

Appendix 12: Temporary Workers Accommodation (TWA) Land Use Conflict Risk Assessment (LUCRA)

A.1 Introduction

Land Use Conflict Risk Assessment (LUCRA) is a system to identify and assess the potential for land use conflict to occur between neighbouring land uses. It helps land managers and consent authorities assess the possibility for and potential level of future land use conflict. The LUCRA compares and contrasts the Project against adjoining/surrounding land uses and activities for incompatibility and conflict issues based on the risks and impacts for a proposed development.

A detailed, Project-wide LUCRA was undertaken by Minesoils (June 2024) and is presented in Appendix 1 in Appendix 14 of the Environmental Impact Statement (EIS) (Umwelt, July 2024). In response to advice from the NSW Department of Primary Industries and Regional Development (DPIRD) – Land Use, an updated LUCRA has subsequently been undertaken by Umwelt to specifically address potential land use conflicts associated with the Project’s Temporary Workers Accommodation (TWA) camp.

A.2 Methodology

To ensure consistency with the EIS and the former Department of Primary Industries’ Land Use Conflict Risk Assessment Guide (2011), the methodology previously utilised in the Project-wide LUCRA (Minesoils, June 2024) has been applied in this targeted LUCRA for the TWA camp. The risk assessment framework and definitions are summarised in **Table 1** to **Table 4** below. Further detail is provided in the Project-wide LUCRA (Minesoils, June 2024).

Table 1 Risk Ranking Matrix

Consequence	Probability				
	A	B	C	D	E
Level 1	25	24	22	19	15
Level 2	23	21	18	14	10
Level 3	20	17	13	9	6
Level 4	16	12	8	5	3
Level 5	11	7	4	2	1

Table 2 Probability Definitions

Level	Descriptor	Description
A	Almost Certain	Common or repeating occurrence.
B	Likely	Known to occur or it has happened.
C	Possible	Could occur or ‘I’ve heard of it happening.’
D	Unlikely	Could occur in some circumstances but not likely to occur.
E	Rare	Practically impossible or ‘I’ve never heard of it happening.’

Table 3 **Consequence Definitions**

Level	Descriptor	Description
Level 1	Severe	• Severe and/or permanent damage to the environment. • Irreversible. • Severe impact on the community. • Neighbours are in prolonged dispute and legal action involved.
Level 2	Major	• Serious and/or long-term impact to the environment. • Long-term management implications. • Serious impact on the community. • Neighbours are in serious dispute.
Level 3	Moderate	• Moderate and/or medium-term impact to the environment and community. • Some ongoing management implications. • Neighbour disputes occur.
Level 4	Minor	• Minor and/or short-term impact to the environment and community. • Can be effectively managed as part of normal operations. • Infrequent disputes between neighbours.
Level 5	Negligible	• Very minor impact to the environment and community. • Can be effectively managed as part of normal operations. • Neighbour disputes unlikely.

Table 4 LUCRA – TWA Camp

Risk	Potential Conflict	Initial Risk Rating			Risk Reduction Control	Final Risk Rating			Performance Target
		Probability	Consequence	Rating		Probability	Consequence	Rating	
Construction Ground Disturbance	Land users in the locality may be concerned about changes to water quality, quantity and surface water flows that may affect the site and locality, including local waterways, from surface disturbances during the establishment and operation of the TWA.	C	4	8	Consideration of impacts to surrounding watercourses and water quality has been undertaken within the water impact assessment for the EIS (Umwelt, July 2024). The nature of the landform indicates a low erosion and sedimentation risk. Appropriate mitigation measures (including soil erosion and sedimentation controls) are specified within the EIS and Appendix 3 of the Submissions Report to minimise impacts to watercourse health and quality. Compliance with mitigation measures is anticipated to reduce the risk of conflict related to watercourse health and quality. Ongoing consultation with stakeholders will identify and address concerns if they arise. Implement all measures specified in management plans identified in the EIS and Submissions Report and/or consent conditions (if approved), such as a soil management plan and an erosion and sediment control plan.	D	4	5	Effectiveness of mitigation measures will be measured as part of the Environmental Management System (EMS), specifically, the Erosion and Sediment Control Plan (ESCP).

Risk	Potential Conflict	Initial Risk Rating			Risk Reduction Control	Final Risk Rating			Performance Target
		Probability	Consequence	Rating		Probability	Consequence	Rating	
Construction Ground Disturbance	Stakeholders may be concerned about impacts to heritage items or values within the TWA area and its surrounds.	B	3	17	An assessment of impacts to heritage has been undertaken with the preparation of an Aboriginal Cultural Heritage Assessment Report (ACHAR) and an historical heritage assessment. Appropriate mitigation measures are specified within the ACHAR and the historic heritage assessment to minimise impacts to heritage. Compliance with mitigation measures specified within the ACHAR and the historic heritage assessment is anticipated to reduce the risk of conflict related to environmental features, culturally sensitive land and heritage. Implement all measures specified in management plans identified in the EIS and Submissions Report and/or consent conditions (if approved).	C	4	8	Effectiveness of mitigation measures will be measured as part of the EMS, specifically through an Aboriginal Cultural Heritage Management Plan (ACHMP).

