

# Appendix A Visual Influence Zone Study Method

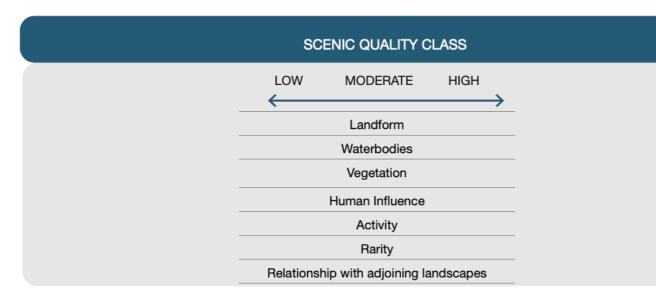
#### VIEWER SENSITIVITY LEVEL

Level 1 Sensitivity: High	<ul> <li>Residential areas and rural villages</li> <li>Recreation, cultural or scenic sites and viewpoints of National or State significance.</li> <li>Any buildings, historic rural homesteads/residences on the State or local Government Heritage List</li> </ul>
Level 2 Sensitivity: Moderate	<ul> <li>Rural dwelling</li> <li>Tourist and visitor accommodation (definition in Standard Instrument Local Environmental Plan)</li> <li>Recreation, cultural or scenic sites and viewpoints of regional significance</li> </ul>
Level 3 Sensitivity: Low	<ul> <li>Interstate and state passenger rail lines with daily daylight services</li> <li>State highways, freeways and classified main roads, classified tourist roads</li> <li>Land management roads with occasional recreation traffic</li> <li>Walking tracks of moderate local significance or infrequent recreation usage</li> <li>Other low use and low concern viewpoints and travel routes</li> <li>Navigable waterways</li> </ul>

Figure E.1 Visual Sensitivity Level

VISIBILITY DISTANCE ZONES							
0 – 500 m	Near Foreground (NF)	Zone of Greatest Visual Influence					
500 m – 1 km	Mid Foreground ( <b>MF</b> )	$\uparrow$					
1 – 2 km	Far Foreground ( <b>FF</b> )						
2 – 4 km	Near Middleground (NM)						
4 – 8 km	Far Middleground ( <b>FM</b> )						
8 – 12 km	Near Background (NB)						
12 – 20 km	Mid Background (MB)	$\downarrow$					
20 – 32+ km	Far Background ( <b>FB</b> )	Zone of Least Visual Influence					

Figure E.2 Visibility Distance Zones



VISUAL INFLUENCE
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VIEWER SENSITIVITY LEVEL	
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- VISIBILITY DISTANCE ZONE

HIGH

#### LEVEL 1 HIGH SENSITIVITY VIEWPOINTS

Mid Foreground (MF)	500 m – 1 km	VIZ1	VIZ1	VIZ1
Mid Foreground ( <b>MF</b> )	500 m – 1 km	VIZI	VIZI	VIZ I
Far Foreground ( <b>FF</b> )	1 – 2 km	VIZ1	VIZ1	VIZ1
Near Middleground (NM)	2 – 4 km	VIZ1	VIZ2	VIZ2
Far Middleground (FM)	4 – 8 km	VIZ2	VIZ2	VIZ2
Near Background (NB)	8 – 12 km	VIZ2	VIZ2	VIZ2
Mid Background (MB)	12 – 20 km	VIZ2	VIZ2	VIZ3
Far Background (FB)	20 – 32+ km	VIZ2	VIZ2	VIZ3

#### LEVEL 2 MODERATE SENSITIVITY VIEWPOINTS

Near Foreground (NF)	0 – 500 m	VIZ1	VIZ1	VIZ1		
Mid Foreground (MF)	500 m – 1 km	VIZ1	VIZ1	VIZ1		
Far Foreground (FF)	1 – 2 km	VIZ1	VIZ1	VIZ2		
Near Middleground (NM)	2 – 4 km	VIZ2	VIZ2	VIZ2		
Far Middleground (FM)	4 – 8 km	VIZ2	VIZ2	VIZ3		
Near Background (NB)	8 – 12 km	VIZ2	VIZ3	VIZ3		
Mid Background (MB)	12 – 20 km	VIZ2	VIZ3	VIZ3		
Far Background (FB)	20 – 32+ km	VIZ3	VIZ3	VIZ3		
LEVEL 3 LOW SENSITIVITY VIEWPOINTS						
Near Foreground (NF)	0 – 500 m	VIZ1	VIZ1	VIZ2		
Mid Foreground (MF)	500 m – 1 km	VIZ2	VIZ2	VIZ2		
Far Foreground (FF)	1 – 2 km	VIZ2	VIZ2	VIZ3		
Near Middleground (NM)	2 – 4 km	VIZ2	VIZ3	VIZ3		

