10.1 Introduction

This traffic and transport assessment addresses the traffic related impacts associated with the construction, operation and maintenance of the Delta Electricity Gas Turbine Facility and cumulatively with the EnergyAustralia Facility.

The assessment of the traffic impacts was conducted for the following Project components:

- impact of construction of the Facilities (beyond earthworks) assuming a worst case scenario of construction; and
- cumulative impact of operation and maintenance of the Facilities.

The traffic assessment is presented in **Appendix F**. Traffic associated with the Common Shared Works is addressed in the *Concept Application*.

10.2 Methodology

The assessment has been conducted using the following methodology:

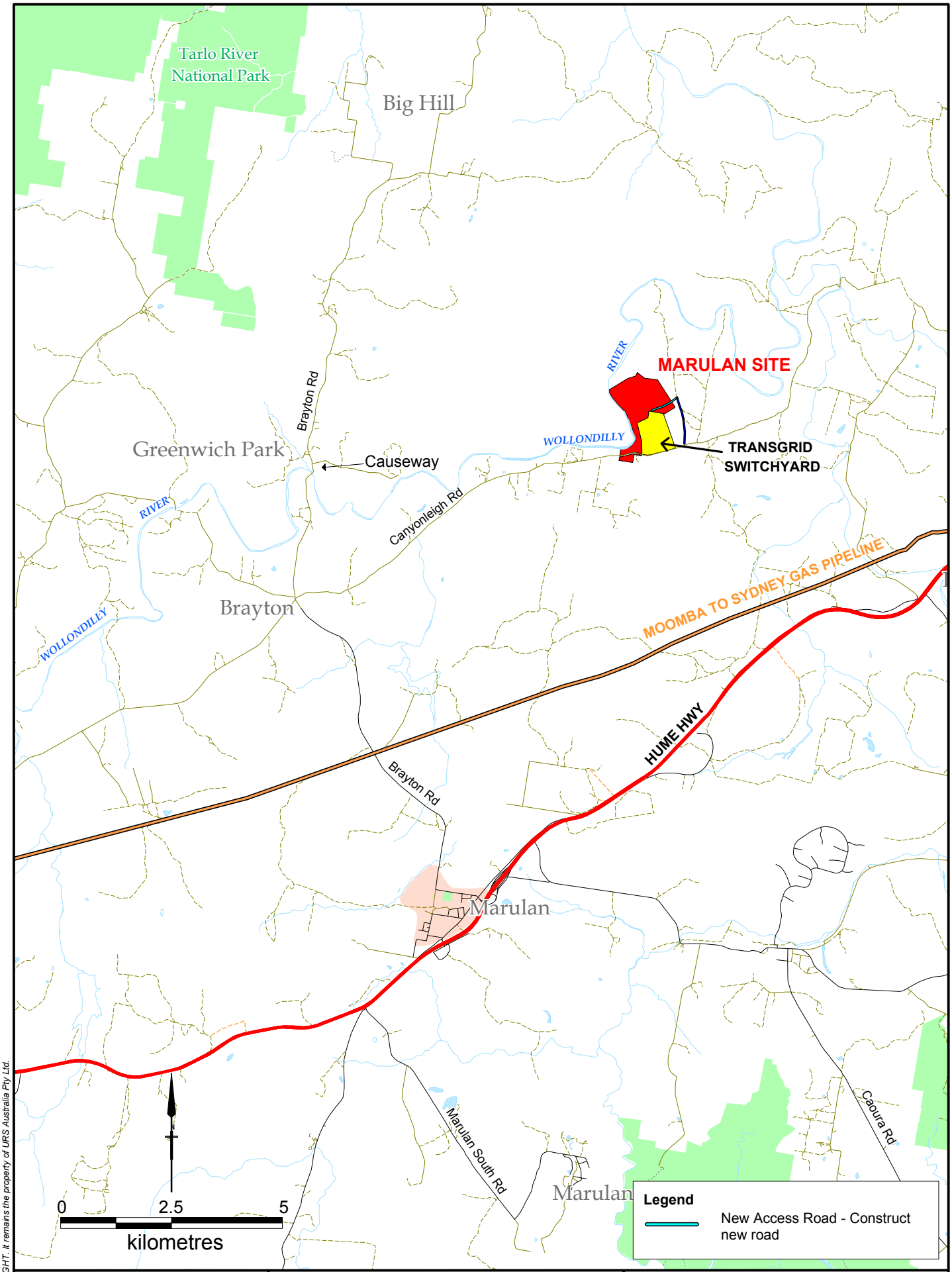
- present an overview of the existing traffic context and road environs;
- calculate the traffic growth of the existing Site (without the Facilities) from historical traffic data at the adjacent traffic counting stations nominally over a 10 year period;
- calculate the traffic generation for the above components of the Project;
- calculate the resulting impact of the Project nominally over a 10 year period; and
- provide recommendations / mitigation measures (e.g. road / intersection upgrades) that may be required to mitigate the impacts of the Project.

10.3 Existing Environment

10.3.1 Existing Context

The regional road network is dominated by the Hume Highway (State Highway 31) which runs between Sydney and Melbourne. The town of Marulan is located some 130 kilometres south west of Sydney and 20 kilometres east of the regional centre of Goulburn. The Site would be accessed from Brayton Road that leaves Marulan and heads to the north-west.

