

INTERNAL

Condition C32 - Request for use of additional roads in TTMP Revision 10 EnergyConnect (NSW - Eastern Section) 45860-HSE-DOC-D-0056

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Revision History	
Rev.	Detailed Description
A	Issued for internal review
B	Issued to DPE
C	Revised to address DPHI comments
D	Revised to address DPHI comments
E	Revised Wagga Wagga LGA section
F	Revised to address Wagga Wagga City Council comments
G	Revised to address DPHI comments
H	Revised to address DPHI and Wagga Wagga City Council comments

Key Document Stakeholders
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Abbreviations

Acronym	Definition
CCS	Community Communication Strategy
dB	Decibel
dBA	Decibel (A-weighted)
DPHI or Department	NSW Department of Planning, Housing and Infrastructure
LGA	Local Government Area
LoS	Level of Service
metres	m
NSW	New South Wales
Project, the	EnergyConnect (NSW - Eastern Section)
RNP	Road Noise Policy
TfNSW	Transport for NSW
TTMP	Traffic and Transport Management Plan

1 Introduction

1.1 Context

Condition 32 of the Infrastructure Approval for Project EnergyConnect (NSW - Eastern Section) (the project) states that all heavy and light vehicles associated with construction must travel to and from the site via the primary access routes, secondary access routes and the water supply routes, unless the Planning Secretary agrees otherwise.

This document seeks the Planning Secretary's agreement, in accordance with condition C32, to use three additional access routes which are not currently included within the Infrastructure Approval.

1.2 Purpose

The project has been consulting with Transport for New South Wales (TfNSW) and the relevant councils concerning the use of additional roads. The additional roads are required for the following reasons:

- to access various elements of the project infrastructure, including water supply points and the transmission line easement;
- to provide alternate routes in the event of flooding; and
- due to requests from various councils to use alternate routes in their respective local government area.

The project seeks the Planning Secretary's agreement, per condition C32, to use the following additional roads:

- Jerilderie Street, Berrigan Local Government Area (LGA);
- Strathvale Road, Berrigan LGA;
- Church Street (extension), Balranald LGA;
- Moa Street, Balranald LGA;
- Berambong Road, Murray River LGA;
- Perekerton Road, Murray River LGA;
- Keri Keri Road (extension), Murray River LGA;
- Murray Street (extension), Murray River LGA;
- Lea Street (extension), Murray River LGA;
- River Street, Murray River LGA;
- Lachlan Street (Cobb Highway), Hay LGA;
- Thelangerin Road, Hay LGA;
- Showground Road, Hay LGA;
- Dunera Way, Hay LGA;
- Goolgumbra Road, Edward River LGA;
- Pooginook Road, Edward River LGA;
- Unnamed track (located off Four Corners Road), Edward River LGA;

- Jimmy Cull Road, Murrumbidgee LGA;
- Bencubbin Avenue, Murrumbidgee LGA;
- Wilson Road (extension), Murrumbidgee LGA;
- Goolgumbbla Road, Murrumbidgee LGA;
- McLennons Bore Road (extension), Murrumbidgee LGA;
- Thurrowa Road (extension), Murrumbidgee LGA;
- Stephen Street, Federation LGA;
- Spraydon Road (extension), Federation LGA;
- Commera Wilson Lane, Lockhart LGA;
- Tinamba Lane, Lockhart LGA;
- Wattles Road, Lockhart LGA;
- Kings Lane, Lockhart LGA;
- Tutty's Lane, Lockhart LGA;
- Strongs Lane (extension), Lockhart LGA;
- Kyeamba Avenue, Wagga Wagga LGA;
- Mitchell Road (extension), Wagga Wagga LGA;
- Vincent Road, Wagga Wagga LGA; and
- Redbank Road (Boiling Down Road to transmission line easement), Wagga Wagga LGA.

These routes were not included within the Traffic and Transport Impact Assessment or Table 6-8 of Appendix B of the Amendment Report, therefore the routes are listed as additional access routes within the *Traffic and Transport Management Plan (Revision 10)* (45860-HSE-PL-D-0115).

For further detail regarding the additional roads, such as surface type, access road type, authority and reason for use, refer to Appendix A.

The location of the additional roads are shown in maps in Appendix B.

2 Assessment methodology and metrics

2.1 Traffic

TfNSW's *Guide to Traffic Generating Developments* demonstrates the indicative level of service and the corresponding theoretical peak hour traffic flows typically applied for urban roads which are subjected to interrupted flows (i.e. interruptions from turning traffic at minor intersections and access driveways) (refer to Table 2.1 below).

Table 2.1 - TfNSW's Guide to Traffic Generating Developments (October 2002)

Level of service (LoS)	One lane (vehicle/hour)
A	200
B	380
C	600
D	900
E	1400

TfNSW's *Guide to Traffic Generating Developments* indicates a desirable traffic flow is maintained up to a Level of Service (LoS) C for weekday peak hour traffic, which equals to approximately 600 vehicles per hour for each lane. In recreational peak hours (i.e., peaks associated with tourist or recreational activity), traffic flow of up to LoS D is generally accepted, which translates to approximately 900 vehicles per hour.

Refer to Section 3 for the traffic assessment completed for the additional roads within each LGA.

2.2 Noise

The TfNSW Noise Estimator tool was used to determine the estimated noise level contributions from construction-related traffic on the additional roads.

Refer to Section 3 for the noise assessment completed for the additional roads within each LGA.

3 Assessment of additional routes

3.1 Berrigan LGA

Approval is sought for the following roads within Berrigan LGA:

- Jerilderie Street; and
- Strathvale Road.

During consultation of the *Traffic and Transport Management Plan* (Revision B and Revision 4) (45860-HSE-PL-D-0115), Berrigan Shire Council requested the project use an alternate route through the town of Berrigan. Berrigan Shire Council requested Jerilderie Street and Strathvale Road be used, and that the use of Carter Street and Oaklands Road be minimised due to the residential properties in this area.

As a result of this, the *Traffic and Transport Management Plan* (Revision10) (45860-HSE-PL-D-0115) was amended to:

- include the additional access route of Jerilderie Street and Strathvale Road (Figure 3.1); and
- include a management measure which stated that the use of Carter Street and Oaklands Road will be minimised during construction.

Jerilderie Street is a sealed regional road, consisting of two way traffic. Strathvale Road is unsealed with a portion sealed near the eastern end of the road. Strathvale Road is a local road and allows for two way traffic. Vehicles will travel in both directions from Oaklands Road to Strathvale Road to Jerilderie Street and Chanter Street.

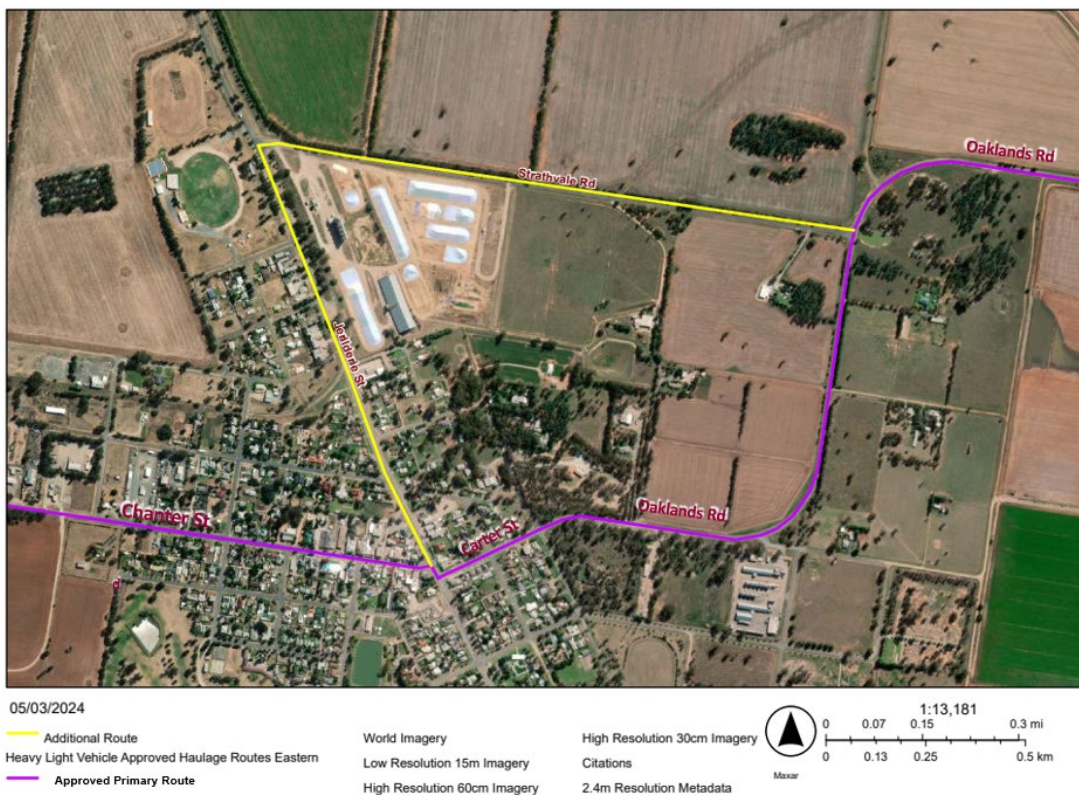


Figure 3.1 - Overview of Jerilderie Street and Strathvale Road

Refer to the *Agency Consultation Report Stage 2 Traffic and Transport Management Plan* (45860-HSE-PL-D-0030) as submitted to the Department for the details of consultation with Berrigan Shire Council.

3.1.1 Sensitive receivers

A sensitive receiver is located approximately 150 metres (m) south of Strathvale Road, on the eastern end of Strathvale Road. There are numerous sensitive receivers located along the proposed section of Jerilderie Street. Refer to Figure 3.2 for the location of the sensitive receivers near to Jerilderie Street and Strathvale Road.

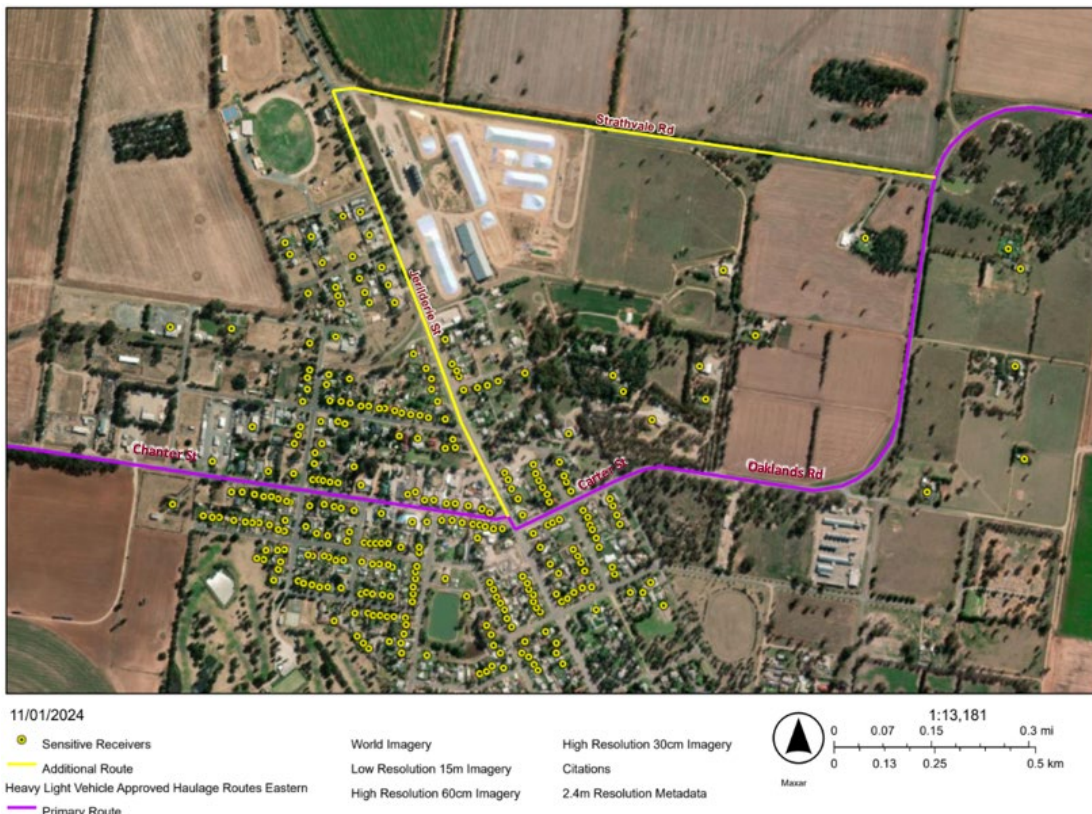


Figure 3.2 - Sensitive receivers along Jerilderie Street and Strathvale Road

3.1.2 Traffic

It is estimated that typical construction traffic would generate two vehicle movements per day along Jerilderie Street and Strathvale Road. At peak, it is estimated that four vehicle movements would occur each day along these roads. The construction vehicles movements are anticipated to be primarily light vehicles, however heavy vehicles will utilise these additional roads. The project notes that heavy vehicles already use Jerilderie Street as it is a regional road through the town of Berrigan, New South Wales (NSW).

As discussed above, the highest amount of additional traffic on the additional roads generated from construction is four vehicle movements per day. This approximates to a peak hourly construction traffic rate of 0.4 vehicle movements per hour.

Considering the desired theoretical threshold (LoS C) of 600 vehicle movements per hour per traffic lane, an increase of 0.4 vehicles movements per hour is approximately 0.06% of this threshold. Therefore, the impact of construction-related traffic along the additional roads are not expected to affect the performance of the road network even during peak periods. No traffic counts are available on these roads for a detailed assessment. However, these roads are observed to have similar traffic, access and land use conditions as those observed on the local and regional

roads included for the study. The addition of construction traffic on these roads is also likely to be negligible compared to the desired theoretical threshold (LoS C - 600 vehicle movements per hour).

As these roads will only be used on limited occasions, the number of vehicle movements in this location is expected to be low. Accordingly, potential traffic impacts due to construction-related traffic on Jerilderie Street and Strathvale Road are anticipated to be negligible.

3.1.3 Noise

The road noise levels generated by construction traffic utilising Jerilderie Street and Strathvale Road will not exceed the NSW RNP day-time criteria of 55 decibel (dBA) equivalent noise level ($L_{eq\ 1hr}$) for local roads. No further assessment is required as the increase in noise levels are less than 2 dBA. The assessment indicated that the noise levels generated from construction vehicles utilising this route comply with relevant amenity-based noise criteria at the nearest identified sensitive receivers along each proposed route. The estimated noise level contribution and the relevant NSW RNP criteria for the use of the additional roads is identified in Table 3.1.

As Jerilderie Street is a regional road, heavy vehicles access this road to travel through Berrigan. The additional of the heavy vehicles due to construction on this road is not anticipated to substantially increase the current traffic noise generated by the other heavy vehicles accessing this road.

It is noted that the predicted road noise levels and associated increases will only occur during the day-time period and any noise impacts associated with construction-related traffic would be temporary.

Table 3.1 - Anticipated construction traffic noise levels on Jerilderie Street and Strathvale Road

Road name	Road type	Peak volume (vehicles per hour in one direction)	Peak construction volume (vehicles per hour in one direction)	Nearest sensitive receiver	Estimated noise level contribution from construction traffic (dBA)	Change in noise levels (dBA)
Jerilderie Street	14mm chipseal, 50 to 70 km/hr	Heavy vehicles - 10 Light vehicles - 20	Heavy vehicles - 0.4 Light vehicles - 0	15m from street frontage	55 $L_{eq\ 1hr}$	0.1
Strathvale Road	14mm chipseal, 50km/hr	Heavy vehicles - 5 Light vehicles - 5	Heavy vehicles - 0.4 Light vehicles - 0	150m from street frontage	51 $L_{eq\ 1hr}$	0.3

3.1.4 Air quality

As Strathvale Road is unsealed, there is potential for dust to be generated from the construction vehicles. However, the section of Jerilderie Street adjacent to the sensitive receiver is sealed. This will limit the dust impacts to the sensitive receiver as a result of the additional construction traffic. Dust generation from the use of Strathvale Road would be monitored visually by site personnel during the work. If required mitigation measures to minimise dust impacts to sensitive residential receivers will be implemented throughout the construction. No dust impacts are anticipated from the use of Jerilderie Street as the road is sealed.

3.2 Hay LGA

Approval is sought for the following roads within Hay LGA:

- Lachlan Street (Cobb Highway);
- Thelangerin Road;
- Showground Road; and
- Dunera Way.

The use of Lachlan Street (Cobb Highway), Thelangerin Road, Showground Road and Dunera Way is required to access the proposed water supply point at 59 Thelangerin Road (refer to Figure 3.3). This water supply point will be used to provide water for construction purposes. Vehicles will access the water supply point by driving north along Lachlan Street (Cobb Highway), then west along Showground Road and Dunera Way, and then north along Thelangerin Road. Vehicles will drive along the same route to leave the water supply point.

The additional roads in the Hay LGA are sealed and consist of two way traffic. The roads are local roads, except for Lachlan Street (Cobb Highway) which is identified as a State road.

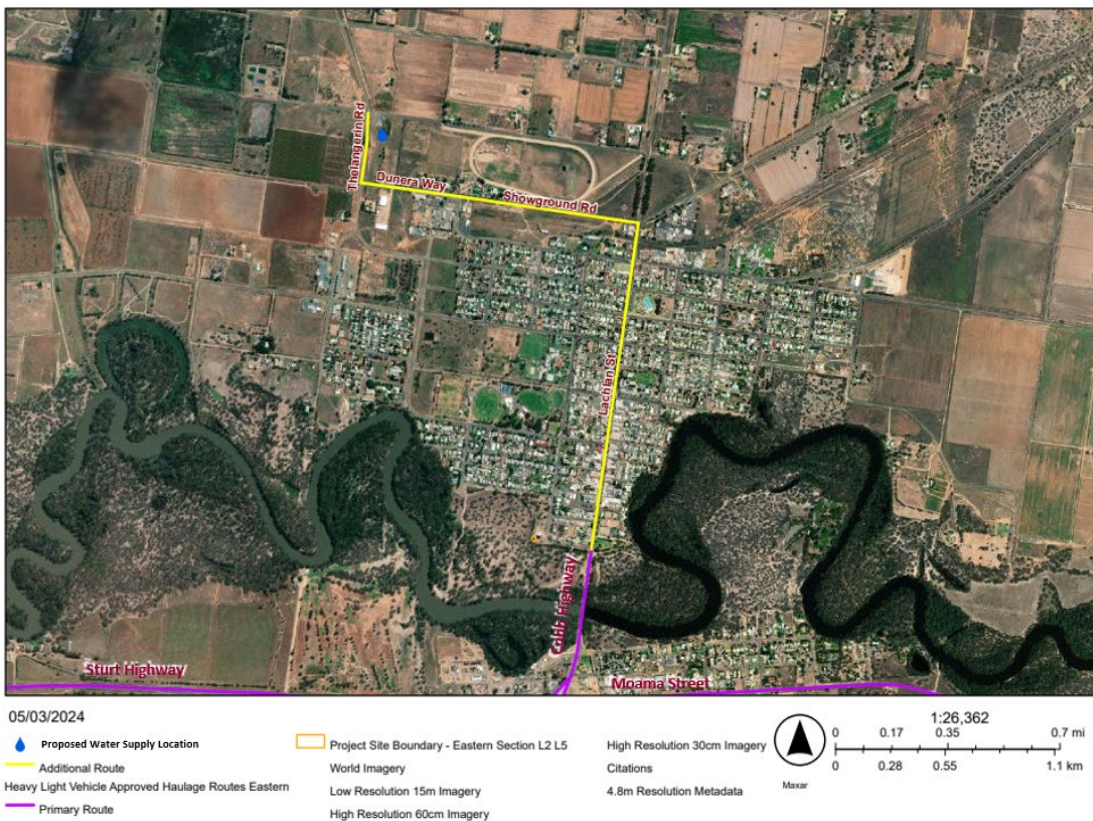


Figure 3.3 - Overview of water supply point at 59 Thelangerin Road

In accordance with condition B1 e) of the Infrastructure Approval and RMM TA1, the *Traffic and Transport Management Plan* (45860-HSE-PL-D-0115) has been prepared in consultation with TfNSW and Hay Shire Council. Elecnor confirmed with council that the additional roads can be used by B-Doubles and Road Trains for the water supply point located on Thelangerin Road. It was also requested from Hay Shire Council that the final location of the access into the water supply point at 59 Thelangerin Road be determined with a Hay Shire Council representative. The site inspection between Elecnor and Hay Shire Council occurred on 01 March 2024. It was concluded that no upgrade works for access into the water supply point will be required by Elecnor.

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3.2.1 Sensitive receivers

Sensitive receivers are located along Lachlan Street (Cobb Highway), Thelangerin Road, Showground Road and Dunera Way (refer to Figure 3.4). Lachlan Street (Cobb Highway) is located within the centre of Hay.



Figure 3.4 - Sensitive receivers along Thelangerin Road, Dunera Way, Showground Road and Lachlan Street (Cobb Highway)

3.2.2 Traffic

It is estimated that typical construction traffic would generate five vehicle movements per day along these roads. At peak, it is estimated that ten vehicle movements would occur each day on the proposed additional roads located with Hay LGA. This approximates to a peak hourly construction traffic rate of 1 vehicle movement per hour.

Considering the desired theoretical threshold (LoS C) of 600 vehicle movements per hour per traffic lane, an increase of 1 vehicle movement per hour is approximately 0.2% of this threshold. Therefore, the impact of construction-related traffic along the additional roads is not expected to affect the performance of the road network even during peak periods.

3.2.3 Noise

The road noise levels generated by construction traffic utilising these roads will not exceed the NSW RNP day-time criteria of 55 decibel (dBA) equivalent noise level ($L_{eq, 1hr}$) for local roads. No further assessment is required as the increase in noise levels are less than 2 dBA. The assessment indicated that the noise levels generated from construction vehicles utilising this route comply with relevant amenity-based noise criteria at the nearest identified sensitive receivers along each proposed route. The estimated noise level contribution and the relevant RNP criteria for the use of the additional roads is identified in Table 3.2.

It is noted that the predicted road noise levels and associated increases will only occur during the day-time period and any noise impacts associated with construction-related traffic would be temporary.

Table 3.2 - Anticipated construction traffic noise levels on additional roads within Hay LGA

Road name	Road type	Peak volume (vehicles per hour in one direction)	Peak construction volume (vehicles per hour in one direction)	Nearest sensitive receiver	Estimated noise level contribution from construction traffic (dBA)	Change in noise levels (dBA)
Lachlan Street (Cobb Highway)	14mm chipseal, 50 km/hr	Heavy vehicles - 5 Light vehicles - 5	Heavy vehicles - 1 Light vehicles - 0	15m from street frontage	55 L _{eq} 1hr	0.7
Thelangerin Road	14mm chipseal, 50 km/hr	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 1 Light vehicles - 0	30m from street frontage	55 L _{eq} 1hr	0.4
Showground Road	14mm chipseal, 50 km/hr	Heavy vehicles - 5 Light vehicles - 5	Heavy vehicles - 1 Light vehicles - 0	15m from street frontage	55 L _{eq} 1hr	0.7
Dunera Way	14mm chipseal, 50 km/hr	Heavy vehicles - 5 Light vehicles - 5	Heavy vehicles - 1 Light vehicles - 0	15m from street frontage	55 L _{eq} 1hr	0.7

3.2.4 Air quality

All additional roads within the Hay LGA are sealed roads. It is not anticipated that dust impacts will occur on sealed roads as a result of vehicle movements.

3.3 Balranald LGA

Approval is sought for the following roads within Balranald LGA:

- Church Street (extension); and
- Moa Street.

The use of Moa Street and an extension of Church Street is required to access the proposed water supply point on Church Street (refer to Figure 3.5). This next closest water supply point to this location is around 100 kilometres away. Vehicles will access the section of Church Street from Moa Street to the water supply point. Once the water cart is filled with water, the vehicle may U-turn at the intersection of We Street and Church Street to return back to Moa Street and Market Street. Vehicles will travel in both directions from Moa Street to the Church Street extension. Moa Street and Church Street (extension) are sealed local roads, consisting of two way traffic.



Figure 3.5 - Overview of Church Street and Moa Street

In accordance with condition B1 e) of the Infrastructure Approval and RMM TA1, the *Traffic and Transport Management Plan* (TTMP) (45860-HSE-PL-D-0115) has been prepared in consultation with Balranald Shire Council. Council was pleased with the updated TTMP and requested that certain management measures be in place for use of the Church Street water supply point. The TTMP was updated to include these management measures. Refer to the *Agency Consultation Report Stage 2 Traffic and Transport Management Plan* (45860-HSE-PL-D-0030) as submitted to the Department for the management measures.

3.3.1 Sensitive receivers

There are sensitive receivers (residential dwellings) located along the entire length of Moa Street and Church Street (refer to Figure 3.6).



Figure 3.6 - Sensitive receivers along Moa Street and Church Street (extension)

3.3.2 Traffic

It is estimated that typical construction traffic would generate five vehicle movements per day along these roads. At peak, it is estimated that ten vehicle movements would occur each day on Moa Street and Church Street (extension). This approximates to a peak hourly construction traffic rate of 1 vehicle movement per hour.

