

SECTION 8 ECOLOGICALLY SUSTAINABLE DEVELOPMENT

This section reviews the proposed RDC development in accordance with the principles of Ecologically Sustainable Development.

8.1 BACKGROUND

The requirements of the Director-General for the environmental assessment of the Project notes that the assessment must include the reasons justifying the carrying out of the development or proposal in the manner proposed, having regard to biophysical, economic and social considerations, including the principles of Ecological Sustainable Development (ESD).

The requirements identify four principles of ESD which must be considered when determining an application for approval. The objective of these requirements is to determine whether a proposed development can be sustained by the environment.

The four principles which are to some extent inter-related:

- The Precautionary Principle;
- Inter-Generational Equity;
- Conservation of Biological Diversity and Ecological Integrity; and
- Improved Valuation and Pricing of Environmental Resources.

The following sections present a summary of the proposed development in the context of these principles. These matters are dealt with throughout the relevant sections of the EAR.

8.2 PRECAUTIONARY PRINCIPLE

a) the "precautionary principle", namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:

- (i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and*
- (ii) an assessment of the risk-weighted consequences of various options,*

Potential threats of environmental damage with regard to the proposed RDC are related to noise, air quality, biology, flooding and water quality. Other potential impacts relate to traffic, heritage, visual character and socio-economic effects. The impact of the proposal on all of the environmental factors are addressed in Section 7 of the EAR. The assessment undertaken involves evaluation of all factors and every stage in the assessment process is documented.

A description of the existing environment has been prepared and an environmental impact assessment has been undertaken based on scientific investigation and computer modelling. As the

impact assessment process possesses some degree of uncertainty as a precautionary measure, safeguards and mitigation measures have been proposed in respect of key impacts. The safeguards and measures are proposed in order to reduce potential threats of environmental damage.

The proposed RDC is designed in recognition of the need to prevent environmental impacts and its operation is predicted to cause minimal impacts which have no environmental consequences.

The environmental management practices and controls would be incorporated in the EMP including provision for environmental monitoring and contingency planning. These practices and controls would ensure that there would be a high level of environmental protection in the event that a situation related to the construction or operation of the RDC caused a threat to the environment.

8.3 INTER-GENERATIONAL EQUITY

b) "inter-generational equity", namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,

The proposed RDC is designed in recognition of the need to prevent environmental damage both on the development site and in adjoining areas. The remnant native vegetation on the site would be protected and enhanced through a restoration programme. This would facilitate maintenance of the community in the adjoining Nurragingy Reserve. Angus Creek would be protected with bridgework designed to minimise impacts on the streamflows and aquatic ecology. Other measures have been incorporated in the RDC design to prevent impacts on flooding, the noise environment in adjacent areas and on local and regional air quality.

The proposal to utilise rail for the long distance haulage of bulk construction materials to the RDC site would result in reduced greenhouse gas emissions, lower fuel usage and improved road safety compared to the road alternative.

This proposal is consistent with the principle of Inter-Generational Equity namely that it would enhance the health, diversity and productivity of the environment potentially impacted by this proposal, so that it is maintained or enhanced for the benefit of future generations.

8.4 CONSERVATION OF BIOLOGICAL DIVERSITY AND ECOLOGICAL INTEGRITY

c) "conservation of biological diversity and ecological integrity", namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,

Previous use has disturbed the proposed development site. Remnant vegetation remains in the Angus Creek riparian zone and adjoining areas. The proposed RDC has been designed to minimise disturbance to these communities and to the ecology of the creek. While there would be some impact on native vegetation communities the EMP proposes protection of these core areas and a programme of restoration and enhancement of the vegetation communities and the creek. This would enhance the ecological integrity of the vegetation corridor and the adjoining communities in the Nurragingy Reserve.

Erosion and pollution control measures would minimise any potential impacts on Angus Creek which drains into Eastern Creek. The monitoring programme incorporated in the EMP would ensure that the environmental control measures are operating to prevent environmental damage.

8.5 IMPROVED VALUATION, PRICING AND INCENTIVE MECHANISMS

d) *"improved valuation, pricing and incentive mechanisms", namely, that environmental factors should be included in the valuation of assets and services, such as:*

- (i) polluter pays, that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,*
- (ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,*
- (iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.*

The construction and operating costs of the proposed RDC include the establishment and maintenance of environmental controls, site environmental management and environmental monitoring.

The purpose of the proposed development is to maintain the supply of construction materials to the Sydney market at a competitive price while preventing environmental damage and minimising the impact of transportation of the materials. In addition it optimises the use of existing transport infrastructure by using rail for bulk materials transport and the Sydney motorway network for distribution to customers.