

SITE DESCRIPTION



View from Kurrajong out over residential properties • Kurrajong

4.0 SITE DESCRIPTION

CONTEXT

Situated amongst the rolling foothills of the Blue Mountains, Kurmond and Kurrajong villages are 60km north-west from Sydney's CBD, just over an hour's drive away.

The villages are within the Hawkesbury Highlands, located between Bilpin to the west and Richmond to the east. They are seen as a transition zone between the Hawkesbury river valley and the Blue Mountains World Heritage areas.

Kurmond is a small neighbourhood located on the ridgeline that follows Bells Line of Road as it winds down from the foothills of the Blue Mountains to the Nepean River and floodplains of Richmond. Kurmond is focused around a small strip of shops on the south western intersection of Inverary Drive and Kurmond Road.

Kurrajong is a larger and more vibrant neighbourhood focused around the narrow, meandering carriageway of Old Bells Line of Road as it follows the ridgeline. It has relatively intact heritage qualities and consists of predominantly single storey buildings.

The footprint of both villages is defined by the steep topography and they are primarily limited to the ridgeline.

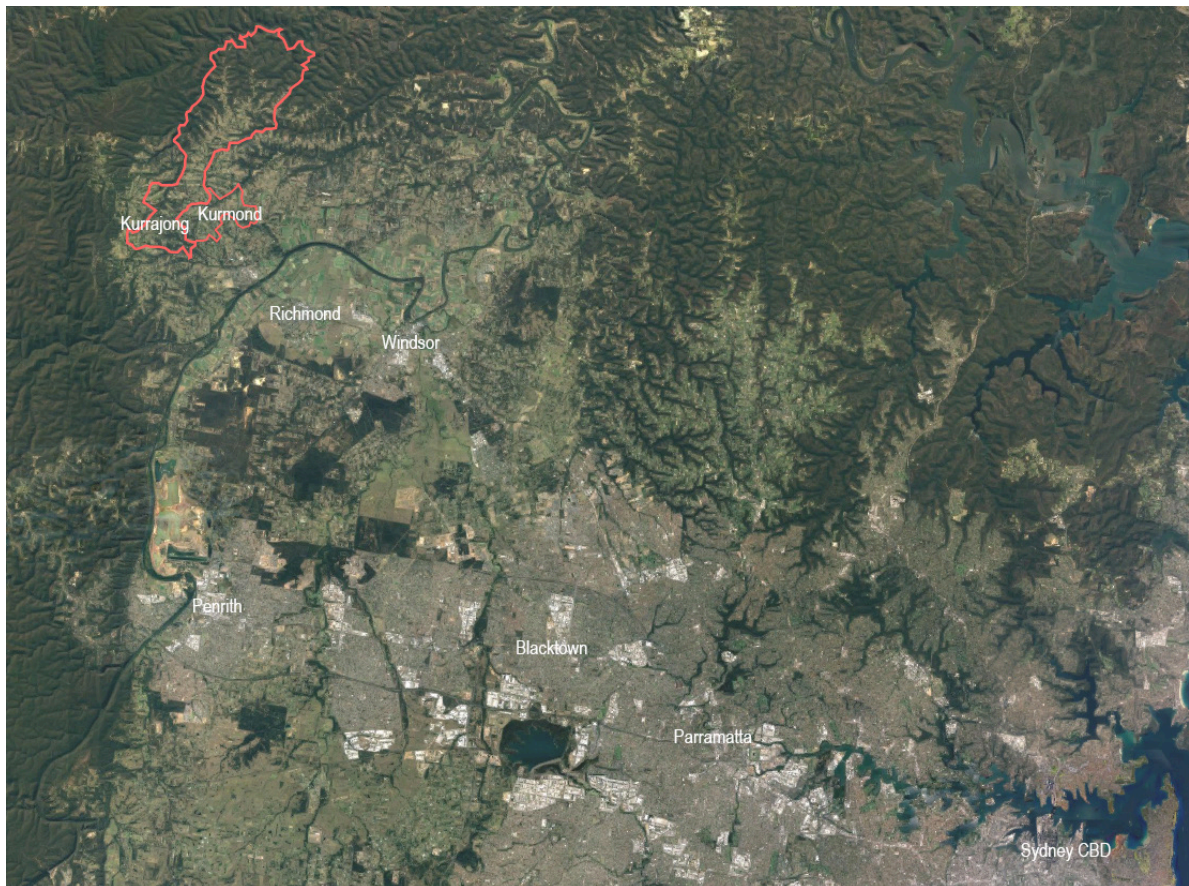


Figure 2. Kurrajong and Kurmond context map



S18-0024 KURMOND AND KURRAJONG LANDSCAPE CHARACTER STUDY



Figure 4. Slope greater than 15%

TOPOGRAPHY AND VEGETATION

The elevated topography of the area provides spectacular far reaching views of the Blue Mountains, Sydney Basin, the river lands around Richmond and beyond. Considerable parts of the site have a slope greater than 15%.

