

# OUYEN INTERMODAL TERMINAL

## Rapid Appraisal for establishment of a Freight Terminal at Ouyen Rail Yards

### 1. BACKGROUND

This brief presents a rapid appraisal for the potential for an intermodal terminal at Ouyen and recommendation for the next steps. The information presented is a preliminary indicative analysis only, and further analysis (as outlined in this brief) would be required to ascertain the viability of any such project.

#### 1.1 *Ouyen Inc*

Ouyen Inc was formed in 1997 as a representative body for the community of Ouyen and has the support of the Mildura Rural City Council. It is concerned at the decline of many rural towns and seeks to address this by promoting community participation and economic growth. Ouyen Inc believes that the Murray Basin Rail Project (MBRP) may provide an opportunity to establish Ouyen as a regional freight hub by constructing an intermodal terminal in the currently underutilised railway yards.

Ouyen Inc invited TfV to meet with a number of stakeholders on 14-15 March 2018 to assess the potential for an intermodal freight terminal to be established at Ouyen. The primary activities were:

- Meeting with representatives of the Mildura Rural City Council at Mildura.
- Meeting with representatives of Ouyen Inc, farmers, local businesses and transport companies at Ouyen (also attended by Mr Peter Crisp, MLA, and Tom Crouch and Peter Harrison, RDV).
- Site inspection of proposed intermodal terminal site in the Ouyen railway yard.

#### 1.2 *Murray Basin Rail Project*

The MBRP involves converting the Mildura, Murrayville, Manangatang and Sea Lake lines to standard gauge and upgrading the track from 20 tonnes axle load (TAL) for intermodal freight to 21 TAL.

Standardisation will bring increased competition and improved rolling stock utilisation as rail operators will be able to source and relocate locomotives and wagons more readily. The increased axle load will enable export containers to be loaded with an additional two tonnes of product (about 10%), thereby increasing the competitiveness of local produce on international markets and also giving rail a competitive advantage against road transport.

### 2. FREIGHT TASK

#### 2.1 *Regional Freight Task*

Michael O'Callaghan (Consultant for Ouyen Inc and formerly associated with intermodal rail transport in the region) has canvassed freight generators in the district. Based on the meeting with potential stakeholders, the following the following traffics were identified.

| <b>FREIGHT SOURCE</b>                        | <b>TEU /year</b> |
|--|------------------|
|  | 6,000            |
|  | 2,000            |
|  | 2,000            |
|  | 1,000            |
|  | 1,000            |
|  | 1,000            |
|  | 3,000            |
| <b>TOTAL POTENTIAL CONTAINERISED FREIGHT</b> | <b>16,000</b>    |

## 2.2 *Other potential traffics*

Attachment 1 indicates the origin of other traffics that could be generated, for example from South Australia where access to the Port of Melbourne could confer shipping benefits (potatoes for example).

## 3. **CATCHMENT ISSUES**

### 3.1 *Other Regional Terminals*

There are established intermodal terminals at Merbein (Wakefield) and Doon (WCL). An intermodal terminal was also recently established at Manangatang to provide an alternative arrangement for Wakefield while the Mildura line was being standardised. The degree to which local freight will be attracted to this terminal after operations have resumed on the Mildura line is yet to be seen.

The purpose of the proposed Ouyen terminal would be to attract freight to rail that would not otherwise be handled through these existing terminals. Shifting a significant volume of freight from other terminals would not be a good result (“rearranging deck chairs ...”).

## 4. **OUYEN TERMINAL**

Two potential sites were identified within the Ouyen railway yard (ref Attachment 2):

### 4.1 *West side of yard (in vicinity of disused goods shed)*

This location would be accessed via Rowe St and has the advantage that a new (or extended) siding would connect to yard trackage, not the mainline, thereby requiring no additional costly signalling. However this location would likely be inappropriate:

- Siding length limited to 250 m, about 35 TEU.
- Adjacent to housing and commercial area. There would be a significant impact on amenity.
- Access by large articulated trucks from Rowe St would be extremely difficult.
- Significant earthworks required for level hardstand to support trucks and lifting equipment.