Approximately four kilometres north of Marulan, Canyonleigh Road branches to the east off Brayton Road and passes the TransGrid Switchyard site. Further along Canyonleigh Road beyond the TransGrid Switchyard is the entry road to the Site initially utilising an easement over the entry road to the University of Sydney property (refer to **Figure 10-1**).



Client: ENERGYAUSTRALIA	Project: MARULAN GAS TURBINE FACILITY	Title: **REGIONAL ROAD NETWORK**
URS	Drawn: AJW · Approved: NB · Date: 21/05/2008	Figure: **10-1**
	Job No: **43177371** · File No: 43177371-157.wor	

10.3.2 Existing road environs

Brayton Road is a 6.5 m wide sealed road from Marulan to the junction with Canyonleigh Road. There are overhead transmission lines and a pedestrian pavement alongside the road at this location.

Two kilometres from the Hume Highway junction there is a narrow two lane bridge. The load capacity of the bridge is currently unknown. There are several other narrow points that are located at approximately five and nine kilometres along the route on Brayton Road and Canyonleigh Road.

Approximately 3.5 km west of Marulan overhead transmission lines cross Brayton Road. Culverts along this section of Brayton Road are generally narrow, extending approximately only one metre beyond the sealed width of the roadway. The majority of these structures are faulty and shallow.

At approximately five kilometres along the route from Marulan, the road further narrows to five metres in some sections.

The route to the Marulan Site leaves Brayton Road at Canyonleigh Road. Initially Canyonleigh Road is a 5.5 m wide sealed road but as the distance away from Brayton Road increases the road changes to a gravel surface.

A traffic island separates the two traffic directions along Canyonleigh Road at the junction.

The grade along this route is generally less than 3 % to 5 %. Other features along the route include drainage culverts, cattle grids and as the route approaches the TransGrid switchyard, there are several overhead high voltage transmission lines and towers.

Brayton Road spans two local government areas: Upper Lachlan Shire Council and Goulburn Mulwaree Council.

10.3.3 Traffic

Historical Average Annual Daily Traffic (AADT) is not available for either Canyonleigh Road or Brayton Road in the relevant locations for the Project. However, analysing data from adjacent stations within the network shows a clear and consistent trend that indicates the number of vehicles using these roads in the relevant locations. This analysis show a growth of 4 % which has been used to estimate the traffic over a 10 year period, from 2009 to 2018 (**Table 10-1**).

The period 2009-2011 covers the construction period under two development scenarios (refer to **Section 10.5.1**). The years 2012 and 2013 are typical years in which the facilities are in full operation. 2018 is a typical year in which one of the Facilities undergoes a major maintenance shut-down.

Table 10-1 represents the base traffic growth without either Facility being present. By the year 2018 the estimated traffic will be 1064 vehicles per day, which represents an operational Level of Service ‘B’, that is, between 900 and 2300 vehicles per day.

Chapter 10 Traffic and Transportation

Table 10-1 Predicted Weekday Traffic Flow in Canyonleigh and Brayton Roads – No Development

Year	2009	2010	2011	2012	2013	2018
Daily Traffic Flow	747	777	808	841	874	1064
Midblock Level of Service (LoS)	A	A	B	B	B	B

10.4 Assessment of Potential Impacts - EnergyAustralia Facility

10.4.1 Construction

The main impacts from construction traffic are likely to occur:

- during the morning 7.00 to 8.00 am peak hour when construction staff and early delivery vehicles coincide with the Brayton Road peak;
- through regular daily traffic generated by delivery trucks for equipment, plant, materials with intermittent peaks associated with concrete pours; and
- occasionally, outside of peak periods, through the delivery of large equipment (turbines, generators, transformers) from Port to the Site.

The impact of construction traffic has been reviewed with respect to:

- traffic capacity on Brayton Road and Canyonleigh Road;
- safety; and
- oversize vehicles.

Traffic Generation

The number of predicted construction vehicle movements is summarised in **Table 10-2**. Construction traffic generation has been based upon usual construction practices and activities and the anticipated levels of staffing that are expected within each development stage.

Table 10-2 Construction Traffic Generation

Stage	Duration (Months)	Per Month		Per Week		Per Day	
		HV	LV	HV	LV	HV	LV
Average	12	528	2112	132	528	24	96
Peak	3	1056	4224	264	1056	48	192

HV=Heavy vehicles
LV= Light vehicles

Table 10-2 shows that the traffic volumes that are expected to occur in the peak three month period are double the expected average over a twelve month period. For the purposes of this assessment, the peak traffic volumes have been adopted as this represents the worst case. The peak daily construction traffic including heavy vehicles (HV) and light vehicles (LV) totals 240 vehicles per day (i.e., 48 +192 = 240).