Much of the land within the Investigation Area has been cleared of native trees, shrubs and groundcover, however significant stands and corridors of native vegetation do remain throughout the area. Areas with high biodiversity value tend to correlate with the riparian zones.

Vegetation communities that remain include Shale Sandstone Transition Forest, Sydney Turpentine Ironbark Forest, Shale Plains Woodland and Western Sydney Dry Rainforest. All of the land is classified as bushfire prone, with the vast majority of the area falling within the high hazard Category 1 vegetation class.

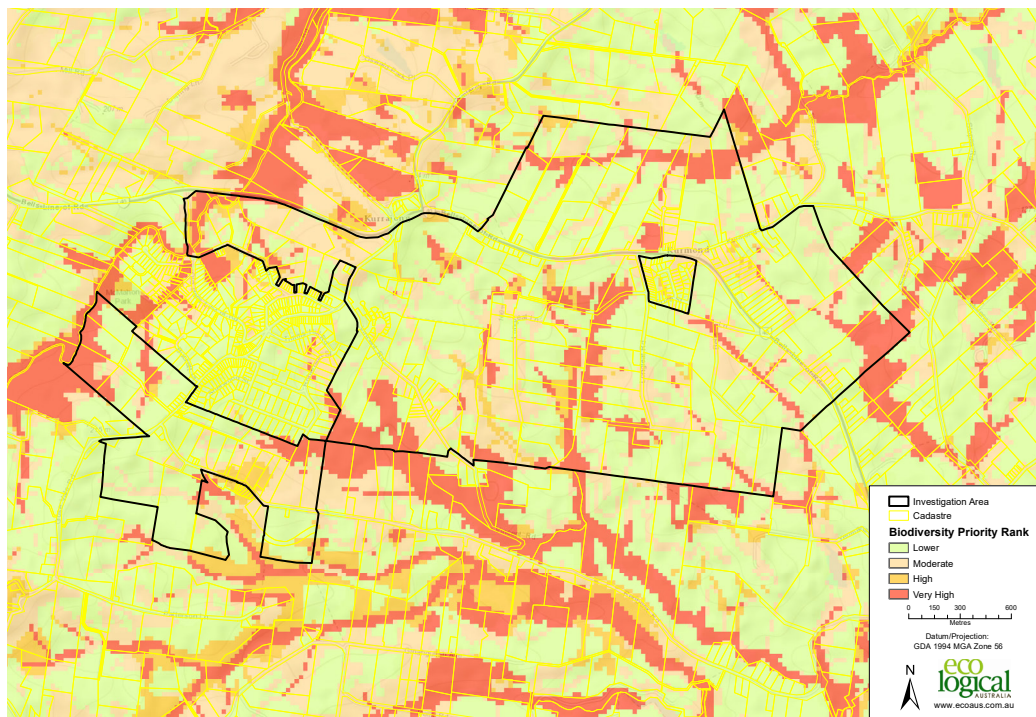


Figure 5. Biodiversity Map

HYDROLOGY

The many watercourses of the investigation area flow into three catchment areas:

1. Land south of Bells Line of Road and east of Old Bells Line of Road/Grose Vale Road drains south-west into Redbank Creek, which flows into the Hawkesbury River
2. Land north-west of Old Bells Line of Road/Grose Vale Road drains to the north into Little Wheeny Creek, which flows into the Colo River
3. Land to the north of Bells Line of Road and east of Comleroy Road drains east into Howes Creek, which flows into the Hawkesbury River

A number of dams are located in the Kurmond Kurrajong Investigation Area, predominately west of the Kurrajong residential area. They are typically small and are located on or near watercourses.

POPULATION

The populations of both Kurrajong and Kurmond are increasing as more people seek out the tranquillity and natural beauty of the area, with many more acreage properties being developed for hobby farms and rural getaways. The 2016 Census indicates the population of Kurrajong is 3,062 and Kurmond is 852.