Risk	Potential Conflict	Initial Risk Rating			Risk Reduction Control	Final Risk Rating			Performance Target
		Probability	Consequence	Rating		Probability	Consequence	Rating	
Construction Ground Disturbance	Stakeholders may have concerns that the establishment of the TWA may alter and disturb existing soil properties, undermining the suitability of the land for future agricultural production.	C	3	13	The assessment of soil characteristics, erodibility and land and soil capability has been undertaken within this agricultural assessment. Anticipated impacts and appropriate mitigation measures are provided within Appendix 14 of the EIS. Compliance with mitigation measures is anticipated to reduce the risk of potential conflicts related to future land capability for agriculture. Implement all measures specified in Appendix 14 of the EIS, associated management plans identified in the EIS and Submissions Report and/or consent conditions (if approved).	E	3	6	Effectiveness of mitigation measures will be measured as part of the EMS, specifically the Soil and Water Management Plan (SWMP).
Construction Disturbance	Stakeholders may be concerned about potential impacts to biodiversity within the TWA area and its surrounds from construction activities.	B	3	17	The assessment of impacts to biodiversity has been undertaken via a Biodiversity Development Assessment Report (BDAR). Appropriate mitigation measures are specified within the BDAR and this assessment to minimise the risk for impacts on biodiversity within the site and locality. Implement all measures specified in management plans identified in the EIS, Submissions Report and Amendment Report and/or consent conditions (if approved). Ongoing consultation with stakeholders will identify and address concerns if they arise.	D	3	9	Effectiveness of engagement will be measured as part of the EMS.

Risk	Potential Conflict	Initial Risk Rating			Risk Reduction Control	Final Risk Rating			Performance Target
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Construction Noise	Land users in the locality may be concerned construction activity noise and noise emanating from the use of the TWA disturbances may affect livestock behaviour and/or breeding.	D	3	9	The assessment of potential noise impacts has been undertaken via a noise and vibration impact assessment. Low stocking rates and distance between neighbouring farms in the locality (i.e. a minimum 1.6 km setback between the TWA and the Project boundary) suggest a low risk. Appropriate mitigation measures are specified within the noise and vibration impact assessment to minimise noise impacts. Compliance with mitigation measures is anticipated to reduce the risk of conflict related to noise impacts on agricultural land users. Ongoing consultation with stakeholders will identify and address concerns if they arise.	D	4	5	Any complaints from neighbours regarding effects to livestock can be managed within normal operations.

Risk	Potential Conflict	Initial Risk Rating			Risk Reduction Control	Final Risk Rating			Performance Target
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Construction Dust	Land users in the locality may be concerned that dust generated by construction activities (including traffic entering and exiting the TWA camp) may affect livestock or impact agricultural land uses such as cropping.	D	3	9	The assessment of potential dust impacts has been undertaken as part of the EIS. With the implementation of mitigation measures, the Project can be constructed without any significant impact to local and regional air quality. Compliance with mitigation measures is anticipated to reduce the risk of conflict related to air quality impacts. Ongoing consultation with stakeholders will identify and address concerns if they arise. Implement all measures specified in management plans identified in the EIS and Submissions Report and/or consent conditions (if approved).	E	4	3	Effectiveness of mitigation measures will be measured as part of the EMS, which will include a Construction Environmental Management Plan (CEMP) that outlines dust suppression strategies.

Risk	Potential Conflict	Initial Risk Rating			Risk Reduction Control	Final Risk Rating			Performance Target
		Probability	Consequence	Rating		Probability	Consequence	Rating	
Construction Traffic	Use of Sturt Highway and local roads during construction associated with the establishment, use and removal of the TWA may cause conflict by interacting with agricultural and/or local transport activities, and/or resulting in additional travel time for road users.	C	4	8	The assessment of potential traffic impacts has been undertaken via a traffic impact assessment, which found the road network can accommodate the construction traffic generated by the Project. It is noted that the establishment of the TWA will have a positive impact in terms of construction traffic, as it will reduce the need for workers to commute to and from site each day during construction. Appropriate mitigation measures are specified within the traffic impact assessment to minimise impacts to the traffic environment. Compliance with mitigation measures is anticipated to reduce the risk of conflict related to traffic for surrounding land users. Ongoing consultation with stakeholders will identify and address concerns if they arise. Implement all measures specified in management plans identified in the EIS, Submissions Report and Amendment Report and/or consent conditions (if approved).	D	4	5	The EMS, specifically the Traffic Management Plan (TMP), will include a complaint resolution as a mechanism to address any issues identified by neighbouring land users.