Considering the desired theoretical threshold (LoS C) of 600 vehicle movements per hour per traffic lane, an increase of 1 vehicle movements per hour is approximately 0.2% of this threshold. Therefore, the impact of construction-related traffic along the additional roads is not expected to affect the performance of the road network even during peak periods.

3.3.3 Noise

The road noise levels generated by construction traffic utilising these roads will not exceed the NSW RNP day-time criteria of 55 dBA equivalent noise level ($L_{eq\ 1hr}$) for local roads. No further assessment is required as the increase in noise levels are less than 2 dBA. The assessment indicated that the noise levels generated from construction vehicles utilising this route comply with relevant amenity-based noise criteria at the nearest identified sensitive receivers along each proposed route. The estimated noise level contribution and the relevant RNP criteria for the use of the additional roads is identified in Table 3.3.

It is noted that the predicted road noise levels and associated increases will only occur during the day-time period and any noise impacts associated with construction-related traffic would be temporary.

Table 3.3 - Anticipated construction traffic noise levels on Moa Street and Church Street

Road name	Road type	Peak volume (vehicles per hour in one direction)	Peak construction volume (vehicles per hour in one direction)	Nearest sensitive receiver	Estimated noise level contribution from construction traffic (dBA)	Change in noise levels (dBA)
Moa Street	14mm chipseal, 50 km/hr	Heavy vehicles - 25 Light vehicles - 25	Heavy vehicles - 1 Light vehicles - 0	10m from street frontage	55 $L_{eq,1hr}$	0.2
Church Street (extension)	14mm chipseal, 50 km/hr	Heavy vehicles - 25 Light vehicles - 25	Heavy vehicles - 1 Light vehicles - 0	10m from street frontage	55 $L_{eq,1hr}$	0.2

3.3.4 Air quality

Moa Street and Church Street (extension) are sealed roads. It is not anticipated that dust impacts will occur on sealed roads as a result of vehicle movements.

3.4 Murray River LGA

Approval is sought for the following roads within Murray River LGA:

- Murray Street (extension);
- Lea Street (extension);
- River Street;
- Keri Keri Road (extension);
- Berambong Road; and
- Perekerton Road.

Murray Street, Lea Street and River Street

Murray Street (extension), Lea Street (extension) and River Street are required to access the proposed water supply point located at 78 Murray Street, Tooleybuc (refer to Figure 3.7). All three streets are required to access the water supply point at 78 Murray Street. A turnaround point is available at the end of River Street to allow the water cart to turn around after filling up, and then head back along Murray Street and Lea Street. Vehicles will travel in both directions along Murray Street, Lea Street (extension) and Murray Street (extension). These additional roads are sealed local roads.

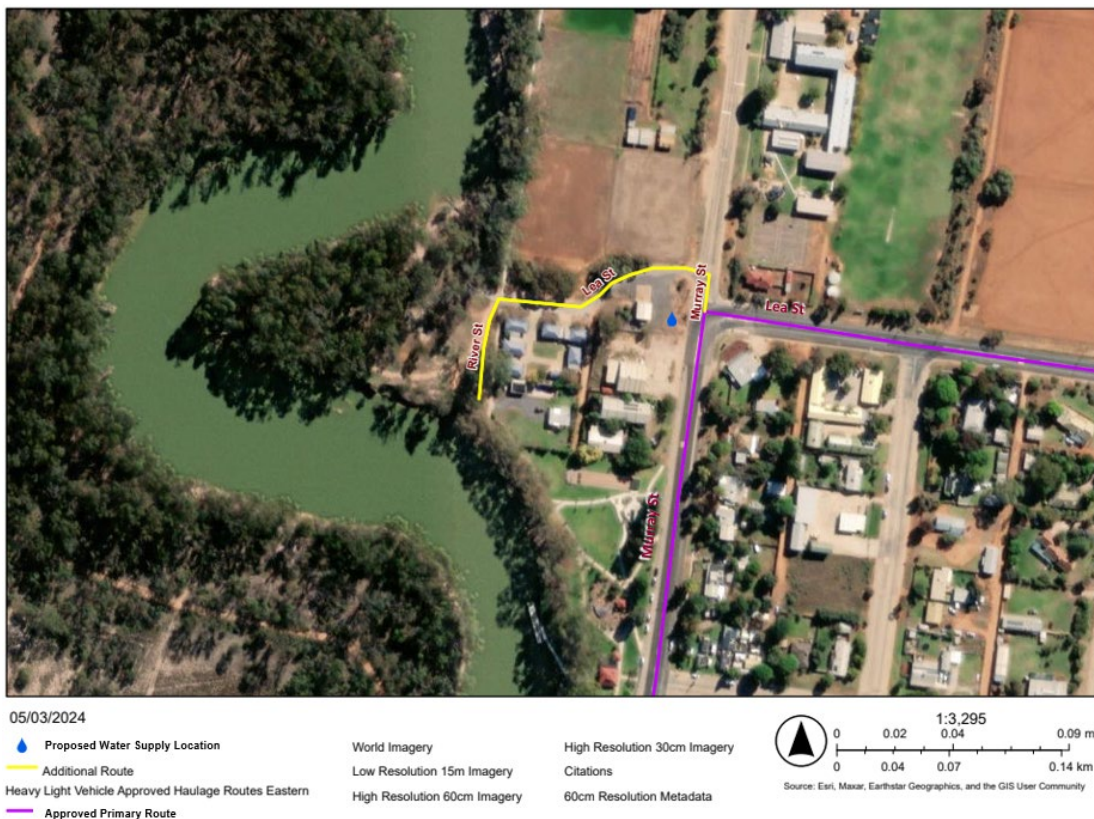


Figure 3.7 - Overview of Murray Street, Lea Street and River Street

Keri Keri Road, Berambong Road and Perekerton Road

An extension of Keri Keri Road, Berambong Road and Perekerton Road are required to provide alternate access to Binbinette Road and Balranald Road if flooding occurs on Binbinette Road. These roads are unsealed local roads, consisting of two way traffic. Vehicles will travel in both

directions along Berambong Road, Perekerton Road and Keri Keri Road. Refer to Figure 3.8 for an overview of these additional roads within the Murray River LGA.

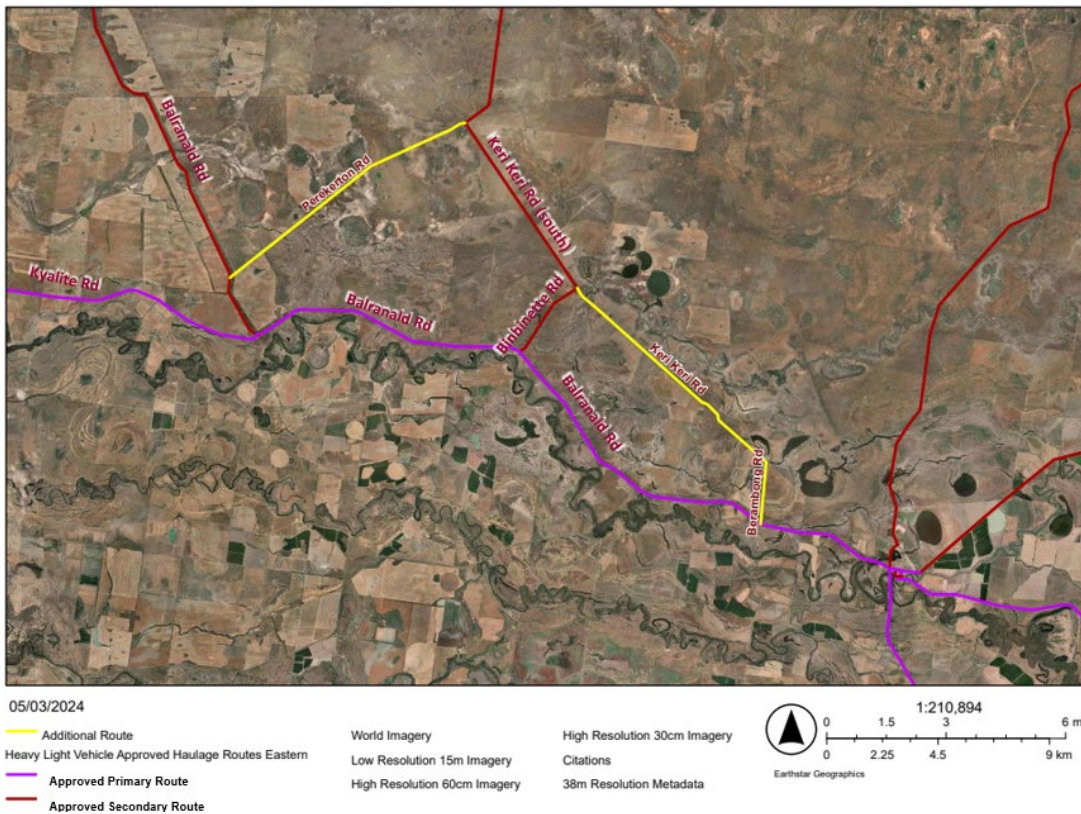


Figure 3.8 - Overview of Keri Keri Road, Perekerton Road and Berambong Road

3.4.1 Sensitive receivers

Sensitive receivers are located along Murray Street, Lea Street (extension) and River Street (refer to Figure 3.9).



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Figure 3.9 - Sensitive receivers along Murray Street, Lea Street and River Street

Keri Keri Road, Berambong Road and Perekerton Road

There are no sensitive receivers located in the vicinity of Keri Keri Road, Berambong Road and Perekerton Road (refer to Figure 3.10 and Figure 3.11).

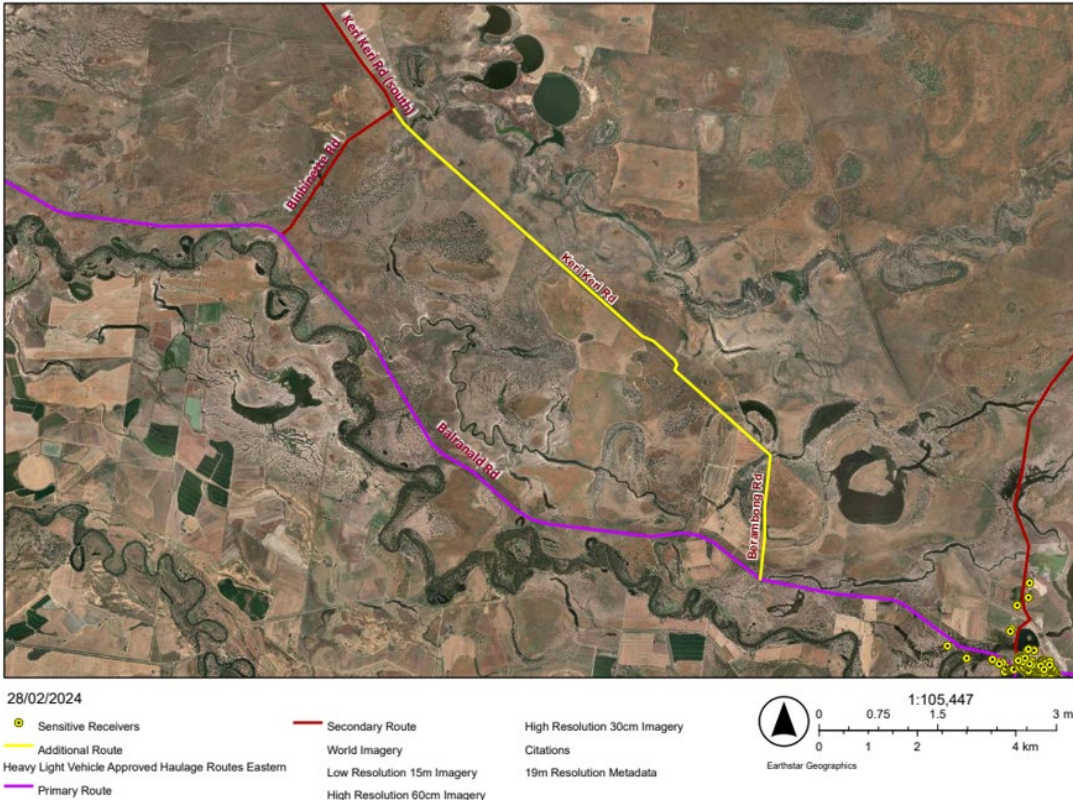


Figure 3.10 - Sensitive receivers along Keri Keri Road and Berambong Road

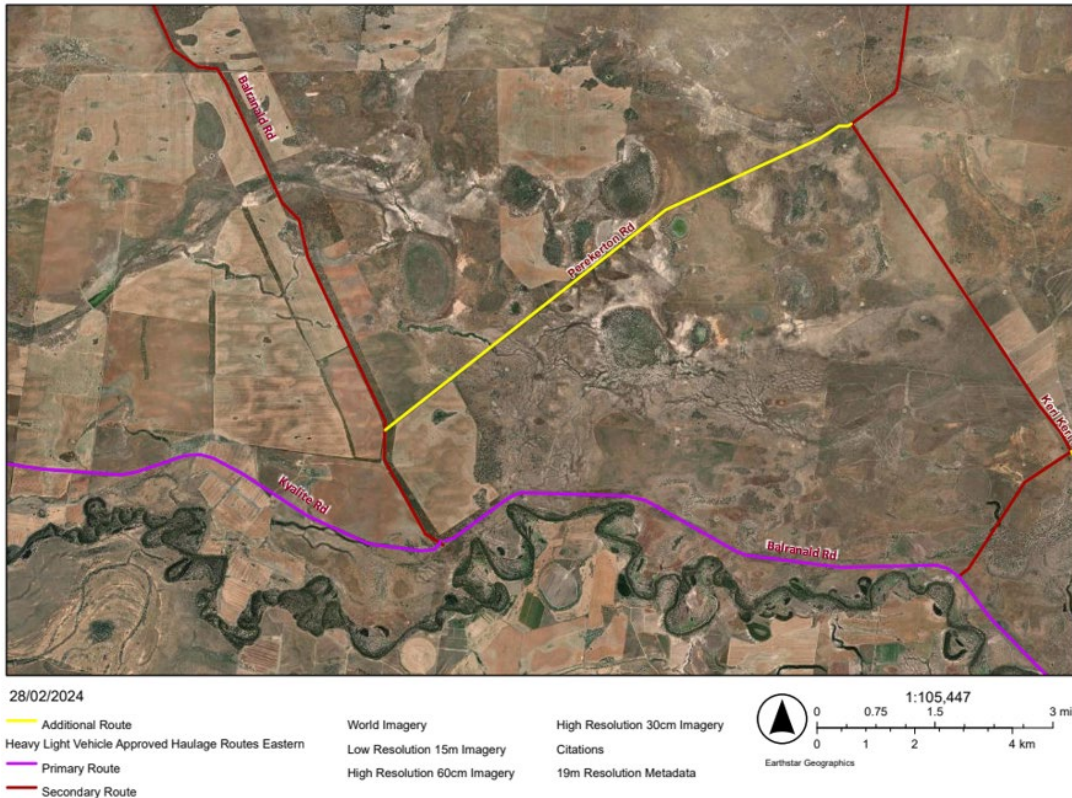


Figure 3.11 - Sensitive receivers along Perekerton Road

In accordance with condition B1 e) of the Infrastructure Approval, the *Traffic and Transport Management Plan* (45860-HSE-PL-D-0115) has been prepared in consultation with Murray River Council. Council confirmed that they had reviewed the updated TTMP and had no comment. Refer to the *Agency Consultation Report Stage 2 Traffic and Transport Management Plan* (45860-HSE-PL-D-0030) as submitted to the Department.

3.4.2 Traffic

It is estimated that typical construction traffic would generate two vehicle movements per day along these additional roads within the Murray River LGA. At peak, it is estimated that four vehicle movements would occur each day along these roads. This approximates to a peak hourly construction traffic rate of 0.4 vehicle movements per hour.

Considering the desired theoretical threshold (LoS C) of 600 vehicle movements per hour per traffic lane, an increase of 0.4 vehicles movements per hour is approximately 0.06% of this threshold. Therefore, the impact of construction-related traffic along the additional roads are not expected to affect the performance of the road network even during peak periods.

3.4.3 Noise

The road noise levels generated by construction traffic utilising these roads will not exceed the NSW RNP day-time criteria of 55 dBA equivalent noise level ($L_{eq\ 1hr}$) for local roads. No further assessment is required as the increase in noise levels are less than 2 dBA. The assessment indicated that the noise levels generated from construction vehicles utilising this route comply with relevant amenity-based noise criteria at the nearest identified sensitive receivers along each proposed route. The estimated noise level contribution and the relevant RNP criteria for the use of the additional roads is identified in Table 3.4.

It is noted that the predicted road noise levels and associated increases will only occur during the day-time period and any noise impacts associated with construction-related traffic would be temporary.

Potential noise impacts due to construction-related traffic on Keri Keri Road, Berambong Road and Perekerton Road is also anticipated to be negligible as there are no nearby sensitive receivers.

Table 3.4 - Anticipated construction traffic noise levels for additional roads within Murray River LGA

Road name	Road type	Peak volume (vehicles per hour in one direction)	Peak construction volume (vehicles per hour in one direction)	Nearest sensitive receiver	Estimated noise level contribution from construction traffic (dBA)	Change in noise levels (dBA)
Keri Keri Road (extension)	14mm chip seal, 50 km/hr	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 0.4 Light vehicles - 0	None	55 L_{eq} 1hr	0.2
Berambong Road	Unsealed	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 0.4 Light vehicles - 0	None	55 L_{eq} 1hr	0.2
Perekerton Road	Unsealed	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 0.4 Light vehicles - 0	None	55 L_{eq} 1hr	0.2
Murray Street	14mm chip seal, 50 km/hr	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 0.4 Light vehicles - 0	15m from street frontage	55 L_{eq} 1hr	0.2
Lea Street	14mm chip seal, 50 km/hr	Heavy vehicles - 5 Light vehicles - 5	Heavy vehicles - 0.4 Light vehicles - 0	15m from street frontage	55 L_{eq} 1hr	0.3
River Street	Unsealed, 50 km/hr	Heavy vehicles - 5 Light vehicles - 5	Heavy vehicles - 0.4 Light vehicles - 0	15m from street frontage	55 L_{eq} 1hr	0.3

3.4.4 Air quality

River Street, Berambong Road and Perekerton Road are unsealed roads which have the potential for dust to be generated from the construction vehicles. However, there are no sensitive receivers located along Berambong Road and Perekerton Road. As such, no dust impacts are anticipated as a result of the use of these roads by heavy vehicles during construction. Dust generation from the use of River Street would be monitored visually by site personnel during the work. If required mitigation measures to minimise dust impacts to sensitive residential receivers will be implemented throughout the construction.

Keri Keri Road, Murray Street, Lea Street and River Street, are sealed. It is not anticipated that dust impacts will occur on sealed roads as a result of vehicle movements.

3.5 Edward River LGA

Approval is sought for the following roads within Edward River LGA:

- Goolgumbra Road;
- Pooginook Road; and
- an unnamed track (located off Four Corners Road).

Goolgumbra Road and Pooginook Road are required to access the transmission line easement (refer to Figure 3.12). This area is flood prone land, as such this route provides another access to cross the major canal. An unnamed track (located off Four Corners Road) is required to access the transmission line easement. Vehicles will travel in both directions along Goolgumbra Road, Pooginook Road and the unnamed track. Refer to Figure 3.12 for an overview of these additional roads within the Edward River LGA (noting that McLennons Bore Road is located within the Murrumbidgee LGA). Goolgumbra Road and Pooginook Road are unsealed local roads.

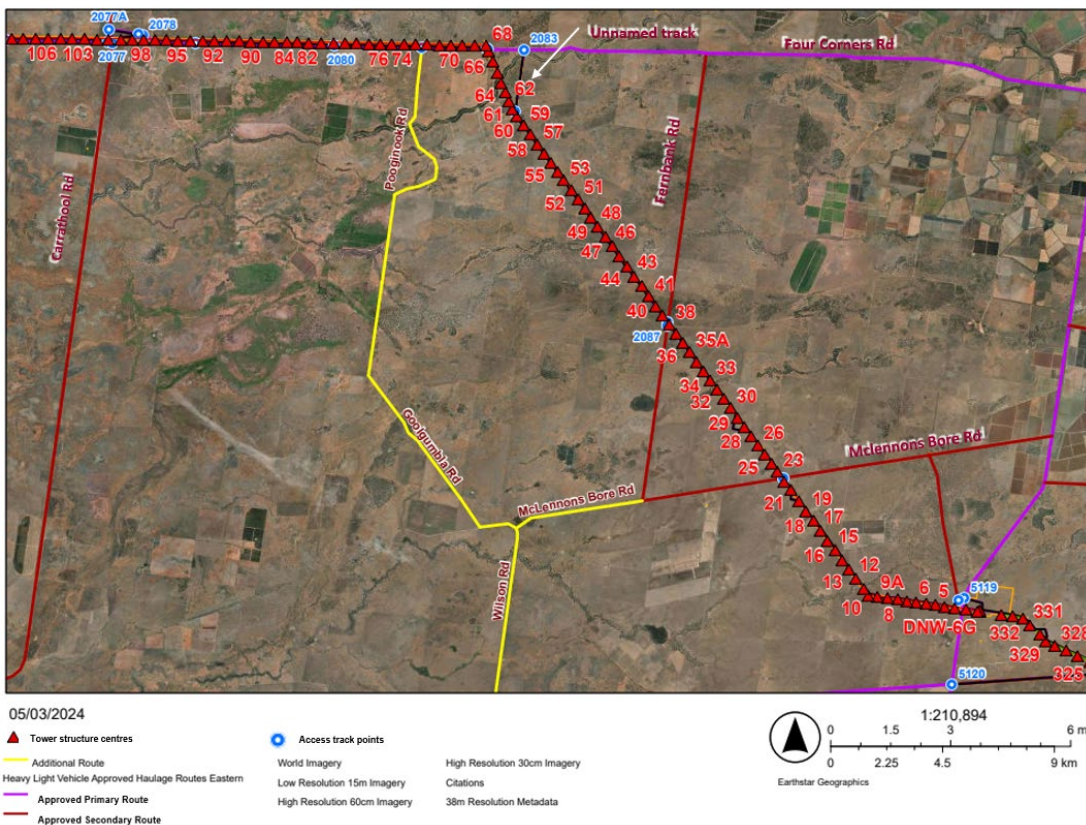


Figure 3.12 - Overview of Pooginook Road, Goolgumbra Road and the unnamed track

In accordance with condition B1 e) of the Infrastructure Approval, the *Traffic and Transport Management Plan* (45860-HSE-PL-D-0115) has been prepared in consultation with Edward River Council. Council requested removal of a water supply point (which occurred) and otherwise had no further comments. Refer to the *Agency Consultation Report Stage 2 Traffic and Transport Management Plan* (45860-HSE-PL-D-0030) as submitted to the Department.

3.5.1 Sensitive receivers

A sensitive receiver is located 200m south of Pooginook Road. There are no sensitive receivers located near the unnamed track and Goolgumbra Road. Refer to Figure 3.13 for the location of sensitive receivers near Pooginook Road.

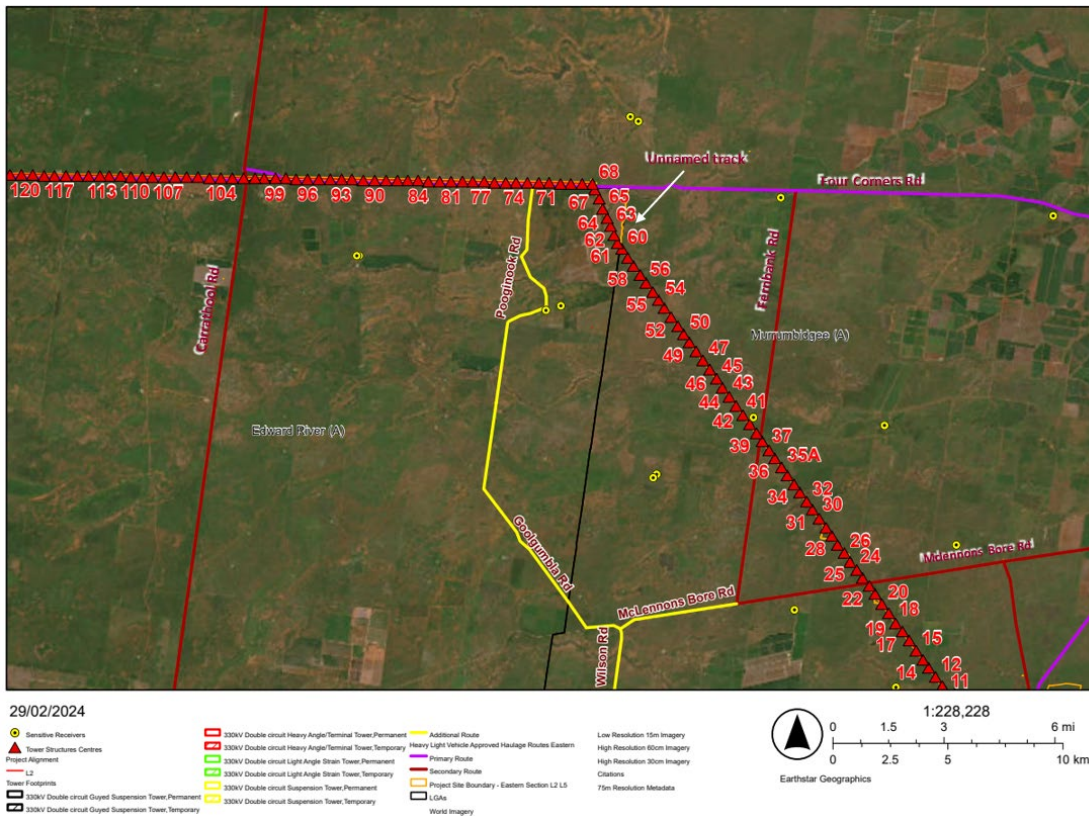


Figure 3.13 - Sensitive receivers along near Pooginook Road

3.5.2 Traffic

It is estimated that typical construction traffic would generate five vehicle movements per day along Goolgumbula Road and Pooginook Road. At peak, it is estimated that ten vehicle movements would occur each day along these roads. This approximates to a peak hourly construction traffic rate of 1 vehicle movements per hour.