Construction Water Requirements

The construction phase (approximately 12 to 18 months for each Facility) water requirement is estimated to be 6-8 kL per day. This requirement takes into account the following assumptions:

- personnel levels;
- minor allowances for wet trades during construction (e.g. bricklaying / blocklaying), rendering to small areas only (for example, control rooms);
- all concrete mixing off-site (i.e., not allowed for in estimates);
- no on-site construction camp or canteen facility (i.e., mess rooms, showers/toilet facilities only);
- no consumption for fire fighting purposes considered; and
- no allowance for water sprays for dust control.

It is noted that water sprays for dust control could be considerable, depending on a number of aspects such as the condition of the road network and prevailing weather conditions. Water requirements for the construction of the Facilities could be up to 100 kL per day during hot dusty windy weather.

It is assumed that traffic generated from construction water delivery would be in the order of 4 trucks per week but in adverse weather conditions could be in the order of 3 trucks per day. This is not a significant increase compared to other construction traffic and has not been considered further in the traffic assessment.

Over-dimensional and Over-mass Transport

The large gas turbine generator and high voltage transformer components are to be imported into Australia and transported to Site by special road convoy. A total of six over-dimensional and/or over mass escorted truck convoys of pre-assembled gas turbine, generator and transformer units would occur in each stage for each Facility.

It is anticipated the majority of heavy plant items would be transported from the Sydney or Wollongong metropolitan area along State Route 69 then Hume Highway during the construction stage. However, the supplier and transporter may also elect to transport the heavy plant items from Melbourne.

When assessing the route to carry the heavy plant items, the following issues are addressed:

- horizontal and vertical carriageway alignments;
- horizontal and vertical clearances to overhead obstructions (power lines, bridges, vegetation);
- bridge approaches;
- vehicle loading capabilities on structures;

- roadside furniture (traffic signal hardware, directional signposting, lighting, poles); and
- temporary stop locations.

Along the Brayton Road portion of the access route, widening of the route will be required to enable passage of oversize vehicles. Further assessment and planning is required in the detailed design phase to identify and cater for any necessary remedial treatments to facilitate passage once the actual weight and dimensions of the proposed plant are known. Detailed route assessment studies of the entire route have not been undertaken at this stage and would be undertaken during the detailed design phase when the equipment supplier is selected and the port for delivery of overseas equipment is known.

Experienced haulage contractors will be used and liaison with the permit section of the RTA, NSW Police and local governments will occur to ensure the safety and amenity of the greater community.

As two Facilities are being constructed the number of over dimensional vehicles would be double that for a single Facility. The timing of these vehicles would vary with each construction scenario. The total number of over-dimensional vehicles would be 12 and would occur within a peak period of up to six months for Scenario 1 or spread over eighteen months for Scenario 2.

10.4.2 Operation

Operational phase traffic generation

During the operational phase staff levels are expected to average some two full time staff on site with two contract staff for support service, generating approximately eight vehicle trips per day (i.e., 4 x 2).

To meet the operational water requirements for both the EnergyAustralia Facility and Delta Electricity Facility, a number of current and potential water sources, including potable, recycled and stormwater have been identified. The potential sources for water have been considered for the combined requirements of both the Delta Electricity and EnergyAustralia Facilities. Water source options would include:

- Marulan water supply network;
- Marulan sewage treatment plant;
- Moss Vale sewage treatment plant; and/or
- Site stormwater runoff.

Water would be trucked to the Site to meet the operational requirements for the Facilities.

For the purpose of this traffic assessment the following assumptions have been made:

- it is estimated that for a 40 day operational period per year approximately 10 trucks per day (i.e., 20 vehicle trips per day) would be required to provide the water volume necessary for the operation of the EnergyAustralia Facility;
- traffic generated for water delivery at the water source is likely to be low compared to existing traffic volumes and unlikely to have significant impacts at the water source locations and therefore have not been considered further; and

- additional water trucks may be required to initially charge the system (to fill the raw water storage tank), however, it has been assumed that this would be an infrequent occurrence and would be spread over a nominal time period and therefore has not been included in this assessment.

Estimations of the water delivery requirements are based on the following assumptions:

- the water requirement for the EnergyAustralia Facility is 12 ML per annum; and
- water is delivered to Site in 30,000 L tankers.

Major facility maintenance phase

Major maintenance is expected to generate additional traffic of up to 60 vehicles. Such activities would occur relatively infrequently, say every six years or more, and would last approximately three to six weeks. For traffic analysis purposes a peak daily value of 120 vehicle trips per day per Facility has been adopted which follows the assumed construction traffic scenario of peak volume being twice the average value.

10.4.3 Local Network Performance

The data in **Table 10-3** is developed based on the following assumptions:

- construction traffic is the same for each Facility;
- bulk earthworks are complete by end of 2008;
- 2012 and 2013 are typical operating years;
- maintenance commences following construction completion;
- major maintenance is nominally assumed to occur in 2018 and there would be no operational traffic (staff or water deliveries); and
- water delivery based on 30,000 L truck capacity.