VIZ2

VIZ3

VIZ3

VIZ3

VIZ3

4 – 8 km

8 – 12 km

12 – 20 km

20 – 32+ km

Far Middleground (FM)

Near Background (NB)

Mid Background (MB)

Far Background (FB)

Areas not visible

Figure E.3 Scenic Quality Class

20	Ν	Ε	Μ	A	ΓR	IX

#### SCENIC QUALITY CLASS

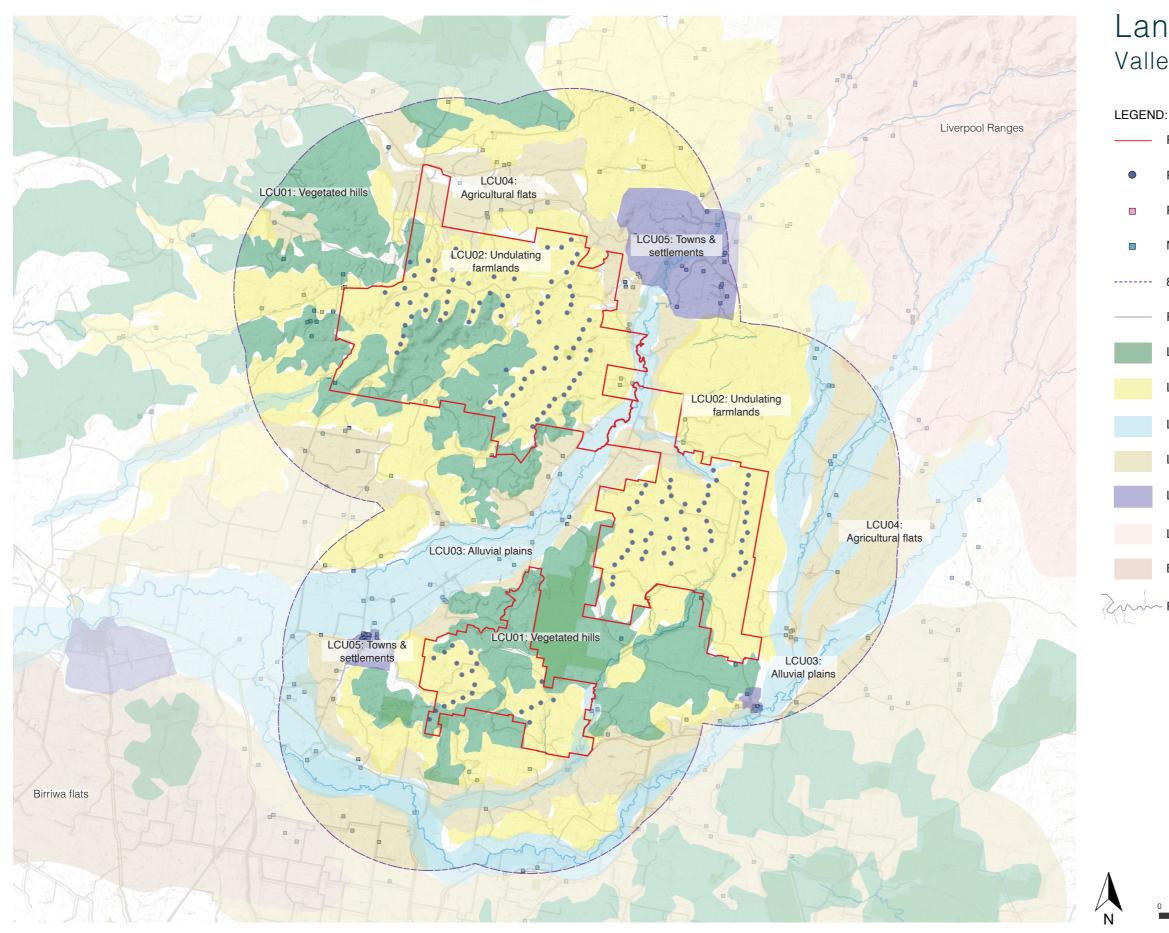
LOW

VIZ1	VIZ2
VIZ2	VIZ2
VIZ2	VIZ3
VIZ3	VIZ3



# Landscape Character Unit Overviews

# Appendix B Unit Overviews



Appendix B Landscape Character Units (Map Source: Six Maps)

## Landscape Character Valley of the Winds Wind Farm

- Project Boundary
- Proposed 250m Turbine Location
- Participating Dwellings
- Non-participating Dwellings
- 8000m from turbine
- Roads
- LCU 1: Vegetated hills
- LCU 2: Undulating farmlands
- LCU 3: Alluvial plains
- LCU 4: Agricultural flats
- LCU 5: Towns & settlements
- Liverpool Ranges region
- Birriwa flats region
- Rivers & creeks

### B.1 LCU01: Vegetated hills

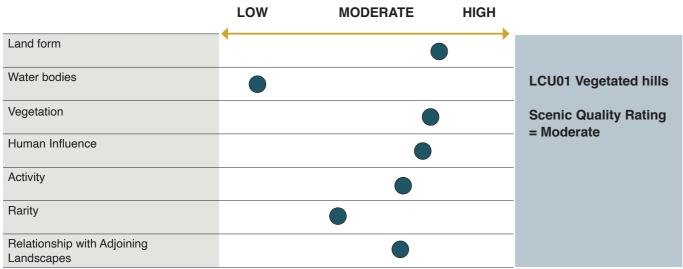
For the purpose of this report the vegetated hills LCU has been defined by the undulating to steep ridgelines that arise within and around the Project Area. These moderately steep, vegetated slopes have a local relief of 100-500m and 5-20% incline. The predominant land use in these areas is minimal use or nature conservation. Their character which is defined by gently rolling hills with open to dense woodlands over Teritary basalts. Accessibility to the LCU is very limited due to the terrain and few dwellings are scattered within its extent.

