Table 10-4 Summary of visual changes and landscape character impacts for each landscape unit

Landscape unit	Visual change to landscape	Landscape character impacts	Overall ranking of impacts
Northern rural landscape unit	The project would follow the alignment of the existing highway for approximately one kilometre. A number of small cuttings and fill embankments, and the removal of some roadside vegetation, would be necessary. The northern interchange would include a prominent, elevated bridge. The project would then veer to the west near viewpoint 1. The section between the intersection and Tarcutta Creek would include two deep cuts.	▪ Introduction of an urban element into a predominantly rural setting. ▪ Removal of a limited amount of native vegetation. ▪ Construction of two deep cuttings. ▪ Light spill from interchanges.	Low to moderate
Central creek line landscape unit	Twin bridges would be constructed to cross Tarcutta Creek. On each side of the bridge there would be elevated approach embankments.	▪ Introduction of urban elements (bridge and highway) into a visually sensitive enclosed landscape. ▪ Removal of native vegetation, particularly River Red Gums.	High
Southern rural landscape unit	The project would be built on a low fill embankment for the majority of this landscape unit. The project would cross Keajura Creek and the existing highway near Mates Gully Road. The southern interchange would result in the removal of some vegetation along the existing highway.	▪ Introduction of an urban element into a predominantly rural setting. ▪ Some reduction in views across the landscape due to the construction of an elevated embankment. ▪ Removal of vegetation around Keajura Creek. ▪ Removal of some vegetation close to the heritage listed Hambledon Homestead Complex and Tarcutta House. ▪ Light spill from interchanges.	Low to moderate

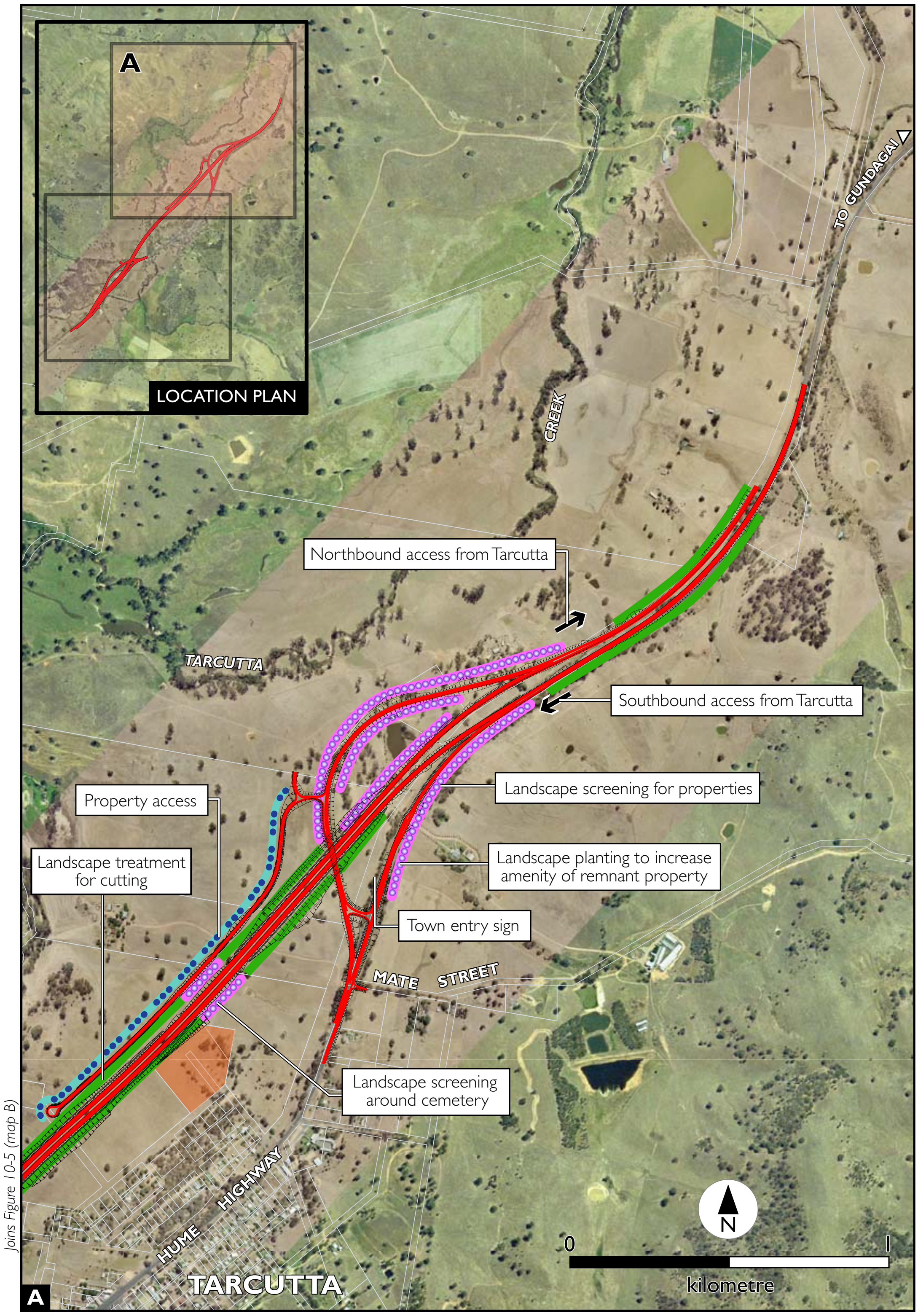
The project generally satisfies the urban design objectives. Any residual visual and landscape character impacts of the project would be mitigated through the measures provided in Section 10.2.5.

