GSA PLANNING

ENVIRONMENTAL ASSESSMENT

Concept Plan - Central West Regional Road/Rail Freight Terminal at

Great Western Highway, Kelso, Bathurst

Prepared for:
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ABBREVIATIONS

AADT	-	Average Annual Daily Traffic
ARTC	-	Australian Rail Track Corporation Ltd
BCA	-	Building Code of Australia 2004
BLALC	-	Bathurst Local Aboriginal Land Council
BRC	-	Bathurst Regional Council
DCP	-	Development Control Plan
DOP	-	Department of Planning
DLWC	-	Department of Land and Water Conservation
DPI	-	Department of Primary Industries
EA		Environmental Assessment
ECRTN	-	Environmental Criteria for Roads Traffic Noise
EIS	-	Environmental Impact Statement
ENCM	-	Environmental Noise Control Manual
EP&A	-	Environmental Planning and Assessment (Act, 1979)
EPA	-	Environmental Protection Agency
GWH	-	Great Western Highway
GWR	-	Great Western Railway
INP	-	Industrial Noise Policy
LEP	-	Local Environmental Plan
LGA	-	Local Government Area
NGLG	-	Noise Guide for Local Government
NSW	-	New South Wales
OCB	-	Orange,Cabonne and Blayney
OHS	-	Occupational Health and Safety
OSD	-	On-Site Detention
PFM	-	Planning Focus Meeting
RBL	-	Rated Background Noise Levels
REP	-	Regional Environmental Plan
RICC	-	Rail Infrastructure Corporation - Country
RTA	-	Roads and Traffic Authority
SEPP	-	State Environmental Planning Policy
TEU		Twenty Foot Equivalent Container Units
VMP	-	Vegetation Management Plan

SUBMISSION OF ENVIRONMENTAL ASSESSMENT

Prepared under the Environmental Planning and Assessment Act 1979

EA prepared by	
Name	George Karavanas
Qualifications	BTP MEngSc MPIA MAITPM
Address	95 Paddington Street, Paddington
In respect of	Central West Regional Road/Rail Freight Terminal
Part 5 activity	
Proponent Name	SLOBOBAX P/L
Proponent Address	Suite 2/142 Spit Road, Mosman
Land on which activity to be carried out:	Great Western Highway, Kelso, Bathurst
Project	Road/Rail Freight Terminal
Environmental Assessment	An Environmental Assessment (EA) is attached
Declaration	I declare that I have prepared this Environmental Assessment to the best of my knowledge: • It has been prepared in accordance with the relevant provisions of the Environmental Planning and Assessment Regulation 2000; • The information which it contains is neither false or misleading information.
Signature	
Name	George Karavanas
Date	22 December 2005

EXECUTIVE SUMMARY

1.0 Introduction

This report is prepared to assess the likely impacts of a major project, which involves development of the land in accordance with a Concept Plan for a Road/Rail Freight Terminal, Great Western Highway, Kelso.

The project is a unique opportunity to contribute to the increased efficiency of land transport in NSW, by creating a road/rail freight terminal for the Bathurst region. The proposed rail freight terminal responds to the need for such facilities that has been expressed at national and state levels of government and is supported by interested groups.

The proposed facility is strategically located some 4km from Bathurst with the Great Western Highway (GWH) and the Great Western Railway (GWR) forming its northern and southern boundaries. It has the large site area necessary to accommodate a major rail and road freight interchange. Its proximity to Bathurst provides employment opportunities for residents that will benefit the city and surrounding communities and will provide a service to locally and regionally based agricultural and rural industries that have already expressed interest in using the facility.

The proposal is classified as a Major Project under Part 3A of the Environmental Planning and Assessment Amendment as advised by the Minister and the Minister is the consent authority.

The application is for concept approval for a proposed freight-handling complex at the above-mentioned property. The applicant intends to stage the development over approximately 10 years and will seek further approvals, commencing with Stage 1, on approval of the concept.

This report has also considered the findings of a number of specialist reports including: Noise Assessment; Indigenous Heritage Assessment Aboriginal; Flora and Fauna Assessment; Preliminary Assessment of Muldoons Quarry Kelso, NSW for Contamination; Preliminary Assessment of Reedy's Orchard Kelso, NSW for Contamination; Hydraulic Services Report; Traffic and Parking Report; Rail Construction and Operational Options and Director-Generals Requirements that were previously issued by DOP for an EIS prior to the enactment of planning reforms that have introduced provision for approval of major projects under Part 3A.

This report contains eleven (11) sections which include an Introduction, Site Analysis, Consideration of the Existing Environment Factors, Description of the Project, Consultation, Strategic Assessment, Planning Controls Assessment, an On-Site and Off-Site Environmental Assessment of the Likely Impact of the Project, a Justification of the Project. The final section contains a Conclusion, Recommendations and a Draft Statement of Commitments.

2.0 Site Analysis

Bathurst is located approximately 200kms west of Sydney and within the Bathurst Region Local Government Area. Bathurst is served by the Great Western Railway that links Bathurst with Sydney to the east and centres to the north, south and west via the state rail network.

The site is located to the south of the Great Western Highway approximately 4km east of Bathurst Town Centre. The site has a northern frontage to the Great Western Highway and a southern frontage to the Great Western Railway, providing a total site area of 29.81ha. The south-eastern part of the site comprises the former Kelso Gravel Quarry. The site is also bisected by an intermittent watercourse (referred to as the Main Watercourse), which runs from the southeastern corner to the middle of the site's Great Western Highway frontage. In addition, a drainage trench is located along the northern frontage and joins the Main Watercourse, approximately in the middle of the site. The site is currently vacant of any improvements with the exception of one dwelling on the Great Western Highway frontage and a centrally located derelict structure (formerly a small abattoir) close to the Main Watercourse.

Development in the surrounding area comprises a mix of rural, industrial, service business and residential. In addition, the site is located approximately 650m from any established residential area, while land to the north opposite is zoned for residential use.

The social economic characteristics of Bathurst and its surrounds are positive in terms of population growth, business and employment opportunities, which provides a sound basis for the proposed rail/freight terminal to service a range of primary and secondary industries in the region.

3.0 Existing Environment

As part of the site assessment a detailed flora and fauna study was carried out. The assessment indicates that approximately 10% of the site's area has been disturbed by the previous use of granite gravel quarrying and a long history of agricultural land. The site has been extensively cleared of native vegetation and exotic species occur in tightly configured corridors within the Northern Watercourse and the Main Watercourse. The fauna populations at the site are low as a consequence of land degradation and limited habitat diversity. In terms of amphibian and reptilian species, no small terrestrial native mammal species were observed or are likely to occur on the study area due to lack of habitat diversity. However, based on potential habitat resources within the immediate vicinity of the site and the listings recorded in nearby locations, an "Eight Part Test" was undertaken to determine whether any threatened species or communities would be significantly affected by future development.

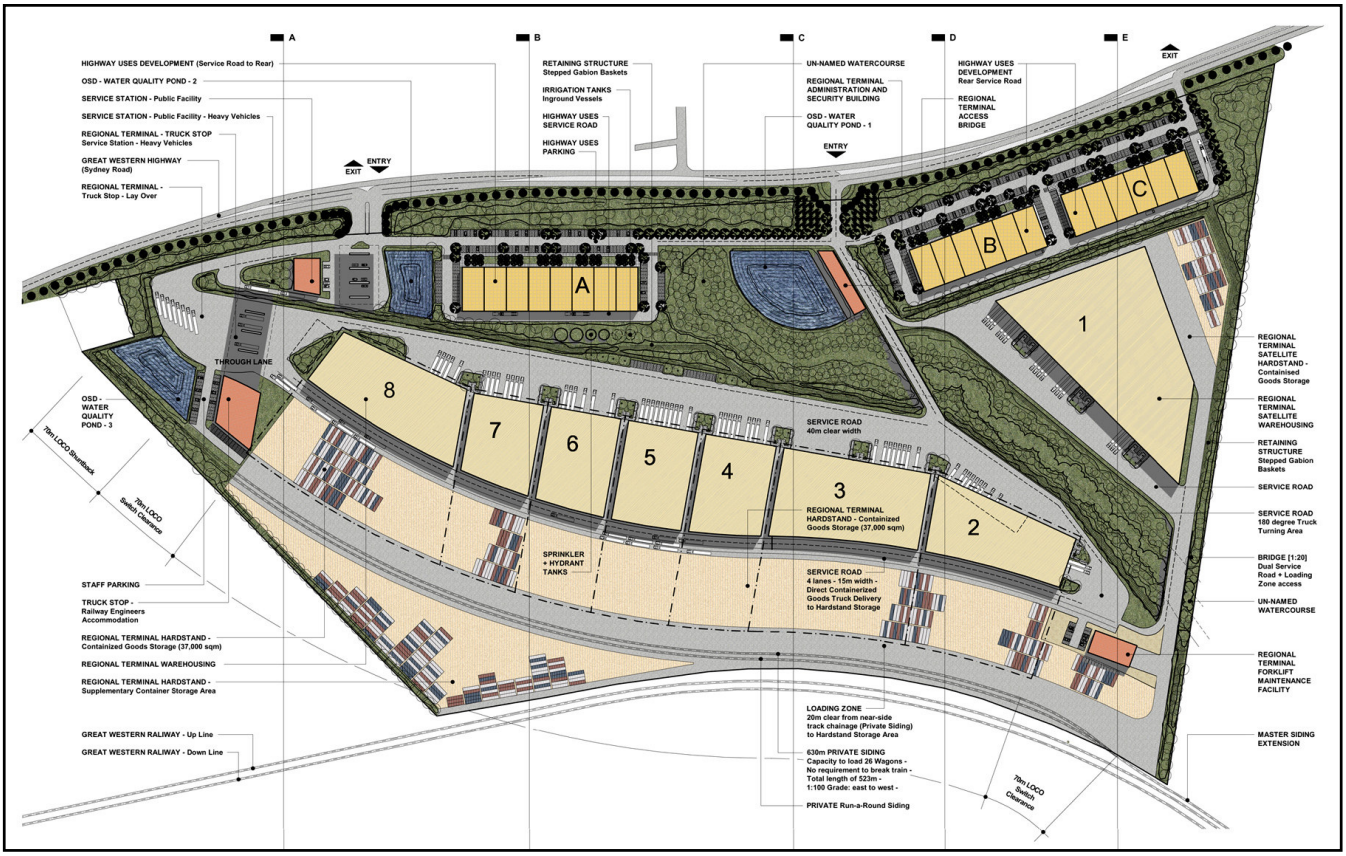
There are existing services available to serve future development, which will be upgraded or augmented as required based on further detailed analysis.

Existing noise level were recorded prior to assessing the potential noise impact on the surrounds, to ascertain the typical noise levels as a result of ambient conditions, traffic on the Great Western Highway and the trains on the Great Western Railway.

4.0 The Project

The proposal is for a Concept Plan approval of a Road / Rail Freight Terminal at Kelso. The Concept comprises:

- Rail Infrastructure – connection to existing rail lines to form a double private siding;
- Road Network including Site Access and Internal Roads;
- Containerised Goods Storage - Hardstand Areas;
- Regional Terminal Warehousing;
- Regional Terminal Warehousing – Support facilities;
- Highway Uses; and,
- Service Station.



Concept Plan

The project would result in approximately 61,910m2 of gross floor area (GFA) of buildings, which would approximate a Floor Space ratio (FSR) of 0.25:1 would be well within Bathurst Council FSR Controls for similar uses, such as service business and warehousing in industrial zones (FSR 1:1).

Mellor Gray Architects have prepared concept plans for the project. The future construction work will be in accordance with the building envelopes shown conceptually in the drawings, but the overall details in terms of building design, internal layout and building materials will be subject to detailed drawings and specifications prepared for the future applications.

The Concept Plan Application will be followed with further applications for approval, commencing with Stage 1, in accordance with a Staging Plan developed by the proponent.

5.0 Consultation

The project has been the subject of consultation with various government agencies, interested community groups and local business representatives that could be potentially affected by future development. This consultation has enabled potential issues of concern to be identified early in the Concept design process to ensure that potentially adverse impacts can be mitigated or avoided, and that the necessary investigations to be undertaken are identified. The overall outcome of the consultation is considered to confirm the suitability of the site for development as a Road / Rail Freight Terminal, borne out by this assessment.

6.0 Strategic Assessment

It is considered that the proposed rail fright terminal is consistent with relevant strategies obtained from Bathurst Council, which are currently under review in preparation for a new Draft LEP. These documents include an Urban and a Rural Issues/Discussion paper that draw on earlier plans, including the 1994 Structure Plan and the 1998 Retail Strategy.

The project rail freight terminal is considered consistent with the Structure Plan in terms of the key issues of land use, transport, economic considerations and highway uses, including bulky good retailing. The proposed highway uses will be located opposite land to the north that is zoned for business service development. The site will be able to accommodate up to 11,000m^2 of gross floor space, however, the development of the site for this purpose will take place in the later stage (Stage 4), and the site itself is anticipated to generate a demand for services, which may not otherwise arise.

A review of industry-based guidelines for intermodal terminals indicates that the project aligns with the key indicators for sustainability including capacity, volumes, location, distance from destination and economic considerations. A comparison with three (3) sites at Kelso (White Road) Blayney and Parkes, indicates that the project has a number of positive attributes that are not replicated at the other sites. The analysis confirms the suitability of the site, based on operational considerations and impacts, when compared with other facilities.

7.0 Planning Controls Assessment

The proposed freight terminal including the Rail Infrastructure, Containerised Goods Storage, Regional Terminal Warehousing, Truck Stop–Railway Engineers Accommodation, Service Station and Highway Uses including Bulky Goods Storage and Small Warehousing, are consistent with objectives (a) (c) and (d) of Zone 1 (a) and hence permissible with consent pursuant to the LEP.

The proposal is a Major Project under the above Section of Part 3A of the Act, and the Minister is the consent authority. This has also been confirmed by the Deputy Director General in a letter dated 14 September 2005.

The project, including the Concept Plan and further applications for approval of works will be consistently able to demonstrate with the relevant SEPPs, and Bathurst DCPs. Furthermore, future development will be consistent with the Disability Discrimination Act, Threatened Species Conservation Act and the Commonwealth EPBC act.

8.0 Environmental Envelope Assessment: On-Site

The on-site impact assessment includes the site access, built form, flora and fauna impact and indigenous and cultural heritage. The likely effects of hydraulics and services, soil contamination, potential hazard and risk, and waste management were also considered.

Vehicular access from the Great Western Highway will accord with the RTA recommendations to segregate trucks from other vehicle movements. The site will have service roads for the manoeuvring and movement of trucks within the site. In addition, the project will provide access for people with disabilities in accordance with various legislation, policies and standards and will be consistent with the Disability Discrimination Act, 1979.

An assessment of the existing flora and fauna survey indicates that future development would not have a significant impact on the ecology of the study area and he overall local and regional ecology.

Given that some threatened terrestrial fauna species have been identified as having the potential to occur on site and threatened amphibian species have been recorded in the vicinity of the site, an 'Eight Part Test' was carried out, which concludes that future development would not have a significant effect on any threatened species, populations or ecological communities or their habitats.

In order to retain and rehabilitate the Main Watercourse, the hydraulics serves report has developed design principles for future detailed design services. Other site services will be upgraded or augmented to provide for future development.

The assessment of Indigenous heritage indicates that no Aboriginal sites were located or Aboriginal artefacts detected on site. In addition, the potential for intact, undetected, sub-surface deposits is considered low and hence no further archaeological assessment is required and there are no constraints to future development. Similarly, the site is unlikely to contain any historical archaeological relics of significance and would be managed in accordance with statutory requirements in the unlikely event that a relic is exposed during construction.

In addition, a preliminary assessment for contamination indicates that the site is suitable for continued occupation and development subject to adopting the recommendations in the report.

The proposed facility does not involve potentially hazardous or offensive industry within the meaning of the relevant State policy and Bathurst LEP. Notwithstanding this status, future applications including those for underground fuel storage tank, rail operations, warehousing and the movement of goods will be designed, installed and operated in accordance with relevant statutory and regulatory controls. All waste will be managed in accordance with a Waste Management Plan to be submitted with the Stage 1 application.

9.0 Environmental Envelope Assessment: Off-Site

The off-site assessment includes an assessment of the acoustic and vibration, visual, traffic and, which is supported by detailed specialist consultant reports. Social and economical impacts have also been assessed.

In terms of noise and vibration, noise criteria during construction, and for future freight terminal operation, traffic, railway, warehousing and highway development, and service station have been established. In terms of construction noise, given the exiting traffic noise and the intermittent nature of the construction noise limited to daylight only, the construction noise is unlikely to have a significant impact on the surrounding development.

In terms of freight terminal operations, the noise likely to be generated is unlikely to cause sleep disturbance. In terms of train operations, the likely noise generated by the trains on site will meet the maximum noise goals. The predicted noise levels from trains at Raglan are likely to be lower than the existing noise levels. Although noise levels from the use of service station are likely to exceed sleep disturbance noise limits, they will be lower than the existing noise levels generated by the existing through traffic on Great Western Highway. Given that individual applications will be lodged in future for the warehousing sites, separate noise assessment will be required for those uses. The forklift operations of future development will satisfy the predicted noise criteria under normal weather. Conditions. Under adverse conditions, the proposed warehouses will provide an effective noise barrier to forklift noise, which may otherwise exceed noise criteria. In the interim, the landscaping will be established in stages and site measures will be incorporated to provide effective sound attenuation.

The visual analysis indicates that the project will have a low overall visual impact when viewed for key locations in the surrounds. Furthermore, the proposed building heights, scale, form and density will be in accordance with the concept. The materials, finishes and colours of the proposed building will be sympathetic to the surrounding development in order to minimise the visual impacts. In addition, the proposed landscaping will screen and soften the appearance of the buildings when viewed from the Great Western Highway.

The traffic to be generated by future development is unlikely to significantly affect the level of service, function or capacity of the surrounding road and intersections and is considered appropriate in terms of traffic and parking.

Accordingly, the project is unlikely to have a significant impact on the environment and surrounding development in terms of noise, views, traffic and railway operations. In addition, given the demand for such a facility in the region, the location and size of the site and potential for local employment, it is considered that the project will have positive social and economic impacts, and therefore is in the public interest.

10.0 Justification of the Project

The subject site has been selected considering its location some 4km west of Bathurst, which is an established manufacturing region and the size of the site, and is of the size necessary to accommodate a road/rail freight terminal. The site is also located adjoining the Great Western Highway and Great Western Railway. For these reasons, the site is considered to be more suitable for the proposed use as a Road/Rail Freight Terminal than other permissible uses. Failure to develop the site for the proposed road/rail freight terminal will result in an opportunity lost or delayed to use a site, which is particularly suited to the purpose of a road/rail freight terminal.

The need and justification for the project has been established by the proponent and accords with strategies for the Bathurst LGA. It aligns with National and State goals for improved transport infrastructure to support a rapidly growing Australian and regional economy. The project reduces the demand for road transport particularly over the Blue Mountains and consequently may assist reduce the number of fatalities on NSW highways. It will also provide a cost-effective long distance mode of transport that is less polluting than road transport.

Accordingly, the project will satisfy a demand established by the proponent, and is likely to promote substantial economic, social and environmental benefits to the region and therefore is considered justifiable. .

11.0 Conclusion and Recommendations

Conclusion

This application is for Concept Plan approval for a Road/Rail Freight Terminal at Kelso, Bathurst. The proposal is a Major Project under the above Section of Part 3A of the Act, and the Minister is the consent authority. This has also been confirmed by the Deputy Director General in a letter dated 14 September 2005. This application is the first of a staged process that will commence with an application for further approval of Stage 1. The Concept for the freight terminal includes truck access, railway sidings and interface, containerised goods storage yards, highway frontage uses, warehouse facilities and open storage areas, created as development sites for future applications, with parking for some 465 vehicles in total.

The project is a unique opportunity to contribute to the increased efficiency of land transport in NSW, by creating a road/rail freight terminal for the Bathurst region. The proposed rail freight terminal responds to the need for such facilities that has been expressed at national and state levels of government and is supported by interested regional and local groups.

The subject site is ideally located some 4km west of Bathurst, which is a growing manufacturing region. The site has the necessary attributes to accommodate a viable road/rail freight terminal measured in terms of industry development criteria considered critical to sustain such a facility. The site is also ideally located adjacent the Great Western Highway, Great Western Railway, with which it will be connected.

The site is within the 1(a) Inner Rural Zone pursuant to the Bathurst City Council Local Environmental Plan (LEP) 1997. The project, which comprises Rail Infrastructure, Containerised Goods Storage, Regional Terminal Warehousing, Truck Stop–Railway Engineers Accommodation, Service Station and Highway Uses including Bulky Goods Storage and Small Warehousing, are consistent with objectives (a) (c) and (d) of Zone 1 (a) and hence permissible with consent pursuant to the LEP.

In addition the project is considered consistent with relevant statutory controls including SEPP No. 55; the Contaminated Land Management Act; and Council's Contaminated Land Policy. It is also considered able to satisfy the requirements Commonwealth EPBC Act, 1999; Threatened Species Act 1995; and the Disability Discrimination Act, 1979.

An assessment of the potential impacts of future development in terms of flora and fauna, hydraulics, heritage, contamination, noise and vibration and the visual environment has been carried out and is detailed in the previous sections of this report.

The subject site presents moderate to low risk of contamination potentially deriving from past land uses at the Muldoons Quarry site, which however can be managed on further analysis. The Reddy's Orchard site, presents a negligible to very low risk of contamination potentially deriving from past orcharding land uses. However, subject to implementation of the recommendations, potential risk can be reduced to a negligible to low risk of contamination and is not considered to be at a level that would prevent the safe use of the site.

The environmental envelope assessment on-site and off-site indicates that the project will have acceptable impact in terms of noise and vibration subject, to the incorporation of recommended mitigation measures.

The visual analysis indicates that the project will have a low overall visual impact when viewed for key locations in the surrounds. Furthermore, the future buildings will be of a height, scale, form and density, and will accord with the Concept. In addition, the proposed landscaping will screen and soften the appearance of the buildings when viewed from the Great Western Highway to contribute positively as part of the gateway to Bathurst.

The project will provide a needed freight transport and support facility, which is likely to reduce the demand for road transport and consequently may contribute to a reduction in the number of fatalities on NSW highways. In addition, the project is likely to provide substantial economic, social and environmental benefits to the region. Failure to develop the site for the proposed road/rail freight terminal will result in an opportunity lost or delayed to use a site, which is particularly suited to the purpose of a road/rail freight terminal. Accordingly, for the reasons stated above, the project is considered to be in the public interest.

Recommendations and Draft Statement of Commitments

Based on the various specialist studies undertaken, the project is unlikely to have a significant impact on the local and regional environment and is considered appropriate, subject to compliance with the recommendations in respect of Traffic, Noise Assessment, Indigenous Heritage, Soil Contamination, Landscape and Hydraulic Services as well as appropriate site access, layout and building design in accordable with the Concept.

The Concept Plan is consistent with the recommendations, which have been incorporated in the project to obtain approval for this Concept Plan and specific aspects of the project or can be incorporated in subsequent approvals that will realise the project in its totality.

Adoption of the recommendations will ensure that the project results in positive environmental outcomes and management measures that will reduce or avoid environmental impacts.

For this reason, the report includes a Draft Statement of Commitments by SLOBOBAX that will be finalised on approval of the project. The contents are grouped in the following categories that are drawn from the recommendations contained in this assessment:

- Staging and design controls;
- Site access;
- Building and site design;
- Environmental managements;
- Site utilities and service; and,
- Site management.

Any involved party such as developer/contractor involved in the design, construction and operation phases will be required to undertake the project in accordance with the finalised commitments.

1.0 INTRODUCTION

This Environmental Assessment has been prepared for SLOBOBAX Pty Ltd on behalf of Mellor Gray Architects by Gary Shiels & Associates Pty Ltd – (hereafter referred to as GSA Planning). GSA Planning has expertise in Urban Design, Heritage, Environmental & Traffic Planning.

This Environmental Assessment (EA) is to accompany a Concept Plan Application (CPA) to the Minister for a Road/Rail Freight Terminal, Great Western Highway, Kelso. The proposal is a Major Project under the above Section of Part 3A of the Act, and the Minister is the consent authority. This has also been confirmed by the Deputy Director General in a letter dated 14 September 2005. The Concept Plan, which has been designed by Mellor Gray Architects, comprises an interstate freight terminal including truck access, railway siding and interface, containerised goods storage yards, highway frontage uses, warehouse facilities and open storage areas and parking for 465 vehicles. The applicant intends to stage the development over approximately 10 years and will seek further approvals, commencing with Stage 1, on approval of the concept.

The project is an opportunity to contribute to the increased efficiency of land transport in NSW, by creating a road/rail freight terminal on a suitable site for the Bathurst region. The proposed rail freight terminal responds to the need for such facilities that has been expressed at national and state levels of government and is supported by interested groups.

The proposed facility is strategically located some 4km from Bathurst with the Great Western Highway and the Great Western Railway forming its northern and southern boundaries. It takes advantage of the opportunity to link with the Great Western Railway in an optimum location that will avoid trains needing to enter the Bathurst yards to turn. It has the large site area necessary to accommodate a rail and road freight interchange at sustainable capacities. Its proximity to Bathurst provides employment opportunities for residents that will benefit the city and surrounding communities and will provide a service to locally and regionally based industries that have already expressed interest in using the facility.

The project is for a Concept Plan approval and does not seek approval of any physical works at this stage. However, it establishes the spatial relationship between future built elements and the landscape, as well as the indicative building scale, form, height and intensity (density) of the future development.

This report has considered a number of documents and other specialist reports relating to the project and the site. These documents include the following annexures to this report:

1. Architectural Drawings – Mellor Gray Architects;
2. Operations Summary - Mellor Gray Architects;
3. Proposed Rail Siding and Operational Requirements – WandS Solutions Pty Ltd;
4. Landscape Design Report - Guy Sturt & Associates;
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12. Hydraulic Services Report – Whipps Wood Consulting;
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16. Director-General's Requirements for an EIS and EA.

This document is divided into eleven (11) sections. In addition to this Introduction, the remaining sections include a Site Analysis, Consideration of the Existing Environment Factors, Description of the Project, Consultation, Strategic Assessment, Planning Controls Assessment, an On-Site and Off-Site Environmental Assessment of the Likely Impact of the Project, a Justification of the Project. The final section contains a Conclusion, Recommendations and a Draft Statement of Commitments.

2.0 SITE ANALYSIS

2.1 General

This section will provide a description of the region and the site, the site's built form and landscape, topography and soils and its flora and fauna. In addition, this section will also describe the site's surrounds, including the land uses and the road/rail network as well as regional characteristics and context.

2.2 The Region

Bathurst is located approximately 200kms west of Sydney and within the Bathurst Region Local Government Area. Set in the central tablelands by the Macquarie River, Bathurst is on the Great Western Highway west of Lithgow and situated at the junction of the Great Western and Mitchell Highways.

Bathurst is served by the Great Western Railway that links Bathurst with Sydney to the east and centres to the north, south and west via the state rail network (see Figure 1).

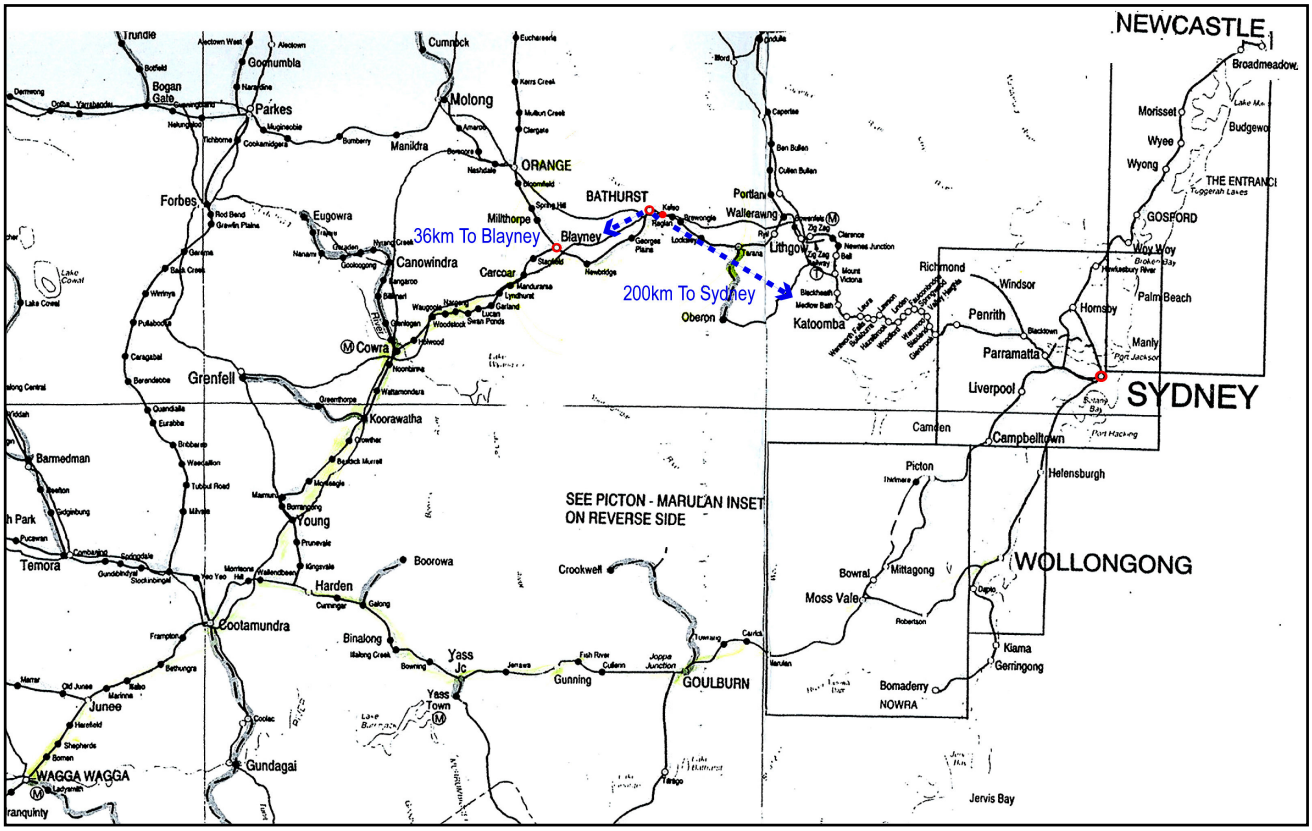


Figure 1: *Bathurst Region*

Source: Australian Railway Historical Society, NSW Division

2.3 The Site

The site is located to the south of the Great Western Highway approximately 4km east of Bathurst Town Centre (see Figure 2 and Photographs 1 and 2).