Dense woodlands within the LCU are zoned as C3 - Environmental Management under the Warramungle Shire & Mid-Western Regional LEPs. Other open-forests are categorised as RU1 - Primary Production since they are partially cleared for cattle grazing and native pasture. Low human intervention allows the undulating, rocky landscape character to prevail (see *Image C1*). Vegetation in this LCU is dominated by open to dense woodlands with a partially cleared or thinned understorey for grazing. Predominant species include Yellow box, White box, Blakely's red gum, Kurrajong, Rough-barked Apple and Forest Red Gum.

Ridgelines and slopes create shallow valleys and creekbeds. Some notable creeks within this LCU are Gulf Creek, Wallambriwang Creek, Bownebong Creek, Moreton Bay Creek and Cainbil Creek.

Views are generally filtered to contained by vegetation. *Image C3* showcases views from Tillie Willie Road which is near the Mount Hope cluster of proposed WTGs. Contained views are available from densely vegetated, elevated positions. The existing character has been retained to a large extent since the area is not heavily subjected to human intervention.

The Scenic Quality Rating of Vegetated hills LCU has been assessed as Moderate.



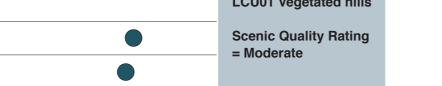




Image C1. Views of the undulating terrain with dense vegetation



Image C2. Vegetated hill slopes on the southwestern side of Leadville cluster



Image C3. General visual character within the LCU - defined by dense vegetation that contains views

Table C1. LCU01: Vegetated hills Scenic Quality Class Rating

## B.2 LCU02: Undulating farmlands

Undulating farmlands LCU is defined by rolling low hills with a local relief of 30-100m. Most WTGs are proposed within the extents of this LCU. Woodlands and open-forests have been cleared to suit agricultural activities and to host scattered dwellings and farmsheds.

