Reeves Creek Village project team

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1. Introducing Reeves Creek Village

This is a summary of the Reeves Creek Village Concept Master Plan, which supports Wollondilly Shire Council’s planning proposal for the rezoning of land known as Picton East.

The Reeves Creek Village / Picton East planning proposal seeks to rezone 29.5 hectares of rural land adjacent to the town of Picton, to a mix of residential, open space and environmental uses. The planning proposal is consistent with Council’s planning policy framework that promotes more compact, diverse and sustainable places, as described in the Growth Management Strategy (2011).

The Reeves Creek Village Concept Master Plan proposes approximately 243 new dwellings in a mix of high quality and affordable housing that can meet the emerging needs of the area’s residents.

Reeves Creek Village is designed as an integrated part of Picton’s growth and development. The proposal is at a village scale, discretely designed to respond sensitively to its landscape setting and have minimal visual impact on the historic town of Picton.

Reeves Creek Village has good connections and easy access into the Picton town centre and good proximity and accessibility to existing public transport services, including both buses and trains.

The natural landscape of the Reeves Creek riparian corridor forms the green heart of the project providing a unique and important character to the village.

Report structure

This concept master plan report is structured to:

• Establish the context for the Reeves Creek Village proposal.
• Undertake a the site analysis to establish an appropriate design response and strategy.
• Establish key planning strategies that inform a concept master plan an define future character precincts and housing typologies.
• Establish a landscape and sustainability framework to support integrated development of the site.
• Illustrate the proposed planning controls, along with housing and population projections.
Figure 1: Reeves Creek Village site (in red) in the context of Picton town centre.

Figure 2: Panoramic looking southwest from Vault Hill illustrates the close relationship between the Reeves Creek Village site and Picton township.
2. Wollondilly context and Picton profile

Wollondilly Shire is located on the south-western fringe of the Sydney metropolitan area, about 90km from the Sydney CBD. Wollondilly Shire is bounded by the Blue Mountains and Penrith City Councils in the north, Liverpool City, the Camden Council area and Campbelltown Cities in the east, Wollongong City and Wingecarribee Shire in the south and south-east, and the Mulwaree and Oberon Council areas in the west.

A national park and rural areas dominate Wollondilly Shire. Urban areas limited to fifteen towns and villages one of five towns, has 10% of the Shire’s population. Two-thirds of the population lives in the urban centres, and one-third in the rural areas. There are five large towns, and the largest is Tahmoor. Picton is the administrative centre of the Shire. The Council comprised of 2,600 square kilometres, of which 90% is national park, bushland, water catchment or rural land.

The Shire’s population increased from 30,000 in 1991 to over 50,000 in 2017. This growth is planned to continue, especially around the existing urban areas of Appin, Bargo, Picton, Silverdale, Tahmoor, Thirlmere, Warragamba and Wilton.

Data from the 2016 Census (Australian Bureau of Statistics) illustrates that Wollondilly Shire and Picton are characterised by:

- A residential population that has been steadily growing by between 1 and 2% per year since 2001 and currently
- An estimated residential population for the Wollondilly Shire of 50,877 persons (2017 estimate)
- An estimated residential population for the Picton / Mowbray Park / Maldon area of 5,115 persons (2011 estimate) with a 50/50 split between males and females
- A population density of 0.2 persons per hectare across the shire, that compares with 0.97 for the Picton / Mowbray Park / Maldon area
- A preference for rural living, reflected in just 5% of its housing stock as medium and high density, compared to 40% across Greater Sydney
- A typical average occupancy rate of 2.8 persons per household in the Picton / Mowbray Park / Maldon area, which is consistent with the Shire
- A lower proportion of dwellings with 1 and 2 bedrooms, and a higher proportion of dwellings with 4 + bedrooms compared to the Greater Sydney area
- In Wollondilly Shire 10.5% of households in 1-2 bedroom dwellings and 50.3% were 4-plus bedroom dwellings. In Picton / Mowbray Park / Maldon, 14.8% of households were 1-2 bedroom dwellings, and 49.3% were 4+ bedroom dwellings, compared with 31.2% and 27.7% across Greater Sydney.

In 2012, Picton’s town centre was transformed for the filming of ‘The Wolverine’.
3. Picton .... A town defined by its landscape and history

The township of Picton is a place strongly defined by its landscape setting of tree lined rolling hills and ridges, rural valley floors defined by rivers and creeks.

This landscape has defined the linear character and urban form of the historic town and the significant infrastructure dissection of the town by the railway line, connecting roads and the main streets.