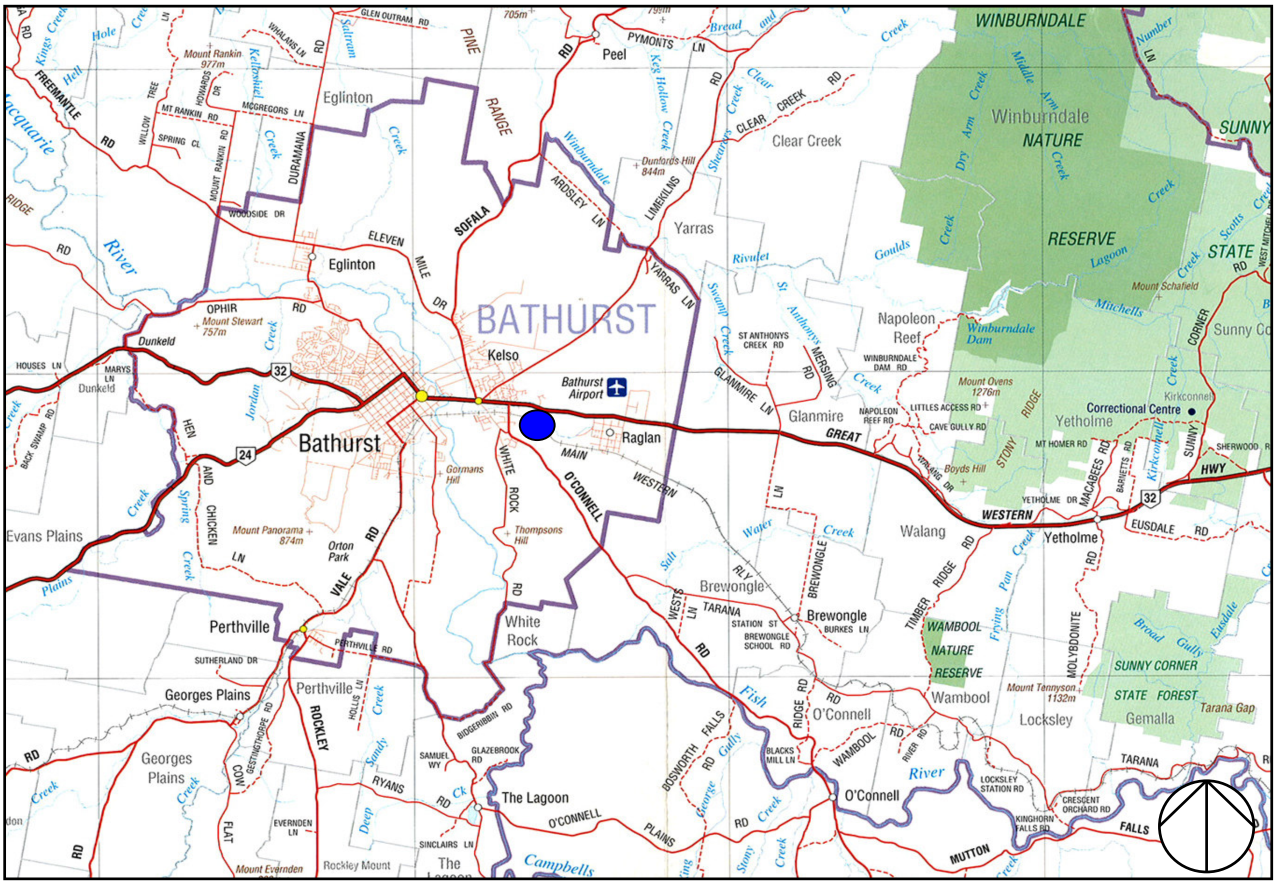


Figure 2: *Site Location*
Source: NSW Department of Lands, 2003

Photograph 1*: The site looking south, as viewed from the existing internal access road*

Photograph 2*: The site looking north, as viewed from the internal access road*

The site comprises two allotments, which are legally known as Lot 1 DP 164151, Lot 21 DP 137352, Lot 22 DP 137352, Pt 81 DP 755781, Pt 60 DP 755781, Pt 73 DP 755781 and Pt 68 DP 755781.

The site is an irregular parcel of land with a northern frontage of 900m to the Great Western Highway, an eastern boundary of 434.82m, a rounded 575m southern frontage to the Great Western Railway and a total western boundary of 279.43m, providing a total site area of 29.81ha (see Figure 3 and Photographs 3 and 4).

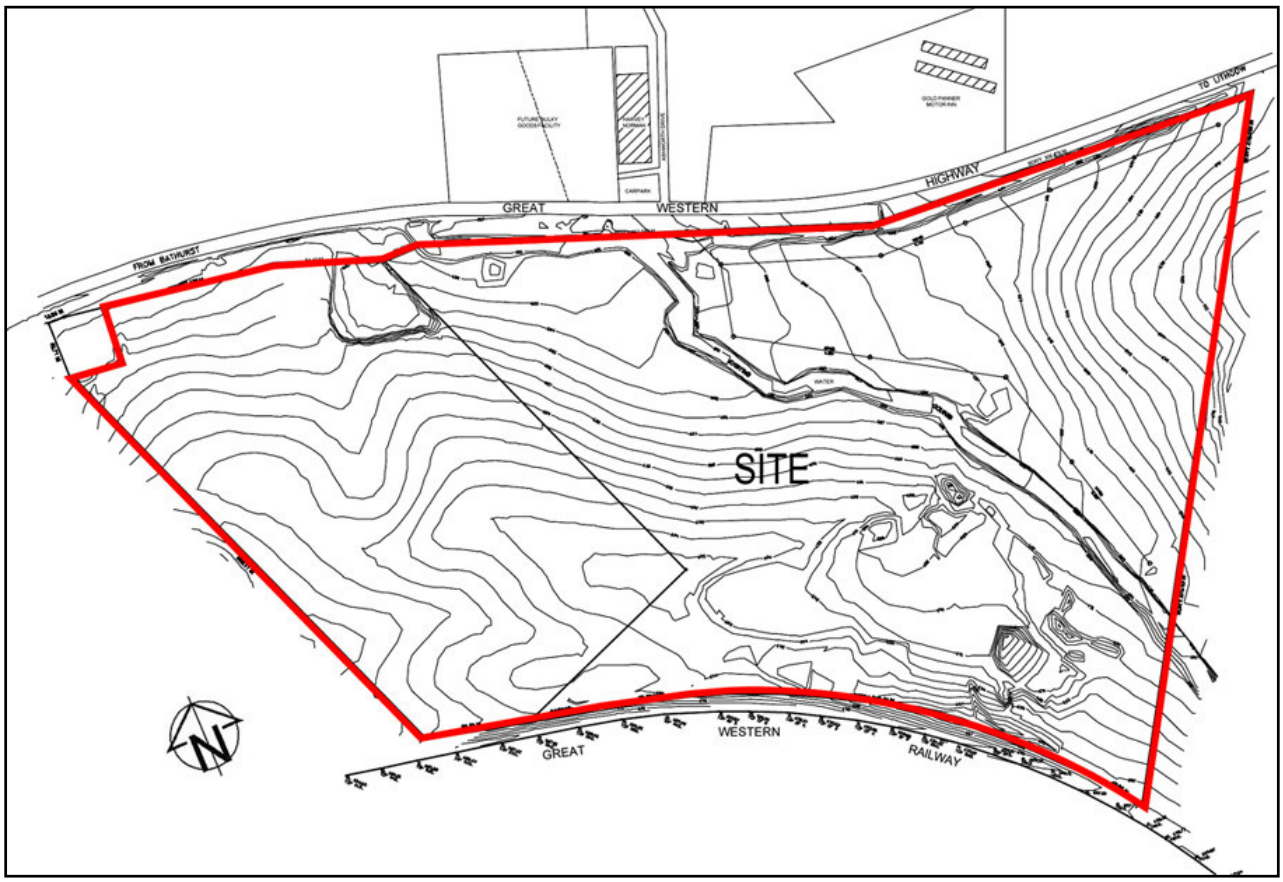


Figure 3: *Site Plan*

The site generally consists of lightly undulating open land. It contains an old decomposed granite (gravel) quarry (known as Kelso/Muldoon's Gravel Quarry) located in the southeastern portion of the site with numerous tracks and material stockpiles (see Photographs 3 and 4).

Photograph 3*: Old granite quarry on site looking south*

Photograph 4*: Stock piling on site*

The site is bisected by a narrow intermittent watercourse (Main Watercourse, a tributary of Raglan Creek), which runs from the southeastern corner to the middle of the site's Great Western Highway frontage.

In addition, a drainage trench is located along the Great Western Highway and joins the Main Watercourse approximately in the middle of the site. The information from the Bathurst Regional Council (BRC) and Roads and RTA officers indicates that an easement (road reserve) for the Great Western Highway extends along the centre line of the drainage channel.

2.4 Existing Built Form and Landscape

The site is currently vacant of any improvements with the exception of a dwelling on the Great Western Highway frontage and a centrally located small structure (the former Ingersole's Abattoir) close to the Main Watercourse (see Photographs 5 and 6). The site has been extensively cleared of native vegetation. Exotic trees occur in tightly configured corridors confined within the watercourse and along the Great Western Highway frontage.

***Photograph 5**: Existing dwelling close to the Highway frontage*

***Photograph 6**: The former Ingersole's Abattoir*

2.5 Topography and Soil

The topography of the site is generally lightly undulating, part of which has been disturbed by quarrying. It generally slopes from the southeastern and northeastern corners down to the Main Watercourse except at the former quarry, which forms a depression in the southeastern portion of the site. The site slopes from the southeast corner at maximum RL 699 to RL 689 approximately at the centre of the quarry. It rises again to RL 692 and then gradually slopes down to RL 681, on the western bank of the Main Watercourse approximately at the centre of the site. Likewise, the site slopes from the northeastern corner at maximum RL 701 to RL 683, on the eastern bank of the Main Watercourse approximately at the centre of the site.

The geology of the site has characteristics of the Bathurst and Raglan regions, which are part of the Bathurst Batholith group, known as the Bathurst Granites. The site has variable soil types. The contamination study undertaken by Central West Envirotech states that the soils on site are generally sandy, due to the proximity of granodiorite/granite bedrock. The general soil type along the western edge of the Main Watercourse includes greyish brown sandy loam to sandy clay loam. In the vicinity of the quarry to the southwest, the sandy loam is generally yellowish brown becoming sandy clay with depth.

The yellow brown sandy clay is limited to the west of the watercourse. To the east of the watercourse, approximately from the centre of the site to the eastern boundary, the soil consists of a reddish brown sandy clay loam. Towards the Great Western Highway frontage, the soil generally is brown sandy loam to sandy clay. All soils in general are underlain by decomposed granite at shallow depths of around 0.5m, which is a compacted material suitable for use as hardstand.

2.6 The Surrounds

Development surrounding the site comprises a mix of rural, industrial, service business and residential. The closest residential development in proximity, with the exception of a dwelling within the site, is located on the opposite side of the Great Western Highway. The existing residential area to the north of the Great Western Highway is located at a distance of approximately 650m from the site. The surrounding development which may be potentially effected by the project includes the Gold Panners Motor Inn and Ashworth Estate to the north of the site, Caravan Park to the north of the Gold Panners Inn, Diamond Close to the northwest of Ashworth Drive, Sundowner Drive to the west of Diamond Close and the Scots School further south of the site (see Figure 4).

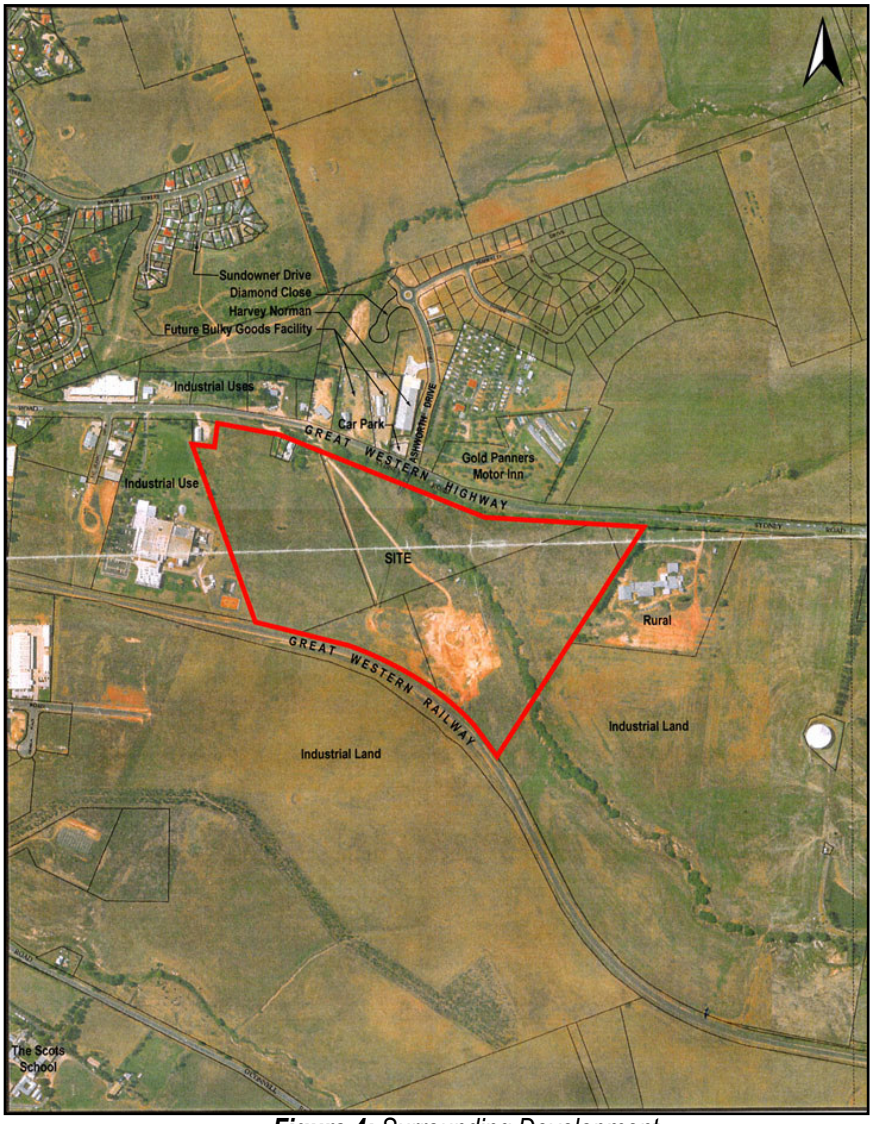


Figure 4: *Surrounding Development*

Immediately to the north, on the opposite side of the Great Western Highway is the "Gold Panner Motor Inn" and rural land (to the east of Ashworth Drive). Also to the north is a Harvey Norman Store and carpark, a Stocklands bulky goods development and other retail uses including a pet shop and a horse and riding supplies use (to the west of Ashworth Drive) (see Photographs 7 to 10).

***Photograph 7**: The Pet Shop to the north*

***Photograph 8**: The Horse and Riding Supplies Store to the north*

***Photograph 9**: The creek to the north on the opposite side of the Great Western Highway*

***Photograph 10**: The Harvey Norman store to the north*

To the east, south and west is rural and industrial land (see Photographs 11 to 12). To the south is railway land. Further south is more industrial land. On the rural land to the west is a food processing complex (Devro Pty Ltd) (see Photographs 13 and 14).

***Photograph 11**: Development to the east with frontage to the Great Western Highway*

***Photograph 12**: Industrial land to the east*

***Photograph 13**: Railway land to the south*

***Photograph 14**: Devro Pty Ltd to the west*

2.7 The Surrounding Road and Rail Network

2.7.1 The Surrounding Roads

As indicated, the site has a northern frontage to the Great Western Highway and a southern frontage to the Great Western Railway. The Great Western Highway is a two lane undivided road, carrying two way traffic in an east direction towards Lithgow and Sydney and a west direction towards Bathurst (see Photographs 13 to 16).

***Photograph 13**: The Great Western Highway east of the existing access*

***Photograph 14**: The Great Western Highway west of the existing access*

***Photograph 15**: The Great Western Highway looking west from the site's eastern extremity*

***Photograph 16**:The Great Western Highway looking east from the site's western extremity*

The Great Western Highway, in the vicinity of the site has an Average Annual Daily Traffic (AADT) figure of 19,713 (in 2002). The Highway comprises 60km/h and 80km/h speed limits. The Highway along the eastern part of the site's frontage is subject to the 80km/h speed limit and the western part is subject to the 60km/h limit. Further details are provided in the Traffic and Parking Report prepared by GSA Planning (see Annexure 13).

2.7.2 Rail Tracks

Immediately to the south of the site is the Great Western Railway track and rail corridor, which has two lines. One line carries rail traffic to the east (Down Line) towards Lithgow and Sydney, while the other line carries rail traffic to the west (Up Line) towards Bathurst and beyond (see Photographs 17 and 18).

***Photograph 17**: The Great Western Railway looking southwest*

***Photograph 18**: The Great Western Railway looking southeast*

The existing rail infrastructure at Raglan also includes a Master Siding from the main western line. Its use for this project was considered however was determined to be unnecessary, as considered in the annexed report on the Proposed Rail Siding and Operational Requirements, prepared by Wands Solution (see Annexure 3).

2.7.3 Car Parking

Currently, there is no formalised car parking available on the site. A single vehicular access is currently available from the Great Western Highway toward the north west end of the site.

2.8 Regional Characteristics and Context

As indicated, Bathurst is located approximately 200kms west of Sydney. Bathurst has remained one of Australia's fastest growing regional centres following the transformation of the economy by the discovery of gold in 1851. It later became the centre of an important coal mining and manufacturing region. Today it is a regional service centre that contains a number of large manufacturing industries specialising in food, timber, railway locomotives and transport.

The Bathurst Region Local Government Area (LGA) is 3,815km^2 and was formed through the amalgamation of the Bathurst City Council and the Evans Shire Council in May 2004. The social and economic profile of the LGA is described in the Bathurst Region Statistical Profile, prepared by Bathurst City Council in 2005. Key characteristics that relate to this project have been extracted from the profile and are briefly summarised as follows.

2.8.1 Population

The estimated resident population of Bathurst Regional Council was 34,720 (May 2004). This represented a 19% increase since 1991, making Bathurst the fastest growing inland centre in New South Wales as at June 2003, with Dubbo showing the next highest growth.

The population of the Central West Region is expected to increase by 12,400 over the period 2001 to 2031, reaching a population of 180,000 by 2031. (A second estimate, giving the population within a 100km radius of Bathurst is quoted at 224,868 (2001). It is anticipated that greatest population increase in the Central West Region will be in the regional cities of Bathurst and Orange. Bathurst is expected to add 9,500 people to reach a total population of 40,120 in 2031. The former Evans Shire LGA, the majority of which has been incorporated into the Bathurst LGA, is expected to reach a population of 6,490 by 2031.

In comparison with New South Wales, Bathurst City Council had a comparatively young population at the 2001 census. However, as with all areas in the Central West Region, there is a relative deficiency of young adults, which is expected to continue.

2.8.2 Business and Employment

In 1997 the greatest number of businesses by industry in the part of the LGA that was formerly Bathurst City was retail trade (18.38%), property and business services (13.21%) and construction (12.02%). The sectors that employed the most the people were education, retail trade, manufacturing and health and community services. The major industry employers in Bathurst are retail trade, manufacturing, education and health and community services, all of which experienced general growth between 1986 and 2001.

In the part that was formerly Evans Shire, agriculture, forestry and other rural businesses predominate (84.4%) following by manufacturing (1.71%). The highest employment was in agriculture, forestry, fishing and hunting, then manufacturing, retail trade, health and community services.

Bathurst unemployment rate is slightly less than that of New South Wales as a whole (4.8% in 2002 June). Total employment in Bathurst City Council has grown by 23% between 1986 and 2001, which has outpaced the population growth of 15.2% during the same period. Therefore, the continued economic growth of the region appears to be positive, and supports the need for suitable infrastructure such as the proposed rail/freight terminal.

2.8.3 Principal Economic Activities

Bathurst has a range of primary and secondary industries that can potentially be served by the proposed intermodal freight terminal. In the primary sector, these industries include sheep and cattle, livestock, grains and agricultural produce for processing and export; forestry industries mined and quarried materials, a number of which have expressed interest in using the proposed terminal.

In the secondary industry sector there is a range of industries that have also indicated interest in using the proposed terminal. These include food manufacturing and processing, including frozen seafood products, edible sausage casings, pet food, meat products and wine. Other manufacturing industries include construction materials, and furniture. In addition there are minerals and petroleum products, and a range of timber products, including milled timber, treated pine, particleboard and pine board flooring, and softwoods. It is noted that forestry is identified as a growing industry in the region.

2.8.4 Surrounding Centres

Bathurst is in close proximity to the regional centres of Dubbo, Orange and Cowra in Cowra Shire in addition to Blayney Shire, which has a strong agricultural and mining base. Blayney Shire is part of the Central West Economic Development Group, a region dominated by agriculture (19.2% of Blayney's economy, Rural Health Education Database, v1.8). The town of Blayney, which is 36km west of Bathurst, is a major centre for surrounding agricultural producers and a flourishing grazing and dairying district.

There is high volume of bulk and containerised freight transported in the area, a large proportion of which is currently interchanged at Blayney to provide a direct import-export rail link to the Sydney Ports. In addition there is a road/rail freight terminal at Parkes, which is approximately 155km from Bathurst. This terminal primarily supports interstate (domestic) distribution of goods.

A feasibility study of freight transport from and to Orange, Cabonne and Blayney (OCB) was undertaken by Western Research Institute. The report states that an efficient and low cost freight transport and logistics industry is important for the continued economic development of the OCB region. Given the central location of the region, growing population and a strong and diverse economy, the Bathurst region is considered a good location for a road/rail freight transport hub.

Bathurst Council approved a road/rail freight terminal at White Road in 2001. This facility has not been developed to date. The subject project is intended to serve growing primary and secondary industry and complement existing and proposed freight transport in the region, as discussed in Section 6.0 and 8.0 of this assessment and considered in the annexed report prepared by Wands Solutions (see Annexure 3).

2.9 Summary

Located 4km to the east of Bathurst, the site is a large elongated parcel of land (approximately 29.81ha) with frontage to the Great Western Highway and the Great Western Railway along its northern and southern boundaries respectively.

The site is currently vacant of any improvements with the exception of a dwelling on the Great Western Highway frontage and the centrally located former Ingersole's Abattoir. The south eastern part of the site comprises the former Kelso/Muldoon's Gravel Quarry. The site is also bisected by an intermittent Main Watercourse, which runs from the southeastern corner to the middle of the site's Great Western Highway frontage. In addition, a drainage trench is located along the northern frontage and joins the Main Watercourse, approximately in the middle of the site.

Development in the surrounding area comprises a mix of rural, industrial, service business and residential. In addition, the site is located approximately 650m from any established residential area, while land to the north opposite is zoned for residential use.

The Great Western Highway is a two lane undivided road that links Bathurst with Sydney to the east via Lithgow and connects with the Mitchell Highway to the west. The main rail corridor comprises of two lines carrying traffic to the east and west direction.

The social economic characteristics of Bathurst and its surrounds are positive in terms of population growth, business and employment opportunities, which provides a sound basis for the proposed rail/freight terminal to service a range of primary and secondary industries in the region.

3.0 EXISTING ENVIRONMENT

3.1 General

This section will describe the existing environment including flora and fauna, hydrology and services, visual character, and the existing noise levels in respect of surrounding land uses.

3.2 Flora and Fauna

A Flora and Fauna Assessment has been undertaken by Geolyse Pty Ltd, which outlines the existing vegetation on the site (see Annexure 9). A summary of the flora and fauna identified in that Assessment will now be provided.

3.2.1 Flora

The report states that approximately 10% of the site's area has been disturbed by the previous use of granite gravel quarrying and a long history of agricultural land. The site contains of two dominant vegetation communities, which include agriculturally modified grassland (pastureland) and a degraded riparian corridor. The site has been extensively cleared of native vegetation and exotic species occur in tightly configured corridors within the drainage channel and the Main Watercourse.

The existing vegetation is dominated by a range of exotic trees include Poplar, Willow, Radiata, Stone-fruit trees, Elm, African Boxthorn and Blackberry. The commonly recorded grassland community, which has been partially mown across accessible flats and low slopes, includes Bird Rape (*Brassica rapa*), Paterson's Curse (*Echium plantagineum*), Wild Oats (*Avena fatua*), Clover species (*Trifolium sp.*), Capeweed (*Arctotheca calendula*), Prickly Lettuce (*Lactuca serriola*), Phalaris (*Phalaris acquatic*), Curly Windmill Grass (*Enteropogon acicularis*), Kykuyu (*Pennisetum cldestinum*), Scotch Thistle (*Onopordum acanthium*), Saffron Thistle (*Carthamus lanatus*), Wheatgrass (*Elymus scaber*), Cocksfoot (*Dactylis glomerate*), Barley Grass (*Hordeum leporinum*) and Perennial Ryegrass (*Lolium perenne*).

Vegetation along Great Western Highway frontage has been heavily modified by earthworks, alterations to drainage, weed management and mowing. While the grassland within and adjacent the Great Western Railway easement is less modified and contain higher proportion of native forbs and grasses including Kangaroo Grass (*Themeda australis*), Vanilla Lily (*Arthropodium milleflorum*), Lomandra species, Wallaby Grass (*Danthonia sp.*), White Top (*Austrodanthonia caespitose)*, Australia Carrot (*Daucus glochidiatus*), Poa tussock and Narrow-leaf Clover (*Trifolium angustifolium*).

The riparian corridor, which is restricted to within the watercourse/channel and on the immediate upper banks, consists of a narrow and connective belt of willow dominated vegetation. Species growing on the banks and dry bed of the channels include Knob Sedge, Tall Spike Rush (*Eleocharis sphacelate*), Common Rush (*Juncus usitatus*), Yorkshire Fog (*Holcus lanatus*) and Cumbungi (*Typha domingensis*).

The original native woodland found in the locality has been extensively cleared and highly modified throughout the locality and no trace of this community is present on the site.

3.2.2 Fauna

The fauna populations at the site are low as a consequence of land degradation and limited habitat diversity. Robust urban and agriculturally associated species use the area for foraging and shelter habitat and include Magpie, Currawoung, Sparrow, Noisy Miner and Eastern Rosella.

Small flocks of Starling were identified along the fence lines and on open pastureland to the east and west of the study area. Small bird species including Weebill, Yellow Thornbill and Super Blue Wren were observed within the riparian corridor of the Raglan Creek. Common raptor species were observed on the site which include, Australian Kestrel, Black Shouldered and Brown Falcon. The report has identified three terrestrial fauna species, comprising Common Bent-wing Bat (*Miniopterus schreibersii*) Greater Broad-nosed Bat (*Scoteanax rueppellii*) Greater Long-eared Bat (*Nyctophilus tmoriensis*) as having the potential to occur on the site.

In terms of amphibian and reptilian species, no small terrestrial native mammal species were observed or are likely to occur on the study area due to the lack of habitat diversity. Only two frog species were recorded from the small pools within the Main Watercourse and include the Brown Froglet (striped form) (*Crinia parinsignifera*) and Spotted Marsh Frog (*Limnodynastes tasmaniensis*).

No vegetation communities or plant species of local, regional or state conservation significance were identified on the site. In addition, no threatened flora or fauna species or communities were recorded on the site. However, the threatened amphibian species which include the Green and Golden Bell Frog (*Litoria aurea*) and the Booroolong Frog (*Litoria booroolongensis*) have been recorded as occurring in the Bathurst region. The report also suggests that the threatened Trout Cod (*Maccullochella macquariensis*) and Murray Cod (*Maccullochella peelii*) are likely to be present in the region. For this reason an 'Eight Part Test' has been undertaken as part of the flora and fauna assessment to determine whether any threatened species or communities would be likely to be significantly affected by the project. This assessment is discussed in Section 8.4.

3.2.3 Stream Water Quality

Water quality measurements of the standing pools were taken to determine the water quality in order to ascertain the aquatic ecology as part of the flora and fauna assessment. The reports states the following; inter alia:

> "Alkalinity levels were 270 mg/L. Such values are typical of surface waters and would also be considered to fall within the typical range of Australian reticulated drinking water supplies.
>
> Electrical Conductivity (EC) levels were 798 µS/cm. The EC levels within this pool of water fall below the Interim Water Quality Objective (WQO) value of <1500 µS/cm specified for 'aquatic ecosystems' in the Macquarie-Bogan River catchment (DEC, online).

> PH levels were 6.9 pH units. The observed levels fall within the desired range of 6.5-9.0 pH units specified for 'aquatic ecosystems' in the Macquarie-Bogan River catchment (DEC, online).
>
> Turbidity levels were below the interim WQO value (<5 NTU) at low levels (high clarity) with only 1 NTU detected.
> Although the diurnal range was not established, dissolved oxygen levels (obtained mid afternoon) were very low with only 0.17 mg/L detected. Such levels fall below the Interim WQO value of >6 mg/L for 'aquatic ecosystems' in the Macquarie-Bogan River catchment. Such levels are likely due to oxygen-depleting conditions as a result of the high amounts of decomposing organic matter observed within the pools of water sampled, combined with the stagnant flow conditions observed at the time of sampling."

Accordingly, the above measurement establishes the existing steam water quality for the purpose of the flora and fauna report. The values measured were within desired range with the exception of dissolved oxygen levels, which were below optimum levels for aquatic organisms.

3.3 Hydrology and Services

A Hydraulic Services Report has been prepared by Whipps-Wood Consulting, which describes the existing hydrology and services on the site (see Annexure 12). A summary of the existing hydrology and services in that Assessment will now be provided.

3.3.1 Existing Watercourses

As indicated, the existing Main Watercourse bisects the site. It enters the site on the southeastern boundary and extends to approximately the middle of the site at Great Western Highway frontage (see Photographs 19 and 20). The Main Watercourse has undergone considerable disturbance from quarrying, grazing and cropping. Shed remnants and abandoned car bodies are evident midway along the watercourse (see Photographs 21 and 22). In addition, an existing drainage channel is located along part of the Great Western Highway frontage. The channel extends from the northwestern boundary and intersects the Main Watercourse approximately at the centre of the site at Great Western Highway frontage. After the point of intersection, the Main Watercourse flows north and drains via a series of culverts beneath the Great Western Highway. Both the watercourses contain semi-permanent waterhole soakage areas.

***Photograph 19**: The Main Watercourse on site looking east*

***Photograph 20**: The Main Watercourse viewed from the internal access road*


***Photograph 21 and 22**: Abandoned car bodies along the Main Watercourse*

3.3.2 Services

Two sewer lines traverse the site and include a 375mm carrier main from the adjacent Raglan industrial area and a 150mm house service line which serves the adjoining property to the east of the site. The 375mm sewer line follows the route of the Main Watercourse within the site while the 150mm house service line is laid within the easement.

A BRC Carrier Water Main is located between the northern site boundary and the Great Western Highway.

A gas main is located within the Great Western Highway and does not transverse or impede the site.

Other essential services including electricity and telecommunications are also available to serve future development, and will be upgraded or augmented as required based on further detailed analysis.

3.4 Visual Character

The site is generally lightly undulating with two intermittent watercourses and contains two dominated vegetation communities, which include pastureland and degraded riparian corridor.

The visual character of the environs of the site is predominantly open rural land to the east with urbanisation occurring to the west. This results in a visual contrast between the rural land and more urban development that includes industrial, service business and residential uses along the Great Western Highway. Apart from the residential building to the east of the site and an industrial building to the west of the site, the area in the vicinity of the site, south of the Great Western Highway has a more rural character with some industrial use evident.

Key locations (termed visual receptors) from which views to the site may be potentially affected by future development of the site have been identified from their location and topography. They are identified in the visual assessment prepared by Mellor Gray Architects to ascertain the potential visual impacts of the project as viewed from the key locations (see Figure 5 and Annexure 6).

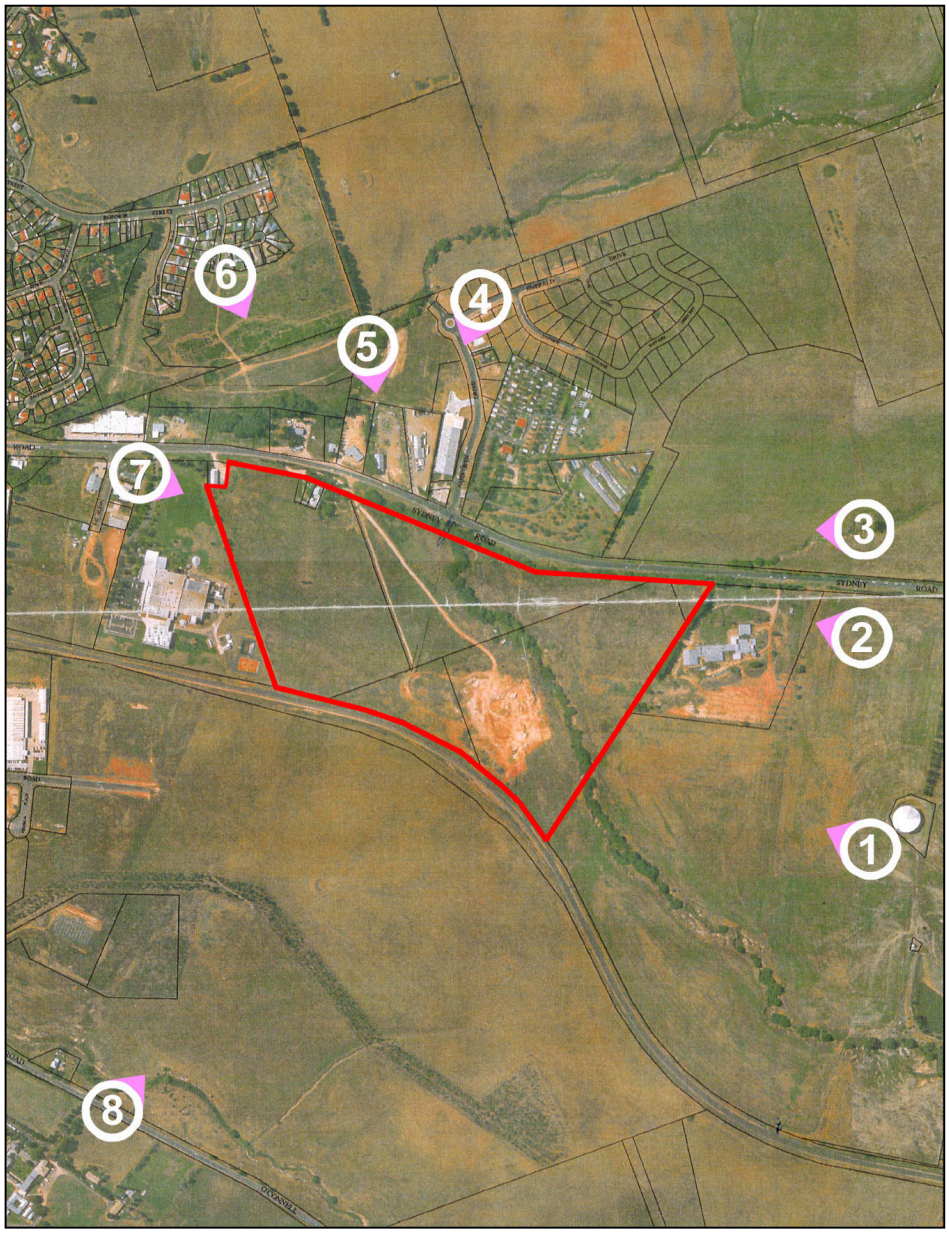


Figure 5: *Visual Receptor Locations*
(Note that Mount Panorama is also identified but not indicated on this plan.)