The LCU is generally characterised by gently rolling hills on Tertiary basalts of the Merriwa Plateau with cleared open forests and woodlands. Small gullies and creeks traverse the landscape.

Open to patchy woodlands with mostly cleared understorey is the predominant vegetation character. Prominant species include Narrow-leaved Ironbark, Red Ironbark, Wattles & Blakely's Red Gum. Land has been modified to a large extent in order to support grazing and cultivation. Most vegetation has been cleared or slashed with the exception of remnant woodlands on hilltops, creek lines and homesteads (refer to *Image B6*).

Major and moderate use roads such as Black Stump Way, Golden Highway, Vinegaroy Road, Moorefield Road, Neilrex Road and others run within or around this LCU. Most of these roads are unsealed and dwellings are typically accessed via private roads that emerge from these roads.

Views from within the LCU are generally open to filtered. Distant views of the surrounding landscape are available from cleared, elevated positions. Most views are outward-looking because of the visual openness offered by the topography and lack of vegetation in some areas. The LCU covers most number of land parcels for this Project.

The Scenic Quality Rating of Undulating farmlands LCU has been assessed as Moderate.

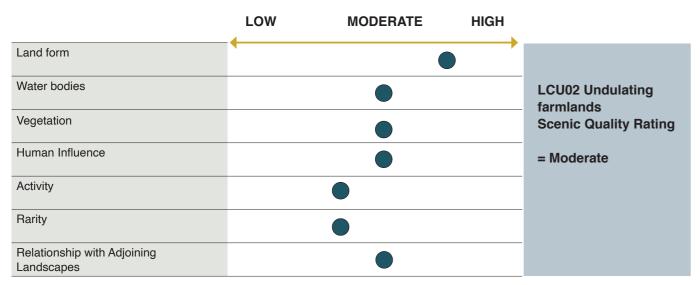


Image C4. Typical character of the undulating farmlands - gentle slopes with scattered vegetation and pastures



Image C5. Partially cleared hills form the backdrop of many rural dwellings in Leadville



Image C6. Partially cleared hill slopes with clear views of surroundings along Vinegaroy Road

Table C2. LCU02 Undulating Farmlands Scenic Quality Class Rating



### B.3 LCU03: Alluvial plains

The alluvial plains LCU is defined by level, broad flood plains and alluvial terraces on the Merriwa Plateau. The LCU is generally bound by the planar topographical extents that surround the Coolaburragundy and Talbragar Rivers.

Soils are generally very fertile which makes this LCU extremely popular for agricultural activity. Land use within the LCU is also dedicated to low density rural dwellings. The topography is generally flat with clear, open views of surrounds. Prominent soil groups found in the area include well-drained black earths and poorly drained grey clays.

Riparian woodlands have been extensively cleared to support grazing and cropping. Remnant vegetation patches include River Oaks, Yellow Box, White Box, Grey Box, Rough-barked Apples, Scribbly Gums and Blakely's Red Gum amidst other species.

All views are open and directed towards vegetated hills and undulations. They are ocassionally filtered by vegetation found in the LCU. Talbragar River and Coolaburragundy River are important resources that support the demand for water in the region. The waterways also feed into a number of gullies and creeklines that drain the plains and undulating landscapes. Cleared lands and river banks have open views of the low-lying, shallow riverbeds which are dominated by landscape modifications.

The Scenic Quality Rating of Alluvial plains LCU has been assessed as Low.

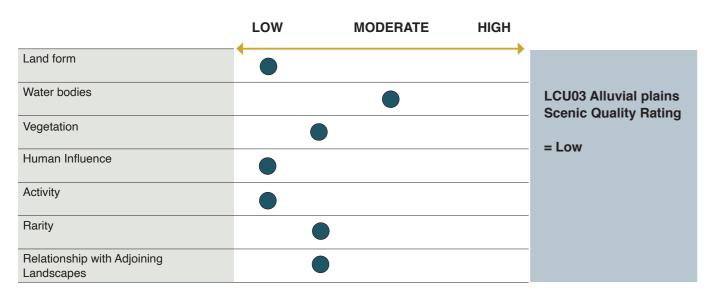




Image C7. Typical cropping areas in the vicinity of the Coolaburragundy River in Leadville