The idyllic nature of the landscape has attracted many tourists over the years who come to experience the peaceful atmosphere, fresh air and natural surrounds. There are a variety of bed and breakfast establishments that benefit from the yearly influx of tourists. The villages and Kurrajong in particular have long been renowned for the fruit and citrus tree orchards that flourish in the local conditions.

ROAD CONNECTIONS

The major east-west Bells Line of Road connects the two villages of Kurrajong and Kurmond to each other and the wider region. Kurmond is situated directly along the Bells Line of Road, which has significant volumes of traffic in peak hours.

Kurrajong sits nearby on the Old Bells Line of Road, a southerly regional loop road to Grose Vale and Grose Wold. The intersection between Bells Line of Road and Old Bells Line of Road is the only signalised intersection in the Kurmond Kurrajong Investigation Area.

Other major roads providing east-west connections are Kurmond Road and Greggs Road/Redbank Road. All other roads are minor local roads, approximately 20m wide with no kerb and gutter. The function and character of these roads is mainly a rural lane or cul-de-sac.

COMPOSITE ANALYSIS

The map opposite shows a composite overlay of the various environmental values outlined earlier. It is noteworthy that the white areas - not constrained by these factors - are relatively limited. Furthermore, this analysis excludes landscape and view considerations addressed in the following sections.

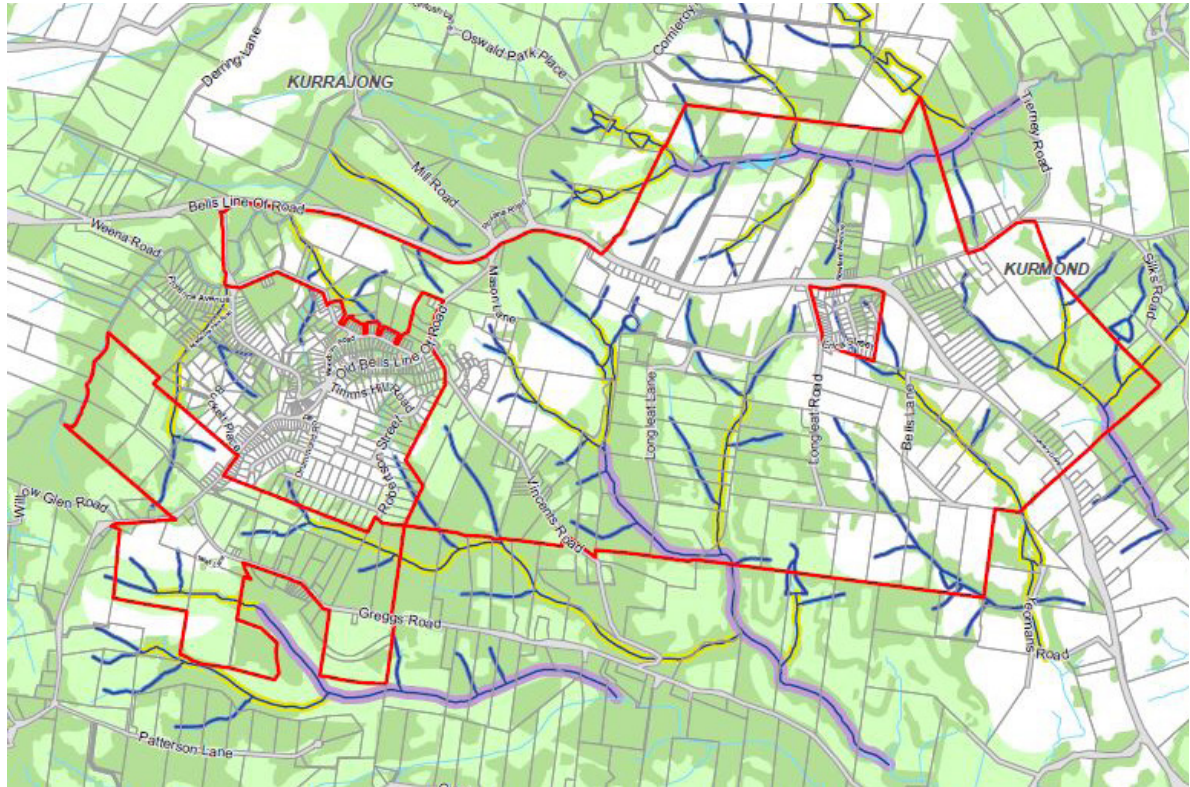
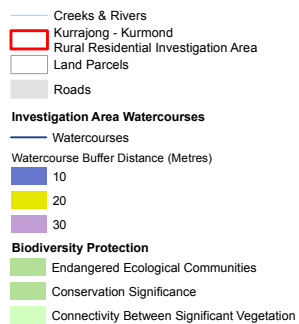


Figure 6. Composite Analysis
The areas in white are the least constrained by topography and vegetation







LANDSCAPE CHARACTER



Agricultural character and remnant bushland • Kurmond

5.0 LANDSCAPE CHARACTER

Four main landscape character types have been identified. The names reflect the dominant influences on landscape character.