Table 10-3 Predicted Weekday Traffic Flow in Canyonleigh and Brayton Roads - EnergyAustralia Facility

YEAR	2009	2010	2011	2012	2013	2018
No Development						
Daily Traffic Flow	747	777	808	841	874	1064
Midblock Level of Service (LoS)	A	A	B	B	B	B
With Development, Scenario 1						
Daily Construction Traffic Flow during peak construction month	240	0	0	0	0	0
Major Facility Maintenance after 6 years						120
Water Delivery	0	20	20	20	20	0
Operational Traffic	0	8	8	8	8	0
Daily Total Traffic Flow during peak construction month	987	805	836	869	902	1184
Percentage Change (from No Development)	32 %	4 %	3 %	3 %	3 %	11 %
Midblock Level of Service (LoS)	B	B	B	B	B	B

Analysis of **Table 10-3** for the EnergyAustralia Facility shows the following:

- peak construction traffic is approximately 32 % higher than without the development;
- peak operation traffic during normal operations is approximately 4 % higher than without the development; and
- peak operation traffic during times of major Facility maintenance (expected approximately every six years for a period of up to six weeks) is approximately 11 % higher than without the development.

In the peak periods the level of service will be LoS B, which is still acceptable for the standard of road under consideration therefore acceptable levels of service are maintained along Canyonleigh and Brayton Roads during these periods.

It is noted that the assessment, particularly for construction, is conservative as the traffic volumes for the peak three months of construction were assumed to continue for the entire year.

Mitigation Measures

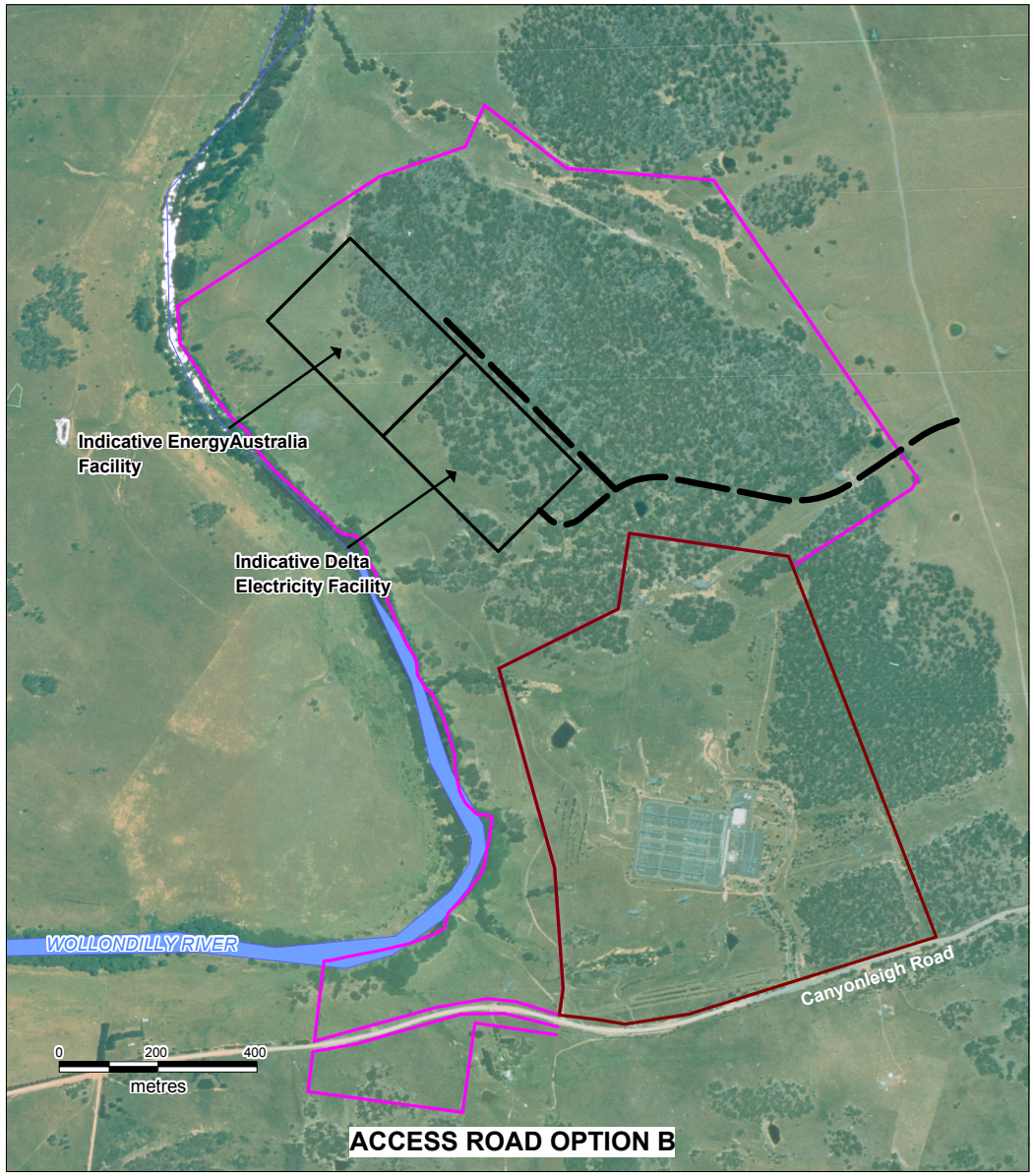
It is assumed that the following mitigation measures are implemented during the Common Shared Works (bulk earthworks) and prior to construction of the Facility:

