck movements have been completed). It is considered that workers could arrive together (car share), further reducing the number of vehicle movements.

Section	Comment
	Overall the net increase in traffic flows associated with this development would be slightly lower than those described above as these rates make no allowance for the existing flows from the site.
4.1.1 Daily and Seasonal Factors	As the clearance of a shed can occur over a single campaign there will be periods of peak movements followed by days where there are no heavy vehicle movements generated by the site.
4.1.2 Pedestrian Movements	Given the rural nature of the area there will be no external pedestrian movements associated with the development.
4.2 Traffic Distribution and Assignments	All heavy vehicles departing the site will travel south along Mockingbird Road and use Dwyer Road, Arina Road and Avon Dam Road to connect with the Hume Motorway (northbound) for access to the Greater Sydney Area. Inbound vehicles will return along this route.
4.2.1 Origin / destinations assignment	The end-product for this farm will be delivered to the Cordina Processing Plant located at Girraween, with inbound product coming from the Greater Sydney Area. All trucks will access the site using Avon Dam Road, Arina Road, Dwyer Road and Mockingbird Road for connection to the Hume Highway.
4.3 Impact on Road Safety	The proposed access is consistent with that currently provided at the site with no changes to the location of the existing driveway. The existing driveway is located on an inside curve which provides good visibility in both directions along Mockingbird Road for drivers exiting the site. The local roads in the locality of the site provide a suitable road alignment and width for the movement of trucks. Traffic flows along the local roads are very low and well within the capacity of the local road network. The proposed development will not significantly increase the daily flows along these roads, and therefore it is considered that the development traffic would have an acceptable impact upon the overall road safety.
4.4 Impact of Generated Traffic	
4.4.1 Impact on Daily Traffic Flows	Observations on site indicate that the daily traffic flows along the local roads (Mockingbird Road, Dwyer Road and Arina Road) would be less than 500 vehicles per day. The local road network currently operates well with no delays or congestion for existing road users. The current traffic flows on the local road network are well within the capacity (greater than 1000 vehicles per hour, two-way) of the local roads. Outside of a thinning or cleanout, the daily flows associated with operation of the site would be significantly lower, typically only 1-2 trucks per day. These additional vehicles are well within the capacity of the local road network and will not have a noticeable impact upon existing road users. During each thinning or cleanout the proposed poultry farm could generate peak daily traffic flows of up to 18 heavy vehicles (9 inbound and 9 outbound) over a 24 hour day which would occur over 3-4 days. Most of these movements would occur at night when the traffic flows along the local roads are very low.
4.4.2 Peak Hour Impacts on Intersections	The nearby intersections provide a safe layout and a road alignment which allows for good visibility on all approaches. Sight distances at these intersections are acceptable and satisfy the requirements of the Austroads Guide to Road Design for a rural road with a posted speed limit of 80 km/hr.

Section	Comment
	The proposed development will not produce a significant increase in local traffic with vehicles mostly travelling at night (between 6pm and 5am) when the local traffic flows are very low. It is therefore considered that the proposed development will have very minimal impact on the peak hour performance of intersections through the locality.
4.4.3 Impact of Construction Traffic	Construction work associated with the proposal will consist of the demolition of existing structures on site to allow for the construction of seven new poultry sheds and associated infrastructure. All earthworks will be contained on site with no requirement to import or remove fill. Given the rural nature of the site and the available area for parking and materials storage all construction work will be contained within the site with no impact upon the external road network. Access to the site for workers and heavy vehicles associated with construction activities will be provided using the existing site access which will also be upgraded as part of the proposed works. Up to 8 heavy vehicles (16 movements) with additional light vehicles for staff could access the site each day during peak construction. These vehicles can be accommodated on the local road network with minimal impact.
4.4.4 Other Developments	No major developments noted in immediate vicinity of the site.
4.5 Public Transport	
4.5.1 Options for improving services	No requirements to improve services.
4.5.2 Pedestrian Access to Bus Stops	None available
4.6 Recommended Works	
4.6.1 Improvements to Access and Circulation	Upgrades to the existing access, consistent with the requirements of AS2890 and the Wollondilly Development Control Plan, to cater for heavy vehicles (including semi-trailers) which will be required to access the site.
4.6.2 Improvements to External Road Network	None required as the future traffic flows associated with the development will be low. Background traffic flows on the local roads are also low being less than 500 vehicles per day. Much of the traffic associated with the movement of poultry occurs at night when there are less vehicles travelling along the local roads.
4.6.3 Improvements to Pedestrian Facilities	No upgrades required.
4.6.4 Effect of Recommended Works on Adjacent Developments	No impact as no external works recommended.
4.6.5 Effect of Recommended Works on Public Transport Services	Nil.
4.6.6 Provision of LATM Measures	None required.
4.6.7 Funding	No external road upgrades required.