Landscape character type	Description	Key characteristics
1. Rural villages 	Kurrajong is on a ridge line and has extensive views of the Richmond Lowlands. It is located on Grose Vale Road and has a small supermarket, newsagent, coffee shops and gift shops. Kurmond is a north-facing village on a ridge line with small shops. Small lot properties are situated around the village centres.	Local shops Street parking Street lights
2. Ridgeline streets 	The landscape character along the ridgeline is predominantly urban. Roads such as The Bells Line of Road, Old Bells Line of Road and Kurmond Road run along the ridgelines. Their elevated position provides views of the Richmond Lowlands and the Blue Mountains.	Urban development Main roads Rural roads District and regional views Blue Mountains backdrop
3. Pastoral valleys 	The rural character of the region is defined by the lightly sloping open pastures with scattered trees over gently sloping terrain. Significant areas of land have been cleared for grazing and agricultural uses. Properties are dotted amongst the hills and valleys of the landscape situated between groupings of trees.	Lightly sloping open pastures Rural land cleared for agriculture Rural properties Rural roads, no kerb & gutter Small dams near watercourses
4. Remnant vegetation 	Although much of the vegetation has been cleared, there are pockets of remnant bushland with some densely vegetated areas around the creek lines.	Remnant native bushland Vegetated creeklines Endangered ecological communities

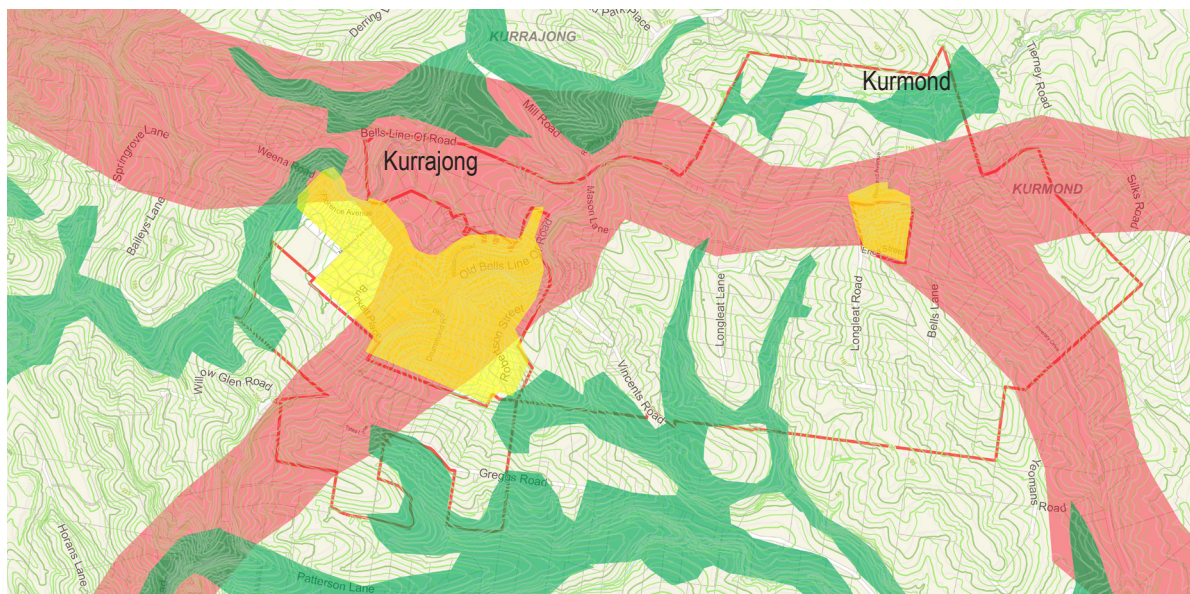


Figure 7. Landscape Character map

1. RURAL VILLAGES



Fresh fruit stall in Kurrajong Village. The Village has a relatively intact heritage fabric and possesses a pleasant human scale of predominately single storey buildings. The high street accommodates many local services and businesses and possesses a charming streetscape featuring many original 'cottage' buildings, acting as a tourism drawcard.