10.2.5 Management of visual and landscape impacts

A draft urban and landscape design strategy has been developed for the project to mitigate visual and landscape character impacts. This is illustrated in Figure 10-4 and Figure 10-5. The strategy would be finalised during detailed design. In addition, Table 10-5 identifies mitigation and management measures that would be implemented for specific visual and landscape impacts of the project. These measures have been incorporated into the draft statement of commitments in Chapter 11.

Table 10-5 Mitigation and management measures for visual and landscape impacts

Potential impact	Mitigation and management measure
Construction	
Visual changes during the construction phase.	▪ Rehabilitate disturbed areas as soon as possible after completion of construction.
Operation	
Overall visual and landscape character impacts of the project.	▪ Implement the design objectives of the urban and landscape design strategy for the project in the development of built elements and landscaping treatments. ▪ Include native plant species endemic to the local area in landscaping treatments.
Introduction of lighting at interchanges and overpasses.	▪ Design lighting to minimise light spill and in accordance with RTA standards.



Proposed bypass
Cadastral
Heritage items
Landscape screening/planting
Cutting treatment required
Retain view to open pastoral landscape (groups of native trees)

Figure 10-4 **Draft urban and landscape design strategy (northern section)**

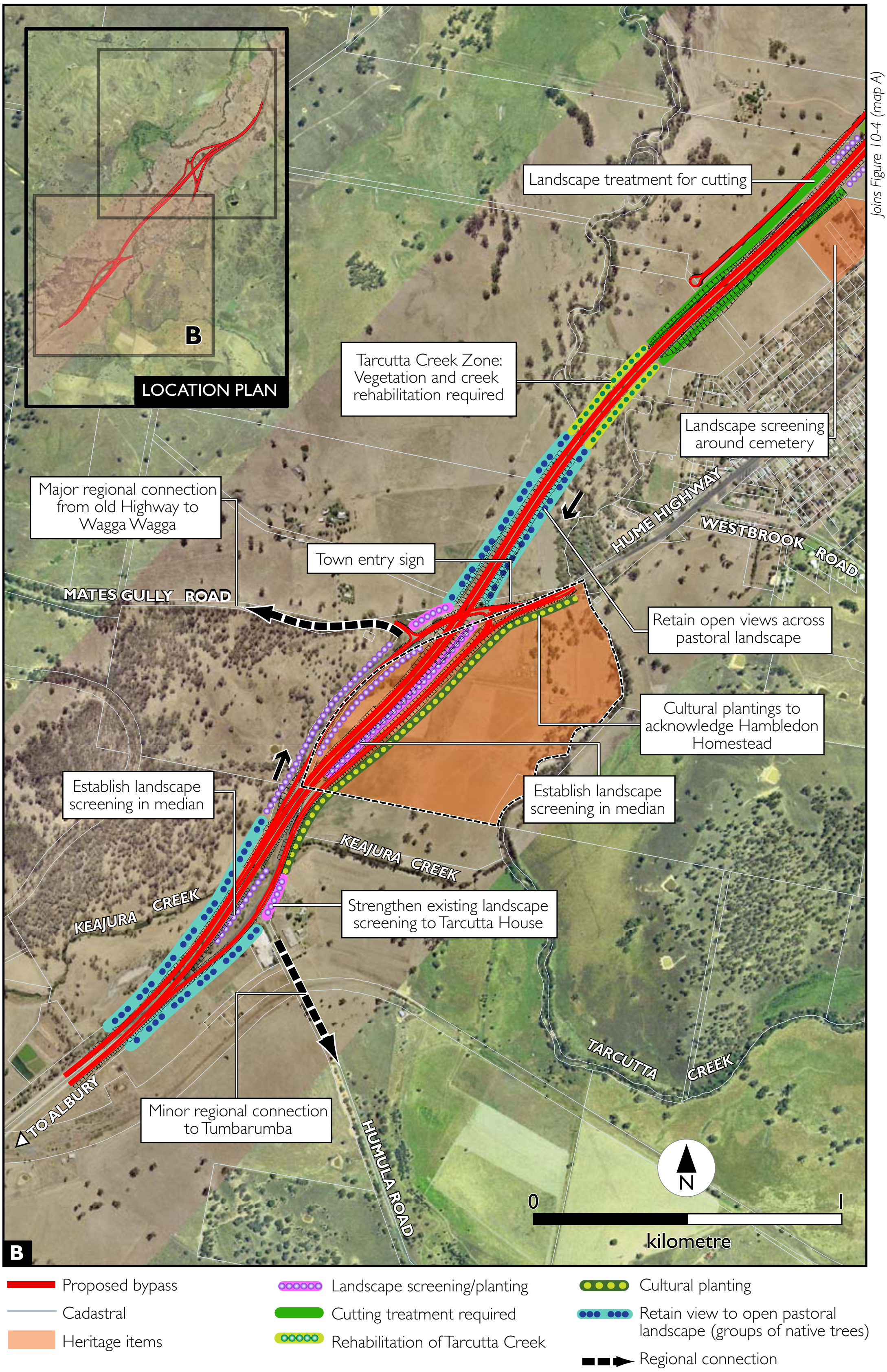


Figure 10-5 **Draft urban and landscape design strategy (southern section)**

10.3 Air quality

10.3.1 Existing air quality and meteorological conditions

The project is located in a rural environment dominated by the Hume Highway, with some residential and commercial premises within the Tarcutta village. Potential sources of air pollution include vehicle emissions (from traffic on the highway and other roads and also associated with the truck interchange facility), solid fuel fires, waste (animal manure), herbicides and pesticides, and wind erosion from exposed soils.

