

## 6.6 Traffic, transport and access

### 6.6.1 Existing environment

The study area for the traffic, transport and access assessment is defined as the area within 500 metres of the proposal.

#### **Existing roads**

The existing roads and infrastructure are described in Section 2.2. Figure 1.1 and Figure 1.2 show the regional and local road network.

The Olympic Highway is the main route between Wagga Wagga and Albury. The highway serves as the major access between Victoria and the NSW Central West, as well as forming part of the Melbourne to Brisbane (Hume Highway to Newell Highway) corridor. The Olympic Highway also serves as a major detour route when closures occur on the Hume Highway.

Camp Access Road provides access between the Kapooka Military area and the Olympic Highway.

The posted speed limit of the existing Olympic Highway is 100 kilometres per hour. In the vicinity of the existing bridge and approaches there is a low speed environment (25 kilometres per hour advisory speed). The posted speed limit for Camp Access Road is 60 kilometres per hour.

Vehicle travel times on the existing Olympic Highway from the beginning of the proposal to the end of the proposal are estimated at being about two minutes for cars and about two and a half minutes for semi-trailers.

The estimated level of service for the existing Olympic Highway and bridge at Kapooka is category level of service B, which means that the highway has a stable flow. The manoeuvring traffic stream is only slightly restricted, with the possibility of slight delays. The level of service B classification is generally due to the low traffic volumes that use the existing highway.

The existing bridge does not meet current network safety and design standards, and poses a number of restrictions to traffic on the Olympic Highway, as described in Section 2.1. The narrow width of the bridge, the 90 degree corners on the bridge approaches, and the close proximity of the bridge to the intersection between the Olympic Highway and Camp Access Road create hazards and inefficiencies for heavy vehicles and motorists. The existing bridge is not suitable for higher mass limit vehicles and this location is the only such restriction on the Olympic Highway.

Three accesses to private residences from the Olympic Highway are intersected by the proposal (Figure 1.2).

There is no available parking in the study area, apart from the side of the Olympic Highway. There are no special provisions for cyclists on this section of the Olympic Highway, requiring cyclists to share the highway with other vehicles. There are no pedestrian facilities on the existing bridge, or on Camp Access road near the existing bridge.

## **Existing traffic**

Existing and expected future traffic volumes are provided in Table 2.1 in Section 2.1.2. The July 2010 daily traffic volume for the existing bridge at Kapooka was 4500. For the Olympic Highway (north of Camp Access Road) it was 6400 and for Camp Access Road it was 2200.

The volume of traffic travelling on the Olympic Highway (north of Camp Access Road) is increasing by about two per cent per annum (Roads and Maritime traffic count data).

The existing Olympic Highway is used by coaches and heavy vehicles travelling interstate between Melbourne and Brisbane, or between Victoria and the NSW Central West, and locally between Albury and Wagga Wagga.

The heavy vehicle percentage based on the 2010 traffic count is 13 per cent (850 vehicles per day) (see Table 2.1 in Section 2.1.2). This percentage is predicted to remain the same in 2021, equating to 1100 vehicles per day. These numbers do not include higher mass limit vehicles, which are not permitted to cross the existing bridge.

Peak travel times for Camp Access Road are between 6.15 am and 7.45 am (southbound traffic accessing the Kapooka Military Area), and between 3.45 pm and 5.15 pm (northbound traffic leaving the Kapooka Military Area). These peak times are influenced by Defence staff commuting to Kapooka in the morning and returning home in the afternoon.

Peak travel times for the Olympic Highway are between 7.00 am and 9.00 am (northbound traffic), and between 3.15 pm and 6.00 pm (southbound traffic). These peak times are influenced by commuter traffic travelling to Wagga Wagga from towns to the south in the mornings and returning home in the afternoons, and also by school traffic.

There is no recorded seasonality to traffic flows in the study area.