3.5 Acoustic Environment

A Noise Assessment has been undertaken by Indigo Acoustics to address the potential noise impact of future development on the surrounding residences (see Annexure 7). The primary source of noise in the vicinity of the site emanates from the traffic on the Great Western Highway and the trains on the main railway line.

Existing noise levels over a 7day period were measured at two sites and at three sites over a 9 day period, to ascertain the typical noise levels encountered by residents as a result of ambient conditions, traffic on the Great Western Highway and the trains the main railway line. The noise levels were measured on following sites, which include industrial, residential areas and a school (The Scots School), which may be potentially effected by future development.

- Location 1 - Approximately 50m east of the house on the site at a similar setback to the house from the Highway.
- Location 2 - At the Gold Panner Motor Inn.
- Location 3 - At No.13 Ashworth Drive (north of the site on the opposite side of the Great Western Highway)
- Location 4 - At the Scots School further south of the site.
- Location 5 - At No.22 Cross Street, Raglan (nearest established residential area to the west of the site).

The background noise levels in terms of Rated Background Noise Levels (RBL's) are summarised in Table 1.

TABLE 1: SUMMARY OF MEASURED BACKGROUND NOISE LEVELS (L_{A90})

Location	Daytime 7am – 6pm	Evening 6pm – 10pm	Night time 10pm – 7am
House on site	46 dB(A)	46 dB(A)	39 dB(A)
Gold Panner Motor Inn	42 dB(A)	40 dB(A)	35 dB(A)
No.13 Ashworth Drive	37 dB(A)	39 dB(A)	36 dB(A)
The Scots School	46 dB(A)	40 dB(A)	36 dB(A)
No.22 Cross Street, Raglan	39 dB(A)	39 dB(A)	36 dB(A)

Source: Indigo Acoustics, July 2005

The existing traffic noise levels in terms of L_{Aeq} for a period of 15 hours during the day and 9 hours during the night for the 3 locations close to the highway are summarised in Table 2.

TABLE 2: SUMMARY OF MEASURED TRAFFIC NOISE LEVELS (LAEQ,PERIOD)

Location	Daytime 7am – 10pm	Night time 10pm – 7am
House on site	56 dB(A)	55 dB(A)
Gold Panner Motor Inn	56 dB(A)	53 dB(A)
No.13 Ashworth Drive	54 dB(A)	48 dB(A)

Source: Indigo Acoustics, July 2005

A noise assessment has been undertaken in Section 9.2 of this report to ascertain the potential impacts of future development on the surrounds.

3.6 Summary

As part of the site analysis, detailed flora and fauna, hydraulics, visual and acoustic assessment was undertaken by specialist consultants.

The flora and fauna report states that around 10% of the site's area has been disturbed by the previous use of granite gravel quarrying and a long history of agricultural use. The site has been extensively cleared of native vegetation and exotic species occur in tightly configured corridors within the Main Watercourse and the drainage channel that adjoins the Great Western Highway. The fauna populations at the site are low as a consequence of land degradation and limited habitat diversity. In terms of amphibian and reptilian species, no small terrestrial native mammal species were observed or are likely to occur on the study area due to lack of habitat diversity. However, based on potential habitat resources within the immediate vicinity of the site and the listings recorded in nearby locations, an "Eight Part Test" was undertaken to determine whether any threatened species or communities would be significantly affected by future development, which is further considered in Section 8.4 of this report.

In addition, there are existing services available to serve future development, which will be upgraded or augmented as required based on further detailed analysis.

Existing noise level were recorded prior to assessing the potential noise impact on the surrounds, to ascertain the typical noise levels as a result of ambient conditions, traffic on the Great Western Highway and the trains on the Great Western Railway.

4.0 THE PROJECT

4.1 General

The section will describe the project, the objectives and the operations of the project, details of the project, operations and management and proposed staging and implementation.

4.2 Description of the Project

The proposal is a Road/Rail Freight Terminal at Kelso, Bathurst, for which this is an application for Concept Plan approval. The proposed Road/Rail Freight Terminal comprises two main components. The main element is for a regional rail/road freight terminal at the rear of the site with associated loading/unloading areas (hardstand) and warehousing. The secondary component is the Great Western Highway frontage uses comprising service business and bulky goods warehousing, a service station and a truck stop. The project also involves associated infrastructure and services, and environmental improvements, including the rehabilitation of the existing watercourse.

4.3 Objectives of the Proposed Road/Rail Freight Terminal

The objectives of this project are as follows:

- To develop an efficient road/rail freight transport and logistics terminal at Bathurst within close proximity to Sydney, and which also provides a direct link to Melbourne;
- To maximise the use of land transport modes;
- To increase efficiency in the movement of freight;
- To provide storage facilities in association with the freight terminal;
- To restore the existing degraded watercourse; and,
- To operate the facility in accordance with current best practice in accordance with NSW Environmental Protection Authority (EPA) environmental guidelines, and other recognised design and operational standards.

4.4 Operation of the Proposed Road/Rail Freight Terminal

4.4.1 Capacities

As indicated in the annexed report by Wands Solutions, Slobobax proposes to operate the proposed road/rail freight terminal at an initial capacity of 24,336 Twenty Foot Equivalent Container Units (TEUs) per annum, which equates to 1 train per day for 6 days per week, with a maximum capacity of 73,008 TEU's per annum (3 trains per day) for 6 days per week.

4.4.2 Origins/ Destinations

As advised by Slobobax the freight will be drawn from a range of primary and secondary industries in the region that have already expressed interest in using the facility. These industries are located in the Bathurst, Blayney, Dubbo/Mudgee, Kandos, Manildra, Oberon, Orange and Sydney, however the project is not restricted to these locations. The traffic routes are discussed in the Traffic Report by GSA Planning.

As indicated in the report by Wands Solutions, it is anticipated that the majority of rail movements will be to and from Port Botany in Sydney however rail paths to Newcastle, Port Kembla, Brisbane or Melbourne can be readily accessed. The road and rail network has capacity to handle the movement of those foods as assessed in the accompanying reports.

4.4.3 Operational Scenarios

The operations that will be undertaken on site for the transfer the goods from the origin to the destination are likely to accord with four scenarios in each direction. As indicated in Figure 5, the four scenarios involved in the transfer of goods to either Sydney (or other NSW rail ports Newcastle, Port Kembla) or Melbourne/Brisbane as follows:

Scenario 1
The goods and produce from the surrounding region will be delivered by semi trailers to the site either on pallets or as separate items. The warehouse facilities will be used to transfer the goods from pallets into containers to be directly loaded onto a train and transported to either Sydney or Melbourne/Brisbane destinations.

Scenario 2
Similar to Scenario 1, goods and produce will be delivered to the site either on pallets or as separate items. Goods delivered on pallets will be transferred into containers in the warehouses. Depending on the availability of a train, the containerised goods will be stored for a short term on the hardstand area to the south of the warehouses to be loaded onto a train and transported to either Sydney or Melbourne/Brisbane destinations.

Scenario 3
The pre-containerised goods and produce that are delivered to the site will be stored for a short term on the hardstand area to the south of the warehouses to be loaded onto the next available train and transported to either Sydney or Melbourne/Brisbane destinations..

Scenario 4
In the fourth case scenario, pre-containerised goods and produce will be delivered to the site. Similar to Scenario 1, these containers will be directly loaded into a train to be transported to either Sydney or Melbourne/Brisbane destinations.

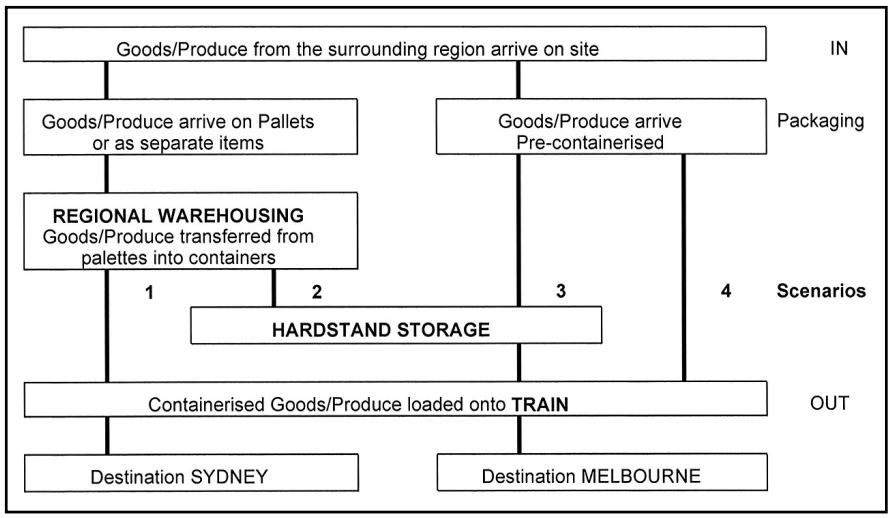


Figure 6: *Scenarios for transfer the goods from the origin to the destination*

4.5 Details of the Proposed Freight Terminal

The proposed Road/Rail Freight Terminal has been designed following detailed consultation with the Australian Rail Track Corporation Ltd (ARTC), and initial discussions with the RTA and other agencies and groups as discussed in Section 5.0.). The proposed terminal comprises the following principal elements:

- Rail Infrastructure – connection to existing rail lines to form a double private siding;
- Road Network including Site Access and Internal Roads;
- Containerised Goods Storage - Hardstand Areas;
- Regional Terminal Warehousing;
- Regional Terminal Warehousing – Support facilities;
- Highway Uses; and,
- Service Station.

The summary details of the project are as follows (see Figure 7 and Table 3).

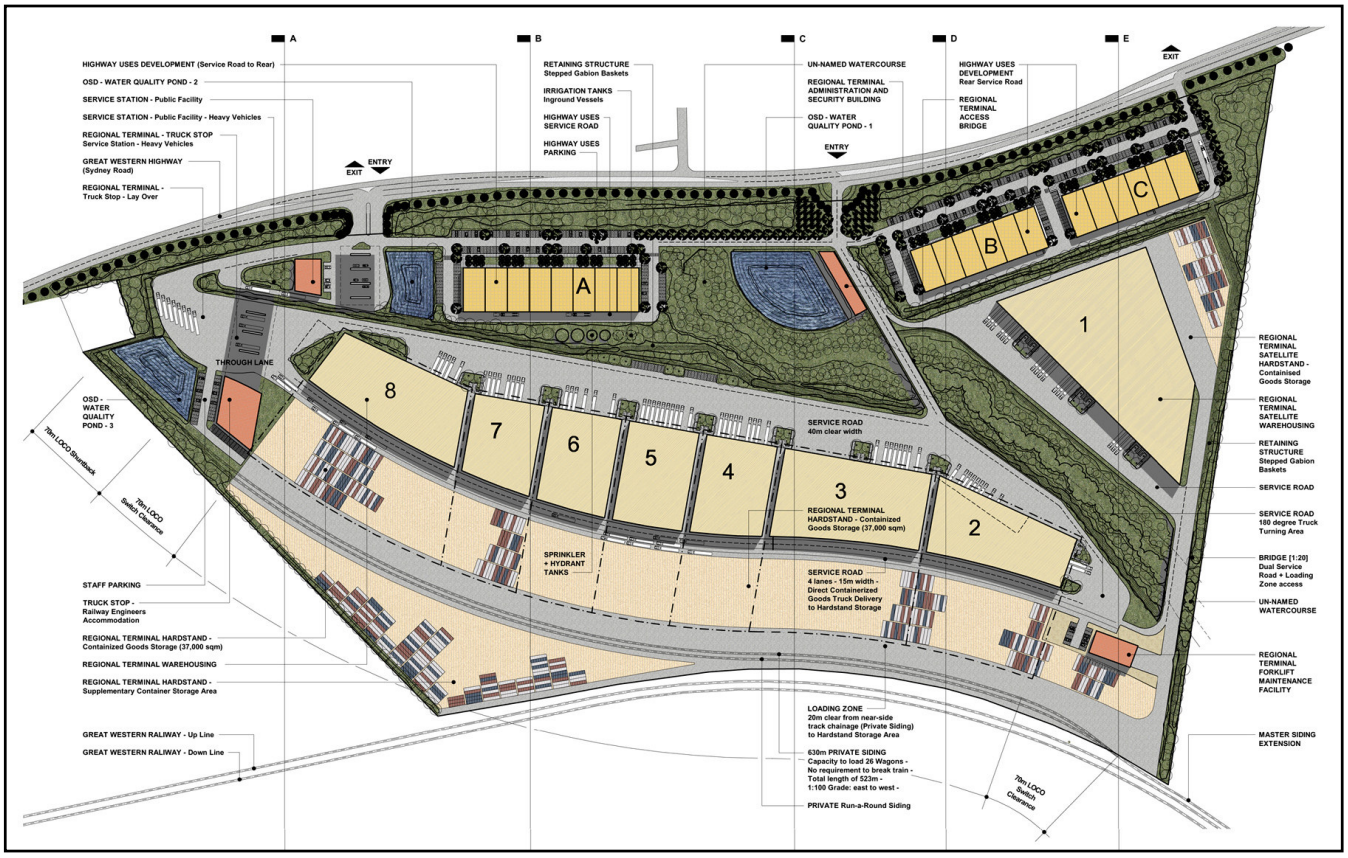


Figure 7: *Concept Plan*

The proposed uses, gross floor areas of the buildings and allocated car parking are summarised below (see Table 3).

TABLE 3: DETAILS OF THE PROJECT			
Site No.	**Use**	**Car parking Details**	**Gross Floor Area**
Site 1	Warehousing	52 car spaces	13,000m^2
Site 2	Warehousing	22 car spaces	5,250m^2
Site 3	Warehousing	29 car spaces	7,125m^2
Site 4	Warehousing	16 car spaces	3,995m^2
Site 5	Warehousing	17 car spaces	4,135m^2
Site 6	Warehousing	16 car spaces	3,990m^2
Site 7	Warehousing	15 car spaces	3,520m^2
Site 8	Warehousing	26 car spaces	6,260m^2
Admin & Security bldg	Admin & Security	12 car spaces	1,060m^2
Railway Engineers Facility – Truck Stop	Railway Engineers Facility – Truck Stop	2 car spaces	1,215m^2
Forklift Maintenance bldg	Forklift Maintenance	6 car spaces	590m^2
Bulky Goods A	Bulky Goods	88 car spaces	4,500m^2
Bulky Goods B	Bulky Goods	66 car spaces	3,375m^2
Bulky Goods C	Bulky Goods	66 car spaces	3,375m^2
Service Station	Service Station	32 car spaces	520m^2
TOTAL		**465 car parking spaces**	**61,910m^2**

The gross floor area equates to a Floor Space Ratio of approximately 0.2:1.00 and would be unlikely to exceed 0.25:1 based on the Concept layout. This FSR would be well within Bathurst Council FSR Controls for similar uses, such as service business and warehousing in industrial zones (FSR 1:1).

4.5.1 Rail Infrastructure - Proposed Siding

Two private sidings each of 630m in length will connect with the main western line as described in the report by Wands Solutions (see also Figure 5, Drawing 1277 – MP – 002, Annexure 1).

The two private sidings within the site will extend from the southeastern edge of the site to the northwestern portion of the site with points at either end to provide locomotive run-around (change ends) facilities. The double siding rail design will allow 567m length trains (2 loco/26 wagon) to enter and exit the site in a forward direction.

A main line crossover on the Sydney side will be installed to provide direct access to the main line. The crossover will be operated by motorised points and remote control. The proposed private sidings will utilise motive power and rolling stock from an existing operator on the ARTC Network.

4.5.2 Vehicular Access

As indicated, the northern boundary of the site fronts the Great Western Highway from three access points, which will be provided to the complex. The proposed access arrangements segregate the heavy vehicle movements associated with the freight terminal and light vehicle movements associated with the highway uses, in accordance with the RTA recommendations.

The site will have service roads for the manoeuvring and movement of trucks, which will be line marked for clear interpretation of traffic direction. The eastern-most access point (Access No.1) will provide an egress only driveway that serves the highway frontage uses. The access point approximately at the centre of the site (Access No.2) will comprise an ingress only driveway that serves the highway frontage uses as well as the warehousing at the rear. The western-most point (Access No.3) will comprise a combined ingress and egress driveway that serves the service station and highway frontage uses as well as providing a designated exit for terminal delivery vehicles. These access/egress arrangements will be supported by upgrades to the Great Western Highway at the intersections to provide safe access to the site as detailed in the Traffic and Parking Report prepared by GSA Planning.

4.5.3 Internal Road Network

Palletised Goods Service Road

The project incorporates two Palletised Goods Service Roads. The first Palletised Goods Service Road will be located to the southwest of the Regional Terminal Warehouse Site 1 (see Drawing 1277-MP-002, Annexure 1). This service road will have access from the left hand slip lane adjacent to the Administration and Security Building. This proposed maximum width of 40m will allow a B-Double trucks to reverse into the docks.

The second Palletised Goods Service Road will be located immediately to the north of Regional Terminal Warehouse sites 2 to 8 (see Drawing 1277-MP-002, Annexure 1) and will have access from the southern end of the Main Bridge. The proposed maximum width of 40m will allow B-Double trucks to reverse into the docks. The road will have a double cross fall with a maximum gradient of 1:100 from east to west (following the gradient of the Private Siding) and south to north (to reduce the overall impact of the retaining structures on site).

This road is intended to be one-way to the east of the bridge and two-way to the west. The two way section of the road will facilitate the vehicular movement on the road. If required, vehicles will be able to reach the destination by making a loop via the Containerised Goods Service Road to the south of the Regional Terminal Warehousing sites 2 – 8 without leaving the site. The project incorporates landscaped area along the boundaries of both the service roads adjacent the Main Watercourse either at the top or bottom of the proposed retaining structure (Gabion baskets), which will act as a buffer between the service roads and the Main Watercourse.

Containerised Goods Service Road

The project incorporates a Containerised Goods Service Road located to the south of the Regional Terminal Warehousing sites 2 – 8. This road will allow for delivery of pre-containerised goods/produce to either the Hardstand area or for direct transfer from trucks to the train and will have access from the second Palletised Goods Service Road from the east.

The proposed road will have a maximum width of 15m allowing a four lane carriageway comprising two traffic lanes in western direction and two kerbside parking lanes. The road will have a double cross fall with a maximum gradient of 1:100 from east to west (following the gradient of the Private Siding) and south to north (to shed water to the northern kerb).

Car Parking

Car parking for the various uses will generally be located at the front of the buildings. Heavy vehicles and loading areas will be located at the rear of the buildings accessed via service roads. A total of 465 car parking spaces will be provided on site to serve the various uses. The access and car parking are described in detail in the Traffic and Parking Report (see Annexure 13).

4.5.4 Containerised Goods Storage - Hardstand Areas

The project will provide three areas of hardstand, which include the Main Hardstand Area, the Second Hardstand Area and the Third Hardstand Area. The Main Hardstand Area will be located immediately to the north and parallel to the private siding. It will facilitate transfer of goods and produce from storage/trucks to trains. This area will have a storage area of approximately 35,520m2, and will be approximately 53m wide, which will allow for the storage of 4 stacks of 40-foot (12.2m) containers or 8 stacks of 20 foot (6m) containers. The proposed width will also allow for sufficient space between the stacks for container identification purposes. The Main Hardstand Area will be bounded by a service road to the north and the loading zone to the south.

The Second Hardstand Area will be located to the east of the satellite warehousing in the northeast corner of the site and will have a storage area of approximately 3,075m^2. This hardstand area will be for the exclusive use of the satellite warehousing.

The Third Hardstand Area, which will be used as a supplementary container storage area, will be located in the southwest corner of the site. This hardstand area will have an area of approximately 13,585m^2, and is intended to be used as a storage area for surplus containers that return from Sydney (or other) destinations. This area will provide a temporary storage facility in lieu of the Main Hardstand Area, which might hamper the loading operations from the Main Hardstand Area to the train.

All three hardstand areas will be adequately illuminated in accordance with Australian Standards. Lighting will be suitably located and designed to prevent any obtrusive impacts on the operations of trains using the Great Western Railway.

4.5.5 Regional Terminal Warehousing

The project includes eight development sites (Regional Terminal Warehousing) to provide warehouse facilities and open storage areas. Seven of the eight sites (Sites 2 – 8), will be located to the north of the Main Hardstand Area and to the south of the Main Watercourse.

The largest site (Satellite Warehousing, Site 1) will be located to the north of the Main Watercourse and in the northeast corner of the site (see Drawing 1277-MP-002, Annexure 1). Each site will have an associated hardstand area. The proposed warehouse facilities will comprise approximately 47,275m^2 of gross floor area (GFA) on ground level and an additional 10% on mezzanine level providing a total GFA of approximately 52,000m^2.

It is anticipated that the eight sites for the proposed warehouses will be leased or sold to regional businesses and will be subject to future applications for approval by the individual owners/lessees. It is also anticipated that one of the sites could be operated as a Quarantine Export facility. Such a quarantine facility is considered a "future enhancement", to be an elective for a future operator, subject to obtaining the necessary approvals. The proposed Concept is not contingent on the provision of this facility, however the Concept recognises it as a future opportunity. The Quarantine facility could potentially reduce dockside delays at Sydney.

4.5.6 Regional Terminal Warehousing – Support facilities

The support facilities for the Regional Terminal Warehousing will include the Administration and Security Building, Truck Stop – Railway Engineers Accommodation and Forklift Maintenance Facility (see Drawing 1277-MP-002, Annexure 1).

A two storey combined Administration and Security Building will be located to the east of the On-Site Detention (OSD) Pond 1 and will comprise approximately 1,060m^2 of floor area (see Drawing 1277 – MP- 002). This building will be strategically placed in the vicinity of the access to sight every arriving truck. It is anticipated that administration of any future quarantine functions could also be accommodated in this building.

The Truck Stop – Railway Engineers Accommodation Building will be approximately 1,215m^2 of gross floor area and will be located in the northwest portion of the site. This building will accommodate railway engineers' administration and accommodation facilities. In addition, amenities such as toilets, showers / change rooms, canteen and lounge areas and payment counter associated with the Service Station – Heavy Vehicles, will also be located in this building.

The Forklift Maintenance Facility will be accommodated in a building located in the southeast corner of the site. This building will contain approximately 590m^2 of gross floor area to accommodate facilities associated with forklift maintenance as well as associated administration and amenities.

4.5.7 Highway Uses

The proposed highway frontage use will comprise approximately 11,250m^2 of gross floor area to be located along the Great Western Highway frontage. The Highway Uses will be created as twenty (20) future development sites, which would include bulky goods storage, small warehousing, and rural produce suppliers, without restricting those uses that would also be permissible in accordance with the LEP:

The northeastern portion of the site will accommodate twelve (12) sites, where eight (8) sites will be located further to the west. The buildings will be well set back from the highway frontage to provide for a landscaped setting commensurate with the site's future as part of the gateway to Bathurst.

4.5.8 Service Station

The proposed services station will comprise separate facilities for heavy vehicles and for general (public) use. The public service station will include fuelling facilities, petrol retailing and food service facility which would operate as an eat-in or take way facility of the type usually associated with such facilities. The service station for heavy vehicles will include a truck fuelling facility, dedicated for the delivery trucks.

An underground fuel storage tank will be installed for the supply of the fuel. Installation of the fuel tank, supply line and refuelling equipment will be undertaken in accordance with the manufacturers and Industry/Australian Standards and EPA requirements.

4.5.9 Built Form

The Concept Plan includes a series of drawings prepared by Mellor Gray Architects, that establish the conceptual site layout, and design parameters for the future built form, which include setbacks as summarised in the Envelope Controls included in Drawing 1277 –MP- 011 (see Annexure 1). These drawings establish in broad terms, the site design levels for bulk earthworks, building envelopes for future buildings an appropriate density based on maximum height setbacks and landscaped area and building heights. The drawings are accompanied by a Draft Statement of Commitments that defines the design parameters for the site, in broad terms that will augmented in the Stage 1 submission. In addition, the statement incorporates objectives to ensure a high standard of building design, and materials quality. The proposed buildings will be constructed of suitable, durable materials. The external finishes and materials will be suited to their context and be appropriately subdued in order to reduce any potential visual impacts. They will also incorporate non-reflective materials to minimise potential hazards and nuisance from reflected sunlight.

4.5.10 Rehabilitation of the Main Watercourse

In accordance with DOP Guidelines for Watercourse and Riparian Zone Planning and Design, it is proposed to substantially retain, restore and maintain the existing Main Watercourse and the riparian corridor. The principles related to the hydraulic services have been described in the Hydraulic Services Report (see Annexure 12).

Consultation with the RTA suggests that the Great Western Highway has been identified for future capital works for duplication of the highway. Hence the section of the drainage channel along the northern boundary of the site is proposed to be conveyed through culverts to address the safety issues raised by the RTA. In addition, to address the safety issues, it is also proposed to reconstruct a section of drainage channel with culverts that will be of sufficient capacity to maintain the stormwater flows and integrity of the creek.

4.5.11 Bridges

Given that it is proposed to retain the watercourse, the Concept Plan involves construction of two vehicular bridges to facilitate the proposed vehicular movement. The Main Bridge will be located to the south of the Administration and Security Building and will have access from Access No.2. The second bridge (Bridge No.2) will be located adjacent to the eastern boundary to the south of the Warehousing Site 1.

Bridge No.2 will provide access to the Warehousing Site 1 and associated hardstand and service roads. In order to minimise the impact of the construction of the bridges, no foundation or support will be located within the banks of the watercourse or the watercourse itself.

4.5.12 Internal Road Network

Palletised Goods Service Road

The project incorporates two Palletised Goods Service Roads. The first Palletised Goods Service Road will be located to the southwest of the Regional Terminal Warehouse Site 1 (see Drawing 1277-MP-002, Annexure 1). This service road will have access from the left hand slip lane adjacent to the Administration and Security Building. This proposed maximum width of 40m will allow a B-Double truck to reverse into the docks.

The second Palletised Goods Service Road will be located immediately to the north of Regional Terminal Warehouse sites 2 to 8 (see Drawing 1277-MP-002, Annexure 1) and will have access from the southern end of the Main Bridge. The proposed maximum width of 40m will allow a B-Double truck to reverse into the docks. The road will have a double cross fall with a maximum gradient of 1:100 from east to west (following the gradient of the Private Siding) and south to north (to reduce the overall impact of the retaining structures on site).

This road is intended to be one-way to the east of the bridge and two-way to the west. The two way section of the road will facilitate the vehicular movement on the road. If required, vehicles will be able to reach the destination by making a loop via the Containerised Goods Service Road to the south of the Regional Terminal Warehousing sites 2 – 8 without leaving the site. The project incorporates landscaped area along the boundaries of both the service roads adjacent the Main Watercourse either at the top or bottom of the proposed retaining structure (Gabion baskets), which will act as a buffer between the service roads and the Main Watercourse.

Containerised Goods Service Road

The project incorporates a Containerised Goods Service Road located to the south of the Regional Terminal Warehousing sites 2 – 8. This road will allow for delivery of pre-containerised goods/produce to either the Hardstand area or for direct transfer from trucks to the train and will have access from the second Palletised Goods Service Road from the east.

The proposed road will have a maximum width of 15m allowing a four lane carriageway comprising two traffic lanes in western direction and two kerbside parking lanes. The road will have a double cross fall with a maximum gradient of 1:100 from east to west (following the gradient of the Private Siding) and south to north (to shed water to the northern kerb).

4.5.13 On-Site Detention

The project involves construction of some 52,160m^2 of hardstand area in addition to the internal road works, which is likely to generate significant stormwater flows. To accommodate the excess stormwater flow and to maintain the water quality, three on-site detention (OSD) ponds are proposed to be constructed which will be located away from the rail corridor (see Drawing 1277-MP-002 submitted separately).

The storage capacity of the ponds is based on DOP guidelines for flow protection. It is assumed to be at 320m^3/ha with an outflow on a 1 in 5 year pre-development outflow.

In accordance with the ARTC recommendations, the water quality ponds will be strategically positioned to accommodate the collection of stormwater from the areas adjacent to the rail corridor. The hardstand areas will slope away from the rail corridor to protect the corridor from stormwater flows.

4.5.14 Rainwater Harvesting

Given that the scale of the project will result in a large roof area, the Hydraulic Services Report proposes rainwater harvesting to facilitate on site irrigation as well as for toilet flushing.

4.5.15 Landscaping

A Landscape Plan and Landscape Design Report has been prepared by Guy Sturt and Associates, which outlines the landscape design principles (see Annexure 4). In order to promote sustainability, the landscape design is based on the following design principles; inter alia:

i. Use of endemic and ecologically appropriate plant species will reduce irrigation, maintenance requirements, and the use of pesticides and herbicides. It will attempt to reinstate some of the remnant endemic vegetation on site and suitability for local fauna.
ii. The planting of lawns will be minimised and more drought tolerant native groundcovers and grasses will be encouraged as an alternative to lawns.
iii. Water harvesting from both on stormwater and rainwater collection will be used as a water source for irrigation. Irrigation systems will utilize drip irrigation systems where feasible.
iv. Using quality, long lasting materials manufactured or extracted locally if possible.
v. Using soils and mulches manufactured with recycled waste.
vi. No noxious plants or plants known to be invasive or which become invasive will be planted.
vii. Shading area where staff congregate and public areas with vegetation will be incorporated in landscape design.
viii. Tree planting to shade roadways and paved areas to reduce heat absorption will be will be incorporated in landscape design.
ix. Using macrophytes to assist in biofiltration of water in on site detention ponds where possible.
x. Generally soft landscaping will be preferred to large areas of hard landscaping.

The project will use a wide variety of Indigenous plants from local plant communities to revegetate the site. They will not only provide a visual barrier but also provide erosion control to all areas not required for operations. It is also proposed to restore and revegetate the riparian corridor, which will involve removal of exotic weed vegetation to be replaced with endemic riparian species and regarding the watercourse banks. The objective of revegetating the watercourse corridor, as stated in the landscape report, include the following; inter alia:

"

- To revegetate the creekline on site to create higher quality habitat for existing and restorable wildlife using locally native plant species.
- To implement the revegetation of the creekline in stages to protect where possible existing habitat in the short term.
- To enhance the development of functional wildlife corridors in the region.

- To recreate as far as possible the original vegetation communities and habitats of the area".

The OSD ponds will be planted with a range of endemic macrophytes to assist in biofiltration of stormwater and to create wildlife habitat. The areas adjacent to the ponds will be revegetated by a combination of Box Gum Woodland and Allocasaurina Open Woodland species. The details of the riparian restoration will be provided in a Vegetation Management Plan (VMP) that will accompany the application for the approval of the Stage 1 works.

The street frontage treatment will be in accordance with the Bathurst Regional Council's VMP 2003. It will to reinforce the gateway effect to Bathurst and include the following main elements of landscaping and streetscape:

- "Landscaping will reinforce Bathurst's rural identity and cultural heritage as identified in the Bathurst Regional Council's *Vegetation Management Plan, 2003 (Terra Consulting 2003).*
- Create a sense of arrival to Bathurst from the countryside.
- Create a transition between a rural environment and Bathurst's urban environment.
- Reinforce the line of Lombardy Poplars. As stated in the VMP *"these feature trees provide a significant entrance statement into Bathurst because of their linear form and line of direction.*"
- Retain road reserve as a grassy verge in keeping with the character of the surrounding "grassy Bathurst plains".
- Landscaping will be used to soften the impact of buildings and as a visual screen between the Great Western Highway and the developments built form."