Considering the desired theoretical threshold (LoS C) of 600 vehicle movements per hour per traffic lane, an increase of 1 vehicle movements per hour is approximately 0.2% of this threshold. Therefore, the impact of construction-related traffic along the additional roads is not expected to affect the performance of the road network even during peak periods.

3.5.3 Noise

The road noise levels generated by construction traffic utilising these roads will not exceed the NSW RNP day-time criteria of 55 dBA equivalent noise level ($L_{eq, 1hr}$) for local roads. No further assessment is required as the increase in noise levels are less than 2 dBA. The assessment indicated that the noise levels generated from construction vehicles utilising this route comply with relevant amenity-based noise criteria at the nearest identified sensitive receivers along each proposed route. The estimated noise level contribution and the relevant RNP criteria for the use of the additional roads is identified in Table 3.5.

It is noted that the predicted road noise levels and associated increases will only occur during the day-time period and any noise impacts associated with construction-related traffic would be temporary.

Table 3.5 - Anticipated construction traffic noise levels for additional roads within Edward River LGA

Road name	Road type	Peak volume (vehicles per hour in one direction)	Peak construction volume (vehicles per hour in one direction)	Nearest sensitive receiver	Estimated noise level contribution from construction traffic (dBA)	Change in noise levels (dBA)
Goolgumbra Road	Unsealed	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 1 Light vehicles - 0	700m from street frontage	55 $L_{eq,1hr}$	0.4
Pooginook Road	Unsealed	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 1 Light vehicles - 0	200m from street frontage	55 $L_{eq,1hr}$	0.4
Unnamed track	Unsealed	Heavy vehicles - 5 Light vehicles - 5	Heavy vehicles - 1 Light vehicles - 0	15m from street frontage	54 $L_{eq,1hr}$	0.7

3.5.4 Air quality

Goolgumbra Road, Pooginook Road and the unnamed track (off of Four Corners Road) are unsealed roads. As such, there is potential for dust to be generated from the construction vehicles. Dust generation from the use of these roads near the identified sensitive receivers would be monitored visually by site personnel during the work. If required mitigation measures to minimise dust impacts to sensitive residential receivers will be implemented throughout construction.

3.6 Murrumbidgee LGA

Approval is sought for the following roads within Murrumbidgee LGA:

- Jimmy Cull Road;
- Bencubbin Avenue;
- Wilson Road (extension);
- Goolgumbla Road;
- Mclennons Bore Road (extension); and
- Thurrowa Road (extension).

Jimmy Cull Road and Bencubbin Avenue

Jimmy Cull Road and Bencubbin Avenue are required to access an approved water supply point located at 3 Bencubbin Avenue (refer to Figure 3.14). Vehicles would exit off Kidman Way onto Jimmy Cull Road, head west down Bencubbin Avenue to the water supply point located at 3 Bencubbin Avenue. Vehicles will drive along the same route to leave the water supply. Water from this water supply point will be used to supply activities such as Camp 3 construction works and the overhead transmission line construction works. Jimmy Cull Road and Bencubbin Avenue are sealed local roads.

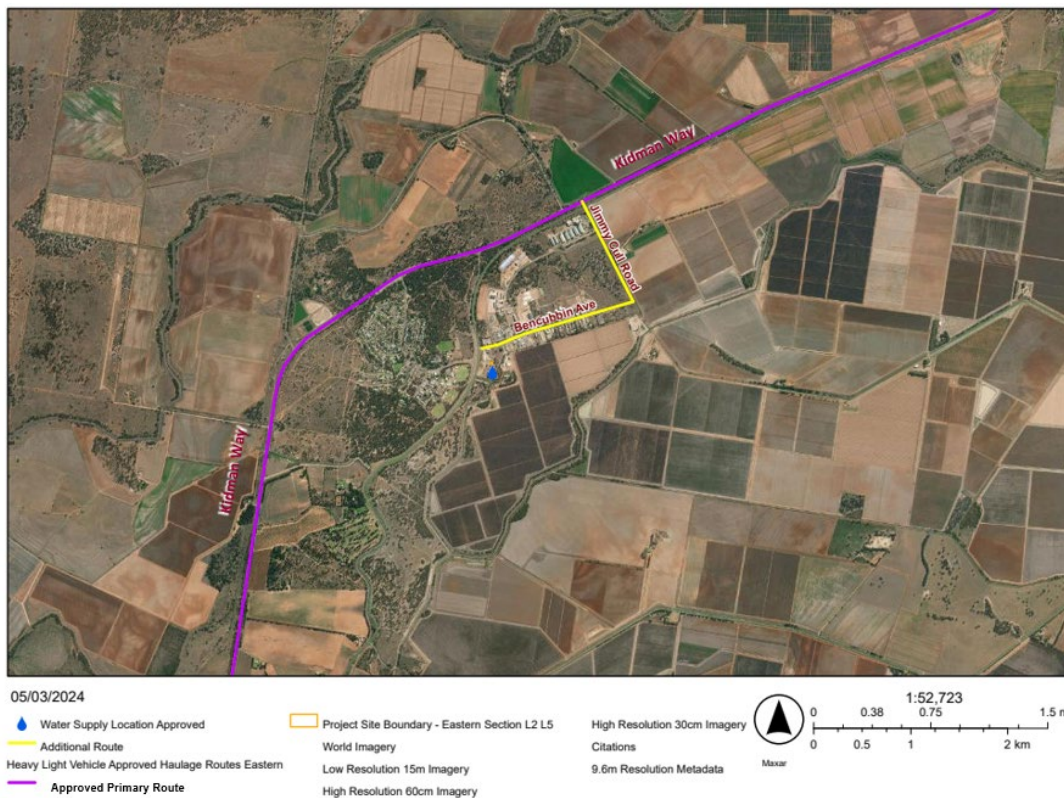


Figure 3.14 - Overview of Jimmy Cull Road and Bencubbin Avenue

Wilson Road (extension), Goolgumbla Road and Mclennons Bore Road

Wilson Road (extension), Goolgumbla Road and Mclennons Bore Road (extension) are required to access the transmission line easement (refer to Figure 3.15). These roads connect with Pooginook Road in the Edward River LGA which is identified as flood prone land, as such this route provides another access to cross the major canal. Vehicles will travel in both directions along

Wilson Road (extension), Goolgumbra Road and Mclennons Bore Road. Wilson Road (extension) is sealed, whilst Goolgumbra Road and Mclennons Bore Road are unsealed local roads.

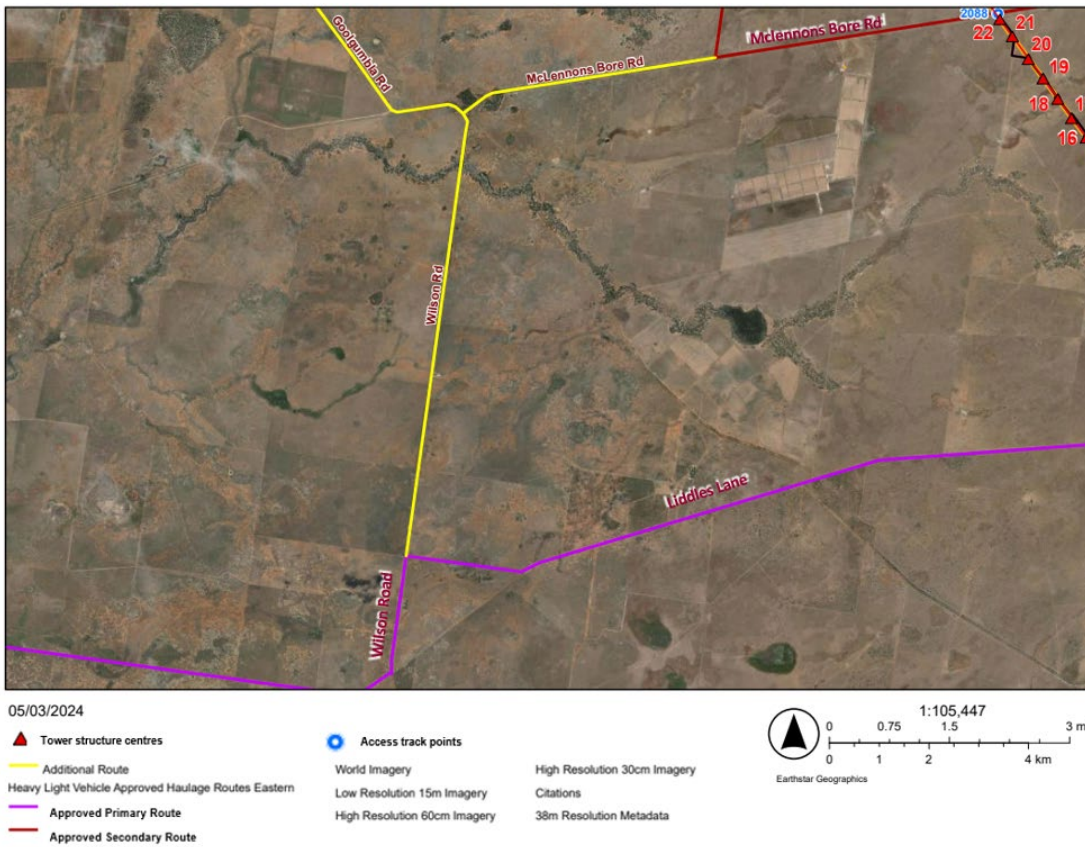


Figure 3.15 - Overview of Goolgumbra Road, Wilson Road and Mclennons Bore Road

Thurrowa Road

Thurrowa Road (extension) is required to access the transmission line easement and access point 5114 (refer to Figure 3.16). Vehicles will travel in both directions along the extension of Thurrowa Road.

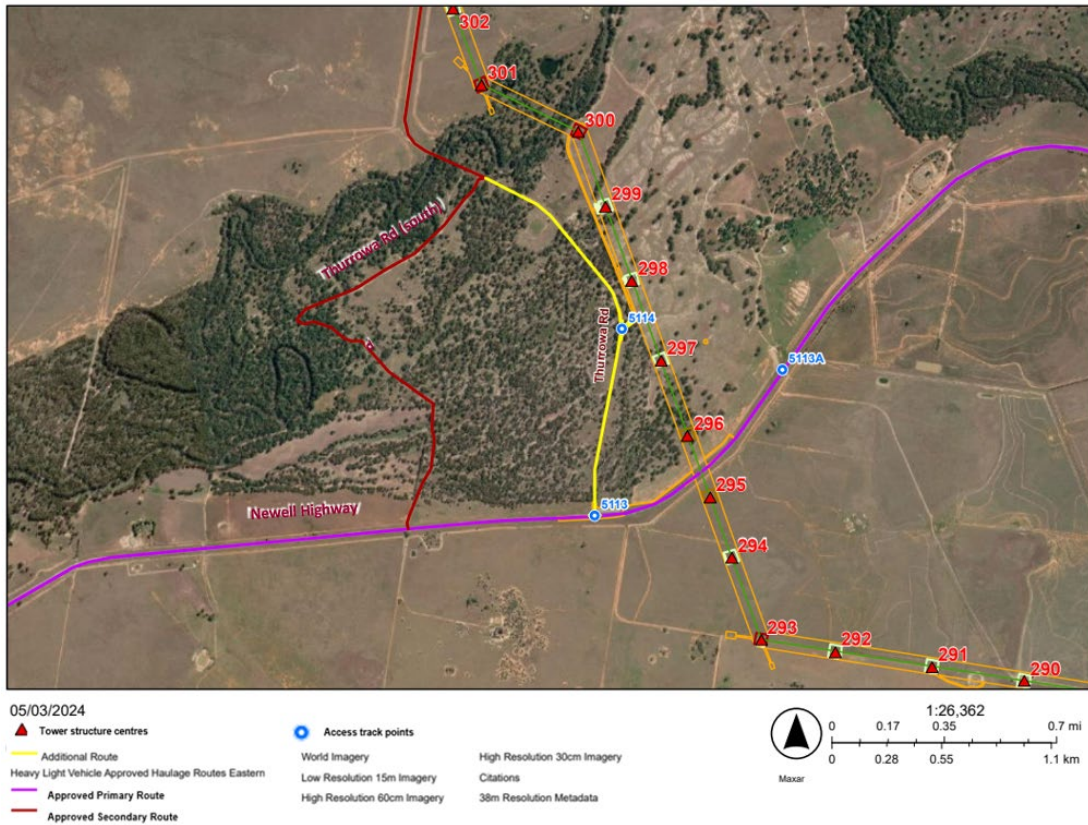


Figure 3.16 - Overview of Thurrowa Road (extension)

In accordance with condition B1 e) of the Infrastructure Approval, the *Traffic and Transport Management Plan* (45860-HSE-PL-D-0115) has been prepared in consultation with Murrumbidgee Council. Council requested that Pump Station Lane be removed off the list as a water supply point and as an approved road. Potable water can be taken from the standpipe at Bencubbin Avenue. The Stage 2 TTMP has been updated to remove Pump Station Lane. Refer to the *Agency Consultation Report Stage 2 Traffic and Transport Management Plan* (45860-HSE-PL-D-0030) as submitted to the Department.

3.6.1 Sensitive receivers

Sensitive receivers are located along the entire length of Jimmy Cull Road and Bencubbin Avenue. These two roads are located within the town of Coleambally (refer to Figure 3.17).

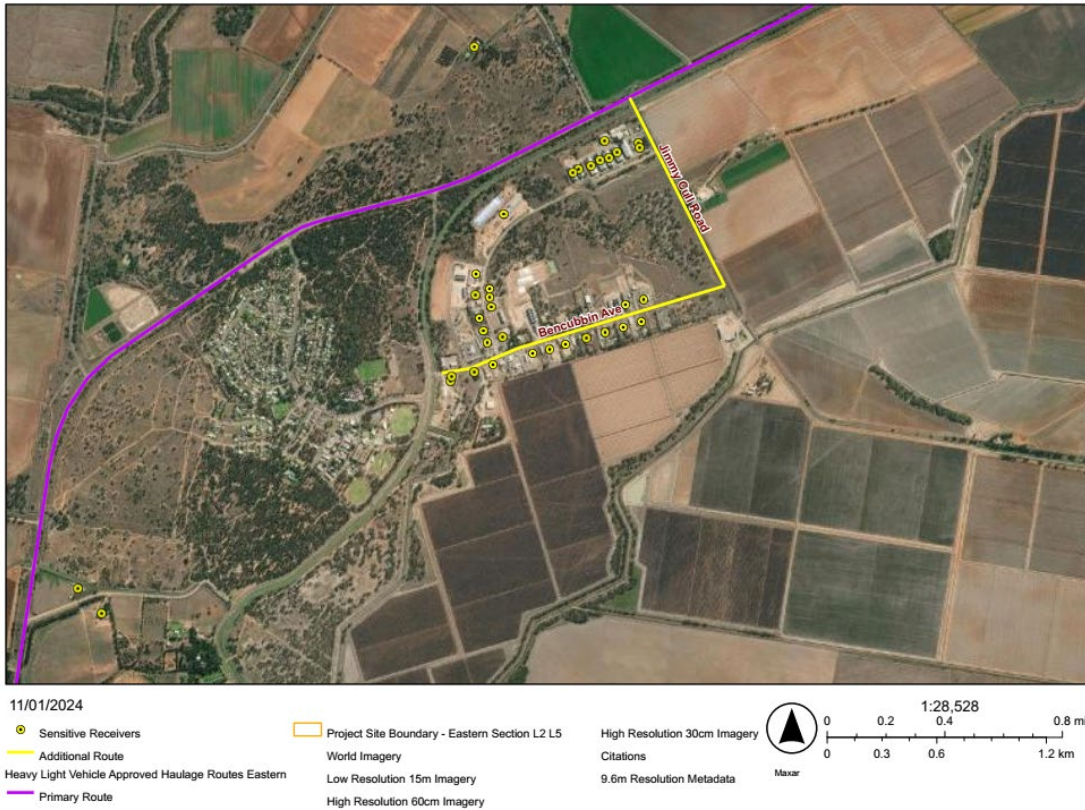


Figure 3.17 - Sensitive receivers along Jimmy Cull Road and Bencubbin Avenue

There are no sensitive receivers located along Wilson Road (extension), Goolgumbra Road and Mclennons Bore Road (refer to Figure 3.18).

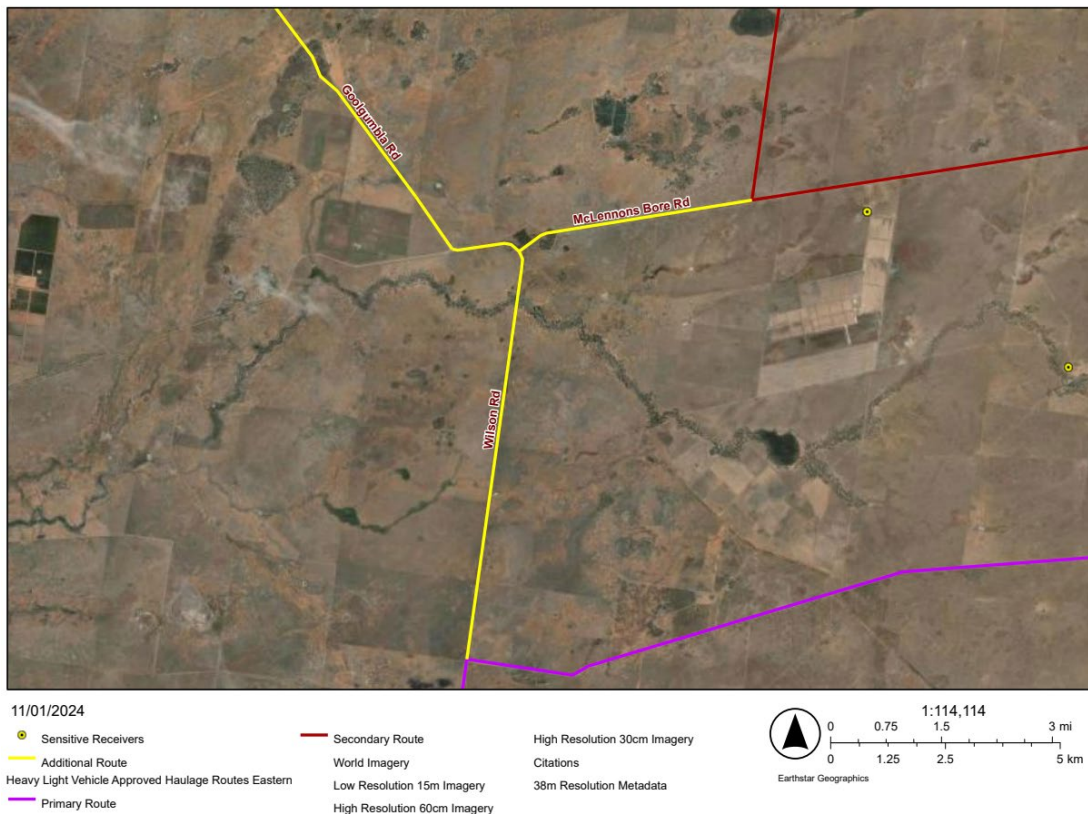


Figure 3.18 - Sensitive receivers along Wilson Road, Goolgumbra Road and Mclennons Bore Road (extension)

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There are sensitive receivers located around 800m to the east of Thurrowa Road (extension) (refer to Figure 3.19).

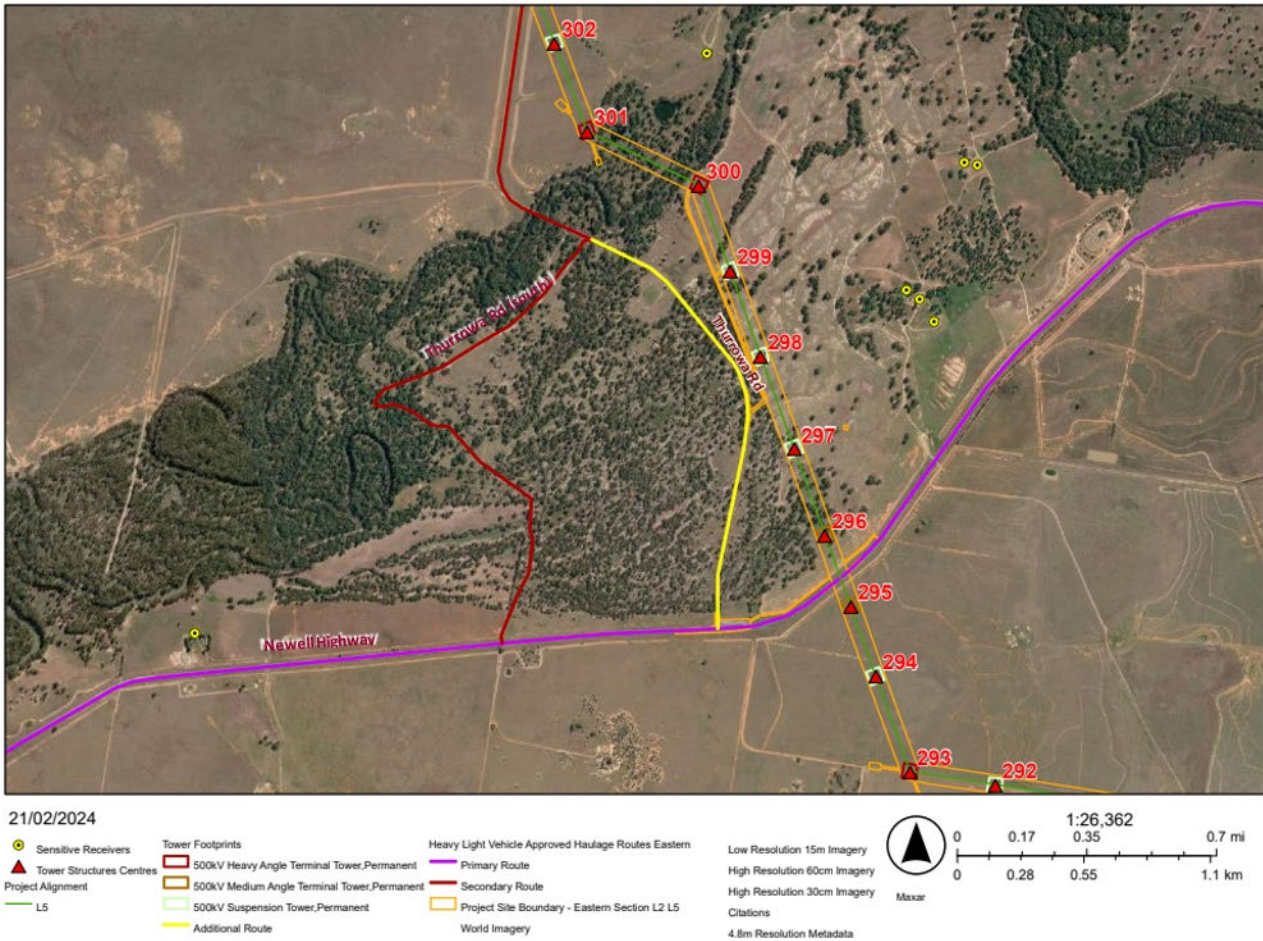


Figure 3.19 - Sensitive receivers along Thurrowa Road (extension)

3.6.2 Traffic

It is estimated that typical construction traffic would generate two vehicle movements per day along these additional roads within the Murrumbidgee LGA. At peak, it is estimated that four vehicle movements would occur each day along these roads. This approximates to a peak hourly construction traffic rate of 0.4 vehicle movements per hour.

Considering the desired theoretical threshold (LoS C) of 600 vehicle movements per hour per traffic lane, an increase of 0.4 vehicles movements per hour is approximately 0.06% of this threshold. Therefore, the impact of construction-related traffic along the additional roads are not expected to affect the performance of the road network even during peak periods.

3.6.3 Noise

The road noise levels generated by construction traffic utilising these roads will not exceed the NSW RNP day-time criteria of 55 dBA equivalent noise level ($L_{eq, 1hr}$) for local roads. No further assessment is required as the increase in noise levels are less than 2 dBA. The assessment indicated that the noise levels generated from construction vehicles utilising this route comply with relevant amenity-based noise criteria at the nearest identified sensitive receivers along each proposed route. The estimated noise level contribution and the relevant RNP criteria for the use of the additional roads is identified in Table 3.6.

