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Attachment 3 to item164

Kurmond Kurrajong Structure Plan

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1. Introduction

1.1 Context

The Kurmond-Kurrajong Structure Plan is a framework to guide future land use planning and identify planning mechanisms to ensure that development within the Investigation Area makes the area an attractive place to live both today and for future generations. The Kurmond-Kurrajong Structure Plan sets a blue print for rural living opportunities in the Investigation Area that is consistent with the NSW planning framework (A Metropolis of Three Cities and Western City District Plan) objectives to protect the landscape, scenic, environmental and rural character of Kurmond-Kurrajong.

The Kurmond-Kurrajong Structure Plan is a comprehensive and holistic study of the Investigation Area, which examines in detail the constraints within the Investigation Area in order to identify the circumstances in which future rural living opportunities should be carried out and thereby set a long term vision for how the Investigation Area should evolve over time.

The aim of the Kurmond-Kurrajong Structure Plan is to ensure that reasonable opportunities are identified for rural, whilst ensuring that the local environmental values, biodiversity, scenic, landscape and rural character of the area are maintained

The Kurmond-Kurrajong Structure Plan has been created to provide:

- a structure for rural living opportunities that will deliver the demand for housing in the area;
- a framework and statutory planning controls, including specific implementation provisions that;
 - ensure that development retains and enhances the existing landscape, scenic, rural and environmental character and biodiversity of the area that is valued by the community;

- are responsive to environmental constraints and risks such as bushfire and predicted increased temperatures;
- a greater certainty and confidence for property owners, developers and other investors about future development in the Investigation Area.

The Kurmond-Kurrajong Structure Plan is an investigation of the constraints to and opportunities for rural living opportunities with in the Investigation Area . The objectives of the Kurmond-Kurrajong Structure Plan is to:

- Provide rural living opportunities in close proximity to existing kurrajong and Kurmond neighbourhood centres that will maintain and protect the significant biodiversity, landscape, scenic and rural character of the area;
- Prevent subdivision development and land use that would have adverse implications on the quality of groundwater and surface water resources in the Investigation Area;
- Ensure that new subdivision and development comply with the current standard of fire management and protection of people, biodiversity and property; and
- Protect the visual landscape, amenity and rural character of the Investigation Area.



1.2 Report Structure

In preparing the Kurmond-Kurrajong Structure Plan consideration has been given to the following:

- Role of the Kurmond-Kurrajong neighbourhood centres consideration is given to the role of the two rural village centres.
- Analysis of the physical characteristics of the Investigation Area a comprehensive site analysis has been undertaken to ascertain the natural and physical opportunities and constraints of the Investigation Area.
- 3. Analysis of the existing planning controls in the Investigation Area the key planning controls that apply to the Investigation Area have been examined to determine their ability to respond to the demand for rural living in the Investigation area.
- **4.** Identification of Opportunities for Growth- sites that may contribute to the growth within the Investigation Area in response to the constraint analysis undertaken has been identified.
- 5. Vision for the Investigation Area- the overall vision for the Investigation Area is informed by the above analysis. This vision will be realised through the Structure Plan, which provides an overall guide to the future development and character of the area.
- Actions and Implementations to achieve the overall vision for the Investigation Area, a series of recommendations have been identified.

A series of separate studies have either been undertaken or considered as part of the process of informing the preparation of the Kurmond Kurrajong Structure Plan, including:

Constraints and Opportunities Analysis

- Kurmond and Kurrajong Landscape Character Study
- Ecological/Biodiversity Mapping
- Commercial/Retail Findings Kurmond and Kurrajong
- Traffic Study
- Views and View Classification and Design Controls
- Hawkesbury Tourism Destination Management Plan

1.2.1 Planning Framework

The Kurmond-Kurrajong Structure Plan supports the NSW Planning Framework – Sydney Region Plan and Western City District Plan Planning Priorities and Objectives.

Specifically, the following Planning Priorities and Objectives of the District Plan are applicable to the development of the proposed framework for future development of the Investigation Area:

Housing the City

Planning Priority W5 – Providing housing supply, choice and affordability, with access to jobs, services and public transport.

- Objective 10- Greater housing supply
- Objective 11 Housing is more diverse and affordable

A City in its Landscape

Planning Priority W12 – Protecting and improving the health and enjoyment of the District's waterways.

 Objective 25 – The coast and waterways are protected and healthier



- Planning Priority W14 Protecting and enhancing bushland and biodiversity.
- Objective 27 Biodiversity is protected in the bushland and remnant vegetation is enhanced.
- Planning Priority W16 Protecting and enhancing scenic and cultural landscapes.
- Objective 28 Scenic and cultural landscapes are protected
- Planning Priority W17 Better managing rural lands.
- Objective 29 Environmental, social and economic values in rural areas are protected and enhanced.

Appendix A provides key considerations for the Kurmond-Kurrajong Structure Plan within the context of the Planning Priorities and Objectives of the Greater Sydney Region Plan – A Metropolis of Three Cities.

The Kurmond-Kurrajong Structure Plan supports the following Planning Principles from the Western City District Plan:

- Housing needs the projected housing need and demographic characteristics of the existing and growing community, including different cultural, socio-economic and age groups and the availability of a range of housing types, tenures and price points.
- Diversity including a mix of dwelling types, a mix of sizes, universal design, seniors and aged care housing, student accommodation, group homes and boarding houses.
- Market preference market demand consideration that drive the take up of housing, including local housing preference.
- Engagement engaging the community on a range of options and neighbourhood priorities that can be integrated with new housing and benefit existing and future communities.
- Capacity land with potential for rezoning for residential development.

- Viability the assessment of new areas and whether the capacity created is financially viable for a range of configurations and is consistent with the market demand and planning controls.
- Environment green infrastructure including urban bushland and waterways, local features (topography, heritage, and cultural elements, visual impacts, natural hazards (floods and bushfire) and special land uses and other environmental constraints) lot sizes, strata ownership, and the transition between different built forms.
- Mix a mix of housing types that allows people to relocate within their local area and stay connected to their community services, friends and family.
- Supply land zoned for residential development, served by adequate infrastructure and ready for development projects.
- Local Character recognising the distinctive and valued combination of characteristics that contributes to the local identity.
- Monitoring homes completed and ready for occupation.
- Mix a mix of housing types that allows people to relocate within their local area and stay connected to their community services, friends and family.
- Supply land zoned for residential development, served by adequate infrastructure and ready for development projects.



1.3 Investigation Area Locality and Character

Kurmond and Kurrajong are classed as rural villages located within the Hawkesbury LGA. Kurmond is a small village located on a ridgeline that boasts picturesque views of the valleys, pastoral lands and Blue Mountains. The village centre is focused around a small strip of shops zoned B1-Neighbourhood Centre. The neighbourhood centre is surrounded by small residential properties. The community is vibrant, active and affluent and the land-use is transitioning from agriculture to lifestyle living in a rural setting.

Kurrajong is located on a ridgeline and has extensive views of the Richmond Lowlands, scenic views of the valleys and pastoral land, escarpments and the Blue Mountains. Kurrajong also provides opportunities for lifestyle living in a rural setting. The village centre is located along Grose Vale Road and is zoned B1-Neighbourhood Centre. It services the community with a small supermarket, cafes, gift shops and restaurants. Kurrajong attracts more tourists than Kurmond.

The Kurmond Kurrajong Investigation Area was not identified within the Hawkesbury Residential Land Strategy 2011. However, as shown in Figures 1 and 2 the Investigation Area was identified by considering the location criteria provided within the Residential Land Strategy (i.e. "within 1km radius" and "cluster around or on the periphery of villages"), undertaking a desk top survey of matters such as slope, existing vegetation, existing road layout and accesses, and zone and property boundaries.