Risk	Potential Conflict	Initial Risk Rating			Risk Reduction Control	Final Risk Rating			Performance Target
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Construction Traffic	Land users in the locality may be concerned about the possibility of increased vehicles associated with the establishment, use and removal of the TWA may result in an accident with livestock, farm machinery or wildlife on roads.	D	1	19	The assessment of potential traffic impacts has been undertaken via a traffic impact assessment. The low volume of traffic on local roads suggests a low risk. It is noted that the establishment of the TWA will have a positive impact in terms of construction traffic, as it will reduce the need for workers to commute to and from site each day during construction. Appropriate mitigation measures are specified within the traffic impact assessment to minimise impacts to the traffic environment. Compliance with mitigation measures is anticipated to reduce the risk of conflict related to traffic for surrounding land users. Ongoing consultation with stakeholders will identify and address concerns if they arise. Implement all measures specified in management plans identified in the EIS, Submissions Report and Amendment Report and/or consent conditions (if approved).	E	2	10	The EMS, specifically TMP, will include a complaint resolution as a mechanism to address any issues identified by neighbouring land users.

Risk	Potential Conflict	Initial Risk Rating			Risk Reduction Control	Final Risk Rating			Performance Target
		Probability	Consequence	Rating		Probability	Consequence	Rating	
Construction Workforce	Public authorities may be concerned about the increased demand for services and infrastructure that may result from the development, especially during the construction stage, including increased accommodation for workers, availability of medical facilities and potable water supply and capacity of surrounding waste facilities to receive solid waste and wastewater generated by the Project.	C	2	7	The assessment of impacts related to the increased demand for surrounding services and infrastructure has been undertaken via a Social Impact Assessment (SIA) and as part of the EIS. Levels of anticipated increased demand are anticipated to be mitigated by the construction of a temporary accommodation camp. Further, appropriate mitigation measures for this risk are specified within the SIA to minimise the risk for logistical issues associated with the increased demand for existing infrastructure and services. Ongoing consultation with stakeholders will identify and address concerns if they arise.	D	5	2	Effectiveness of mitigation measures will be measured as part of the EMS.

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Construction Workforce	Public authorities may be concerned about worker health and safety within the camp due to seasonal conditions (e.g. extreme temperatures, natural disaster), access to essential services and potential sleep disturbance due to nearby agricultural activities.	C	1	22	Risk reductions controls include: • Provision of air conditioning and essential services and amenities within the TWA camp (including first aid facilities). • Provision of a suitably Asset Protection Zone, emergency lighting, smoke alarms and firefighting equipment (including a dedicated water supply for firefighting) at the TWA. • Development and implementation of a Bush Fire Emergency Management and Operations Plan (BFEMOP). • Additionally, given the 1.6 km buffer to the nearest Project Boundary, typical agricultural activities in the vicinity of the TWA are unlikely to result in any sleep disturbance for temporary workers.	D	4	5	Effectiveness of mitigation measures will be measured as part of the EMS, including the BFEMOP.

Risk	Potential Conflict	Initial Risk Rating			Risk Reduction Control	Final Risk Rating			Performance Target
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Construction Workforce	Neighbouring landholders may be concerned about the presence of an accommodation camp within the Project Area, if to be constructed and utilised for the project. This may be perceived to adversely affect neighbouring agricultural operations or local residents' security.	C	5	4	The assessment of impacts related to the presence of an accommodation camp has been undertaken via an SIA and as part of the EIS. Grazing at low stocking rates and the distance between the Project Area and the nearest sensitive agricultural operation, as well as the distance to the nearest residences, suggest a low risk. All site personnel will be required to follow strict site policies while lodging at the TWA camp. Impacts to agricultural enterprises on neighbouring properties are unlikely to be experienced. Ongoing consultation with stakeholders will identify and address concerns if they arise.	D	5	2	Effectiveness of mitigation measures will be measured as part of the EMS.
Land Removed from Agriculture	Stakeholders in the locality may be concerned about the reduction of land used for agricultural purposes or the reduction of productivity of the land due to the establishment of the TWA.	D	3	9	A Project-wide assessment of the reduction of land used for agriculture and the productivity of land was undertaken in the EIS and concluded that impacts would be negligible. At the conclusion of construction, the TWA camp will be removed and disturbed areas will be rehabilitated consistent with the objectives and methodology outlined in the Decommissioning and Rehabilitation Strategy (DRS) (refer to Appendix 4 in Appendix 14 of the EIS).	D	4	5	Rehabilitation objectives and strategies (including Performance measures) for the rehabilitation of the TWA will be established in the Construction Environmental Management Plan (CEMP).