It is noted that the predicted road noise levels and associated increases will only occur during the day-time period and any noise impacts associated with construction-related traffic would be temporary.

Table 3.6 - Anticipated construction traffic noise levels for additional roads within Murrumbidgee LGA

Road name	Road type	Peak volume (vehicles per hour in one direction)	Peak construction volume (vehicles per hour in one direction)	Nearest sensitive receiver	Estimated noise level contribution from construction traffic (dBA)	Change in noise levels (dBA)
Jimmy Cull Road	14mm chip seal	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 0.4 Light vehicles - 0	10m from street frontage	55 L_{eq} 1hr	0.2
Bencubbin Avenue	14mm chip seal	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 0.4 Light vehicles - 0	10m from street frontage	55 L_{eq} 1hr	0.2
Wilson Road (extension)	14mm chip seal	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 0.4 Light vehicles - 0	None	55 L_{eq} 1hr	0.2
Goolgumbla Road	Unsealed	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 0.4 Light vehicles - 0	None	55 L_{eq} 1hr	0.2
Mclennons Bore Road	Unsealed	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 0.4 Light vehicles - 0	None	55 L_{eq} 1hr	0.2
Thurrowa Road (extension)	Sealed / unsealed	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 0.4 Light vehicles - 0	None	55 L_{eq} 1hr	0.2

3.6.4 Air quality

Jimmy Cull Road, Bencubbin Avenue and Wilson Road (extension) are sealed roads, as such no dust impacts are anticipated to the nearby sensitive receivers. Goolgumbla Road and Mclennons Bore Road are unsealed roads, however there are no sensitive receivers located near to these roads. As such air quality impacts are not anticipated.

3.7 Federation LGA

Approval is sought for the following roads with Federation LGA:

- Stephen Street; and
- Spraydon Road (extension).

Stephen Street is required to access an approved water supply point located on the intersection of Federation Highway and Stephen Street (refer to Figure 3.20). Stephen Street is required to create a loop to access the water supply point, instead of a U-turn motion that would otherwise be required on Federation Way. The loop includes Steven Street, and the approved roads Federation Way and William Street. Vehicles will travel along these roads in both directions. Stephen Street is a sealed local road.

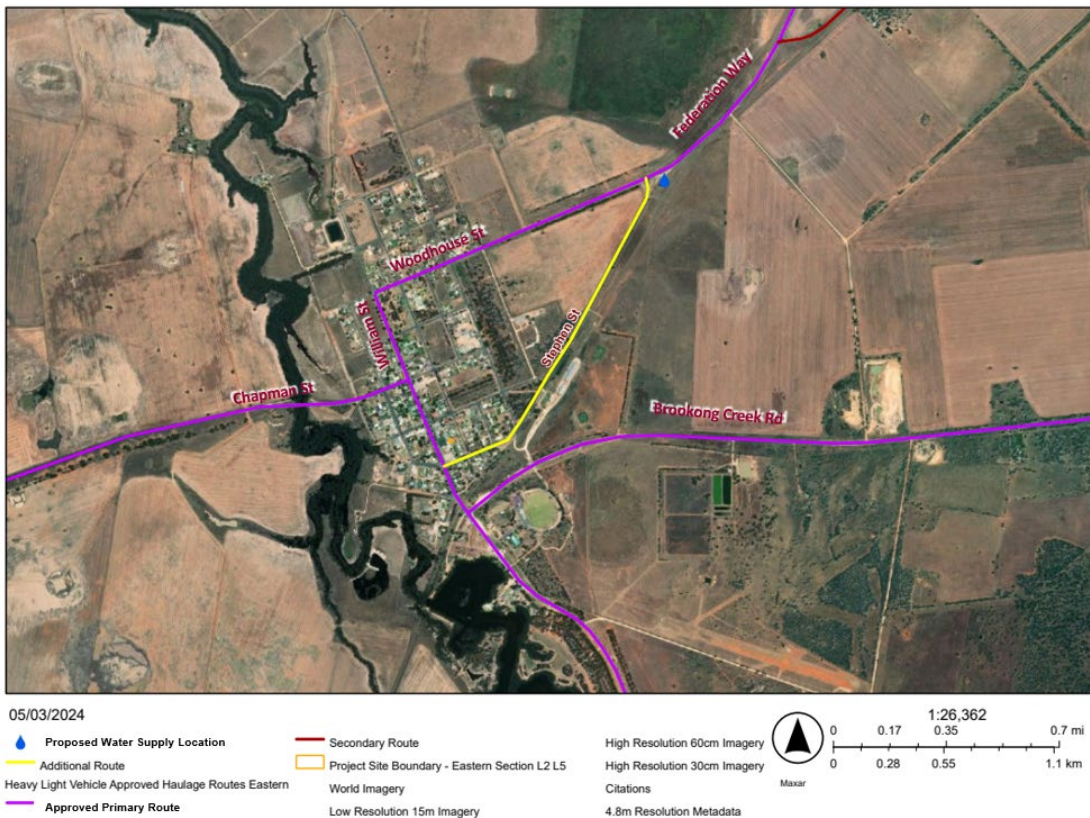


Figure 3.20 - Overview of Stephen Street

Spraydon Road (extension) is required to access the access points 5078 and 5079 from the intersection of West Gums Road and Spraydon Road (refer to Figure 3.21). Vehicles will travel along Spraydon Road in both directions. Spraydon Road is an unsealed local road.



Figure 3.21 - Overview of Spraydon Road

In accordance with condition B1 e) of the Infrastructure Approval, the *Traffic and Transport Management Plan* (45860-HSE-PL-D-0115) has been prepared in consultation with Federation Council. Council confirmed they have no problems with the TTMP. Refer to the *Agency Consultation Report Stage 2 Traffic and Transport Management Plan* (45860-HSE-PL-D-0030) as submitted to the Department.

3.7.1 Sensitive receivers

There are sensitive receivers located along the section of Stephen Street, closest to the town of Urana (refer to Figure 3.22).



Figure 3.22 - Sensitive receivers along Stephen Street

There are no sensitive receivers located in the vicinity of Spraydon Road (refer to Figure 3.23).

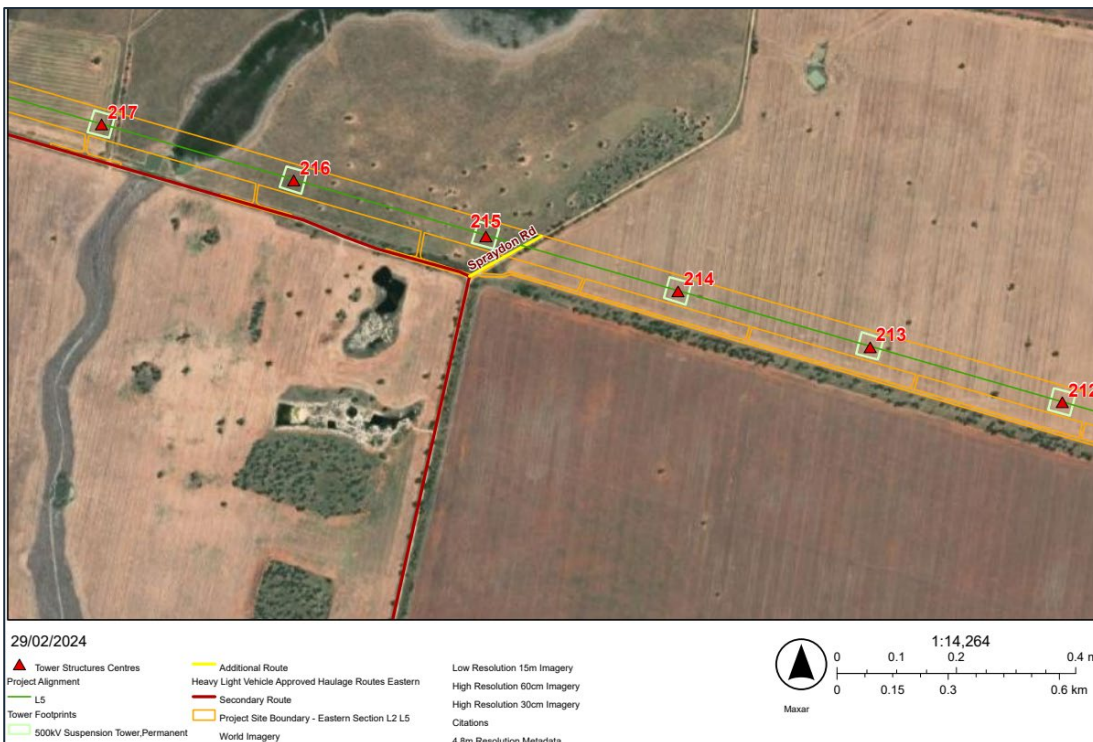


Figure 3.23 - Sensitive receivers along Spraydon Road

3.7.2 Traffic

It is estimated that typical construction traffic would generate two vehicle movements per day along Stephen Street. At peak, it is estimated that four vehicle movements would occur each day

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along Stephen Street. This approximates to a peak hourly construction traffic rate of 0.4 vehicle movements per hour.

Considering the desired theoretical threshold (LoS C) of 600 vehicle movements per hour per traffic lane, an increase of 0.4 vehicles movements per hour is approximately 0.06% of this threshold. Therefore, the impact of construction-related traffic along the additional roads are not expected to affect the performance of the road network even during peak periods.

It is estimated that typical construction traffic would generate four vehicle movements per day on Spraydon Road (extension). At peak, it is estimated that ten vehicle movements would occur each day on Spraydon Road (extension). This approximates to a peak hourly construction traffic rate of 1 vehicle movement per hour.

Considering the desired theoretical threshold (LoS C) of 600 vehicle movements per hour per traffic lane, an increase of 1 vehicle movements per hour is approximately 0.2% of this threshold. Therefore, the impact of construction-related traffic along the additional roads is not expected to affect the performance of the road network even during peak periods.

3.7.3 Noise

The road noise levels generated by construction traffic utilising Stephen Street and Spraydon Road will not exceed the NSW RNP day-time criteria of 55 dBA equivalent noise level ($L_{eq\ 1hr}$) for local roads. No further assessment is required as the increase in noise level is less than 2 dBA. The assessment indicated that the noise levels generated from construction vehicles utilising this route comply with relevant amenity-based noise criteria at the nearest identified sensitive receivers along each proposed route. The estimated noise level contribution and the relevant RNP criteria for the use of the additional roads is identified in Table 3.7.

It is noted that the predicted road noise levels and associated increases will only occur during the day-time period and any noise impacts associated with construction-related traffic would be temporary.

Table 3.7 - Anticipated construction traffic noise levels on Stephen Street

Road name	Road type	Peak hour volume (vehicles per hour in one direction)	Peak construction volume (vehicles per hour in one direction)	Nearest sensitive receiver	Estimated noise level contribution from construction traffic (dBA)	Change in noise levels (dBA)
Stephen Street	14mm chip seal, 50 km/hr	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 0.4 Light vehicles - 0.4	10m from street frontage	55 $L_{eq\ 1hr}$	0.2
Spraydon Road	Unsealed	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 0.4 Light vehicles - 0.4	10m from street frontage	55 $L_{eq\ 1hr}$	0.2

3.7.4 Air quality

Stephen Street is a sealed road. It is not anticipated that dust impacts will occur on sealed roads as a result of vehicle movements.

Spraydon Road is an unsealed road. Dust generation from the use of this road has the potential to generate dust. However, there are no sensitive receivers located in the vicinity of Spraydon Road. If required mitigation measures to minimise dust impacts to sensitive residential receivers will be implemented throughout the construction.

3.8 Lockhart LGA

Approval is sought for the following roads with Lockhart LGA:

- Commera Wilson Lane;
- Tinamba Lane;
- Wattles Road;
- Kings Lane;
- Tutty's Lane;
- Strongs Lane (extension).

Commera Wilson Lane, Tinamba Lane and Wattles Road

Commera Wilson Lane is required to access the transmission line easement and approved water supply point located on Richmond Street in Boree Creek (refer to Figure 3.24). Vehicles will travel along Commera Wilson Lane in both directions.

Tinamba Lane and Wattles Road is required to access the transmission line easement (refer to Figure 3.24). Vehicles will travel along Tinamba Lane and Wattles Road in both directions.

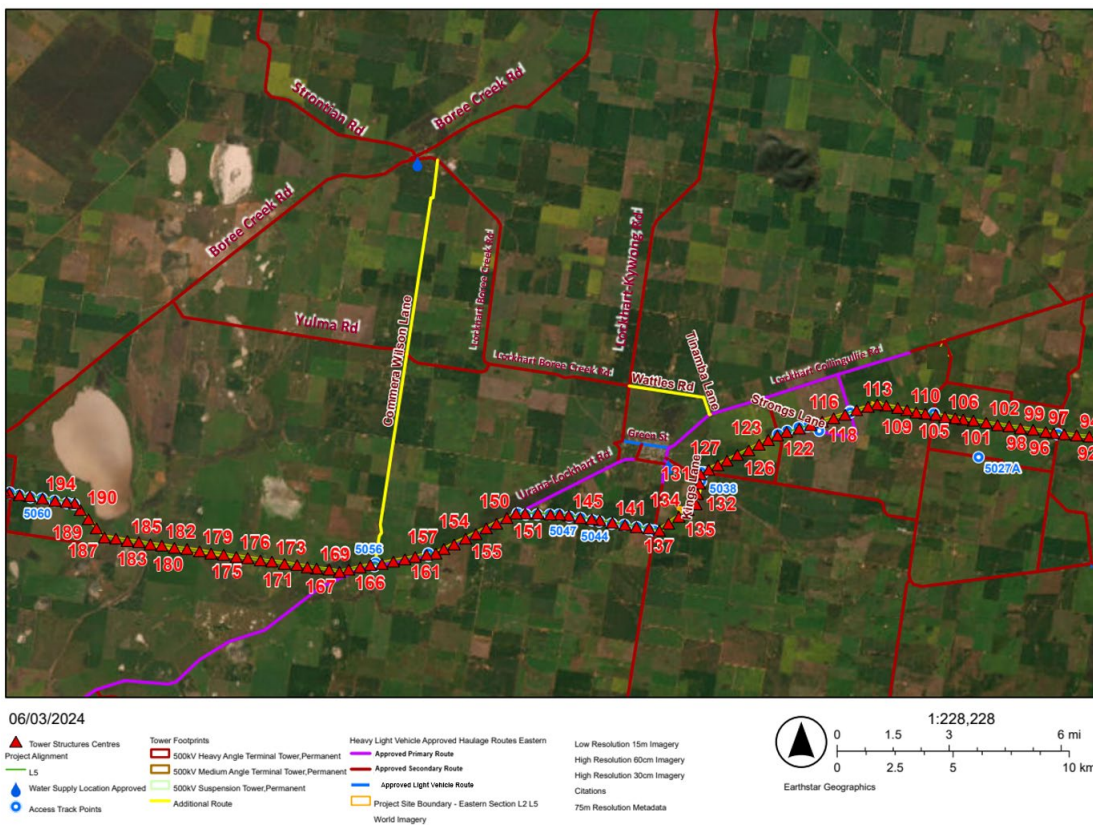


Figure 3.24 - Overview of Commera Wilson Lane, Tinamba Lane and Wattles Road Kings Lane

Kings Lane is an option for access to the potential archaeological deposit located near to Tower 132 from access point 5038 (refer to Figure 3.25). This is required in case the access track cannot be constructed within the farmer's land located adjacent to the easement. Vehicles will travel along Kings Lane in both directions.

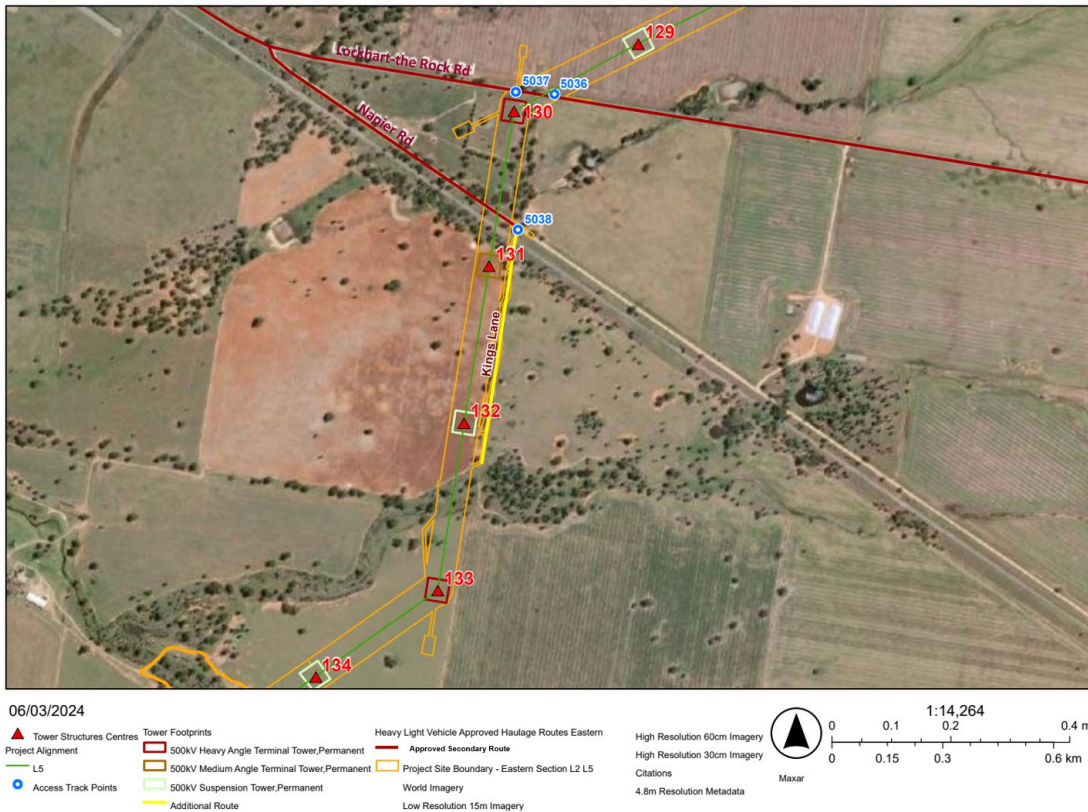
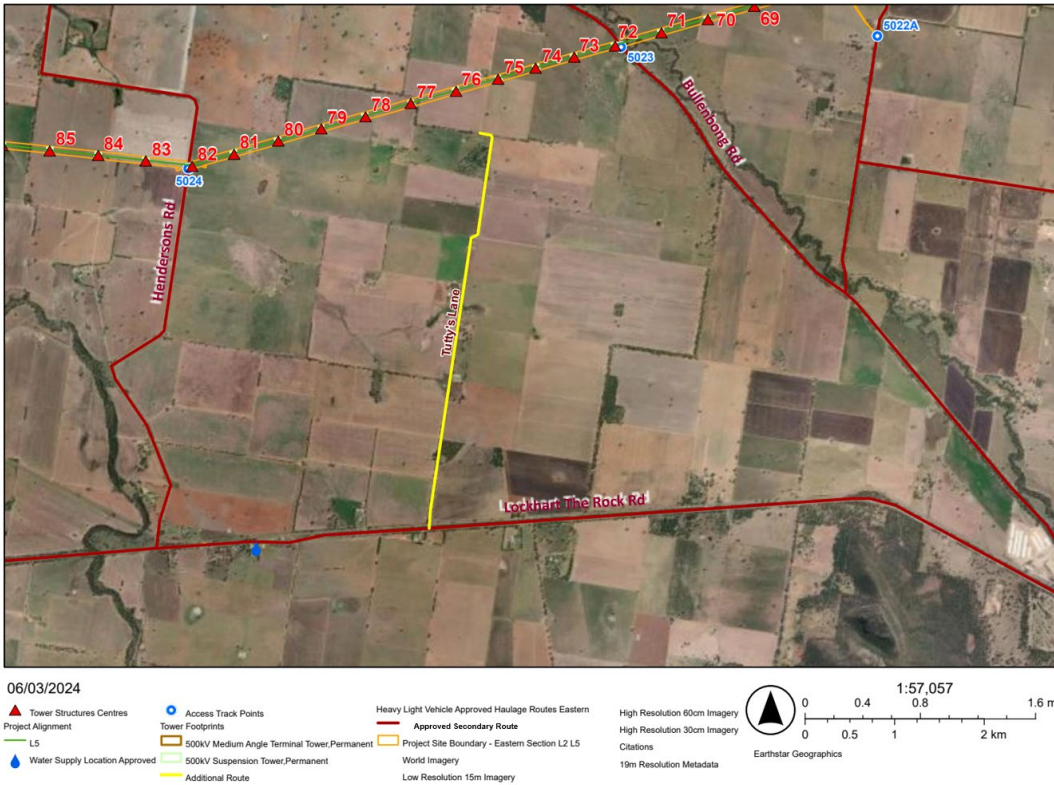


Figure 3.25 - Overview of Kings Lane

Tutty's Lane

Tutty's Lane is required to access the transmission line easement near to Tower 77 from Lockhart the Rock Road (refer to Figure 3.26). An access track would need to be constructed along Tower 83 to Tower 77, if Tutty's Lane is not available. Vehicles will travel along Tutty's Lane in both directions.



**Figure 3.26 - Overview of Tutty's Lane
 Strongs Lane**

Strongs Lane is required to access the transmission line easement by connecting access points 5032 and 5032A (refer to Figure 3.27). Vehicles will travel in both directions along Strongs Lane.

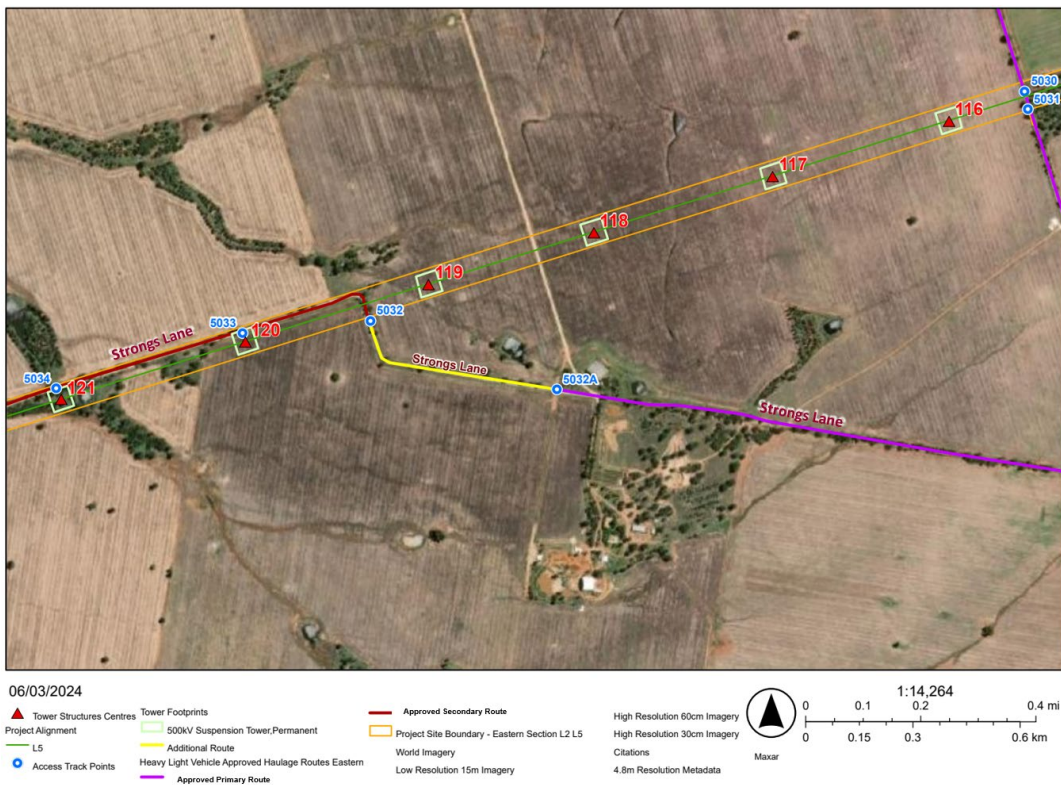


Figure 3.27 - Overview of Strongs Lane

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The additional roads within the Lockhart LGA are all unsealed local roads.

In accordance with condition B1 e) of the Infrastructure Approval, the *Traffic and Transport Management Plan* (45860-HSE-PL-D-0115) has been prepared in consultation with Lockhart Shire Council. Council confirmed no objections to the TTMP. Refer to the *Agency Consultation Report Stage 2 Traffic and Transport Management Plan* (45860-HSE-PL-D-0030) as submitted to the Department.

3.8.1 Sensitive receivers

There are sensitive receivers located 80m, 120m and 500m to the east and 120m and 800m to the west of Commera Wilson Lane. A sensitive receiver is located 800m to the west of Tinamba Lane and 300m south of Wattles Road. Refer to Figure 3.28 for the sensitive receivers located near to Commera Wilson Lane, Tinamba Lane and Wattles Road.