Conclusion

From the site work completed and following a review of the provided documentation, it is considered that the proposed poultry farm development will have an acceptable impact upon the overall road network in the locality of the site. The existing traffic flows in the locality of the site are very low and well within the capacity of the local roads. Any increases in the local traffic associated with operation of the proposed farm will not have a noticeable impact on the operation or safety of these roads.

The proposed site access operates in a safe manner and allows for vehicles to enter and exit the site in a forward direction, consistent with the existing rural nature of the site. Vehicles will be able to manoeuvre within the site to exist in a forward direction.

Any parking associated with the development can be accommodated within the subject site.

It is concluded that the development should be approved on traffic and access grounds.

Sean Morgan

Director

Attachment A - Site Photos

Photo 1 – View looking left (south) along Mockingbird Road from the existing driveway.

Photo 2 – View looking right (north) along Mockingbird Road from the existing driveway.

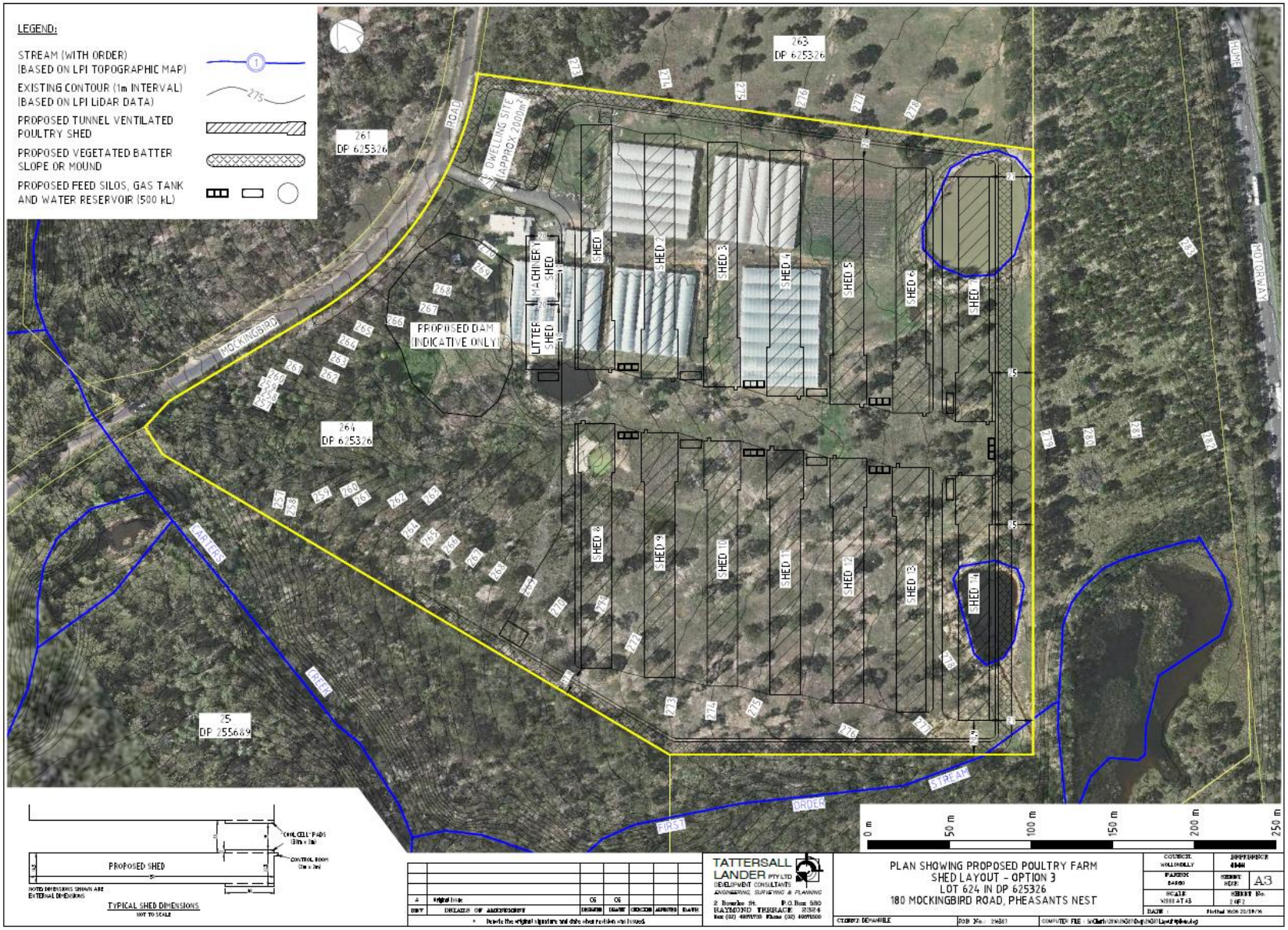
Photo 3 – Subject site showing the existing site access.