Collectively the Kurmond-Kurrajong area covers approximately 640 Hectares. The key characteristic of the neighbourhood centres of Kurmond and Kurrajong are local shops and cafes that service the community, travellers and tourists, street parking, street lights, urban style of developments near the centres.

The Investigation Area is comprised of rural land zoned for the purposes of agricultural activities. However, there is no significant agricultural activities being undertaken. The majority of rural properties are used for residential dwellings to provide lifestyle living. The neighbourhood centres of Kurmond and Kurrajong includes R2- Low Density Residential, B1-Neighbourhood Centres and RE1-Public Recreation sites.



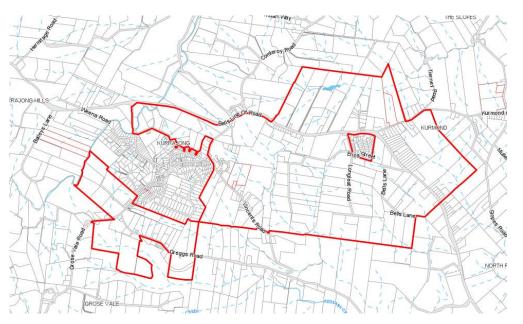


Figure 1 Kurmond-Kurrajong Investigation Area.

Roads in the Investigation Area are characterised by a combination of main roads (Bells Line of Road) along the ridge line and rural roads with typically no kerb and gutter provision in the valleys.

The rural character of the area is defined as open pastoral land with scattered trees over gently sloping terrain. Pockets of land have been previously cleared for grazing and agricultural purposes. Rural Residential development is scattered amongst the hills and valleys within the landscape, and is situated between groupings of remnant vegetation and land with high biodiversity values. Within the Investigation Area, existing remnant native bushland, vegetated creek lines, and endangered ecological communities provide biodiversity value.

Currently, the majority of the Investigation Area is zoned RU1-Primary Production and RU4-Primary Production Small Lots to support productive agriculture. However, the predominant land use within the Kurmond and Kurrajong Investigation Area is housing for lifestyle purposes within a rural setting.

The elevated topography of the area affords several significant views and vistas near and beyond with the Blue Mountains being the backdrop. These views and vistas are an important part to consideration of the areas future, as is character. If the pastoral character is changed, then the unique landscape character will be lost. Significant views need to be protected by careful consideration towards any future rural residential development in the area.





Figure 2 – Aerial View of Kurmond-Kurrajong Investigation Area.



1.3.1 Demographics of Kurmond-Kurrajong

The 2016 ABS Census Data analysis of the Kurmond-Kurrajong Investigation Area indicates that while the largest age structure group is between 35-49 years, overall there are more people in the area aged 50 years and over indicating an ageing population.

The area's dominant household type is Couples with children but a similar percentage of households are couples without children. The dwelling structure in the area is mostly large separate dwellings with the census data indicating that the majority of homes are owned by residents or are in the process of being purchased.

The 2016 Census Data also indicates that the household income of residents living in Kurmond and Kurrajong is higher than the broader Hawkesbury LGA.

The key demographic profile of the Investigation Area includes:

- The Investigation Area has an older population, with a large portion of the population over 50 years of age. This can influence housing types as well as future demand for services and facilities within the area.
- The Investigation Area has a proportionate mix of couples with and without children. However, couples without children are higher in comparison to the broader Hawkesbury LGA. This can influence housing type within the Investigation Area.
- The Investigation Area is made up of upper-middle and high-income levels. Both Kurmond and Kurrajong have a larger percentage of residents within the high-income level in comparison to the broader Hawkesbury LGA. This can influence the type of housing being made available in the Investigation Area and that housing as a "lifestyle" choice would be popular.
- The Investigation Area is highly car dependant.



Figure 3 - Kurmond Neighbourhood Centre

Kurmond – Kurrajong Neighbourhood Centres

The Kurmond and Kurrajong neighbourhood centres are classed as rural villages. They are comprised of a strip of shops surrounded by residential areas within walking distance. The neighbourhood centres contain a small supermarket, hairdresser, cafes, post office, service station which provide day-to-day services to the community.

The Kurmond and Kurrajong neighbourhood centres are the focal point of the community, which provide central places for the community to meet, shop and play. The centres also play a role as a tourist destination, with Kurmond offering a quick stop for transit travellers and Kurrajong offering more choice.



The centres have an important role in providing local employment for the catchment including the Bilpin area. The centres retain its human scale and fine grain mix of uses through low density residential development and open space surrounding the centre.

The Western City District Plan states that management of neighbourhood centres are predominantly managed by Council who need to consider which centres will:

- Be appropriate to accommodate housing as part of their housing strategy;
- Need to grow to provide for the required goods and services of the community; and
- Need to grow to deliver other roles for the community, such as recreation, cultural, arts and community hubs.

Both the Kurmond and Kurrajong village centres have the potential to grow incrementally within the policy context of the Metropolitan Rural Area to value add to its role as a neighbourhood centre that not only provides the day-to-day essential services to its community, but which can lever its role and capitalise on its location, scenic views and vistas and rural character to transform into a robust tourist destination.



Figure 4 - Kurmond Post Office



Figure 5 – Kurrajong Neighbourhood Centre Street View



1.4 Opportunities and Constraints Analysis

This section assesses the opportunities and constraints within the Investigation Area. The physical characteristics of the Investigation Area have been mapped and analysed. The characteristics include;

- metropolitan rural area;
- · transport, traffic and accessibility;
- · agriculture and primary production land;
- · housing and subdivision; growth and change;
- open space and facilities;
- bushfire:
- · heritage items;
- topography;
- drainage,
- waterways and flood;
- and other constraints.

The combination of these elements highlights the overall level of constraint within the Investigation Area and identifying those sites which have the opportunity to be considered for rural living.

1.5 Metropolitan Rural Area

The Sydney Region Plan – A Metropolis of Three Cities has classed the Hawkesbury LGA as a Metropolitan Rural Area as shown in figure 6.

Within the Western City District Plan the Metropolitan Rural Areas characteristics include:

- Farms
- Rural towns and villages
- Rural residential developments
- Heritage, scenic and cultural landscapes
- Mineral resources

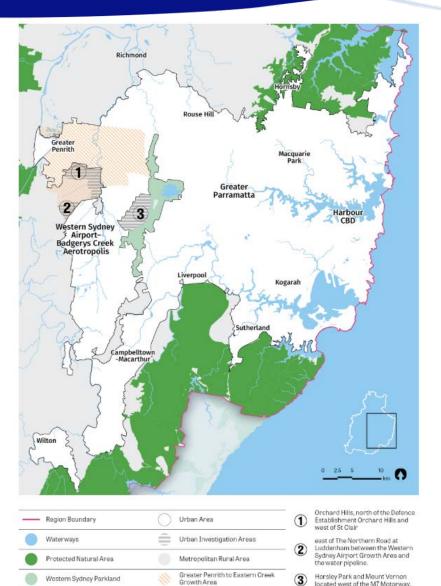
- Recreation and tourism locations
- Includes large areas of natural hazards
- Strategic centres of Windsor, Richmond and Katoomba

In order to give effect to the Metropolitan Rural Area provision, **Objective 29** of the Sydney Region Plan implements:

- Action 78 maintain or enhance the values of the Metropolitan Rural Area using place-based planning to deliver targeted environmental, social and economic outcomes;
- Action 79 limit urban development to within the urban areas, except for the Investigation Areas at Horsley Park, Orchard Hills and east of The Northern Road. Luddenham.

The Structure Plan is considered to be consistent with the above actions.





1.6 Transport, Traffic and Accessibility

Bells Line of Road is predominantly a single lane road and accommodates high volumes of traffic being a as it is the main arterial road that linking the area to regional NSW.

