CHAPTER 11 RESIDENTIAL LAND

STRATEGIC RESIDENTIAL PLANNING PRINCIPLES

The planning principles to be used to guide the development of this Strategy and to inform the future management and development of residential lands in the Lithgow LGA are as follows:

- Reinforce the recommended settlement hierarchy by providing for the main focus of housing opportunities within the LGA at Lithgow, Wallerawang and Portland supported by the villages and rural areas.

- Define the limits to outward growth of the townships and villages and prevent urban sprawl.

- Recognise and protect local character and heritage values in the provision of new residential development.

- Recognise and protect environmentally sensitive lands.

- Protect the scenic landscapes that surround the existing towns and villages and consider appropriate development for the interface.

- Provide for a range of lot size and housing density to respond to changing community needs and align with the provision of higher order infrastructure.

- Identify opportunities for seniors housing.

- Residential development and occupation to respond to environmentally sustainable design principles and natural and cultural values.

- Provide for high quality living environments with links to town centres and open space networks via pedestrian, cycle ways and roadways.

- Residential land releases and development to be planned to accommodate the orderly and efficient provision of infrastructure and services and enable an effective development contributions system to operate.

- Provide for water sensitive urban design in all future residential development.

- Ensure that all new residential development within the defined boundaries (Layer 1A and 1B of Hierarchy) of Lithgow, Wallerawang and Portland townships is fully serviced with reticulated water and sewer.
PLANNING CONTEXT

This chapter addresses the residential land use within an urban context and includes housing opportunities provided in the three town centres and the five villages. Housing opportunities provided in the rural context is separately discussed in Chapters 9 and 10.

At the 2006 ABS Census 78.3% (15,477) of the LGA’s population lived within the urban precincts, predominantly in the major townships of Lithgow (including Marrangaroo), Portland and Wallerawang. This figure is less than the 80.9% of persons living in these precincts in 2001 meaning that there is an increasing proportion of the population living in rural areas.

Settlement trends over the last decade have indicated the preferred housing choice in the urban context is single detached, low density housing. This is confirmed by Census data as shown in Appendix 2. The largest change in the type of dwellings occupied by households in Lithgow City between 2001 and 2006 were for those occupying separate houses (+391 dwellings).

The majority of new residential activity in the Lithgow LGA over the past ten years has been in the South Bowenfels area. Two significant tracts of land west of the Great Western Highway have been rezoned in this area since 2003 yielding an estimated lot potential of 862 lots, with subdivision approvals for the creation of 362 lots granted, 202 of which have been registered and 59 of which have been taken up by dwelling construction. Part of this area is also being developed for a 128 2-3 bedroom villa development (35 constructed) marketed to the people over 55 years of age.

Approval has also been granted for a further 105 lots at South Bowenfels on the eastern side of the Great Western Highway, 18 of which have been registered and 10 of those have dwelling construction upon them.

The only other residential subdivision of significance within the LGA recently has been a 130 lot estate to the west of Wallerawang, 15 of which have dwelling construction upon them to date.

Development interest, either through development approval, concept planning or structure planning has also occurred in the following key strategic areas: Pottery Estate Study Area, former Lithgow RSL site, former Lithgow Hospital site and the Marrangaroo Study Area. This activity is discussed in more detail later in this Chapter.

The largest determinant of residential growth into the future is the provision of critical infrastructure, in particular the provision of sufficient bulk water supply.

In this section residential development is taken to include standard dwellings and all forms of medium density development such as duplex (dual occupancy), villa units and residential flat buildings containing 3 or more dwellings in an urban and village context. It does not include residential opportunities (rural lifestyle) provided in the rural context, this form of development is separately discussed in Chapter 10.
PAST STUDIES AND CONSULTATION

In the early 1980s Lithgow experienced a mining and power generation boom with a series of new and expanding coal and power developments. The population of the Lithgow LGA was predicted at this time to expand rapidly from 20,000 in 1980 to between 30,000 to 33,000 in 1990 and a possible 35,000 in the year 2000 (Greater Lithgow Local Environmental Study - Kinhill Pty Ltd 1981).

By early 1983 these population figures were revised downwards, however the 1994 Local Environmental Plan proceeded with the identification of land supplies consistent with those inflated projections.

A series of planning studies were commissioned around this time to identify sufficient land supply to cater for this rapid growth scenario. More recently (2006) Council commissioned a Local Environmental Study and Structure Plan for the Marrangaroo Study Area. The key urban planning studies are listed in Table 1.

Table 1. Key aims and findings of relevant past studies

<table>
<thead>
<tr>
<th>Planning Study/Report</th>
<th>Key Aims and Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater Lithgow Local Environmental Study – Kinhill Pty Ltd – March 1981</td>
<td>To examine new development areas to manage predicted population increase to 35,000 by 2001 as a result of new coal and power generation developments. A Local Environmental Study to assess the suitability and capability of identified candidate areas including: Old Bowenfels, West Bowenfels, Marrangaroo West, Marrangaroo East, Wallerawang East, Wallerawang South, Wallerawang North and West, Portland East and North, Portland West. Recommended development of the Old Bowenfels, West Bowenfels, West Marrangaroo and East Wallerawang candidate areas and included a staging and structure plan for development and infrastructure provision.</td>
</tr>
<tr>
<td>South Bowenfels and West Bowenfels Residential Study – Gutteridge, Haskins and Davey – June 1990</td>
<td>To prepare residential strategy/structure plans for South and West Bowenfels to provide for the urban expansion of Lithgow. Study found that both areas were well placed to accommodate urban development comprising a range of land uses – residential, open space, scenic and environmental protection, retail, community and educational facilities. South Bowenfels was found to be generally more suited to residential development than West Bowenfels for a number of reasons including road connections and road costs, landform and site features. Estimated that the study areas could accommodate a population of 12,180, 5,934 for West Bowenfels and 6,246 for South Bowenfels. Identified need for augmentation to bulk water supply and capacity of the Lithgow STP.</td>
</tr>
</tbody>
</table>
### Planning Study/Report vs Key Aims and Findings