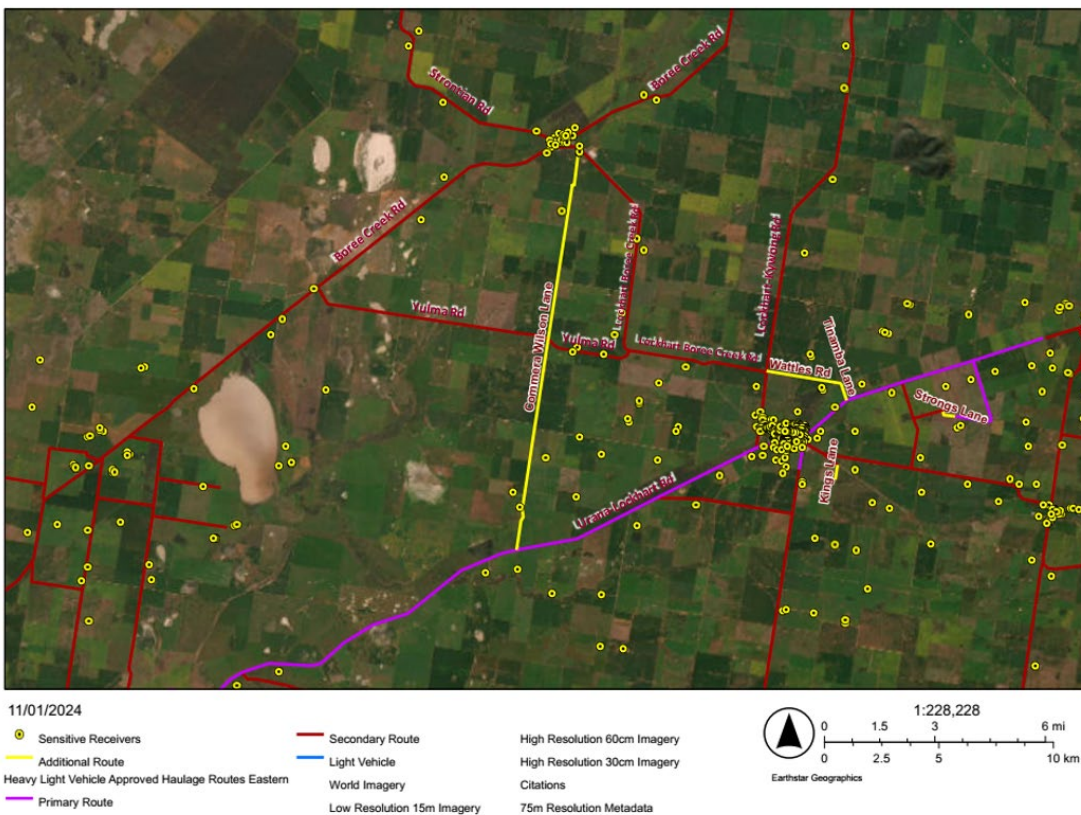


Figure 3.28 - Sensitive receivers along Commera Wilson Lane, Tinamba Lane and Wattles Road

Sensitive receivers are 20m to the east and west of Tutty’s Lane (refer to Figure 3.29).

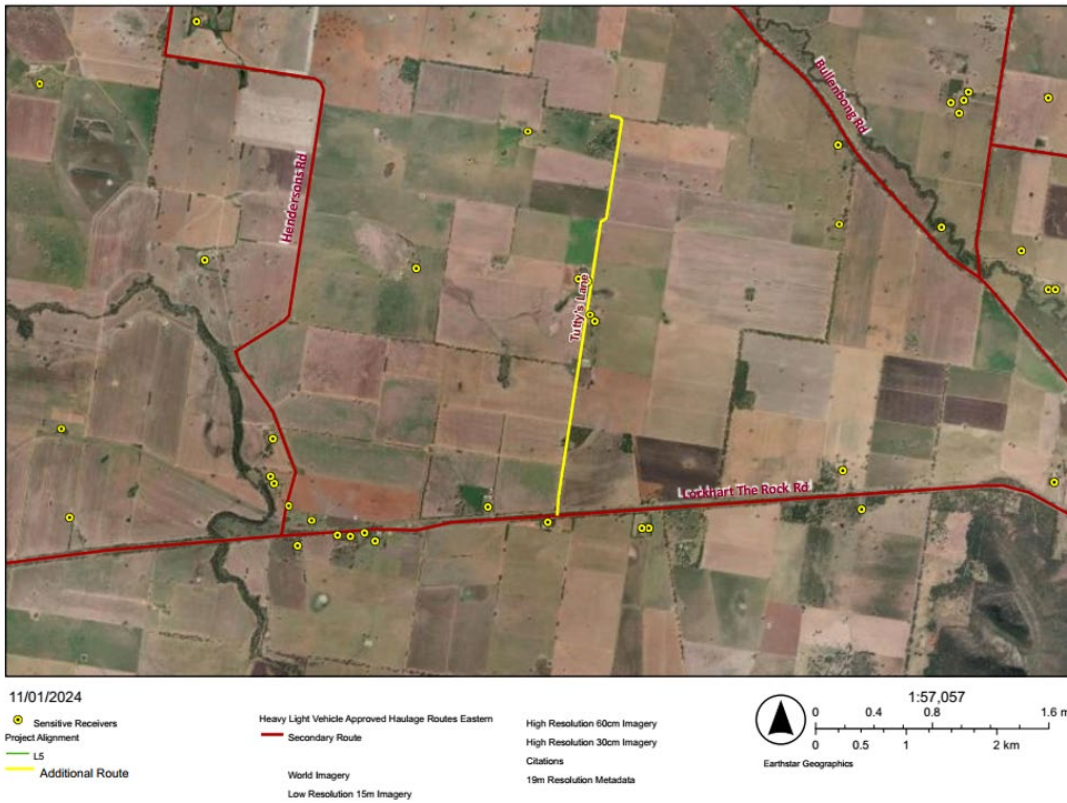


Figure 3.29 - Sensitive receivers along Tutty's Lane

A sensitive receiver is located 800m west of Kings Lane Road (refer to Figure 3.30).



Figure 3.30 - Sensitive receivers along Kings Lane

A sensitive receiver is located 450 m to the southeast of Strongs Lane (refer to Figure 3.31).

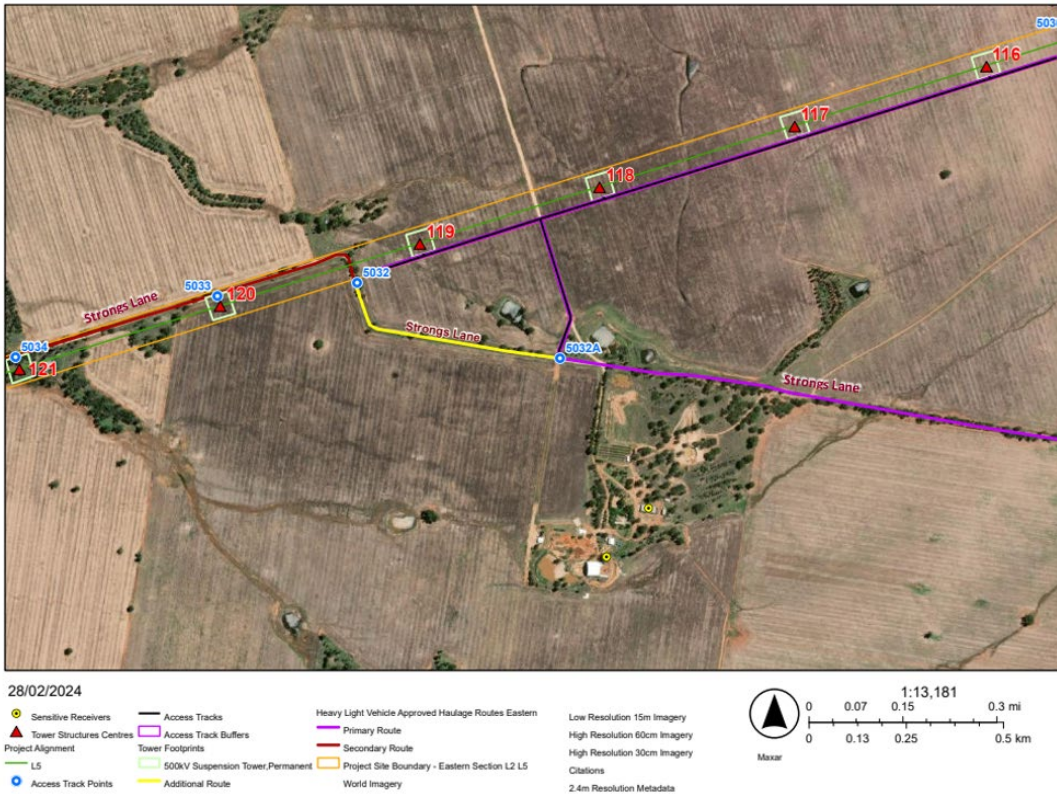


Figure 3.31 - Sensitive receivers along Strongs Lane

3.8.2 Traffic

It is estimated that typical construction traffic would generate four vehicle movements per day along these roads. At peak, it is estimated that ten vehicle movements would occur each day on the proposed additional roads located with Lockhart LGA. This approximates to a peak hourly construction traffic rate of 1 vehicle movement per hour.

Considering the desired theoretical threshold (LoS C) of 600 vehicle movements per hour per traffic lane, an increase of 1 vehicle movements per hour is approximately 0.2% of this threshold. Therefore, the impact of construction-related traffic along the additional roads is not expected to affect the performance of the road network even during peak periods.

3.8.3 Noise

The road noise levels generated by construction traffic utilising these roads will not exceed the NSW RNP day-time criteria of 55 dBA equivalent noise level ($L_{eq, 1hr}$) for local roads. No further assessment is required as the increase in noise levels are less than 2 dBA. The assessment indicated that the noise levels generated from construction vehicles utilising this route comply with relevant amenity-based noise criteria at the nearest identified sensitive receivers along each proposed route.

The estimated noise level contribution and the relevant RNP criteria for the use of the additional roads is identified in Table 3.8.

It is noted that the predicted road noise levels and associated increases will only occur during the day-time period and any noise impacts associated with construction-related traffic would be temporary.

Table 3.8 - Anticipated construction traffic noise levels for additional roads within Lockhart LGA

Road name	Road type	Peak hour volume (vehicles per hour in one direction)	Peak construction volume (vehicles per hour in one direction)	Nearest sensitive receiver	Estimated noise level contribution from construction traffic (dBA)	Change in noise levels (dBA)
Commera Wilson Lane	Unsealed	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 1 Light vehicles - 0	80m from street frontage	55 L _{eq} 1hr	0.4
Tinamba Lane	Unsealed	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 1 Light vehicles - 0	800m from street frontage	55 L _{eq} 1hr	0.4
Tutty's Lane	Unsealed	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 1 Light vehicles - 0	20m from street frontage	55 L _{eq} 1hr	0.4
Wattles Road	Unsealed	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 1 Light vehicles - 0	300m from street frontage	55 L _{eq} 1hr	0.4
Kings Lane	Unsealed	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 1 Light vehicles - 0	800m from street frontage	55 L _{eq} 1hr	0.4
Strongs Lane (extension)	Unsealed	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 1 Light vehicles - 0	450m from street frontage	55 L _{eq} 1hr	0.4

3.8.4 Air quality

The additional roads within Lockhart LGA are all unsealed. Dust generation from the use of these unsealed roads near sensitive receivers would be monitored visually by site personnel during the work. If required mitigation measures to minimise dust impacts to sensitive residential receivers will be implemented throughout the construction.

3.9 Wagga Wagga LGA

Approval is sought for the following roads with Wagga Wagga LGA:

- Kyeamba Avenue;
- Vincent Road;
- Mitchell Road (extension); and
- Redbank Road (Boiling Down Road to transmission line easement).

Kyeamba Avenue, Vincent Road and an extension of Mitchell Road are required to access the transmission line easement (refer to Figure 3.32). Wagga Wagga City Council gave direct instruction to use these additional roads to avoid using the approved light vehicle only roads, Brunskill Road and Lake Albert Road. Vehicles will travel in both directions from Koorringal Road to Inglewood Road, using the three additional roads. This allows for a direct route to and from the Wagga Wagga substation, without having to go through the city centre of Wagga Wagga. Mitchell Road, Kyeamba Avenue and Vincent Road are sealed local roads.

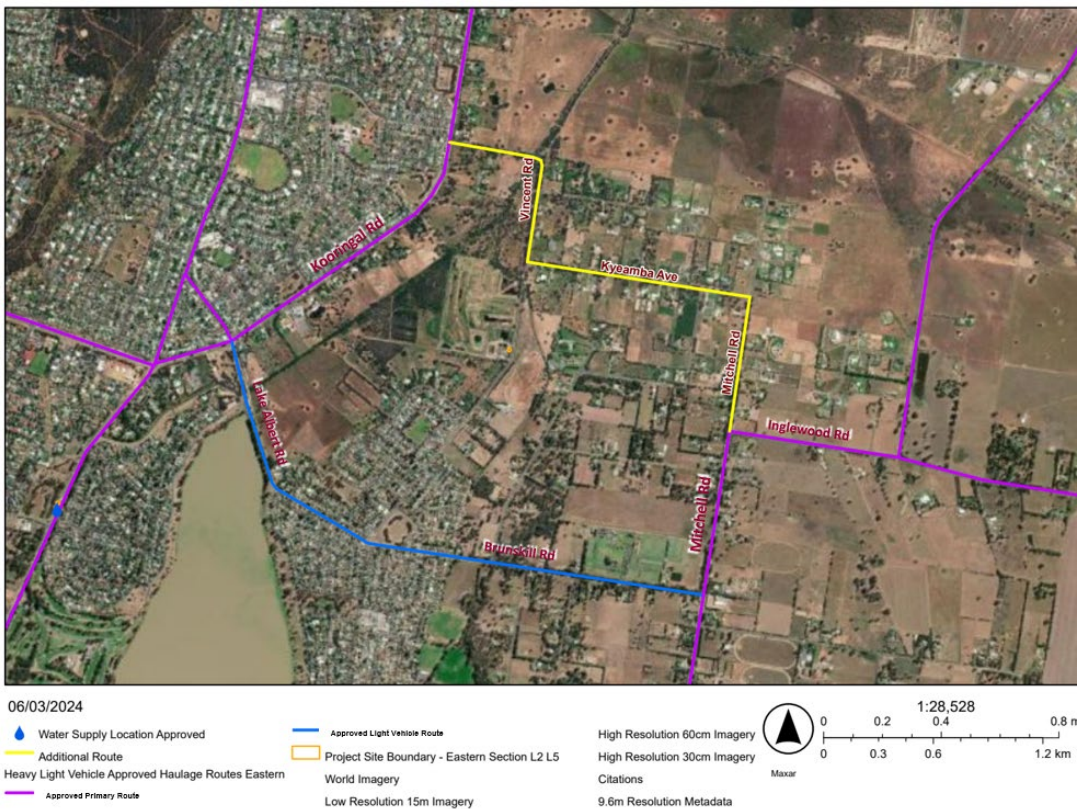


Figure 3.32 - Overview of Kyeamba Avenue, Vincent Road and Mitchell Road (extension)

Redbank Road

The southern part of Redbank Road is required to access the transmission line easement (refer to Figure 3.33). The section of Redbank Road from Boiling Down Road to the transmission line easement (access point 5003) will be accessed by both heavy and light vehicles. Vehicles will travel in both directions along Redbank Road. Redbank Road is an unsealed local road.



Figure 3.33 - Overview of Redbank Road

3.9.1 Sensitive receivers

There are sensitive receivers located along Kyeamba Avenue, Vincent Road and Mitchell Road (extension) (refer to Figure 3.34).

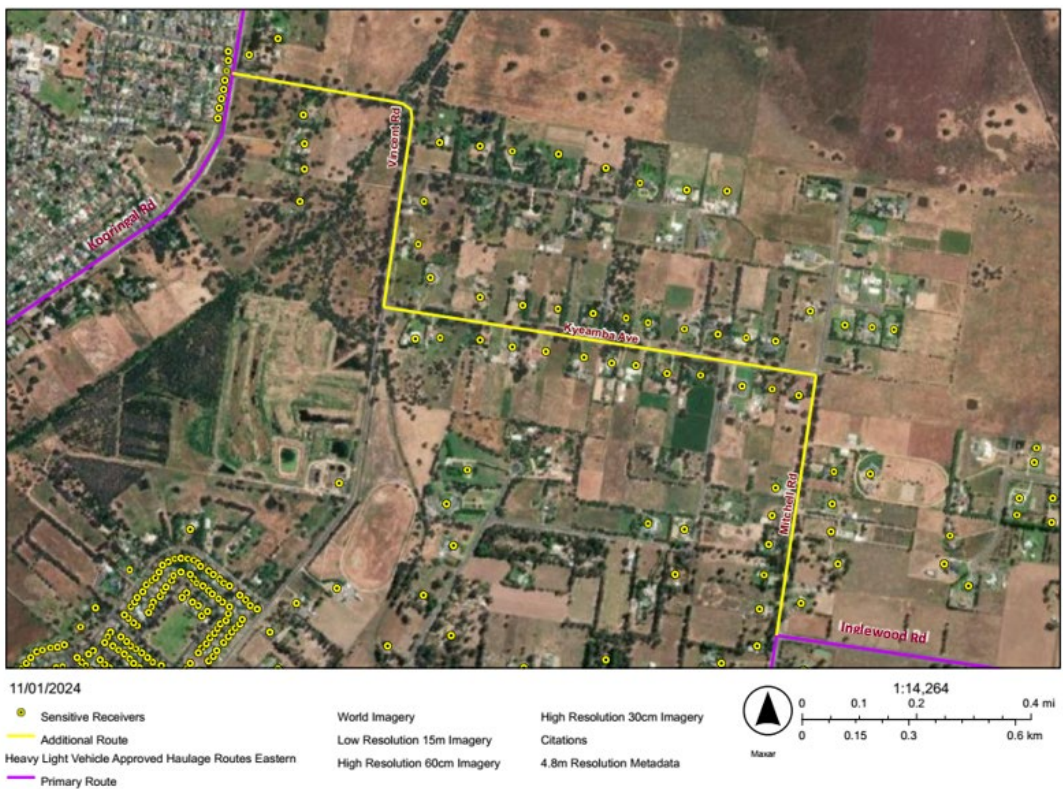


Figure 3.34 - Sensitive receivers along Kyeamba Avenue, Mitchel Road (extension) and Vincent Road

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There are sensitive receivers located along Redbank Road, though majority of them are in the northern section of Redbank Road, which will not be used. Sensitive receivers are set back from the southern section of Redbank Road and are not expected to be impacted (refer to Figure 3.35).

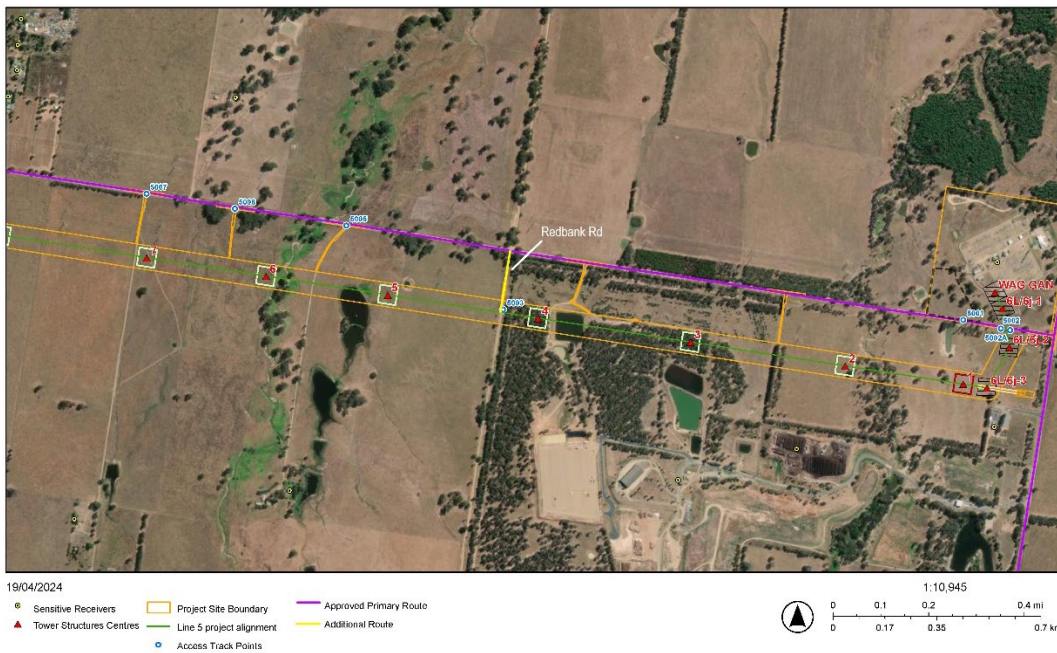


Figure 3.35 - Sensitive receivers along Redbank Road

3.9.2 Traffic

It is estimated that typical construction traffic would generate four vehicle movements per day along these roads. At peak, it is estimated that ten vehicle movements would occur each day on the proposed additional roads located with Wagga Wagga LGA. This approximates to a peak hourly construction traffic rate of 1 vehicle movement per hour.

Considering the desired theoretical threshold (LoS C) of 600 vehicle movements per hour per traffic lane, an increase of 1 vehicle movements per hour is approximately 0.2% of this threshold. Therefore, the impact of construction-related traffic along the additional roads is not expected to affect the performance of the road network even during peak periods.

3.9.3 Noise

The road noise levels generated by construction traffic utilising the additional roads within Wagga Wagga LGA will not exceed the NSW RNP day-time criteria of 55 dBA equivalent noise level ($L_{eq, 1hr}$) for local roads. No further assessment is required as the increase in noise levels are less than 2 dBA. The assessment indicated that the noise levels generated from construction vehicles utilising this route comply with relevant amenity-based noise criteria at the nearest identified sensitive receivers along each proposed route. The estimated noise level contribution and the relevant RNP criteria for the use of the additional roads is identified in Table 3.9.

It is noted that the predicted road noise levels and associated increases will only occur during the day-time period and any noise impacts associated with construction-related traffic would be temporary.

Table 3.9 - Anticipated construction traffic noise levels for additional roads within Wagga Wagga LGA

Road name	Road type	Peak volume (vehicles per hour in one direction)	Peak construction volume (vehicles per hour in one direction)	Nearest sensitive receiver	Estimated noise level contribution from construction traffic (dBA)	Change in noise levels (dBA)
Kyeamba Avenue	14mm chip seal, 50 km/hr	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 1 Light vehicles - 0	20m from street frontage	55 L_{eq} 1hr	0.4
Vincent Road	14mm chip seal, 50 km/hr	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 1 Light vehicles - 0	20m from street frontage	55 L_{eq} 1hr	0.4
Mitchell Road (extension)	14mm chip seal, 50 km/hr	Heavy vehicles - 50 Light vehicles - 50	Heavy vehicles - 1 Light vehicles - 0	30m from street frontage	55 L_{eq} 1hr	0.4
Redbank Road	Unsealed	Heavy vehicles - 10 Light vehicles - 10	Heavy vehicles - 1 Light vehicles - 0	30m from street frontage	55 L_{eq} 1hr	0.4

3.9.4 Air quality

Redbank Road is an unsealed road. As such, there is potential for dust to be generated from the construction vehicles using Redbank Road. There are no sensitive receivers located adjacent to the southern section of Redbank Road. Dust generation from the use of Redbank Road would be monitored visually by site personnel during the work. If required mitigation measures to minimise dust impacts to sensitive residential receivers will be implemented throughout the construction. Mitchell Road (extension), Kyeamba Avenue and Vincent Road are sealed roads. It is not anticipated that dust impacts will occur on sealed roads as a result of vehicle movements.

4 Road maintenance

Independent dilapidation surveys will be undertaken in accordance with condition C34. Dilapidation surveys will be undertaken on all local roads on the transport route, including the additional roads identified in Attachment 1. The dilapidation surveys will be undertaken in consultation with relevant roads authorities.

Refer to Section 6.1 of the *Traffic and Transport Management Plan* (Revision 10) (45860-HSE-PL-D-0115) for further detail regarding dilapidation surveys.

5 Consistency with Infrastructure Approval

Condition 32 of the Infrastructure Approval for the project states that all heavy and light vehicles associated with construction must travel to and from the site via the primary access routes, secondary access routes and the water supply routes as described in the EIS and identified in the figure in Appendix 3, unless the Planning Secretary agrees otherwise.

The additional roads were not included within the Traffic and Transport Impact Assessment or Table 6-8 of Appendix B of the Amendment Report. Therefore, the routes are listed as additional access routes within the most recent draft of the *Traffic and Transport Management Plan* (Revision 10) (45860-HSE-PL-D-0115) that is currently with the Department for approval.

Approval is being sought for the use of these additional roads as either primary, secondary or water supply routes.

The use of the additional roads would not change the nature, scope, scale and impact of the Project substantially. The existing management measures included in the current draft *Traffic and Transport Management Plan* (Revision 10) (45860-HSE-PL-D-0115) are appropriate to manage and mitigate all anticipated potential impacts.