The only signalised intersection within the Investigation Area is between Bells Line of Road and Old Bells Line of Road at Kurrajong. Other main roads providing east-west connections are Kurmond Road and Grose Vale Road. Internally within the Investigation Area the street layout is comprised of minor local roads, typical of semi-rural and rural residential development with no kerb and guttering. These roads are typically rural lanes and/or cul-de-sac construction.

Council has undertaken an LGA wide traffic study. In terms of Stage 2 of the traffic modeling for the Kurmond Kurrajong area, the Hawkesbury Traffic Study has modelled a future base year 2027 with the following parameters, in order to assess impacts of any further development:

- The proposed new Grose River Bridge is operational
- Takes into account the remaining Redbank development (1,250 dwellings), Glossodia (250 dwellings), Pitt Town (150 dwellings) and Vineyard (900 dwellings).
- Includes the RMS upgrades along Bells Line of Road at Grose Vale Road, Yarramundi Lane and Bosworth Street/ March Street as well as the new Windsor Bridge.

Interim advice from the Consultant is that the new Grose River Bridge will improve the operation of the network taking into account the projected development in the future base year (2027) that includes development sites such as Redbank. The scenario modelling of the proposed 200 dwellings within the Kurmond/Kurrajong investigation area indicates that this development option is not considered to have any notable impact.



Bus network 682 (Berambing and Kurrajong to Richmond) is the only public transport mode that services the Investigation Area on a low frequency basis. The 2016 Census Data indicates that less than 5.5% of the population of Kurmond and Kurrajong use public transport as a mode of travel to work. Car dependency is high in the whole of the Hawkesbury LGA, and particularly so for the Investigation Area. Figure 7 illustrates the bus routes in the LGA.

The nearest railway station is located at Richmond, approximately 7km from the Investigation Area. Currently, there is no provision of bicycle and pedestrian pathways within the Investigation Area which connect the Kurmond and Kurrajong neighbourhood centres. There is potential to develop a cycle/pedestrian pathway along main roads within the Investigation Area. Contribution Planning can be used as a mechanism to fund the development of this pathway.

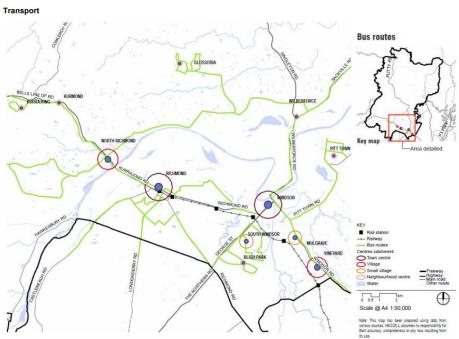


Figure 7 – Hawkesbury LGA Bus Route Source – Hawkesbury Residential Lands Strategy 2011



1.7 Agriculture and Primary Production Land

Historically, land in the Investigation Area was used for agricultural purposes which is reflected in the zonings RU1- Primary Production and RU4- Primary Production Small Lots to support agricultural and primary production uses. Lot sizes in the Investigation Area were controlled through the minimum lot size maps to minimise any land use conflicts and land fragmentation. In rural areas, land use conflicts can occur when agriculture impacts on residential uses, but conflicts can also arise when other land users impact on farmers, and also between different agricultural industries.

People who want to live in rural and agriculture areas are attracted by the open green space, fresher air and pleasant scenery. The desire to enjoy these landscapes should be accompanied by an understanding that rural land is used for productive purposes, such as agriculture. The reality is that normal farming practices can have impacts on neighbours ranging from residual noise, light, dust and other impacts.

In considering whether the current rural zone should be retained and whether land within Kurmond and Kurrajong has the capability for increased rural residential uses, the agricultural value of the land needs to be understood. The value of land for agricultural production is partially determined by its land capability, which is an inherent physical capacity of the land to sustain a range of land uses and management practises in the long term without degradation to soil, land, air and water resources. The Office of Environment and Heritage's "Land and Soil Capability Assessment Scheme" Classification identified prime agricultural land, and has the following classes:

Class 1 and 2 land is highly arable with the greatest potential for food production as fruit and vegetables. Class 3 land while capable of crop production is undulating with slopes of up to 10% and is restricted for its use for crops and horticulture.

The 'Values of the Metropolitan Rural Area of the Greater Sydney Region' (February 2017) states that there are no Class 1 and 2 lands in the Metropolitan Rural Area. The Kurmond-Kurrajong Investigation Area is classed as Class 3 and 4.

Further, findings from the Hawkesbury Rural Lands Study that is being undertaken confirm that there is no land specifically within the Kurmond and Kurrajong Investigation Area of extremely high to high agricultural value. This indicates that despite the RU1 and RU4 zoning and current land use permissibility that allows for agriculture and primary production, the land has limited agricultural value. Figure 8 illustrates the agricultural and rural land uses in the Investigation Area.

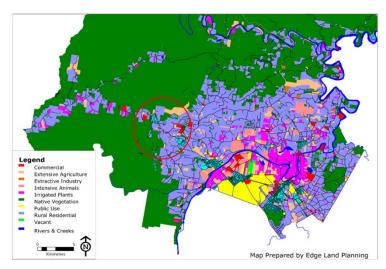


Figure 8 – Agricultural and Primary Production Land in Investigation Area



1.8 Housing and Subdivision (Building footprint)

Housing in Kurmond and Kurrajong has occurred incrementally in low density form primarily to satisfy local area growth requirements and for rural lifestyle needs. As indicated in the demographic data for the Investigation Area, housing type and tenure is predominantly single detached dwellings that is in private ownership.

A review of building approvals within the Kurmond-Kurrajong area indicates that the majority of these development approvals were associated with residential uses including new dwellings, dwelling alterations and additions and outbuildings. Figure 9 illustrates the building footprint map.

Land within the Kurmond and Kurrajong Investigation Area is made up of a range of lot sizes, high fragmented and there is no consistent pattern of subdivision across the Investigation Area. There are number of lots between 2-4ha, which are dispersed across the Investigation Area, and a few lots that exceed 10ha which are predominantly located on the outer edges of the Investigation Area.

1.9 Open Space

There is no open space available for recreation purposes within the Investigation Area. However, there are two open space areas within the Investigation Area that provide recreational opportunities to the residents and visitors. These open spaces are identified as:

- Kurrajong Memorial Reserve
- McMahons Park

Whilst not in public ownership, the Investigation Area has opportunities to form open space areas around the green grid of the high biodiversity areas as these spaces are worthy of retention and enhancement.



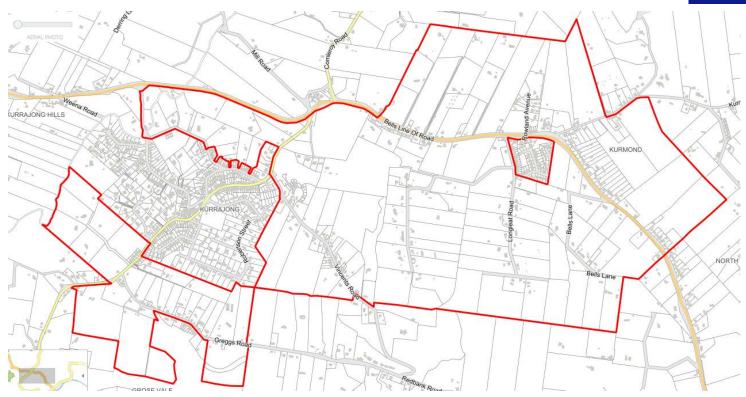


Figure 9 – Building Footprint Map



1.10 Biodiversity

The Investigation Area contains significant vegetation (shown in Green in Figure 10) including Shale Sandstone Transition Forest, Sydney Turpentine Ironbark Forest, Shale Plains Woodland and Western Sydney Dry Rainforest. These vegetation communities are listed as endangered or critically endangered ecological communities under the Biodiversity Act 2016.