<table>
<thead>
<tr>
<th>Planning Study/Report</th>
<th>Key Aims and Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marrangaroo Local Environmental Study – Geolyse – June 2006</td>
<td>To provide a Local Environmental Study and structure plan that identified the “highest and best” use of the study area in terms of suitability and capability and the efficient and economic allocation of resources to service the land.</td>
</tr>
<tr>
<td></td>
<td>Recommended a structure plan supported by urban design guidelines that identified potential for the following land uses within the Study area, employment generation, highway business services, large lot residential, standard urban, open space and recreation.</td>
</tr>
</tbody>
</table>

Source: LCC

### COMMUNITY AND GOVERNMENT AUTHORITY CONSULTATION

Community consultation carried out in conjunction with the 2007 Local Profile and Strategic Plan identified the following key issue areas for residential lands:

#### COMMUNITY

- Potential for growth to change the character of existing areas
- Provision of different forms of housing to meet different needs and life phases
- Higher density housing to keep a human scale
- Need to recognise the roles and town structures of Portland and Wallerawang and provide more robust planning controls
- Lot sizes and density of development should be more in character with existing areas
- Need to align the provision of new housing areas with the provision and capacity of infrastructure
- Land use conflict due to the varying land uses permitted within residential zones
- Protection of heritage items and values
- Provision of open space and connections
- Need for planning controls to address urban design and residential amenity issues and provide more certainty for investment.

#### GOVERNMENT

- Maintaining flexibility for social housing opportunities throughout the urban centres (Dept of Housing)
- Provision of wider housing choice and affordable housing to respond to the changing needs of the community. Department of Housing predicts that by 2011, 58.8% of housing needs in the LGA will be for one bedroom accommodation and 29.8% for two bedroom.
- Consideration of provision of adaptable housing to enable ageing in place.
POLICY AND LEGISLATIVE FRAMEWORK

The key state and federal legislation and policy governing residential land use in the Lithgow LGA is summarised as follows:

Table 2. Legislation Summary

<table>
<thead>
<tr>
<th>Instrument Name</th>
<th>KEY ACTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Planning and Assessment Act</td>
<td></td>
</tr>
<tr>
<td>Local Government Act</td>
<td></td>
</tr>
<tr>
<td>Building Code of Australia</td>
<td></td>
</tr>
<tr>
<td>Rural Fires Act 1997</td>
<td></td>
</tr>
<tr>
<td>Contaminated Lands Management Act 1997</td>
<td></td>
</tr>
<tr>
<td><strong>KEY MINISTERIAL DIRECTIONS (Section 117)</strong></td>
<td></td>
</tr>
<tr>
<td>Direction 2.1 Environmental Protection Zones</td>
<td></td>
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<tr>
<td>Direction 2.3 Heritage Conservation</td>
<td></td>
</tr>
<tr>
<td>Direction 3.1 Residential Zones</td>
<td></td>
</tr>
<tr>
<td>Direction 4.2 Mine Subsidence and Unstable Land</td>
<td></td>
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<tr>
<td>Direction 4.3 Flood Prone Land</td>
<td></td>
</tr>
<tr>
<td>Direction 4.4 Planning for Bushfire Protection</td>
<td></td>
</tr>
<tr>
<td>Direction 5.2 Sydney Drinking Water Catchments</td>
<td></td>
</tr>
<tr>
<td><strong>KEY STATE ENVIRONMENTAL PLANNING POLICIES</strong></td>
<td></td>
</tr>
<tr>
<td>Standard Instrument (LEP) Order 2006</td>
<td></td>
</tr>
<tr>
<td>Drinking Water Catchments Regional Environmental Plan No 1 (Deemed SEPP)</td>
<td></td>
</tr>
<tr>
<td>Exempt and Complying Development Codes 2008</td>
<td></td>
</tr>
<tr>
<td>Housing for Seniors or Other People with Disability 2004</td>
<td></td>
</tr>
<tr>
<td>Affordable Rental Housing 2009</td>
<td></td>
</tr>
</tbody>
</table>

Please refer to Chapter 3 for more detail.

EXISTING LOCAL PLANNING PROVISIONS

Standard residential development is governed by the Lithgow City Local Environmental Plan 1994 (as amended).

Land within the South Bowenfels Release Area is also governed by the South Bowenfels Development Control Plan- Residential Development Feb 2006.

ZONING

Currently all forms of residential development are provided in the following land use zones and areas:

- Residential 2(a) within the town of Lithgow
- Commercial 3 within the town of Lithgow
- Village 2(v) within the villages of Portland, Wallerawang, Lidsdale and smaller villages of Cullen Bullen, Capertee, Tarana, and Rydal.

Dwellings and dual occupancy is also permissible in the Future Urban 1(d) zones located in the following areas:

- Bowenfels (including West Bowenfels and South of Magpie Hollow Road), Wallerawang East and Portland South and East.
A limited opportunity for dwellings is also provided for in the Industrial 4 zone where such is in conjunction with another permissible use.

**MINIMUM LOT SIZE**

The Lithgow Local Environmental Plan does not contain a minimum lot size provision for serviced residential development within either the 2(a) or 2(v) zone.

Historically Lithgow City Council has applied a minimum urban allotment size of 550m² as a provision of the Engineering Guidelines for Subdivisions and Developments. This provision is therefore a matter of Policy and does not assume determinative weight in the assessment of development applications.

In the new Release Area of South Bowenfels, Council has introduced through a Development Control Plan a provision to achieve an average lot size of 700m² in all subdivision developments or stage of development.

Any new unsewered lots to be created within the Village 2(v) zone must have a minimum area of 2000m² or greater dependent on the capacity of the land to dispose of effluent on-site.

The minimum lot size within the Future Urban 1(d) zone is 10 hectares, recognising that it is a holding zone for future urban development.