A search of the Department of the Environment, Water, Heritage and the Arts pollution inventory database on 3 March 2009 did not identify any industrial sources that report emissions to the local airshed. The closest industrial facility to report emissions, Hannan Livestock Pty Ltd, is located approximately 25 kilometres west of the project.

The closest DECCW air quality monitoring station to the project is in Wagga Wagga, approximately 30 kilometres to the north-west. This station is located in a residential/commercial area. Analysis of the DECCW quarterly air monitoring reports from 2003 to 2007 for PM_{10} (particulate matter less than or equal to 10 micrometres (μm) in aerodynamic diameter) indicated exceedances of the National Environmental Protection (Ambient Air Quality) goal. As many of the exceedances occur from late spring to early autumn, it is likely that pile burning and bushfires are the primary source of emissions.

The nearest Bureau of Meteorology weather station is at Adelong, located approximately 30 kilometres east of the project. In Adelong, the average temperature ranges from a maximum of 30.7°C in summer to a minimum of 0.9°C in winter, low-speed winds generally blow from the east/north-east, and the average annual rainfall is approximately 780 millimetres. Tarcutta is likely to experience similar meteorological conditions to those recorded at Adelong station, with minor variances due to local topography and other landform features, such as the nearby Tarcutta and Keajura creeks.

10.3.2 Construction air quality impacts

Dust and particulate matter

During construction of the project, the generation of dust and particulate matter may affect the local ambient air environment. Dust generating activities during construction may include traffic on paved and unpaved roads, clearing of vegetation, earthmoving activities, the transporting or stockpiling of spoil, aggregate and construction materials, and operation of the concrete batch plant (refer Section 6.6). The impact of dust-generating activities would be dependent on local soil properties and meteorological conditions. During dry and windy conditions, dust emissions may be higher.

The impact of dust on receivers would be expected to decrease significantly with increased distance from dust-generating activities. Given the low number of sensitive receivers close to the project (see Figure 10-6), and the transient and relatively short-term nature of the construction works, dust impacts are not anticipated to be substantial. Generation of dust and particulate matter would be managed through implementation of standard measures (see Section 10.3.4).

Vehicle emissions

Emissions from heavy vehicles and construction equipment may also affect the local ambient air environment during construction of the project. These vehicle emissions would likely be associated with both diesel-fuelled and petroleum-fuelled vehicles and would include carbon monoxide, oxides of nitrogen, sulphur dioxide, particulate matter (including PM_{10}), volatile organic compounds (VOCs) and trace amounts of non-combustible hydrocarbons. Emission rates and impact potential would depend on the power output of the combustion engines, the quality of fuel and the condition of the combustion engines.

Emissions from construction vehicles are unlikely to result in adverse air quality impacts. Vehicles emissions would be managed through implementation of standard measures (see Section 10.3.4).

10.3.3 Operational air quality impacts

Traffic volumes in and around Tarcutta are predicted to increase (refer Section 9.7).

The project would result in a few residences being located marginally closer to passing traffic (none are expected to be within 50 metres of the project). This is not likely to result in significant changes to air quality at these properties.

One residence is located more than 800 metres west of the existing Hume Highway (and approximately 500 metres north-west of the Tarcutta General Cemetery). The project would move the highway to approximately 325 metres from this residence. However, as traffic emission concentrations fall off rapidly from the roadside, the air quality at this residence is not likely to be affected by the project.

The reduction of traffic on the existing highway would provide some air quality benefits and a positive impact for residents and businesses in the village.

Based on the topography of the locality, there is expected to be minimal potential for the formation of a localised catchment towards each of the nearest potentially affected receivers. Plume entrapment is not expected to readily occur from vehicle emissions during operation of the project.

