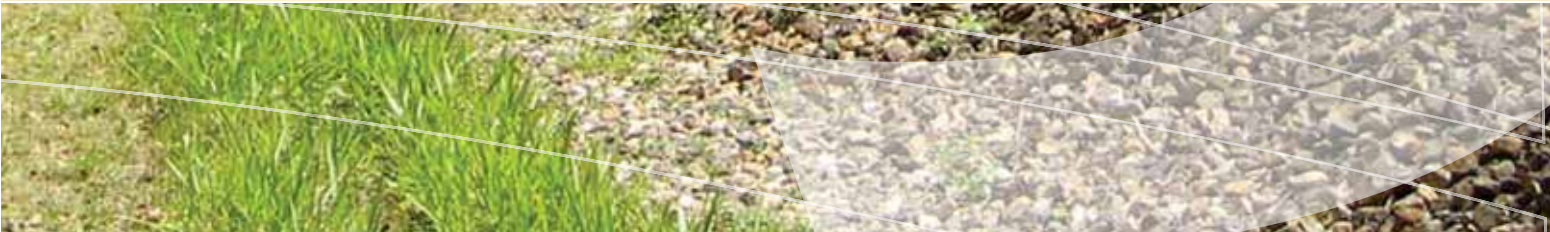




**23 Conclusions and Recommendations**



This Environmental Impact Statement identifies and assesses the potential impacts of the construction and operation of the project, including the decommissioning of the existing railway. Consideration for the decommissioning of the project has also been given in the project design and assessment of impacts although the typical life of railway infrastructure is greater than 100 years, and the railway has been planned to provide capacity for future growth long into the future.

This EIS:

- provides public information on the need for the project, alternatives to it and options for its implementation
- presents the likely effects of the project on the natural, social and economic environment
- details acceptable standards and levels of impacts (both beneficial and adverse) on environmental values
- demonstrates how environmental impacts can be managed or mitigated through the protection and enhancement of environmental values.

The following benefits have been identified resulting from the project:

*Table 23: Project benefits summary*

Type of benefit	Nature of Benefit
Local, regional, State	Increase passenger service capacity
Local, regional,	Provide a more attractive rail service, for both inter and intra regional trips, that compares favourably with private vehicle transport for comparable distance trips
Regional, State, national	Increased freight service capacity on this section of the North Coast Line
Local, regional	Reuse of decommissioned sections of the existing railway corridor for recreational trails and tourist links
Local, regional	Construction of rail and road bridges to modern standards, removing height constraints and addressing some substandard road conditions, such as flooding
Local	Opportunities for grade separation of open level crossings, addressing risk and traffic movement issues
Local	Opportunities for regeneration and coordinated land use and transport planning in the railway towns
Local	Opportunities for grade separation of open level crossings, addressing risk and traffic movement issues
Social	Provision of stations that comply with <i>Disability Discrimination Act</i> requirements
Environmental	Reduced Greenhouse gas emissions from comparable distance road based trips Reduced Greenhouse gas emissions from comparable length trips on the existing railway between Landsborough and Nambour
Environmental	Improved design of rail infrastructure, allowing for fauna movement, environmental management measures (spill containment etc)
Operational	Dual track allowing bi-directional movements and eliminating the need for passing loops
Operational	Reduced timetabling complexity
Operational	Reduced potential for service delays and cancellations
Operational	Removes the need to supplement rail services with rail bus services
Operational	Reduce maintenance and operational complexities, by improving the alignment and thus reducing wear and tear and operating and maintenance costs
Operational	Reduces maintenance and operational delays by providing a second track, which can be kept open during maintenance on the other track
Operational	Reduced energy consumption per service

The assessments carried out for this EIS are based on the preliminary design developed for the project, including road realignments and grade separation options as of May 2009. A number of ongoing and future investigations and design processes have been identified for action in future stages of the project.

Submissions on this EIS received during the submission period will be collated by the Department of Infrastructure and Planning and, where additional information is required to address the submissions, response requirements will be issued to the proponent, which will be addressed in a supplementary report, as outlined in Chapter 1, Introduction, Section 1.8.1.

### 23.1 Township master planning

The project would result in significant changes in the townships. The rail corridor would affect the townships directly with land requirements and indirectly through changes to the road network and redundant rail land becoming available. Suitable relocation sites should be selected in consultation with the users and the community for the land-uses affected by the land requirements and appropriate uses would need to be found for the redundant rail land. This is an opportunity for the regional council in consultation with the local community to prepare a master plan for the townships affected by the rail corridor, in particular around the new stations.