**DENSITY CONTROL**

The current LEP does not provide development standards to control residential density. The South Bowenfels Development Control Plan introduces the following development controls applicable to the South Bowenfels Study Area

a) All development shall not exceed a floor space ratio greater than 0.5:1. For the purposes of calculating the total gross floor area, each car parking space is deemed to have an area of 18m².

b) The maximum number of dwellings on each site for medium density development shall not exceed:

- one 1 bedroom dwelling per 220m² of site area
- one 2 bedroom dwelling per 300m² of site area
- one 3+ bedroom dwelling per 375m² of site area.

c) Notwithstanding clauses a) & b) above, development for the purposes of dual occupancies and medium density shall not be carried out on an allotment of land to which this DCP applies where:

- the shortest distance between the point on the boundary of the allotment and a point on the boundary of an allotment on which another dual occupancy or medium density development has been carried out, or for which there is a current consent for development of that classification, is less than 75m.

In other areas Council has an interim planning guideline for residential unit development which requires the following:

- Site density of residential units shall not exceed one unit per 200m².
This guideline is just that, it holds no determinative weight in the development assessment process.

**SUMMARY OF ISSUES**

<table>
<thead>
<tr>
<th>RESIDENTIAL ISSUES</th>
<th>WHY IS IT AN ISSUE?</th>
</tr>
</thead>
</table>
| Limitations of existing LEP                | - The flexibility of the current LEP: instead of encouraging development opportunity has to some degree, stifled development as a result of an uncertain investment environment.  
  - LEP does not provide a defined minimum lot size or density controls for differing residential form and types allowing market demand to dictate.  
  - The range of permissible uses in the residential zone and other zones where residential development is permitted has created land use conflict.  
  - The flexibility of the LEP is not supported by a detailed Development Control Plan. |
| Primary constraints impact on residential development opportunities | - The presence of natural and physical constraints defines the limits of the three urban centres and has led to a lateral expansion of these centres.  
  - Primary constraints analysis may require some existing zoned areas to be back zoned or provide reduced density to avoid environmental impact.  
  - The management of constrained areas will require more detailed development standards and provisions to be implemented through the LEP and/or DCP. |
| Defining and maintaining residential character and amenity | - The flexibility of the current LEP does not differentiate the desired character and amenity to be achieved in each residential neighbourhood. This creates conflict between new and existing development. |
| Housing choice and affordability           | - The LGA has a high percentage of detached single dwellings (77.5%). This reduces the ability of the LGA to provide housing choice and affordability.  
  - The LGA has an increase in lone person household and households with couples without children, indicative of an aging population, and therefore there will be an increasing need for more diverse housing structure to be provided.  
  - A new planning approach will be required to encourage the development a mix of housing types and forms. |
| Future provision of seniors housing         | - The rapidly aging population will increase the need for varying forms of seniors housing.  
  - The planning system will need to respond positively to this form of development and should provide “go to areas” to encourage and facilitate development. |
| Potential for urban renewal and consolidation | - Despite the flexibility of the existing LEP, urban renewal and consolidation has not been considered a viable alternative to the development of new areas. This is due in part to the relative ease and cost of development in the new release areas.  
  - As the existing housing stock ages and the demand for smaller housing increases there will be pressure on existing areas to accommodate higher density living opportunities and the potential for some areas to experience new development and change in character.  
  - Planning for this scenario must be considered in the development of the new LEP and DCP. |
| Infrastructure and Service Provision        | - The ability to service some of the existing zoned lands will require consideration of back zoning or reduction in density to ensure all future development can be adequately serviced. |
### RESIDENTIAL ISSUES

<table>
<thead>
<tr>
<th>WHY IS IT AN ISSUE?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Council currently does not have a development contributions plan or development servicing plan to ensure that the costs of servicing new development is equitably shared between developers and the existing community.</td>
</tr>
<tr>
<td>Managing supply and urban release</td>
</tr>
</tbody>
</table>
DISCUSSION OF ISSUES

LIMITATIONS OF EXISTING LEP

The 1994 Lithgow Local Environmental Plan sought to provide a high level of flexibility for the area to respond to undefined growth opportunities. This flexibility, instead of encouraging development opportunity, has to some degree, stifled development as a result of creating an uncertain investment environment.

The LEP has also not been supported by a robust development control plan to provide the defined detail and development standards for residential development. This has led to each application for residential development being assessed on a subjective merit basis where cumulative impact cannot adequately be considered and consistency of standards may not always be achieved.

In the context of residential development the application of a flexible zoning regime coupled with flexible permissible land uses across the range of zones, has created a circumstance where medium density development is not identified as a preferred land use in any area of the LGA. This is reflected in the low development activity for this form of development, as in many cases, the development assessment process is fraught with too many issues to overcome.

Having one residential zone, the LEP also does not provide a minimum lot size for subdivision of residential land. This has the potential to create a two pronged adverse effect: on the one hand it creates the potential for lot sizes substantially lower than the average of existing areas thereby changing its character; and on the other hand creates the potential for inefficient land use when market forces dictate a desired larger lot size.

Without sufficient direction from the governing LEP, the development assessment process is ill equipped to deal with the issues this creates.

PRIMARY CONSTRAINTS TO URBAN/RESIDENTIAL DEVELOPMENT

The defined limits to growth of each of the three urban centres is determined by the presence of natural barriers such as steep slopes, dense vegetation road and rail networks or a combination of the three. This has necessarily led to a lateral expansion of town centres as the luxury of a more traditional concentric pattern of growth is not afforded. The impact of which, is a larger environmental footprint and spread of infrastructure networks.

Whilst future development will need to avoid areas of high environmentally sensitivity, it should also seek sustainable means to manage and integrate land constraints where possible instead of the current practice of land sterilisation. This can be achieved through appropriate site analysis, planning and design.

Each area identified for future land supply for residential purposes has been evaluated against a set of strategic constraints data as follows:
This strategic constraints analysis has been applied and has revealed that some of the supply areas are potentially unsuitable for residential settlement. As a consequence, some lands have been discounted either partially or fully from the potential land supply. Details and mapping of this analysis is provided in the Supply and Demand Analysis (Appendix 1).

The discounted lands may in the future hold some capacity for development based on detailed site specific investigations beyond what is suggested here and therefore will not in all cases suggest a need for a zoning change.