The highway use areas will be landscaped in a range of ornamental exotic as well as native species to provide visual interest and amenity.

4.6 Operations and Management

An Operations Summary for the freight terminal and highway frontage uses has been prepared by Mellor Gray Architects (see Annexure 2). The details of the proposed operations and management are discussed in this section.

4.6.1 Railway Interface

The purpose of this development is to provide a freight transport and storage facility for the local goods as well as provide compatible highway frontage uses. Initially it is intended to operate one (1) train per day consisting two 81/82 class locomotives hauling 26 NQOF (or similar C class) wagons having a total length of 567m and total weight of 1976 tonnes in the up direction (laden with 78 x 6m containers) and 683 tonnes in the down direction (without the containers). It is intended to increase the operation to three trains per day over the next ten years.

As indicated in Section 4.5, the project incorporates two private sidings of approximately 630m in length to provide run around facilities. This locomotive private run – around siding will enable the full 567m length of wagons to be fully loaded without having to divide the train. For the trains coming from Sydney, once the wagons have been positioned adjacent the 'Loading Zone' on the Private Siding, the two 81/82 class locomotives can be disconnected to proceed through to the 70m LOCO Switch Clearance Zone and into the 70m LOCO Shunt-Back Zone. At this point, the points will be changed, allowing the two (2) locomotives to return to the other end of the wagons (previously the rear) via the private run-around siding, to be reconnected to the front of the train. The train can then exit in a forward direction to main western line. The project includes remote control of points and signals from Orange. The proposed railway interfaces have been detailed in study undertaken by Wands Solutions Pty Ltd (see Annexure 3).

The current mainline usage is an average of twelve (12) trains every 24 hours through Raglan. Given the low volume of trains in the area, most trains will be able to enter and exit the siding without stopping. Delays are unlikely to be significant, given that currently only six (6) trains use the "up" line every 24 hours. For trains entering the site from Sydney, if a train was required to stop, it is proposed that it waits at the signals to be located a set distance away from the corresponding Points, in order to minimize noise impacts on surrounding development. The Points that allow transfer from 'Down Line' to 'Up Line' currently do not exist and form part of the proposed terminal, and will be designed in accordance with EPA noise guidelines.

4.6.2 Loading

It is anticipated that four (4) to five (5) forklifts will be operating on site. The forklifts will have the capacity to load either 6m or 12m containers (or a combination of both) onto the 26 wagons positioned on the Private Siding. No 'load-over' is proposed, given that the total length of the wagons can be accommodated on the available 630m, and therefore will not require dividing the train. Load-over results from the requirement to load over one half of a divided train to place containers onto the other half of the same divided train on an adjacent track, in locations where the loading zone is not long enough to cater for a total number of 26 wagons.

In terms of the project, a 'load over' would have resulted if the loading zone and corresponding track had a total length of less than 567m or longer trains were to be loaded. An assessment of the potential noise impacts on adjoining development resulting from operating, loading, shunting and idling has been undertaken in the noise assessment (see Annexure 7).

4.6.3 Employees and Hours of Operation

As indicated, the implementation of the Concept will involve the staging of the construction, and employee estimates are included in Section 9.8.1.

The number of operation employees will be influenced by the nature of the future use subject to future approvals, and the anticipated maximum number of employees estimated as follows:

Use	Anticipated Number of Employees
Regional Terminal Warehousing	Approximately 12 – 15 per site
Highway Uses	Approximately 2 – 5 per site
Service Station	Approximately 2 – 3
Forklift Maintenance	Approximately 2 – 5

Following are the hours of operation proposed for the various uses:

Use	Hours of Operation
Regional Terminal Warehousing	Open 24 hours
Highway Uses	9.00am to 5.00pm
Truck Stop – Service Station	7.00am to 6.00pm and 7.00am – 1.00pm Saturday
Service Station – Public Facility	Open 24 hours
Forklift Operation and Forklift Maintenance	7.00am to 10.00pm Mon/Fri and 7.00am to 1.00pm Saturday 7.00am to 1.00pm Sat

4.6.4 Operational Security and Safety

Given the nature of the facility, some parts of the development will be restricted to the general public to ensure security and safety. A security fence will be erected to demarcate certain restricted access areas on site, mostly to ensure safety during operations. In addition, the security building will be located adjacent to the entrance Access No. 2, at the ingress for terminal delivery vehicles.

The movement of and management of goods would accordance with statutory requirements that are incorporated in the interface agreements and access agreements between ARTC/ RailCorp and customers, which reference relevant legislation in respect of potentially dangerous goods.

Measures will also be incorporated in further applications to manage and control fire risk in accordance with statutory requirements as indicated the accompanying Hydraulic Services Report. Issues in respect of potentially fire hazardous materials would be addressed by future users of the facility to ensure that risk is minimised or avoided.

In addition the site operations would be managed in accordance with relevant EPA, Work Cover and OH&S standards top ensure a safe working environment and to minimise risks.

4.6.5 Environmental Management

The Concept Plan is accompanied by a Draft Statement of Commitments that outlines the relevant environmental management regimes that will be adopted for the site. These relate to watercourse and riparian management, threatened species assessment and management, landscaping and vegetation, the management of contaminated land, potential aboriginal and historical archaeology, and pollution limits, in terms of light spill, air quality, and noise. They also adopt criteria for site utilities and services in terms of water quality and sustainability, potential flooding, fire services and bushfire management. All of these measures will be incorporated into the design development process from the outset, to ensure a high level of environmental management is established and maintained during site operations.

4.7 Staging and Implementation

This application is for a Concept approval that will be followed by further applications for approval, commencing with Stage 1. Four Stages are proposed, that will involve both construction works and landscaping (see Drawings 1271-MP-009 and Landscape Drawing 1277-MP-010).

Stage 1 will include the following works (see Figure 8):

- Watercourse rectification including removal of willows and establishment of riparian zone;
- Modification to Highway;
- Water Quality Ponds 1 and 3;
- Hardstand and Loading Zone, including initial earthworks, grading and associated stormwater management;
- Security fencing;
- Rail, including main line connections, interface and private sidings;
- Internal roads, including Access Bridge and service roads;
- Piping of Great Western Highway drainage channel;
- Administration Building;
- Landscaping;
- Site services to support the Stage 1 and provide capacity for future stages .

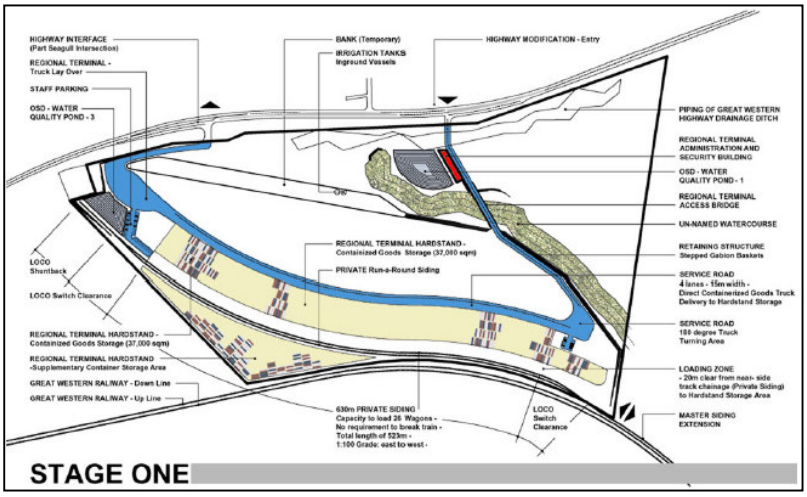


Figure 8: *Stage One*

Stage 2 will include the following works (see Figure 9):

- Warehousing;
- Forklift Maintenance Facility;
- Additional Service Roads;
- Secondary Access Bridge;
- Water Quality Pond 2;
- Retaining Wall Structures; and,
- Landscaping.

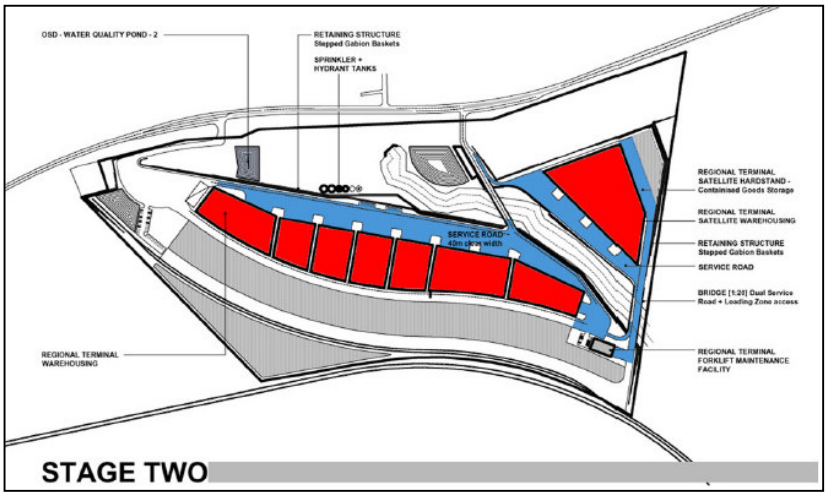


Figure 9: *Stage Two*

Stage 3 will include the following works (see Figure 10):

- Additional Highway improvements;
- Service Station;
- Truck Stop; and,
- Landscaping.

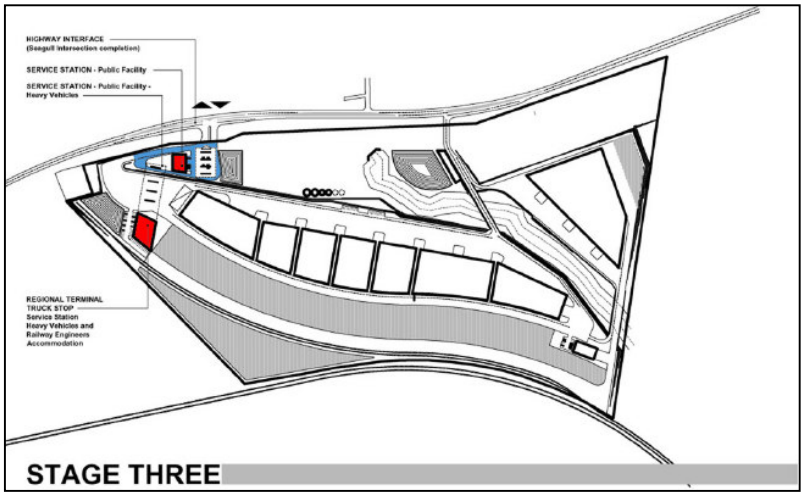


Figure 10: *Stage Three*

Stage 4 will include the following works (see Figure 11):

- Highway Use Development;
- Additional Highway improvements;
- Additional roads and parking;
- Additional sprinkler protection tanks; and,
- Landscaping

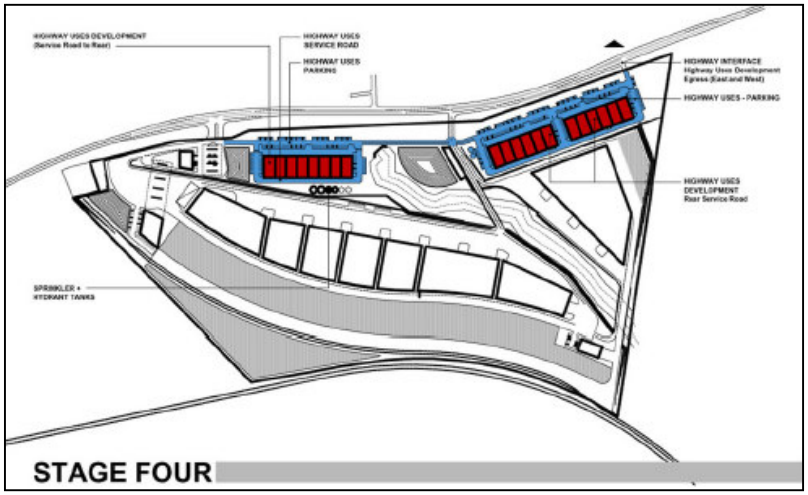


Figure 11: *Stage Four*

As indicated, it is intended that the Stage 1 application for approval will be lodged on approval of the Concept. The following stages will be submitted for approval incrementally. It is anticipated that Stage 1 will be completed in 10 months following approvals and the aim is to complete the project within 10 years from the date of approval.

4.8 Summary

The proposal is for a Concept Plan for a Road / Rail Freight Terminal at Kelso. The Concept comprises:

- Rail Infrastructure – connection to existing rail lines to form a double private siding;
- Road Network including Site Access and Internal Roads;
- Containerised Goods Storage - Hardstand Areas;
- Regional Terminal Warehousing;
- Regional Terminal Warehousing – Support facilities;
- Highway Uses; and,
- Service Station.

The project would result in approximately 61,910m2 of gross floor area (GFA) of buildings, which would approximate a Floor Space ratio (FSR) of 0.25:1 would be well within Bathurst Council FSR Controls for similar uses, such as service business and warehousing in industrial zones (FSR 1:1).

Mellor Gray Architects have prepared concept plans for the project. The future construction work will be in accordance with the building envelopes shown conceptually in the drawings, but the overall details in terms of building design, internal layout and building materials will be subject to detailed drawings and specifications prepared for the future applications.

The Concept Plan Application will be followed with further applications for approval, commencing with Stage 1, in accordance with a Staging Plan developed by the proponent.

5.0 CONSULTATION

5.1 General

This section will provide a summary of the consultations held with the various relevant State and Local authorities, together with stakeholders and community groups.

Consultation was undertaken by SLOBOBAX with a number of government agencies which included the following:

- Department of Planning;
- Department of Housing;
- Department of Environment and Conservation;
- NSW Department of Primary Industries (Fisheries section);
- Bathurst Regional Council;
- Roads and Traffic Authority; and
- Australian Rail Track Corporation.

In addition, SLOBOBAX identified interested community groups and stakeholders that could be potentially affected by the project, which was followed by a meeting/discussion. These parties included:

- Bathurst Local Aboriginal Land Council; and
- Community representatives.

The consultation occurred prior to the commencement of amendments to the EP&A Act that introduced the approval process under Part 3A. Therefore, a number of the references to then current legislation have been superseded. However, they have been retained in text as they best explain the requirements of the agencies at that time, which are still relevant to this assessment. Their requests have been addressed in the Concept Plan within the framework of the Part 3A approval process.

The details of the consultation are provided in the following section.

5.2 Consultation with Government Agencies

5.2.1 Consultation with Department of Planning

Consultation had been undertaken with the Department of Planning (DOP) regarding the application process. As consultation with the DOP occurred prior to changes to the EP&A Act, the DOP has advised the following:

- On 14 September 2005, the DOP advised by letter that the Minister for Planning, had formed the opinion that the proposal is a major project under Part 3 of the EP&A Act. Therefore the Minister will be the consent authority.
- On 27 September 2005, the DOP advised by letter that the Director General of the DOP had adopted the requirements issued on 16 May 2005, for the preparation of an Environmental Impact Statement (EIS) for this proposal. This advice was accompanied by additional requirements for the preparation of an Environmental Assessment under Part 3A of the EP&A Act. A copy of this correspondence is annexed (see Annexure 16).

Prior to the DOP issuing the Director- General's requirements for an EIS, a Planning Focus meeting (PFM) was held to identify key issues that should be addressed in the application for this project, which is discussed as follows. Given the change in the Act, the Director General has also provided the requirements for the preparation of an EA.

Planning Focus Meeting

On 21 April, 2005 a PFM was held at the Bathurst Regional Council with representatives from Department of Planning, Department of Environment and Conservation, Roads and Traffic Authority, Australian Rail Track Corporation, SLOBOBAX, GSA Planning and Mellor Gray Architects. The following matters were discussed:

- The DOP advised certain statutory requirements that have since been altered since changes to the EP&A Act. These requirements are now reflected in the instructions from the DOP for the preparation of an Environmental Assessment under Part 3A of the EP&A Act (see Annexure 16)

- The DOP advised for the strategic justification of the proposal that focused on the likely environmental impacts and the mitigation of those impacts. The DOP also indicated that the environmental issues to be addressed, which include: vegetation management, hydraulics, water quality, noise and vibration, traffic and operation. Accordingly, an assessment has been prepared based on various specialist studies and addressed in Sections 8.0 and 9.0 of this report.

  In terms of the rehabilitation of the existing watercourse, DOP advised against the piping of the watercourse and favoured a minimum 10m vegetation buffer zone along the Main Watercourse. Issues raised regarding the watercourse included vegetation management, management of water flow and velocity, access across the watercourse, and excavation for bridges. These recommendations have been taken into consideration in the design and the issues have been addressed in Sections 8.0 and 9.0 of this report.

- The RTA advised that consent will be required for works under S 138 of the Roads Act. The RTA also indicated the need to address peak traffic generation and its impact on the Great Western Highway and the crossing of the Main Watercourse. Accordingly, a Traffic and Parking Report and addressed in Section 9.5 of this report.

- The ARTC advised that the Raglan rail corridor is owned by Rail Infrastructure Corporation – Country (RICC) and Managed by ARTC under the Country Regional Network Management Agreement. However, SLOBOBAX, as an owner of a private siding will need to enter into an agreement with ARTC. The ARTC also indicated the need to address noise and vibration, operation and drainage issues. Accordingly, a Rail Operations Report has been prepared and the issues addressed in Section 9.4 of this report.

Following the PFM, DOP issued the Director-General's requirements for the preparation of an EIS for this proposal. Given the changes to the Act, further consultation has been undertaken and the Director General has issued further requirements, (see Annexure 16).

5.2.2 Consultation with Department of Housing

The Department of Housing (DOH) has been informed by DOP of the project. To ascertain the cumulative social impact of future development, additional information was requested by DOH from SLOBOBAX and included:

"

- The total number of people to be employed during the construction phase;
- When construction is likely to commence and the duration of the construction phase;
- Where construction workers are likely to be drawn from (and their travel distance to the site);
- The total number of people to be employed once the project is operational;
- Where the operational workforce are likely to be drawn from and their travel distance to the development; and,
- An assessment of any multiplier effects for local employment".

These issues are addressed in Section 9.8 of this report.

5.2.3 Department of Environment and Conservation

The Department of Environment and Conservation (DEC) has been informed by DOP of the project. In a letter dated 29 April 2005 to the DOP, DEC confirmed that an environment protection license from the EPA under the Protection of the Environment Operations Act 1997 is not required for future development.

5.2.4 Consultation with Bathurst Regional Council

A series of discussions and consultation has occurred between specialist consultants and Bathurst Regional Council officers regarding the permissibility and feasibility of the project, and strategies that are relevant. These issues are considered in Sections 6.0 and 7.0 of this report.

5.2.5 Consultation with the Roads and Traffic Authority

As indicated, approval will be required under Section 138 of the Roads Act 1993 to undertake works on the Great Western Highway. Consultation has been undertaken with the RTA, particularly in respect of the access to the site. In a letter dated 22 April 2005 to DOP, the RTA stated the following requirements:

"Statement to be included in the EIS (EA) addressing any environmental impacts that may occur within the existing road reserve by the impending roadworks.

A need for a traffic impact statement dealing with the freight terminal to identify traffic flows, type of vehicles expected on site, origin and destination of loads and projected numbers."

A Traffic and Parking Report has been prepared by GSA Planning in response to the RTA requirements (see Annexure 13). The report contains the anticipated traffic generation and origin/destination of the respective traffic loads. The report concludes that the traffic generation of future development is unlikely to affect the local traffic network in terms of its capacity, operation or level of service. In addition, the access design and the design of the intersection are in accordance with RTA recommendations and Section 4 of the Road Design Guide. The issues are also addressed in Section 9.5 of this report.

5.2.6 Consultation with Australian Rail Track Corporation

The track and rail corridor in Raglan is owned by Rail Infrastructure Corporation – Country (RICC) and managed by ARTC under the Country Regional Network Management Agreement.

Preliminary discussions and meetings were held with ARTC regarding the connection with the main western line to the site to create a double private siding within the site. ARTC have confirmed the feasibility of the proposal and have also offered assistance in future development of the rail operations and interface (see Annexure 3).

SLOBOBAX, as owner of private siding will not require accreditation under Section 23 (Exemption of operations of private sidings), of the Rail Safety Act 2002 No 96, provided SLOBOBAX enter into an agreement with ARTC regarding the management of the safety interface. SLOBOBAX have indicated their intention to enter into an agreement with ARTC. This issue is addressed in the Rail Operations Report and Section 9.4 of this report.

5.2.7 Consultation with Bathurst Local Aboriginal Land Council

The site is within the Bathurst Local Aboriginal Land Council (BLALC) area. The BLALC was informed of the project. In response, a survey was undertaken by BLALC to assess the archaeological potential and heritage significance of the site.

The BLABC is satisfied that no Aboriginal sites exist within the site and has indicated that it has no concerns regarding future development proceeding (see Annexure 14).

5.2.8 Consultation with the Community

Consultation with the community likely to be affected by the project was undertaken by SLOBOBAX. A public forum was held on 1 July 2005 with residents and service providers, which included representatives from AMP Finance, Visy Board, MacDonalds, Plant Hire and other interested groups.

5.3 Summary

The project has been the subject of consultation with various government agencies, interested community groups and local business representatives that could be potentially affected by future development. This consultation has enabled potential issues of concern to be identified early in the Concept design process to ensure that potentially adverse impacts can be mitigated or avoided, and that the necessary investigations to be undertaken are identified. The overall outcome of the consultation is considered to confirm the suitability of the site for development as a Road / Rail Freight Terminal, as borne out by this assessment.

6.0 STRATEGIC ASSESSMENT

6.1 General

This section will assess the suitability of the site in strategic terms with reference to relevant strategies for the region and currently available guidelines for regional intermodal terminals.

6.2 Bathurst Region Urban Strategy – Issues/Discussion Paper 2005

The Urban Strategy Issues/Discussion Paper was prepared by Bathurst City Council and exhibited for community comment in 2005. It precedes a new strategy for the Local Government Area, which is due to be publicly exhibition in May 2006. The strategy will underpin the preparation of a new Draft Local Environmental Plan within the next three (3) years, as required under the recent NSW planning reforms. While the site is currently under a rural zoning, the paper is considered relevant insofar as the project involves the use of the site for bulky goods as well as a road/rail freight terminal that will service both urban and rural industries.

The paper also includes the results of a community survey undertaken in 2005, which resulted in a number of key principles that been identified to guide the urban strategy. They include principles as adopted for the 1996 Strategic Plan. The principles seek to complement the generation of economic activity and the maintenance of quality of life. The project's consistency with the principles is assessed in Table 4.

TABLE 4: PRINCIPLES FOR THE URBAN STRATEGY

No.	Principle	Response
1	Maintain opportunities for land uses that may result from economic development.	The project takes advantage of the opportunity to use land that is particularly suited to serve the infrastructure needs resulting from the continued economic development of Bathurst.
2	Provide for adequate buffers between competing land uses.	The project responds to its context between railway and highway with uses that are appropriate for each corridor. It provides a landscaped buffer to the Great Western Highway in order to maintain its visual qualities as a gateway.
3	Ensure that adequate land is available for the needs of employment generating businesses.	The project will not diminish the supply of land available for urban or rural development, and will serve employment generating businesses.
4	Ensure that development opportunities are not foregone through alienation of productive land.	The subject land is not currently productive and the project will support development opportunities in the region.
5	Maintain quality of life to encourage individuals and companies to choose Bathurst as a place to live and to do business and to maintain the current quality of life for the existing community.	The project will contribute to Bathurst as a place to live and to do business, measured in terms of employment opportunities and economic growth, and is designed to maintain environmental quality for the community
6	Maintain opportunities for the development of social, community and cultural services and facilities.	The project will not diminish opportunities for social community and cultural services and facilities in the region.

7	Ensure development and urban expansion is environmentally sustainable.	The project will contribute to environmental sustainability through greater use of rail transport, as well as incorporating ESD principles in the design and operations of the facility. The proposed bulky goods retailing will be located opposite land to the north that is zoned and will take place in the latter stage (Stage 4). The project itself will generate a demand for services, which may not otherwise arise, which will complement other centres.

6.2.1 Service Business Development

The Urban Issues/Discussion Paper draws on the Bathurst Retail Strategy 1998/99. It recognises that the Bathurst Central Business District (CBD) is the primary retailing centre of the Bathurst Region. It indicates that the Bathurst LGA cannot support shopping facilities outside of the CBD, other than neighbourhood shopping centres and bulky goods developments. Bathurst currently has three (3) areas zoned for service business uses as follows:

- Service Trade Centre (49ha, of which 27 ha is undeveloped);
- Lee St, Kelso (9ha); and
- Kilacloran South, Kelso (7ha), which is opposite the subject site.

The Retail Strategy 1998 projected a growth rate for bulky goods of 11,600m^2 gross floor area (GFA) by 2011. This growth formed part of an overall increase of total retail goods and services space for the city from approximately 85,000m^2 in 1998, to 114,000m^2 by 2011, and to 129,000m^2 by 2021. (Projected at the same rate as the overall estimates, bulky goods would increase to 13,126m^2 by 2021). The strategy indicated that the forecasts were conservative, based only on projected population growth and not for any real increase in provision of those rates a s observed in regional NSW at the time. The strategy also endorsed the location of the Great Western Highway at Kelso for bulky goods, as identified in the 1994 Structure Plan.

The Issues/Discussion paper also identifies the location for bulky goods retailing as an issue for discussion, including whether additional land along Sydney Road (the Great Western Highway), should be considered as future Service Business land, and how would such development impact on the scenic quality of the gateway to Bathurst.

In terms of capacity, the project provides for approximately 11,600m^2 GFA by 2016, which is programmed to occur in the last stage (Stage 4) of the Concept, and could extend beyond that period. This staging anticipates that the demand for this use will be generated mainly by the project, while also absorbing a proportion of the anticipated growth for such facilities generated over the next twenty years.

In terms of location, the proposed facility will be opposite the service business at Kilacloran South, therefore is considered a compatible land use. It is noted that the paper flags consideration of the rezoning of additional land along Sydney Road, and it is submitted that the proposed site should be considered. However the project is not contingent on a rezoning occurring as the use of the land for service businesses is permissible under the current zoning.

In terms of the impact on the scenic gateway to Bathurst, the Concept provides an integrated approach to the design of the service business component and its carparks, which will be well setback from the Great Western Highway with landscaping to soften its impact. The project will incorporate an integrated approach to the highway planting in accordance with Council's requirements, as indicated in the annexed landscape plans and report.

6.2.2 Industrial Development

The Issues/Discussion Paper indicates that the majority of industrial development within the City of Bathurst in the last twenty (20) years is located at the Kelso Industrial Park between Lee Street, Kelso and Napoleon Street, Raglan, which surrounds the subject site. It also indicates that a key new development proposed at this location is the intermodal transport terminal that has been approved at White Rock Road. It is understood that this facility was approved by Council in 2001 and has not achieved substantial commencement to this date.

Bathurst currently has three (5) areas zoned for industrial development as follows:

- Kelso Industrial Park (256ha, of which 161ha is undeveloped), and which adjoins the east. south and west boundaries of the subject site
- Airport (15ha)
- Mid-Western Highway (4ha)
- Bradwardine Road (35ha)
- Land adjacent to the Railway line (82ha)

The issues identified for consideration in the preparation of the new Urban Strategy include the following:

- The need to identify the ongoing transport and other infrastructure needs of existing and future industry locations; and,
- Opportunities to increase and improve rail access and the impacts of the proposed container terminal on industrial development.

The subject site adjoins industrial land on three (3) boundaries and is well suited to provide the infrastructure for the growing industrial and economic activity in the immediate surrounds and the region generally. The project responds to an identified demand for the facility and the site has the capacity to meet this demand. The accompanying specialist consultant reports have determined that the site is suitable in terms of the adequacy and availability of services, the management of transport issues, and its contribution to an increase in the use of rail transport, and the management and monitoring of environmental issues.

6.2.3 General Land Use Issues

The Urban Issues/Discussion Paper also identifies a number of genera land use issues that are considered relevant to this project:

- The adequacy of services and utilities including water, waste water, solid waste management and recycling, stormwater, electricity, telecommunications and gas.

- Transport issues, including heavy vehicle problems through the CBD and residential streets, with trucks taking the shortest route. It notes that the 1996 Structure Plan recommended that: "no planning action should forego opportunities for an increase in the use of rail transport, mainly for freight but also for passenger transport." It also noted that: "industrial areas should be located to maximise opportunities for the use of rail transport and the provision of spur lines to service sites." It indicates that these recommendations remain relevant for the future planning of the city, particularly given the approval for an intermodal transport terminal at the Kelso Industrial Park, which has the potential to significantly increase the amount of rail freight transport from the city.
- Environment including topography and drainage, flooding, geology and soils, native vegetation and fauna, bushfire prone lands, significant landscapes, built heritage, night sky, contaminated lands and riparian management.

The project is considered compatible with these issues and objectives, as also addressed in the following sections of this report and the annexed specialist consultant reports.

6.3 Bathurst Region Rural Strategy – Issues/Discussion Paper, 2005

The Rural Issues/Discussion Paper, has been prepared in conjunction with the Urban Issues/Discussion Paper to support the proposed new LEP process. The paper is relevant as the subject site is zoned 1A General Rural, which applies to rural land within approximately 10km of the Bathurst City. The key land uses for this zoning are identified as broadacre agriculture, and orcharding, which are reflected in the LEP land use table. In addition, the minimum lot size for subdivision and erection of a dwelling on land zoned 1A General Rural is 200 hectares, with a provision for second dwelling and for rural workers' dwellings.

The site is no highly suitable for agricultural purposes dues to its context, size (approximately 30ha), close proximity to Bathurst, former uses for quarrying and the surrounding industrial and business service land uses. Therefore it is recommended that the current zoning is no longer approiprate. However the project is not contingent on any rezoning occurring, and such consideration could be made by Council independently of this application, and at a time which suits the progress of the new LEP.

The paper also refers to a number of State Government Policies that are considered relevant to developing a strategy for rural lands. These include the policy entitled, New South Wales Agriculture – Policy for the Protection of Agricultural Land, 1993. This policy aims to promote sustainable agriculture and the conservation of natural resources to maintain their longer term productive potential for the community. The policy endorses planning actions that promote the continued use of agricultural land, particularly prime crop and pasture land for commercial agricultural purposes, where that form of land use is sustainable in the long term. It is noted that the subject land is not prime crop or pasture land and is of a size not particularly suitable for commercial agricultural purposes. Furthermore, consideration of the various land use zonings that surround the site suggests that it can be more appropriately used.

The paper also considers the Draft Bathurst Rural Strategy 2004 that was prepared by the former Bathurst City Council, prior to the amalgamation with Evans Shire and examined all lands zoned Rural 1A, under the Bathurst LEP 1997. This Strategy also recommended the protection of prime agricultural land from fragmentation and conversion to non-agricultural uses. However, it is considered that the subject site does not fall within this category.

The paper also identifies environmental issues, including the need to consider and map existing forestry lands and identify those lands that may be suitable for new softwood forests. This recognition anticipates a growth of the forestry industry in the region, which is likely to generate further demand for appropriate transport infrastructure.

The paper also recognises the importance of the scenic quality of the rural environment and its contribution to the tourist attractions of the area. This issue has been considered for the subject site in terms of its contribution to the visual quality of the approach to Bathurst from the east.

The project is considered consistent with Council's rural strategies as reflected in the Issues/Discussion Paper. However, as the site is no longer highly suitable for commercial agricultural purposes, and is strategically located to well serve surrounding and industrial and business service land uses, it is considered that the site can be more appropriately used than for rural purposes. However, the site's contribution to the visual quality as part of the approach to Bathurst is recognised in the Concept.