Village style shops and commercial buildings in Kurrajong. The shops are focused along the meandering Old Bells Line of Road as it follows the ridgeline. Views of the surrounding landscape can be had between buildings. A lane of parked cars on each side of the carriageway slows traffic flow and offers a barrier between pedestrians and traffic.



Small cluster of shops in Kurmond Village. As a local service area, the neighbourhood contains a public school, post office, petrol station, small convenience shops and restaurants. The centre is a popular local convenience shopping centre for daily needs but offers little appeal for shoppers to stop and chat.



Kurmond village shops along Bells Line of Road. The centre faces due north which could encourage the use of outdoor seating and socialising.

2. RIDGELINE STREETS



Bells Line of Road coming into Kurrajong Village from the north. The landscape character of the ridgeline is predominantly urban. Views and vistas are sometimes glimpsed between buildings or along view corridors created by the street network.



New subdivision located along Bells Line of Road. Subdivision proposals with lot sizes as small as 2,000m² can create a barrier to near and distant views and vistas as residents seek to screen the curtilage of their properties with fences and planting to provide privacy from the carriageway. Natural elements in the landscape such as riparian corridors are also impacted.



Residential development set back from the ridgeline roads allows visual access to the Blue Mountains backdrop. There are panoramic views and vistas from the ridgeline across valleys, peaks and to distant ridges. Documenting and protecting such views for the public is important; in this instance this view will largely be lost through proposed residential subdivision.



Bells Line of Road running parallel to Kurmond Village Shops. While traffic slows at Kurmond, the experience at the heart of the shopping centre is car dominated and lacks pedestrian amenity.

3. PASTORAL VALLEYS



Rolling hills landscape consisting of paddocks and stands of trees. The pastoral character contributes to the scenic qualities of the area by virtue of the lack of buildings. A current proposal for smaller lot sizes here would be likely to dramatically change this view.



Rural properties interspersed in the folds of the pastoral valleys. Controls on boundary hedge heights will ensure that public views to the surrounding landscape will not be lost.



An old barn sitting within the pastoral landscape shows the historic cultural landscape associated with European settlement of the area and frames distant views. Such older structures will inevitably disappear over time, but new buildings in such a context should respect this scale.



Timber fence lining residential rural road. The rural nature of fencing has a strong influence on the perception of the view beyond.

3. REMNANT VEGETATION



The pastoral land is interspersed with significant remnant vegetation containing endangered ecological communities. The drifts of trees and vegetation create visual contrast between areas of cleared grassland, helping the viewers to 'read' and understand the landscape and connect with its rich heritage.



Filtered views through native vegetation. The remaining stands of vegetation and habitat are critically important - both visually and environmentally.



Old barn surrounded by native vegetation. The contrast between pastoral lands and areas of significant vegetation bring complexity, textural interest and visual appeal to the landscape.



Numerous streams and vegetated riparian areas feature in the landscape. They tend to have established vegetation cover and typically contain endangered ecological communities. They act as 'markers' in the landscape, indicating low lying or wet areas and in cases such as these offer exceptional scenic value to the landscape.

VIEWS AND VISTAS

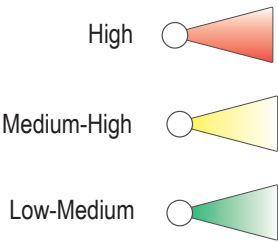
The elevated topography affords several significant views and vistas of the district and beyond. These landscape views are a significant feature of Kurmond and Kurrajong's landscape character.







If the view from the carriageway is blocked or the land within the view is permitted to change from a pastoral character then this unique landscape character and experience will be lost. Significant views need to be retained and protected by preventing any residential land uses within key views and vistas.

Key views and vistas of the undulating landscape are identified and described on the following pages.









Figure 8. Significant views and vistas



LOCATION	DISTANCE	BREADTH	DESCRIPTION	SIGNIFICANCE	IMPACT ON LAND USE PLANNING	IMAGE
A. Bells Line of Road near Redbank Road	Long distance views	Open views to north-east	Gently sloping pastoral landscapes	Medium	Retain and protect view	
B. Bells Line of Road near Yeomans Road	Long distance views	Open views to north-west	Dense vegetation in foreground with views to the Blue Mountains	High	Retain and protect view	
C. Near 332 Bells Line of Road	Long distance views	Open views to north-west	Frontage road with views to Blue Mountains	Medium-High	Retain and protect view	
D. Bells Line of Road near Inverary Drive	Long distance views	Open views to the north-west	Rural residential with views to Blue Mountains	High	Retain and protect view	
E. Near 396 Bells Line of Road	Long distance views	Open views to south-west	Pastoral landscape with views to Blue Mountains	High	Retain and protect view	
F. Bells Line of Road near Barrel 58	Medium distance views	Filtered views from north-east	Rural residential with views to rolling landscape	Medium	Retain and protect view	