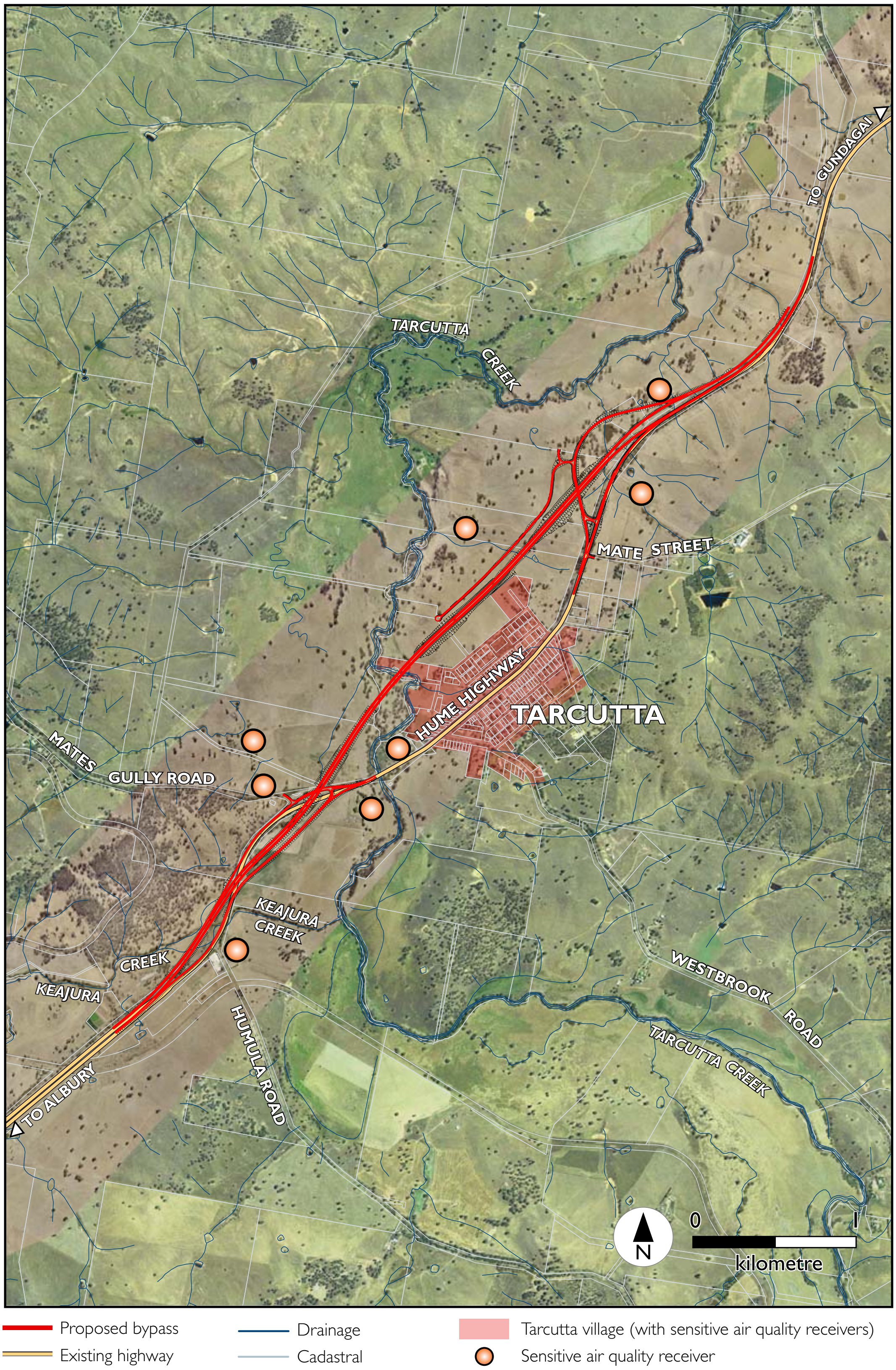


Figure 10-6 **Sensitive air quality receivers in the assessment area**

10.3.4 Management of air quality impacts

Table 10-6 identifies mitigation and management measures that would be implemented for construction air quality impacts of the project. These measures have been incorporated into the draft statement of commitments in Chapter 11.

As vehicle impacts on air quality are effectively managed at-source via improved engine technology, fuel standards, and vehicle maintenance and emissions testing, no project-specific operational mitigation measures have been identified.

Table 10-6 Air quality mitigation and management measures

Potential impact	Mitigation and management measure
Construction	
Reduction in local air quality due to airborne dust and particulate matter.	▪ Implement standard dust and emission control measures to manage construction air quality impacts at sensitive receivers. ▪ Regularly undertake visual dust monitoring. Where impacts on sensitive receivers are identified, implement standard measures to minimise the generation of dust. ▪ Install dust deposition gauges at the closest sensitive receivers to dust-generating construction activities (include control site). Undertake monthly monitoring to assess the effectiveness of the air quality mitigation and management measures. Develop additional feasible and reasonable mitigation and management measures where required.
Reduction in local air quality due to emissions from construction vehicles, plant and equipment.	▪ Regularly maintain all construction vehicles, plant and equipment to ensure they are kept in good operating condition.

10.4 Hazards and risks

10.4.1 Construction hazards and risk

Hazards and risks associated with construction of the project would include:

- Environmental and occupational health and safety hazards, including environmental and social impacts if spills of hazardous materials occur, and dangers to construction workers and the public.
- Transport of hazardous materials.
- Handling and storage of hazardous materials.

Sensitive environmental receivers such as watercourses and water bodies, and flora and fauna may be impacted by hazardous materials during construction of the project if appropriate environmental management measures are not implemented.

Dangerous goods and hazardous materials that may be used during construction include diesel fuels, oils, greases and lubricants, petrol, gases (oxy-Acetylene), bitumen, paints and epoxies, curing compounds, herbicides and hydrated lime. Some of these hazardous materials would be stored at the construction work sites shown in Figure 6-3. The storage, handling and use of the materials would be undertaken in accordance with the *Occupational Health and Safety Act 2000* and the WorkCover (2005) guideline *Storage and Handling of Dangerous Goods*. Risks would be further mitigated by placing restrictions on storage of hazardous materials (see management measures in Section 10.4.3).