- further assessments to:
  - review what works may be required to bridges, causeways, traffic islands, intersections and drainage culverts along Canyonleigh and Brayton Roads to facilitate the construction and operation of the Facilities;
  - identify and cater for any necessary remedial treatments to facilitate passage to the Site along Canyonleigh and Brayton Roads once the actual weight and dimensions of the proposed plant are known; and

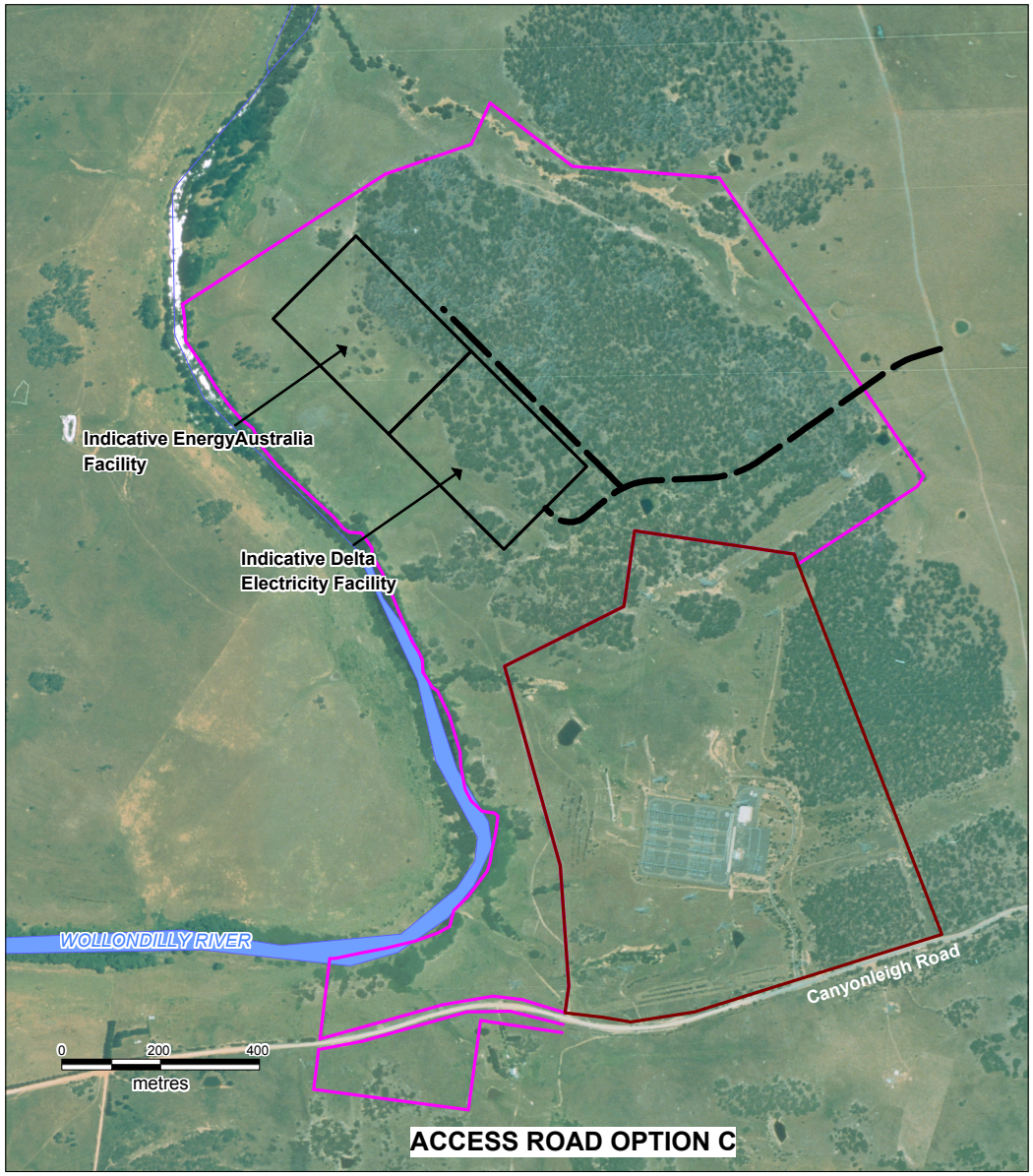
  - be undertaken in consultation with Goulburn Mulwaree and Upper Lachlan Shire Councils.

- pre construction evaluation of pavement condition of Brayton Road (between George Street intersection and Canyonleigh Road intersection) and Canyonleigh Road (from intersection of Brayton Road to the Site)to be undertaken;
- post construction evaluation of pavement condition of Brayton Road (between George Street intersection and Canyonleigh Road intersection) and Canyonleigh Road (from intersection of Brayton Road to the Site)to be undertaken to determine remedial action required following passage of oversized vehicles;
- transport of over-mass and over- dimensional loads to be undertaken under RTA and NSW Police permit conditions and approved routes; and
- access road - New Site Access Road within the Site:
  - three alignment options were developed for the access road within the site. The alignment options all connect to University Road at the same point adjacent to the high voltage transmission line easement. A preferred alignment was determined and is shown in **Figure 10-2** (Option B). The preferred route optimises the cost of construction and the impact on existing vegetation within the site. Option C is also presented in **Figure 10-2**. It is noted that for the purposes of other environmental assessment studies Option C has been used as it is the worst case scenario in terms of vegetation clearing. Detailed design will refine the alignment.
  - this new access road within the Site would be constructed prior to earthworks commencing.