LOCATION	DISTANCE	BREADTH	DESCRIPTION	SIGNIFICANCE	IMPACT ON LAND USE PLANNING	IMAGE
G. Bells Line of Road opposite Bells Lane	Medium distance views	Filtered views to the south-west	Rural residential with glimpses of Blue Mountains	Medium	Retain and protect view	
H. Near 436 Bells Line of Road	Medium distance views	Narrow view to north-east obscured by vegetation	Rural residential with views towards rolling landscape	Low	Retain and protect view	
I. Bells Line of Road opposite Kravings restaurant	Long distance views	Open views to the west	Pastoral landscape with views to Blue Mountains	High	Retain and protect view	
J. Near 560 Bells Line of Road	Medium distance views	Open views to north	Rural residential with views towards rolling landscape	Medium	Retain and protect view	
K. Near 615 Bells Line of Road	Long distance views	Open views to north east	Gently sloping valley and pastoral landscape	High	Retain and protect view	
L. Near 617 Bells Line of Road	Long distance views	Mostly open views to south-west	Rural residential with views to Blue Mountains behind	Medium	Retain and protect view	

LOCATION	DISTANCE	BREADTH	DESCRIPTION	SIGNIFICANCE	IMPACT ON LAND USE PLANNING	IMAGE
M. Near 13 Old Bells Line of Road	Long distance views	Partially filtered view to south	Vegetation with views to Blue Mountains	High	Retain and protect view	
N. Old Bells Line of Road near Kurrajong Veterinary	Long distance views	Open views to the west	Pastoral landscape with views to Blue Mountains	High	Retain and protect view	
O. Near 688 Bells Line of Road	Long distance views	Filtered views to north-west	Scattered trees within pastoral landscape with minor views to Blue Mountains	Medium	Retain and protect view	
P. Grose Vale Road near Buckett Place	Long distance views	Mostly open views to west	Residential frontages with views to gently rolling landscape behind	Medium-High	Retain and protect view	
Q. Greggs Road near Grose Vale Road	Long distance views	Open views to the south-west	Rural landscape in the foreground with Blue Mountains backdrop	Medium-High	Retain and protect view	
R. Kurmond Road near Bells Line of Road	Long distance views	Mostly open views to the south	Rural properties in the foreground and views over the Richmond lowlands in the distance	Medium-High	Retain and protect view	



PLANNING AND DESIGN GUIDELINES

Kurmond Village • Kurmond

6.0 PLANNING AND DESIGN GUIDELINES

Following on from the previous analysis, a suite of objectives and guidelines have been formulated to address the constraints and opportunities highlighted earlier in the report.

The table below summarises these guidelines across a suite of topics related to the public and private realm. The guidelines identify the core objectives, the recommended approach and the geographic or generic application of the guideline.

Theme	Objective	Guideline	Application
Access			
Public Transport	Encourage bus use between neighbourhoods and major transit nodes (Richmond/Windsor).	<ul style="list-style-type: none"> Weather sheltered/well-lit bus stops (<400m walk) Access to real time travel information Peak services to reflect realistic demand/requirements of residents. 	<ul style="list-style-type: none"> Kurrajong and Kurmond Neighbourhood centres and major roads through Investigation Area.
Private Vehicle (incl parking)	Coordinate approach to traffic flow and management to streamline roadways/ infrastructure.	<ul style="list-style-type: none"> Avoid multiple, isolated intersections, particularly from new development directly onto main roads Keep parking clear of all documented district or regional views. 	<ul style="list-style-type: none"> Roads and on road parking in proposed developments Main road upgrades (eg Bells Line of Road).
Cycling and Walking	Promote walk/ cycle as means of accessing shops, bus routes and schools within neighbourhoods.	<ul style="list-style-type: none"> Establish cycle lane/path between Kurrajong and Kurmond Create a safe and comfortable pedestrian environment within neighbourhood centres/villages, especially along ridges Focus on 800m walking catchment within villages. 	<ul style="list-style-type: none"> Cycle infrastructure (bike lockers etc) at Kurrajong and Kurmond centres Dedicated cycle lane to follow ridge line road Walkability action plan within Kurmond and Kurrajong.
Universal Access	Maximise universal access as far as natural gradients permit.	<ul style="list-style-type: none"> Define, audit and update most walkable routes within neighbourhoods Ensure bus routes including community buses link valleys to ridgetops in villages to encourage walking within village and reduced car dependency for short trips. 	<ul style="list-style-type: none"> Ridgeline streets in Kurmond and Kurrajong.