## **Crash statistics**

Thirteen major crashes occurred on the existing bridge in the period 2004 to 2010 (see Table 2.2 in Section 2.1.3). There were no fatalities; however three crashes resulted in injury.

Four heavy vehicles have rolled over on the bridge, with the trailer of one B-double coming to rest on the embankment of the Sydney to Melbourne Rail Line (see Figure 2.1). In addition, there is evidence of regular minor incidents where vehicles have struck the bridge parapet or guard fence. In some instances, bricks have been dislodged and have fallen onto the rail line below, posing a risk to rail traffic.

## **Sydney to Melbourne Rail Line**

The Sydney to Melbourne Rail Line is the major rail route between Sydney and Melbourne. Information from Australian Rail Track Corporation indicates that the frequency of trains varies depending on the time of year. Train numbers are increased by trains carrying grain during crop harvest time. Overall, the frequency of trains at Kapooka is about 25 trains per day.

Of the trains using the rail line daily, four are passenger trains (two trains each way between Sydney and Melbourne) and the remainder are freight trains.

The existing bridge poses a restriction to the possible future duplication of the rail line at Kapooka, and to future double stacking of freight containers.

### **Wiradjuri Walking Track**

The Wiradjuri Walking Track travels from north to south through the study area, east of the proposal. The track provides a shared path for cyclists and walkers for a distance of about 30 kilometres around the city of Wagga Wagga. The track is used by cyclists for access between the Kapooka Military Area and Wagga Wagga. A culvert underneath the Sydney to Melbourne Rail Line provides access to the Wiradjuri Walking Track from Camp Access Road. The culvert has a height of about 1.2 metres.

## **6.6.2 Potential impacts**

### **Construction**

#### ***Traffic***

The majority of the construction activities would be carried out away from the existing Olympic Highway and Camp Access Road, and therefore construction impacts are expected to be minimal. The construction of the proposal would be undertaken so that impacts to traffic would be minimised. This would include the construction of a temporary road, new road alignment and bridge while traffic uses the existing Olympic Highway and bridge.

Traffic management would occur in four stages as described in Section 3.3.1. During works to tie in the new alignment to existing roads, a single lane of the active road would continue to operate during the works, as described in Section 3.3.6.

Changed traffic conditions in the vicinity of construction activities could potentially lead to accidents.

Access to the proposal for construction vehicles would be via the Olympic Highway. The total number of vehicle movements is not expected to exceed 30,000 over the construction period. Construction vehicle movements would comprise on average about 30 heavy vehicles accessing the site per day (60 movements per day). This number could increase during peak times of material transport. Light vehicle movements would comprise on average about 30 light vehicles accessing the site per day for the transportation of staff (60 movements per day). The Olympic Highway has adequate carrying capacity for this temporary increase in vehicle numbers.

Construction access to the proposal would be as described in Section 3.3.6 and as shown in Figure 1.2. Proposed access roads would generally follow existing tracks and roads. The access point for the stockpile site at the northern end of the proposal would require the construction of a 30 metre access road through the existing highway road reserve. Construction access would also be provided along the proposed alignment.

Two Wagga Wagga City Council owned roads would be used by construction vehicles. These include a portion of Camp Access Road and a portion of the quarry

access road south of the proposed stockpile site at the southern end of the proposal. There is the potential for the integrity of these roads to be affected by construction traffic during construction.

The erection of bridge girders and construction of bridge piers may require the relocation of overhead and underground rail signal lines. It is anticipated that impacts to rail users would be minor.

Any cyclists using this section of the Olympic Highway would be affected in a similar way to other traffic.

Construction of the proposal may affect pedestrians walking between Kapooka and the Wiradjuri Walking Track.

### ***Property accesses***

New property accesses for residences 1, 2 and 3 would be constructed, as shown in Figure 1.2. Alternative access would be provided to residences 2 and 3 during the construction of the driveways to these properties. The existing access to residence 1 would be maintained until the new access is constructed, and would then be decommissioned.