In addition, watercourses and riparian areas, vegetation corridors, and koala habitant all contribute to the biodiversity value of the Investigation Area.

An LGA wide ecological study has been undertaken, and vegetation mapping has been developed, including a 'Biodiversity Priority Rank' Vegetation Map (Figure 11).

Land containing high to very high biodiversity priority ranking should be protected from the impacts of any future rural residential development. Biodiversity mapping undertaken for the Kurmond and Kurrajong Investigation Area identifies that the majority of land is located on private land holdings having high biodiversity value.

Protecting these vegetation communities that have been identified as having biodiversity values is essential in maintaining the quality landscape setting of the Investigation Area, and more broadly the rural landscape character of the Hawkesbury LGA.

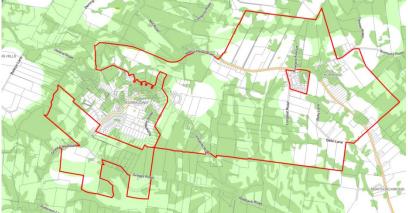


Figure 10 – Biodiversity Mapping of Investigation Area

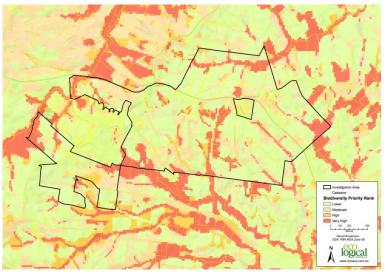


Figure 11 – Biodiversity Priority Rank Map



1.11 Bushfire

The Investigation Area is located on land identified as being bushfire prone.

Given the level of bushfire risk, it would be inappropriate for intensive subdivision that would significantly increase the residential population.

Any development of land that is bush fire prone land will need to provide the required asset protection zones in accordance with the requirements of the Planning for Bush Fire Protection 2006 and AS3959 – 2009. Figure 12 illustrates the bushfire ranking map.





1.12 Heritage Items

Three properties within the Investigation Area are identified as heritage items with Local Significance as outlined in Table 1 below.

Table 1: Heritage Properties within the Investigation Area

Item	Name	Address	Suburb
1458	Longleat	74 Longleat Road	Kurmond
1357	Goldfinder	164 Old Bells Line of Road	Kurrajong
1355	House	1040 Grose Vale Road	Kurrajong

Figure 13 illustrates the location of the Heritage significant items within the Investigation Area.

These items are of local significance. Adjacent to the Investigation Area, within the Kurmond and Kurrajong centres, there are a number of heritage items. The HLEP 2012 contains existing provisions that require the significance of heritage items to be considered prior to the granting of development consent. This applies to both sites containing an item of environmental heritage significance and sites in the vicinity of an item of heritage significance.

Section 5.10 Heritage Conservation of the Hawkesbury Local Environmental Plan 2012 makes provision for conserving the heritage significance of listed items.

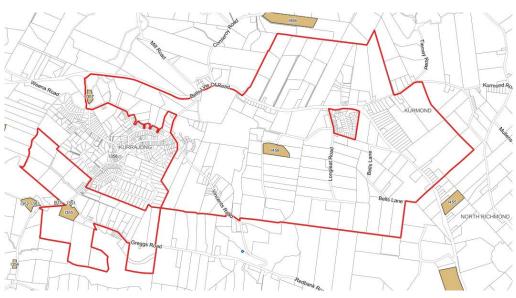


Figure 13 – Location of Heritage listed properties



1.13 Topography

The topography within the Investigation Area is characterised by a ridgeline that runs east-west, along the Bells Line of Road which falls gently away to the natural undulating contours and waterways.

The heights within the Investigation Area range between 60m-165m AHD. The high point within the Investigation Area is located close to the established area of Kurrajong, whilst the lowest is located to the south.

Slopes in access of 15% are considered to be a constraint to future development having regard to soil stability and increased land slip hazards, methods of site effluent disposal, and costs of development.

Figure 14 illustrates the topographic mapping within the Investigation Area.

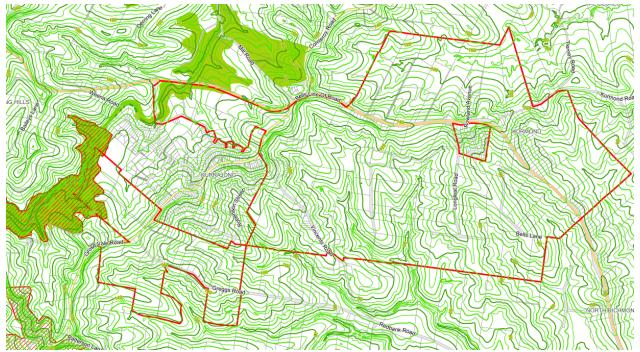


Figure 14 – Topographic Mapping within the Investigation Area



1.14 Drainage, Waterways and Flood

The Investigation Area contains a number of waterways which drain from the ridgelines to the Howes Creek on the northern side of Bells Line of Road, and Redbank Creek to the south of the Bells Line of Road, and ultimately channelling water to the Hawkesbury River catchment.

The Investigation Area is not flood prone, however may lose access to services including electricity due to major flood events. This is not prohibitive to the future development of the Investigation Area as the locality has access available to the west via Bells Line of Road.

Figures 14 and 15 illustrate drainage and waterways within the Investigation Area.

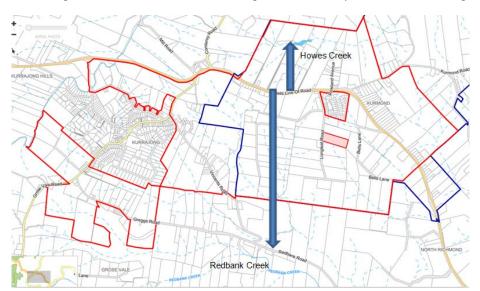


Figure 15 – Direction of Drainage

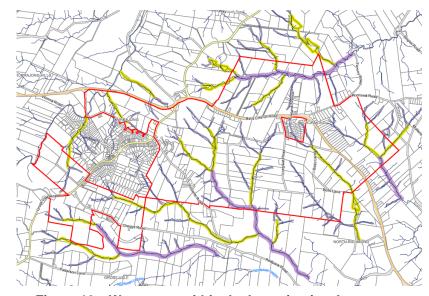


Figure 16 – Waterways within the Investigation Area



1.15 Other Constraints

The Investigation Area is not supported by a reticulated sewerage system, and as such properties are reliant on the onsite disposal of waste water. The Investigation Area is partly serviced by access to the Sydney Water potable water reticulation. This limitation does not prevent future residential use of the land, however to support future development and the need for sustainable onsite effluent disposal, consideration as to appropriate lot sizes is required.

The Investigation Area is not in close vicinity to community infrastructure such as hospitals, education establishment, child care centre, and seniors centre. The nearest medical centre can be accessed at North Richmond and hospital in Windsor. Figure 17 illustrates sewer and Sydney water provisions within the Investigation Area.



Figure 17 – Sydney Water Network



1.16 Combined Constraints Analysis

The combined constraint analysis mapping indicates that there are large portions of the Investigation Area that are constrained. Pockets of residential developments are dispersed across the Investigation Area. There are limited potential sites that are less constrained that are available to accommodate future development in the short to medium term depending on the availability and connection of the essential utility services such as sewer, water, electricity and roads.

Figure 18 illustrates the combined constraints mapping of the Investigation Area.