Photo 4 – View looking south along Mockingbird Road showing typical cross section (Photo taken from the west of the subject site).

Photo 5 - View looking left (east) along Dwyer Road from Mockingbird Road.

Photo 6 - View looking right (west) along Dwyer Road from Mockingbird Road.

Attachment B – Site Plan



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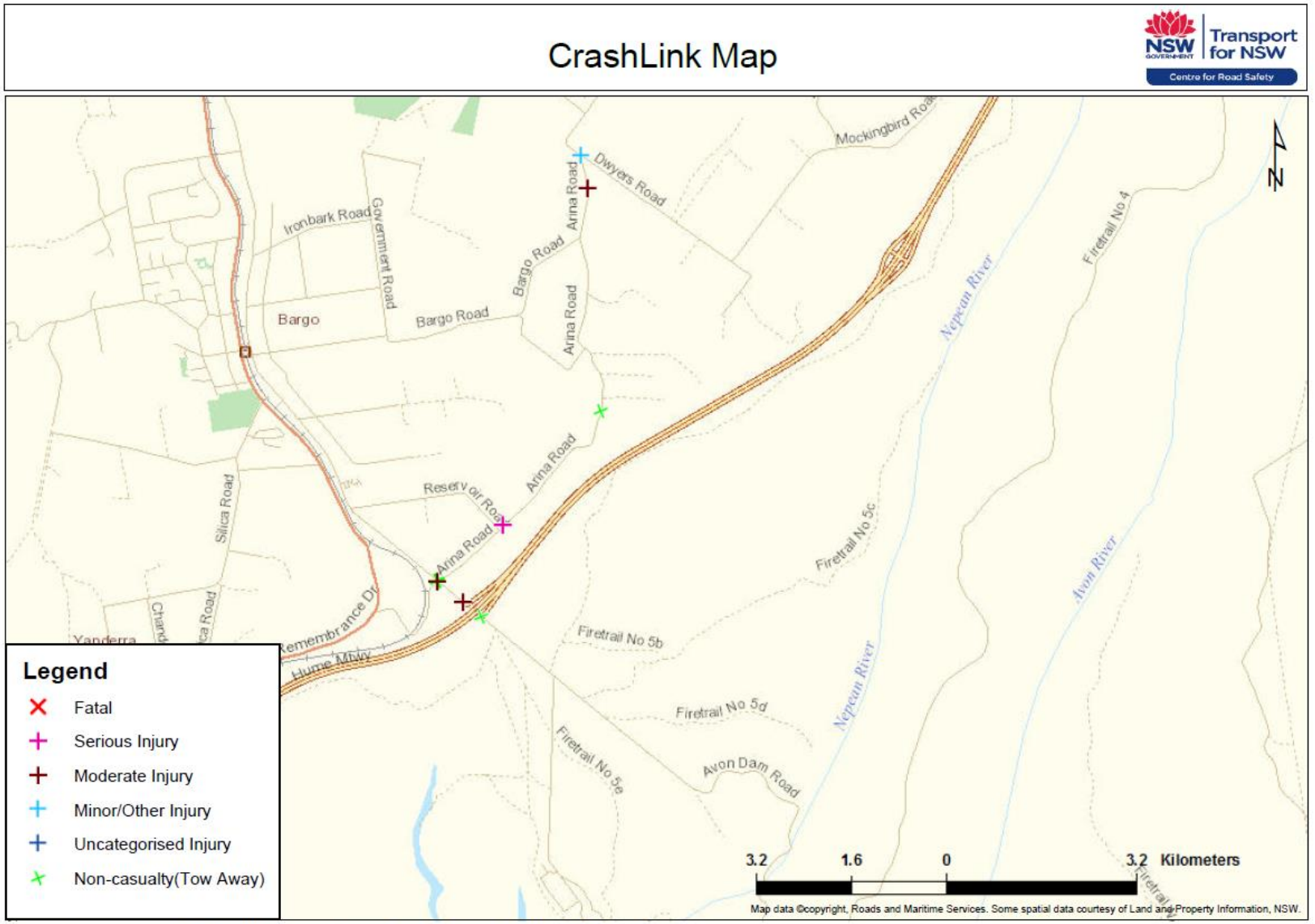
Attachment C – Accident Data