Theme	Objective	Guideline	Application
Land Use			
Residential	Maintain clear distinction in residential types related to location and geography.	<ul style="list-style-type: none"> • Focus principal residential population in and around compact neighbourhood centres • Prevent development and subdivision from sprawling and create a buffer between residential and active rural land uses • Ensure rural lot sizes maintain low density, optimise ecological corridors and open views. • Potential R5 Large Lot Residential Zone (4,000m²) • Use built form that responds to the steep terrain - a small footprint that steps down with the contours. 	<ul style="list-style-type: none"> • Principal residential population in and around Kurmond and Kurrajong.
Retail Commercial	<ul style="list-style-type: none"> • Maintain clear distinction between retail/ commercial and rural land uses. 	<ul style="list-style-type: none"> • Retail and commercial within neighbourhood cores. • Road front restaurants/hotels on main roads only • Encourage farm gate providers. 	<ul style="list-style-type: none"> • Neighbourhood centres • Bells Line of Road • Farm gate properties.
Transport	<ul style="list-style-type: none"> • Promote ease of access and movement around neighbourhood centres. 	<ul style="list-style-type: none"> • Slow vehicle travel speeds, clearly legible environments (signage, cues, wayfinding) • Integrated pedestrian/cycle/public transport information • Adequate car parking consolidated wherever possible in centres to avoid continuous line of cars on streets • Simple pull-offs on main roads near major views. 	<ul style="list-style-type: none"> • On/off street parking in neighbourhood centres • Formalised pull-offs on Bells Line of Road near views.
Public Domain	<ul style="list-style-type: none"> • Promote safe, pleasant public domain reflecting neighbourhood status. 	<ul style="list-style-type: none"> • Vegetation, shade, shelter, quality pedestrian surfaces, social seating, lighting in critical locations and interpretation • Formalised lookouts with wide district/ regional views • Avoid conflict between pedestrians, cycles and vehicles. 	<ul style="list-style-type: none"> • Specifically in the village and Neighbourhood Centres • Social gathering space at Kurmond for locals shopping.

Theme	Objective	Guideline	Application
Natural Environment			
Topography	<ul style="list-style-type: none"> Ensure that the area's natural topography is conserved. 	<ul style="list-style-type: none"> Controls on cut and fill in all built form including roads Maintenance of natural stream form. 	<ul style="list-style-type: none"> Across the Investigation Area
Hydrology	<ul style="list-style-type: none"> Maintain and enhance the natural riparian systems of the area. 	<ul style="list-style-type: none"> Follow riparian guidelines on stream types and riparian corridor controls (NSW Office of Water) Minimise/consolidate road crossings of creeks Restore minor creeks and chain of ponds as part of related development. 	<ul style="list-style-type: none"> Across the Investigation Area.
Vegetation	<ul style="list-style-type: none"> Protect land identified as high and very high priority habitat (Ecological, 2018) from impact of residential development. Conserve and enhance natural habitat corridors. 	<ul style="list-style-type: none"> Retain, protect and regenerate vegetation corridors identified in mapping Do not permit small lot (<0.5ha) development of land identified as high, very high priority Include riparian corridor restoration (planting) in development obligations. 	<ul style="list-style-type: none"> Any applicable land in Investigation Area.
Bushfire	<ul style="list-style-type: none"> Maintain bushfire protection. 	<ul style="list-style-type: none"> APZ Suitable access including for fire fighting vehicles. 	<ul style="list-style-type: none"> Across the Investigation Area
Climate Change	<ul style="list-style-type: none"> Mitigate temperature change. 	<ul style="list-style-type: none"> Tree canopy cover Riparian corridor ecology. 	<ul style="list-style-type: none"> Tree canopy especially on roads and in village centres.
Cultural Heritage			
Physical Heritage	<ul style="list-style-type: none"> Conserve heritage items (including trees). 	<ul style="list-style-type: none"> Monitor condition of heritage items Consider extent of curtilage and integration of items. 	<ul style="list-style-type: none"> Throughout the Investigation Area.
Heritage Interpretation	<ul style="list-style-type: none"> Make the story of the locality accessible and engaging. 	<ul style="list-style-type: none"> Maintain views that assist in interpretation Promote heritage trails. 	<ul style="list-style-type: none"> Throughout the Investigation Area.