Reeves Creek Village lies within a valley located directly to the east of the town centre and is an integral part of its landscape setting.

The existing creek line is well vegetated with natural tree and understory plantings and forms the green heart of the project. The proposed residential and road layout responds to the surrounding topography and retains the riparian corridor as a focal point within the site. The sloping land to the north and east of the creek line is characterized by open grassland and the project aims to retain the vegetated ridgeline that forms the eastern edge of the project. The open woodland associated with the ridgeline is retained as an important part of the Picton area landscape.
4. Context and site analysis

There is a strong physical relationship between Picton and its landscape. As part of Picton, the Reeves Creek Village site is very much defined by the surrounding landscape of hills, ridges and creek lines. North - south oriented ridges and escarpments are aligned to the east, west and south of Picton, and frame and enclose both the town and the Reeves Creek site. The eastern ridge provides a strong landscape frame, culminating in Vault Hill, which is a highly visible landmark seen from most locations within Picton.

The Reeves Creek village site is accessible from the north via Margaret Street and from the west via Menangle Street. These two streets provide the two key connection points between the site and the town. Baxters Lane which runs off Menangle Street in the south, also provides smaller scale access to the site. The centre of Reeves Creek Village is located within 800m of the town’s main street and less than 900m from Picton Train Station. Four bus stops are located within similar distances. This means the majority of the proposed site is within easy walking distance of the town centre and public transport services.

On the western boundary, close to Menangle Street, the Reeves Creek Village site adjoins the Picton Heritage Conservation Area. The only heritage item to influence the site is a historically significant sandstone culvert, located close to the site access point on Menangle Street.

Two connecting creek lines and their valleys determine the structure and landform of the Reeves Creek Village site. The morphology and vegetation of the main creek line creates a significant buffer between the eastern and western precincts of the site. The two main creek lines with their requisite riparian vegetation and bushfire asset protection zones (APZ) are shown in figure 6.

Geotechnical studies have identified the areas that are capable of being developed for urban uses and conversely, areas that are unsuitable due to poor ground conditions.

Legend

- Reeves Creek Village site boundary
- Site access points
- Picton Town centre
- Conservation area
- Existing open space
- Botanical gardens
- Vault hill cemetery
- Town cemetery
- Main roads
- Train station + railway
- Bus stop
- 600m radius walking catchment
- Ridgelines and hilltops
- Existing water
- Riparian corridor
- Existing significant vegetation
- Bush fire protection zone (APZ)
- Boundary of slope instability

![Figure 6: Context and Site Analysis Plan](image)
Visual analysis

As part of the site investigations, a visual analysis assessed the visual impact of the proposed Reeves Creek Village development. The study considered four cross sections through the Reeves Creek Village site. The cross-sections together with the visual analysis use the concept master plan to identify the location of future streets and show two storey housing forms in order to illustrate the highest potential building forms.

The cross-sections demonstrate that the visual impact of the Reeves Creek development to the existing urban areas of Picton will be minor. The main reason for this is that the proposed development is located within a discrete valley (Reeves Creek) that runs parallel to Menangle Street. Within this valley, the proposed development is placed and designed to both minimise visual impact to the existing areas of Picton and to limit the impact of development on the ridgeline. The visibility of the Reeves Creek Village development is limited to the two proposed access points at Menangle Street and Margaret St.

Legend

- Subject site boundary
- Visually prominent knoll
- View corridors
- Visually significant vegetation
- Enclosed visual area
- Distinct view to ridgeline
- Photo analysis camera location and direction
Visual analysis

1. View from Hilltop looking south west
2. View along Baxters Lane looking east
3. View into the site from Margaret St looking south west
4. View to Reeves Creek valley looking west
5. View from Reeves Creek first ridge
6. View from Vault Hill south to the town of Picton
7. View from the Menangle Street Access Road
8. View towards Reeves Creek on the approach to the proposed bridge
9. View looking toward Vault Hill
Visual analysis

The following cross sections have been located to demonstrate the visual relationship of the project to Menangle Street and Margaret Streets. The groundline is taken from site contours with existing trees located from aerial photographs and site inspections.

All cross sections show the location of the Reeves Creek Village project within the existing valley, demonstrating the proposed development will have no visual impact on the existing ridge-line.

The existing trees are shown to their true scale, the proposed street trees are shown approximately 10 metres in height and the two storey houses are shown approximately 8 metres in height (i.e. 2 storeys with a pitched roof).
Visual analysis

Legend

- Approximate location of existing trees
- Proposed street trees
- Indicative 2 storey house profile

Section CC
1:2000

Section DD
1:2000
5. Reeves Creek Village - Planning and design principles

Reeves Creek Village Concept Master Plan is based on an integrated suite of planning, design, landscape and environmental principles.

