

## **SUBMISSION**

ON THE

# **ADELAIDE RAIL FREIGHT MOVEMENTS STUDY**

### **Introduction**

The Adelaide Freight Movements Study Discussion Paper (October 2009) provides a clear and concise overview of investigations into the feasibility of improving the capacity and efficiency of the interstate freight rail line between Murray Bridge and Adelaide to meet current and future demand. The study provides a cost benefit analysis of five options and identifies a short list of four that could be carried forward for further analysis. These include upgrading of the existing rail line through the Adelaide Hills (Option 1), a northern bypass option from Murray Bridge to Two Wells via the south side of Truro (Options 3), a southern bypass (Option 4), and a combination of Options 1 and 3 above (Option 5).

Our submission relates to the options to be given further consideration and in particular Option 3 as this has the potential for the greatest benefits/impacts when considering operating performance and community amenity – two major issues with the current alignment. Option 3 will also provide benefit to the northern region and is closely aligned to the State's draft 30 year Plan for the Greater Adelaide with the regions ability to cater for economic growth. The comments below are provided under the headings for feedback sought by the reference group.

### **Other features of the route that are important for the study to take into account**

Both Option 1 and 4 are likely to limit opportunities for enhancing Adelaide's longer term strategic planning outcomes for the Greater Adelaide Region as the industrial centre of Adelaide moves northward. Option 3 and 5 on the other hand would support current trends in the direction of industrial and employment growth. The northern metropolitan area of Adelaide is South Australia's industrial hub and much of the State's future transport infrastructure will be concentrated in this area including shipping, road, and rail. Therefore Option 3 and potentially Option 5 represent a significant opportunity to reinforce the northern area of Adelaide as South Australia's main industrial/manufacturing centre.

The area north of Two Wells is well connected to the northern industrial hub of Adelaide via Port Wakefield Road, even more-so on completion of the Northern Expressway currently under construction and the Northern Connector. Employment lands could be provided on Greenfield sites comprising relatively poor agricultural land and at lower costs. Structure planning for associated road freight and rail freight transfer facilities will need to be undertaken. This would serve a State level regional planning interest including the Greater Adelaide Plan (GAP). There is also considerable potential for the provision of a freight oriented regional airport north of Adelaide.

A significant feature of the route followed by Option 3 is that it cuts across considerable flood prone land including the Light River, and Templers Creek. These flood plains are currently

being mapped by Council and the information can be made available to the reference group on completion. Any future rail link would need to ensure adequate build up to cater for a 1:100 year Average Return Interval (ARI) flood. Culverts and other flood mitigation measures may be needed to accommodate the works.

Option 3 is also likely to increase the importance of the current northern rail link into Adelaide. Recently completed flood mapping of the 1:100 year ARI flood of the Gawler River prepared by the Gawler River Flood Management Authority showed potential for overtopping of this section of the current Adelaide to Darwin line. Upgrading of this section of the rail corridor is likely to be required including: raising the level of the rail line and the extension of culverts under the Salt Creek crossing south of Two Wells. Such work is likely to require a joint Federal / State commitment as the parallel portion of Port Wakefield Road is also likely to require upgrading including further raising of the section of roadway and increasing the capacity of the culverts.

### **Economic growth assumptions underlying the freight forecasts**

Economic growth is only one factor influencing demand for rail freight transport. As pointed out in the Garnaut Review (Garnaut, 2008, p 508) higher oil prices and an emissions price will encourage switching to more fuel efficient and lower-emissions modes of transport including rail. Shifting bulk freight from road to rail could reduce emissions and fuel use by 60 per cent (Garnaut, 2008, page 509). With such high potential for benefits in emissions reductions it is reasonable to assume that the levels of carbon emissions agreed to by the Federal Government at Copenhagen will be translated into government policy seeking to incentivise long distance rail use and will determine a price on emissions commensurate with the reduction target adopted.

It is not clear from the Discussion paper how much of the long distance freight task for the Melbourne – Adelaide and Melbourne to Perth and Darwin origin and destination routes is currently undertaken by road transport. The question needs to be asked: what if a price on carbon emissions made it too expensive to use the road transport option and a majority of long distance freight was by rail? How much could this increase the total rail freight task?

As capacity will be a critical issue in determining the long term sustainable option for Adelaide's rail transport it would be prudent for the demand projections to include a contingency demand scenario reflecting the results of a major shift in the preferred mode of long distance freight transport from Road to Rail. This contingency amount should be added to the low medium and high projections and each option assessed in light of the revised figures. Additional research may be needed into the impact of various carbon reduction targets and how these reflect on the targets for increasing rail freight as the preferred mode of transport particularly in light of any agreements reached at the upcoming Copenhagen climate talks.

### **The relative shares of freight traffic on the Melbourne Perth and Melbourne Adelaide corridors**

One of the potential impacts of Option 3 is an increase of rail freight traffic potentially up to 10% through the Two Wells Township and other northern metropolitan destinations and origins by transferring the Melbourne-Adelaide rail freight through Two Wells rather than the Adelaide Hills. Although the proportion of the rail freight task on the Melbourne - Adelaide route is likely to become proportionally less than between Melbourne - Perth and Darwin over the longer term, the actual levels of rail freight are expected to increase substantially due to projected growth.