Construction activities may present occupational health and safety hazards for construction workers and members of the public. The standard mitigation measures identified in Section 10.4.3 would reduce these risks.

10.4.2 Operation hazards and risk

There is potential for contaminants arising from normal operation of the project (tyre and brake wear, engine oil leaks, litter), or chemicals from accidental spillages to impact the local environment. The main route for these contaminants to the environment would be via surface run-off. The installation of permanent spill containment basins (refer Section 5.3.10) would reduce this risk.

Risks to members of the public during operation would relate to incidents involving the release of dangerous goods. The Hume Highway is a designated dangerous goods route. Dangerous goods that might be transported in significant quantities on the project include flammable and combustible petroleum products (petrol and diesel), liquefied petroleum gas and toxic gases (eg ammonia and chlorine), corrosive materials (acids and alkalis), other toxic materials (eg pesticides) and nitrogen-based fertilisers or bulk explosives.

Crashes involving vehicles transporting chemicals and/or other dangerous goods would generally affect only a small area, with hazards relating to toxic effects, fire and explosions. Most incidents would have limited potential to affect those not directly involved in a crash or incident. The project would pass within approximately 200 metres of Breadon Sportsground. The potential consequences of any dangerous goods crash would be greater in this area where large numbers of people may gather. Breadon Sportsground has good access and egress arrangements, thus reducing the potential impact of dangerous goods crashes in its vicinity. In the event of an incident involving dangerous goods, emergency services equipped to deal with chemical spillages are located in Holbrook and Wagga Wagga. Emergency response times from Holbrook and Wagga Wagga would not change as a result of the project.

The project would meet relevant design guidelines for highways and contribute to an overall improvement in driving conditions. The project would reduce the likelihood of hazardous goods incidents and serious head-on collisions through separation of the northbound and southbound carriageways (refer Section 9.7).

10.4.3 Management of hazards and risk

Table 10-7 identifies mitigation and management measures that would be implemented for hazards and risks associated with the project. These measures have been incorporated into the draft statement of commitments in Chapter 11.

Table 10-7 Hazards and risk mitigation and management measures

Potential impact	Mitigation and management measure
Construction	
Environmental hazards and risks to community and environment	▪ Identify potential environmental hazards and risks associated with construction activities prior to construction. Implement standard management measures and contingency plans during construction through the CEMP for the project. ▪ Store hazardous materials in bunded areas within the construction site boundary in accordance with Australian Standards and DECCW guidelines. Hazardous materials would not be stored on the floodplain below the 1 in 20 year ARI flood level. ▪ Conduct potentially hazardous and contaminating activities in bunded areas or in other areas where suitable containment measures are in place to prevent discharge into watercourses.
Occupational health and safety hazards	▪ Prepare and implement a site-specific safety management plan and safe work methods statements for the project. Identify hazards associated with work on the site and hazard control measures to ensure that people are adequately protected from risk of injury or illness.
Operation	
Spills/leaks of hazardous materials from crashes or other incidents	▪ Incorporate spill containment measures/facilities near sensitive environments during detailed design.

10.5 Contaminated land

10.5.1 Existing environment

A Phase 1 Environmental Site Assessment was undertaken for the project to determine the potential for existing contamination from past and present land uses, identify the need for further investigation prior to the commencement of construction and determine mitigation measures for any contamination issues.

Sensitive environmental receptors in the assessment area include:

- Tarcutta Creek, which intersects the project to the west of Tarcutta village.
- Keajura Creek, which intersects the southern section of the project just north of Humula Road.
- Local dams.
- Underlying groundwater.
- Surrounding rural residences.

The DECCW contaminated land register identified two current notices for the Mobil Service Station (located at 32 Sydney Street, Tarcutta). In February 2005, this service station was declared a remediation site. A search of the *Protection of the Environment Operations Act 1997* public register indicated that no licences or notices were on record for this site. The service station would not be impacted by the project.

The review of past and present aerial photography indicated that, since 1949, the locality has mostly been undeveloped grazing land. A cluster of buildings to the north-east of Tarcutta is visible in aerial photographs from 1980. Land use in the locality has undergone little change, with the exception of some farm buildings.

Possible contamination sources in the assessment area include:

- Use of herbicides and pesticides for farming/grazing activities.
- Material stockpile (road materials) for road works.

Potential sources of off-site derived contamination (that is, contamination from outside the construction site boundary) include surrounding residential buildings and atmospheric deposition from road emissions and use of farm equipment/machinery.

One site of potential contamination was identified in the assessment area. A stockpile is located along the existing Hume Highway road verge at the south-western end of the project (see Figure 10-7). The stockpile is approximately five cubic metres and comprises bitumen fragments. There was no visible evidence of asbestos sheeting at this stockpile.

No visual signs of vegetation stress were observed in the assessment area.

10.5.2 Potential impacts

Disturbance of the ground surface in contaminated areas would have the potential to disperse contaminated materials into the surrounding receiving environments, including air and water.

