

# Western Rail Coal Unloader

ENVIRONMENTAL ASSESSMENT

CHAPTER 8 – PROJECT JUSTIFICATION AND  
CONCLUSIONS

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## 8. Project Justification and Conclusions

*This chapter summarises the strategic justification for the project, outlining why the project is needed. It draws on the extensive environmental impact assessment information from previous chapters and provides justification of why the project should proceed in the form described in Chapter 3 - Project Description, with consideration of the benefits and impacts of the proposal. It addresses the project in the context of ecologically sustainable development and provides a conclusion for the project.*

### 8.1 Strategic Issues

Delta has been investigating the future need for coal supplies, both for minor contracts and for mine risk to the existing major contracts. Future sources of coal will inevitably come from the Western Coal Fields, north of the power station, as it is located at the southern end of those coal fields. A key consideration to obtaining coal from more distant mines is the mode of transportation. Economics limits the use of conveyors to relatively short distances and additional supply via the road system above the current levels does not represent an economically viable or socially desirable option. The installation of a coal rail unloader in close proximity to the power station provides another mode of transport to provide coal for the increase in coal requirements in the short term and for future, long term security of coal supplies.

Although the short term requirements for coal transport by rail will be about 2 million tonnes per year, in the longer term this would increase as local coal sources decline. The design of a coal unloader and associated infrastructure must therefore allow for the possible future increase in coal to be transported by rail. The initial supply to Mt Piper via the unloader would be about 2 million tonnes per year and the maximum supply required for Mt Piper Power Station in the short to medium term may be about 4 million tonnes per year (should all other sources be unavailable due to local mine breakdown or closure). Future volumes in the longer term may increase but in the sizing of equipment and facilities it has been assumed that a future peak load of up to 8 million tonnes of coal per year would be transported by rail.

The preferred site for the unloader was chosen from many candidate sites on the basis of relatively low overall cost (capital and land acquisition) and a relatively good environmental and social outcome. The site is suitable for the proposed development in that:

- Its change in land use from a general rural (beef grazing) to its use as a rail loop and coal unloader would have no significance or impact on the agricultural activities within the area;
- The land uses in areas adjacent to the preferred site are unlikely to change in the future from the General Rural zoning to any other form of land use, nor would development densities in the area be expected to change;

- The proposed use is consistent with other land uses in the area, given the major land ownership on the property boundary by a coal company suggests a future of coal mining nearby. The other neighbours are separated from the site by a regional road and a freight train line;
- The wider area comprises Mt Piper Power Station, Wallerawang Power station and many coal mines and associated infrastructure; and
- The existing Mudgee rail line passes along the edge of the site.

## **8.2 Key Environmental Considerations**

The environmental assessment addressed the key issues identified in the requirements provided by the Department of Planning. These are discussed below in the context of benefits and impacts.

### **8.2.1 Hydrology and Water Quality**

Appropriate waterway design and management of water runoff will ensure that impacts associated with water will be minimised and the quality of water draining into the Warragamba Dam catchment will not be compromised as a result of the project. There will be no benefits directly associated with these works, and impacts will be limited to the quality of the design and management. There will be no change in off-site flooding regime due to the construction of the rail unloader.

### **8.2.2 Flora and Fauna**

Some vegetation, including specimens of the threatened Capertee Stringybark, will be lost to the proposal. This impact will be more than offset by appropriate replanting in strategic areas and the re-establishment of the habitat values of Pipers Flat Creek and Thompsons Creek on the rest of Delta's land at Pipers Flat.

### **8.2.3 Heritage**

One area of indigenous heritage will be affected by the proposed rail loop, and some areas which may contain sites will also be affected. These sites are regarded as of low to moderate significance and, following confirmation of the significance of the sites through excavation of the PADs and in consultation with the indigenous community, it is intended to record and remove/ cover over any sites present. Any negative impact associated with this action is manageable.

### **8.2.4 Air Quality**

There are no identifiable air quality impacts associated with the project. Nevertheless, careful management and design will be put in place to ensure air quality in the area of the site remains high.

### **8.2.5 Noise**

Construction noise will exceed the guidelines developed for the project. The management of this is important, and a series of management processes, including timing and liaison with the community, will be developed to ensure that the noise associated with construction is acceptable.

Operational noise will generally meet criteria, but there will still be a noticeable increase in noise for a few residents on the southern side of Pipers Flat Road. This would be more obvious at night. It is important, therefore, to put in place as many measures as practicable to minimise that noise level and to seek input from the community over how to minimise the impacts perceived.

### **8.2.6 Visual Impacts**

The visual impact of the proposed railway loop, coal unloader and coal conveyor would be high for one property and to a lesser degree for users of the Pipers Flat Road, as these receivers would experience changes to the visual environment in the foreground. Other properties to the south of Pipers Flat Road would generally have limited views of the coal unloader, due to screening by topography or vegetation.

