NARROMINE TO NARRABRI MCA PROCESS
TRANSPORT FOR NEW SOUTH WALES BRIEFING
31 JULY 2017
### BUILDING WHAT INDUSTRY WANTS

<table>
<thead>
<tr>
<th>Reliability</th>
<th>Price</th>
<th>Transit time</th>
<th>Freight available when the market wants</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Checkmark" /> 98%</td>
<td>![Dollar Sign]</td>
<td>![Clock] &lt; 24 HOURS</td>
<td>![Truck and Train]</td>
</tr>
</tbody>
</table>

**Inland Rail - Key technical characteristics that underpin the service offering**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Train Length</td>
<td>1800m with future proofing for ultimate 3600m train length</td>
</tr>
<tr>
<td>Axle Load / Max Speed</td>
<td>21 tonnes @ 115km/h, 25 tonnes @ 80km/h, with future proofing for 30 tonnes @ 80km/h</td>
</tr>
<tr>
<td>Double Stacking</td>
<td>7.1m clearances for double stack operation</td>
</tr>
</tbody>
</table>
| Interoperability | Full interoperability with the interstate mainline standard gauge network  
Dual-gauging in Queensland to provide for connectivity to the Queensland narrow gauge regional network  
Connections to the NSW Country Regional Network to provide for standard gauge connections to the ports of Melbourne, Port Kembla, Sydney, Newcastle, Brisbane, Adelaide and Perth. |
INLAND RAIL PROJECTS

• 13 individual projects in the Inland Rail programme – 7 in NSW

• Reference Design complete for 2 NSW priority projects:
  • Parkes to Narromine
  • Narrabri to North Star

• Concept Design complete for other 11 projects in the programme, including 5 NSW projects:
  • Albury to Illabo
  • Illabo to Stockinbingal (greenfield)
  • Stockinbingal to Parkes
  • Narromine to Narrabri (greenfield)
  • North Star to Border
The Narromine to Narrabri Project (N2N) is a 307km ‘Missing Link’ project within the Programme and is the longest project in the programme of works.

- ~18km of disused railway in the Kenebri to Gwabegar area
- Connects and crosses the CRN at Narromine, Curban and Narrabri
- 5 major grade separations
- 7 passing loops
- 22 rail underbridges
- Large structure/viaduct across the Namoi River flood plain
- 125 new level crossings
- 385 culverts
BACKGROUND

• N2N section is part of the overall Melbourne to Brisbane Inland Rail Project
• Original N2N route was selected in 2010 and presented in Inland Rail Alignment Study. (IRAS)
• Taken forward by ARTC as part of 2015 Business case.
• In 2016 options were developed after consulting with local councils, farmer representatives and community.
• Option alignments were reviewed internally via MCA workshop in Oct 2016.
• Further consultation, investigation and feedback resulted in narrowing down the options in Dec 2016 MCA Workshop.
• Further investigation, consulting and community feedback provided final alignments during May 2017 MCA workshops.
NARROMINE TO NARRABRI SECTIONS (N2N) 307KM

- Narromine to Burroway (Base Case plus Option alignment).
- Burroway to Curban (Base Case plus Option alignment).
- Curban to Mt Tenandra (Base Case Plus Option alignment).
- Mt Tenandra to Baradine alignment (Base Case).
- Baradine to Narrabri (Base case Plus Option alignment).
MULTI CRITERIA ANALYSIS (MCA) INTENT

To adopt a robust methodology which:

• Can be consistently applied by multiple consulting teams across projects.

• Provides Transparency of process and procedural rigor.

• Directly aligns to ARTC and Australian Government objectives and policy.

• Does not unravel works or decisions made during previous study phases.

