



FUTURE-PROOFING FREIGHT TRANSPORT: The Environmental approach to Inland Rail

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— INTRODUCTION

- The Inland Rail Project in Queensland
- Approvals strategy
- Flooding: the Condamine Floodplain case study
- Social impacts
- Matters of ecological significance
- Sustainability in design
- Risks and challenges
- Mitigation measures

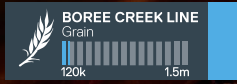
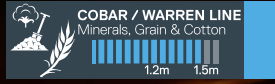
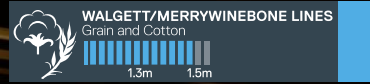
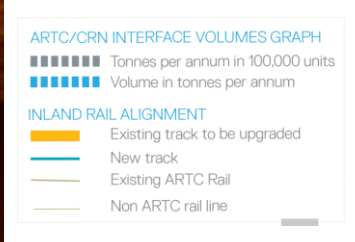
THE INLAND RAIL PROGRAMME

- 1,700km from Melbourne to Brisbane
- Connecting regional Victoria, New South Wales and Queensland to the rail freight network
- Five sections in Queensland:
 - > NSW/Qld Border to Gowrie
 - > Gowrie to Helidon
 - > Helidon to Calvert
 - > Calvert to Kagaru
 - > Kagaru to Acacia Ridge & Bromelton
- Gowrie to Kagaru will be constructed under a PPP arrangement
- Operational railway by 2025
- Generating \$16Billion in additional economic benefits and creating 16,000 jobs at the peak of construction
- Providing the backbone for a world-class supply chain

RAIL NETWORK INTERFACE

CONNECTION
OPENS UP
OPPORTUNITIES
FOR REGIONAL
AUSTRALIA

Commodities and
Volumes by rail line



WHAT IS INLAND RAIL?



■ **CONNECTED**

■ **FAST**

Straight and flat

NOW
33hrs

FUTURE
< 24
MELBOURNE
TO BRISBANE

■ **RELIABLE**

98%



**SAFER, LESS
CONGESTED ROADS**



750,000 FEWER
tonnes of carbon
and 1/3 of the fuel
of road

■ **BENEFICIAL**



COST REDUCTION
COMPARED TO TRUCKS

16,000 JOBS

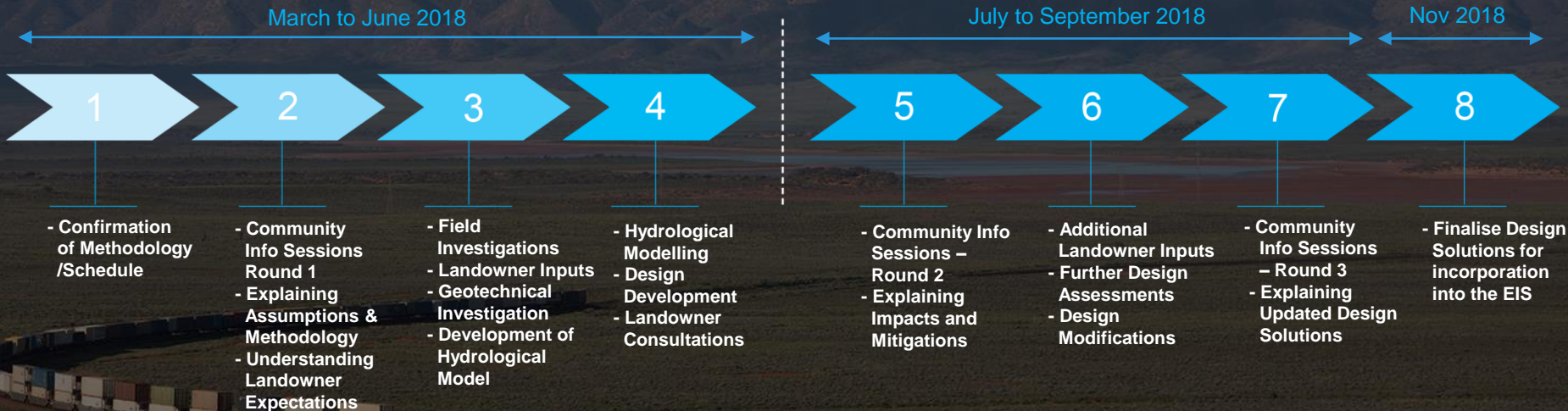
\$16 BILLION IN ADDITIONAL ECONOMIC BENEFITS

ENVIRONMENTAL APPROVALS STRATEGY

- Each section comprises its own EIS and EPBC Referral
- Controlled Actions granted for Threatened Species and Ecological Communities
- Extensive community consultation program in four stages
- Detailed investigations focussing particularly on flora and fauna, noise and vibration, land and soils, and flooding

FLOODING: THE CONDAMINE FLOODPLAIN

FLOODPLAIN ASSESSMENT AND DESIGN SOLUTIONS COMMUNITY-BASED APPROACH



- Study informed by investigations within the rail corridor across the Condamine Floodplain

— SOCIAL IMPACTS

- Introduction of linear infrastructure across flood prone areas
- Ongoing consultation with historically flood affected landholders
- Extensive flood modelling is underway to optimise environmental outcomes
- Operational noise and vibration
- New structures in a currently rural environment (i.e. viaducts and bridges)
- Liaison with Council Tourist Boards to address potential opportunities in design

MATTERS OF ECOLOGICAL SIGNIFICANCE

- Collared delma (*Delma torquata*) and Koala (*Phascolarctos cinereus*) are known to inhabit the area
- Collared delma scientific monitoring program being undertaken by nearby project
- Swamp tea-tree TEC (*Melaleuca irbyana*) and Swift parrot (*Lathamus discolor*) have been identified during surveys
- New Holland Mouse (*Pseudomys novaehollandiae*) known to occur



SUSTAINABILITY IN DESIGN

- Our vision is to make rail the mode of choice in the national logistics chain
- Our goal is to build a sustainable railway for the future
- We aim to achieve a minimum ISCA rating of 'excellent'
- Procurement of materials is being undertaken locally, wherever possible
- Innovations in design are being considered at each project stage
- Inland Rail Sustainable Procurement Policy and Environment and Sustainability Policy

RISKS AND CHALLENGES

- Effective community consultation with directly and indirectly affected stakeholders
- Direct impacts to flora and fauna habitats and communities, including fragmentation
- Vehicle strikes during pre-construction, construction and operations
- Sediment and/or contaminant runoff into watercourses
- Biosecurity: invasive species, fire ants
- Managing multiple EISs concurrently
- Multiple approval jurisdictions across the NSW / QLD border

MITIGATION MEASURES

- Bioregional corridor connectivity (e.g. Flinders Karawatha Corridor)
- Offsets will be provided for State and Commonwealth species impacts
- Fish passage strategy
- Pre-clearance surveys to be undertaken
- Suitably qualified ecologist will be present on site during clearing

MITIGATION MEASURES (Continued)

- Clearing will be limited to what is required for safety
- Existing disturbances will be used to avoid vegetation and habitat, wherever possible
- Erosion and sediment control measures will be implemented
- Disturbances will be reinstated and/or rehabilitated
- Fauna sensitive design will be incorporated into design



THANK YOU | QUESTIONS