These measures have been identified in the assessment of site preparation works and therefore would have been implemented for that stage. No further upgrades, other than those identified in the Common Shared Works assessment are required for the construction and operation of the two Facilities.



ACCESS ROAD OPTION B



ACCESS ROAD OPTION C

Legend

Marulan Site

TransGrid Site

Source: Delta Electricity, Energy Australia

Client	ENERGYAUSTRALIA
Project	MARULAN GAS TURBINE FACILITY
Title	**ACCESS ROAD PREFERRED OPTIONS**
Drawn: AJW	Approved: NB	Date: 14.03.08
Job No: **43177371**	File No: 43177371-158.wor
Figure: **10-2**	

10.5 Assessment of Potential Impacts – Cumulative

10.5.1 Construction

Construction Scenarios

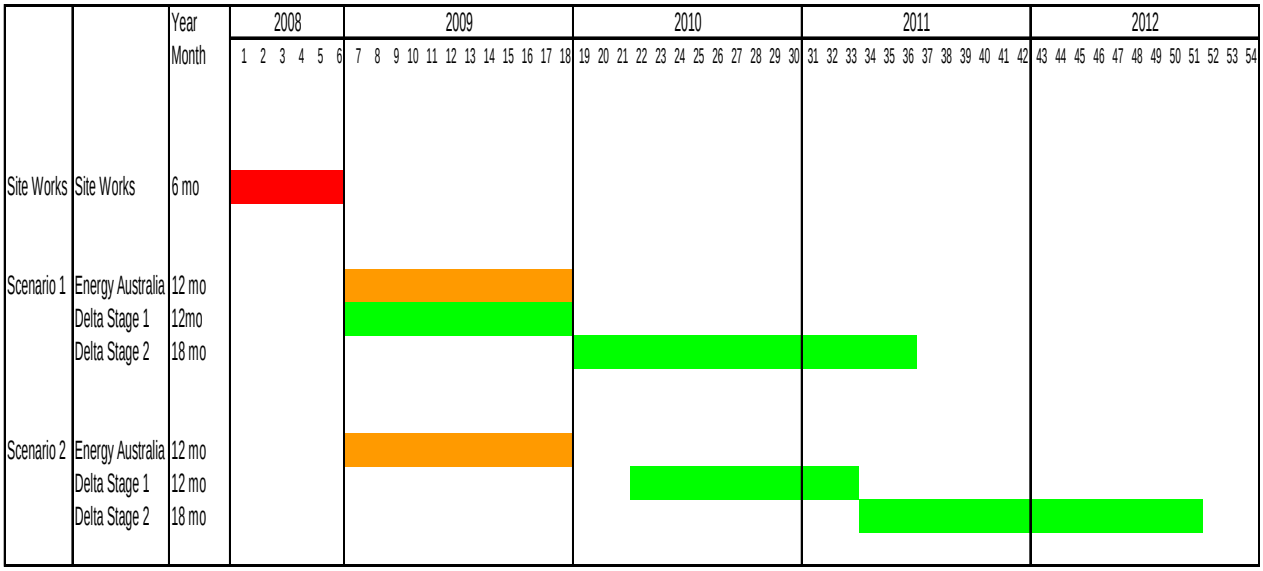
Construction works for the EnergyAustralia and Delta Electricity Facilities could occur either together or sequentially. Several scenarios can be foreseen for construction that will influence traffic generation. Of the scenarios considered, two scenarios provide limits as to the expected traffic during construction and operation of the two Facilities:

- Scenario 1: Two Facilities constructed at the same time, including EnergyAustralia and Delta Electricity Stage 1 followed some time after completion of Stage 1 by Delta Electricity Stage 2.
- Scenario 2: EnergyAustralia Facility is constructed first with some time lag to the construction of Delta Electricity Stages 1 and 2.

The EnergyAustralia Facility would be constructed entirely in one stage which has been assumed to take 12 months. The Delta Electricity Facility would be constructed in two stages with the first stage being assumed to take 12 months and 18 months for Stage 2.

The relationship of the elements of these two scenarios are represented graphically in **Table 10-4.**

Table 10-4 Construction Scenarios



Construction Scenario 1

This scenario assumes that the two Facilities are constructed at the same time. Stage 1 data included in **Table 10-5** includes construction of both the EnergyAustralia Facility and Stage 1 of the Delta Electricity Facility. It is assumed that traffic generated for each of the Facilities would be very similar throughout the construction phase. Stage 2 shown in **Table 10-5** includes only the Stage 2 of the Delta Electricity Facility (i.e., conversion from open cycle to combined cycle).