The stockpile site would likely be impacted by construction.

There is potential for construction activities to result in contamination of soil and/or water associated with leaks and spills of potentially contaminating materials. These impacts are addressed in Sections 10.1 and 10.4.

10.5.3 Management of impacts

Table 10-8 identifies mitigation and management measures that would be implemented for contaminated land impacts. These measures have been incorporated into the draft statement of commitments in Chapter 11.

Table 10-8 Contaminated land mitigation and management measures

Potential impact	Mitigation and management measure
Construction	
Land contamination during construction activities	▪ Implement standard contingency measures in the CEMP (including for unknown contaminants, asbestos containing materials and site operations during construction) to allow for further investigation and treatment/disposal as appropriate. ▪ Classify all potentially contaminated waste (including known road base stockpile) according to the *Waste Classification Guidelines: Parts 1 and 2* (DECC 2008a). Dispose to a suitably-licensed disposal facility or reuse in the construction works as appropriate.

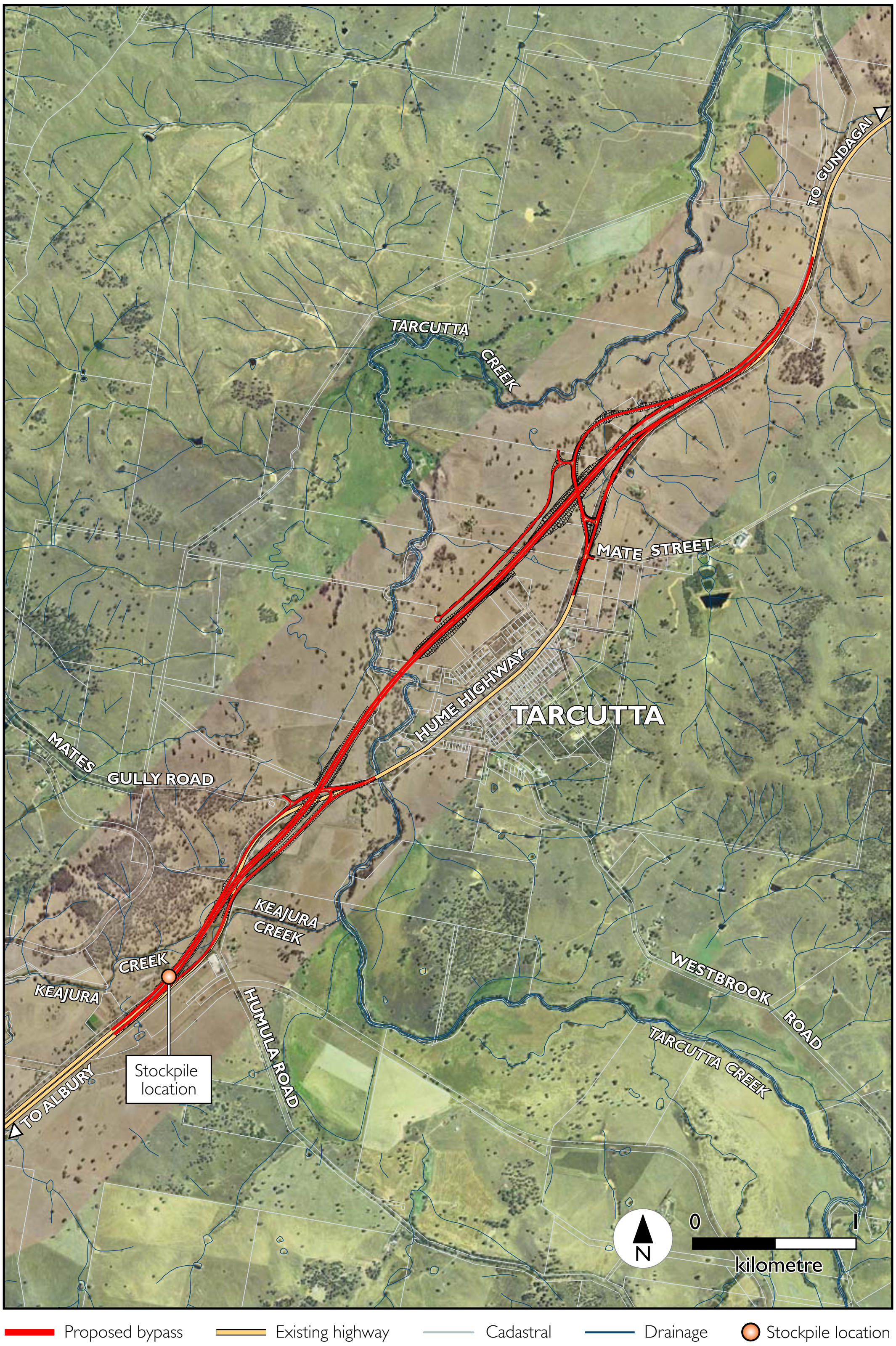


Figure 10-7 **Stockpile location**

10.6 Sustainable management

The RTA is committed to ensuring that projects are consistent with the principles of environmentally sustainable development (ESD). These principles have been an integral part of the development of the project (and of the Hume Highway duplication as a whole), and in the assessment of its adverse and beneficial effects. The consistency of the project with the principles of ESD is discussed in Chapter 11.