An accessible and connected place

Reeves Creek Village has been designed with a connected street and landscape structure with the following characteristics:

- an accessible street and access network that connects with Picton's existing urban areas.
- a well connected and easily understood street structure that respects and responds to the landscape setting and existing landform.
- street and block structures characterised by parallel north-south access streets and with connecting east-west streets aligned with creek-line corridors.
- streets largely aligned with an existing typically east-west sloping landform when and optimise WSUD opportunities.
- an excellent location within practical walking distance of Picton town centre, while maintaining its 'hidden' character.
- Streets designed to be slower and safer for residents and visitors alike.

A connected and sustainable landscape

Reeves Creek Village is designed as a connected and sustainable landscape:

- that physically and visually respects and integrates the existing edge of Picton and provides a visually attractive transition between urban and rural areas and the ridgeline surrounding Picton.
- that creates opportunities for: recreation with walking / cycling connections into Picton, hill top parks, ridgeline walking trails and cycle trail routes.
- that offers future opportunities for the creation of ridgeline parklands with improved public access.
- that utilises of natural WSUD principles integrated with the riparian corridor precinct.
- That is influenced by the dominant natural riparian habitat of the creek lines and the associated native plant communities.

A village of distinctive character and place

Reeves Creek Village is designed as a village to form an integrated part of Picton:

- with a sense of place that reflects and reinforces the existing and planned growth patterns, builds on and reinforces the character of Picton and responds sensitively the strong landscape context.
- that defines and frames the urban and landscape character of the town of Picton.
- that optimises the use of existing physical and community infrastructure.
- that increases local housing supply and affordability in existing settlements with a diversity of housing and range of densities responsive to the range of urban and landscape settings - parkside terraces, creekline housing, medium density / village typologies, and lower density ridgeline housing.
- that has a central core of riparian vegetation to provide opportunities for appreciation and enjoyment of the natural environment.
- that limits the extent of development, supports the sustainable growth of the local community and preserves the important landscape backdrop of the ridgeline to the setting of Picton.
6. Reeves Creek Village - Design strategy

Reeves Creek Village benefits from its close proximity and connection to Picton while being discretely located within its own unique valley landscape.

This unique characteristic presents opportunities for a landscape sensitive design response that respects the landscape and environmental character of the site whilst integrating and connecting the new village with its landscape.

The Reeves Creek Village design strategy:

- creates a new walkable village with a natural vegetated creek line at the heart of the new community;
- directly connects Reeves Creek Village with the town of Picton with new streets, pedestrian paths and cycleways;
- contains the village environment within the visual catchment of the valley landscape and in this way limits the visual impact of the development;
- establishes the heart of the village centre at the confluence of two creeks, and proposes bridges, key streets and pathways to provides connectivity;
- creates a strong and accessible landscaped public open space corridor that enhances existing open space areas and positively links Reeves Creek and Margaret Street with Vault Hill;
- enhances green connections with the environmental regeneration of riparian corridors and links these with the Vault Hill Ridge;
- defines key view corridors across the valley that align key streets with creeks and the village centre;
- enhances safety and environmental management by integrating edge roads to riparian area and open space; and
- optimises Water Sensitive Urban Design opportunities with integrated bio-retention basins and roadside swales as part of the natural environment.
a. An accessible and connected place

The Reeves Creek Village development is designed to optimise access and connections, to Picton and within the site itself.

To service the Reeves Creek Village development, two key connections are proposed at Margaret Street and Menangle Street to provide linkages to Picton’s existing street network. The Margaret Street connection is proposed as a southerly extension of the existing street into Reeves Creek. The Menangle Street connection proposes new junctions to this street that will provide access to the Reeves Creek development from the west and south.

The Reeves Creek Village development is designed with a strong and connected urban street structure. Local street connectivity is a key design principle and cul de sacs used only in circumstances where a combination of landform and / or the structure of existing urban development prevent street connections being made. This connected street structure will provide excellent opportunities for pedestrian and cycleway access for new residents.

The primary street network directly connects both Margaret Street and Menangle Street to the Reeves Creek development and these two connector streets intersect in the centre of the proposed village. The Margaret Street extension is designed as the key structural north-south avenue within the Reeves Creek development.

The proposed Reeves Creek development will have good access to existing bus services (Routes 900, 901, 912A) currently running along Menangle Street. Should changes and extensions to the local bus network be implemented in response to the potential urban growth of Picton, the development’s primary connector streets are designed to accommodate future bus routes.