**RESIDENTIAL CHARACTER AND AMENITY**

The community have raised concern regarding the retention of residential character and amenity, should growth occur.

The key threats to residential amenity include the following:

- Inappropriate development (form, density, building design, siting and issues associated with privacy and overshadowing)
- Concentration of higher density housing opportunities causing a substantial change of character for some streets and areas where historical housing form has been detached dwellings
- Conflicting land use
- Traffic conflict
- Interruption and impact upon streetscape characteristics and aesthetics particularly in the vicinity of heritage items

These issues although plausible, can be effectively managed through implementation of a range of robust planning tools such as the LEP and DCP to address zoning, land use permissibility, height, and the full range of design parameters such as bulk and scale, setback, site coverage, privacy, overshadowing, car parking etc.
HOUSING CHOICE AND AFFORDABILITY

The NSW Department of Housing, Sydney West Area Health Service and the community have all identified the need for wider housing choice, affordable housing and the need to maintain the unique character and amenity of the area.

With a projected increase of the over 65 age group from 13.2% in 2001 to 31.6 % in 2031, easy lifestyle homes in close proximity to shops and services will be in demand.

The Department of Housing have assessed that Lithgow has people in housing need, especially young people, Indigenous Australians, low income earners, unemployed, aged pensioners, people with disabilities, frail aged, single parents with young children, homeless people and a proportion of middle income earners. The Department (2006) projects that by 2011, 58.8 % of the need for housing provided by the Department of Housing will be one bedroom accommodation and 29.8% for two bedrooms.

This is in stark contrast to the current strong trend towards the provision of 3- 4 bedroom detached houses in a low density environment.

Currently only 6.6% (2006 ABS Census) of housing stock in the Lithgow LGA is of higher density dwelling types, the majority of which is provided in the Lithgow precinct. There has been a long held community apprehension towards medium density development largely due to concerns regarding design issues and retention of residential amenity and to some degree from a preconception that those living in medium density housing are of a lesser character than those in detached dwellings.

The challenge for this Strategy and future planning instruments is to find ways to encourage affordable and adaptable housing, wider choice of allotment sizes and more dense housing in close proximity to town centres and to address the fears of the community to this form of housing.

PROVISION OF SENIORS HOUSING

The Lithgow LGA is rapidly ageing and as such the future provision of housing for seniors will be a critical issue for both social and land use planners.

The Lithgow LGA also has a high proportion of detached large dwellings and traditionally aged persons in Lithgow have aged in place or have been cared for by family members.

The LGA does provide forms of assisted care in both Lithgow and Portland for the elderly with self care units also available in these centres and Wallerawang. It is reported however that these facilities have long waiting lists and are struggling to cope with demand. This situation will continue to worsen at a rapid rate should new facilities not be provided.

POTENTIAL FOR URBAN RENEWAL AND CONSOLIDATION

The LGA’s existing residential areas across the three town centres contain a range of lot sizes and established densities. Of course, this is more apparent in the larger township of Lithgow where a more usual pattern of density is prevalent, that is higher density around the town CBD, lessening towards the urban fringe. Recent residential activity in the South Bowenfels area has progressed at a low density.
The potential for urban renewal and consolidation has in the past been perceived to be low due to limited vacant land holdings and the ease of which new development areas on the fringes of town were being developed. The concept of “knock down and rebuild” has to date not been considered a viable alternative to development of new areas. There has also been a low take up of dual occupancy provisions across the LGA despite such standards for such development type being relatively flexible.

It is considered that as existing housing stock ages and the demand for smaller housing increases that there will be pressure on existing urban areas to accommodate higher density living opportunities and there is the potential for some areas to experience new development.

How this development is integrated with the existing built form, particularly in areas of high heritage value, will be of critical importance. It will be important that development achieves a high standard of liveability and urban design.

A detailed housing strategy has never been prepared for the Lithgow LGA. This is considered a major data gap that will be required to further inform future land use planning in this regard. Council has scheduled to complete a Housing Strategy in the year 2013/14.

**INFRASTRUCTURE AND SERVICE PROVISION**

The potential for the Lithgow LGA to accommodate further residential growth is interdependent on the ability of the area to provide critical infrastructure such as water and sewer.

The critical infrastructure facts that impact upon residential growth opportunities are summarised below:

The Lithgow bulk water supply is challenged by the vagaries of climate change and especially drought conditions. This may limit growth potential should alternative supply schemes as the Clarence Water Transfer System not come on line.

All three Sewerage Treatment Plants require upgrades. The Lithgow and Wallerawang plant upgrades are currently underway.

The Portland plant is at capacity and will not be able to be upgraded until at least the year 2017 due to a shortfall in funding availability. This will restrict growth in the Portland town.

The South Bowenfels new release areas require connection to a new water reservoir currently under construction and augmentation of the trunk sewer system back to the STP. This may restrict the release of subdivision certificates in this area for subdivisions already approved and limit new development opportunities in the short to medium term.

Please refer to Chapter 6 for more detail.

Such issues will be required to be managed by a planned staged release program for new and developing areas which may mean that some areas will not be able to be developed in the short to medium term.

The challenge then, for this Strategy to reassess land supplies to ascertain whether there are sufficient serviced supply areas to meet projected demand within the short to medium term, and if not, then this Strategy must redirect its actions to limit residential growth until infrastructure capacity can be aligned.
SUPPLY AND DEMAND FORECASTS

A detailed supply and demand analysis is provided in Appendix 1. This analysis replaces the supply and demand analysis provided in the 2007 Local Profile.

The following is a summary of the key facts and findings of this summary in relation to residential lands.

DWELLING DEMAND ACROSS THE LGA 1996-2009

From the analysis of Council’s dwelling monitor, 1269 dwellings were approved across the LGA for the period 1996-2009. This equates to an average of ninety eight (98) dwellings per year.

Dwelling approval rates were highest in the period 1999–2000 and 2002 – 2005. These periods coincide with residential land releases in both the rural residential and urban areas of the Lithgow LGA. Aside from these spikes in dwelling approvals, the rate of dwellings approvals is relatively stable across the selected data capture period as shown in Figure 1.