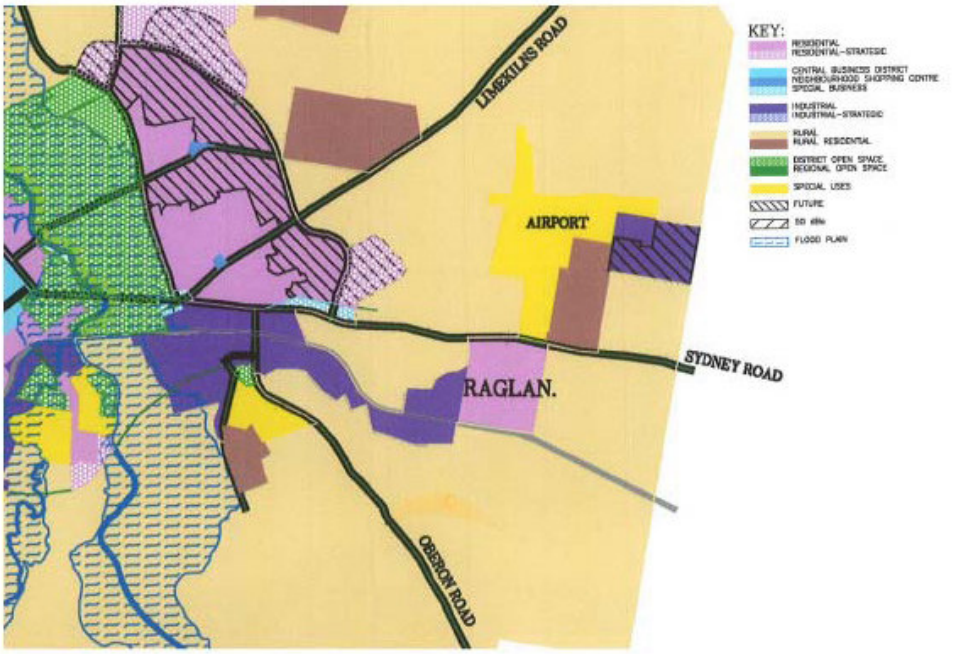
6.4 City of Bathurst Structure Plan 1994

The City of Bathurst Structure Plan 1994 is understood to have been the basis for the Local Environmental Plan 1997. It was anticipated that the Strategy would provide for future urban areas of Bathurst for up to 60,000 persons with an anticipated population of 40,000 people by 2006. This population projection has not been realised, however the Structure Plan is currently under review, partly due to the amalgamation of the Bathurst Local Government Area with Evans Shire.

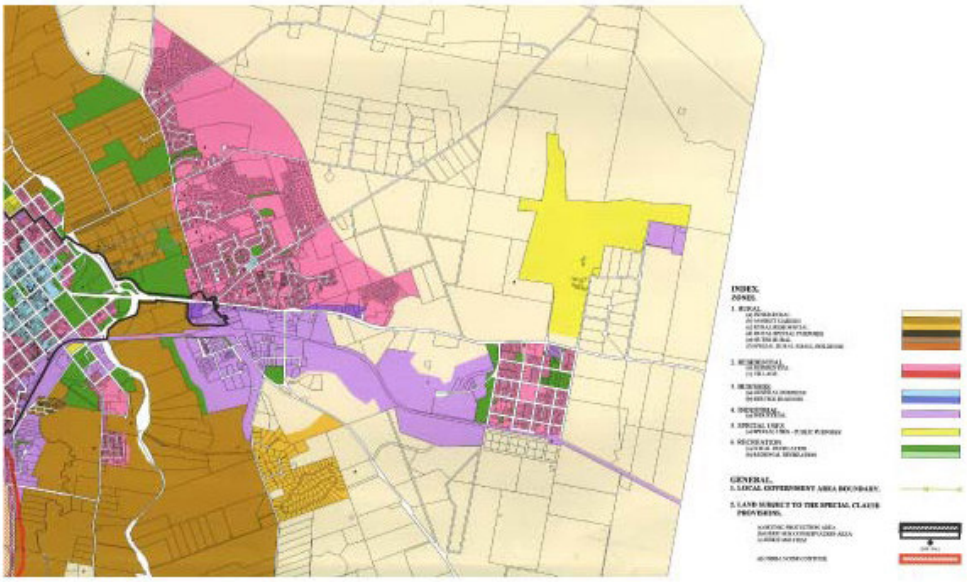
6.4.1 Land Uses

It is noted that the zonings or land uses envisaged for the City of Bathurst in the Structure Plan 1994, have been generally realised in the Draft Interim LEP 2005, with a number of variations.

From a comparison between the two plans, it is noted that the subject site is the only land that does not have an industrial zoning on that part of the site that adjoins the railway corridor. It is also noted that a greater area of land to the east of the site has been zoned for industrial purposes, than the Structure Plan envisaged, and that the White Rock road site for an intermodal terminal appears not zoned for industrial purposes at the time of the structure plan. It is also noted that the residential land to the north has extended further to the east along the highway, in lieu of service business and/or rural land. The consequences of these variations are that the subject site is surrounded by more urban and industrial land activities than the 1994 Structure Plan considered. In terms of its relationship with adjacent land uses as currently proposed to be zoned, the project is considered to be an appropriate 'fit' with the terminal adjoining land zoned industrial proposes and the highway uses located opposite land zoned for service beguines and residential purposes (see Figure 12).



City of Bathurst Structure Plan 1994



Bathurst Regional (Interim) LEP 2004

The Structure Plan aimed to maintain a clean edge to the city's urban areas, i.e. to achieve a clearly defined boundary between the city's rural and urban areas, which is not clearly delineated in respect of the site and of its surrounding land uses. Considered in this light, it is suggested that there is scope to revisit the zoning of the subject site to provide a clearer delineation between urban and rural land uses.

The Structure Plan also recognised the need for flexibility in terms of the land uses permissible in different zones, so that all innominate (i.e. unnamed uses) are permissible and only those that are thoroughly inconsistent with the zone objectives are prohibited. This project includes innominate uses of the land, including the service business component, which is considered permissible with consent, as discussed in Section 7.0 of this report.

6.4.2 Transport Issues

The Structure Plan also considered a number of transport issues including road and rail transport, and potential bypass routes around the City of Bathurst, which have not been realised. It also identified deficiencies in transport and communications infrastructure as a weakness that generate cost disadvantages for business and could impede the realisation of economic opportunities for this area. The plan recommended Council's continued support for the retention of the rail corridor and essential infrastructure and rail land holdings, which is supported by this project.

6.4.3 Economic Considerations

The Structure Plan also reviewed economic strategies and outlooks on a regional basis. It referred to the Regional Economic Strategy for the Central Western Region, prepared for the Central Western Region Development Board in 1991. The Strategy identified a number of opportunities for the Bathurst/Orange area, including the expansion of general manufacturing. It identified strong prospects for those industries such as food manufacturing, that are already strongly established in the area. It also recognised that external economies are generated from industry clusters, from which individual firms can benefit. As particular industries expand so does demand for support businesses for those industries. It is considered that this expansion would include the infrastructure support and service businesses that are offered by this project.

The strategy developed a "compelling and coherent" vision for the region, which included the following elements for the Bathurst district:

- Warehousing and distribution centres for major national producers and specialist businesses will locate in the region, concentrated in the larger centres, e.g. Bathurst and Orange.
- A food processing industrial cluster will develop earning the region a reputation as one of the major food processing centres in Australia.
- An extensive range of community and business services will be located in the major centres.
- A large expansion in the wood products industry based in Oberon will occur with some activity spilling over into nearby centres.

The realisation of this vision, in part, is supported by the more recent papers and the Bathurst Statistical Profile discussed in previous sections. The subject project is considered consistent with this vision.

6.4.4 Bulky Goods Retail Considerations

The Strategy also included supported the continued prominence of the Bathurst CBD, while providing opportunities for viable non-CBD shopping centres to serve the outlying residential areas. It also identified the potential for service businesses to relocate from the CBD as follows:

> "Provision has been made at both Kelso (Lee Street) and West Bathurst (Service Trades Centre) to allow service businesses and bulky goods retailers to relocate from the CBD. This would include such uses a motor showrooms and furniture warehouses. The larger CBD sites presently occupied by these types of businesses will be attractive for more intense retail development in years to come. Consequently, it is expected that over time the mix of uses in the CBD will evolve towards higher order uses in the CBD will evolve towards higher order uses such as comparison goods retailing and tertiary services."

As indicated, the proposed bulky goods retailing aims to complement and support the proposed intermodal terminal. The need for such services will in part be generated by the terminal itself, as evidenced by the staging plan. Notwithstanding that there is an element of site self-sufficiency, the proposed bulky goods use is considered consistent with the strategy for decentralisation of services and businesses from the Bathurst CBD. In addition, the proposed bulky goods component of the project, will be located opposite the land zoned for Service Business and Residential purposes, therefore is considered to be an appropriate use of the highway frontage in its context.

In summary, the Concept is considered consistent with the Structure Plan in terms of the key issues of land use, transport, economic considerations and bulky good retailing.

6.5 Intermodal Terminal Studies

It is understood that no definitive study to date has been undertaken on regional container terminals in New South Wales. However, the DOP Transport Planning team has referred the consultants to intermodal terminal studies that have been undertaken by the Sea Freight Council of NSW, which was established in 1999. The Council is funded by the Commonwealth Government, the New South Wales Government and by industry in New South Wales. Its principal objective is 'to identify logistics impediments and constraints which adversely impact on supply/demand chain performance in respect of the export/import task, particularly as it relates to NSW but also embracing the national task'.

The Council has recently commissioned studies to improve industry and Government understanding of the performance of the freight logistics chain in New South Wales, of which summary extracts are included as follows.

6.5.1 Regional Intermodal Terminals - Indicators for Sustainability

The study refers to a recently commissioned a study into regional intermodal terminals to identify the key attributes behind commercially viable terminals and help build a stronger knowledge base regarding the broad viability of proposed, future regional terminal developments. The Study, which is authored by Strategic Design And Development, identifies six key drivers behind commercially viable terminals.

The project's suitability based on the key indicators is assessed in the following Table 5:

TABLE 5: SUSTAINABILITY INDICATORS FOR INTERMODAL TERMINALS

Item	Indicator	Project Response
1 Volume	As a general rule, an intermodal terminal requires a minimum volume throughput of 10,000 loaded TEU's per annum to be viable. In fact, an annual throughput of 15,000 to 20,000 TEU's per year is likely to be necessary to make a significant profit.	The initial volume is estimated at 24,336 TEUs (Twenty Foot Equivalent Container Units) per year, based on one train movement per day over a six-day period. The maximum volume determined from site capacity is 3 tray movements per day, which would result in an estimated volume of 73,000 TEUs over the same period. Therefore the proposed terminal would be viable from the outset in terms of throughput volume.
2 Distance	Generally, a terminal has to be at least 250-300 kilometres from port for a rail-based service to compete successfully with a direct road service. Road movements have low fixed costs. To be competitive with road, rail must offset these costs with lower unit costs – which is achieved by carrying larger volumes over greater	The proposed intermodal terminal will be located approximately 235.400 km from Sydney, which will be the major destination. Other anticipated destinations include NSW seaports of Port Kembla and Newcastle, and Brisbane and Melbourne all of which are viable in terms of distance.

	distances.	
3 Initial investment and terminal capacity	The amount of initial investment required to establish the terminal will influence its viability**.** Most terminals today are "brownfield" developments resulting from upgrades to existing rail infrastructure, which means the debt burden for the terminal investor/operator is not as great as for a "greenfield" investment, where more capital is required up front to build rail infrastructure from scratch.	As advised by Wands Solutions, upgrading infrastructure at an existing rail facility is often more costly and impractical due to the need to upgrade track and signalling infrastructure leading to a total rebuild of the interlocking. Often there is insufficient capacity in the 'real estate' of an existing rail facility for an intermodal facility. The cost for the rail connection and associated infrastructure at the chosen 'greenfield' site is estimated to be much less than utilising existing facilities.
4 Seasonality	Terminals based on seasonal commodities require complementary product flows to help offset fixed costs. Because of the relatively high level of fixed costs associated with establishing and running a terminal, a smooth volume of cargo is preferable across the year; both to optimise operating costs and create consistent revenue flow.	As advised by Slobobax, while there will be a seasonal customer base the majority of users will be on a weekly and daily basis. The viability of the project has been considered on a year round basis and any seasonal 'high' would be regarded as an addition.
5 Competing channels	For a terminal and its supply channel to succeed, the cost of the rail-based intermodal transport option must be lower than the cost of direct road transport or other competing supply channels. Customer location relative to the terminal and port also plays an important role.	As advised by Slobobax, the proposed terminal is considered viable in this respect.
6 Economic and social impact	An intermodal terminal is an interactive part of the fabric of its local community, region and State. An intermodal terminal operates within a wider social and economic context. Its viability can be significantly enhanced where there are synergies between the terminal's operations and community and State objectives for economic and social development.	As indicated in Section 5.0, this project has been the subject of a comprehensive consultation process that has included major stakeholders, Bathurst City Council and a community public forum. The analysis of relevant strategies indicates that the project is consistent with community and State objectives for economic and social development, which may be further gauged by consultation that occurs during the statutory exhibition period.

6.5.2 Comparison with Other Sites

The following matrix compares the subject project with three (30 other proposed or existing sites in the region, at Kelso (White Rock Road) Blayney and Parkes. Information regarding the White Rock Road facility is based on publicly available information, as available to this date. Information regarding Blayney is sourced from the Intermodal Hub's web sites. Whilst included in the comparison, Parkes essentially operates as a distribution centre for interstate goods; i.e. domestic traffic (see Table 6)

TABLE 6: FACILITY COMPARISON MATRIX

Facility	Kelso	Kelso	Blayney (FCL)	Parkes (FCL)
Address	**Great Western Highway**	**White Rock Road**	**91 Gerty Street**	**Brolgan Road Goobang Junction**
Site Size	28 Hectares	Approximately 16-18 Acres (4.9-6.5 Hectares)	Information unavailable	26 hectares
Intermodal	Export / Import	Export	Export	Primarily interstate distribution
Proposed/current Capacity (trains/day)	1 /day	It is understood that the White Rock Road Facility is proposed to replace Blayney 1 train/day hauls to Botany/Wennora. It is also understood that this change in operations leaves Blayney operating solely for 1train/day transporting Newcrest Mines Wash. (originating in Cadia) to Port Kembla.		3 /day
Max Capacity Yr 2015 trains/day	3 /day	Information unavailable	Information unavailable	Correlates with siding length extension
Siding Length [m]	630m + 140m loco run-around	Siding arrangement details unavailable	Details unavailable: However, Freight train is understood to impede main street during loading.	350m, extendable to 1,100m
Max Loco No's	2	2 – Unconfirmed (Siding arrangement details unavailable)	2	Majority of Parkes FCL traffic runs South - West
Max Haul Tonnage (Towards Sydney)	2000 ton	2000 ton – Unconfirmed (Details unavailable)	2000 ton	N/a
Wagons / train	26 [523m]	26 [523m] – Unconfirmed (Details unavailable)	26 [523m] [Not including wash from Newcrest Mines]	N/a
Proposed/current TEU departures/day	78 TEU/day	78 TEU/day – Unconfirmed (Details unavailable)	78 TEU/day [Not including wash from Newcrest Mines]	N/a
Maximum TEU departures/day	234 TEU/day	Information unavailable	Information Unavailable	N/a
Proposed/current TEU departures/week	468 TEU/wk	468 TEU/wk – Unconfirmed (Details unavailable)	468 TEU/wk [Not including wash from Newcrest Mines]	N/a
Maximum TEU departures/week	1,404 TEU/wk	Information Unavailable	Information Unavailable	N/a
Proposed TEU departures/year	24,336 TEU/year	24,336 TEU/year – Unconfirmed (Details unavailable)	24,336 TEU/year [Not including wash from Newcrest Mines, which would increase figure increases to approximately 48,672 TEU/year]	N/a
Maximum TEU departures/year	73,008 TEU/year	Information Unavailable	55,000 published TEU/year	N/a
Container Double Stack Efficiencies	No – overhead restrictions on East bound Freight	No – overhead restrictions on East bound Freight	No – overhead restrictions on East bound Freight	East Bound: No West Bound: Yes South Bound: No
Time to Port Botany (SYDNEY)	Bench Mark	+ 1 hour	+ 1.5 hours	+ 2.5 hours: However, trains are primarily either west bound or south bound, and the Botany route is therefore N/a.

All train loading done past secure gates	Yes – *Refer EA Annexure OPERATIONS SUMMARY*	Information Unavailable	No – As noted above, Freight train is understood to impede main street during loading, and therefore compromises security.	Information Unavailable
Capacity current warehousing	Stage 1: N/a	Limited by Site constraints	Limited by Site constraints	4,000m2
Future maximum warehousing capacity	Stage 2: 47,275 m2	Limited by Site constraints	Limited by Site constraints	100,000 m2
Hardstand Capacity	52,180 m2 Granite	Limited by Site constraints	Limited by Site constraints	50,000 m2
Track Conditions	Class 1 Track	Class 1 Track	Class 1 Track	Class 1 Track
Go slow zones		Speed restriction to freight trains of 10km/h over Bathurst River bridge	Speed restriction to freight trains of 10km/h over Bathurst River bridge	Speed restriction to freight trains of 10km/h over Bathurst River bridge
Run Around Requirement	No – On Site	Yes – Train required to travel into Bathurst Yard to prepare for return trip to Sydney	No – On Site	No – On Site
Within 200m of residential areas – Corresponding Noise impacts	No existing houses within 200m of loading zone. *Refer EA Annexure – NOISE ASSESSMENT*	In proximity to residential areas and The Scots School	Documented Compression braking near residential housing & hospital site by trucks travelling to the Blayney site from the south. *(Blayney Chronicle Thursday 7th July 2005)*	No – Existing relatively isolated Facility
Negative impact on adjacent land uses	No – *Refer EA Conclusions*	Information Unavailable	Shunting operations at this site are understood to result in delays to road traffic at the mid Western Highway Level Crossing	No – Existing relatively isolated Facility
Reduction in Freight hauled over the mountains on road	Yes – Potential Manufactures, currently using Road Freight, will switch to Rail, therefore reducing freight transported over the mountains by road.	No change to existing traffic conditions – Given that the White Rock Road Facility is understood to be a relocation of a proportion of an existing facility.		N/a
Job creation – Positive impact	Yes – *Refer EA*	No – It is understood that approximately 3 jobs will be on offer	N/a	No. However, when siding is extended, additional jobs are likely to be on offer to deal with freight capacity increase.
Ability to maintain operations in event of collapse of 2nd Oldest Rail bridge in NSW	Yes – Bridge in question is further 'DOWN' line towards Bathurst.	Operations dependant on the use and corresponding stability of and old rail bridge.	Yes: Alternate routes via Parkes & Cootamundra	Yes: Alternate routes available
Positive Environment Rectification Works	Yes – Extensive works proposed to existing watercourse Riparian Zone	Information unavailable	N/a	N/a

Key

Information only.	
Positive Operational attributes and/or Site Conditions	
Comparatively unfavourable Operational and/or Site Conditions	

Source: Mellor Gray Architects

The analysis indicates that the subject project has a number of positive attributes that are not replicated at the other sites. These include its large site area, capacity, the siding arrangement which allows for trains to turn around (change ends) on-site thereby avoiding the need to enter the Bathurst yard, its location on the Great Western Highway, and the avoidance of the need to maintain or upgrade aging railway infrastructure (old bridge) to access the site. In addition the annexed Rail report indicates that NSW rail network and Sydney ports have the capacity to manage increased freight movements.

The analysis confirms the suitability of the site, based on operational considerations and impacts, when compared with other facilities.

6.6 Summary

The proposed rail fright terminal is considered to be consistent with relevant strategies obtained from Bathurst Council, which are currently under review in preparation for a new Draft LEP. These documents include an Urban and a Rural Issues/Discussion paper that draw on earlier plans, including the 1994 Structure Plan and the 1998 Retail Strategy.

The project rail freight terminal is considered consistent with the Structure Plan in terms of the key issues of land use, transport, economic considerations and highway uses, including bulky good retailing. The proposed highway uses will be located opposite land to the north that is zoned for business service development. The site will be able to accommodate up to 11,000m^2 of gross floor space, however, the development of the site for this purpose, will take place in the later stage (Stage 4), and the site itself is anticipated to generate in part a demand for services, which may not otherwise arise. A review of industry-based guidelines for intermodal terminals indicates that the project aligns with the key indicators for sustainability including capacity, volumes, location, distance from destination and economic considerations. A comparison with three (3) sites at Kelso (White Road) Blayney and Parkes, indicates that the project has a number of positive attributes that are not replicated at the other sites. The analysis confirms the suitability of the site, based on operational considerations and impacts, when compared with other facilities.

7.0 PLANNING CONTROLS ASSESSMENT

7.1 General

This section will assess the relevant State and Local Government statutory and policy documents.

7.2 Assessment of Local Government Requirements

The relevant Local Government Statutory and Policy documents applicable to the site are as follows:

1. Bathurst City Council Local Environmental Plan 1997;
2. Draft Bathurst Region (Interim) Local Environmental Plan (LEP) 2004; and,
3. Bathurst Regional Council Development Control Plan (DCP) – Rural Lands 2005.
4. Bathurst City Council's Off-Street Car Parking Code (Car Parking Code) 1986.

7.2.1 Bathurst City Council Local Environmental Plan (LEP) 1997

As indicated, the site is within the 1(a) Inner Rural Zone pursuant to the Bathurst City Council Local Environmental Plan (LEP) 1997 as reflected in the Draft Interim LEP 2004 (see Figure 12). The site does not contain any heritage items and is not within a heritage conservation area.

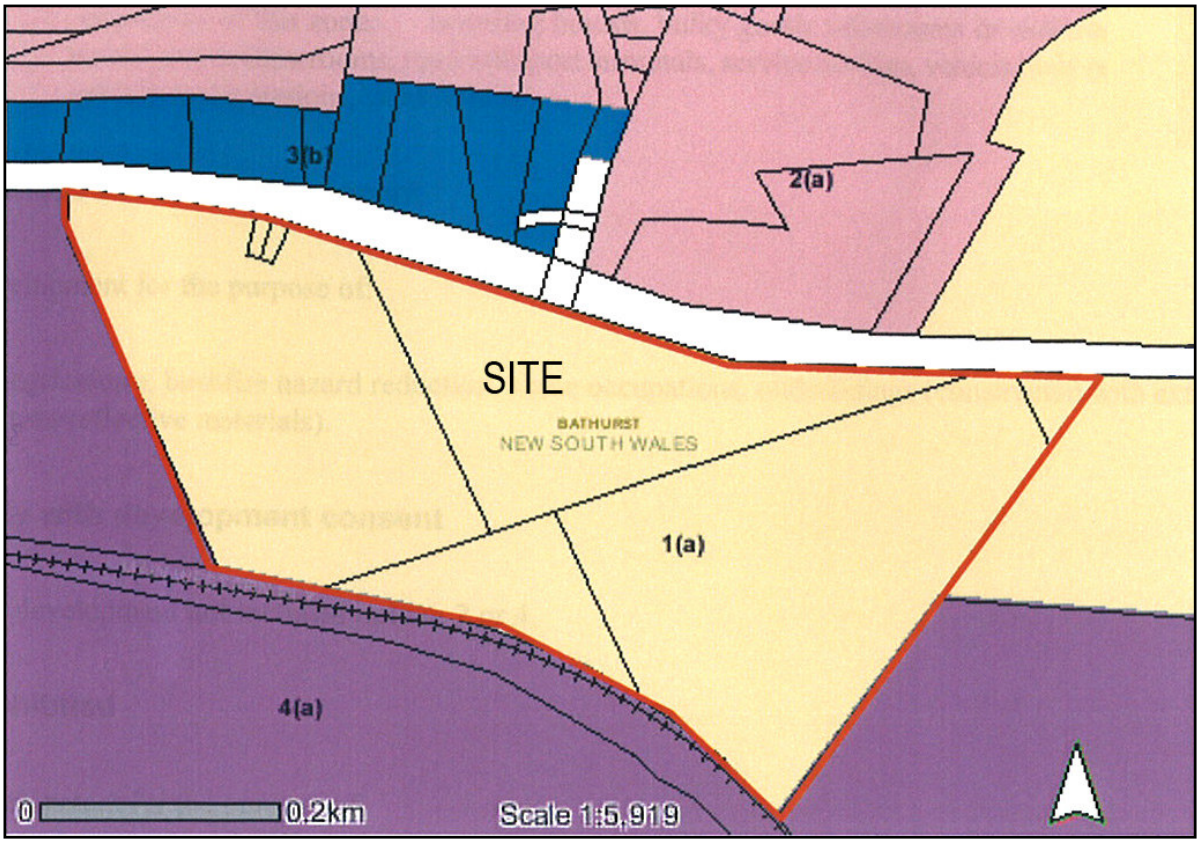


Figure 13: *Zoning Plan – Draft Interim LEP 2004*

The objectives of Zone 1(a) primarily include providing a range of compatible land uses and protect or conserve the scenic environment, identified remnant bushland and valuable deposits. The objectives of the zone are stated inter alia:

a. to support and maintain the continued viability of agricultural development in rural areas, and

b. to enable development that is appropriate for broad acre productive land used for grazing and cropping, and

c. to provide for a range of compatible land uses to be carried out on land within the zone which are in keeping with the rural character of the locality and do not unnecessarily convert prime crop and pasture land to non-agricultural land uses, and

d. to protect or conserve the scenic environment by controlling the location of buildings and materials used, particularly in respect of development adjacent to a major road or located within a scenic protection area or within an identified remnant bushland area, and

e. to protect or conserve valuable deposits of minerals, coal, petroleum and extractive materials by controlling the location of development to enable the efficient extraction of those deposits."

Under the LEP, development for the purposes of *boarding houses, bulky goods salesrooms or showrooms, generating works, motor showrooms, road transport terminals, service stations, vehicle body repair workshops, vehicle repair stations, warehouses* are usually not considered consistent with the objectives of Zone 1 (a).

However, as stated under Section 6 of the LEP, "*Council must not grant consent for development unless it is satisfied that the proposed development is consistent with one or more of the objectives of the zone within which it is to be carried out."*

Pursuant to the LEP, the uses that are permissible without development consent within Zone 1 (a) include: *agriculture, bushfire hazard reduction, home occupation, outbuildings (constructed with exteriors of non-reflective materials)*. The uses that are prohibited include: *advertisements (except those displayed in conjunction with a permissible use and situated on the land which that use is conducted), commercial premises, dual occupancies, gasholders, industries (other than extractive, high technology, home or rural industries), residential unit and shops.* Any development not included in the above are permissible with development consent.

As indicated, the proposed is for a Road/Rail Terminal comprising warehouse facilities, highway uses to accommodate bulky goods storage and small warehousing, truck stop, fuelling facilities and rehabilitation of existing watercourse. Accordingly, a summary of the compliance of the project has been included in Table 7 below.

TABLE 7: PROJECT DATA / COMPLIANCE		
LEP / Draft LEP		
Use	**Permissibility**	**Comments**
Rail Infrastructure	Permissible with development consent, subject to consistency with zone objectives.	It is considered that the proposed rail infrastructure will support the continued viability of agricultural and rural development, as it will provide improved infrastructure for the transfer of local goods/produce to major centres on the east coast of Australia. The infrastructure will be compatible and in keeping with its character as rural land those in close proximity located adjoining a major road and rail corridor. The site is also considered most suitable for the project given its location adjacent a major road and rail corridor and only some 4km east of Bathurst. In addition, as stated in the contamination report (see Annexures 10 and 11), the past use included a small slaughter house, grazing of stock and granite quarry which was established in 1974 and resulted in removal of top soil. Based on the history of previous uses, the site is not considered to have good capability for agriculture. Hence the proposed rail infrastructure will not unnecessarily convert prime crop and pasture land to non-agricultural land uses. The proposed rail infrastructure is located well away from the Great Western Highway to protect and conserve the scenic environment along the highway. Furthermore, the proposed landscaping will enhance the scenic environment along the highway. Accordingly, the proposed rail infrastructure is considered to be consistent with objectives (a) (c) and (d).
Containerised Goods Storage (Hardstand Areas)	Permissible with development consent, subject to consistency with zone objectives.	As stated for the Rail Infrastructure above, it is considered that the proposed containerised goods storage will support the continued viability of agricultural and rural development by facilitating the movement of goods/produce. The storage will be compatible and appropriate for its location adjoining a major road and the rail corridor. Accordingly, the proposed container goods storage is considered to be consistent with objectives (a) (c) and (d).
Regional Terminal Warehousing	Permissible with development consent, subject to consistency with zone objectives.	As stated for the Rail Infrastructure above, it is considered that the proposed Regional Terminal Warehousing will support the continued viability of agricultural and rural development by providing warehousing for the movement of goods/produce. The storage will be compatible and appropriate for its location adjoining a major road and the rail corridor. In addition, it will not unnecessarily convert prime crop and pasture land to non-agricultural land uses. Furthermore, further applications for individual buildings will be consistent with the Concept. The materials, finishes and colours of future buildings will be selected to be sympathetic to the rural character of the locality in order to minimise the visual impacts. Accordingly, the proposed warehousing is considered to be consistent with Objectives (a)(c) and (d).
Regional Terminal Warehousing – Support facilities (Truck Stop – Railway Engineers Accommodation)	Permissible with development consent, subject to consistency with zone objectives.	The proposed truck stop – railway engineers' accommodation will support the rail infrastructure and freight terminal and therefore is considered consistent with objectives (a) (c) and (d) for similar reasons as stated above. It will be compatible and appropriate for its location which is not highly suited to an agricultural purpose. Accordingly, the proposed truck stop is considered to be consistent with objectives (a) (c) and (d).

Service Stations	Permissible with development consent, subject to consistency with zone objectives.	The public service station for vehicles will be located to the west along the Great Western Highway frontage and the service station for heavy vehicles will be located to the south of the public service station. The service stations will be support the use of the site as a rail/road freight terminal and therefore consistent with objectives (a) (c) and (d) for similar reasons as stated above. Their location is considered appropriate. The character and external finish of the future buildings will be designed to its context. In addition, the future landscaping along the Great Western Highway help conserve the scenic environment along the Great Western Highway. Accordingly, the proposed service stations are considered to be consistent with Objectives (a)(c) and (d).
Highway Uses including Bulky Goods Storage, and Small Warehousing	Permissible with development consent, subject to consistency with zone objectives.	As stated for the Rail Infrastructure above, the proposed highway uses, including bulky goods storage and small warehousing, are considered to be appropriate for their context and in keeping with the character of rural land, given its close proximity to the highway and to a regional centre. The highway uses will also contribute to supporting the continued viability of agricultural and rural development. In addition, the proposed highway uses will not unnecessarily convert prime crop and pasture land to non-agricultural land uses. Accordingly, the proposed highway uses are considered to be consistent with Objectives (a)(c) and (d).

In addition, given the previous land use, which included a slaughter house and granite quarry, the site is not considered to be broadacre productive land suitable for grazing and cropping. Although the site has been used for granite quarrying, the site is not considered a source of valuable deposits of minerals, coal, petroleum and extractive materials.

Accordingly, we are of the opinion that, the project, which comprises Rail Infrastructure, Containerised Goods Storage, Regional Terminal Warehousing, Truck Stop–Railway Engineers Accommodation, Service Station and Highway Uses including Bulky Goods Storage and Small Warehousing, are consistent with objectives (a) (c) and (d) of Zone 1 (a) and hence permissible with consent pursuant to the LEP.

7.2.2 Bathurst Region Draft (Interim) Local Environmental Plan (LEP) 2004

On 26 May 2004, the former Bathurst City Council and Evans Shire Council were dissolved and the Bathurst Regional Council (BRC) was created. Bathurst Regional Council includes all the area formerly included in the Bathurst City Council, most of Evans Shire and a small percentage of land formerly included in Oberon Shire.

The Draft (Interim) Local Environmental Plan (LEP) was exhibited between 16 November 2004 and 21 June 2005. Due to the amalgamation of Bathurst City Council and Evans Shire into Bathurst Regional Council, the Interim LEP incorporates planning controls form the Bathurst LEP 1997 and the Evans Shire Council Interim Development Order 1980.

The particular objectives and strategies to land within a zone of the Interim LEP 2004 are consistent with the exception that objective (a) has been modified to recognise that it applies to the urban fringe areas of the City of Bathurst. This modification does not alter the projects consistency with the objectives as addressed in Section 7.2.1.

7.2.3 Bathurst Regional Council Development Control Plan – Rural Lands

Council's Development Control Plan (DCP) – Rural Lands, which was adopted on 20 April 2005, is applicable to the site. The relevant aims and objectives of the DCP include:

- to protect the economic viability of rural and agricultural enterprises;
- to ensure that the social, environmental and economic impacts of a development proposal are considered;
- to ensure that legal physical access is available to land;
- to ensure that significant flora and fauna habitats are protected;
- to ensure that each site has capacity to dispose of effluent with minimal environmental effects;
- to ensure that land is developed in a manner which is compatible with the physical constraints of the site;

The DCP contains controls for the siting of buildings, roadworks, effluent disposal, water supply, fire protection, fences / entrances and environmental considerations. It is considered that the Concept Plan is consistent with the DCP and that further applications for approval will be able to be consistent with the DCP objectives and accord with the DCP Controls.