Image C8. Talbragar River's shallow character around Uarbry and surrounding alluvial plains



Image C9. Grazing and cropping pastures along Golden Highway in Uarbry

Table C3. LCU03: Alluvial plains Scenic Quality Class Rating

## B.4 LCU04: Agricultural flats

The agricultural flats LCU comprises of deep, sandy fans and drainage plains that are derived from Pilliga Sandstone. Topography of this LCU is generally flat with very minor and occasional slopes. The land is, therefore, deprived of any prominent creeks or rivers and is drained by minor gullies. Occasional water dams constructed to support agricultural activity are found interspersed over private properties. It is one of the most visually prevalent LCUs in the region and is a derivation of extreme human activity and influence.

Landform characteristics are derived from depositional activity through accumulation of sediments from undulating landscapes that surrounds this LCU. Vegetation is characterised by scattered to patchy woodlands that have been extensively cleared. Some of tree species identified in the LCU include Scribbly Gums, Yellow Box, White Box, Blakely's Red Gum and Grey Gum.

The agricultural flats LCU is very closely related to the alluvial plains LCU in terms of its topographical and visual character. Views are open and very occasionally filtered due to lack of canopy cover. Soils, however, are moderate to rich in fertility which makes it favourable for grazing rather than cropping. These flat parcels are spread across on either sides of Black Stump Way, Golden Highway and Neilrex Road. Most rural dwellings are situated within the extents of this LCU because of the close proximity to water sources.

Extensive human influence makes it a highly modified landscape which is subject to continuous change.

The Scenic Quality Rating of Agricultural flats LCU has been assessed as Low.

	LOW	MODERATE	HIGH	
Land form	•			
Water bodies				LCU04 Agricultural flats Scenic Quality Rating
Vegetation				= Low
Human Influence				- 2017
Activity				
Rarity				
Relationship with Adjoining Landscapes				



Image C10. Clear, open and expansive views of surrounds near grazing and cropping pastures



Image C11. Cleared land parcels with scattered vegetation that support grazing pastures and dryland cropping. Dwellings and farm infrastructure also dot these landscapes.



Image C12. Typical grazing and cropping pastures with open, expansive views of the surrounding landscape

Table C4. LCU04 Agricultural flats Scenic Quality Class Rating

### B.5 LCU05: Towns & Settlements

For the purpose of this report the towns and settlements LCU has been defined by the settlements of Coolah, Leadville, Uarbry and Dunedoo which are the closest settlements to the Project Area. The extents of this LCU is not limit to the extents of the town alone, but the surrounding closely spaced low density dwellings that form a part of the rural agricultural character of these towns.

Land is highly modified to suit the needs of residents of these towns. Topography varies based on the location, but is generally flat or gently sloping to suit land uses such as residence, grazing/cropping, recreational purposes, commercial activity and/or light industrial activity. The terrain is modified due to human influence.

Historically, these were sited close to the rivers in order to take advantage of the water source for sustenance of residents. Human influence has played an important role in redefining both topography and vegetation characteristics of the towns. Vegetation within the extents of these towns is highly modified and includes both native and exotic plant species that cater to aesthetic and domestic purposes. Open spaces are formalised, designed and a modification of the existing landscape character. Noteworthy recreational attractions include the Coolah Golfcourse, Coolah Commons, Bowen Oval, Uarbry Cemetery and other open spaces in smaller settlements such as Leadville.

Views within the towns are filtered by vegetation or buildings due to the dense positioning of buildings. Most rural dwellings are also coveted by dense windbreak or boundary plantations which help screen their views towards the surrounds.

The Scenic Quality Rating of Towns and settlements LCU has been assessed as Low.

	LOW	MODERATE	HIGH	
Land form				
Water bodies				LCU05 Towns and settlements Scenic
Vegetation				Quality Rating
Human Influence				= Low
Activity				
Rarity				
Relationship with Adjoining Landscapes				

Table C5. LCU05: Towns and settlements Scenic Quality Class Rating



Image C13. Modified landscape character at the Coolah Golfcourse - scattered trees and clear turf areas



Image C14. Coolah's town centre



Image C15. Uarbry Cemetery's setting defined by flat, cleared lands surrounds by dense remnant canopy cover