Figure 1. Dwelling approvals over time

Over the thirteen (13) year period, the following facts were evident:

- 55.1% of dwelling approvals occurred in the rural areas of the LGA i.e zones 1(a) and 1(c).
- 30.3% of dwelling approvals were recorded in the Lithgow urban area. i.e 2(a) & 1(d)
- 6.1% of dwelling approvals were recorded in the village area of Portland i.e 2(v) & 1(d).
- 6.6% of dwelling approvals were recorded in the village area of Wallerawang. i.e 2(v) & 1(d).
- 3.9% of approvals were recorded in the other village areas of Tarana, Rydal, Cullen Bullen and Capertee.

The spatial distribution of these dwelling approvals within the planning precincts is shown in Figure 3 of the Supply and Demand Analysis.

Future demand forecasts for urban equivalent zones (2(a), 2(v)) have been generated using the current average yearly demand levels projected over the 20 year life of this strategy for each precinct as follows:
Table 5. Forecast Demand for Urban Equivalent Zones

<table>
<thead>
<tr>
<th>Precinct</th>
<th>Forecast Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithgow</td>
<td>580</td>
</tr>
<tr>
<td>Wallerawang</td>
<td>120</td>
</tr>
<tr>
<td>Portland</td>
<td>120</td>
</tr>
<tr>
<td>Rural North</td>
<td>10</td>
</tr>
<tr>
<td>Rural South</td>
<td>40</td>
</tr>
</tbody>
</table>

Source: LCC Approvals Monitor 1996-2009

This demand level equates to an average non-compounded 0.5% annual growth rate for standard residential development.

LAND SUPPLY

Current land supply for residential purposes in each precinct have been calculated using a strategic constraints analysis to determine the supply of land based on its capability to support residential development. As a consequence some lands have been discounted either partially or fully from the potential land supply. The identification of available supply areas and detailed analysis of the urban supply is included in the full Supply and Demand Analysis in Appendix 1.

Table 6 is a summary of the supply analysis relating to Residential 2(a) and Village 2(v) zones. The table also presents the supply against projected demand and indicates the number of supply years under current demand levels for each precinct.

Table 6. Summary of the supply analysis

<table>
<thead>
<tr>
<th>Zone/Precinct</th>
<th>Dwelling Approvals 1996-2009</th>
<th>Avg Yearly Demand</th>
<th>Land Supply</th>
<th>Projected Dwelling Demand 2031 (20yrs)</th>
<th>Pop Increase</th>
<th>Land Supply/Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithgow</td>
<td>383</td>
<td>29</td>
<td>1352</td>
<td>580</td>
<td>1392</td>
<td>46</td>
</tr>
<tr>
<td>Wallerawang</td>
<td>80</td>
<td>6</td>
<td>308</td>
<td>123</td>
<td>295</td>
<td>66</td>
</tr>
<tr>
<td>Portland</td>
<td>76</td>
<td>6</td>
<td>801</td>
<td>116</td>
<td>278</td>
<td>133</td>
</tr>
<tr>
<td>Rural Nth</td>
<td>6</td>
<td>0.5</td>
<td>42</td>
<td>9</td>
<td>21</td>
<td>84</td>
</tr>
<tr>
<td>Rural Sth</td>
<td>15</td>
<td>2</td>
<td>33</td>
<td>32</td>
<td>76</td>
<td>16.5</td>
</tr>
</tbody>
</table>

Source: Adapted from LCC Supply and Demand Analysis Appendix 1

The above table shows that under current demand levels and spatial distribution of that demand that supply can be easily met and in fact far outstrips demand in all precincts of the LGA over the life of the Strategy, with the exception of Rural South where demand will outstrip supply by only one year.
FUTURE SUPPLY AND DEMAND SCENARIO

Whilst this data is useful, it is the function of this Strategy to review supply based on the implications of the recommended strategies of this supply.

It is the intention of this Strategy to reverse the trend of dispersed rural lifestyle development dominating dwelling and residential demand as has been evidenced in the past thirteen years whereby on average 55.1% of all dwelling approvals have been granted within the rural areas, 32.7% of which have been for this form of development.

The adoption of the recommended Growth Management and Sustainability Principles and adherence to the recommended settlement hierarchy (detailed in Chapter 4) as fundamentals of this Strategy, dictates that dwelling demand will be redirected in the future into a more compact form focusing on the three urban centres.

Table 7 shows how application of these fundamental principles may change the look of the supply and demand based on different assumptions regarding where displaced demand from the rural areas may be refocussed in the broad land use categories into the future.

Table 7. Supply and demand redistribution scenario

<table>
<thead>
<tr>
<th>Zone/Areas</th>
<th>Scenario One Demand Share</th>
<th>Demand over 20 years</th>
<th>Estimated Supply</th>
<th>Scenario Two Demand Share</th>
<th>Demand over 20 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Residential</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lithgow</td>
<td>50%</td>
<td>980</td>
<td>1352</td>
<td>40%</td>
<td>784</td>
</tr>
<tr>
<td>Portland</td>
<td>13%</td>
<td>254</td>
<td>801</td>
<td>15%</td>
<td>294</td>
</tr>
<tr>
<td>Wallerawang/Lidsdale</td>
<td>13%</td>
<td>254</td>
<td>396</td>
<td>15%</td>
<td>294</td>
</tr>
<tr>
<td>Villages</td>
<td>4%</td>
<td>78</td>
<td>75</td>
<td>5%</td>
<td>98</td>
</tr>
<tr>
<td>Rural Lifestyle</td>
<td>5%</td>
<td>98</td>
<td>4177</td>
<td>5%</td>
<td>98</td>
</tr>
<tr>
<td>Clustered Rural</td>
<td>15%</td>
<td>294</td>
<td>582</td>
<td>20%</td>
<td>392</td>
</tr>
</tbody>
</table>

Source: LCC

* Based on current dwelling demand average 98 per annum
* Based on current MLS for Rural Lifestyle (40ha) and Clustered Rural Lifestyle (2ha)

What the above table illustrates is that on a LGA wide basis current supply for each land use category is available to accommodate strategies that will substantially reduce the number of potential new dwellings in the rural zones without further land rezonings.