7.2.4 Bathurst City Council's Off-Street Car Parking Code 1986

Bathurst City Council's Off-Street Car Parking Code (Car Parking Code) came into force on 1 January 1987. The Car Parking Code contains carparking rates for a number of uses.

As indicated, a Traffic and Parking has been prepared by GSA Planning, which concludes that the Concept provides for 465 car parking spaces for future developments which would comply with the Council Car Parking Code (see Annexure 11).

7.3 Assessment of State Government Requirements

7.3.1 Environment Planning & Assessment Act, 1979 and Environmental Planning and Assessment Regulation 2004

Environmental Planning and Assessment Amendment (Infrastructure and Other Planning Reform) Act 2005 No.43

Section 75B(2) of the EP & A Act lists the types of development that may be declared to be a project under Part 3A. Section 75B(2) states, inter alia:

> **"Kinds of projects**
> The following kind of development may be declared to be a project to which this Part applies:
> (a) major infrastructure or other development that, in the opinion of the Minister, is of State or regional environmental planning significance,
> (b) major infrastructure or other development that is an activity for which the proponent is also the determining authority (within the meaning of Part 5) and that, in the opinion of the proponent, would (but for this Part) require an environmental impact statement to be obtained under that Part. "

The proposal is a Major Project under the above Section of Part 3A of the Act, and the Minister is the consent authority. This has also been confirmed by the Deputy Director General in a letter dated 14 September 2005 (see Annexure 16).

Section 75F states that an Environmental Assessment is required for such a project. Therefore, this Environmental Assessment has been prepared in respect of this project.

Section 75H states that the Minister may authorise or require the submission of a concept plan for a project. In accordance with this Section of the Act, the Minister has authorised the submission of the concept plan (see Annexure 16) which has been prepared and is submitted to the Director General.

The Environmental Assessment has been prepared in accordance with the draft Discussion Guidelines for the Concept Plan Application Process and Steps in the Assessment and Approval of Major Projects under Part 3A, as well as specific requirements attached to the letter from the DOP dated 14 September 2005 (see Table 8 and Annexure 16).

TABLE 8: DRAFT DISCUSSION GUIDELINES FOR THE PREPARATION & ASSESSMENT OF AN EA

Requirement	Addressed
1. Contents of the Environmental Assessment	
a. An executive summary	Yes
b. Description of the project (including design, construction, operations, maintenance and rehabilitation as applicable)	Yes
c. Location of the project and planning provisions applying to the site including permissibility and the provisions of any plan	Yes
d. Consideration of alternatives to the project	Yes
e. Assessment of environmental impacts with particular focus on the key issues and proposed mitigation and management of residual impacts	Yes
f. Mitigation and management regimes in relation to other issues	Yes
g. A Draft Statement of Commitments (SC) for environmental management and mitigation measures for the established/construction and operation of the project	Yes
h. Justification for undertaking the project	Yes
2. Key issues to be addresses	
a. Assessment required in relation to the following key issues and proposed mitigation and management of residual impacts if appropriate: Strategic Assessment; Road and Rail Transport; Soil and Water; Noise and Vibration; Visual Amenity; Environmental Planning Instruments	Yes
3. Consultation requirements	
a. Any requirements to consult with nominated agencies or the Commonwealth Department of Environment and Heritage regarding the application to the Environment Protection and Biodiversity Conservation Act	Yes
b. Public consultation requirements during the preparation of the environmental assessment including: Bathurst Regional Council; the ARTC, the RIC, the Department of Primary Industries; Department of Natural Resources; RTA and affected residents/community group.	Yes
c. The number of copies of the environmental assessment to be made available for inspection or sale during the exhibition period	Yes

5. Statement on the validity of the environmental assessment	
a. A requirement that the environment assessment include a statement that the information contained in the environmental assessment is neither false nor misleading	Yes

In addition, the Concept Plan incorporates the requirements for an EIS, as discussed in Section 5.0 that has been adopted by the Director General for this Environmental Assessment (see also Annexure 16).

7.3.2 SEPP Major Projects

SEPP Major Projects is applicable to the site under either Schedule 1 Group 4 (12) and or Schedule 1 Group 8 (23) of the EP&A Act. These are stated inter alia::
"

12 Distribution and storage facilities

Development for the purpose of container storage facilities, or storage or distribution centres, with a capital investment value of more than $30 million.

23 Rail and related transport facilities

1. Development that has a capital investment value of more tan $30 million for the purpose of:
   a) Heavy railway lines associated with mining, extractive industries or other industry, or

   b) Railway freight facilities or inter-modal terminals.".

SEPP Major Projects requires a development assessment and approval process under Part 3A of the EP&A Act. Accordingly, the assessment of the proposed Concept Plan has been undertaken under PART 3A of the EP&A Act.

7.3.3 SEPP No.11 Traffic Generating Development

SEPP No. 11 requires the concurrence of the Roads & Traffic Authority (RTA) for major traffic generating developments. In accordance with the provisions of SEPP No. 11, consultation has occurred with the RTA in the design of the road network for the Concept including the design of the intersection with the Great Western Highway. The Traffic and Parking Report concludes that the project will result in a reduction in the number of truck movements to and from Sydney and Melbourne. In addition, the traffic attracted to the proposed warehouse development is likely to be primarily traffic already within the road system. The traffic generation from the bulky goods uses is likely to primarily consist of light vehicle, which has a considerably low impact on the road network. Given that the peak hours of the frontage uses and the rear warehousing uses are not likely to coincide, the project is unlikely to significantly affect the capacity, operation or level of service of the Great Western Highway and intersections in proximity.

Future road works will be consistent with the road network for the Concept and will comply with the relevant RTA Guide for the design speed of the roadway. Notwithstanding this, concurrence from the RTA will be required for the future applications for the road works.

7.3.4 SEPP No. 33 – Hazardous and Offensive Industries

The SEPP applies in so far as it relates to activities permissible within the zone. These would include storage establishments for goods, materials or products that have the potential to be hazardous or offensive within the meaning of the SEPP. This means that although measures have been taken to minimise risk or polluting discharges, the proposed establishment would still pose a significant risk or have the potential for a significant impact in the locality or on future development in the locality. The Concept Plan does not propose activities that would fall within this category, and future buildings that may accommodate such activities would be subject to further approvals. As indicated, future applications for approval would need to demonstrate compliance in respect to the management of dangerous and hazardous goods, and would need to comply with any consideration required under the SEPP, in respect of hazardous or offensive development.

7.3.5 SEPP No. 55 – Remediation of Contaminated Land

The aim of this SEPP is to provide a state wide planning approach to the remediation of contaminated land and reduce the risk of harm to human health or any other aspect of the environment. The plan requires a planning authority not to approve a development unless consideration is given to whether the land is contaminated. The preliminary contamination study undertaken concludes that there is moderate to low risk of asbestos contamination potentially deriving from past land uses at the Muldoons Quarry site. However, the report further states that the risk will be reduced with favourable results from analysis of two topsoil samples for nutrients, cations and heavy metal. For the Reddy's Orchard site, the report concludes that there is negligible to very low risk of contamination potentially deriving from past orcharding land uses. Accordingly, the site is considered to have negligible to low risk of contamination subject to compliance with the recommendations, though not considered to a level that would prevent the safe development of the site (see Annexure 10 and 11 and Section 8.7 of this report).

The site and the future development will comply with SEPP No.55, subject to incorporating the recommendations in the contamination report, particularly in relation to the removal and treatment of asbestos that may be present at the Muldoons Quarry site.

7.3.6 SEPP No. 64 - Advertising and Signage (including Advertising)

Is compatible with the desired amenity and visual character of an area, provides effective communication in suitable locations and is of high quality and finish. It applies to all signage that is visible from any public place or public reserve and in proximity to classified roads.

The Concept Plan recognises that signage will be incorporated into future applications for approval, commencing with Stage 1. Future development will comply with SEPP No. 64 and any specific requirements for signage under the Bathurst Regional Council Controls.

7.4 Assessment of Other Statutory Requirements

7.4.1 Threatened Species Conservation Act, 1995 Commonwealth Environment Protection and Biodiversity Conservation (EPBC) Act

The Threatened Species Conservation Act aims to conserve biological diversity and protect inter alia:

> *"threatened species, endangered populations or communities and their habitats."*

This application is accompanied by a detailed Flora and Fauna assessment report. The report states that no threatened flora or fauna species were recorded on the site. As indicated an 'Eight Part Test' has been undertaken as part of the flora and fauna assessment. The report concludes that the proposed Road/Rail Freight Terminal is unlikely to result in a significant impact to threatened species, populations or ecological communities, or their habitats that have been identified in the region.

Accordingly, the project will be consistent with the Threatened Species Conservation Act, similarly it will satisfy the Commonwealth EPBC Act 1999.

7.4.2 Disability Discrimination Act 1979

The aims of the Disability Discrimination Act are to provide equity of access in new developments. The Concept has been designed so that future applications will be able to provide access for people with disabilities in a manner consistent with the various legislation, policies and standards. Accordingly, future development will be consistent with the Disability Discrimination Act, 1979.

7.4.3 Proposed Amendments to the Orana Regional Environmental Plan (REP) No. 1 – Siding Spring

The Department of Planning has advised that in c2003, the then Minister for Infrastructure and Planning declared a Dark Skies Region, which extends for a distance of 200km from the Siding Spring Observatory, Coonabarabran, which is located approximately 250km from the subject site (see Figure 14).

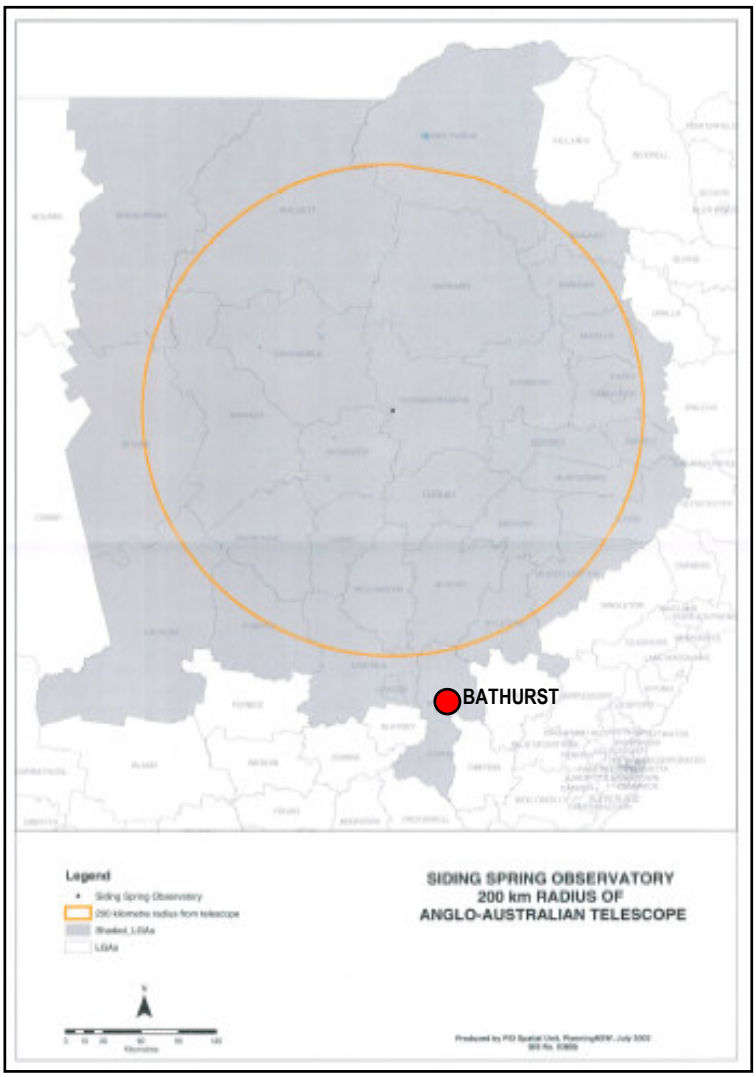


Figure 14: *Siding Springs Observatory - Dark Skies Region*

The aim in declaring the Dark Skies Region is to ensure the protection of the Siding Spring Observatory, which is designated as a major facility by the Astronomical Society of Australia (ASA), which maintains a list of "designated" optical observatories deserving of protection from obtrusive lighting ("light pollution"). This extended area is to be reflected in proposed draft amendments to the Orana REP No. 1, which currently does not apply to the subject site. It is understood that a draft REP will be publicly exhibited in 2006. The DoP have advised that controls under the future draft REP will extend beyond the 200km radius indicated on the map, however are unlikely to extend into the Kelso area. However as the ASA register indicates that there are observatories within or near the Bathurst LGA, protection from obtrusive lighting has been considered.

Consequently, the Concept plan incorporates measures to ensure that night-time lighting can be controlled to minimise levels of light spill/glow and avoid adverse impacts on the Dark Skies Region as well as nearby residential areas and adjacent land uses. Recommendations are contained in Section 11.2 of this report.

7.5 Summary

The proposed freight terminal including the Rail Infrastructure, Containerised Goods Storage, Regional Terminal Warehousing, Truck Stop–Railway Engineers Accommodation, Service Station and Highway Uses including Bulky Goods Storage and Small Warehousing, are consistent with objectives (a) (c) and (d) of Zone 1 (a) and hence permissible with consent pursuant to the LEP.

The proposal is a Major Project under the above Section of Part 3A of the Act, and the Minister is the consent authority. This has also been confirmed by the Deputy Director General in a letter dated 14 September 2005.

The project, including the Concept Plan and further applications for approval of works will be consistently able to demonstrate with the relevant SEPPs, and Bathurst DCPs. Furthermore, future development will be consistent with the Disability Discrimination Act, Threatened Species Conservation Act and the Commonwealth EPBC act.

8.0 ENVIRONMENTAL ENVELOPE ASSESSMENT: ON-SITE

8.1 General

This section will provide an assessment of the key on-site environmental aspects of the proposed Road / Rail Freight Terminal. In particular, this section will assess the site access, built form, flora and fauna impact. It will also assess indigenous and cultural heritage, hydraulics and services, soil contamination, potential hazard and risk, and waste management.

8.2 Access Assessment

The Concept Plan provides for suitable access and movement throughout the site for rail vehicles and pedestrians. As discussed in the Rail Report the proposal will provide for rail access to the site for the loading and unloading of goods that will accord with an ARTC agreement and the various statutory and industry guidelines that govern such activities, as discussed in the accompanying Rail Operations Report.

As discussed in the Traffic Report the project will provide three access points for vehicular access to service individual areas to segregate the heavy vehicle movements and light vehicle movements in accordance with the RTA recommendations. The site will have service roads for the manoeuvring and movement of trucks within the site, based on a maximum design capacity as discussed in the accompanying Traffic and Building Report.

In addition, the project will provide access for people with disabilities in accordance with various legislation, policies and standards and will be consistent with the Disability Discrimination Act, 1979.

8.3 Built Form

As discussed in Section 4.5.9, the application is for a Concept Approval and will be followed by a further application for works in accordance with comprising Stage 1. The design of the future development will conform to the building envelope controls and relevant BCA requirements (see Drawings 1277-MP-011 and Section 11.2 of this report).

8.4 Flora and Fauna Assessment

As indicated, a Flora and Fauna Assessment has been undertaken by Geolyse Pty Ltd, which outlines the existing flora and fauna on the site (see Annexure 9). A summary of the flora and fauna identified in that assessment concludes; inter alia:

> "The conservation value of the site is poor due to a long history of urban, industrial and agricultural land use practices and very high levels of clearing throughout most of the original native vegetation stratum. The narrow and degraded riparian corridors occurring in the central and northern areas of the study area provide limited habitat resources for the immediate locality. Opportunities exist during the rehabilitation of the main watercourse to improve in-stream habitat for aquatic associated species such as amphibians. Furthermore, areas fringing the On Site Detention Basins (Guy Sturt and Associates, 2005) would provide for further, alternative amphibian habitat.

Future development would not have a significant impact on the ecology of the study area, and would not contribute to a cumulative affect on the local or regional ecology.

A field survey has established that no ROTAP or regionally significant flora species are likely to be present on the site. Consideration of bio-climatic range forecast data, a search of NPWS Atlas of NSW Wildlife database and an assessment of potential habitat indicates that while threatened fauna species may opportunistically utilise the site there is no preferred or favoured habitat resource at risk.

This ecological assessment concludes that the proposed Central West Regional Road/Rail Freight Terminal is unlikely to result in a significant impact on threatened species, populations or ecological communities, or their habitats."

Based on the assessment and considering the potential habitat resources of the site, the report has recommended mitigation measures that could be undertaken to minimize potential impacts on flora and fauna and enhance the biodiversity values. The mitigation measures include:

"

On-Ground Works

The following measures would assist in minimising the potential impacts on terrestrial flora, fauna and habitat disturbances associated with future development.

- Any species used for landscape plantings within the riparian corridor should be endemic to the local area, consistent with the objectives and planning principals behind Bathurst Regional Council's *Vegetation Management Plan, 2003 (Terra Consulting 2003)*. Shrub and tree species chosen for planting within the riparian corridor and other areas within the study area should include species both suited to the locality as well as to soil and landscape factors. Selection should also consider species which have proven viable in already established local plantings. Suitable species lists have been prepared by Guy Sturt and Associates (2005).

- Weed monitoring and management is required during and after works. Invasive species including African Boxthorn, Blackberry, Cathead and Serrated Tussock must be controlled and removed from site. Stock-piling, transportation of soil and movement of machinery would need to be undertaken in a manner so as to minimise inadvertent transportation of weeds.

In-Stream Works

The following measures would assist in minimising the potential impacts on aquatic associated flora, fauna and habitat disturbances associated with future development.

- Works undertaken within the watercourses would be carried out during periods of nil to low flow and during seasonal conditions where the likelihood of high flow events is low.

- The removal of vegetation from the channel and banks of the watercourse would be staged to prevent the complete removal of habitat from the channel at any one time. Staged removal of willows lining the channel could involve clearing of the northern bank first, followed by bank formation, revegetation and stabilisation before clearing of the southern bank. The aim of this process is to maintain in-stream and riparian habitat resources during the succession of works within the riparian zone.

- Any in-stream reed or sedge areas would be retained during in-stream works to provide habitat opportunities for aquatic species. The existing semi-permanent pool areas located within the main watercourse central to the site should also be conserved until final in-stream work is completed.

- Problematic terrestrial weeds such as Blackberry would be removed from the watercourse channels and controlled early in the development process.

- Car-bodies, metal and dumped rubbish would be removed from the riparian zone.

- Fish passage within the main watercourse would be maintained at all times throughout the proposed works.

- Appropriate and recommended culverts/ crossings would be used for the main (Class 2) channel type based on guidelines for fish passage (*Fish Passage Requirements for Waterway Crossings/Fishnote: Policy and Guidelines for Fish Friendly Waterway Crossings*) NSW Fisheries 2003.

- In-stream weed species (including willows) would be managed and controlled during the life of the freight terminal facility.

- Watercourse banks and in-stream plantings would consist of suitable native species including appropriate non-invasive Sedge, Rush and shrub species. Proposed re-vegetation species would be guided by known riparian vegetation species lists obtainable from the Department of Infrastructure, Planning and Natural Resources.

- All outlet structures would be designed and constructed in accordance with the guideline: *Stormwater Outlet Structures to Streams* (*for pipes, culverts, drains and spillways – Version 1*).

- The establishment of water quality ponds, designed to include shoreline emergents, deepwater emergents and submerged macrophytes, and the installation of stormwater pollution devices and/or gross pollutant traps, would assist in negating the ongoing potential for water quality impacts on the Main Watercourse".

Accordingly, based on the flora and fauna assessment, the project is not likely to have a significant impact on the flora and fauna of the study area. Given that some threatened terrestrial fauna species have been identified as having the potential to occur on site and threatened amphibian species have been recorded in the vicinity of the site, an Eight Part Test has been carried out which concludes that future development would not have a significant effect on any threatened species, populations or ecological communities or their habitats.

8.5 Hydraulics and Services

8.5.1 Hydraulics

As indicated, the principle arrangements related to the hydraulic services within the site have been assessed in the report prepared by Whipps-Wood Consulting. As discussed in Section 5 of this report, the existing Main Watercourse on site will be substantially retained in accordance with DOP guidelines while the drainage channel adjoining the highway will be piped, which is considered justifiable as addressed in the Hydraulics Report. Design principles for future detailed design have been developed in consultation with various stakeholders to accord with statutory and project requirements.

The hydraulic design for the future development will include rainwater to be used for toilet flushing, irrigation and any other usage required on site. The rainwater collection system will consist of 1.6 million litres of storage over three collection areas. Water quality controls and storm water detention ponds will be constructed and connected directly to the existing Main Watercourse to manage water quality and outflow. Storm water pollution devices and or gross pollutant traps will be installed along the drainage system to assist with water quality in low flow situations.

The rail corridor will be protected from stormwater flows by grading hardstand areas away for the corridor and by the strategic location of storm water collection points. Water storage tanks will be provided on site to accommodate anticipated fire sprinkler and fire hydrant flow requirements. In principle it is proposed to provide 500,000 litres of storage for the fire sprinkler service and 300,000 litres for fire hydrant service. In addition, it is also anticipated that domestic water pumps will be required.

8.5.2 Flooding

The hydraulic services report states that the site does not have a history of flooding from the Main Watercourse and is not affected by flooding of the Macquarie River.

The upstream flow entering the site at the bed of the watercourse is approximates 38 cubic metres per second (38,000 l/sec) and the downstream flow of the Main Watercourse bed at the Great Western Highway boundary is approximately 40 cubic metres per second (40,000 l/sec).

The side walls of the Main watercourse generally vary in fall between 10% and 4%, which equates to an average 1:100 year flood water depth of 690mm (672-690mm upstream and 707-850mm downstream). Based on the existing water flows, the report recommends that the floor levels of the proposed buildings should generally be at least 500mm above the existing levels, in relation to the fall of the Main Watercourse from southeast to northwest. Independent floods studies will be undertaken where required to accompany applications for approvals for the construction of works..

8.5.3 Services

The existing sewers which traverse the site will be diverted as required to accommodate the development and the existing gas and water mains connected as required. Other services will be available to serve future development. They will be augmented or upgraded as required based on detailed analysis to be undertaken in conjunction with further applications for approvals for the various stages.

8.6 Indigenous and Cultural Heritage

8.6.1 Indigenous Heritage

An assessment of the impact of the project on Indigenous heritage has been prepared by OzArk Environmental & Heritage Management Pty Ltd (see Annexure 6). The site is located within the boundaries of the Bathurst Local Aboriginal Land Council (BLALC).

As indicated, the site comprises two landform units, which include the undulating slopes and the riparian corridor, both of which have been extensively disturbed and significantly altered as a result of European practices. In addition, almost the entire southeastern portion of the site has been removed by quarrying which has removed any potential for this area to retain evidence of Indigenous occupation. Generally, the entire site has been predominantly modified for agriculture. In terms of the watercourses, the main watercourse appears to have altered through machine operations along the banks as well as the altered hydrology resulting from the clearance of the vegetation and farming practices.

The assessment states that no Aboriginal sites were located or Aboriginal artefacts detected during the survey and the potential for intact, undetected, sub-surface deposits is considered low. Based on the assessment, the report states that no further archaeological assessment is required and there are no constraints to future development.

Accordingly, based on the studies undertaken by OzArk Environmental & Heritage Management Pty Ltd, the project is unlikely to have an adverse affect on the Aboriginal heritage, subject to consideration to the recommendations (see Recommendations - Section 11.2).

8.6.2 Cultural Heritage

The site does not contain any heritage items, and is not in a conservation area pursuant to the Bathurst LEP 1997. The previous history of the site indicates that it is unlikely to contain any historical relics of potential significance. Future approvals will be subject to the provisions of the NSW Heritage Ace that apply in the event that a relic is uncovered during construction.

8.7 Contamination Assessment

A preliminary soil contamination assessment was undertaken by Central West Envirotech to estimate level of contamination on site based on the EPA and Department of Health and Family services guidelines. Soils from two sites, which included the Muldoons Quarry (Kelso Gravel Quarry and 19.7 hectares of land in the vicinity) located in the northwest portion of the site and Reedy's Orchard to the west of Muldoons Quarry.

In terms of Muldoons Quarry the report concludes the following:

"

- Low risk of contamination in soils of adjacent grazing land
- Moderately low risk of contamination risk associated with Ingersole's abattoir
- Moderate contamination risk associated with the former Kelso gravel quarry

The risk associated with former grazing land will be reduced to very low with favourable results from analysis of two topsoil samples (08/0.2; 15/0.1) for nutrients, cations and heavy metals

The risk associated with the former abattoir will be reduced to a low level with favourable results from analysis of two topsoil (27/0.1, 28/0.1) and one groundwater (well) sample for nutrients, cations and heavy metals.

> The risk associated with the former gravel quarry will be reduced to a moderately low level with favourable results from the analysis of six soil samples (05/0.8, 05/1.7, 06/0.2, 06/0.9, 12/ 1.1 and 14/0.6) for nutrients, cations, and heavy metals and further reduced to a low risk level with favourable analysis of soil from test pits 5, 6, 7, 12 and 14 for asbestos.
>
> In the event that a non-favourable result is returned for these samples, depending on the parameter, the location, the concentration and the frequency of 'failure' various mitigation plans can be implement to isolate, segregate, neutralize and/or immobilize the contaminants of concern such that development may proceed in an acceptably safe manner with an acceptable legacy for future landuse option."

In terms of Reddy's Orchard, the report concludes the following:

"

- Negligible contamination deriving from organochlorine pesticides
- Negligible contamination deriving from organophosphate pesticides
- very low levels of heavy metals typically associated with orchard production

> No pesticides or heavy metals were encountered above respective HHBILs. Soil types and profiles were consistent with red solodic and non-calcic brown soils that derive from the Bathurst and Raglan soilscapes, both of which are underlain at shallow depth by weathered granodiorite and decomposed granite.
>
> Weathered granitic material was encountered at shallow depth (0.1 – 0.7 m) throughout the site. No introduced soil or fill or buried inventory such as asbestos or hydrocarbons was encountered in this investigation.
>
> Recommendations might include closer inspection of the Sydney Road frontage, specifically the small quarry and retail fruit outlet/storage. Preliminary site visits did not identify features that might implicate these areas as sources of significant contamination, apart from the transient storage of building materials at the quarry that may have contained asbestos. This is no longer the case. The quarry floor and perimeter of the shed might be sampled and tested should preliminary excavations show any introduced fill stained soil or abnormal discontinuities in the soil profile".

Accordingly, based on the studies undertaken, the site is considered suitable for continued use and for development in accordance with the Concept, subject to compliance with the recommendations contained in the preliminary contamination assessment (see Annexures 10 and 11 and Section 11.2).

8.8 Hazard and Risk

The project does not involve potentially hazardous or offensive industry within the meaning of SEPP No.33 and the Bathurst LEP. The underground fuel storage tank will be designed and installed in accordance with BCA standards and operated in accordance with relevant EPA guidelines. Construction and operations will be managed in accordance with statutory requirements to avoid or minimise hazard risk.

The transport of dangerous goods is regulated under the National Code of Practice for the Land Transport of Dangerous Goods. Specific reference to requirements in NSW is covered in Road and Rail Transport (Dangerous Goods) (Rail) Regulation 1999. Both ARTC and RailCorp have Interface Agreements and Access Agreements with customers, which reference these documents in respect of dangerous goods.

Measures will be made to manage and control fire risk in accordance with statutory requirements as advised by Whipps Wood (Hydraulic Services) as follows:

> "A BCC Carrier Water Main is located between the boundary of the subject Property and the Great Western Highway. Council is unable to provide any details of flows or pressures in the main, however, pressure taken from a section of main located at the northern end of Ashworth Street indicated a reasonable flow and pressure.
>
> In reviewing the project requirements it is recommended that allowance should be made for;
>
> 1. Potable water pumps
> 2. Fire hydrant storage tanks and pumps
> 3. Fire sprinkler storage tanks and pumps
>
> The tank sizes are dependant upon the final calculated flows for the fire hydrant and sprinkler systems. A preliminary assessment of the water storage requirement for the site indicates:
>
> * That for the fire hydrant service 2 x 150,000 litre tanks (effective storage) will be necessary.
> * That for the fire sprinkler service 2 x 250,000 litre tanks (effective storage) will be necessary.
>
> As noted above it is proposed that a BSA and AS compliant fire hydrant and sprinkler service be provided complete with compliant water storage to cater for fire protection. The storage for the fire sprinklers has been based on the largest, proposed, fire compartment assuming the most combustible environment and storage parameters."

Future applications for individual facilities would be subject to detailed design to minimize risk, including satisfying BCA requirements. Accordingly it is considered that the project is able to avoid or minimise risk and hazard, which will be managed in accordance with statutory and regulatory requirements.

8.9 Waste Management

Waste on-site will be carefully and efficiently managed in accordance with a Waste Management Plan (WMP) that will be submitted in conjunction with applications for further approvals commencing with Stage 1 application. The WMPs will include an assessment on the quality and type of waste generated during both development and operations phases. The volume of waste generated will be quantified and an on-site storage system will be provided. This will take into consideration the strategic location of waste storage devices, the collection and transportation of waste, and issues involved with the future treatment of waste (including recycling, reuse and landfill). Potentially hazardous waste from construction and operation will be identified and managed appropriately. The ongoing waste management will be considered to ensure that health and safety is guaranteed for the future occupants of the site.

8.10 Summary

As part of the environmental assessment of the project, an assessment of the site access, built form, flora and fauna impact and indigenous and cultural heritage was carried out. The likely effects of hydraulics and services, soil contamination, potential hazard and risk, and waste management were also considered.

Vehicular access from the Great Western Highway will accord with the RTA recommendations to segregate trucks from other vehicle movements. The site will have service roads for the manoeuvring and movement of trucks within the site. In addition, the project will provide access for people with disabilities in accordance with various legislation, policies and standards and will be consistent with the Disability Discrimination Act, 1979.

An assessment of the existing flora and fauna survey indicates that future development would not have a significant impact on the ecology of the study area and he overall local and regional ecology.

Given that some threatened terrestrial fauna species have been identified as having the potential to occur on site and threatened amphibian species have been recorded in the vicinity of the site, an 'Eight Part Test' was carried out, which concludes that future development would not have a significant effect on any threatened species, populations or ecological communities or their habitats.

In order to retain and rehabilitate the Main Watercourse, the hydraulics serves report has developed design principles for future detailed design services. Other site services will be upgraded or augmented to provide for future development.

The assessment of Indigenous heritage indicates that no Aboriginal sites were located or Aboriginal artefacts detected on site. In addition, the potential for intact, undetected, sub-surface deposits is considered low and hence no further archaeological assessment is required and there are no constraints to future development. Similarly, the site is unlikely to contain any historical archaeological relics of significance and would be managed in accordance with statutory requirements in the unlikely event that a relic is exposed during construction.

In addition, a preliminary assessment for contamination indicates that the site is suitable for continued occupation and development subject to adopting the recommendations in the report.

The proposed facility does not involve potentially hazardous or offensive industry within the meaning of the relevant State policy and Bathurst LEP. Notwithstanding this status, future applications including those for underground fuel storage tank, rail operations, warehousing and the movement of goods will be designed, installed and operated in accordance with relevant statutory and regulatory controls. All waste will be managed in accordance with a Waste Management Plan to be submitted with the Stage 1 application.

9.0 ENVIRONMENTAL ENVELOPE ASSESSMENT: OFF-SITE

9.1 General

This section will provide an assessment of the key off-site environmental aspects of the project. They include acoustic and vibration, a visual assessment, rail network, traffic and parking, down stream hydrology, air quality, social and economic impacts and the public interest.

9.2 Acoustic and Vibration Assessment

An assessment of the noise likely to be generated by future development has been undertaken by Indigo Acoustics (see Annexure 7).

The report establishes noise criteria during construction, future freight terminal operation, traffic, railway, warehousing and highway development and service station. The report also assesses vibration impacts, and a summary assessment follows.

9.2.1 Construction Noise

Although the EPA Environmental Noise Control Manual (ENCM) has been replaced by Industrial Noise Policy (INP) and the Noise Guide for Local Government (NGLG), it remains the only reference for construction noise guidelines and includes the following:

- For periods of four weeks or less, the L_{A10} level should not exceed the background (L_{A90}) level by more then 20dBA.
- For periods greater than four weeks and less than 26 weeks, the L_{A10} level should not exceed the background (L_{A90}) level by more then 10dBA.