The use of the additional roads would, therefore, be generally in accordance with the EIS, as required by condition A2. The conditions of approval have mechanisms to facilitate the use of the additional roads (see below). The proposed use of the additional roads would therefore be consistent with the approved Project and no modification of the Infrastructure Approval is required.

Condition C32 limits the use of roads to the primary, secondary and water supply routes as described in the EIS and identified in Appendix 3 to the Infrastructure Approval, unless the Planning Secretary agrees otherwise. Accordingly, Transgrid requests that the Planning Secretary agrees to the use the additional roads as primary, secondary or water supply routes for the project and in accordance with the current draft *Traffic and Transport Management Plan* (Revision 10) (45860-HSE-PL-D-0115).

6 Consultation

In accordance with condition B1 e) of the Infrastructure Approval and RMM TA1, the *Traffic and Transport Management Plan* (Revision 10) (45860-HSE-PL-D-0115) has been prepared in consultation with:

- TfNSW; and
- relevant councils (Balranald Shire Council, Murray River Council, Edward River Council, Hay Shire Council, Murrumbidgee Council, Federation Council, Lockhart Shire Council, Wentworth Shire Council, Wagga Wagga City Council, Berrigan Shire Council and Narrandera Shire Council).

A summary of the consultation with TfNSW and the relevant councils is provided in the *Agency Consultation Report Stage 2 Traffic and Transport Management Plan* (45860-HSE-PL-D-0030).

Overall, the relevant councils have no objections to the use of the additional roads as a primary, secondary and water supply routes for the project.

Approval of the current draft *Traffic and Transport Management Plan* (Revision 10) (45860-HSE-PL-D-0115) will formalise TfNSW and Council's request measures as project requirements, which Elecnor will then implement.

In accordance with the Community Communication Strategy (CCS), a range of tools will be implemented to notify and facilitate ongoing consultation and communication with the community regarding the project. The CCS includes mechanisms for the affected community to contact the project with enquiries and complaints and protocols for addressing those enquiries and complaints.

Appendix A - Additional roads

Table A.1 - Additional State roads

Name	Description	Access road type	Authority	Reason for use
Hay LGA				
Lachlan Street (part of Cobb Highway)	Sealed	Water	TfNSW	Required to access proposed water supply point located at 59 Thelangerin Road, Hay

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Table A.2 - Additional regional roads

Name	Description	Access road type	Authority	Reason for use
Berrigan LGA				
Jerilderie Street	Sealed	Primary	Berrigan Shire Council	Council requested the use of this road to minimise traffic along Carter Street and Oaklands Stret

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Table A.3 - Additional local roads

Name	Description	Access road type	Authority	Reason for use
Balranald LGA				
Moa Street	Sealed	Water	Balranald Shire Council	Required to access proposed water supply point located at Church Street, Balranald
Church Street (extension)	Sealed	Water	Balranald Shire Council	Required to access proposed water supply point located at Church Street, Balranald
Berrigan LGA				
Strathvale Road	Sealed / unsealed	Primary	Berrigan Shire Council	Council requested the use of this road to minimise traffic along Carter Street and Oaklands Stret
Murray River LGA				
Keri Keri Road (south)	Unsealed	Secondary	Murray River Council	Provide alternate access to Binbinette Road, and Balranald Road if flooding occurs on Binbinette Road
Berambong Road	Unsealed	Secondary	Murray River Council	Provide alternate access to Binbinette Road, and Balranald Road if flooding occurs on Binbinette Road
Perekerton Road	Unsealed	Secondary	Murray River Council	Provide alternate access to Binbinette Road, and Balranald Road if flooding occurs on Binbinette Road
Murray Street (extension)	Sealed	Water	Murray River Council	Required to access proposed water supply point located at 78 Murray Street, Tooleybuc
Lea Street (extension)	Sealed	Water	Murray River Council	Required to access proposed water supply point located at 78 Murray Street, Tooleybuc
River Street	Sealed	Water	Murray River Council	Required to access proposed water supply point located at 78 Murray Street, Tooleybuc
Hay LGA				
Thelangerin Road	Sealed	Water	Hay Shire Council	Required to access proposed water supply point located at 59 Thelangerin Road, Hay
Showground Road	Sealed	Water	Hay Shire Council	Required to access proposed water supply point located at 59 Thelangerin Road, Hay
Dunera Way	Sealed	Water	Hay Shire Council	Required to access proposed water supply point located at 59 Thelangerin Road, Hay
Edward River LGA				

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Name	Description	Access road type	Authority	Reason for use
Goolgumbra Road	Unsealed	Primary	Edward River Council	Required to access transmission line easement and provides alternate access to canal crossing during flood
Pooginook Road	Unsealed	Primary	Edward River Council	Required to access transmission line easement and provides alternate access to canal crossing during flood
Unnamed track (located off Four Corners Road)	Unsealed	Secondary	Edward River Council	Required to access transmission line easement with access points 2084 and 2085
Murrumbidgee LGA				
Jimmy Cull Road	Sealed	Water	Murrumbidgee Council	Required to access approved water supply point located at 3 Bencubbin Street, Coleambally
Bencubbin Avenue	Sealed	Water	Murrumbidgee Council	Required to access approved water supply point located at 3 Bencubbin Street, Coleambally
Thurrowa Road (extension)	Sealed / unsealed	Primary	Murrumbidgee Council	Required to access transmission line easement and access point 5114
Wilson Road (extension)	Sealed	Primary	Murrumbidgee Council	Required to access transmission line easement and provides alternate access to canal crossing during flood
Goolgumbra Road	Unsealed	Primary	Murrumbidgee Council	Required to access transmission line easement and provides alternate access to canal crossing during flood
Mclennons Bore Road	Unsealed	Secondary	Murrumbidgee Council	Required to access transmission line easement and provides alternate access to canal crossing during flood
Federation LGA				
Stephen Street	Sealed	Water	Federation Council	Required to access approved water supply point located at intersection of Federation Highway and Stephen Street
Spraydon Road (extension)	Unsealed	Secondary	Federation Council	Required extension to access points 5078 and 5079 to the intersection of West Gums Road and Spraydon Road
Lockhart LGA				
Commera Wilson Lane	Unsealed	Secondary	Lockhart Shire Council	Required to access transmission line easement (access point 5056/57)
Strong's Lane (extension)	Unsealed	Secondary	Lockhart Shire Council	Required to access transmission line easement (access point 5032/32a)
Tinamba Lane	Unsealed	Primary	Lockhart Shire Council	Required to access transmission line easement

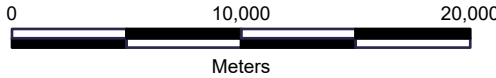
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Name	Description	Access road type	Authority	Reason for use
Tutty's Lane	Unsealed	Secondary	Lockhart Shire Council	Required to access transmission line easement
Wattles Road	Unsealed	Primary	Lockhart Shire Council	Required to access transmission line easement
Kings Lane	Unsealed	Secondary	Lockhart Shire Council	Required to access transmission line easement
Wagga Wagga LGA				
Kyeamba Avenue	Sealed	Secondary	Wagga Wagga City Council	Required to access transmission line easement to avoid using the approved light vehicle only roads, Brunskill Road and Lake Albert Road
Mitchell Road (extension)	Sealed	Secondary	Wagga Wagga City Council	Required to access transmission line easement to avoid using the approved light vehicle only roads, Brunskill Road and Lake Albert Road
Vincent Road	Sealed	Secondary	Wagga Wagga City Council	Required to access transmission line easement to avoid using the approved light vehicle only roads, Brunskill Road and Lake Albert Road
Redbank Road	Unsealed	Secondary	Wagga Wagga City Council	Required to access transmission line easement

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Appendix B - Mapping of additional roads

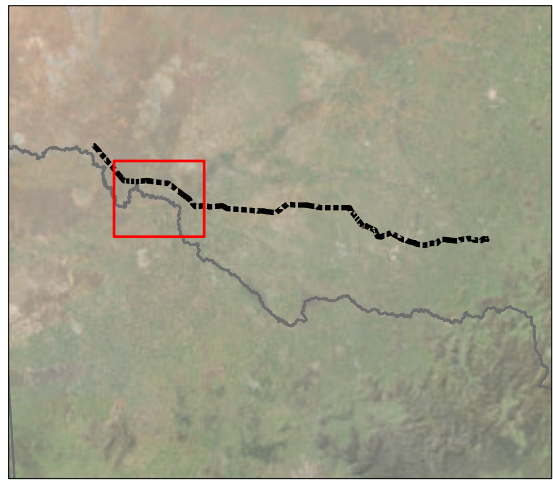
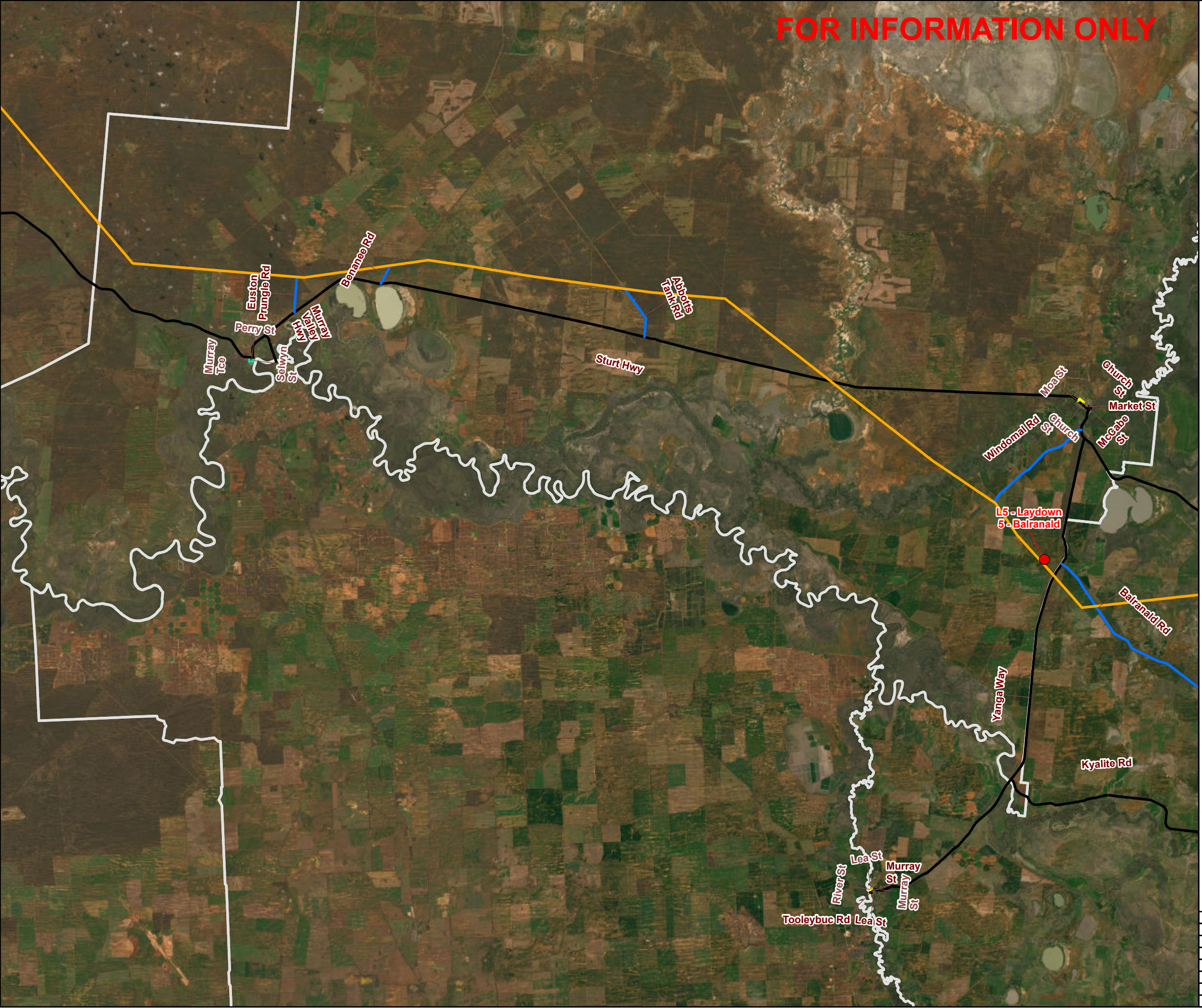
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- Additional Access Routes
- Approved Access Routes
- Primary Access Route
- Secondary Access Route
- LGA Boundary
- Water Supply Route

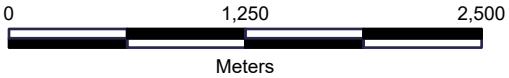


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**Access Routes
Baيرانald LGA
Map 1 of 2**

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 - Primary Access Route
 - Secondary Access Route
- LGA Boundary



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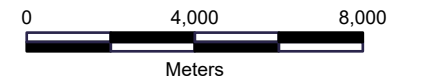
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**Access Routes
Balranald LGA
Map 2 of 2**

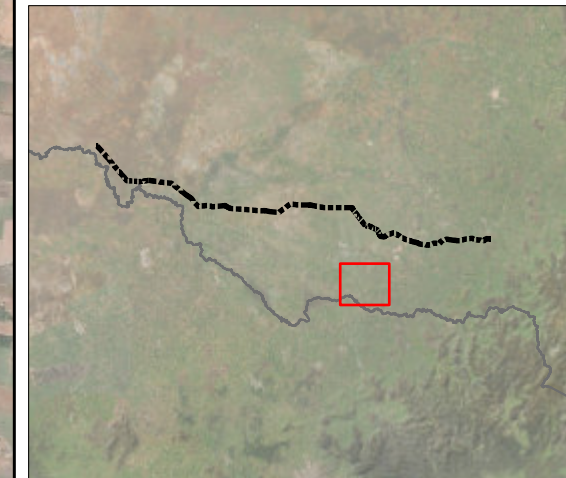
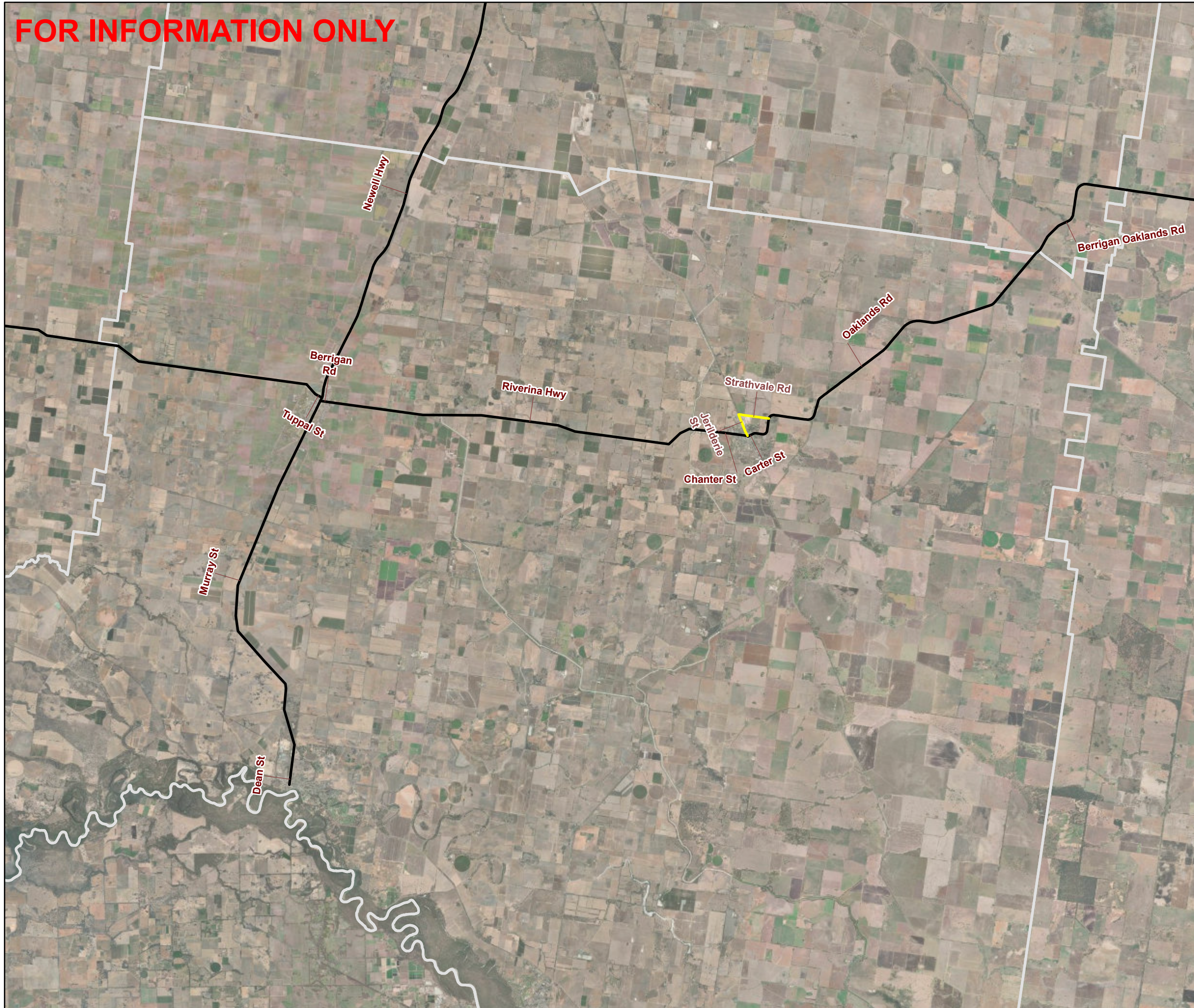
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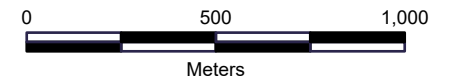


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**Access Routes
Berrigan LGA
Map 1 of 2**

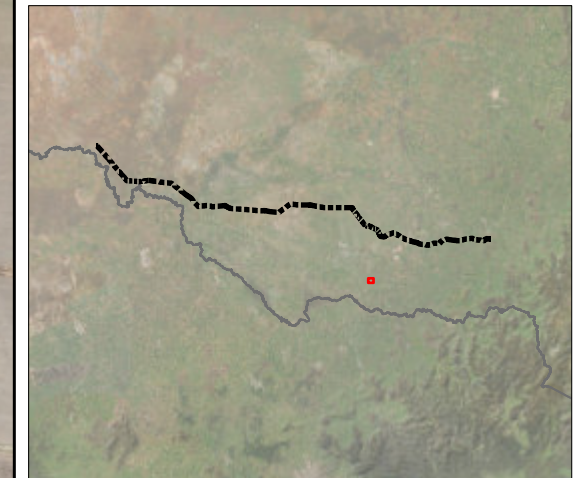
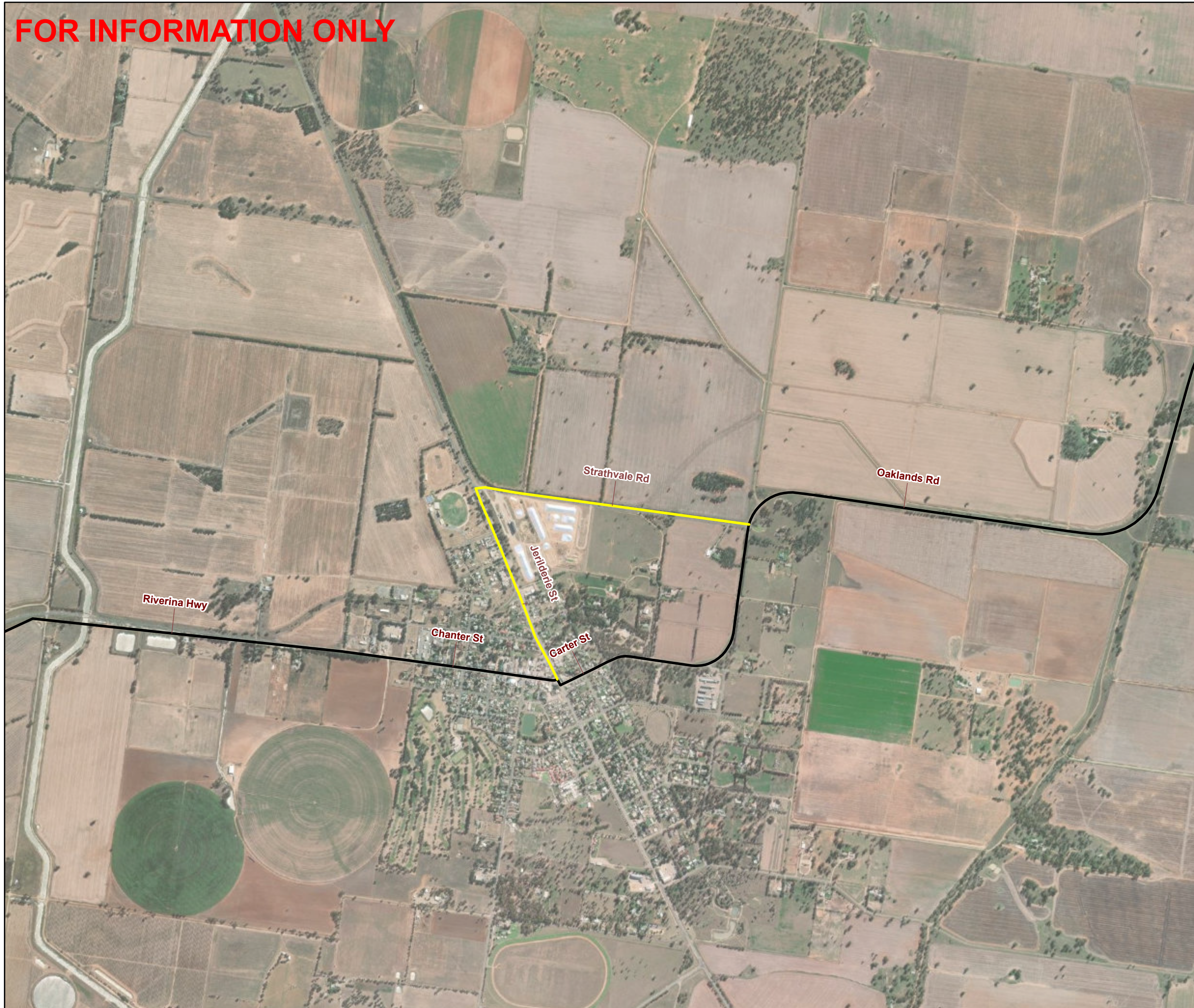
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- Approved Access Routes**
-  Primary Access Route
-  LGA Boundary

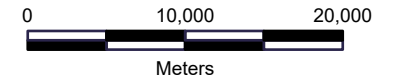


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**Access Routes
Berrigan LGA
Map 2 of 2**

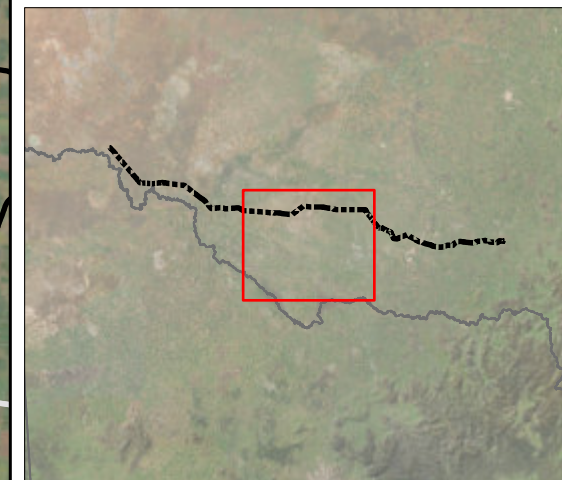
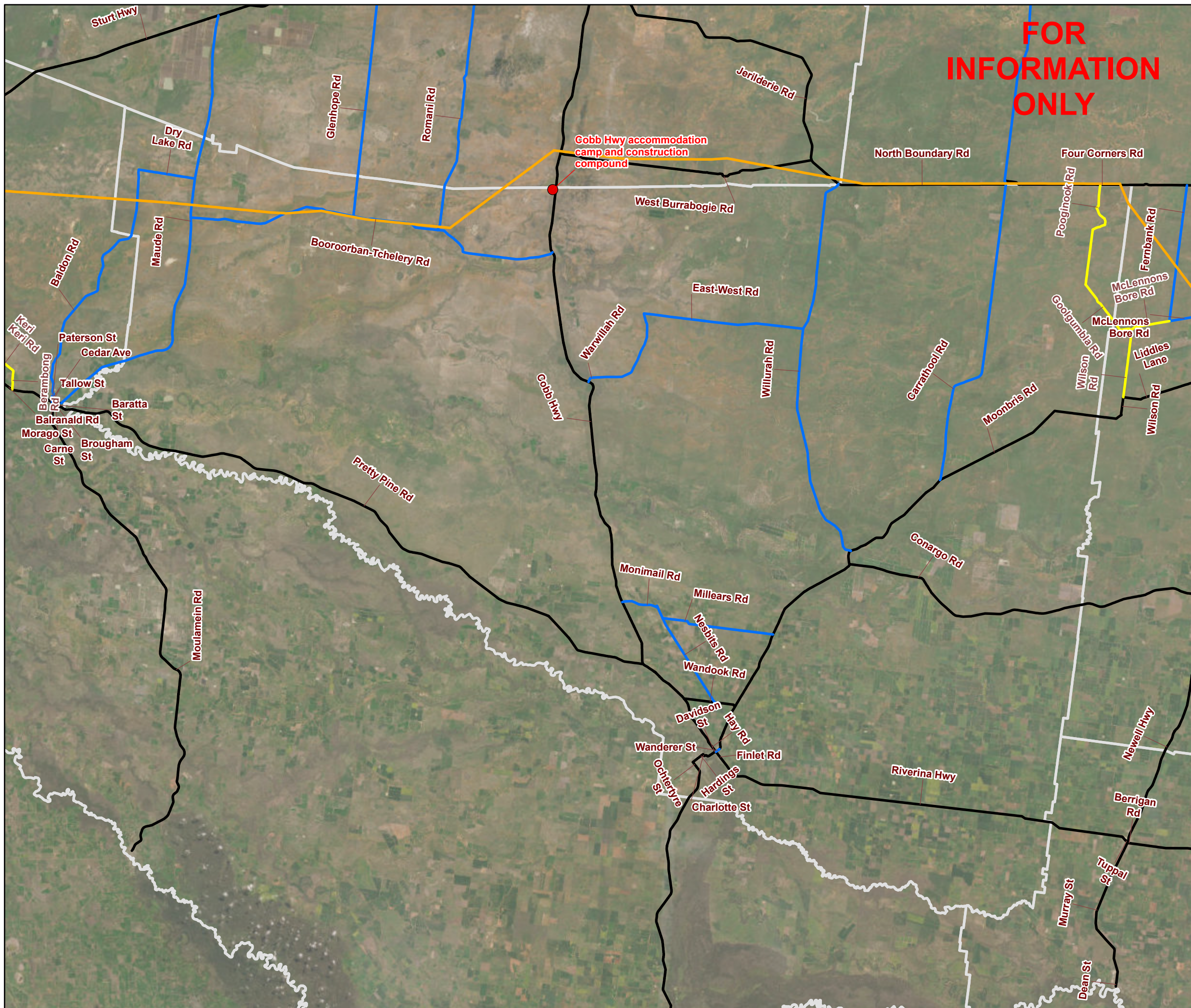
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- Secondary Access Route
- LGA Boundary