eported crashes Mockingbird Rd to Avon Dam Rd 1 Jan 11 - 31 Dec 15

Detailed Crash Report

NSW Transport for NSW Centre for Road Safety

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-Detailed	Killed	Seriously Inj.	Moderately Inj.	Minor/Other Inj.	Uncateg'd Inj.	Factors
Southern Region																									
Wollondilly LGA																									
Bargo																									
Arina Rd																									
1014545	P	24/02/2014	Mon	17:15	2 km	N	AVON DAM RD	2WY	STR	Fine	Dry	80	2	4WD	M27	N in ARINA RD	60	Perform U-turn	NC	0	0	0	0	0	
E54048834								RUM	40	U turn				CAR	M50	N in ARINA RD	60	Proceeding in lane							
774827	P	17/11/2011	Thu	20:30	405 m	N	BARGO RD	2WY	CRV	Fine	Dry	80	1	TRK	M34	S in ARINA RD	80	Proceeding in lane	MC	0	0	1	0	0	A S
E47213616								RUM	86	Off left/left bend															
783052	P	24/01/2012	Tue	15:20	50 m	N	RESERVOIR RD	2WY	STR	Fine	Dry	80	1	CAR	M29	N in ARINA RD	80	Pull out opposite	SC	0	1	0	0	0	
E48894289								RUM	51	Out of control otake															
Avon Dam Rd																									
793918	P	26/04/2012	Thu	18:25		at	ARINA RD	XJN	STR	Fine	Dry	80	2	CAR	M20	W in AVON DAM RD	80	Pull out opposite	MC	0	0	1	2	0	
E47714312								RUM	53	Overtake turning				TRK	M19	W in AVON DAM RD	20	Turning right							
833768	P	04/04/2013	Thu	20:05	10 m	N	ARINA RD	XJN	STR	Raining	Wet	80	1	CAR	M18	S in AVON DAM RD	70	Proceeding in lane	NC	0	0	0	0	0	
E50977933								RUM	66	Object on road				Other non fixed object											
836075	P	03/02/2013	Sun	17:00		at	HUME HIGHWAY TO	2WY	CRV	Fine	Dry	60	1	CAR	F36	E in AVON DAM RD	Unk	Proceeding in lane	MC	0	0	1	0	0	
E52259882								RUM	87	Off lft/lft bnd=>obj				Fence (prior to 2014)											
844724	P	12/07/2013	Fri	10:30		at	LUPTON RD	XJN	STR	Fine	Dry	80	2	CAR	M72	N in LUPTON RD	10	Proceeding in lane	NC	0	0	0	0	0	
E52152046								RUM	10	Cross traffic				CAR	F16	E in AVON DAM RD	70	Proceeding in lane							
1003536	P	31/12/2013	Tue	06:50		at	LUPTON RD	XJN	STR	Fine	Dry	80	2	TRK	M25	N in LUPTON RD	40	Proceeding in lane	NC	0	0	0	0	0	
E52491960								RUM	10	Cross traffic				TRK	M23	E in AVON DAM RD	60	Proceeding in lane							
1037452	P	06/08/2014	Wed	07:35		at	LUPTON RD	XJN	STR	Fine	Dry	80	2	4WD	M43	N in LUPTON RD	10	Proceeding in lane	NC	0	0	0	0	0	
E57313587								RUM	10	Cross traffic				CAR	M28	W in AVON DAM RD	40	Proceeding in lane							
Dwyers Rd																									
746004	P	28/02/2011	Mon	12:10	16 m	E	ARINA RD	2WY	STR	Overcast	Dry	80	2	LOR	M28	E in DWYERS RD	20	Incorrect side	OC	0	0	0	1	0	
E44674316								RUM	20	Head on				CAR	F46	W in DWYERS RD	35	Proceeding in lane							
Pheasants Nest																									
Hume Hwy																									
1049960	P	07/10/2014	Tue	14:00		at	AVON DAM RD	TJN	STR	Fine	Dry	80	1	UTE	M39	S in HUME HWY	90	Turning right	NC	0	0	0	0	0	S
E56504243								RUM	81	Off left/rt bnd=>obj				S/Barrier - Guardrail											

Report Totals: Crashes: 11 Fatal Crashes(FC): 0 Serious Injury Crashes(SC): 1 Moderate Injury Crashes(MC): 3 Minor/Other Injury Crashes(OC): 1 Uncategorised Injury Crashes(UC): 0 Non-Casualty Crashes(NC): 6

Killed(K): 0 Seriously Injured(S): 1 Moderately Injured(M): 3 Minor/Other Injured(O): 3 Uncategorised Injured(U): 0

Crashid dataset eported crashes Mockingbird Rd to Avon Dam Rd 1 Jan 11 - 31 Dec 15

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