In the event that the construction work exceeds 26 weeks, the report assumes that the background noise level should not exceed by more than 5dBA. In addition, the ENCM also includes time restrictions for construction activities as follows:

- Monday to Friday — 7.00am to 6.00pm
- Saturday — 7.00am to 1.00pm; If construction noise is inaudible at residential premises otherwise 8.00am to 1.00pm
- Sundays or Public Holidays — No construction work

It is anticipated that the proposed construction works which includes earthmoving, site preparation, road building and rail track laying which does not include blasting and rock breaking to take approximately 24 weeks. Taking into account that the existing background noise (measured at the Gold Panners Motor Inn) is 42dBA, the L_{A10} noise goal is 47dBA. The report suggests that during excavation phase the noise levels are is likely to exceed the noise goal. However, the construction noise will be intermittent and limited to daytime only and to some extent masked by the traffic noise.

9.2.2 Freight Terminal Operational Noise

The NSW INP has established noise criteria for adjacent residential areas in terms of amenity and intrusiveness and covers all operational noise on site including fixed and moving equipment and trucks. Based on the NSW INP noise criteria, the report establishes the amenity and intrusiveness noise goals which are included in Table 9.

TABLE 9: AMENITY AND INTRUSIVE NOISE GOALS (L_{AEQ}, 15MIN)

Time	Amenity Suburban	Intrusiveness	Site Specific Goal
Gold Panner Motor Inn			
Daytime (7.00am – 6.00pm)	55	47	47
Evening (6.00pm – 10.00pm)	45	45	45
Night time (10.00pm – 7.00am)	40	40	40
Ashworth Estate			
Daytime (7.00am – 6.00pm)	55	42	42
Evening (6.00pm – 10.00pm)	45	44	44
Night time (10.00pm – 7.00am)	40	41	40
The Scots School			
Daytime (7.00am – 6.00pm)	55	51	51
Evening (6.00pm – 10.00pm)	45	45	45
Night time (10.00pm – 7.00am)	40	41	40
Raglan			
Daytime (7.00am – 6.00pm)	55	44	44
Evening (6.00pm – 10.00pm)	45	44	44
Night time (10.00pm – 7.00am)	40	41	40

Source: Indigo Acoustics, July 2005

Sleep Disturbance Criteria

Notwithstanding that nighttimes external operations (operation of trains and forklifts) are not proposed, sleep disturbance criteria has been taken into consideration. The NSW INP does not address sleep arousal or maximum noise levels. Hence, the noise criterion included in the most recent DEC Noise Guide have been taken into consideration which indicates that sleep maybe disturbed if the source noise levels exceeds the background noise by more than 15dBA. Accordingly, the sleep disturbance goals are summarised in the table below (see Table 10).

TABLE 10: SLEEP DISTURBANCE NOISE GOALS (LA1)

Location	Background Noise Level	Sleep Disturbance Noise Goals
Gold Panner Motor Inn	35	50
No.13 Ashworth Drive	36	51
The Scots School	36	51
No.22 Cross Street, Raglan	36	51

Source: Indigo Acoustics, July 2005

In addition, the Environmental Criteria for Roads Traffic Noise (ECRTN), concludes the following:

- Maximum internal noise levels below 50 – 55dBA are unlikely to cause awakening reactions.
- One or two noise events per night, with maximum internal noise levels of 65 – 70dBA are not likely to affect health and well being significantly.

Freight Terminal Operational Noise Assessment

Based on measurements of other similar operations, which include operation of forklift, trucks and reversing alarms, and the Environmental Noise Model, the report predicts noise levels from the proposed forklifts likely to operate on site which are summarised below.

- When lifting up to 4 containers in any 15 minute period (1 to 4 movements per 15 minutes) the noise criteria are met under normal weather conditions at all locations;
- When lifting 1 container in any 15 minute period the noise criteria are met under adverse weather conditions at all locations; and,
- When lifting 4 containers in any 15 minute period the noise criteria are exceeded under adverse weather conditions only at Diamond Close, by 4dBA and Sundowner Drive by 1dBA.

The potential increase in noise criteria at Sundowner Drive and Diamond Close is considered negligible. In addition, the existing noise levels at Ashworth Drive are usually at or greater than the predated highest noise level at Diamond Close. Furthermore, the construction of the warehouses in future will provide an effective noise barrier to the residential area.

9.2.3 Traffic Generated Noise

The Environmental Criteria for Road Traffic Noise (ECRTN) depends on the type of road. Great Western Highway could be considered an "Arterial Road" and hence the noise goals at the building façade should be 60dBA ($L_{Aeq,\ 15hr}$) during daytime and 55dBA ($L_{Aeq,\ 9hr}$) during night time. In addition, potential increase in the noise level should not increase more than 2dBA.

Based on an increase of approximately 1850 vehicles, (50% in each direction) the likely increase in traffic noise will be less than 0.5dBA, which is unlikely to have a significant impact on the surrounding development.

9.2.4 Rail Noise

The Rail Infrastructure Corporation (RIC) have developed guidelines for Rail Noise and Vibration. The guidelines require an acoustic assessment of all multi-unit residential and other noise-sensitive proposals located within 60m of an operational railway. As indicated, the closest house from the proposed private siding is 350m (to the north), which is beyond the 60m RIC acoustic assessment area. Hence, the RIC rail noise level criteria is not applicable to the closest existing dwelling that could be affected.

In addition, EPA requires a noise level of 55dBA ($L_{Aeq,\ 24hr}$) and 80dBA (L_{Amax}) for train noise outside residences. Given that the anticipated growth is three trains per day, the $L_{Aeq,\ 24hr}$ assessment is considered irrelevant and L_{max} of 80dBA has been taken into consideration. The trains on the proposed siding within the site will be travelling slower than the through trains on the main line and hence are likely to generate less noise. The predicted noise level at the Gold Panners Inn, Diamond Place, Sundowner Estate and Scots School meet the EPA criteria for two loco trains at 20kph on the siding.

In terms of the existing houses at Raglan, the assessment of noise level indicate a significant level of noise generated by the existing on average 12 trains per day on the main line which is summarised in Table 11.

TABLE 11: PREDICTED TRAIN NOISE LEVEL AT RAGLAN (DBA)

Train Type	110kph (XPT 120)	70kph (XPT 80)	20kph
XPT	91	88	-
Intercity Passenger	86	83	-
2 Loco Freight	91	90	86

Source: Indigo Acoustics, July 2005

The predicted noise level of 86dBAfor the 2 loco trains on the proposed Siding is less than most of the existing noise levels. Accordingly, the proposed three trains (6 movements) per day during the day is unlikely to significantly affect the amenity of the surrounding development in terms of noise.

9.2.5 Warehousing and Highway Uses

As indicated, future applications will be lodged for the warehousing and highway uses and will require separate assessment. However, the warehousing and highway uses are unlikely to have a significant impacts on the surrounding development in terms of noise given that truck movements will only be the main source of noise. It is considered that the noise level associated with the trucks on site will be less than the existing noise generated by traffic on the Great Western Highway.

9.2.6 Service Station

The noise levels likely to be generated by the future service station will be similar to typical source noise levels which include mechanical plant, car acceleration and large trucks. The assessment of the likely noise generated was undertaken with respect to the closest house from the future service station in Diamond Close (approximately 200m north).

In terms of mechanical plant, the predicted maximum noises levels of 17dBA will satisfy the required 41dBA night time noise criteria. The sleep disturbance from cars is likely to be 43dBA and from trucks 55dBA. Although these exceed the required 51dBA sleep disturbance goal, they satisfy the ECRTN assessment of maximum internal noise level of below 50 – 55dBA and unlikely to cause awakening reactions. In addition, it is considered that the noise level associated with the trucks on site will be less than the existing noise generated by traffic on Great Western Highway. A separate assessment will be required for the relevant applications.

Accordingly, the forklift operations of the project will satisfy the predicted noise criteria under normal weather conditions. Under adverse conditions, noise limits from the fork lifts could be exceeded in Diamond Close. However, the proposed warehouses will provide a noise barrier. In the interim, the landscaping will be established in stages and site measures will be incorporated to provide effective sound attenuation.

The likely noise levels generated by the traffic are considered unlikely to have a significant impact on the surrounding development. In terms of train operation, the likely noise generated by the trains on site will meet the maximum noise goals. The predicted noise levels from trains at Raglan are likely to be lower than the existing noise levels. Although noise levels from the use of service station is likely to exceed sleep disturbance noise limits, they will be lower than the existing noise levels generated by the through traffic on Great Western Highway. Given that individual applications will be lodged in future for the warehousing sites, separate noise assessments will be required.

9.2.7 Vibration

The siding to the site will include track on ballast, which reduces the transfer of vibration to the ground. The proposed double private siding will include track set in concrete to allow passage of forklifts. In addition, at Raglan the trains will travel at a reduced speed. Accordingly, operational vibration levels will be less than currently experienced from passing trains. The house on the site is some 300m from the proposed private siding and at this distance no significant vibrations will be experienced.

Potential impacts resulting from vibration during the construction phase are not anticipated to constrain the project implementation however will be managed in accordance with statutory and regulatory controls.

9.3 Visual Assessment

A visual assessment has been undertaken by Mellor Gray Architects which shows the impact of the proposed development from a number of key locations surrounding the site (see Annexure 6). The assessment concludes as follows.

> "A total of nine views were identified to provide an overview of both immediate and distant surrounding areas that may possibly have been the recipient of negative impact by the proposed Building Envelopes.
>
> This has been represented graphically. From the nine views, it can be seen that the proximity of receptors has a reciprocal effect on the degree of Project visibility; i.e. the closer to the site the receptor location is, the visibility of the site and corresponding proposed Building Envelopes decrease. This is primarily due to the following:
>
> - Highly profiled existing adjacent landforms (both on the site perimeter and surrounding lands).
> - Curvature of the Great Western Highway.
> - Depth of the Great Western Highway Verge.
> - Site low level elevation (AHD) when compared to adjacent land.
> - Existing vegetation.
>
> This phenomenon is evident when comparing Views 2 through to 8 (inclusive) with the elevated and distant locations of Views 1 and 9.
> In conclusion, the overall level of visual impact of the Project is low from all critical receptors."

The conclusion that the overall level of visual impact of the project is low from all critical receptors is reinforced by the analysis, which is exemplified in the following photograph montages (see Figures 15 and 16).

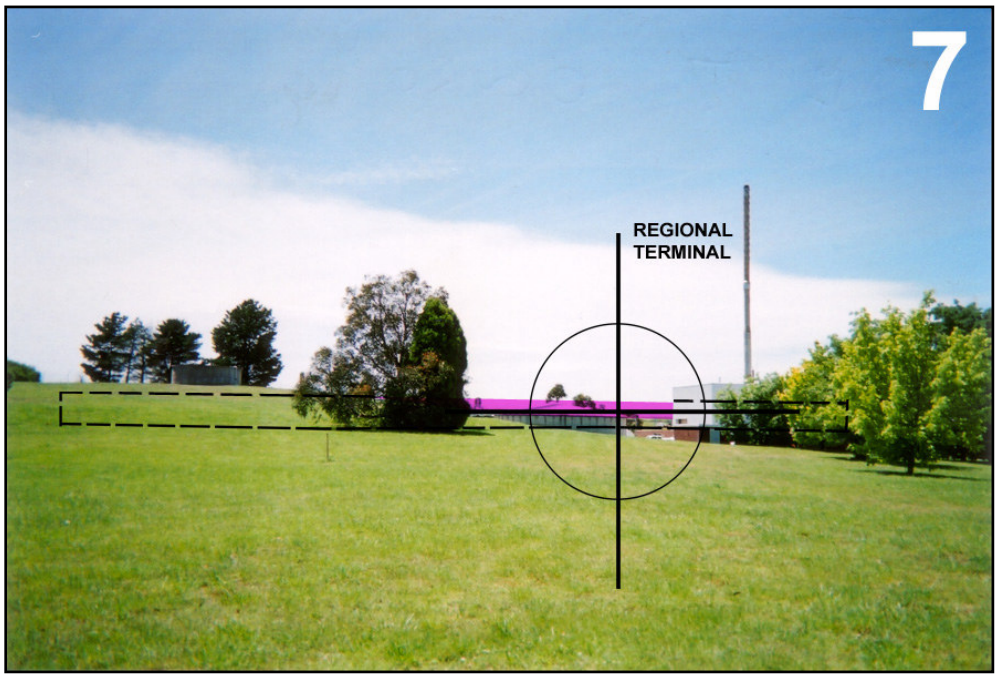


***Figure 15**: View 7 - from Devro industrial land.*

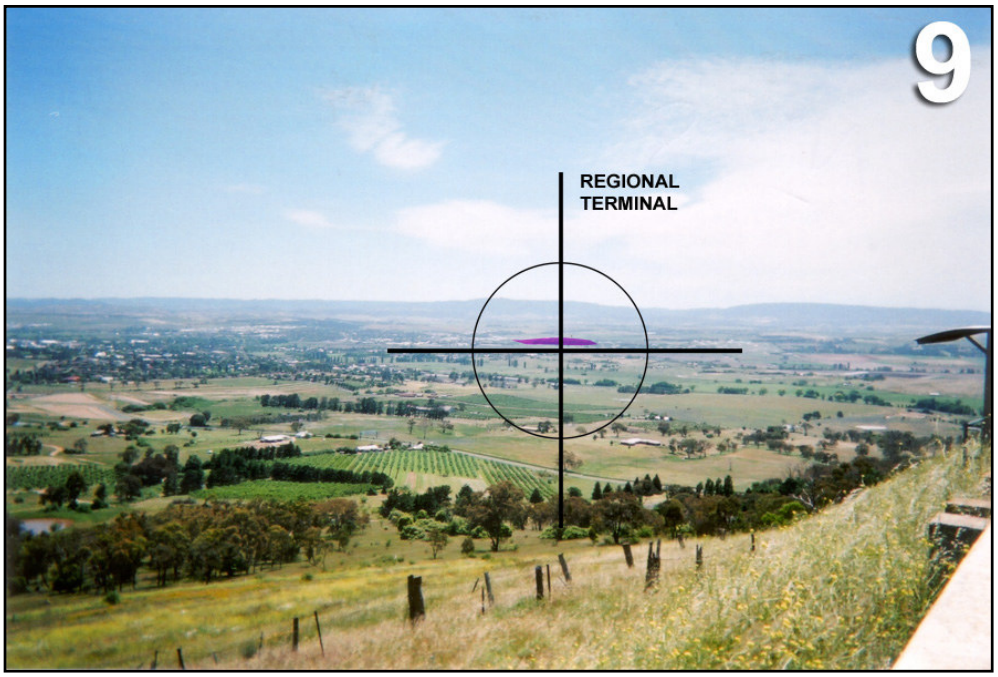


***Figure 16**: View 9 - from Mount Panorama, showing the entire site.*
Source: Mellor Gray Architects

Furthermore the Concept establishes the spatial relationship between future built elements and the landscape, as well as the indicative building envelope. Future applications for individual buildings will accord with the Concept. The architectural character of industrial buildings will harmonise and will be suitable for their function and location. The materials, finishes and colours of the proposed buildings will be sympathetic to the surrounding development in order to minimise their visual impacts.

The proposed landscaping on site will be in accordance with the landscape plan prepared Guy Sturt and Associates. The proposed landscaping will reinforce the rural identity of Bathurst region. The streetscape along Great Western Highway will provide an entrance feature to Bathurst in accordance with the Bathurst VMP and contribute as a component of the gateway to Bathurst. The proposed rehabilitation of the Main Watercourse will enhance the development of wildlife corridor in the region and create vegetation communities and habitat for the area. The landscaping will screen and soften the appearance of the buildings when viewed from the Great Western Highway, and has been designed to be effective in response to the staging of the project (see Drawings 1277-MP-007 and 1277 MP-008, Annexure 1).

9.4 Rail Network

A Rail Report has been prepared by Wands Solutions. The report assesses the proposal, the options considered, and includes a strategic assessment which indicates that the project will tie in with National, State and regional operations, and that the site is suitable for the facility in terms of sustainability indicators. (see Annexure 3). The report includes the following comments:

> "Preliminary discussions have been held with ARTC who have advised the proposal described in this report is feasible and have offered assistance in further development of the rail operations and interface requirements.
>
> ARTC have indicated there are ample train paths on the Western Line between Bowenfels and Raglan.
>
> ARTC have submitted the proposal by way of a "Third Party Proposal" to RIC's CRD for approval.
>
> RailCorp have indicated paths are available in the section Bowenfels to Port Botany."
>
> **"Conclusion**
> The Slobobax site and the rail transport proposal described herein will be an asset to the investors, the communities and tourists throughout the Blue Mountains in terms of reduced truck movements and to the Bathurst Region in terms of increased employment opportunities.
>
> The increased train movements on the main western rail line will ensure the line is retained as a Class 1 line.
>
> It is estimated that design and construction of the rail component, excluding earth works, will be completed in nine months from commencement and can proceed immediately upon approval by the various authorities."

9.5 Parking and Access Assessment

A Traffic and Parking Report has been prepared by GSA Planning. The report assesses the likely traffic generation and parking demand from future development (see Annexure 13). The report concludes as follows:

> "The proposed development has been assessed in terms of its likely traffic generation, car parking demand and appropriateness of the access arrangements and internal circulation.

> The key element of the proposal in a macro scale is the reduction of truck movements to Sydney and Melbourne as a result of the proposed use of the rail line. Currently trucks deliver containers to and from Sydney, and this will be replaced by the use of trains from the subject site. Although this is not likely to result in a reduction in the traffic surrounding the site (as trucks will still need to access the site), it will result in a reduction in the number of truck movements to and from Sydney and Melbourne.
>
> The traffic attracted to the proposed warehouse development is likely to be primarily traffic already within the road system, is not likely result in a high number of additional heavy vehicles. The traffic generation from the bulky goods uses is likely primarily comprise light vehicles. The light traffic has a considerably lower impact on the road network than heavy vehicles. The peak hours of the frontage uses and the rear warehousing uses are not likely to coincide. On this basis, the proposal is unlikely to significantly affect the capacity, operation or level of service of surrounding streets and intersections.
>
> In order to quantify whether the proposed access points have the appropriate capacity and geometry on the road and within the site, an INTANAL Analysis has been undertaken. The INTANAL analysis reveals that all three access points result in an optimum Level of Service A and their geometry is well in excess of the maximum queue length of 3 cars or trucks. On this basis, the access points are appropriate from a traffic point of view.
>
> The proposed means of access has been designed in accordance with the RTA Road Guide and the AS 2890.1. The proposed driveways comply with the requirements for a Category 4 and or 7 driveway and these means of access are considered appropriate in this instance. Furthermore, the width, design and number of proposed driveways are also considered to be appropriate.
>
> The proposed means of access will require a number of road works for the Great Western Highway, in order to accommodate acceleration, deceleration and turning lanes. These road works have been indicated on the submitted drawings and comply with the relevant RTA Guide for the design speed of the roadway.
>
> The proposal provides for 465 off-street car parking spaces, which are more than required by the Council Car Parking Cod. The number of spaces complies with the Council Car Parking Code, the RTA Guide and applicable survey data for parking requirements."

Accordingly, future development is not likely to significantly affect the surrounding road and intersection network and is considered appropriate in terms of traffic and parking (see Drawings 1277-MP-003, Annexure 1).

9.6 Down Stream Hydrology

Downstream Impacts Bathurst Freight Centre.

It is anticipated that the effect of the development on the downstream fauna, flora and watercourses will be negated by the introduction of Stormwater Detention and Water Quality Ponds.

This statement is made on the premise that stormwater flows from the site are restricted and that contaminates in the water are dealt with in an efficient and sustainable method. The following is an explanation outlining the specific measured proposed for the development.

The proposed Stormwater Detention facilities will be modelled to reflect state of nature flows. That is the time of concentration for an undeveloped area is significantly less than that for a fully developed site with large impervious surfaces. By modelling the detention systems it is possible to restrict the outflows from the site to the existing water course, to reflect the calculated state of nature flows. This is achieved with the introduction of orifice plate controls, buffer storage and surface drainage systems to mitigate unrestricted surface flows.

In addition to the detention facilities it is proposed that roof water flows be collected in a series of rainwater tanks. Harvested rainwater will then be utilised for sanitary flushing and irrigation. Once again the provision of rainwater harvesting mitigates unrestricted flows from the site, in an ecologically sustainable method.

The second significant issue is water quality. It is proposed that surface flows from unroofed areas be collected into a series of in-line circular settling tanks aimed primarily at the removal of oil and sediment. Outflows from the settling tanks will drain through Water Quality Ponds, which further assist water quality through the removal of floatables and other gross pollutants.

The final issue relates to flow velocity into the existing watercourse. Velocity control is as important as detention and water quality, except velocity control protects the watercourse from scouring and collapse. It is proposed that prior to discharge to the existing watercourse that velocity control devices be installed. The method of providing velocity control shall be in accordance with the standard details documented by the Department of Infrastructure Planning and Resources.

9.7 Air Quality

The project does not propose any activities that would have a detrimental effect on air quality beyond that usual for the use of the land in accordance with approvals. Accordingly it is considered that the project is able to avoid or minimise potentially adverse impact on air quality, which will be managed in accordance with statutory and regulatory requirements.

9.8 Social and Economic Impacts

An assessment of the site in terms of broad strategic planning considerations is included in Section 6.0 of this report. It indicates that the project is consistent with relevant strategic plans for Bathurst, which are currently under review. It is also consistent with industry based guidelines for such intermodal terminals.

While projections are not available to quantify all aspects of the potential benefits of the project at this conceptual stage, it is submitted that the project will have positive social and economic effects for reasons that include the following:

- Increased efficiency of land transport in NSW by virtue of it location some 4km east of Bathurst and adjacent the Great Western Highway and the Great Western Railway.
- Improved distribution and movement of goods in line with Bathurst strategies.
- The suitability of the site as a location for a road/rail freight terminal that will serve a growing population and economy as supported by the Bathurst Statistical Profile,
- improved road safety due to reduction in the number of truck movements to and from Sydney and over the Blue Mountains
- the contribution to employment generation in the region (as further discussed below).
- Environmental improvements to the site, including the watercourse: and,

- Development that accords with ESD principles as reflected in the site management and monitoring regimes that are included in as commitments in Section 11.2 of this report.

In respect of other sites zoned for intermodal purposes, a comparison with the White Rock Road site contained in Section 6.6 and the Rail report indicates that there are advantages to this site, including rail access and the avoidance of turning (change end) movements at the Bathurst yard. In addition, the proponents for this project will commit to a timely implementation of the project, when compared with the White Rock Road site, which has been approved since 2001 and is understood yet to show substantial commencement. Nonetheless, if both sites are developed it is anticipated that they will co-exist, and development of the White Rock site, as approved, will not affect the intention to commence of this project.

As previously indicated the Parks site is unlikely to be adversely affected as it serves domestic freight movement whereas this site will mainly move goods to seaports to the east. The Blayney site is understood to be well established as a freight centre, and Bathurst is identified by the Sea Freight Council of NSW as a location for a terminal, in addition to Blayney, as part of the intermodal network in NSW.

9.8.1 Employment

The project will provide considerable opportunities for local employment during construction, establishment and operation stage. In response to the requests for information from the Department of Housing, a response information is provided in Table 12.

TABLE 12: PROJECTED EMPLOYMENT

Issue	Comment
The total number of people to be employed during the construction phase	For Stage I works over 10 months as follows: 6 local accredited rail contractors for 10weeks 7 earthwork contractors for 10 weeks sourced from local region with supervision from Sydney 7 roadwork contractors for 16 weeks sourced from local region with supervision from Sydney.
When construction is likely to commence	Stage 1 on approval, anticipated mid 2006.
The duration of the construction phase	Construction will be undertaken in 4 Stages over a period of 10 years
Where construction workers are likely to be drawn from (and their travel distance to the site)	Construction workforce will be drawn from within a radius of 30km including Bathurst, with supervisors form Sydney
The total number of people to be employed once the project is operational	Up to 300 employees, based on estimates included in Section 4.6.3
Where the operational workforce are likely to be drawn from (and their travel distance)	The operational workforce will be drown from within a radius of 30km including Bathurst.
Multiplier effects for local employment	It is anticipated that the project will have positive multiplier effects in terms of more locally based spending and investment..

It is anticipated that demands for housing for a small number of supervisors can be met in the locality. The proposal will ultimate provide employment for up to 300 people which will occur over a period of up to 10 years, which will allow for orderly growth over time to meet housing and employment demands.

9.9 The Public Interest

It is considered to be in the public interest to realise a project that will improve the efficiency of freight transport, contribute to increased employment opportunities that will have positive social and economic benefits and multiplier effects that will benefit the broader community.

9.10 Summary

As part of the environmental assessment of the project, an assessment of the likely impact of future development on noise quality, existing traffic and visual impacts were carried out.

In terms of noise and vibrations, noise criteria during construction, and for future freight terminal operation, traffic, railway, warehousing and highway development, and service station have been established. In terms of construction noise, given the exiting traffic noise and the intermittent nature of the construction noise limited to daylight only, the construction noise is unlikely to have a significant impact on the surrounding development.

In terms of freight terminal operations, the noise likely to be generated is unlikely to cause sleep disturbance. In terms of train operations, the likely noise generated by the trains on site will meet the maximum noise goals. The predicted noise levels from trains at Raglan are likely to be lower than the existing noise levels. Although noise levels from the use of service station are likely to exceed sleep disturbance noise limits, they will be lower than the existing noise levels generated by the existing through traffic on Great Western Highway. Given that individual applications will be lodged in future for the warehousing sites, separate noise assessment will be required for those uses. The forklift operations of future development will satisfy the predicted noise criteria under normal weather. Conditions. Under adverse conditions, the proposed warehouses will provide an effective noise barrier to forklift noise, which may otherwise exceed noise criteria. In the interim, the landscaping will be established in stages and site measures will be incorporated to provide effective sound attenuation.

The visual analysis indicates that the project will have a low overall visual impact when viewed for key locations in the surrounds. Furthermore, the proposed building heights, scale, form and density will be in accordance with the concept. The materials, finishes and colours of the proposed building will be sympathetic to the surrounding development in order to minimise the visual impacts. In addition, the proposed landscaping will screen and soften the appearance of the buildings when viewed from the Great Western Highway.

The traffic to be generated by future development is unlikely to significantly affect the level of service, function or capacity of the surrounding road and intersections and is considered appropriate in terms of traffic and parking.

Accordingly, the project is unlikely to have a significant impact on the environment and surrounding development in terms of noise, views, traffic and railway operations. In addition, given the demand for such a facility in the region, the location and size of the site and potential for local employment, it is considered that the project will have positive social and economic impacts, and therefore is in the public interest.

10.0 JUSTIFICATION OF THE PROJECT

10.1 General

This section will discuss feasible alternative uses having regard to the objectives of the project, the need for the project, a justification for the development and the likely consequences should the project not be pursued.

10.2 Alternative Uses

The subject site is zoned 1(a) Inner Rural, which permits development for the purpose of agriculture, bushfire hazard reduction, home occupations, outbuildings (construction with exteriors of non-reflective materials).

In terms of agriculture, as indicated in the contamination report (see Annexures 10 and 11), the past use of the site included a small slaughter house, grazing of stock and granite quarry which was established in 1974 and resulted in removal of top soil. Based on the history of previous uses, the site is not considered to have good capability for agriculture. Accordingly, the use of the land for the purpose of agriculture considered no longer practicable.

The area immediately surrounding the site is used for residential, service/businesses, agriculture and industrial purposes. The land to the east and south is predominantly open land with a rural character. There are no natural reserves, national parks or any special reserves in the vicinity of the site. In addition, the site itself consists predominantly of open land with a decomposed granite quarry. The existing vegetation is dominated by a range of exotic trees and degraded riparian vegetation. The site and surrounds do not contain any significant fuel to cause bushfire and hence activities as permitted under the zoning to reduce bushfire hazard are not considered highly relevant.

A home based business is the operation of a business / service from the home which is incidental to the primary use of the premises. A home occupation is clearly secondary to the use of the any building as a dwelling. This will require the development of the site for residential purpose. However, given the large size of the lot, development of the lot for a single dwelling is considered inappropriate in its context (as discussed also in Section 6.0). In addition, development of the site for the purpose of multiple residential units is prohibited in Zone 1 (a).

An outbuilding is a building separate from but subordinate to the main dwelling. As stated above, the site is considered inappropriate for a single residential purpose. The subject site has been selected by SLOBOBAX considering its location some 4km west of Bathurst, and the surrounding industrial land use. The size of the site is sufficiently large to accommodate a road/rail freight terminal.

The site is also located adjoining the Great Western Highway and Great Western Railway and is considered to be more suitable for the proposed use as a Road / Rail Freight Terminal than other permissible uses.

10.3 Need for the Facility

This assessment has demonstrated the site is viable in terms of industry-established indicators discussed in Section 6.5 and the accompanying Rail report. In addition the proponent advises that there are expressions of interest from industries in the region that are sufficient to justify the need for the project. These expression of interest can only be substantiated as the project develops, however the proponent is confident that the investment will be justified. Furthermore, in comparison with other sites, such as White Rock Road, the subject site has comparative advantages, which make it worthy of development for the purpose. The proponent is also able to progress this development immediately on approval, commencing with a further application for Stage 1.

At a national and state regional level there is a well documented need for improved rail infrastructure which is supported by the press, including the Financial Review that an inefficient freight system will result in a drain of $30 billion on the economy of Australia by 2014 (see Annexure 15).

A growing national and regional economy as the Bathurst Statistical Profile indicates, places an increasing demand on transport infrastructure. For the local business to compete in a global and national market, the efficient and cost effective delivery of goods to the market place is imperative. Rail is a most cost-effective long distance mode of transport as well as cheaper and less polluting than road transport.

In comparison with other sites, such as White Rock Road, the subject site has comparative advantages as discussed in the accompanying Rail Operations Report. The trains will not be required to travel to Bathurst in order to turn around (change ends) to return to Sydney. In any event, the two facilities are compatible and Bathurst is recognised as a location for a intermodal terminal as part of a network of regional terminals that have developed over the last 10 years.

10.4 Consequences of Not Proceeding with the Project

The following consequences are likely as a result of not proceeding with the project:

- The opportunity to use a site which is particularly suited to the purpose of a road/rail freight terminal will be lost or delayed. The site has a number of unique features that are not replicated in an alternative site. These features include its exposure to the Great Western Highway and the Great Western Railway with sufficient space between freight handling and storage facilities that will be required. It is also close to a major regional centre that is a source of employment, and to local and regionally based industries that can make use of the facility. In addition, the site is located where adverse noise impacts on residential areas and institutions, including the Scots School, can be avoided.

- It will diminish the means to make environmental improvements to the site and its context, including rehabilitation of the existing degraded watercourse, and to make good a site that has been disturbed by many years of quarrying.

- It may discourage other entrepreneurial initiatives by experienced local businessmen who have developed an understanding of regional needs over many years.

- It will remove an opportunity to redress the imbalance between road and rail usage, that has put pressures on the viability of the state rail network, while placing undue pressures on the national and state road network.

- It will deny residents of Bathurst and surrounding community an opportunity for employment that will contribute to the economic well-being of an important regional centre in NSW.

10.5 Summary Justification of the Project

A full assessment of the potential environmental impacts including noise and vibration, flora and fauna, archaeology, traffic, visual environment, soil contamination and the private siding operations has been carried out which concludes that the propose development is unlikely to have an adverse impact on the environment and surrounding development. Existing residential areas and a school are sufficiently distanced to be unaffected by potentially adverse environmental impacts, including noise. The proposed activity complies with the various statutory and non-statutory requirements and is unlikely to have a significant impact on the amenity of the surrounding area.

10.5.1 Road/Rail Freight Terminal Component

The Strategic Assessment included in Section 6.0 has demonstrated that the project is consistent with relevant strategies for the Bathurst region. These strategies document the growing contribution of the Central West region to the economy of NSW with its large manufacturing industries specialising in areas such as food, timber, railway locomotives and transport. The growing economy places increasing demands on transport infrastructure, which is supported by the strategies.

In addition, the reliance on road transport for long haul transfer of goods from the Central West region adds to the pressure on the highway network, as supported by the accompanying traffic and rail reports. In action it will assist in reducing the pressure on road transport, particularly road fatalities on NSW highways involving trucks and buses, which are the highest in Australia, as documented by the Australian Transport Safety Bureau for 2004/2005 (see Table 13).