The challenge for this Strategy is then how to manage the apparent oversupply of residential lands and provide direction of the future staged release of lands having regard to demand and variables in infrastructure capacity within each of the planning precincts.
ADDRESSING KEY RESIDENTIAL PLANNING ISSUES – ANALYSIS OF OPTIONS AND PREFERRED DIRECTION

ROLE OF PORTLAND AND WALLERAWANG

As determined by the recommended settlement hierarchy the towns of Wallerawang and Portland are to be recognised as town centres and are well placed to absorb development growth well in excess of the current demand share of 6%, over the 20 year life of this Strategy.

The town of Portland has the highest capacity to absorb growth due to its size and current level of services, however it will be restricted in the short term as the Sewerage Treatment Plant is currently at capacity. Augmentation of this system will not be able to occur until external funding is available which will not be prior to the year 2017. Further detail on the infrastructure capacity is provided in Chapter 6.

The staging and absolute limit to growth in these town centres will be critically determined by infrastructure capacity particularly in relation to the following:

- Provision of a bulk water supply with the capabilities to remove the towns from reliance on the Fish River Water Supply Scheme
- Augmentation of the Wallerawang Sewerage Treatment Plant
- Augmentation of the Portland Sewerage Treatment Plant

Through the implementation of this Strategy, these centres are planned to play a larger role (taking up to a potential 20% of the current demand share) in the provision of residential development opportunities into the future. As such the zoning of the towns require review to:

- Ensure that growth can be accommodated without the potential for increased land use conflict.
- Provide certainty around development investment
- To pull back existing zoned areas that are incapable of providing for residential development due to constraints or known servicing requirements in the short to medium term to direct growth into appropriate areas and align infrastructure capacities.

ROLE OF VILLAGES

There are five villages within the Lithgow LGA that are recognised through a village zoning, Lidsdale in the Wallerawang precinct, Cullen Bullen and Capertee in Rural North precinct and Rydal and Tarana in the Rural South precinct.

There are also a number of small hamlets or concentrations of settlement that remain within the wider General Rural zone such as Hampton, Hartley Vale and Sodwalls in the south and Glen Davis, Glen Alice in the north. It is proposed that these areas remain as hamlets and contained with the rural zone.

These villages (and hamlets to a lesser degree) support the wider rural communities and this Strategy has assessed each zoned village in terms of its capability to retain existing population levels and/or support future growth.
These villages with the exception of Lidsdale rely on on-site effluent disposal systems. As has been shown in the recent inspection of these systems throughout the LGA many systems are failing performance criteria. In line with best practice for on-site effluent disposal systems (Environment and Health Guidelines On-Site Sewerage Management for Single Households, DLG 1998 “Silver Book”), it is proposed to increase the minimum lot size for a dwelling in the village zone with on-site effluent disposal from 2000 square metres to 4000 square metres.

Due to the holding pattern of these villages there is little capacity for future growth as indicated in Table 10 of Appendix 1 Supply and Demand Analysis.

Each village has been assessed as to its future role in the Settlement Hierarchy, primary constraints analysis and infrastructure and servicing capacity. The proposed directions for each village are as follows:

**CULLEN BULLEN**

This Strategy recommends no change to the existing village boundaries

There is limited potential for future growth of this Village due to:
- Limited capacity of the soils in the area to sustain on-site effluent disposal. In addition the average holding size is 2017m², being well below the new recommended minimum lot size of 4000m² for on-site effluent disposal.
- Potential for land use conflict to occur as a result of the village being surrounded by existing and proposed open cut mining. The Cullen Valley mine currently operates to the north east of the village.

As shown in Figure 2, the area shown hatched red is a current environmental assessment area for a further mining project that would if approved encapsulate the Village.

Based on the current holding and development pattern a further 12 allotments may be created within the village area having an area of 4000m².
Figure 2. Cullen Bullen Mining Proposal – Coalpac

Source: Coalpac Community Consultation Newsletter
CAPERTEE

It has been identified that it is important that growth opportunities in this village be maintained and enhanced for the following reasons:

- To assist with the retention of the existing higher level of services this community enjoys such as an infant/primary school, police station and service station.
- To service the daily needs of the surrounding employment lands of the Airly coal mine
- To support and enhance the growing tourism potential of the Capertee Valley

As can be seen in Figure 3 the existing village zone to the south of the Castlereagh Highway is constrained by dense vegetation.

The majority of this land is Crown Land representing an historic crown subdivision and is not accessible by formed public roads under the control of Council. Due to the relative low development capability of this land for standard residential development or allied village land uses, it is recommended that the village zone be pulled back to a rural zone south of Goulburn St and a large lot residential zone between Goulburn St and the Castlereagh Highway.

Due to the current holding and development pattern, the area of large lot residential will not yield significant allotments once the standard minimum lot size for unsewered residential lands of 4000m² is applied.

To compensate for this loss of residential opportunity, a further area has been identified for a new large lot residential area to the west as indicated in Figure 4. This area is a greenfield site relatively free of constraints.

It has been estimated that these two large lot residential areas have the capacity to yield a maximum of 46 allotments.

The remaining village zone having an area of 11.3ha is considered sufficient to provide for a range of allied land uses. Due to the existing holding and development pattern this area is only likely to supply a further 3 residential allotments based on a minimum lot size of 4000m².