- Pedestrian access between to the town via the footbridge would be no longer available.
- The disused freight shed would be need to be demolished and the V/Line works area would need to be relocated (not significant issues).

#### 4.2 East side of yard (north of footbridge)

This location would be accessed via the Calder Highway. Advantages include:

- More remote from the housing and commercial area, less impact on amenity.
- Access to/from the Calder Hwy could be achieved more readily. VicRoads is planning road works on the western side of the highway which could provide slip lanes for access into the proposed intermodal area.
- Potential siding length of 450m, about 60 TEU.

Disadvantages associated with this site include:

- The new siding would require two turnouts on the main line and associated signalling.
- V/Line currently has a small maintenance facility in that part of the yard and maintains that it would cost \$2 million to relocate. However it may be possible for intermodal operations to work around these premises.

#### 4.3 Terminal Establishment Cost

Intermodal terminals have been established recently at Hamilton and Manangatang. These have been low cost “proof of concept” projects in order to demonstrate the potential for intermodal freight in the district pending the development of a major terminal (such as Dooen) at some time in the future. An example of the siding cost has been provided by GrainCorp who will be constructing a new grain loading siding north of Ouyen. The cost estimate for the Ouyen intermodal terminal is:

|                              | \$ million |
|------------------------------|------------|
| Hardstand (crushed rock)     | 1.2        |
| Access roadworks             | 0.5        |
| Trackwork (incl. 2 turnouts) | 1.5        |
| Signalling                   | 0.5        |
| Site amenities               | 0.3        |
| Contingency (30%)            | 1.2        |
| <b>TOTAL</b>                 | <b>5.2</b> |

Note that this cost excludes lifting equipment which is not a sunk cost, the cost of shifting the V/Line maintenance facility which may be able to be avoided and the cost of reinstating one of the yard tracks (to support two wagon rake operation (section 5.4 below).

Amortizing \$5.2 million over a project life 25 years at a discount rate of 7% (real), requires an annual payment of **\$0.45 million**.

#### 4.4 Terminal Management

There are two management regimes for regional intermodal terminals:

- (i) Private Terminal, no open access.

This applies where a private investor has provided the funding to develop the terminal and assumes responsibility for operations and maintenance. In this situation, the terminal may be considered to

be a “private siding”, and the operator may restrict access by other train operators and truck companies. At times the Government may choose to provide funding for capital works (e.g. siding extension) on a case by case basis, but this usually does not require the terminal operator to enter into an open access regime. The current Wakefield terminal is operated on this basis.

(ii) Open Access.

Where the Government makes a substantial funding contribution to the establishment of an intermodal terminal, it will generally require that the terminal be operated on an open access basis. This will mean that any rail operator and (most importantly) any road operator will be able to access the terminal. The terminal operator will provide container lift on / lift off, storage and other services and will charge according to a published “rate card” schedule of rates.

Intermodal terminals require volume to support the establishment cost and ongoing operating costs (which are fixed to a large extent). For this reason, it is essential that the terminal be “truck friendly”, that is, as many local trucking companies as possible must be confident that bringing their business to the terminal will not compromise their own business.

It is therefore often preferable if the terminal operator is not itself a trucking company but either an independent party or a rail operator.

## **5. TRAIN OPERATIONS**

Three possible train operations will need to be considered.

### *5.1 Stand-alone Service*

This would involve a dedicated train operating between Ouyen and Melbourne (similar to the current Wakefield train). This would require a substantial minimum volume to support the service, typically 8,000 TEU/year. Section 2.1 above indicates that this volume could be available, but these volumes would need to be confirmed. There is also an element of risk in ensuring the continuity of the traffic.

### *5.2 Attachment to an Existing Service*

The traffic originating from Ouyen would be attached to the Wakefield train in the same way that the Peaco business from Donald is attached to the train. This would provide additional traffic for PN to offset the fixed train operating costs. The operation may also be less risky as it would not depend on significant or continuous volumes of freight being generated as in the case of the stand-alone service.