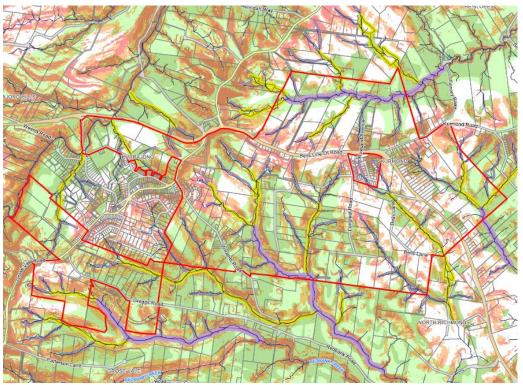


Figure 18 – Combined Constraints mapping of Investigation Area



2. Planning Controls

This section reviews the current planning controls that currently apply to land within the Investigation Area. An analysis of appropriate zoning and minimum lot size which retains the scenic, landscape, environmental and rural character, yet providing an opportunity to allow residential development is also discussed in this section. The key planning controls applying to the Investigation Area are included in Hawkesbury Local Environmental Plan 2012 and the Hawkesbury Development Control Plan.

2.1 Zoning and Land Use

Land within the Investigation Area is zoned RU1-Primary Production and RU4-Primary Production Small Lots. The objectives of these zones are to encourage sustainable primary industry production, minimising fragmentation and alienation of resource land, encourage agricultural activities that do not rely heavily on fertile land, promotes conservation and enhancement of biodiversity, protecting landscape values and rural character and minimise land use conflict.

Adjacent to the Investigation Area are the established low density, rural village centres of Kurmond and Kurrajong. Land around the village centres is zoned R2- Low Density Residential allowing residential developments on much smaller lots with a minimum lot size of 450m² depending on access to a reticulated sewage system (note 4000m² for non reticulated sites). The centres have pocket parks to provide open space recreation opportunities to residents and visitors. Figure 19 illustrates the land use zoning map of the Investigation Area.

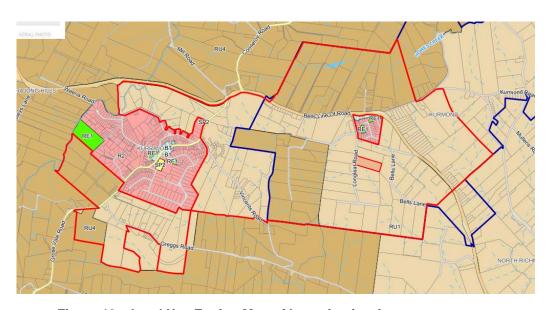


Figure 19 – Land Use Zoning Map of Investigation Area



2.2 Lot Sizes

The Investigation Area has a mix of lot sizes ranging from 2000m² to 10 hectares. The smaller 2000m² lots are used for lifestyle purposes. Future rural lifestyle opportunities will be dependent on the constraints and determined through the principles of capacity, environment, supply, scenic, landscape and local character protection. Figure 20 illustrates an analysis of the existing lot sizes within the Investigation Area.



Figure 20 – Existing Size of Lots



2.3 Analysis of Appropriate Zoning

An analysis of other potential zones for the Investigation Area has been assessed to identify the most appropriate zone for the Investigation Area that will achieve the objectives to preserve enhance and protect the bushland, biodiversity, scenic and cultural landscapes while better managing the rural lands for rural lifestyle purposes.

Table 2 analyses four potential zones for the Investigation Area being RU2- Rural Landscape, RU5-Village, E4-Environmental Living and R5-Large Lot Residential. Each zone has been assessed against factors that represent the objectives of the planning framework which are relevant to the Investigation Area.

Table 2: Analysis of Appropriate Zoning

Potential new Zone	Preserve Biodiversity and ecological Values	Protect scenic and cultural landscape	Protect rural character	Protect water catchment system	Allow low density residential development	Do not unreasonably demand for added amenities to support development
RU2- Rural Landscape	X	√	√	√	√	√
RU5-Village	х	✓	✓	✓	✓	✓
E4- Environmental Living	√	x	√	√	√	√
R5-Large Lot Residential	✓	✓	х	х	√	Х



Table 3: Assessment of each zone as a proposed zone for the Investigation Area

Zone	Objectives	Disadvantages of the zone to the Investigation Area	
Zone	Objectives	Advantages of the zone to the Investigation Area	Disadvantages of the Zone to the investigation Area
RU2 – Rural Landscape	To maintain the rural landscape character, encourage sustainable primary industry production, maintaining and enhancing the natural resource base, extensive agriculture, minimise the fragmentation of land, minimised land use conflict, protects the waterways, preserve the river valley system, scenic corridors, wooded ridges, escarpments, environmentally sensitive areas and features of scenic quality, avoid development that demand additional public amenities and services.	The zone maintains the rural landscape character of the area. The zone minimises land use conflict. The zone protects water catchment and ecosystems such as water ways. The zone retains and enhances landscape values.	The zone does not allow land fragmentation, meaning land subdivision and individual ownership of each parcel of land in this zone may be difficult to achieve. The Department of Planning may not support a planning proposal for rezoning to RU2.
RU5 - Village	To provide maintain the rural character of the village and ensure that development is in sympathy with the character of a village, protect hilltops, ridge lines, river valleys, rural landscapes and other scenic features, avoid development that detract the rural character or demand additional public amenities and services.	The zone provides a range of land uses that support a rural village. The zone maintains the rural character of the village. The zone protects rural landscape, and features of scenic significance. Development within this zone does not does not create an unreasonable demand for the provision or extension of public amenities and services.	The zone objective does not emphasise the protection of biodiversity and ecological values. However, the emphasis on development being in sympathy with the character of the village highlights be retained and protected.
E4 – Environmental Living	To provide low-impact residential development in areas with special ecological, scientific or aesthetic values, avoid development on land that is prone to bush fire risk, ensure that development is compatible with the current infrastructure provision and environmental capabilities, encourage sustainable agricultural activities, avoid land use conflict, conservation and enhancement of natural vegetation and biodiversity and allow development in cleared areas, prevent development impact of water systems.	The zone protects the biodiversity and ecological values. The zone minimises land use conflicts. The zone protects water catchments and waterways. Development within this zone does not does not create an unreasonable demand for the provision or extension of public amenities and services.	The zone promotes agricultural activities which can cause land use conflict if the Investigation Area is going to be subdivided for residential development purposes. It should be noted that the consultant undertaking the Hawkesbury Rural Lands Strategy has confirmed that the Investigation Area does not contain any land with high agricultural value.
R5 – Large Lot Residential	To provide residential housing in rural setting while preserving and minimising the impact on environment and scenic qualities, avoid development that will demand additional services and public facilities, minimise land use conflict, provide low density residential housing.	The zone allows residential development in the area while protecting the biodiversity and scenic and landscape values. The zone minimises land use conflicts.	The zone does not protect water catchment and water ecosystem. Being a Residential zone, the prospective owners coming in the area may have expectations of additional amenities and services which are available in residential zones in the urban areas such as kerb and gutter, street lights, footpaths, a community facilities. Hawkesbury LGA being classed as a Metropolitan Rural Area can cause issues for the progress of planning proposals trying to rezone land into a residential zone due to the Sydney Region Plan and Western City District Plan making it clear that "Urban development is not consistent with the values of the MRA. Greater Sydney has sufficient land to deliver its housing needs within the current boundary of the urban areas including the growth areas and urban activation areas. This eliminates the need of urban areas to expand into the MRA." The Metropolitan Rural Area restricts any urban zones in the area and R5 – Large Lot Residential is mostly classed as an urban zone.



Assessment of the potential zones ability to meet the objective of the Structure Plan discusses the advantages and disadvantages of the zones has identified RU5 – Village and E4-Rural Living being considered as the most appropriate proposed zones for the Investigation Area.

The zones meet the objective preserve, enhance and protect the bushland, biodiversity, scenic and cultural landscapes while better managing the rural lands. The zones also blend in and appropriate transitions well from the zone pattern of the Kurmond and Kurrajong centres. The proposed zones will complement the Kurmond and Kurrajong centres context and character as rural villages.

The proposed zones blend well with the MRA context and will progress the planning proposal seamlessly through the Department's Gateway Determination process leading to plan making and gazettal of the new zone.