### 23.2 Existing station buildings and associated infrastructure

The existing station buildings are generally not compliant with disabled access requirements, lacking platform tactile markers or low ticket counters. New station buildings would be required to meet current standards at Palmwoods, Woombye, Mooloolah and Eudlo. Public consultation has shown that the local community values the existing station buildings and associated infrastructure. Conservation of structures with the most cultural heritage significance should be considered. Conservation options include the incorporation of existing structures in the design of the new station buildings and the consideration of an alternative use for the rail structures. It is recommended that alternative uses for station buildings and associated rail infrastructure be meaningful and consistent with their cultural significance.

### 23.3 Future use of the decommissioned corridor

In addition to redundant rail land in the townships, the existing rail corridor would be decommissioned, providing an opportunity to improve the connectivity between the towns and to provide new community uses. Where the proposed new rail corridor aligns with the existing corridor, community use of the decommissioned tracks will not be possible. Safety issues would also need to be considered where the new rail corridor is in proximity to the decommissioned tracks. However, the majority of the decommissioned corridor could be used for recreation purposes. It was suggested during the public consultation that the decommissioned corridor be used as a cycle trail to encourage the use of alternative modes of transport to the private car for short trips between towns. The trail could be a shared pedestrian- cycling path linking the railway towns. The decommissioned corridor would then contribute to promote sustainable transport patterns.

Further investigations would be required to assess the suitability of the re-use of the decommissioned corridor as a recreational trail, giving consideration to compatibility with surrounding land-uses, connectivity with other trails, as well as design and safety issues.

### 23.4 Vegetation offsets

Environmental offsets are a mechanism that can be used in environmental management to compensate for the impacts of developments on ecologically significant features. They are used to counterbalance unavoidable negative environmental impacts, where all other steps have been taken to avoid or minimise an impact but the residual impact still remains. Offsets are usually available through an environmental impact and approvals process.

The Queensland government has developed an Environmental Offsets Policy (QGEOP) that came into effect on 1 July 2008. This policy sets up a co-ordinated framework for an offsets scheme to operate in Queensland and includes an underlying offset fund, which has been named EcoFund. The EcoFund is the body responsible for identifying and securing offsets on the ground with the project proponents.

In relation to the Landsborough to Nambour Rail Project, the vegetation clearing on the rail corridor would trigger the Vegetation Management Offsets Policy within the QGEOP. Under the *Vegetation Management Act 1999*, the establishment of the rail corridor is assessable development. Hence, the future clearing of remnant vegetation resulting from the construction must be assessed by the Department of Environment and Resource Management either when the project is declared as Community Infrastructure Development (CID) or when clearing permits are sought. The clearing would be assessed under Part P, Regional Vegetation Management Code for SEQ. There are various parts of the code that the project would not be able to satisfy without providing an offset in accordance with the Vegetation Management Offsets Policy. It is considered that approximately 30 hectares of vegetation offsets would be required.

It is anticipated that the Department of Transport and Main Roads would engage with Ecofund prior to the commencement of construction of the project to determine the precise offset requirements for the project and the most effective way of achieving them. This process would involve a review of offset requirements with the intention of applying 'advance offsets' to the project. An 'advance offset' is one that is acquired and established prior to the completion of the project. This implies that proposed offset areas are then in advanced stages of recovery at the completion of the project. An advance offset should be registered, to be a recognised offset under a specific-issue offsets policy.

### 23.5 Design for noise mitigation

The assessment of noise and vibration concluded that noise barriers or other localised mitigation would be required at 17 locations. All barriers have been modelled at 6 m high, although most barriers would not need to be 6 m high, as the height of the barrier would be dependant on individual receptor height. Barrier heights and placements should be investigated further in the detailed design phase of this project and assessed for individual residences. Areas where noise barriers are mitigating single residences should be investigated further, due to the length of the barrier required. In fact, barriers along the railway may not be the most effective method of mitigating noise.

Noise barriers are visually intrusive and can potentially compromise employee safety around the rail line. Alternative mitigation measures should be considered when possible. In the 17 locations where noise barriers have been recommended, further investigations should be undertaken to incorporate noise mitigation in the detailed design stage for the corridor. Particular attention should be given to the locations where the noise and vibration assessment found a residual impact.

The issue of the noise from the structures, in particular in Palmwoods, also requires further investigations. To reduce the impact of elevated structures, concrete bridges should be incorporated into the design. Compared to steel or composite structures, concrete bridges result in lower levels of re-radiated noise.

### 23.6 Further investigations

Further investigations would be required to finalise the detailed design of the rail corridor:

Geotechnical ground investigations, including boreholes and sampling, shall be undertaken along the proposed rail corridor to inform the detailed design phase and, in particular, to determine specific design requirements for the tunnels.

Further investigation also needs to be carried out to determine the level of the existing groundwater and perched water table.