The proposed Reeves Creek development is conveniently located less than 900m walking distance of Picton Train Station, which provides good rail access to the Sydney Trains network.

The Reeves Creek development proposes residential streets that are designed to be both slower and safer.

A ‘slower streets – safer streets’ design strategy is to be achieved through the integrated design of:

- Narrower streets
- Integrated parking
- Integrated landscaping
- Pedestrian paths and
- Provisions for cyclists

The three street types proposed for Reeves Creek are:

1. High Street
2. Local street
3. Collector Road

These proposed street and laneway types vary from the types specified in Wollondilly DCP 2011. The Reeves Creek development seeks to amend DCP 2011 to facilitate these proposed street and laneway types.
Street type 1: High Street

Street type 2: Local Street

Street type 3: Collector Street
b. Landscape Master Plan

The landscape master plan for Reeves Creek Village has been carefully developed in a collaborative team environment where Planning, Ecology, Urban Design, Engineering and Landscape Architecture have been combined to provide an integrated approach. The landscape design has been driven by the existing vegetation and topography within the Reeves Creek riparian corridor and also protection and enhancement of the associated ridgeline. Both are key components of the project. The landscape design is specific in creating an environment that relates to the Picton area as well as a valuable asset to the local community.

The following design notes present a commentary on specific areas of the Reeves Creek Village landscape.

1. Reeves Creek Village will be accessed from Margaret Street and Menangle Street. Margaret Street entry provides views to vault hill and the ridgeline.

2. Menangle Street entry provides an opportunity to recognise the history of the area by enhancing and integrating the existing sandstone culvert that captures Reeves Creek and guides it under Menangle Street.

3. The existing degraded creekline area is to be rehabilitated to establish an appropriate fully structured riparian corridor that integrates both bioretention basins and the requirements of bushfire A.P.Z’s.

4. Bridge access across Reeves Creek is located to minimise the impact on the existing vegetation and provide a dynamic entry point to the heart of the project.

5. The existing significant stand of remnant vegetation is mainly retained and acts as a key feature to the centre of the project.

6. On site detention within the riparian area is integrated with the natural landscape using locally sourced rock and gravel with inter plantings of macrophytes, native grasses and canopy trees.

7. The existing minor watercourses at the top of the creek catchment are re-vegetated to establish a series of “green fingers” with Indigenous trees and grassland planting.

8. The riparian zone forms a vegetated edge to the Collector Road with the natural bushland extending to the road edge. Vegetation is to be managed along the road edge to meet the Bushfire APZ requirements.

9. Street tree plantings along all roads will include small native trees to develop a sense of place to the village and ameliorate any distant views to the project from adjoining residential areas.

10. The existing hilltop area will be retained in its current form with the establishment of some additional mature canopy trees to strengthen the hilltop as a visual marker for the project.
Figure 10: Landscape Master Plan
c. Sustainable design initiatives

- Water sensitive urban design

The following images are representative of the types of WSUD principles to be utilised within the project:

- Natural drainage systems such as bioretention swales
- Use of indigenous plant types
- Limiting traditional grassed areas in parks
- Retention of existing vegetation

Legend

- Subject site boundary
- Riparian corridor
- Bio-retention swale

Tree lined avenues utilising indigenous plantings

Use of nature low water use plantings to streets

Bioretention basins to edges of roadways

Integration of WSUD principles and open space

Figure 11: Sustainable Design Initiatives
d. A village of distinctive character and place

As part of its overall design approach, the concept master plan for the Reeves Creek Village establishes four future residential precincts that respond uniquely to the opportunities and challenges of the context, landform, landscape and environment. Each precinct proposes a diversity of housing types that can meet the emerging needs of Picton and Wollondilly’s growing and changing population.

The four Reeves Creek Village precincts are:

- **Village Green**
- **Portale**
- **Vale**
- **Hilltop**

**Village Green**

The Village Green precinct is located at the heart of Reeves Creek. The precinct is defined by land close to and framed by the confluence of two creeks and is where the two main access streets meet. It benefits from good amenity and is the most accessible place in the village and acts as the natural hub for the new community.

The Village Green precinct will be characterised by a range of housing types from low and large lot residential towards the ridge to a mix of small lot housing in the village itself.
Portale

Portale is the precinct that seamlessly connects Reeves Creek with the town of Picton. The north facing slope leading to the first ridgeline defines Portale. Margaret Street acts as the connecting street that links the two places. A new landscaped urban park, elegantly framed by terrace houses, defines the transition into Reeves Creek. After passing over the ridgeline, the traveller passes into the Village Green precinct.