2.4 Minimum Lot Size Analysis

An analysis of the lot sizes in the surrounding Kurmond and Kurrajong centres indicates that the residential development has a Minimum Lot Size of 450m² based on access to a reticulated sewage system. Figure 21 illustrates the Lot Size Map of the Kurmond and Kurrajong area in comparison to the Investigation Area.

Given the interest for residential development for lifestyle purposes in the Investigation Area, an analysis of potential sites that can afford smaller lots (minimum of 4,000m²) subject to design controls is identified in Figure 22.

Considering the significant vegetation which includes biodiversity that is endangered ecological communities, conservation significance and remnant vegetation; water catchment and related ecosystem; and the need to protect the scenic, landscape and rural character of the Investigation Area, the most appropriate minimum lot size for the remaining of the Investigation Area is 1 hectare (10,000m²) that is not in an environmentally constrained area.



Figure 21 – Minimum Lot Size Mapping of Investigation Area



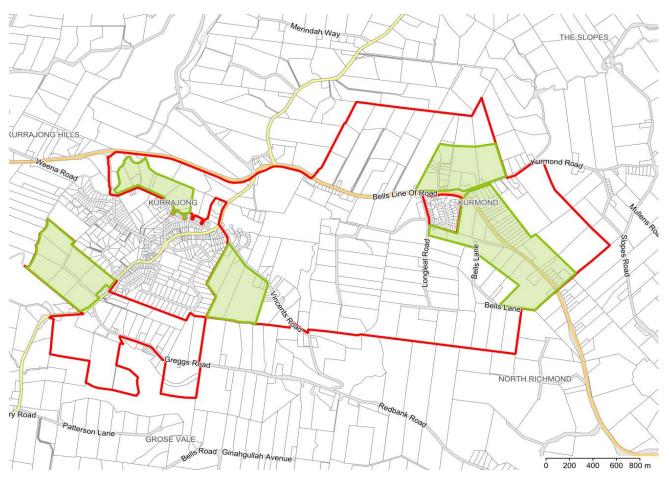


Figure 22 – Recommended location of 4,000m² minimum lot size



3. Opportunities for Future Development

3.1 Development Standards

Building footprints should be consolidated to allow for clear views of the local landscape, front road planting and creating links to the existing vegetation and creek line.

The subdivision layout should not interrupt views and vistas and detract from the landscape character of the area.

Figure 23 illustrates the subdivision layout principle for the Investigation Area.

Development in such a manner will ensure that lot sizes are of appropriate scale to preserve the view line below the ride line and to the creek line and vegetation at the bottom of the valley.

Development should ensure large lot sizes maintain low density development with consolidated building footprints that respond to the terrain and preserves open views. Development should be able to minimise any cut and fill and conserve natural topography. New access roads should consolidate the built form and access driveways, and where possible minimise the need for roads, however, locate roads clear of or minimise impacts on vegetation and where possible avoid road crossing over waterways. New planting should be encouraged along the creek lines reinforcing native vegetation.

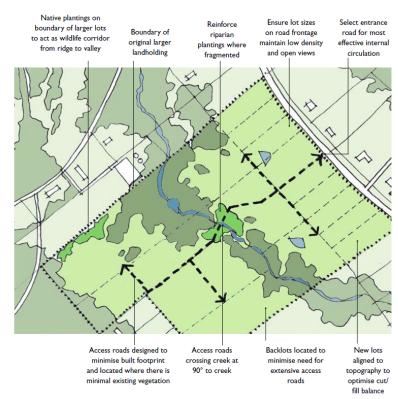


Figure 23 – Illustrates the lot layout principle for the Investigation Area



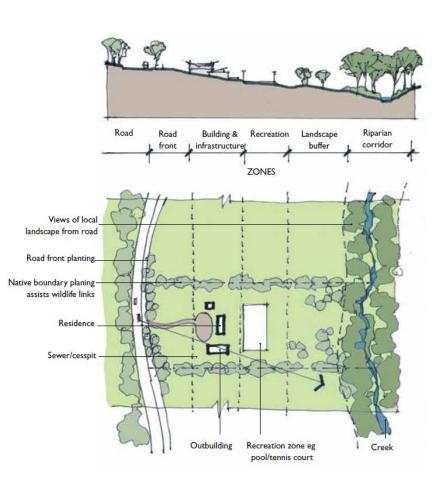


Figure 24 – Lot Layout Principles for Investigation Area

To maintain and enhance the compact character of existing villages and neighbourhoods, the principle residential population should be focused around compact neighbourhood centres and prevent subdivision from sprawling. It is also important to maintain a clear distinction and landscape buffer between village centres, rural land uses and vegetation.

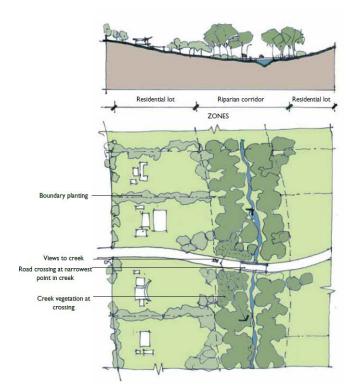


Figure 25 – Lot Layout Principles for Investigation Area to preserve views and vistas from ridgeline



Development along the ridgeline should protect key views and vistas of the undulating landscape. Ensure natural topography is conserved by built forms that respond to the terrain and minimises visual impact. Integrate development on prominent hillsides or hilltops with the landscape, topography and long distance views of the hill.

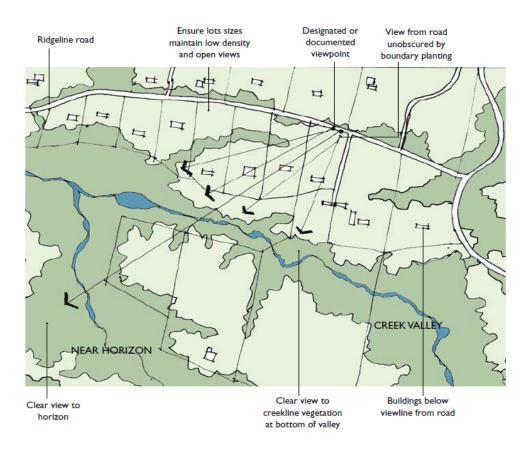


Figure 26 – Lot Layout Principles for investigation area to preserve views and vistas from ridgeline



3.2 Views and Vista Classification

The elevated topography of the Kurmond-Kurrajong area provides spectacular, far-reaching views of the Blue Mountains, Sydney Basin, and the river lands around Richmond and beyond. It is important to identify which views are significant to protect and manage these valued views.

Table 4 – Views and Vista Classification Principles

Factor	Description	Low significance	Moderate significance	High significance	
Subject value	Any aspect of landscape or view that people consider to be important	Nondescript or discordant elements of the landscape (eg power lines, urban developments, infrastructure)	A minor or distant proportion of attractive elements of the landscape eg water and natural elements, hills, valleys, remnant vegetation, pastoral landscape, dams, rural villages	A high proportion of attractive features eg water and natural elements, hills, valleys, remnant vegetation, pastoral landscape, dams, rural villages Rare/unique/iconic elements of the landscape eg Greater Blue Mountains World Heritage area, sandstone escarpments, the Richmond lowlands, Sydney Basin A discernible focal point or skyline Features in the mid-ground and background	
Breadth of view	The field of vision seen from the viewpoint	Narrow, filtered or obscured view	Partial view corridor	Whole view, unobstructed or framed view	
Distance of view	The distance that can be seen from the viewpoint	Local views ¹ , typically with a viewing distance up to 500m	District views, typically with a viewing distance 500m to 2km	Regional views, typically with a viewing distance over 2km	
Period of view	The length of time the viewer is exposed to the view	Short length of time, typically from driving along a road	Moderate length of time, typically from walking past	Long duration, typically from a static destination area or designated viewing point	
Context of view	The popularity of the viewpoint and its ease of accessibility	View seen from private residential and commercial properties	View seen from public roads and verges View seen form public oper space, parks, town centres, footpaths, walking trails, lookouts, tourist walking or driving routes		

The overall significance of a particular viewpoint can be classified as Low, Moderate/Low, Moderate, Moderate/High or High.