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Visual Amenity	Stakeholders in the locality who wish to maintain views of the existing landscape may be concerned about the change in visual amenity resulting from the establishment of the TWA.	B	3	17	The assessment of potential visual impacts (including impacts associated with ancillary and temporary infrastructure has been undertaken as part of a Landscape and Visual Impact Assessment (LVIA). Anticipated impacts are determined presented in the EIS. Views of the TWA would be temporary (during construction only). Views would be primarily limited to R3, a host residence and while travelling along Bullawah Road, a low traffic local road which provides access to four (4) residences. Risk reductions controls consist of the following: • The use of simple muted colours and non-reflective materials to reduce distant visibility and avoid drawing the eye. • Avoidance of unnecessary lighting, signage, logos etc. • Neighbour Agreements have been reached to demonstrate acceptance of the project and its associated impacts to non-associated residences. • Neighbours with impacted views to be financially compensated.	D	3	9	Effectiveness of mitigation measures will be measured as part of the EMS which will include a complaint handling system.

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Visual Amenity	Stakeholders in the locality may be concerned about light pollution from the TWA.	B	4	12	The assessment of potential visual impacts (including lighting impacts) has been undertaken as part of a Landscape and Visual Impact Assessment (LVIA). Anticipated impacts are determined presented in the EIS. The nearest non-associated residence (R15) is located more than 16 km from the TWA and is unlikely to be impacted. Risk reduction controls include the following: • Control the level of lighting used and only light areas that are required. • Reduce the duration of lighting and switch off lighting when it is not required. • Use the lowest intensity required for the job. • Consider lighting direction or utilising shields to avoid unnecessary light spill. • Use non-reflective dark coloured surfaces to reduce reflection of lighting.	C	5	4	Effectiveness of mitigation measures will be measured as part of the EMS which will include a complaint handling system.

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Biosecurity	Land users in the locality may be concerned about biosecurity breaches including weed, plant pest, plant disease or pest animal introduction and/or spread, as a result of the Project.	B	2	21	The assessment of impacts to biodiversity has been undertaken via a BDAR. Consideration of the potential for pest species to impact agriculture has been included in this assessment. Appropriate mitigation measures are specified within the BDAR and this assessment to minimise the risk for weeds and pests to spread throughout the site and onto neighbouring land. Ongoing consultation with stakeholders will identify and address concerns if they arise. Implement all measures specified in management plans identified in the EIS and/or consent conditions (if approved).	D	3	9	Effectiveness of mitigation measures will be measured as part of the EMS, specifically an Agricultural Biosecurity Management Plan.
Livestock Management	Neighbouring landowners may be concerned about livestock on Project Area entering adjacent properties.	D	4	5	Operational management plans will include a provision to ensure boundary fence is maintained to a suitable standard. Regular inspection of fences should be conducted to assess the condition of the fence, and any issues rectified as soon as practical. Ongoing consultation with stakeholders will identify and address concerns if they arise.	E	4	3	Effectiveness of mitigation measures will be measured as part of the EMS.

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Livestock Management	Neighbouring landowners may be concerned about their livestock entering the Project Area and becoming injured or causing damage.	D	4	5	Operational management plans will include a provision to ensure boundary fence around site infrastructure that can be damaged by livestock is maintained to a suitable standard. Regular inspection of fences should be conducted to assess the condition of the fence, and any issues rectified as soon as practical. If livestock enter the site, the surrounding landowners should be contacted. Efforts will be made to ensure the animal is not distressed and kept away from public roads. Ongoing consultation with stakeholders will identify and address concerns if they arise.	E	4	3	Effectiveness of mitigation measures will be measured as part of the EMS.
Decommissioning and Rehabilitation	Stakeholders may be concerned about the potential for poor decommissioning and rehabilitation outcomes and the resulting long term environmental and agricultural consequence.	C	3	13	A Decommissioning and Rehabilitation Plan (DRP) will ensure the land can be successfully returned to pre-disturbance land and soil capability and final land use commitments following decommissioning.	E	3	6	Rehabilitation objectives and strategies (including performance measures) will be established in the Decommissioning and Rehabilitation Management Plan.

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Cumulative Impacts	Public Authorities and the local community may have concerns regarding the potential for cumulative impacts arising from the proximity of nearby renewable developments.	B	3	17	An assessment of potential cumulative impacts has been undertaken as part of the EIS. Appropriate mitigation measures (where available) are specified in the EIS to minimise the potential for cumulative impacts to occur at or near the Project Area. Anticipated impacts are presented in the EIS for Public Authority consideration.	C	3	13	Effectiveness of mitigation measures will be measured as part of the EMS.