Portale will be characterised by a wide range of housing types from low and large lot residential towards the ridge and a mix of medium density housing along the Margaret Street gateway. New residents in this precinct will benefit from the gentle north facing slopes and easy direct access to the retail activities and services of the existing town centre.

Vale

The Vale precinct is located directly south of the Village Green precinct and is generally characterised by a gentler and more accessible landform.

On the flatter land in the main body of the precinct, Vale will be characterised by large lot residential subdivisions that can provide opportunities for family housing. On the lower slopes of the main ridge, a landscape responsive design approach can deliver lower density premium housing with good district views.

Hilltop

The Hilltop precinct is located to the south west of Reeves Creek, close to the Menangle Street access. Hilltop provides panoramic views over the Reeves Creek village and towards the Picton ridgeline to the east. An area of mature trees retained at the top of the hill as part of an environmentally managed area, will provide panoramic views over Picton and its landscape setting.

Hilltop will be characterised by a mix of small lot housing that strongly defines the main entrance street and the edge of the creek, combined with large lot residential stepping up the slopes of the hill.
7. Reeves Creek Village - Planning and delivery framework

a. Proposed land uses

The Reeves Creek Village design and land use strategy seeks to balance the impact of proposed new residential development with a strong contextual landscape, the re-establishment of riparian corridors, and environmental areas as well as landscape connections.

The two main riparian creeks within the Reeves Creek site are proposed to be zoned as Environmental Conservation (E2).

The hilltop located in the southwestern part of the site is proposed to be zoned as Environmental Management (E3), which will retain the environmental values of the group of mature trees located on the top of the hill.

Low density residential uses (R2), which are generally located within the valley floor, the lower slopes of the ridge and the hilltop

The following land uses and associated areas (ha) are proposed for Reeves Creek:

- R2  Low density residential  21.68 ha
- E2  Environmental conservation  7 ha
- E4  Environmental Living  0.82 ha

The zoning plan highlights a geo-technical constraint line which limits the extent of higher density residential development to the lower slopes of the ridge.
b. Proposed building heights

The Reeves Creek development is proposed to provide a mix of building heights that have been considered in parallel with proposed site structure and housing layout.

Across the site, a general maximum building height of 9m is proposed, which enables housing of up to 2 storeys on sloping land.

The proposed building heights will be represented by a building height plan, as illustrated below, which forms part of the amending LEP for the site.
c. Proposed housing density

To support a diverse dwelling mix and improve affordability, the Reeves Creek development proposes a balance of dwelling densities that support the Reeves Creek design strategy and are consistent with proposed building heights.

Housing densities in the Reeves Creek development are to be managed using minimum lot sizes in the R2 Residential zone.

The proposed minimum lot sizes are represented by a minimum lot size plan, as illustrated below, which forms part of the amending LEP for the site.

![Minimum lot size plan](image_url)
d. Housing and future population

The design development of the concept master plan, combined with a socio economic assessment of the proposal has revealed the following housing projections and population profile. The concept master plan illustrates that the proposed Reeves Creek Village development can deliver up 243 dwellings with an indicative mix of:

- 14 low-density houses designed to respond to the landscape (1,500+sqm)
- 14 houses on large landscaped lots (700+sqm)
- 149 houses on large lots (450+sqm)
- 67 houses on smaller 400sqm lots

Based upon typical local dwelling occupancy rates, the forecast population of Reeves Creek will be up to 683 persons. This eventual population will not be large enough to warrant the provision of any new social infrastructure, with the exception of local public open space.

The Reeves Creek Village population will however, contribute funds towards a need for augmentation and upgrading of a range of off-site local government facilities serving Picton and the wider Wollondilly area. These will include facilities such as council’s community, library, cultural, sporting and indoor recreation facilities

e. Indicative Staging

Development of Reeves Creek is proposed in a staged manner that can minimise the impact of construction on Picton’s existing residents and the town centre.

The staging strategy seeks to utilise both site access points at both Margaret Street and Menangle Street.

- In the early stages of the proposed development, Margaret Street is to be extended into the site to service the development of the Picton Edge Precinct.
- The Village Green Precinct and then the Vale Precinct will follow this stage.
- Finally the Hilltop Precinct, which can be accessed via Menangle Street and by bridge from within the Reeves Creek site itself.

Figure 16: Reeves Creek Menangle St and Margaret St for Proposed Staged Site Access