The following sections assess the sustainability of the project in relation to the emission of greenhouse gases, energy use, and waste generation and management.

10.6.1 Greenhouse gases and energy use

A quantitative assessment of the likely greenhouse gas emissions during construction and operation of the project was undertaken in accordance with the draft *Energy and Greenhouse Guidelines for Environmental Impact Assessment* (DIPNR 2002), the draft *Greenhouse Gas Assessment Guide* (RTA 2008g) and the *National Greenhouse Accounts (NGA) Factors* (DCC 2009). Greenhouse gas emissions generated by the project were estimated as tonnes of carbon dioxide equivalent (t CO_2-e).

The sources of greenhouse gas emissions related to the project are classified as:

- Scope 1 emissions — emissions directly caused by construction/operation of the project, such as the combustion of fuel in plant/vehicles and the clearing of vegetation (WRI and WBCSD 2005).
- Scope 2 emissions — emissions to supply energy purchased for an activity, that is external generation of electricity used on site (WRI and WBCSD 2005).
- Scope 3 emissions — indirect emissions, such as those to produce materials used for construction or operation of the project (WRI and WBCSD 2005).

While Scope 3 emissions are outside of the RTA's operational control, they are considered in this assessment to illustrate the potential broader impact of the project.

Emissions during construction

Energy consuming activities during construction of the project would be extensive and would occur over approximately two years. Plant and equipment used during this time would be diverse, ranging from large, heavy machinery through to hand tools and small equipment. The energy used during construction would be in the form of fuel (petrol and diesel) and electricity. This energy use, and other construction activities, as identified below, would result in the emission of greenhouse gases:

- Combustion of fuel in construction plant and equipment (direct emissions).
- Vegetation clearing (direct emissions).
- Electricity used at site compounds (electricity indirect emissions).
- Use of explosives (direct emissions).
- Transport of materials to the site (indirect emissions assuming that vehicles used are non-RTA owned).
- Disposal of waste from construction staff and site compounds (indirect emissions).
- Indirect emissions embodied in key construction materials, including concrete, hot mix asphalt, aggregates and steel.

The total greenhouse gases that would be emitted as a result of the construction of the project are estimated to be 44,200 t CO_2-e. The source of these emissions is summarised in Table 10-9.

Table 10-9 Construction and operational quantity estimates and associated greenhouse gas emissions

Source	Quantity[1,2]	Greenhouse gas emissions (t CO_2-e)[2]				Assumptions
		Scope 1	Scope 2	Scope 3	Total	
Construction						
Diesel fuel (site vehicles and plant)	4,600 kL	12,415	–	920	13,335	Only diesel-fuelled vehicles, plant and equipment would be used during construction.
Vegetation clearing	20 ha	4255	–	–	4255	Quantity includes 4 ha of exotic vegetation. All vegetation will be reused on site. Area calculated includes all vegetation within the construction site boundary, which may be revegetated after construction of the project.
Electricity	136,000 kWh	–	120	25	145	One hundred per cent of electricity used would be sourced from the local electricity grid.
Explosives (emulsion)	25 t	5	–	–	5	Blasting of 50,000 cubic metres of rock and a powder factor of 0.5 kilograms per cubic metre.
Waste disposal	300 t	–	–	600	600	Waste generation rate of 100 cubic metres per month. One hundred per cent of waste would comprise mixed-office and commercial waste, all of which would be disposed of at a landfill.
Contracted material deliveries (diesel fuel use)	700 kL	–	–	2050	2050	All contracted delivery vehicles would be six-axle articulated trucks with a weight restriction of 45 tonnes (RTA 2009a).
Embodied emissions in materials	Refer assumptions	–	–	23,810	23,810	Cement = 10,159 t (8,200 t CO_2-e); Steel = 3,200 t (8,400 t CO_2-e); Fine and coarse aggregates = 317,600 t (5,400 t CO_2-e); Bitumen = 1,900 t (800 t CO_2-e); PVC piping = 18 t (40 t CO_2-e); hot mix asphalt processing energy (1,000 t CO_2-e).
Total construction emissions	–	16,675	120	27,405	44,200	

Source	Quantity[1,2]	Greenhouse gas emissions (t CO_2-e)[2]				Assumptions
		Scope 1	Scope 2	Scope 3	Total	
Operation						
Use of the road	See Table 10-12	–	–	–	See Table 10-12	
Road lighting	75,920 kWh	–	80	–	80	Fifty two 'high pressure sodium vapour' lamps required for project. Lighting in operation 10 hours per day. One hundred per cent of electricity used would be sourced from the local electricity grid.
Maintenance	–	n/a	n/a	n/a	n/a	Assumed to be negligible for this project.

Notes: 1. kL = kilolitres; ha = hectares; kWh = kilowatts per hour; t = tonne.

2. All figures are estimates, which have been rounded.

As shown in Table 10-9, more than 60 per cent of the total greenhouse gas emissions during construction are predicted to be indirect (Scope 3) emissions, which, while occurring as a result of the project, would be outside of the RTA's operational control.

Emissions during operation

Greenhouse gas emissions during operation of the project would relate primarily to use of the road (indirect emissions), and maintenance and lighting (direct emissions).