The Sydney Region Plan states that while consideration of scenic landscapes occurs through a range of mechanisms relevant to heritage and biodiversity, Councils should consider scenic landscapes as a part of growth and change across Greater Sydney.' Further the statement is supported by:

Strategy 28.1 - identify and protect scenic and cultural landscapes; and

Strategy 28.2 – enhance and protect views of scenic and cultural landscapes from the public realm.

The elevated topography of the Investigation Area, along the Bells Line of Road affords several significant views and vistas. Appendix C provides View and vistas from different viewpoint along the Bells Line of Road corridor identifying its significance.

Using the above strategies, scenic views and vistas are captured from locations identified in Figure 27 and are provided in Appendix C.

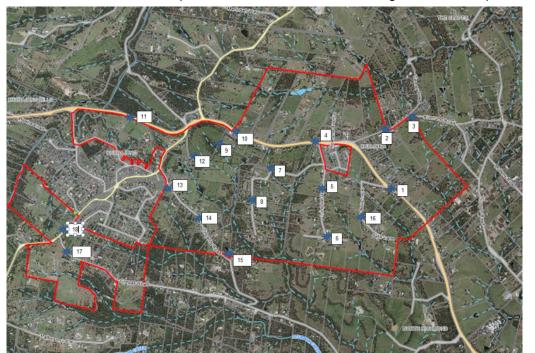


Figure 27 – Locations of Scenic Views and Vistas Captured in Kurmond-Kurrajong



4. Vision and Structure Plan

This section sets out the land use vision plan for the Investigation Area to be implemented over a number of years.

4.1 Vision for the Investigation Area

The vision for the Investigation Area is to rezone land to an appropriate zone to allow subdivision of parcels into 1 hectare lots and smaller lots to a minimum lot size of 4000m² in the areas identified within the Investigation Area that will enable development that protects and enhances the existing scenic, landscape, rural character and biodiversity of the area.

4.2 Proposed Structure Plan

The Kurmond-Kurrajong Structure Plan guides future land uses within the Investigation Area. It is the result of the assessment of the existing constraints and planning controls. It is founded on the NSW Government planning principles with the emphasis on the protection and enhancement of environmental biodiversity, landscape, scenic and rural character of the area.

4.2.1 Land Zone 'RU5-Village'or 'E4-Rural Living'

Land within the Investigation Area can be rezoned to RU5-Village or E4-Rural Living. The purpose of the rezoning is to designate areas where rural residential can be accommodated without detrimental impacts to the environment, landscape, scenic and rural character of the area.

The zone provides a range of land uses, services and facilities that are associated with a rural village and will also compliment the village centres of Kurmond-Kurrajong. The zone is aligned with the objectives to protect and enhance the existing scenic, landscape, rural character and biodiversity of the area.

Appendix D provides the permitted land uses within the zone.

4.2.2 Minimum Lot Sizes

Minimum Lot Sizes within the Investigation Area will be 1 hectare (10,000m²); however, areas identified within the structure plan that will be able to afford minimum lot size of 4000m² with a frontage of 40m subject to meeting design controls which will be stipulated within the Hawkesbury LEP 2012 at the plan making stage.

The provisions include:

- The pattern of lots created by subdivision of land will not have any likely adverse impact biodiversity, threatened species, ecological and scientific communities, and water catchment including surface and ground water quality and flows.
- The existing levels of the views and vistas from the site are protected by providing adequate separation between building envelopes.
- Appropriate access to all service utilities is provided.
- Each lot created should ensure that the building footprints are clustered together with an appropriate buffer provided to protect the biodiversity, wetland and an asset protection zone to eliminate the bush fire hazard.
- Provision of appropriate access to each lot.
- Where lots are not serviced by a sewer system, the location of the effluent disposal system should ensure that its location does not hinder the public health, water resources and viewpoints of the area.



4.2.3 Bushfire Prone Area and Terrestrial Biodiversity

Land use development within the Investigation Area is subject to relevant bushfire prone area building requirement pursuant to the Building Code of Australia and Australian Standards and subject to a Biodiversity Assessment Report.

4.2.4 Building Envelopes

All lots within the Investigation Area are subject to the approval of building envelopes. Careful consideration of development envelopes should be undertaken to retain the rural character. All building envelopes shall be located in accordance with the following provisions:

- Minimise the need for clearing of remnant vegetation by being located within the most degraded area of the lot;
- Ensure that all the building footprints including any effluent disposal system and water supply tank is clustered spatially together to minimise clearing requirements for a building protection zone;
- Ensure consistency with bushfire regulation with respect to the site layout, vehicular access, firefighting water supply and sitting of development;
- Have regard to biodiversity, visual landscape and scenic values respecting views from the development site through avoidance of significant ridgelines and visually dominant topography;
- No native trees, bushland or other vegetation shall be cleared, felled or removed outside the defined building envelope except where necessary in the situation where the vegetation is dead, diseased or poses a danger to lives and property; clearing is necessary for an identified firebreak.

4.2.5 Potable Water

Where land is not serviced by connection to a potable water supply, all development must include provision for the storage of water in tanks of not less than 100,000 litres capacity on the basis that no arrangements have been made for connection to a reticulated water supply provided by licensed water provider.

Any groundwater bores shall be subject to the approval and license from the NSW Natural Resource Access Regulator (NRAR).

4.2.6 Building Aesthetics including fences and gates

Aesthetics of future residential development within the Investigation Area should reflect the rural character. Typical country homestead building designs shall be encouraged which should also be reflected within the fences and gates of the development. New development should be visually subservient to the landscape - modest in scale, sympathetically located and finished with visual impact.

New developments should encourage:

- retention/ replanting of corridors including creeks and along ridge lines:
- buffer lands and links kept free of major structures and hard surfaces
- retention of tall trees as a prominent visual element
- Fencing and gates should be visually transparent so that it does not limit view lines.

Examples of typical country residential building aesthetics, fences and gates are provided in Appendix E.



Appendix B: Relationship to the Planning Framework

Liveability Direction: Housing the City				
Objective	Relevance	Key Considerations for the Structure Plan		
Objective 10: Greater Housing Supply	Providing ongoing housing supply and a range of housing types in the right locations will create more liveable neighbourhoods and support Greater Sydney's growing population. The NSW Government has identified that 725,000 additional homes will be needed by 2036 to meet demand based on current population projections. By 2056, it is anticipated that significant further housing supply will be required to meet Greater Sydney's continued strong population growth. The Plan identifies that District Plans provide housing supply targets for each local government area. These housing targets will inform the preparation of housing strategies by council.	Consideration of the provision of additional housing will need to consider the suitability for the Kurmond and Kurrajong investigation area to provide rural residential housing and whether the land has capabilities of support large lot residential development. While there is a responsibility and broad objective of the Greater Sydney Region Plan to provide for additional housing, it must be balanced against community priorities and the value of rural and scenic lands.		
Sustainability Direction: Housing the City				
Objective 28: Scenic and cultural landscapes are protected	connect the contemporary urban environment with natural and historic urban landscapes. Their continued protection is important for their aesthetic, social and economic values and for the character of the region. They create a sense of identity, preserve links to Aboriginal, colonial and migrant era heritage and culture, and create opportunities for tourism and recreation. Views and vistas of ridgelines, waterways and the urban skyline help foster	These include: Strategy 28.1: Identify and protect scenic and cultural landscapes Strategy 28.2: Enhance and protect views of scenic and cultural landscapes from the public realm		
Objective 29: Environmental, social and economic values in rural areas are protected and enhanced	The Plan and specifically objective 29 introduces the term Metropolitan Rural Area. The Metropolitan Rural Area (MRA) is identifies as having a wide range of environmental, social and economic values. It covers almost one quarter of Greater Sydney and contains farms; rural towns and villages; rural residential developments; heritage, scenic and cultural landscapes; mineral resources; and locations for recreation and tourism.	The Plan identifies a number of key influences for land use within the MRA, including: increasing demand for biodiversity offset sites creating additional value for landowners with areas of vegetation of high environmental value; local demand to live and work in a rural town or village opportunities to conserve and enhance cultural heritage		