The introduction of the 4000m² minimum lot size will in this area, as in all other village and town areas that remain unsewered, necessarily mean that some existing allotments and holdings will have no residential development opportunity.
Figure 3. Capertee Existing Village Zone
Figure 4. Capertee Proposed Modification of Village Zone
RYDAL

This village provides a crucial community function for the surrounding rural community. The existing zoned village as shown in figure 5 has limited capacity to absorb any further residential growth based on the existing holding pattern and the proposed new minimum lot size for unsewered village lands of 4000m². Therefore the Draft strategy recommended an extension of the village to the eastern side of the road and rail corridor. Community feedback on this recommendation has suggested a desire to provide for small scale expansion of land for large lot residential living and not necessarily full village expansion. As a result of community feedback the following alterations have been adopted as shown in Figure 6:

- The area to the west of Charles St and the area to the north of Quarry St to be changed from rural to large lot residential with a minimum allotment size for the erection of a dwelling of 2ha
- The area to the west of the railway line bounded by Charles St, Quarry St and Railway St, be changed from rural to large lot residential with a minimum allotment size for the erection of a dwelling of 4000m²
- The existing village zone to the east of Cartwright St be back zoned from village to large lot residential with a minimum allotment size for the erection of a dwelling of 4000m²
- The proposed extension to the village area to the north be changed to large lot residential with a minimum allotment size for the erection of a dwelling of 2ha
- A minimum allotment size for the erection of a dwelling in the zoned village area of 4000m².

A holding analysis in and around the village of Rydal revealed the following potential lot yields under this variable minimum lot size scenario:

<table>
<thead>
<tr>
<th>Area</th>
<th>Minimum Lot Size</th>
<th>Lot Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>West of the railway line and west of Charles St and the north of Quarry St</td>
<td>2ha</td>
<td>8</td>
</tr>
<tr>
<td>West of the railway line bounded by Charles St, Quarry St and Railway St</td>
<td>4000m²</td>
<td>1-2</td>
</tr>
<tr>
<td>North of the existing village</td>
<td>2ha</td>
<td>2</td>
</tr>
<tr>
<td>East of Cartwright St</td>
<td>4000m²</td>
<td>4</td>
</tr>
</tbody>
</table>

This level of low key residential growth potential is supported to encourage the ongoing vitality of the village and provide for a sustainable community that is aging.

The contraction of the existing village zone into a more compact form to the west of Cartwright St will enable the clustering of allied land uses to support the day to day needs of the community it services as well as allow additional development to support the growing tourism potential of the area,

Importantly these changes will not significantly alter the existing heritage character of the village.
Figure 5. Existing Rydal Village Zone
Figure 6. Rydal Proposed Modification to Village Zone
LIDSDALE

This village area for the all intensive purposes is an extension of the Wallerawang town centre and is characterised by dwellings on larger lots (average holding size 0.5ha). The village does not support any uses that service the daily needs of the area, this role is provided in Wallerawang.

In order to reinforce the settlement hierarchy and strengthen the viability of the Wallerawang commercial precinct, it is proposed to replace the existing village zone with a zone that reflects its large lot residential land use. Any existing commercial/business uses would retain existing use rights and would be unaffected by such change. It is also proposed to include further lands to the west of the existing village that would otherwise be alienated due to the new alignment of the Castlereagh Highway.
Figure 8. Lidsdale Proposed Modification to Land Use
The existing Lidsdale Village is fully serviced with reticulated water and sewer. It will therefore be required that any large lot residential development would also be fully serviced.

This Strategy recommends a minimum lot size of 2000m² for serviced large lot residential land use.

**TARANA**

Land use in this village area is characterised by rural dwellings on large lots. The hotel is the dominant land use other than housing. It is recommended that the character of this area as a large lot residential area within a rural context be recognised through changes to the village zone. It is recommended that the village zone be modified to:

- retain areas around the Hotel and Railway Station to provide for development servicing the daily needs of residents and visitors as well as tourism support uses.
- to enable a small area of large lot residential to better reflect and capture existing land use patterns.
Figure 9. Tarana Existing Village Zone
Figure 10. Tarana Proposed Land Use Changes
This area is currently unserviced and will remain so for the life of this Strategy.

It is recommended that a minimum lot size of 4000m² for residential land use should apply to the village area and 2ha should be applied to the large lot residential area thereby distinguishing development density for the two areas.

Having regard to the current holding and development pattern, a very modest growth potential of four lots within the village area and seven lots in the large lot residential area may be created.

**ROLE OF STRATEGIC SITES**

**ROLE OF THE MARRANGAROO STUDY AREA**

**BACKGROUND**

In 2005 following a spike in demand for residential housing and an identified need for further suitable employment lands, identified a need for additional urban land (residential, commercial, industrial) in close proximity to services and facilities of Lithgow to provide for future orderly and sustained growth.

The Marrangaroo Study Area was identified as a suitable site for investigation based on its location, ability to provide for a full range of urban land use and its proximity to road infrastructure and relatively flat to undulating topography. The Study Area is located between the urban centres of Lithgow and Wallerawang as shown in Figure 11.

Figure 11. Marrangaroo Study Area
A full Local Environmental Study and Structure Plan was prepared by Geolyse Pty Ltd in 2006. The aim of these studies was to consider the “highest and best use” of the Study Area in order to inform this Strategy and any new Local Environmental Plan.

The Structure Plan provides the following:

- Preferred land uses and their relative location;
- Areas to be conserved and protected from future development;
- Key infrastructure needs and preliminary costings; and
- A staging plan

This Structure Plan as modified in Figure 12 was adopted by Council in February 05 (Min No 07/15) and it was resolved that the matter be further reported to Council to determine whether or not to progress the structure plan through a rezoning proposal following adoption of the Strategic Plan.
The Structure Plan provides for five land uses as follows:

- Land Use 1  Highway/Business Service
- Land Use 2  Employment Generation
- Land Use 3  Large Lot Residential (with three different densities)
- Land Use 4  Urban (comprising open space, neighbourhood centres and housing variety)
- Land Use 5  Private Open Space/Commercial Recreation

**ASSESSMENT AGAINST RESIDENTIAL SUPPLY AND DEMAND ANALYSIS**

The Structure plan has identified an estimated potential residential lot yield of:

- 194 large lot residential allotments; and
- 1530 urban allotments

*Source:* Marrangaroo Structure Plan 2006

This supply would add a further 49 years of supply under the assumption of continued demand levels.

If these areas were to be developed the area could accommodate approximately 485 people in the large lot residential area and 3,825 in the urban area, (Marrangaroo Draft Structure Plan, 2006).