Access to the Kapooka Military Area would not be affected by the proposal.

### **Operation**

The main benefits of the proposal during operation include the following:

- Improved road safety by upgrading the road geometry and alignment of the Olympic Highway.
- Improved road freight efficiency by upgrading the alignment of the Olympic Highway and removing the restriction to higher mass limit vehicles at the existing bridge at Kapooka.
- Improved travel times on the Olympic Highway by removing the constraints posed by the existing bridge and approaches.

The proposal would improve network performance by providing a continuous 100 kilometre per hour travel speed. The proposal would remove the tight corners near the existing bridge that have a 25 kilometre per hour advisory speed. The proposal would provide a longer but faster Olympic Highway alignment.

The improvement in travel time is estimated to be about 30 per cent for all vehicles. Travel times would therefore change as follows:

- For cars, the travel time would decrease from about two minutes to about one minute and 20 seconds.
- For trucks, the travel time would decrease from about two and a half minutes to about one minute and 45 seconds.

Network performance would also be slightly improved for northbound traffic entering the Olympic Highway from Camp Access Road, by replacing the existing give way intersection with a slip lane that allows traffic to merge at speed.

The estimated level of service for the proposed intersection is category level of

service A, which means that the intersection would have generally free flow conditions with vehicles unimpeded in manoeuvring in the traffic stream.

The proposal would provide an off-road shared bicycle and pedestrian pathway traversing the proposed bridge. This would improve access and safety for pedestrians and cyclists between Camp Access Road and the Wiradjuri Walking Track.

### 6.6.3 Safeguards and management measures

Impact	Environmental safeguards	Responsibility	Timing
Traffic - construction impacts to traffic	<ul style="list-style-type: none"> <li>A detailed traffic management plan will be prepared in accordance with the <i>Traffic Control at Work Sites Manual</i> (RTA 2010a) and <i>Roads and Maritime Specification G10 – Control of Traffic</i>.</li> <li>The traffic management plan will include measures to provide safe access points to work areas from the adjacent road network, safety barriers where necessary, temporary speed restrictions when necessary, adequate sight distances and prominent warning signage.</li> </ul>	Project manager and contractor	Pre-construction
Traffic - construction impacts to Wagga Wagga City Council roads	<ul style="list-style-type: none"> <li>A road condition survey will be undertaken on Camp Access Road, the quarry access road and any other local roads used for haulage of materials before and after construction. Defects arising from construction access will be rectified before completion of construction unless otherwise agreed with Wagga Wagga City Council.</li> </ul>	Project manager and contractor	Pre-construction and construction
Traffic - construction impacts to traffic	<ul style="list-style-type: none"> <li>Works to tie in the new alignment to existing roads will be undertaken during off-peak periods where possible to minimise the impacts on traffic flow.</li> <li>Construction traffic will enter/exit the construction zone only in areas designated for this purpose in the Traffic Management Plan.</li> <li>The community will be kept informed about upcoming road construction activities, including through advertisements in the local media and by prominently placed advisory notices.</li> <li>Any disruption to access for road users will be notified in advance in accordance with the <i>Community Participation and Communications: A resource manual for staff</i> (RTA 2010b).</li> </ul>	Project manager and contractor	Construction
Traffic - construction impacts to property access	<ul style="list-style-type: none"> <li>Property access will be maintained at all times unless otherwise agreed with affected property owners. Where changes to access arrangements are necessary, Roads and Maritime will advise owners and</li> </ul>	Project manager and contractor	Construction

Impact	Environmental safeguards	Responsibility	Timing
	tenants and consult with them on alternate access arrangements.		
Traffic - construction impacts to cyclists and pedestrians	<ul style="list-style-type: none"> <li>A procedure will be developed for providing access for pedestrians and cyclists through the proposal during construction if necessary.</li> </ul>	Project manager and contractor	Construction