The level of increase in rail freight through Two Wells and into the north of Adelaide will depend on how much freight is able to be transferred from rail to road at future intermodal facilities

north of Two Wells or other location such as Murray Bridge. The straight stretch of rail line between Two Wells and Mallala townships is likely to be conducive to the development of such facilities in the district enabling the transfer of rail freight to trucks plus marshalling yards to uncouple and redirect rail freight from Perth or Darwin into Adelaide.

Any impact from increased rail freight associated with Option 3 should consider the potential impacts on the existing residential areas of Two Wells and the proposed Hickinbotham Development (2,500 new homes) north of the township. Although the latter development is likely to include noise buffering requirements within the design of the master plan it will be important to ensure that any future intermodal sites are located further north so as not to constrain the growth of the township. A new road freight bypass route linking the intermodal facilities with Port Wakefield Road should be provided north of the new growth area of Two Wells.

**The extent to which a more efficient rail alignment would improve freight services and lead to a greater use of rail instead of road.**

Any change in direction as proposed in the options incorporating a northern bypass including options 2, 3, and 5 would be conducive to changes in the mode of transport depending on the provision of intermodal facilities thereby increasing accessibility to the rail freight mode of transport.

It would be desirable for a greater discussion in the study around the potential for the provision of intermodal facilities associated with each of the options being put forward for more detailed analysis. Creating opportunities for easy access to such facilities is likely to determine the level of take up of the long distance rail freight option as a viable alternative to road freight. Clearly Option 3 would provide the greatest scope for providing intermodal functions due to: the change in direction of the rail line at Two Wells and Murray Bridge, the associated Greenfield land development opportunities, relatively flat topographies, long straight sections of rail line, and the juxtaposition of rail and road (the national A1 Highway).

As part of a more in depth analysis of Option 3, opportunities should be explored for reducing the levels of rail freight into the metropolitan area by providing intermodal functions capitalising on the juxtaposition of major road and rail corridors north of Two Wells. This should assess the feasibility of introducing a passenger rail function along the route for locations such as Two Wells and Virginia (Buckland Park).

**The options identified, and whether there are any alternative rail alignments that should be considered**

Option 1 could potentially rule out longer term benefits of greater carrying capacity and the realisation of the benefits from further technological improvements that might be achieved through the rail bypass options. This option has the smallest margin in terms of excess capacity which could easily be exceeded due to a rapid shift in the preference of the mode of freight transport from road to rail. The rail capacity for Option 1 (23.6 million tonnes per annum as opposed to 40mtpa for options 2, 3, and 4, and 63.6mtpa for Option 5), might be exceeded if the assumptions for growth are higher than expected. In particular, the potential impact of increasing the rail freight task due to economic restrictions on long distance road freight transport needs to be considered in light of climate change legislation.

It is noted that the variation to Option Five of maintaining the existing Adelaide Hills route plus providing a northern bypass has been discounted from further analysis. The study suggested that any benefits from reductions in rail freight would be short lived due to future growth. However this is not necessarily the case as not all of the rail freight on the Melbourne to

Adelaide route is likely to approach Adelaide via the Adelaide Hills. Rail traffic may prefer the northern bypass in order to gain access to destinations into the north of Adelaide and may prefer to leave via this route. Another variation of this alternative could be to discontinue the existing line at a destination/origin point in the metropolitan area thereby forcing any traffic destined for the northern metropolitan area using the bypass route. Furthermore, depending on the availability of intermodal facilities at Murray Bridge rail users may be encouraged to switch from rail to road transport modes. The benefits of maintaining the existing Adelaide Hills line plus providing a northern bypass in terms of increased carrying capacity would be considerable particularly if future government policy seeks to facilitate a reduction in carbon emissions through a shift in the mode of transport from road to rail commensurate with the 60% potential reduction suggested in the Garnaut review. Hence it would be premature to dismiss this variant of Option 5 at this point.

#### **The assumed freight paths, and whether these reflect the choices of rail operators**

As pointed out above an increase in the use of the Adelaide Hills route is not necessarily going to follow if the existing line is maintained plus a northern bypass is provided. This will depend on potential mode switching brought about by greater access to intermodal facilities, the alternative access to the north of Adelaide via the rail bypass, plus the potential for modifying the line so that a through route is avoided thereby forcing the use of the northern bypass for some destinations and origins with the northern Adelaide areas.

#### **Other Considerations**

As a district that has the potential to be impacted greatly by any of the options being considered, it is important that the District Council of Mallala is part of any ongoing discussions and planning to ensure a sustainable outcome is achieved. In this regard Council reinforces the need to be represented at the table for any future discussions.

#### **Summary**

The District Council of Mallala is supportive of the need to review the alignment of the existing rail freight line. The drivers of the study are understood and will only be addressed by a realignment that also takes into account the longer term ability to capitalise on key growth areas. The Mallala and adjoining areas will play a major role in the states growth and through realignment the freight rail line will also contribute positively at the national level.

In regards to options considered by the study, option 3 being the Northern Bypass south of Truro to Two Wells, would be the preferred solution to address the issues with the current rail freight line alignment.