Theme	Objective	Guideline	Application
Character and Identity			
Urban Character	<ul style="list-style-type: none"> Maintain and enhance compact character of existing villages and neighbourhoods. 	<ul style="list-style-type: none"> Respect existing scale and form: 1-2 storey limit Retain existing subdivision pattern - avoid lot amalgamation. Low FSR per lot. Focus on high street as location for services rather than outside of neighbourhoods Ridge line profile and view corridors to inform decisions in relation to scale and form of buildings (eg extensions or granny flats). 	<ul style="list-style-type: none"> Kurrajong and Kurmond neighbourhood centres.
Rural Character	<ul style="list-style-type: none"> Retain and protect pastoral/rural character Maintain clear distinction between urban rural interfaces. 	<ul style="list-style-type: none"> Prevent rezoning of critical land parcels that provide significant view corridors Permit rezoning and subdivision of land deemed appropriate/lower order in terms of views. Prevent creation of small lot sizes Control on road signage and promotions. 	<ul style="list-style-type: none"> Lands within Investigation Area.
Views and Vistas	<ul style="list-style-type: none"> Conserve 'pastoral' views, particularly from ridge line major roads Protect regional vistas from neighbourhoods. 	<ul style="list-style-type: none"> Document and maintain key regional and district views (see maps) Interpret views at key locations Prevent loss of views from roads through controls on private boundary fences and hedges heights and designs. 	<ul style="list-style-type: none"> Lands within Investigation Area.
Amenity and Safety			
Microclimate	<ul style="list-style-type: none"> Optimise sun in winter and shade in summer Maximise cooling breezes in summer Provide ample outdoor seating. 	<ul style="list-style-type: none"> Carefully considered application of evergreen and deciduous trees, with primary focus on native species Careful selection of non-invasive exotic species on streets in Centres. 	<ul style="list-style-type: none"> Shade and sun (and seating) particularly important in Centres and on roadsides.
Passive Surveillance	<ul style="list-style-type: none"> Ensure a sense of personal safety for the public and residents. 	<ul style="list-style-type: none"> Design with CPTED principles 	<ul style="list-style-type: none"> Investigation Area.

Theme	Objective	Guideline	Application
Built Form and Layout			
Urban (in town or village)	<ul style="list-style-type: none"> Retain existing scale and form. Prevent urban sprawl into currently non-urban areas or areas with significant view/ vistas. 	<ul style="list-style-type: none"> 1-2 storeys. Consider impact of parapet and roof form on backdrop perspective. Protect existing incidental/occasional views (along streets, between buildings, pedestrian experience) Typical lot sizes (TBC) Maximum site coverage controls for built form and minimum landscape controls. 	<ul style="list-style-type: none"> Kurmond and Kurrajong neighbourhood centres.
Periphery (edge of town or village)	<ul style="list-style-type: none"> Consolidate urban form around neighbourhoods. 	<ul style="list-style-type: none"> Establish limit to neighbourhood fringe (exclusion zone/rural character zone)/ Focus commercial and retail within neighbourhoods. Large lot rural residential which does not interrupt views and vistas. 	<ul style="list-style-type: none"> Consider visual impact of development proposals from carriageway and impact on views and vistas, including whilst travelling.
Rural (out of town or village)	<ul style="list-style-type: none"> Maintain significant sweeping pastoral views by avoiding development of critical view paths. 	<ul style="list-style-type: none"> Land with supporting building on lot as dominant built form Consolidate built form footprint and access driveways (including outbuildings, pools, courts etc) (Not less than 4000m²) with prescribed building envelopes for all lots Maximum site coverage controls for built form and minimum landscape controls. 	<ul style="list-style-type: none"> Rural zoned land within the Investigation Area.
Infrastructure			
Power lines	<ul style="list-style-type: none"> Minimise visual impacts of power lines. 	<ul style="list-style-type: none"> Selection of vegetation species under power lines Direction of easement across topography and especially over ridge lines Level of co-operation with power suppliers. 	<ul style="list-style-type: none"> Investigation Area.
Transport	<ul style="list-style-type: none"> Maximise opportunity to access transport and promote walking. 	<ul style="list-style-type: none"> Bus routes maximise catchment Community buses link valleys to ridge lines in village centres. 	<ul style="list-style-type: none"> Throughout but especially around village centres.