

TO: Energy Resources Limited – LGP Project Team

FROM: CSI Mining Services

DATE: 4 December 2023

RE: Lockyer Gas Project – Preliminary Traffic Impact Assessment from the Proposed CPF Access Road on Strawberry North-East Road

Purpose

The purpose of this memorandum is to provide a preliminary traffic impact assessment associated with the Lockyer Gas Project development on Strawberry North-East Road and support the Development Application being submitted for the project.

Location of the Central Processing Facility (CPF) development site and the proposed access location off Strawberry North-East Road is outlined in Figure 1 below.



Figure 1 – Proposed CPF access location off Strawberry North-East Road

Strawberry North-East Road (SNER)

SNER is classified as an Access Road according to the Main Roads WA Road Information Mapping System, as shown in Figure 2 below.

The road is currently an unsealed two-lane single carriageway with an approximate width of 8.0 to 8.5m.

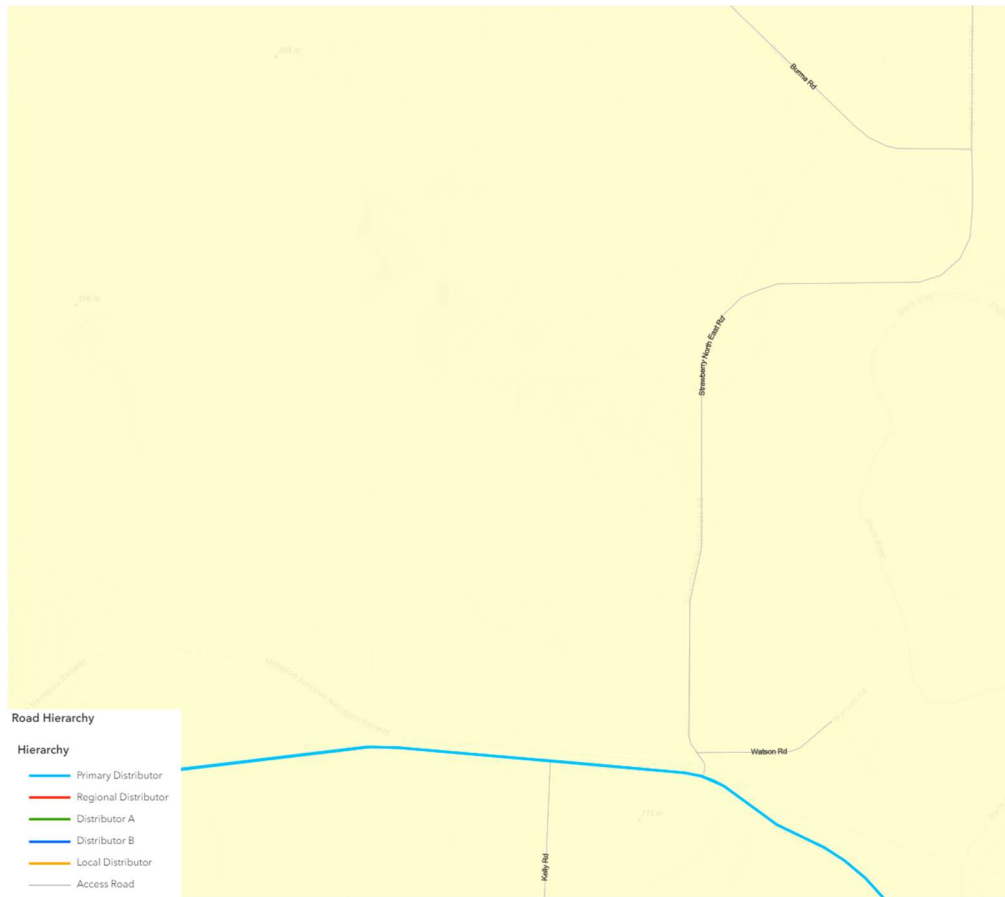


Figure 2 – Existing Road Network and Road Hierarchy

As there is no publicly available traffic data for SNER, the traffic data has been conservatively assumed based on Coalseam Road, a similar traffic network in the area, as follows:

- Current Daily / Peak Hour Traffic Volume = 65 vpd / 6 vph
- %HV = 28%
- Projected 10-year scenario* (2023/34) Daily / Peak Hour = 75 vpd / 7 vph
*Assuming 1% annual growth rate

As per Main Roads WA (MRWA) HVS Network Mapping Tool, SNER is categorized under Tandem Drive RAV 7.1 network and Tri Drive 1.1 with the following conditions:

- All operators must carry written support from the road manager and acknowledging the operator's use of the road
- No operation on unsealed road segment when visibly wet, without road owner's approval
- Maximum speed 80 km/h

Proposed CPF Access Road

The proposed access to the CPF Site from SNER is approximately 2km north of Midlands Road via an existing 20m wide road reserve (Landgate Land ID Number 3727386).

The projected operational traffic volumes accessing the CPF site from Midlands Road via SNER is outlined in Table 1 below.

Item	Daily / Peak Hour HVs	Daily / Peak Hour LVs
Condensate Loadout and Deliveries	3 vpd / 1 vph (in and out)	N/A
Chemical Top Up	0.04 vpd / 0 vph (in and out, based on 1 per month)	N/A
Personnel access to Control Room and Admin Building	N/A	10 vpd / 4 vph (in and out)
Camp operations and support	N/A	3 vpd / 1 vph

Table 1 – Projected CPF Operational Traffic Volumes

Preliminary Traffic Impact Assessment

Road Minimum Width

The existing SNER carriageway width complies with the rural road minimum widths as set out in MRWA RAV assessment guideline, which is 8.0m wide. The guideline also stipulates that a road should be sealed if the Average Annual Daily Traffic (AADT) exceeds 150 vpd.

It is proposed that SNER between Midlands Road and the CPF Access Road be upgraded to a sealed two-lane single carriageway standard with a minimum width of 8.0m wide as part of the development.

Road Capacity

MRWA Road Hierarchy Types and Criteria provides the following traffic volume guidance for Access Roads:

- Indicative Traffic Volume (AADT)
 Built Up Area – maximum desirable volume 3,000 vpd
 Non Built Up Area – up to 75 vpd

The proposed increase in traffic volumes on SNER from the development is 16 vpd, which equates to an estimated total daily traffic of 81 vpd or approx. 21% increase from the existing volumes.

While the above suggests that the total daily volumes slightly exceeds the indicative daily traffic volumes for non built up area, the proposed to be upgraded section of SNER is considered to have more than adequate capacity to cater for the additional traffic generated from the development. Discussions will be held with Council and MRWA to determine the appropriate intersection configuration and any required traffic management controls, such as signage.

Conclusion

Noting that the classification of the proposed CPF Access Road and its final intersection configuration with the SNER are yet to be agreed with the Shire of Irwin and/or Shire of Mingnew, SNER with the proposed upgrades have more than adequate capacity to cater for the additional traffic generated from the development.

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