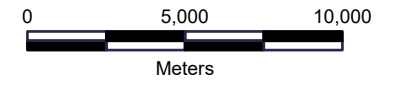


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**Access Routes
Edward River LGA
Map 1 of 1**

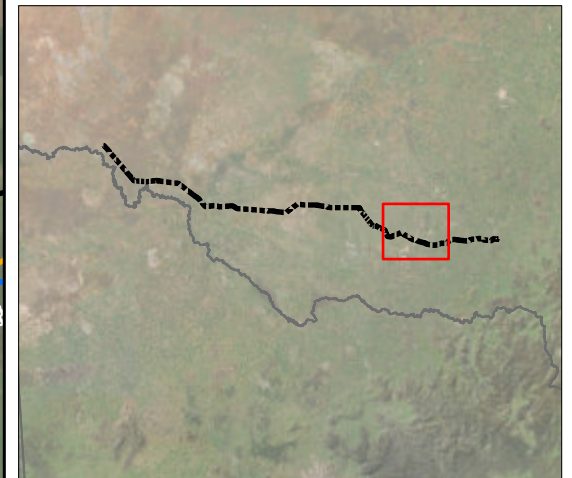
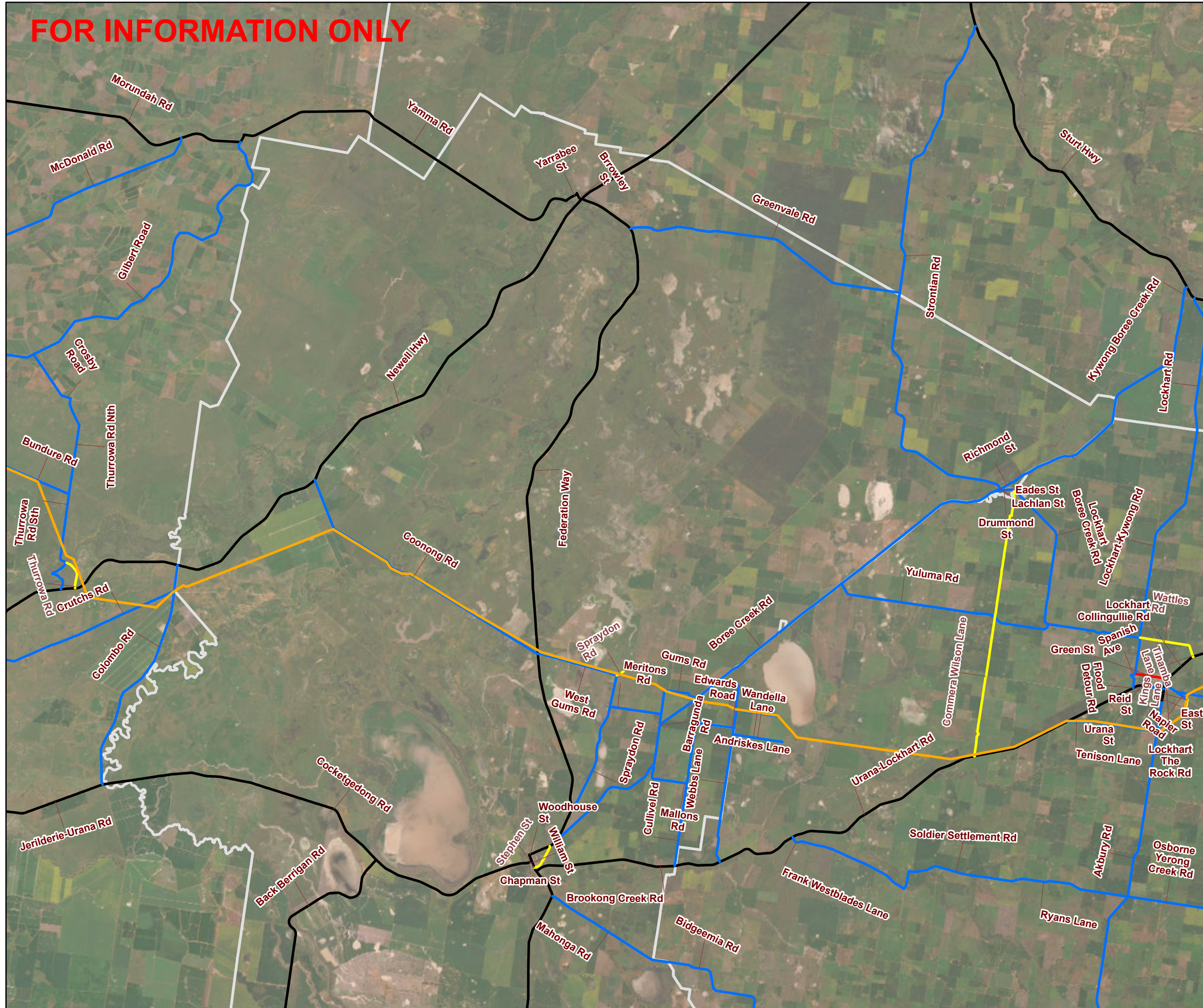
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- LGA Boundary

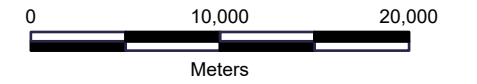


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**Access Routes
Federation LGA
Map 1 of 1**

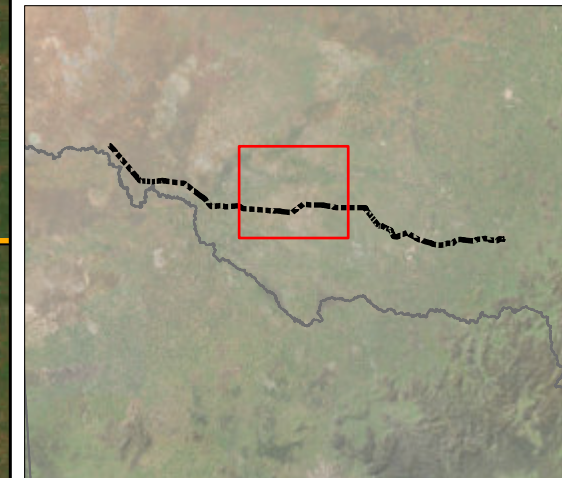
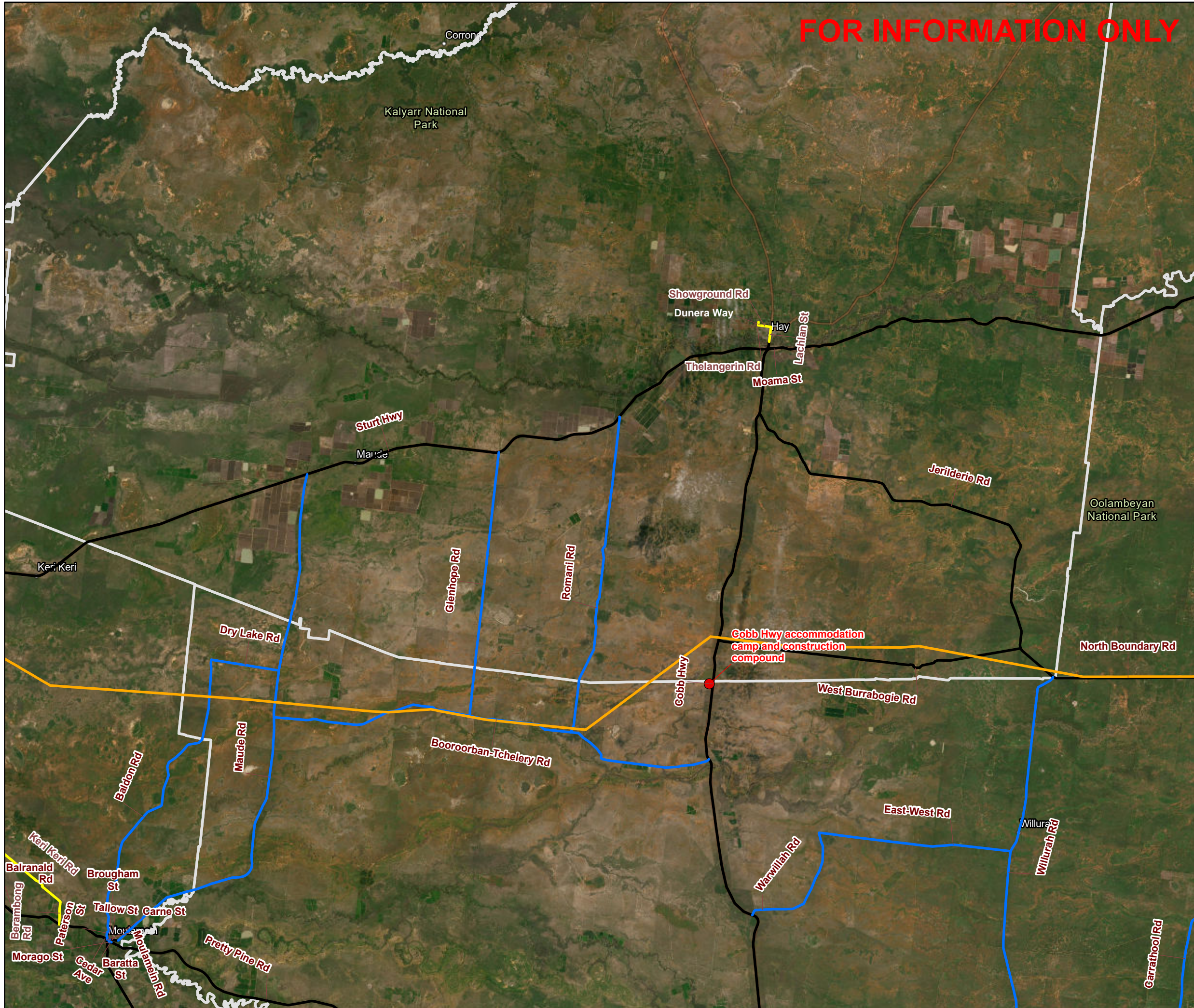
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- Approved Access Routes
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- Secondary Access Route
- LGA Boundary

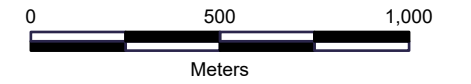


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**Access Routes
Hay LGA
Map 1 of 2**

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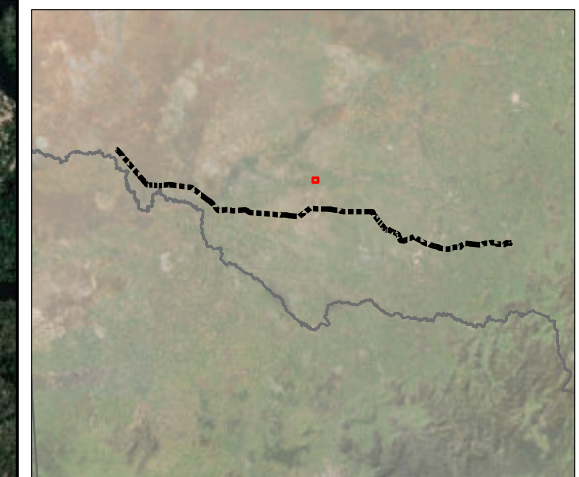
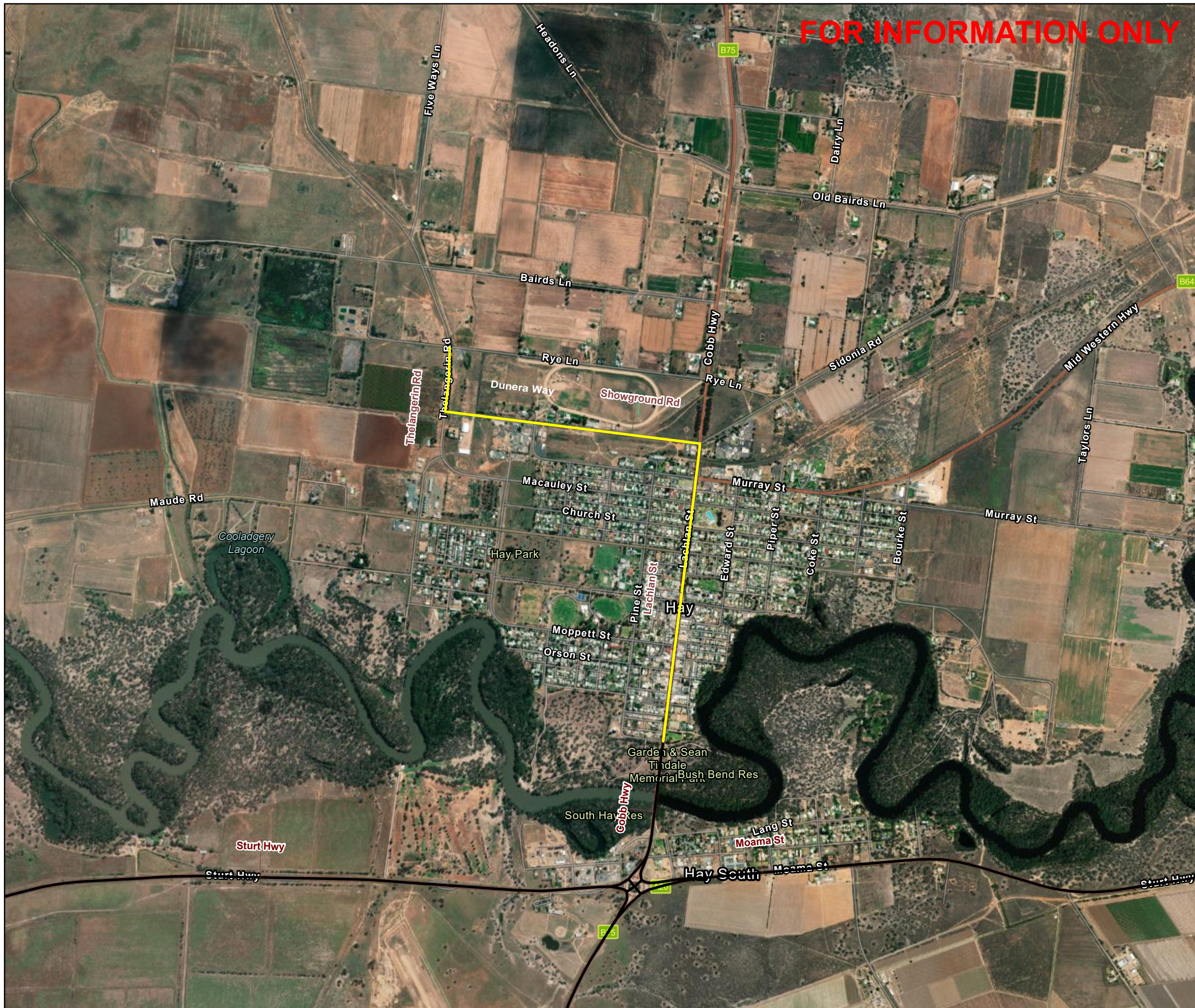
Additional Access Routes

— Additional Access Routes

Approved Access Routes

— Primary Access Route

□ LGA Boundary

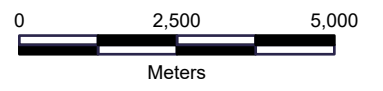


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Hybrid Reference Layer: Vicmap, Esri, HERE, Garmin, Foursquare, METI/NASA, USGS World Imagery: Earthstar Geographics World Imagery: Maxar

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**Access Routes
Hay LGA
Map 2 of 2**

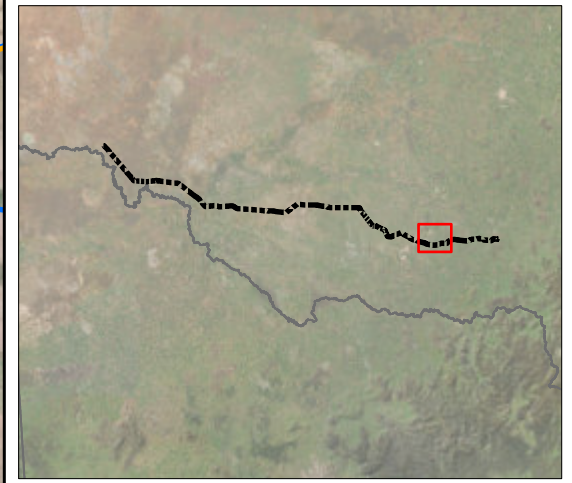
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Datum: GDA2020 Projection: New South Wales Lambert
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Legend

- Transmission Alignment
- Additional Access Routes
- Approved Access Routes
 - Primary Access Route
 - Secondary Access Route
 - Light Vehicle
- LGA Boundary

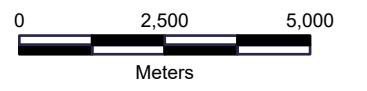


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**Access Routes
Lockhart LGA
Map 1 of 2**

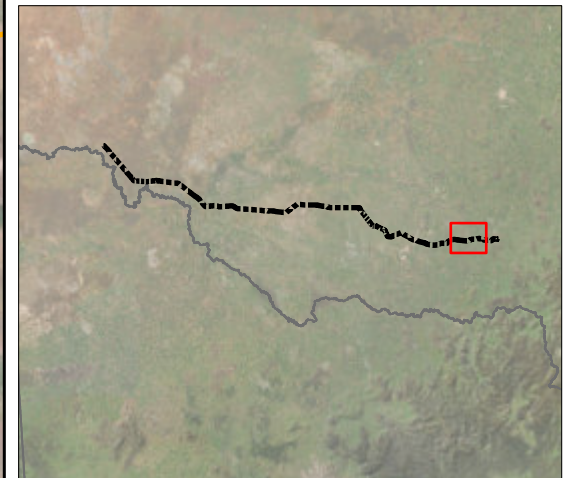
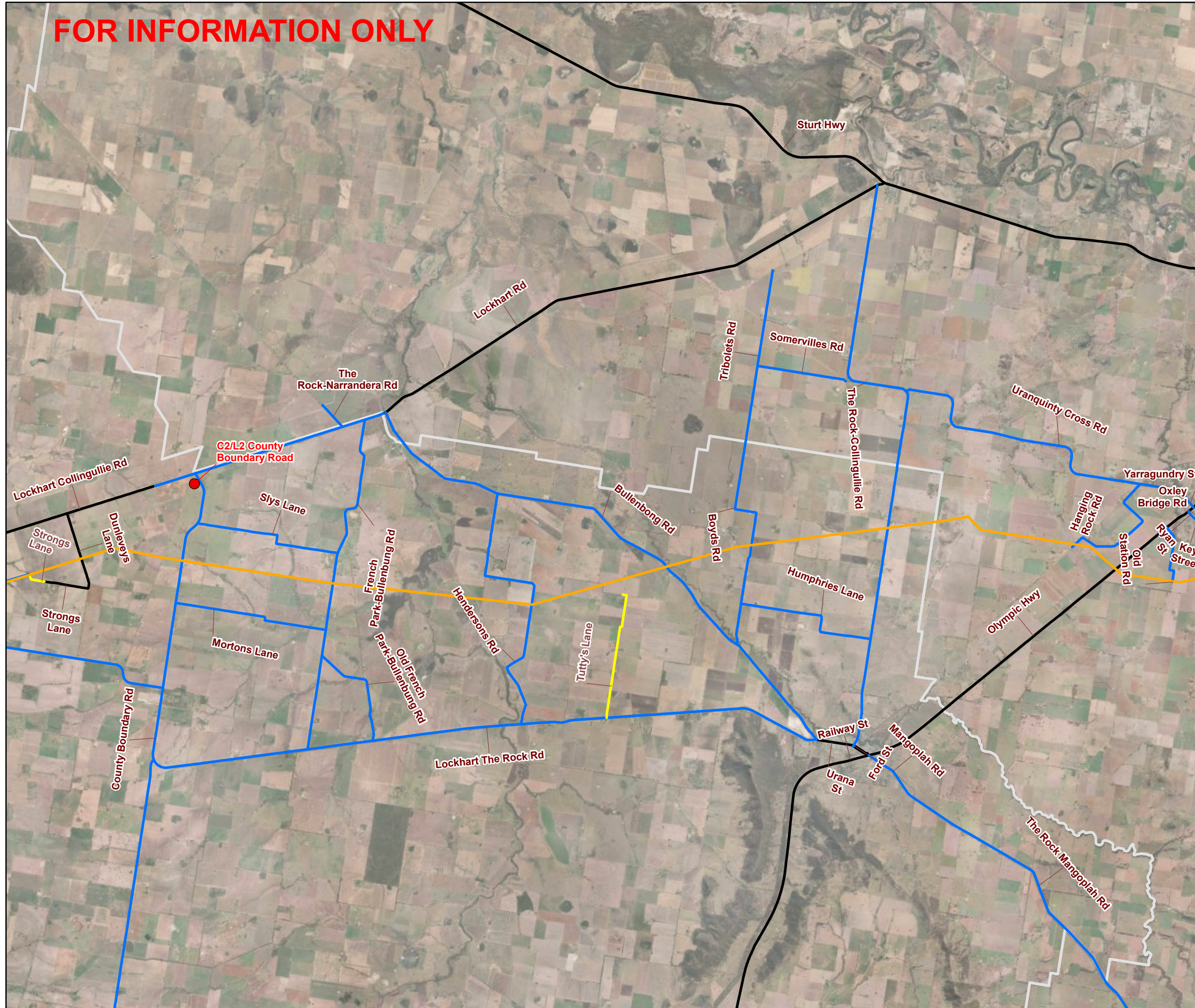
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Datum: GDA2020 Projection: New South Wales Lambert
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Legend

- Camps and Laydowns
- Transmission Alignment
- Additional Access Routes
- Approved Access Routes
- Primary Access Route
- Secondary Access Route
- LGA Boundary

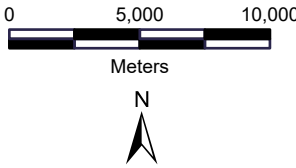


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**Access Routes
Lockhart LGA
Map 2 of 2**