However it would depend on there being capacity on the Wakefield train for the additional loading. Even at a maximum length of 1,200 m the Wakefield train can now be near the limit.

### *5.3 Combined Train with other Freight Forwarders*

The third option would be a combination of the above whereby a new service would operate to Ouyen, but pick up at other locations such as Donald to achieve a sustainable volume of freight. For example, while it may not be economical for Access Grain based at Nullawil to truck containers back to Ouyen, it may be economic for grain from Nullawil to be trucked across to Donald (70 km) and loaded onto the train at the Donald siding.

With sufficient freight, this could be an optimal solution, but would need further analysis.

#### 5.4 Practical Considerations

##### (i) Train Turnaround

At present trains cannot achieve a 24 hour turnaround to Mildura on a consistent basis. Trains having to slow down at unprotected Level crossings is a contributor but rectifying all level crossings (costly exercise) would not be sufficient to guarantee a 24 hour turnaround. Round trip transit time to Ouyen would be about 3 hours less than for Merbein, but this still could not guarantee 24 hour turn-around, particularly during peak grain season when there are likely to be more hold-ups due to grain trains.

##### (ii) Two Wagon Rakes

However, one possible means for achieving 24 hour turnaround would be to use two wagon sets, one in transit while the other was being loaded. When the train with a rake of empty wagons arrived at Ouyen from Melbourne, the locomotives would push the loaded rake out of the siding, leave the empty rake on the siding and then head to Melbourne with the loaded rake of wagons. The operation would take less than an hour.

However there would be times when one of the rakes of wagons would not be required and would need to be stabled. With the severe rationalisation of yard trackage across the network under MBRP, there are now very few places where this could happen. The logical place is Ouyen, but with two of the yard tracks having been removed the remaining yard tracks would be required for train operating purposes (train crossing and loco run-around for trains on the Murrayville line). Reinstatement of one of the removed yard tracks may be required to support this operation.

##### (iii) Crossing Loops and Train Paths

There are a limited number of crossing loops on the Mildura line which in turn restricts the number of "train paths" available, especially during peak grain season. This would not present a problem for loading from Ouyen if it is carried in conjunction with an existing service such as the Wakefield train (4.2 above). However, in the event that the Ouyen terminal requires an additional train service, then a new crossing loop may be required. Such a crossing loop might cost around **\$12 million**, but it should be noted that the provision of the additional loop would also benefit all other users.

## 6. BENEFITS

The potential benefits to be realised from the terminal include:

- Lower transport costs for local containerised export commodities;
- A focus for other agricultural based development in the Ouyen district (e.g., cool rooms, warehousing, container packing, etc) which may in turn support employment in Ouyen;
- Reduced externality costs borne by the community by way of avoided road damage, accidents, congestion (at Port) and lower amenity impacts on country towns. For example, the value of the benefit deriving from a freight task of 10,000 TEU /year would be in excess of **\$1 million /year**.

## 7. NEXT STEPS

It is recommended that Ouyen Inc. as the main proponent for establishing the intermodal terminal, undertake the following:

- Confirm the freight volumes (table p.2) that would be able to access the terminal;
- Interview the significant freight generators in the district in order to determine the actual level of commitment to such a terminal. This should be supported by letters from significant local industries indicating the volume of freight that they could be expected to bring to a terminal located at Ouyen.
- Identify potential terminal operators. These could be local shippers, train operators or an independent party (or a partnership involving any of these).

## 8. SUMMARY

This rapid appraisal suggests there may be a sufficient volume of containerised freight that could be trucked to an intermodal terminal for transport to Melbourne by rail to warrant the development of an intermodal terminal at Ouyen.

- The terminal establishment cost would likely be in the order of **\$5 million** including hardstand and track.
- The quantifiable externality benefits for a minimum freight task of 10,000 TEU /year would likely be around \$1 million /year.
- The next steps involve Ouyen Inc. confirming the businesses that would support the terminal, the volume of freight that each business could bring, and the identification of potential terminal operators.