Table 10-5 Construction Traffic Generation - Scenario 1

Stage	Duration (Months)	Per Month		Per Week		Per Day	
		HV	LV	HV	LV	HV	LV
EnergyAustralia + Delta Electricity Stage 1							
Average	12	1056	4224	264	1056	48	192
Peak	3	2112	8448	528	2112	96	384
Delta Electricity Stage 2							
Average	12	528	2112	132	528	24	96
Peak	3	1056	4224	264	1056	48	192

Note: Peak traffic over the busiest three month period is twice the average over the year.

Table 10-5 shows that the traffic volumes that are expected to occur in the peak three month period are double the expected average over a twelve month period. For the purposes of this assessment, the peak traffic volumes have been adopted as this represents the worst case.

The peak daily construction traffic including heavy vehicles (HV) and light vehicles (LV) totals **480** vehicles per day (i.e., 96 + 384 = 480) for Scenario 1 (being the EnergyAustralia **and** Delta Electricity Stage 1 Facilities being constructed at the same time).

The peak daily construction traffic including heavy vehicles (HV) and light vehicles (LV) totals **240** vehicles per day (i.e., 48 + 192 = 240) for the Delta Electricity Facility Stage 2.

Construction Scenario 2

The assumption for this scenario is that that the two Facilities are constructed consecutively, that is, one Facility is completed then the other one starts, with some time lag.

Table 10-6 shows the traffic generated by this scenario. The local network will be affected by lower peak construction traffic than the Scenario 1 but construction will occur over a longer term, as Delta Electricity Stage 2 would require an additional 18 months to finalise the works for a total construction period of up to 51 months (4.25 years).

Table 10-6 Construction Traffic Generation - Scenario 2

Stage	Duration (Months)	Per Month		Per Week		Per Day	
		HV	LV	HV	LV	HV	LV
EnergyAustralia / Delta Stage 1							
Average	12	528	2112	132	528	24	96
Peak	3	1056	4224	264	1056	48	192
Delta Electricity Stage 2 Facility							
Average	12	528	2112	132	528	24	96
Peak	3	1056	4224	264	1056	48	192

Note: Peak traffic over the busiest three month period is twice the average over the year.

Table 10-6 shows that the traffic volumes that are expected to occur in the peak 3 month period are double the expected average over a twelve month period. For the purposes of this assessment, the peak traffic volumes have been adopted as this represents the worst case.

The peak daily construction traffic including heavy vehicles (HV) and light vehicles (LV) totals **240** vehicles per day (i.e., 48 + 192 = 240) for Scenario 2 (being the EnergyAustralia **or** Delta Electricity Stage 1 Facilities being constructed sequentially).

The peak daily construction traffic for Delta Electricity Stage 2 remains that same as Scenario 1: **240** vehicles per day.

10.5.2 Operation

Traffic Generation

During the operational phase of EnergyAustralia Facility and Delta Electricity Stage 1 Facility staff levels are expected to average some four full time staff on site and four contract staff for support services. This will generate 16 vehicle trips per day (i.e., 8 x 2).

During the operational phase of EnergyAustralia Facility and Delta Electricity Stage 2 Facility operational staff levels are expected to be up to 20 full time staff with four full time contract staff generating some 48 vehicle trips per day (i.e., 24 x 2).

To meet the operational water requirements for both the EnergyAustralia Facility and Delta Electricity Facility, a number of current and potential water sources, including potable, recycled and stormwater have been identified. The potential sources for water have been considered for the combined requirements of both the Delta Electricity and EnergyAustralia Facilities. Water source options would include:

- Marulan water supply network;
- Marulan sewage treatment plant;
- Moss Vale sewage treatment plant; and/or
- Site stormwater runoff.

Water would be trucked to the Site to meet the operational requirements for the Facilities.

For the purpose of this traffic assessment the following assumptions have been made:

- regular daily vehicle movements for operations staff of some 16 to 48 vehicle trips per day which is significantly lower than estimated levels of construction traffic generation, and can readily be accepted by the road network;
- **EnergyAustralia Facility:** It is estimated that for a 40 day operational period per year approximately 10 trucks per day (i.e. 20 vehicle trips per day) would be required to provide the water volume necessary for the operation;
- **Delta Electricity Stage 1 Facility:** It is estimated that for a 40 day operational period per year approximately 2 trucks per day (i.e., 4 vehicle trips per day) would be required to provide the water volume necessary for the operation;

- **Delta Electricity Stage 2 Facility:** It is estimated that for a 330 day operational period per year approximately 6.5 trucks per day (i.e., 13 vehicle trips per day) would be required to provide the water volume necessary for operation;
- traffic generated for water delivery at the water source is likely to be low compared to existing traffic volumes and unlikely to have significant impacts at the water source locations and therefore have not been considered further; and
- although additional water trucks may be required to initially charge the system (to fill the raw water storage tank), it has been assumed that this would be an infrequent occurrence and would be spread over a nominal time period and therefore has not been included in this assessment.

Estimations of the water delivery requirements are based on the following assumptions:

- the water requirement for the EnergyAustralia Facility is 12 ML per annum, Delta Electricity Stage 1 Facility is 2.3 ML per annum; and Delta Electricity Stage 2 Facility is 63.5 ML per annum; and
- water is delivered to Site in 30,000 L tankers.