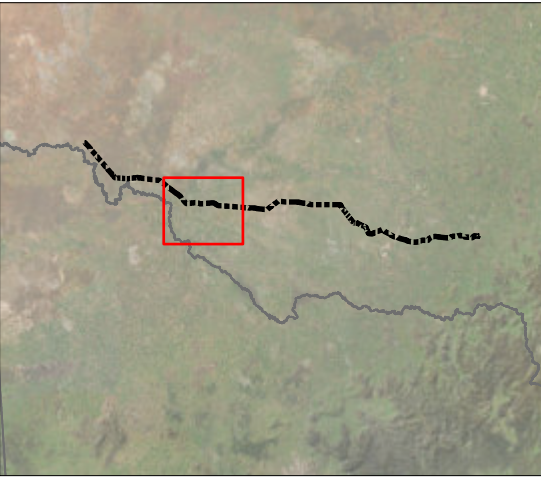
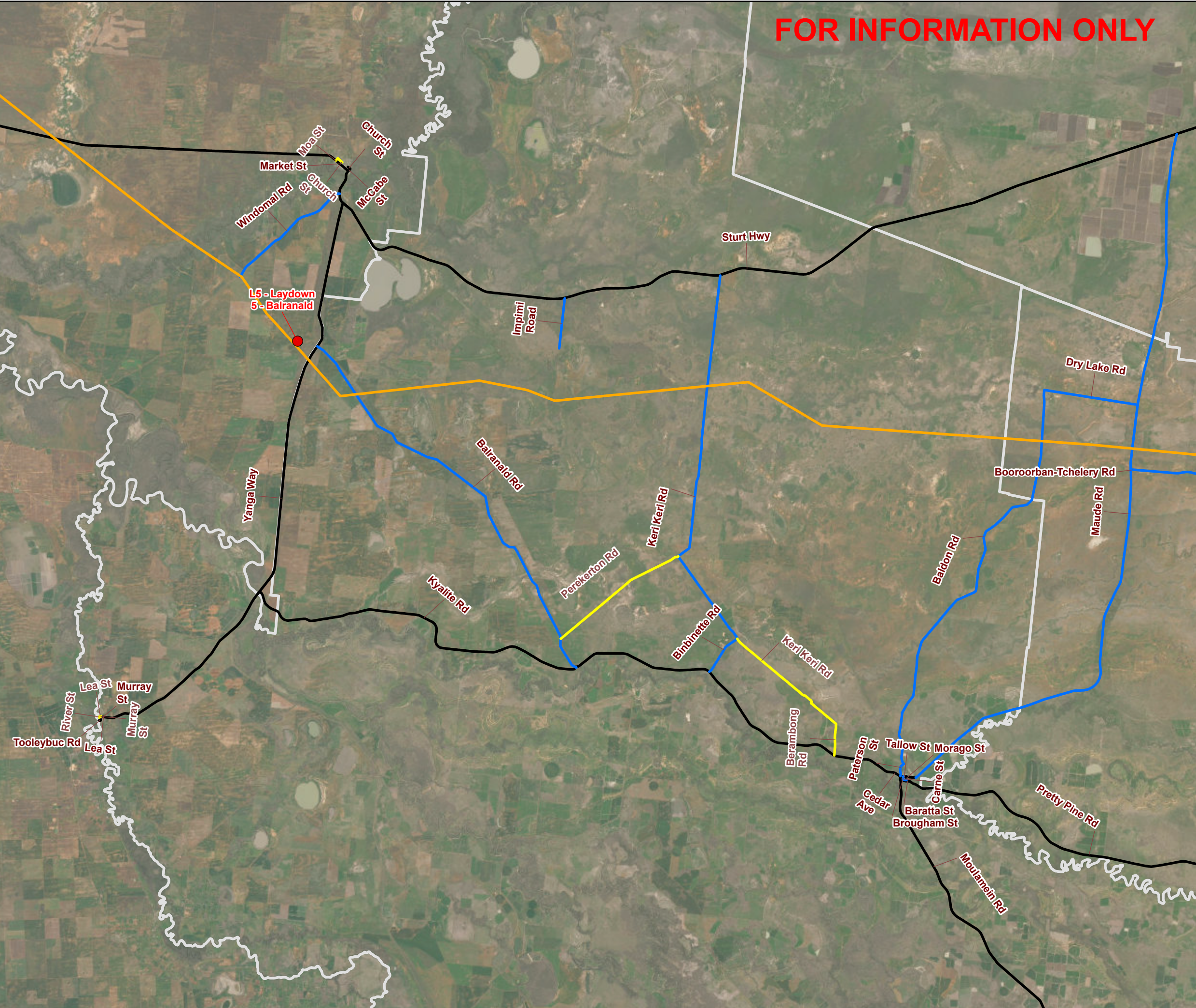
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Legend

- Camps and Laydowns
- Transmission Alignment
- Additional Access Routes
- Approved Access Routes
- Primary Access Route
- Secondary Access Route
- LGA Boundary



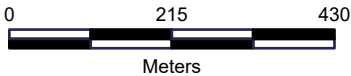
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**Access Routes
Murray River LGA
Map 1 of 2**

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Legend

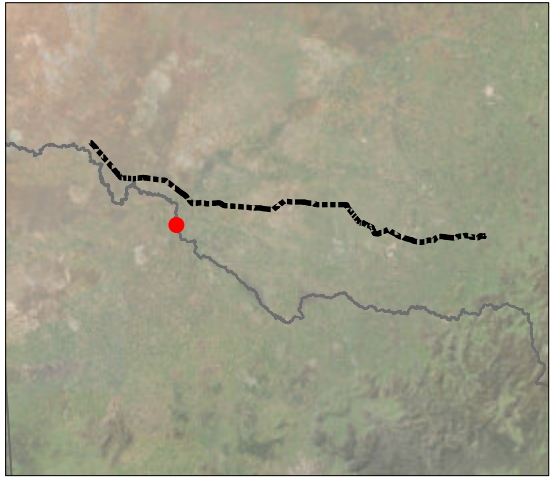
Additional Access Routes

— Additional Access Routes

Approved Access Routes

— Primary Access Route

□ LGA Boundary

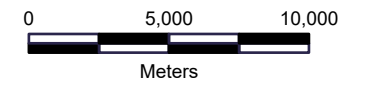


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World Imagery: Earthstar Geographics
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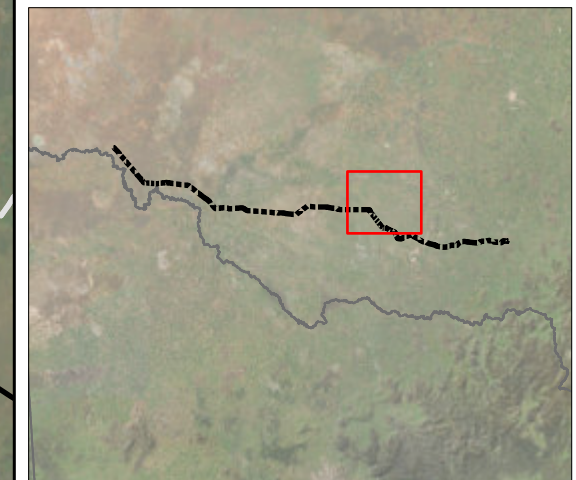
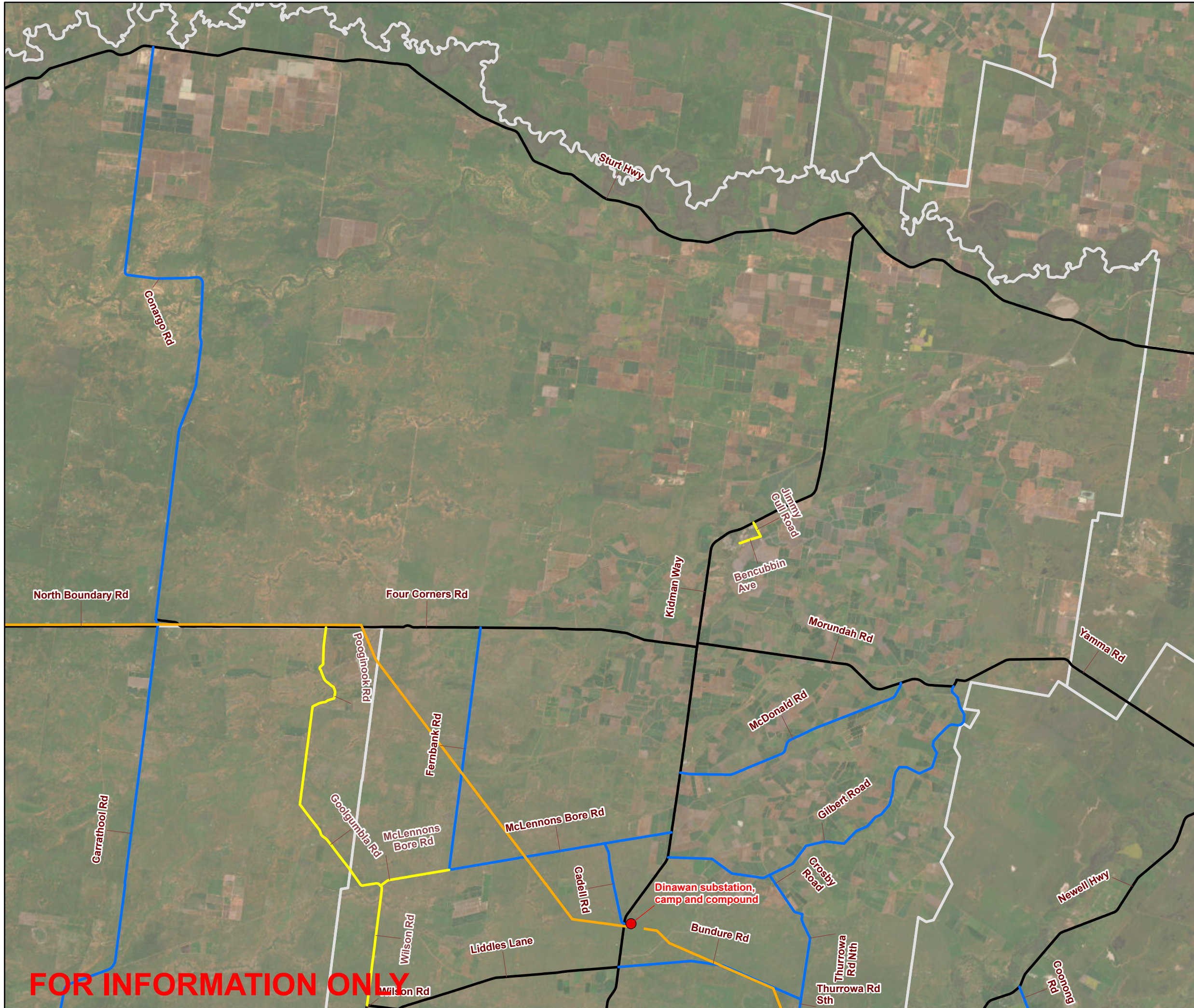
Access Routes
Murray River LGA
Map 2 of 2



Datum: GDA2020 Projection: New South Wales Lambert
Scale: 1:270,000 (when printed at A3)

Legend

- Camps and Laydowns
- Transmission Alignment
- Additional Access Routes
- Approved Access Routes
- Primary Access Route
- Secondary Access Route
- LGA Boundary

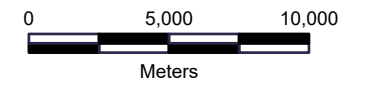


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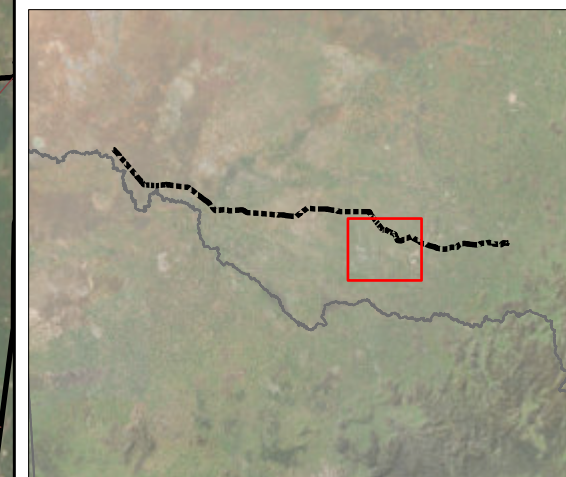
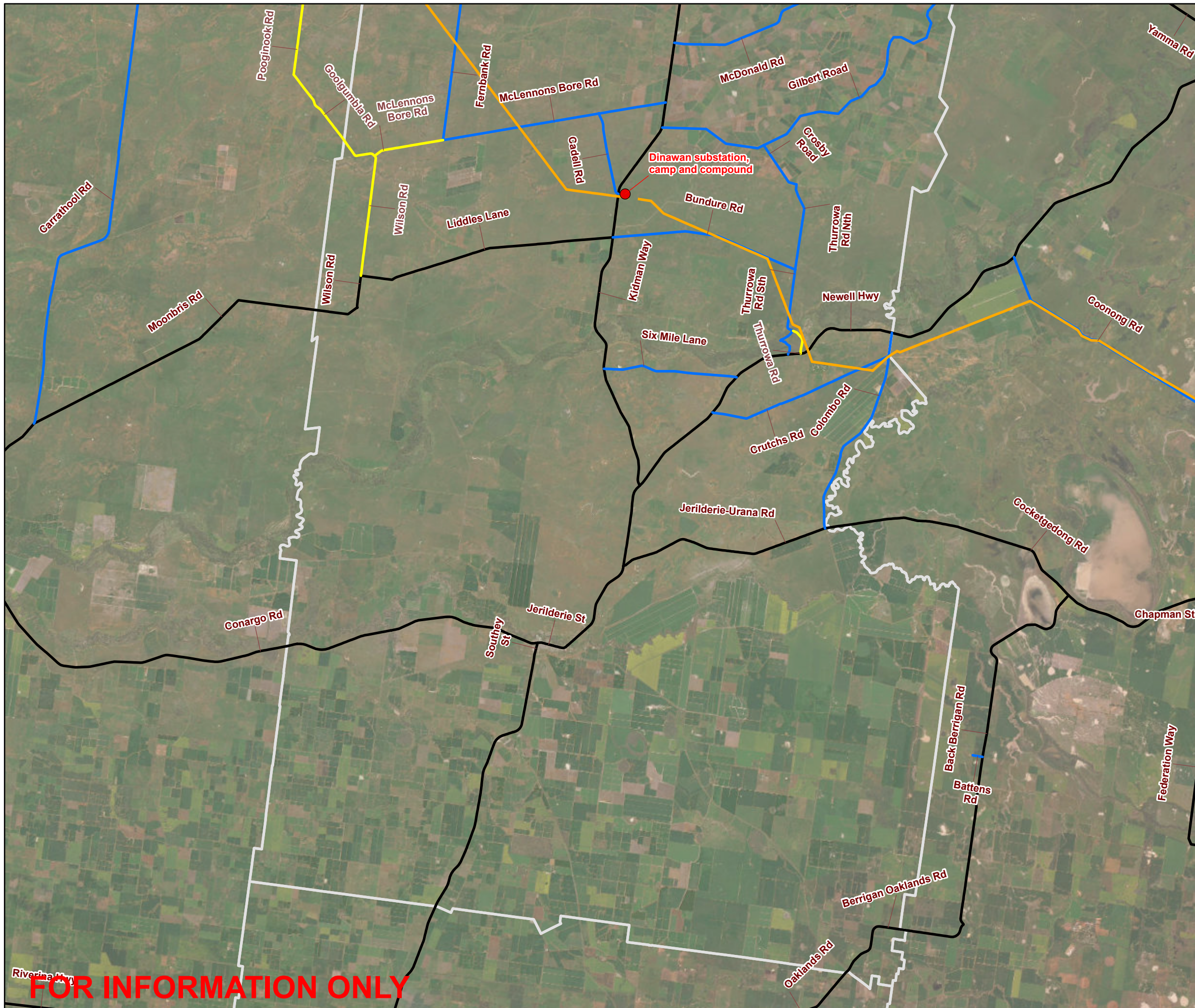
Access Routes
Murrumbidgee LGA
Map 1 of 2



Datum: GDA2020 Projection: New South Wales Lambert
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Legend

- Camps and Laydowns
- Transmission Alignment
- Additional Access Routes
- Additional Access Routes
- Approved Access Routes
- Primary Access Route
- Secondary Access Route
- LGA Boundary



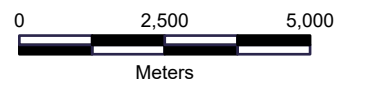
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Access Routes
Murrumbidgee LGA
Map 2 of 2

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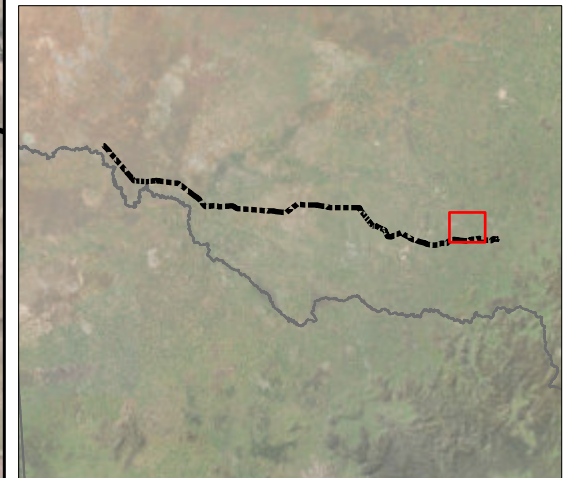
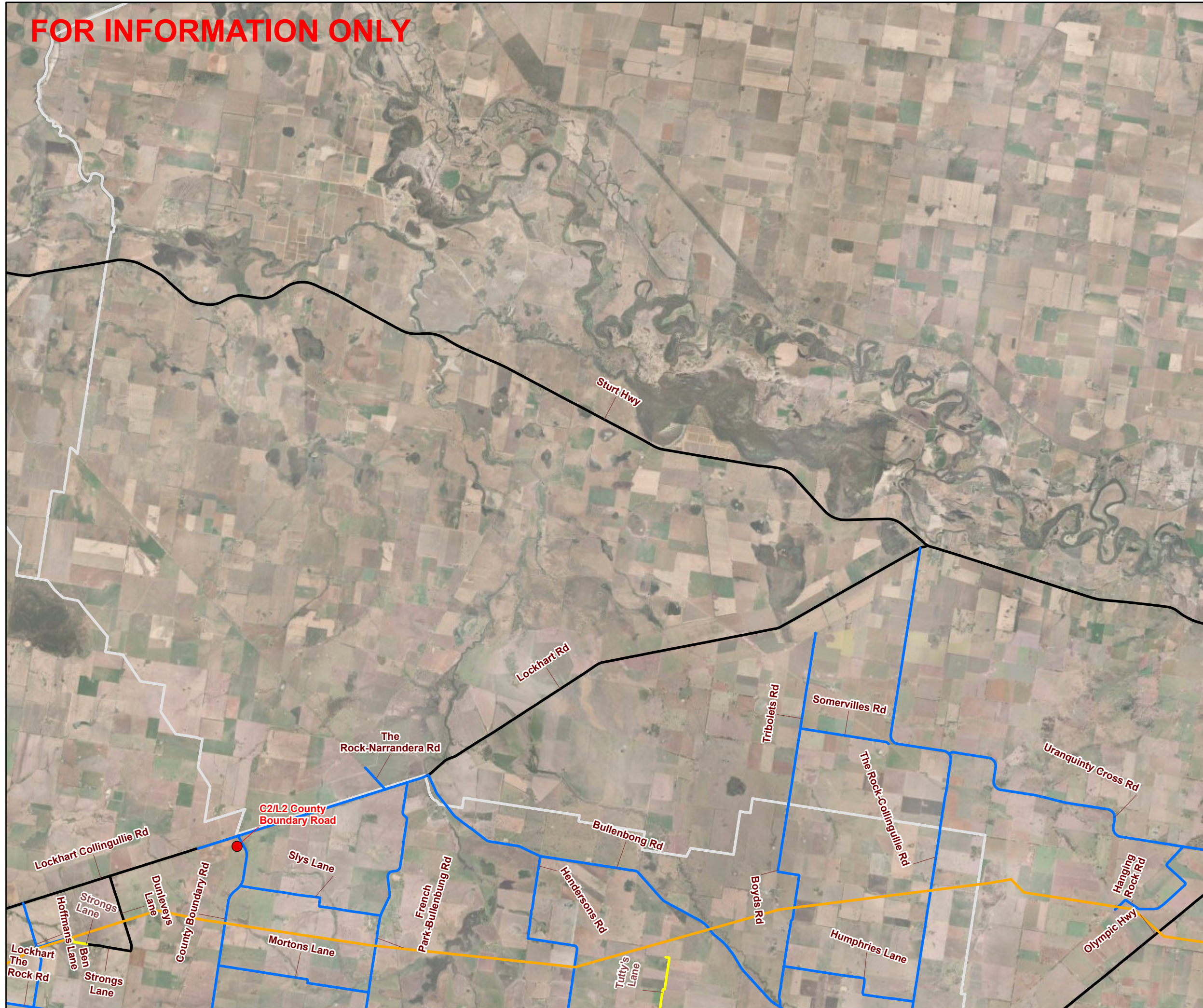
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Legend

- Camps and Laydowns
- Transmission Alignment
- Additional Access Routes
- Approved Access Routes
- Primary Access Route
- Secondary Access Route
- LGA Boundary

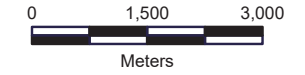


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**Access Routes
Wagga Wagga LGA
Map 1 of 2**

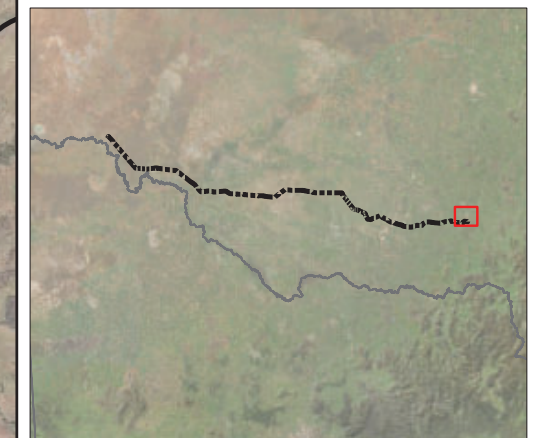
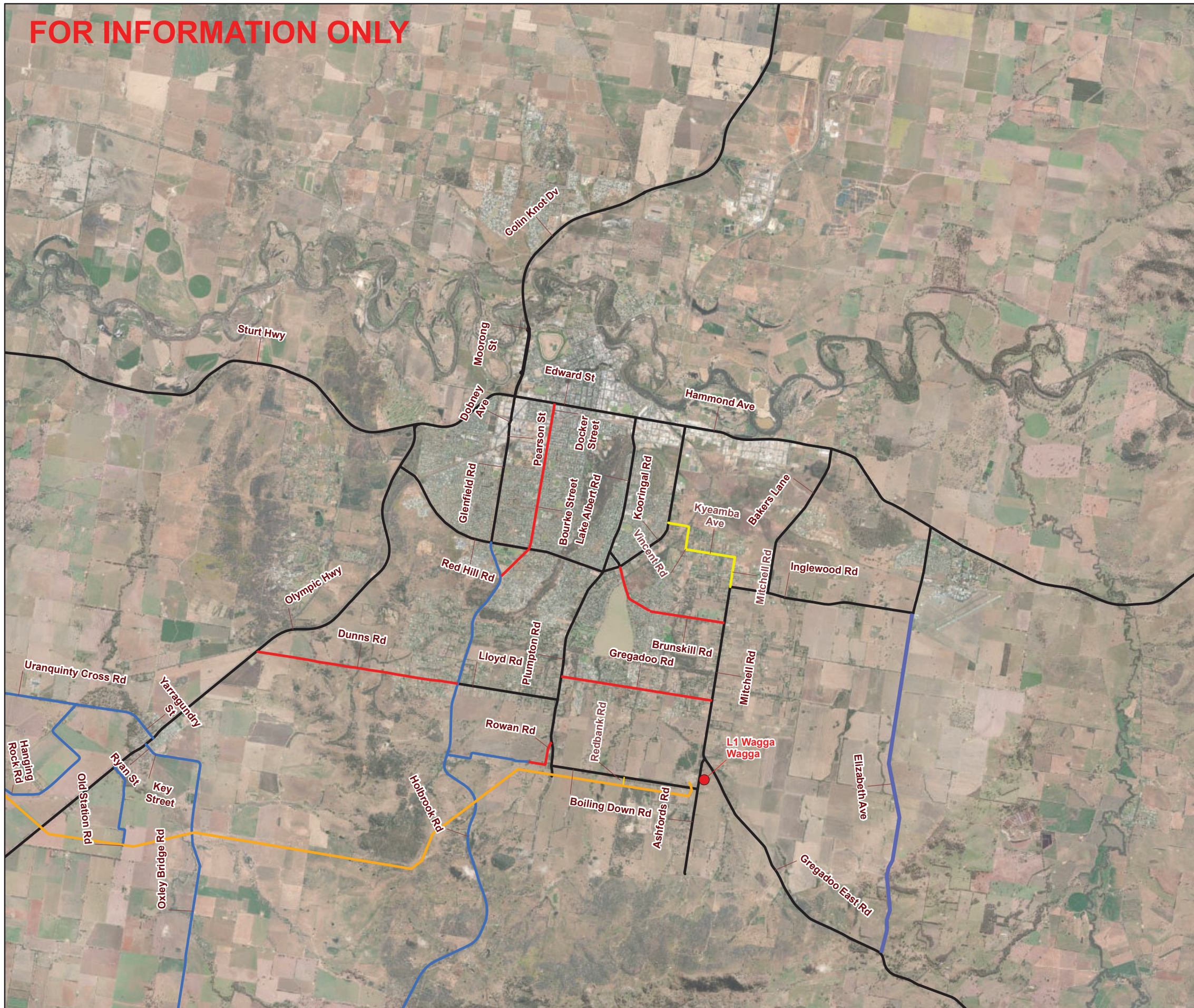
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Legend

- Camps and Laydowns
- Transmission Alignment
- Additional Access Routes
 - Additional Access Routes
 - Approved Access Routes
 - Primary Access Route
 - Secondary Access Route
 - Light Vehicle
 - LGA Boundary



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**Access Routes
Wagga Wagga LGA
Map 2 of 2**