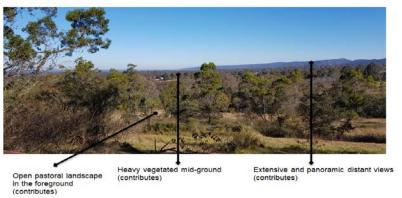
Appendix B: Relationship to the Planning Framework continued

Sustainability Direction: Housing the City Objective Objective 29: Environmental, social and economic values in rural areas are protected and enhanced	The Metropolitan Rural Area (MRA) is identifies as having a wide range of environmental, social and economic values. It covers almost one quarter of Greater Sydney and contains farms; rural towns and villages; rural residential developments; heritage, scenic and	Key Considerations for the Structure Plan Specifically, the key element of this objective is to eliminate the need for the Urban Area to expand into the MRA. The implication for the Kurmond and Kurrajong Structure Plan is that the investigation area should not be used to deliver or assist in delivering housing targets for Hawkesbury or the greater Sydney. This objective gives significant policy direction to restrict urban development within the MRA. Maintaining and enhancing the distinctive character of each rural and bushland town and village is a high priority of this objective and is to be used to quide future land use decisions within Kurmond and Kurrajong Investigation Area.
		In addition, the objective supports the ongoing planning and management of rural towns and villages such as Kurmond and Kurrajong and the need to respond to local demand for growth, the character of the town or village and the values of the surrounding landscape and rural activities. Key Strategies for the Kurmond and Kurrajong Structure Plan are: Strategy 29.1: Maintain or enhance the values of the Metropolitan Rural Area using place-based planning to deliver targeted environmental, social and economic outcomes; and Strategy 29.2: Limit urban development to within the Urban Area, except for the investigation areas at Horsley Park, Orchard Hills, and east of The Northern Road, Luddenham.

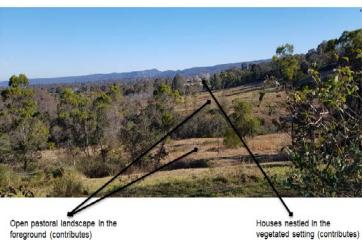


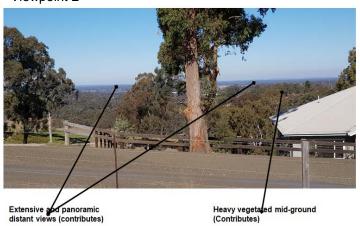
Appendix C: Views and Vista Classification

Viewpoint 1

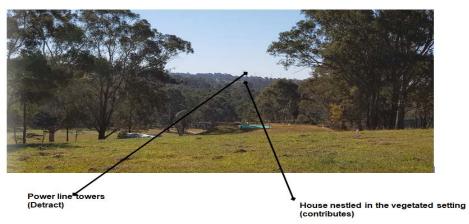


Factor	Description	Significance
Subject value	A view of pastoral landscape in the foreground with vegetation in the midground and views of the Blue Mountains World Heritage Area in the background	High
Breadth of view	Wide open unobstructed view with features in the foreground, midground and background	High
Distance of view	Regional views over 5km	High
Period of view	Moderate length of time	Moderate
Context of view	The view is seen from a public road with a verge	Moderate
Summary view classification		









Open pastoral landscape in the midground (contributes)

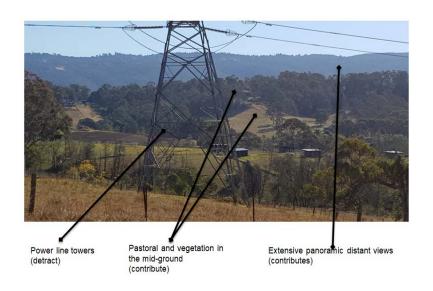
Heavy vegetation in the midground (contributes)

View Classification Viewpoint 3

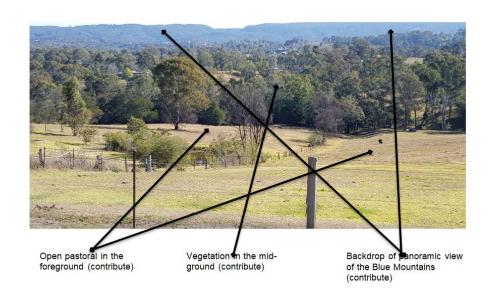








View Classification Viewpoint 5







Open pasture and dam (contributes)

Extensive and panoramic distant views (contribute)

Heavily vegetated mid-ground (contributes)



Extensive panoramic views in the distant (contributes)

View Classification Viewpoint 7



Pastoral view in the foreground (contributes)



Pastoral view in the foreground (contributes)





Foreground pastoral view (contributes)

View Classification Viewpoint 9



View Classification Viewpoint 9



Foreground pastoral and vegetation (contributes)



Vegetation in the mid ground (contributes)



Appendix D: Permitted land uses in zones RU5- Village and E4-Environmental Living under Hawkesbury LEP 2012

Zone	Current Permitted Land Use
RU5- Village	Boarding houses; Boat sheds; Building identification signs; Business
	identification signs; Camping grounds; Caravan parks; Centre-based child care
	facilities; Community facilities; Dual occupancies (attached); Dwelling houses;
	Educational establishments; Entertainment facilities; Environmental facilities;
	Flood mitigation works; Food and drink premises; Home-based child care; Home
	industries; Jetties; Landscaping material supplies; Moorings; Neighbourhood
	shops; Oyster aquaculture; Places of public worship; Plant nurseries; Public
	administration buildings; Recreation areas; Recreation facilities (indoor);
	Recreation facilities (outdoor); Registered clubs; Respite day care centres;
	Roads; Roadside stalls; Rural supplies; Schools; Tank-based aquaculture;
	Tourist and visitor accommodation; Veterinary hospitals; Water recreation
	structures; Water storage facilities.
E4- Environmental Living	Animal boarding or training establishments; Boarding houses; Boat sheds;
	Building identification signs; Business identification signs; Camping grounds;
	Caravan parks; Centre-based child care facilities; Charter and tourism boating
	facilities; Community facilities; Dual occupancies (attached); Dwelling houses;
	Educational establishments; Entertainment facilities; Environmental facilities;
	Farm buildings; Flood mitigation works; Food and drink premises; Forestry;
	Health consulting rooms; Helipads; Heliports; Home-based child care; Home
	industries; Hospitals; Intensive livestock agriculture; Intensive plant agriculture;
	Jetties; Landscaping material supplies; Moorings; Oyster aquaculture;
	Passenger transport facilities; Places of public worship; Plant nurseries; Pond-
	based aquaculture; Public administration buildings; Recreation areas; Recreation
	facilities (indoor); Recreation facilities (outdoor); Registered clubs; Respite day
	care centres; Roads; Roadside stalls; Rural supplies; Rural workers' dwellings;
	Sawmill or log processing works; Stock and sale yards; Tank-based aquaculture;
	Tourist and visitor accommodation; Transport depots; Truck depots; Veterinary
	hospitals; Water recreation structures; Water storage facilities.



Appendix E: Examples of typical country residential dwellings, gates and fences.