To quantify greenhouse gas emissions from vehicles using the project, a comparison of a 'base case' (no project) was made against the operation of the network, should the project proceed. The 'base case' scenario comprised vehicle emissions from the use of the existing highway without the project. The 'project' scenario comprised emissions from traffic predicted to use both the project and the existing highway. Greenhouse gas emissions were calculated for the base case and project scenarios for the year 2012 (Year 1 of operation). These were extrapolated through to 2042 (30 years from opening), using the RTA's (2008e) Greenhouse Gas Assessment Guide, in a manner consistent with that used for the project traffic model (refer Section 9.7 and Technical Paper 7 (Volume 2)). It does not account for any induced traffic demand. The results are shown in Table 10-10, together with the operational contribution from lighting.

Table 10-10 Estimated greenhouse gas emissions during operation

Scenario	Annual greenhouse gas emissions 2012 (t CO_2-e)[1]	Annual greenhouse gas emissions 2042 (t CO_2-e)[1]
Base case (No project)	8100	18,000
Project	8300	18,700

Note: 1. Estimated greenhouse gas emissions have been rounded to the nearest hundred.

As shown in Table 10-10, the project is likely to increase annual greenhouse gas emissions by around 200 t CO_2-e in 2012, rising to an increase of around 700 t CO_2-e in 2042.

The project is likely to decrease vehicle kilometres travelled for all vehicles by approximately two per cent in both 2012 and 2042 as it shortens the route length by approximately 200 metres. While the decrease in distance travelled on the project is relatively small (a three per cent reduction), the faster travel speeds enabled result in less efficient fuel consumption, particularly for heavy vehicles. As a result, the project is estimated to moderately increase greenhouse gas emissions compared with no project.

The cumulative greenhouse gas impact of the project over the assessed timeframe (2010 to 2042, which includes the estimated two years of construction) is estimated to be a net increase of 58,500 t CO_2-e. The Department of Climate Change has estimated that in 2007 the transport sector in NSW contributed 21.1 Mt CO_2-e to overall emissions (Australian Greenhouse Gas Accounts, State and Territory Greenhouse Gas Inventories 2007, www.climatechange.gov.au/inventory/2007/pubs). The likely increase in greenhouse gas emissions from the project would contribute a very minor portion of the estimated total greenhouse gas emissions from the NSW transport sector.

Road lighting for the project is estimated to consume 75,920 kWh annually, resulting in total greenhouse gas emissions of 80 t CO_2-e per annum (refer Table 10-9 for assumptions). This is not considered significant. Greenhouse gas emissions generated by maintenance activities for the project would also not be significant.

10.6.2 Waste

Construction waste

Construction of the project would involve the production of various waste streams. Potential sources include:

- Asphalt and concrete from the existing highway may be removed.
- Clearing of approximately 16 hectares of native vegetation (refer Section 9.1) and two hectares of exotic vegetation.
- Two or three farm sheds/buildings may be demolished.

Other waste-generating activities during construction would include earthworks, drainage works, restoration works on existing pavement, equipment maintenance and work site office activities. Construction waste may include:

- Concrete, reclaimed asphalt and scrap metal.
- Green mulch and vegetation.
- Waste fuels, oils, liquids and chemicals.
- General garbage and sewage from work compound sites.
- Packaging waste such as cardboard, paper, plastic and glass.

As identified in Section 10.6.1, this waste would contribute to the emission of greenhouse gases during construction of the project.

Operational waste

Limited operational waste would be expected from the project from road maintenance and road users. Wastes would likely include vehicle oils and greases, and green waste. Litter generated by road users along the project would also form part of operational waste. There is the potential for contaminated waste as a result of fuel spills or leaks.

10.6.3 Management of greenhouse gases, energy and waste

Table 10-11 identifies mitigation and management measures that would be implemented for greenhouse gases, energy and waste. These measures have been incorporated into the draft statement of commitments in Chapter 11.

Management measures to reduce greenhouse gas emissions during construction would be targeted at Scope 1 and 2 emissions. Measures to reduce Scope 3 emissions are limited as such emissions, while occurring as a result of the project, would be outside the RTA's operational control.

Table 10-11 Greenhouse gases, energy and waste mitigation and management measures

Potential impact	Mitigation and management measure
Construction	
Greenhouse gas emissions and energy use during construction	▪ Implement energy efficient work practices, including consideration of: ‣ Energy efficient design of site buildings. ‣ Design of site compounds and the batch plant to minimise unnecessary vehicle movement. ‣ Regular servicing of site plant and equipment. ‣ Training of construction personnel in energy efficient plant operation.

Potential impact	Mitigation and management measure
	‣ The use of accredited GreenPower. ‣ Use of locally sourced materials where available and of suitable quality. ‣ Use of recycled materials, such as replacement of cement with fly ash, recycled aggregate, and recycled content in steel, where possible.
Waste generation during construction	▪ Apply the waste hierarchy (avoid, minimise, reuse/recycle, dispose) during construction and implement through the CEMP. ▪ Where disposal is required, classify, handle, store and dispose of waste in accordance with the *Waste Classification Guidelines: Parts 1 and 2* (DECC 2008a) and to a suitably licensed waste facility. ▪ Prepare and maintain a waste management system (including recycling). ▪ Trees to be removed would be considered for their value as millable timber.