The selection of colour schemes used for structures associated with the facilities and landscape planting proposed for the rail embankments and for site buildings and screening vegetation along the southern site boundary would assist with minimising any visual impacts.

### **8.3 Ecologically Sustainable Development**

Ecologically Sustainable Development (ESD) is a major principle now used in guiding environmental impact assessment and the NSW Government in its various State of the Environment Reports has suggested the following definition of ESD:

*“Using, conserving and enhancing the community’s resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased.”*

By following an ecologically sustainable path of development, the likelihood of serious environmental impacts arising from economic activity and development should be reduced.

The principles of ESD, as defined in Clause 6 of Schedule 2 of the *Environmental Planning and Assessment Regulation, 2000* are as follows:

- The precautionary principle – namely, that if there are threats of serious environmental damage, lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;
- Inter-generational equity – namely, that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations;
- Conservation of biological diversity (biodiversity) and ecological integrity;
- Improved valuation and pricing of environmental resources.

The principles of ESD were considered during the assessment of the proposed rail unloader.

### **8.3.1 Precautionary Approach**

The precautionary principle was invoked in the means by which impact assessment was undertaken and mitigation measures identified and prescribed. This was undertaken as follows:

- Potential impacts were identified conservatively, in that all potential impacts were considered and assessed, even if there was no evidence that there may be an impact possible from the proposed development activity;
- Assessment of impacts was undertaken using established and, in some cases, Government prescribed methodology, all of which were conservative in their approach and likely to identify an impact when one was not necessarily likely; and
- Mitigation measures and monitoring programs were identified to ensure that impacts, should they occur even when not predicted, would allow any unforeseen impacts to be addressed as appropriate.

### **8.3.2 Inter-generational Equity**

The maintenance of inter-generational equity is essential in the development of any infrastructure project. This was considered in the proposed rail unloader in that:

- Scarce resources will not be used in the construction or operation of the development;
- There will be no change in the amount of coal produced and delivered to Mt Piper Power Station. This project concerns itself with a change in the mode of transporting coal to the power station; and
- Relative savings can be made in fuel usage and associated greenhouse gas emissions by a reduction in truck movements bringing coal to Mt Piper from the coal fields to the north of the site.

### **8.3.3 Biodiversity and Ecological Integrity**

Overall, the proposed development will have a positive impact on the biodiversity or ecological integrity of the area proposed for development.

The site of the proposed rail loop and rail unloader has ecological value at present, due to the cleared farm land and the poor condition of Pipers Flat Creek and Thompsons Creek. Some limited clearing of trees (including the Capertee Stringybark) will occur along the site of the conveyor, but in the context of the distribution of vegetation (and especially the tree), the ecological values of the area will not be reduced.

The EA has identified the potential to improve the ecological values in the area by revegetating areas of the degraded farm land and restoring the creek alignment within the boundaries of Delta's property. Biodiversity will be enhanced by replacing areas of degraded land and creek lines with native vegetation which will also be of benefit to native fauna.

### **8.3.4 Assessment on Ecologically Sustainable Development**

Assessment of the project against the principles of ESD provided a framework for the proposed rail unloader to:

- Recognise, describe and assess the effects of construction and operation on environmental resources;
- Avoid irreversible and detrimental damage to ecological resources;
- Enhance the health and quality of the environment, and may assist in benefiting present and future generations;
- Minimise any impact on rare and endangered species and ensure conservation of biological diversity.

In preparing this EA, the potential environmental impacts from the proposed activities have been investigated and a range of mitigation measures developed to minimise any adverse effects.

All mitigation measures proposed in the EA have been developed based on the principles of ESD. It is clear that the principles of inter-generational equity and conservation of biological diversity are met and, if there is any doubt about potential detrimental effects on the environment, a precautionary approach is applied.

The principles of ESD will be further assessed by Delta during the detailed design phase of the project. This design assessment will enable Delta to identify and investigate the feasibility of implementing additional ESD measures, including further opportunities to:

- Use low impact building materials;
- Minimise the consumption of water and energy and the generation of waste;
- Reduce the impact of the proposal on the biophysical environment and the community; and
- Identify suitable site management practices.

The outcomes of this further ESD assessment will be incorporated as appropriate into the final design of the site or the relevant Construction or Operational EMP.

## **8.4 Conclusions**

The proposed Western Rail Coal Unloader and associated infrastructure represents a \$60-80 million investment by Delta in securing its coal supplies for Mt Piper Power Station in the long term.

The choice of the site for the coal unloader was based on surveys of all practical options and a decision based on the preferred option having a relatively low overall cost (capital and land acquisition) and a relatively good environmental and social outcome compared with the other options.

The use of the site chosen for the rail loop and unloader is consistent with the land use in the area and will not sterilise or affect future land uses in the area.

Key environmental issues were considered and potential impacts on those issues assessed. With the implementation of appropriate mitigation measures the residual impacts of the project would be low, and there is no environmental reason why the project should not proceed in the form described within the Environmental Assessment report.