TABLE 13: FATAL CRASHES INVOLVING TRUCKS AND BUSES

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust.
Number of Crashes									
April 2004 – March 2005	50	26	14	11	11	3	1	0	116
April 2003 – March 2004	54	34	26	7	14	3	1	1	140
									(-17.1%)
Number of Deaths									
April 2004 – March 2005	55	27	15	15	11	3	1	0	127
April 2003 – March 2004	69	38	29	7	17	3	1	1	165
									(-23.0%)

Source: Australian Transport Safety Bureau

The site has strategic advantages being located some 4km west of Bathurst, adjacent the Great Western Highway and the Great Western Railway and with direct access to the ARTC rail network. It is of sufficient size to accommodate a road/rail freight terminal and is highly accessible for local business. The site is considered to be most appropriate and for a freight transport and support facility.

The proposed road/ rail freight terminal will tie in with the commitment of the NSW Government that 40% of all freight will be handled by rail, not road by 2011, as stated in the Australian Financial Review. In addition, the project will play a role in increasing the share of rail freight, particularly over long distances, which will deliver benefits to the Australian economy (See Annexure 15).

The facility is supported by the Lachlan Regional Transport Committee, which includes representatives of a number of Councils including Blayney Shire Council, City of Lithgow Council, Lachlan Shire Council, the Mid-western Region (Mudgee) Council and Young Shire Council. The Committee has indicated that the project is exemplary of the type required to increase the efficiency in the movement of freight and promote the use of all available land transport modes, not only in NSW but Australia-wide (see Annexure 15).

10.5.2 Highway Uses Component

The Strategic Assessment included in Section 6.0 has demonstrated that the highway uses including small warehousing and bulky good project is consistent with relevant strategies for the Bathurst region. The proposed highway uses will be located opposite land to the north that is zoned for business service development. The site will be able to accommodate up to 11,000m^2 of gross floor space, however, the development of the site for this purpose, will take place in the later stage (Stage 4), and the site itself is anticipated to generate a demand for services, which may not otherwise arise.

In addition the sites will be developed as facilities that will have approximately 500m^2 of floor area, which is the minimum floor space recommended by the Shopping Centre Council of Australia for such facilities that are to be located outside established shopping centres.

10.6 Summary

The subject site has been selected considering its location some 4km west of Bathurst, which is an established manufacturing region and the size of the site, and is of the size necessary to accommodate a road/rail freight terminal. The site is also located adjoining the Great Western Highway and Great Western Railway. For these reasons, the site is considered to be more suitable for the proposed use as a Road/Rail Freight Terminal than other permissible uses. Failure to develop the site for the proposed road/rail freight terminal will result in an opportunity lost or delayed to use a site which is particularly suited to the purpose of a road/rail freight terminal.

The need and justification for the project has been established by the proponent and accords with strategies for the Bathurst LGA. It aligns with National and State goals for improved transport infrastructure to support a growing Australian and regional economy. The project will reduce the demand for road transport particularly over the Blue Mountains and consequently may assist reduce the number of fatalities on NSW highways. It will also provide a cost-effective long distance mode of transport that is less polluting than road transport.

Accordingly, the project will satisfy a demand established by the proponent, and is likely to promote substantial economic, social and environmental benefits to the region and therefore is considered justifiable.

11.0 CONCLUSION AND RECOMMENDATIONS

11.1 Conclusion

This application is for Concept Plan approval for a Road/Rail Freight Terminal at Kelso, Bathurst. The proposal is a Major Project under the above Section of Part 3A of the Act, and the Minister is the consent authority. This has also been confirmed by the Deputy Director General in a letter dated 14 September 2005.This application is the first of a staged process that will commence with a application for further approval of Stage 1. The Concept for the freight terminal includes truck access, railway sidings and interface, containerised goods storage yards, highway frontage uses, warehouse facilities and open storage areas, created as development sites for future applications, with parking for some 465 vehicles in total.

The project is a unique opportunity to contribute to the increased efficiency of land transport in NSW, by creating a road/rail freight terminal for the Bathurst region. The proposed rail freight terminal responds to the need for such facilities that has been expressed at national and state levels of government and is supported by interested regional and local groups.

The subject site is ideally located some 4km west of Bathurst, which is an established manufacturing region. The site has the necessary attributes to accommodate a viable road/rail freight terminal measured in terms of industry development criteria considered critical to sustain such a facility. The site is also ideally located adjacent the Great Western Highway, Great Western Railway, with which it will be connected.

The site is within the 1(a) Inner Rural Zone pursuant to the Bathurst City Council Local Environmental Plan (LEP) 1997. The project, which comprises Rail Infrastructure, Containerised Goods Storage, Regional Terminal Warehousing, Truck Stop–Railway Engineers Accommodation, Service Station and Highway Uses including Bulky Goods Storage and Small Warehousing, are consistent with objectives (a) (c) and (d) of Zone 1 (a) and hence permissible with consent pursuant to the LEP.

In addition the project is considered consistent with relevant statutory controls including SEPP No. 55; the Contaminated Land Management Act; and Council's Contaminated Land Policy. It is also considered able to satisfy the requirements Commonwealth EPBC Act, 1999; Threatened Species Act 1995; and the Disability Discrimination Act, 1979.

An assessment of the potential impacts of future development in terms of flora and fauna, hydraulics, heritage, contamination, noise and vibration and the visual environment has been carried out and is detailed in the previous sections of this report.

The subject site presents moderate to low risk of contamination potentially deriving from past land uses at the Muldoons Quarry site, which however can be managed on further analysis. The Reddy's Orchard site, presents a negligible to very low risk of contamination potentially deriving from past orcharding land uses. However, subject to implementation of the recommendations, potential risk can be reduced to a negligible to low risk of contamination and is not considered to be at a level that would prevent the safe use of the site.

The environmental envelope assessment on-site and off-site indicates that the project will have acceptable impact in terms of noise and vibration subject, to the incorporation of recommended mitigation measures.

The visual analysis indicates that the project will have a low overall visual impact when viewed for key locations in the surrounds. Furthermore, the future buildings will be of a height, scale, form and density, and will accord with the Concept. In addition, the proposed landscaping will screen and soften the appearance of the buildings when viewed from the Great Western Highway to contribute positively as part of the gateway to Bathurst.

The project will provide a needed freight transport and support facility which is likely to reduce the demand for road transport and consequently may contribute to a reduction in the number of fatalities on NSW highways. In addition, the project is likely to provide substantial economic, social and environmental benefits to the region. Failure to develop the site for the proposed road/rail freight terminal will result in an opportunity lost or delayed to use a site, which is particularly suited to the purpose of a road/rail freight terminal. Accordingly, for the reasons stated above, the project is considered to be in the public interest.

11.2 Recommendations and Draft Commitments

Based on the various specialist studies undertaken, the project is unlikely to have a significant impact on the local and regional environment and is considered appropriate, subject to compliance with the recommendations in respect of the following: Traffic, Noise Assessment, Indigenous Heritage, Soil Contamination, Landscape and Hydraulic Services as well as well as appropriate site access, layout and building design in accordable with the Concept.

The Concept Plan is consistent with the recommendations, which have been incorporated in the project to obtain approval for this Concept Plan and specific aspects of the project or can be incorporated in subsequent approvals that will realise the project in its totality.

Adoption of the recommendations will ensure that the project results in positive environmental outcomes and management measures that will reduced or avoid environmental impacts.

For this reason, this section provides a Draft Statement of Commitments by SLOBOBAX that will be finalised in approval of the project. The contents are grouped in the following categories and are drawn from the recommendations contained in this assessment:

- Staging and design controls;
- Site access;
- Building and site design;
- Environmental managements;
- Site utilities and service; and,
- Site management.

Any involved party such as developer/contractor involved in the design, construction and operation phases will be required to undertake the project in accordance with the finalised commitments.

11.2.1 Draft Statement of Commitments

It is anticipated that the following Draft Statement of Commitments will be finalized in accordance the major project requirements/processes following exhibition of the Concepts and on approval of the Concept.

Time/Stage Key:

D = Design, **C** = Construction, **O** = Operations, **S1** = Stage 1, **S2** = Stage 2, **S3** = Stage 3, **SA** = All Stages,

Other Abbreviations:

TEU = Twenty Foot Equivalent Container Units - is a standard international unit of measurement to estimate ship carrying capacity, port throughput, or a given land transport task. A twenty-foot container represents one TEU, while a forty foot container represents two TEUs.

	Element Desired Outcomes	Corresponding Acts, Regulations, Local Government Controls and/or Australian Standards	Action: SLOBOBAX commitments:	Time Stage
A	**STAGING AND DESIGN CONTROLS**			
			Commitments	
A.1	Development in accordance with Staging Plan	-	Seek approval of concept and indicate intention to seek further approvals in stages, commencing with Stage 1 on approval of concept.	D
A.2	Design in accordance with Design Controls and Standards	*Refer Building Envelope Controls Table below*	Design controls and performance standards for Stage 1 are included in this Concept, which will be augmented by detailed design controls and performance standards for subsequent stages	D
B	**SITE ACCESS**			
	Rail		**Commitments**	
B.1	Private Siding: Connection to site to avoid alternative of Sydney origin/destined freight movement passing through Bathurst City	ARTC Agreement	Negotiate an *ACCESS AGREEMENT*, a *CONNECTION AGREEMENT* and an *INTERFACE SAFETY PLAN* with ARTC which will include approval for design and construction works within the Rail Corridor. Provide Connection to site from the ARTC UP Line, including Points to allow Crossover between DOWN Line and UP Line .	D,C,O S1
B.2	Construct and maintain Private Siding	Australian Standards AS4292 Parts 1 to 6.	Fund and construct all necessary track and signal infrastructure within the rail corridor to facilitate the siding connection and crossover points. This infrastructure will be vested in RICC / ARTC which will maintain utilising funds derived from access fees. Slobobax will engage an accredited company to inspect and maintain the track within the site.	O
B.3	Provide Private Siding(s) within site	ARTC NSW Engineering Standards	Provide 2 Private sidings – 1 for loading, and 1 for Locomotive Run-around (which could also facilitate Load-over: i.e. loading 2 trains simultaneously), in accordance with ARTC NSW Engineering Standards for Design, Procurement & Construction.	D,C,O S1

B.4	Provide Locomotive Run-around within site	ARTC NSW Engineering Standards	Provide a Private Locomotive Run-around Siding: enabling the full 567 metre length of wagons to be fully loaded without requirement for off-site division of train, in accordance with TDS 11 Standard Classification of Lines & TDS 15 Infrastructure Requirements For Unit Train Loading and Unloading Facilities.	D,C,O S1
B.5	Develop Optimum and Sustainable Operating Capacity	In accordance with ARTC Access Agreement	Initially aim to operate one train per day consisting of two 81/82 class locomotives hauling twenty-six NQOF (or similar C class) wagons for a total length of 567 metres and total weight of 1976 tonnes in the UP direction (laden with 78 TEU containers) and 683 tonnes in the DOWN direction (unladen with 78 x 6m containers). Aim to will increase to three trains per day over the next ten years.	O
	Vehicular Access and Management		**Commitments**	
B.6	Eastern Exit Design: HIGHWAY USES: East bound traffic	AUSROADS	Widen the road at the eastern end of the site to incorporate an eastbound acceleration lane.	C S1
B.7	Eastern Exit Design: HIGHWAY USES: West bound traffic	AUSROADS	Widen the road at the eastern end of the site to incorporate a westbound acceleration lane.	C S1
B.8	Central Entry: REGIONAL TERMINAL and HIGHWAY USES	AUSROADS	Widen the road in the centre of the northern site boundary to incorporate both eastbound and westbound deceleration lanes.	C S1
B.9	Western Entry/exit: SERVICE STATION, REGIONAL TERMINAL and HIGHWAY USES	AUSROADS	Widen the road at the western end of the site to incorporate a seagull intersection, allowing for an eastbound acceleration lane, an eastbound deceleration lane, a westbound acceleration lane and a westbound deceleration lane.	C S1
B.10	Provide Parking on-site	AS 2890.1 1993 BCC Off-Street Car Parking Code 1986	Adequately provide parking for vehicles within the development.	C S1, S2 & S3
C	**BUILDING AND SITE DESIGN**			
	Built Form		**Commitments**	
C.1	Establish Site Design Levels	ARTC Engineering Standard - TDS 06 - TS 3202 - Basic Siding Track Design Standards	Site levels are dictated by the limitations of locomotive operations. (ARTC NSW Engineering Standards require a minimum of 1:33 grade where loco & wagon attachment is to be carried out.) Private sidings, Loading Zone, Hardstand and corresponding Service Road shall fall from the southeast site corner towards the northwest. Detailed design for earthworks to be included in Stage 1 submission.	D,C S1
C.2	Establish Building Envelope for Future Buildings	*Refer Building Envelope Controls Table below*	An indicative building envelope has been established for this Concept that establishes maximum wall/building heights.	D S2,S3
C.3	Appropriate Density/Floor Space to accord with Concept	-	Site density to be established by building envelope controls and defined by maximum height, setbacks, landscaped area to achieve development in accordance with the Concept, and so as not to exceed Bathurst FSR controls for comparable building uses.	D
C.4	Heights to accord with Concept	*Refer Building Envelope Controls Table below*	Building heights to be within the height envelope and in accord with the indicative heights included within the Building Envelope Controls Table (below) and as suitable for the building function.	D

Building/structure	Envelope Controls Table
Administration Bldg	. Maximum of 2 Storeys . Maintain Watercourse Riparian Zone 10m setback
Regional Warehousing	. 15m max external height from re-graded ground. . 12m Clear internal height . 30m setback to Western Site Boundary . 90m setback to Southern Site Boundary Curvature

Highway Uses	. 10m max external height from re-graded ground . 8m Clear internal height or maximum 2 Storeys. . 27m setback to Great Western Hwy . 20m setback to Eastern Site Boundary
Service Station and Truck Stop	. To Code . 30m Truck Stop setback to Western Site Boundary . 16m Service Station setback to Great Western Hwy
Forklift Maintenance Bldg	. To suit Forklift requirements . 20m setback to Eastern Site Boundary
Retaining walls	. Maintain Watercourse Riparian Zone 10m setback
Landscaping	. Maintain Watercourse Riparian Zone 10m setback . Placement and percentage cover of Soft landscaping, Water Quality Ponds and Paving (Footpaths and car parking treatment for differentiation), in accordance with the Landscaping Drawings (Refer corresponding Annexure).

C.5	Building Character and Materials		Buildings to be architect designed and of high quality materials suited to the purpose and be compatible with physical and visual context. Materials to be non-reflective externally, thereby minimising potential hazard and nuisance caused by reflection of sunlight	
C.6	BCA Compliance	Building Code of Australia (BCA)	Ensure that the development complies with the provisions of the BCA in respect of Building Works	D
C.7	Civil Works	BCC Guidelines	Ensuring that the development's Civil Works comply with the provisions of the BCC Guidelines for Engineering Works & Civil Engineering Construction Specification	D S1
	Landscape		**Commitments**	
C.8	Landscaped Areas	Bathurst Regional Council Vegetation Management Plan (2003)	Provide sustainable landscaping in accordance with the Concept plan documentation that accords with Councils Vegetation Management Plan and a site specific Vegetation Management Plan (to be prepared and submitted with Stage 1).	D,C S1,S2
C.9	Respect the positive visual qualities of the Great Western Highway as gateway to Bathurst	Bathurst Regional Council Vegetation Management Plan (2003)	Provide streetscape landscaping to the Great Western Highway (Sydney Road) to accord with Council Management Plans, site specific Vegetation Management Plan and to integrate with existing Highway precedence.	S1,S2
D	**ENVIRONMENTAL MANAGEMENT**			
	Watercourse – Riparian Management		**Commitments**	
D.1	Restore Watercourse and Riparian zone	Bathurst Regional Council Vegetation Management Plan (2003)	Restore watercourse and riparian zone in accordance with Councils Vegetation Management Plan and a Site Specific Riparian Management Plan, to be submitted with Stage 1	D,C
D.1	Restore Riparian Zone: Quality	Site specific Riparian Mgn't Plan and corresponding 3A Permit	Re-vegetate the existing watercourse on site using locally native plant species to create high quality habitat for flora and fauna that contributes to an improved wildlife corridor	D,C S1
D.2	Restore Riparian Zone:– Staging	As above	Implement vegetation of the watercourse in stages to protect where possible existing habitat in the short term. maintain in-stream and Riparian habitat resources during the succession of works with the riparian zone in accordance with a Site Specific Riparian Management Plan.	D,C S1
D.3	Restore Riparian Zone: Restoration – Wildlife	As above	Enhance the development of functional wildlife corridors in the region - Carry out environmental performance monitoring for at least a 5 year period.	D,C S1

			Environmental Performance Reporting	
			Monthly Reporting	Monthly Report of type of work carried out, location, area and hours spent completing various tasks using specified report form
			Photographic Monitoring	Photographic monitoring including at a minimum 10 locations (photo-points) on pre and post works.
			Yearly Report	Yearly Report summarising all work carried out during the previous twelve (12) month period, including a coloured 'condition of riparian zone' map, updated species lists and the results of the monitoring program (photography).
			Field Surveys	Annual field surveys to monitor health and diversity of planted native flora
			Monitoring	Seasonal field surveys to monitor abundance and diversity of fauna
D.4	Restore Riparian Zone: Precedence	Site specific Riparian Mgn't Plan and corresponding 3A Permit	Recreate as far as possible the original vegetation communities and habitats of the area within the restored Riparian zone.	D,C,O S1
D.5	Water Quality Ponds:	DIPNR Guidelines + Water Sensitive Planning Guide *(published by the Upper Parramatta River Catchment Trust on behalf of the WSDU in the Sydney Region)*	Establish water quality ponds, designed to include shoreline emergents, deepwater emergents and submerged macrophytes, and the installation of Stormwater pollution devices and/or gross pollutant traps, to assist in negating the ongoing potential for water quality impacts on Raglan Creek (downstream from the site bisecting watercourse).	O S1,S2, S3+
D.6	Water Quality Ponds: Macrophytes	Site specific Riparian Mgn't Plan and corresponding 3A Permit	Use macrophytes to assist in bio-filtration of water in proposed Water Quality ponds where possible.	D,C S1
D.7	Undertake works to Watercourse during suitable Period	As above	Undertake works within the watercourse during periods of nil to low flow and during seasonal conditions where the likelihood of high flow events is low.	C S1
D.8	Remove terrestrial Watercourse weeds	As above	Remove problematic terrestrial weeds, such as Blackberry, from the watercourse channels in the development process	C,O S1
D.9	Remove rubbish from Watercourse	As above	Remove dumped rubbish including car-bodies, and metal items from the site and riparian zone.	C S1
D.10	Watercourse: Fish Passage	-	Maintain fish passage within the watercourse at all times throughout the proposed works.	C S1,S2
D.11	Manage Weed Species along Watercourse	As above	Manage and control in-stream weed species (including willows) during the life of the proposal.	O S1,S2, S3+
D.12	Provide Energy Dissipating Outlet Structures	DIPNR Guidelines	Provide energy dissipation devices on the outlets from the water quality ponds to reduce the velocity of stormwater entering the water course and corresponding erosion prevention of the existing banks. *Outlet structures to be designed and constructed in accordance with the guideline: STORMWATER OUTLET STRUCTURES TO STREAMS (FOR PIPES, CULVETS, DRAINS AND SPILLWAYS – VERSION ONE)*	D,C,O S1
	Threatened Species assessment and Management		**Conservation and Offset measures:** **Commitments**	
D.13	Maintain in-stream and riparian habitat resources during the succession of work within the riparian zone.	Site specific Riparian Mgn't Plan and corresponding 3A Permit as required	Stage the removal of vegetation from the channel and banks of the watercourse to prevent the complete removal of amphibian habitat from the channel at any one time.	D,C S1,S2, S3+

D.14	Monitor threatened species and their potential habitat	As above NPWS	An Ecologist to visit the site two weeks prior to construction works commencing to ensure that no threatened species have emerged since the ecological field survey undertaken in April 2005: If threatened species are detected then a plan for their protection and/or possible relocation will be developed in consultation with the National Parks and Wildlife Service	C S1
	Landscape		**Commitments**	
D.15	Sustainable New Planting	Site specific Riparian Mgn't Plan and corresponding 3A Permit	Use endemic and ecologically appropriate plant species to reduce irrigation, maintenance requirements and the use of pesticides and herbicides.	D,C,O S1
D.16	Promote sustainable planting	As above	Minimise the planting of lawns in favour of more drought tolerant native groundcovers.	D,C,O S1,S2 S2+
	Contaminated Land Assessment		**Commitments**	
D.17	Manage potential soil Contamination: Moderately low risk associated with the former Ingersole's Abattoir	-	Implement mitigation plans to isolate, segregate, neutralize and/or immobilize the contaminants of concern such that development may proceed in an acceptably safe manner with and acceptable legacy for future land use options in the event that a non-favourable result is returned for sampling, depending on the parameter, the location, the concentration and the frequency of sample 'failure.'	C
D.18	Manage potential soil Contamination: Low risk in soils of adjacent grazing land Move to section D.17	-	As above	C
D.19	Manage potential soil Contamination: Moderate risk associated with the former Kelso Gravel Quarry Move to section D.17	-	As above	C
	Potential Archaeology, Cultural landscape significance and Heritage conservation		**Commitments**	
D.20	Potential Aboriginal Sites and areas/items of potential Archaeological significance.	NWP Act (1974) BURRA Charter	Should any 'aboriginal relics or sites be exposed on site during the course of construction, then work in that area shall cease and the DEC Western Region Office, the Bathurst LALC (Local Aboriginal Land Council) be contacted in accordance with statutory processes.	C S1
D.21	Cultural Heritage	NSW Heritage Act (1977)	Should any historical 'relics' be exposed on site during construction, then work in that area shall cease and the NSW Heritage Office be contacted in accordance with statutory processes.	
	Pollution Limits – Light Scatter		**Commitments**	
D.22	Control Potential Light Scatter (Spill): Adjacent Land Use: Not to adversely affect nearby residences, other adjacent land uses	Illumination levels to be established in accordance with the Dark Skies Region Declaration	Detail Lighting Towers, including heights, lamp controls and corresponding strengths over operational areas (and areas required to be lit for security)	D,O S1,S2 & S3+
D.23	Light Scatter (Spill): Avoid adverse effect on Dark Skies Region	Illumination levels to be established in accordance with the Dark Skies Region Declaration	Detail Lighting Towers, including heights, lamp controls and corresponding strengths over operational areas (and areas required to be lit for security) that will not adversely affect the Dark Skies Region Declaration.	D,O S1,S2 & S3+

	Pollution Limits – Air Quality		Commitments	
D.24	Avoid dust impacts from TEU (Containers) Hardstand	EPA Act 1979 [Section 90(1)(i)]	Selection of materials and construction used for the TEU Hardstand storage areas so as to ensure mechanical interlocking of aggregate and to minimise adverse effects (noise and dust generation) on adjoining properties, whilst providing a safe, all-weather platform for loading, unloading, and manoeuvring of vehicles and corresponding containers	D,C,O D,O S1
	Pollution Limits – Acoustics		**Commitments**	
D.25	Minimise cumulative impacts of Noise emissions and operational noise from; Trains, on site, Forklifts, Warehousing and Highway uses	Industrial Noise Policy (EPA 2000)	Meet the derived noise goals for all times of day at all nearby residential boundaries under normal weather conditions. *Note 1: Trains will only operate during the daytime. Train noise on the site is predicted to exceed the daytime noise limits at all locations. However, the noise from existing trains on the existing train line will be louder than the trains on the private siding as they are travelling faster. No additional noise annoyance is expected.* *Note 2: The predicted combined noise levels from all activities are predicted to exceed the evening noise goals at the Gold Panner Motor Inn by 1dBA and at Diamond Close by up to 5dBA.* *Note 3: A 1dBA excess is regarded as negligible impact. The 5dBA exceedence at Diamond Close needs consideration in relation to the existing noise environment. Existing Great Western Highway traffic noise already exceeds these predicted noise levels. The actual noise levels at Diamond Close may be lower as no allowance has been made for the shielding effects of the completed warehouses or the shielding from future development west of the existing Harvey Norman store.*	C,O
D.26	Minimise cumulative impacts of noise emissions on sleep disturbance	Noise Guide for Local Government (DEC 2004). Environmental Criteria for Road Traffic Noise (EPA 1999)	Meet the derived sleep disturbance nighttimes noise goals at all nearby residential boundaries under normal weather conditions. *Note 1: Only the Service Station will operate at night - is the only aspect which is assessed for sleep disturbance. Maximum noise levels are predicted to meet the most stringent sleep disturbance noise goals at all locations except for the closest houses in Diamond Close. However, the less stringent ECTRN goals will be met and they are also quieter than existing truck movements on the Great Western Highway.* *Note 2: Maximum noise levels and sleep disturbance are not addressed in the Industrial Noise Policy)*	C,O
D.27	Minimise noise emission – Impacts of Trains at Raglan	Interim Guidelines for Councils – *Consideration of Rail Noise and Vibration in the Planning Process (RIC 2003).* and now superseded *Environmental Noise Control Manual Chapter 163 (EPA 1985)*	Minimise noise emissions at Raglan residential boundaries under normal weather conditions. *Note: 1 The EPA guidelines are already exceeded at the closest houses in Raglan and will not change significantly as a result of the proposed use of the private siding. It is unlikely that 1 to 3 extra trains on the private siding during the day will significantly affect the amenity of residents in Raglan.*	D,C,O
D.28	Minimise cumulative emissions and noise from Traffic on The Great Western Highway.	Environmental Criteria for Road Traffic Noise (EPA 1999)	Minimise noise emissions from additional traffic generated by the Project at all nearby residential boundaries under normal weather conditions.	O

E	**SITE UTILITIES AND SERVICES**			
	Hydraulic Services		**Commitments**	
E.1	Sewer Connections	AS 3500 and BCC requirements	Provide sewer and trade waste drainage for coverage to the entire site. *(Proposed connection is to the existing sewer main in the Great Western Highway).*	D,C S1
E.2	Potable Water Supply	AS 3500 and BCC requirements	Provide a potable water supply to all ablution facilities as required	D,C S1
E.3	Sustainability: Water Harvesting	AS 3500	Provide water harvesting from Rainwater collection as a water source for sanitary flushing, irrigation and vehicle washing areas as required.	O S1
E.4	Flood Studies: Flood Paths Scouring Freeboard	Bathurst City Council	Provide an assessment of freeboard requirements. *(Bathurst City Council have advised an anticipated flow in the existing water course of 30m3/s. This information is to be used to determine the extent of flooding, if any, beyond the banks of the existing water course as part of Stage 1 works).*	D,C S1
	Fire Services		**Commitments**	
E.5	Fire	Australian Standard AS-2118, AS-2419, AS-2941, AS-2441 and AS-1221	Provide water storage tanks, fire hydrant, hose reels and sprinklers related to the hazard classification for stored goods in accordance with the relevant Australian Standards	S1
E.6	Bushfire Management	Australian Standard AS-2118, AS-2419, AS-2941, AS-2441 and AS-1221 and in consultation with the N.S.W Rural Fire Brigade	Provide external fire hydrant coverage and site water storage	S1
F	**SITE MANAGEMENT**			
	Construction Hours		**Commitments**	
F.1	Construction activities to be within specified times	EPA Environmental Noise Control Manual (ENCM) Chapter 171	Observe the following ENCM specified time restrictions for construction activities: Monday to Friday – 7.00am to 6.00pm Saturday – 7.00am to 1.00pm, if construction noise is inaudible at residential premises, otherwise 8.00am to 1.00pm. (Background noise level should not be exceeded by more than 5dBA). No construction work is to take place on Sundays or Public Holidays	C SA

F.2	Operating Hours to be within specified times	Industrial Noise Policy (EPA 2000)	Adopt the following operating times: • Administration Functions – Monday to Friday – 7:00am to 10:00pm. Saturday – 7:00am to 6:00pm. • Regional Warehousing – Monday to Friday – 7:00am to 10:00pm. Saturday – 7:00am to 1:00pm • Forklifts Monday to Friday – 7:00am to 10:00pm. Saturday – 7:00am to 1:00pm • Trains – Monday to Saturday – 9:00am to 6:00pm. • Service Station – 24 hours operation • Forklift Maintenance Facility Monday to Friday – 7:00am to 6:00pm. Saturday – 7:00am to 1:00pm • Truck Stop – Monday to Friday – 7:00am to 10:00pm. Saturday – 7:00am to 1:00pm • Highway Development Uses – Every day – 9:00am to 5:00pm. Thursday Evenings to 9:00pm Saturday – 7.00am to 1.00pm	O SA
	Traffic Generation		**Commitments**	
F.3	Minimise dust impacts from Vehicles	-	Provide signs restricting vehicle speeds over unsealed container hardstand areas.	O
F.4	Manage Spoil (waste) and Construction Traffic		Minimise traffic impacts from spoil transportation.	C
	Potential Hazards and Risk		**Commitments**	
F.5	Avoid on –site run-away Train risk	ARTC NSW Engineering Standards, Network Rules & Procedures.	Design in accordance with concept to avoid connecting the siding to the main line via the existing "Master" siding connected to the main line at a location directly adjacent the Slobobax site offering full independent access. *Refer corresponding Rail Report for greater detail.*	D,O
F.6	Reversing Trains	ARTC NSW Engineering Standards, Network Rules & Procedures.	Design in accordance with Concept to remove risk .be avoiding the need for trains to reverse Trains to proceed in a forward direction given provision of additional points in the UP and DOWN lines, and a run-around private siding. This discussion belongs in Warrens Report	D,O
F.7	Asbestos: Batter excavation. Re-grading of the fill.	Contaminated Land Management Act 1997 Number 140, Division 3 (remediation).	Provide fill validation to characterize asbestos type and concentration Formulate an asbestos risk minimization plan *Note: Development involving excavation of the batter is likely to require some grading of the fill, which may divide fragments of asbestos more finely thereby increasing the risk of airborne dust generation.* *A number of criteria mitigate asbestos inhalation* • *Asbestos is a dense mineral and passive inhalation risk is low.* • *The % of asbestos-containing fill is low < 3%.* • *The % of the total site occupied by the batter is low <3%* *The risk of fibre inhalation during excavation, transport and compaction is therefore low. Some processes such as trommell screening, stock piling, and heavy vehicular activity, particularly under hot dry windy conditions will generate excessive dust, which may increase the risk of exposure of on-site personal to elevated airborne asbestos fibre concentrations.*	C

F.8	Nutrients: Former Abattoir: Unfavourable Salt Concentrations for Vegetation Establishment.	Contaminated Land Management Act 1997 Number 140, Division 3 (remediation).	Provide method statements for Collection and stockpiling of small volumes of soil, in the vicinity of the former abattoir at salt concentrations unfavourable for vegetation establishment, for re-distribution and re-vegetation. Provide representative collection and analysis of groundwater from the well immediately south of the former abattoir for metals, nutrients (nitrates) and pesticides.	C
F.9	Buried Hydrocarbons: Western extent Quarry	Contaminated Land Management Act 1997 Number 140, Division 3 (remediation).	Initiate vertical integration of contaminated soil with surrounding 'clean' soil 1:10 during site development which would generate residues acceptable, even for 'residential' development.	C
F.10	Quarry: Un-compacted grade		Provide rectification works to the inner batter (south east to north arc), which currently comprises poorly compacted, heterogeneous fill and contains elements such as timber cuts, tree roots, plastic pipe, concrete, ceramic pipe and asbestos sheet and pipe fragments which currently afford a low risk to the environment and human health.	C
	Waste Management		**Commitments**	
F.11	Construction Waste		Provide Construction Waste Management Statements in accordance with corresponding Regulatory Controls	D,C
F.12	Operational Waste		Provide Operational Waste Management Statements in accordance with corresponding Regulatory Controls	D,O
G	**EXTERNAL OBJECTIVES**			
	Sustainability		**Commitments**	
G.1	Critical Conditions for Sustainability	SEA FREIGHT COUNCIL OF NSW - Regional Intermodal Terminals - Indicators for Sustainability Sydney March 2004	Agree with the perspectives considered relevant to a rural based intermodal terminal *The terminal must be "fit for purpose" and ensure commercial sustainability for the investor and operator. Volume remains the key determinant for commercial success, followed by rail service regularity, and a level of investment commensurate with the size and complexity of the task. Terminals may also yield benefits for external stakeholders (e.g. community or government), which avoid externality costs such as greenhouse gas emission, road trauma, road maintenance, and noise emissions.*	C SA