• Compare alternative route options against the 2016 Concept alignment using IR MCA Criteria.
MCA PROCESS

Standard Inland Rail MCA Matrix, criteria and weightings

Compare Options against the Concept Alignment

Review scoring for each option, amend as required and select preferred option(s)

Recommendation to the Minister
# MCA Weighted Average Against the ARTC Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Criteria Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical viability</td>
<td>17.5%</td>
</tr>
<tr>
<td>Safety assessment of the proposed alignment</td>
<td>15.0%</td>
</tr>
<tr>
<td>Operational approach, including opex</td>
<td>17.5%</td>
</tr>
<tr>
<td>Constructability and schedule</td>
<td>12.5%</td>
</tr>
<tr>
<td>Environmental and heritage Impacts</td>
<td>12.5%</td>
</tr>
<tr>
<td>Community and property impacts</td>
<td>12.5%</td>
</tr>
<tr>
<td>Approvals and stakeholder risk</td>
<td>12.5%</td>
</tr>
</tbody>
</table>
# MCA SCORING USED

<table>
<thead>
<tr>
<th>Criteria Assessment</th>
<th>Score</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significant improvement</td>
<td>10</td>
<td>Major positive impacts resulting in substantial and long term improvements or enhancements of the base case</td>
</tr>
<tr>
<td>Improvement</td>
<td>5</td>
<td>Positive impacts resulting in long term improvements or enhancements of the base case</td>
</tr>
<tr>
<td>Neutral</td>
<td>0</td>
<td>Neutral - no discernible or predicted positive or negative impact</td>
</tr>
<tr>
<td>Decline</td>
<td>-5</td>
<td>Negative impacts with long term and possible irreversible effects leading to serious damage, degradation or deterioration of the physical, economic or social environment. Requires a commitment to extensive management strategies to mitigate effect.</td>
</tr>
<tr>
<td>Significant decline</td>
<td>-10</td>
<td>Major negative impacts with serious, long term and possible irreversible effects leading to serious damage, degradation or deterioration of the physical, economic or social environment. Requires a major commitment to extensive management strategies to mitigate effect.</td>
</tr>
</tbody>
</table>
• Phase 1, Concept Design is complete.
• Preferred Corridor under review by ARTC.
• Phase 2, Service provider tenders received and are under review.
NARROMINE TO BURROWAY

- December 2016 MCA process provided two options to the base case
- Consultation held with community and stakeholders in March/April 2017, which provided support for the Eumungerie Road Option.
- May 2017, option east of Narromine resulted in a positive MCA score above the base case.

  - Overall Improved service offering
  - Improved constructability and schedule
  - Technically better due to improved geology.
  - Improved Safety
December 2016 MCA, reviewed Gilmours Road alternative option against the base case.

Consultation in March/April 2017 provided support to the option, and provided further option to East of Gilmours Road.

May 2017 MCA, East of Gilmours Road option gave a positive MCA scoring above the base case.

- Technically better due to better geology conditions.
- Improved constructability
- Improved Environmental and Heritage.
CURBAN TO MT TENANDRA

- December 2016 MCA base case and option.
- Consultation of the base case and option conducted in Mar/April 2017
- Strong support for the Box River Road option case.
- Base case scored higher than the Box River Road Option in the May 2017 MCA review process.
  - Better Service Offering
  - Better constructability and schedule
  - Technically better due to improved geology.
  - Better operational approach
  - Better Environmental and heritage
MT TENANDRA TO BARADINE

- December 2016 MCA process provided only the base case with some minor deviations to consider.
- No further consultation occurred in Mar/April 2017, as deviations to base case only minor.
- Support for the Base Case as it met the criteria consider.
BARADINE TO NARRABRI

- December 2016 MCA process provided an option to the base case.
- Consultation in Feb/April 2017 provided support to the Pilliga State Forest option.
- May 2017 MCA review, Pilliga state Forest gave a positive MCA scoring above the base case in all the criteria.

- Technically Viable
- Safety Assessment
- Operational approach
- Environment and Heritage
- Constructability and schedule
- Community and property
- Approvals and stakeholders risk
• Recommendation to be made on the preferred corridor by end of July 2017.
• Submission for decision of the preferred corridor submitted to ARTC, SMT and LT for review in August.
• ARTC Endorsement of the preferred corridor in mid August 2017.
• Present a paper to DIRD for 29 August 2017 meeting.
PHASE 2- CONCEPT DESIGN

• Options for implementation assessed against financial criteria and risk.
• Further investigation and community consultation to finalise and complete Concept design.
• Project scope further detail with technology, and operational specifications defined
• Submission of EIS
QUESTIONS?