Local Network Performance

The analysis presented in Table **10-7** includes the construction traffic, operational traffic and maintenance traffic for the period commencing with construction of the Facilities in 2009 through to maintenance in 2018.

The data in **Table 10-7** is developed based on the following assumptions:

- construction traffic is the same for each Facility;
- Scenario 1 has twice the construction traffic during Stage 1 as two Facilities are under construction;
- Scenario 2 has only one Facility under construction at any time;
- construction complete in 2011 for Scenario 1;
- construction complete in 2012 for Scenario 2;
- 2012/2013 assumed years of typical operation;
- 2018 nominally assumed year of maintenance;
- only one Facility undergoes major Facility maintenance at any one time with operation of the other Facility assumed at the same time (assumed maintenance for EnergyAustralia with operation of Delta Electricity Stage 2 being the worst case); and
- water delivery based on 30,000 L truck capacity.

Table 10-7 Predicted Weekday Traffic Flow in Canyonleigh and Brayton Roads

YEAR	2009	2010	2011	2012	2013	2018
	Construction Stages				Nominal year of operation	Nominal year of major maintenance
No Development						
Daily Traffic Flow	747	777	808	841	874	1064
Midblock Level of Service (LoS)	A	A	B	B	B	B
With Development, Scenario 1						
Daily Construction Traffic Flow during peak construction month	480	240	240	0	0	0
Major Facility Maintenance after 6 years	0	0	0	0	0	120
Operational Traffic	0	16	48	48	48	40
Water Delivery	0	24	24	33	33	33
Daily Total Traffic Flow during peak construction month	1227	1057	1120	922	955	1257
Percentage Change (from No Development)	64 %	36 %	39 %	10 %	9 %	18 %
Midblock Level of Service (LoS)	B	B	B	B	B	B
With Development, Scenario 2						
Daily Construction Traffic Flow during peak construction month	240	240	240	240	0	0
Major Facility Maintenance after 6 years						120
Operational Traffic	0	8	16	48	48	40
Water Delivery	0	20	24	33	33	33
Daily Total Traffic Flow during peak construction month	987	1045	1088	1162	955	1257
Percentage Change (from No Development)	32 %	34 %	35 %	38 %	9 %	18 %
Midblock Level of Service (LoS)	B	B	B	B	B	B

Analysis of **Table 10-7** for the two Facilities shows the following:

- peak traffic during construction is approximately 64 % higher than without the development for the worst case Scenario 1 where the two Facilities are constructed at the same time;
- peak traffic during normal operations is approximately 10 % higher than without the development; and
- peak traffic during times of major Facility maintenance (expected approximately every six years for a period of up to six weeks) is approximately 18 % higher than without the development.

In the peak periods the level of service will be LoS B, which is still acceptable for the standard of road under consideration, therefore acceptable levels of service are maintained along Canyonleigh and Brayton Roads during these periods.

While the worst case scenario (Scenario 1) is for construction of the two Facilities occurring at the same time, it is noted that the assessment is very conservative for the following reasons:

- traffic volumes for the peak three months of construction traffic were assumed to continue for the whole construction period of 12 months; and
- peak three months of construction traffic were assumed to occur at the same time for both Facilities however, construction of the EnergyAustralia Facility is likely to occur before the construction of the Delta Electricity Facility and therefore it is unlikely that the peak three months for the two Facilities will coincide.

Mitigation Measures

No additional mitigation measures are proposed over the measures that would be implemented during construction of the Common Shared Works and Facilities.

10.6 Mitigation Measures

Table 10-8 presents the mitigation measures to address the traffic issues for the proposed Facilities. The phase of implementation is indicated in the table by *Cons* – Construction *Ops* – Operation and *Design.*

Table 10-8 Summary of Mitigation Measures

Mitigation Measure	Implementation of mitigation measures	
	EnergyAustralia Facility	Cumulative
Further traffic assessments undertaken: – to review what works may be required to bridges, causeways, traffic islands, intersections and drainage culverts along Canyonleigh and Brayton Roads to facilitate the construction and operation of the Facilities; – to identify and cater for any necessary remedial treatments to facilitate passage to the Site along Canyonleigh and Brayton Roads once the actual weight and dimensions of the proposed plant are known. The assessment would review what works may be required to bridges, causeways, traffic islands, intersections; and drainage culverts to facilitate the construction and operation of the Facilities. This would be done – in consultation with Goulburn Mulwaree and Upper Lachlan Shire Councils.	✓ (prior to Cons)	✓ (prior to Cons)
Pre construction evaluation of pavement condition of Brayton Road (between George Street intersection and Canyonleigh Road intersection) and Canyonleigh Road (from intersection of Brayton Road to the Site).	✓ (pre- Cons)	✓ (pre- Cons)
Post construction evaluation of pavement condition of Brayton Road (between George Street intersection and Canyonleigh Road intersection) and Canyonleigh Road (from intersection of Brayton Road to the Site) to determine remedial action required following passage of oversized vehicles.	✓ (post-Cons)	✓ (post -Cons)
Transport of over-mass and over- dimensional loads to be undertaken under RTA and NSW Police permit conditions and approved routes.	✓ (Cons)	✓ (Cons)