The raw supply and demand analysis indicates that there is sufficient existing zoned land within each planning precinct to cater for the continued demand level over the 20 year life of this Strategy. Therefore the immediate rezoning (2012 LEP) to effect the full implementation of the Marrangaroo Structure Plan is not recommended.

**Note:** the Marrangaroo Structure does identify other urban land uses such as employment lands and recreation/open space and implementation of the Structure Plan in this regard will be separately discussed in those sections of the Strategy.

**FURTHER INVESTIGATIONS REQUIRED FOR MARRANGAROO STUDY AREA**

The following issues require resolution for the future development of the Study Area and may influence the future concept designs and the identified residential and business highway service land use. Figure 13 maps the location of the gas pipeline and Trunk Receiving Station (TRS), a 400m investigation area adjoining Defence land and those watercourses that have received a preliminary categorisation by the Department of Natural Resources.

1. Risk assessment of the high-pressure natural gas pipeline and Lithgow Trunk Receiving Station (TRS) managed by Agility. The pipeline runs behind properties fronting the Great Western Highway on the eastern side and separates two proposed land uses: a business enterprise corridor and large lot residential land (minimum lot size of 4000 sq m).

Risk is associated with the potential release and ignition of high pressure natural gas from the pipeline or the TRS. Agility have advised that any proposal to increase the current land use or population density within 157
metres (see Figure 13) of these facilities will increase the safety risk to society. A risk assessment will be required when undertaking concept subdivision plans.

2. Suitable uses adjoining the Department of Defence land in the north east sector of the project area. Uses within a 400 metre investigation arc need to be compatible with noise and vibration generated by Defence activities. Council will seek clarification of the extent and location of noise to assist in determining best and highest land uses adjoining Defence land.

3. Categorising remaining water courses in the Study Area. Further discussions with the Department of Natural Resources and Council are required to implement appropriate objectives and planning buffers to water courses (for both categorised and uncategorised watercourses). It is understood the buffers applied to the watercourses are preliminary and can be finalised when development concepts are available and more detailed flood and ecological studies are provided.

4. Investigating an alternative safe access route for West Marrangaroo residents. The State Emergency Service have identified that in the event the bridge (off the Great Western Highway at Girraween Drive) or the level crossing at Oakey Forest Road were blocked for any length of time, residents in these areas would be ‘locked’ in as no alternative access is available.

5. Investigate a future link road at the end of Oakey Forest Road cutting between the Quarry and the Go-Kart operation onto currently vacant land (proposed for open space) at the back of Marrangaroo Fields and Windarra Estate. This will create a link between Oakey Forest Road and Marrangaroo Fields providing alternative access should either access point onto the Highway be closed. (Marrangaroo Structure Plan 2006).
JUSTIFICATION OF MARRANGAROO STUDY AREA AS THE NEXT URBAN RELEASE AREA

Notwithstanding that the immediate implementation of the full Marrangaroo Structure Plan is not recommended for the 2012 LEP, this Strategy identifies the Marrangaroo Study area as the preferred as the next urban release area for the Lithgow town centre for the following reasons:

- Development of the area has been assessed in detail with environmental and land use parameters identified, broad infrastructure requirement and costs provided and a range of land uses proposed.

- The Marrangaroo Study Area provides a comparative advantage for a wider range of residential, business and industrial uses to the formerly identified West Bowenfels area because of its flat topography, undulating hills and potential to provide alternative access back into Lithgow that does not rely on the Great Western Highway.

- Development at Marrangaroo is consistent with the recommended Growth Management and Sustainability Principles (Chapter 4) and the residential strategic planning principles.
The area provides choice of location and is consistent with the values and visions of the community.

Large areas of flat land within close proximity to the GWH near a higher order service centre with a working population are limited in the LGA.

Marrangaroo is strategically well located to provide a range of land uses needed in Lithgow to support the local economy.

The case for protecting Marrangaroo for sustainable settlement is very strong and should be pursued. To date, the lack of pressure for development has meant the area has remained relatively intact (with the exception of main road frontages) with some large holdings remaining. However its strategic location demands action is taken now to ensure development can proceed in an orderly, efficient and effective manner and the best and highest land uses can emerge.

DEFINING THE TRIGGER FOR REZONING FOR RESIDENTIAL LAND USE WITHIN THE MARRANGAROO STUDY AREA

It should be noted that availability of all the supply areas has not been determined. The willingness and capacity of landowners to develop their land is an unknown factor that can ultimately affect the management and staged release of residential lands.

Where current landholders choose to withhold areas from supply, shortfalls may become apparent during the life of subsequent LEP’s.

This strategy recommends that Council establish a detailed land monitor to assist with assessing supply and demand into the future. Such monitor will track the take-up of land from the subdivision through to dwelling construction.

It is further recommended that Council arrange to meet with all landowners of land identified as key supply areas under this Strategy to discuss their intentions in relation to future land release and development.

The information gained from the above two actions should better inform the supply of areas for the first review of the 2012 LEP in 2015 and subsequent LEP’s.

Notwithstanding the above, this Strategy recommends that Council further investigate the implementation of the Marrangaroo Structure Plan once 50 % take-up of identified supply in the Lithgow precinct is reached.

URBAN RESERVATION LANDS

The 1994 LEP identified a number of areas in the Lithgow, Wallerawang and Portland precincts as Rural (Future Urban) 1(d). The location of these lands is shown on the Settlement Hierarchy Figure 4 in Chapter 4 as Core reservation. The objectives of this zone are;

- To identify land for future urban purposes
- To enable interim development which will not compromise eventual urban development
- To ensure effective disposal of solid and liquid waste
- To maintain the rural appearance of the future urban lands of Lithgow, while awaiting urban development,
To ensure that development does not create unreasonable or uneconomic demands for the provision or extension or public services and amenities.

The raw supply and demand analysis indicates that there is sufficient existing zoned land within each planning precinct to cater for the continued demand level over the 20 year life of this Strategy. The infrastructure analysis (Chapter 6) also identifies that infrastructure capacities in the short to medium term are incapable of servicing these areas without significant duplication or augmentation. Therefore immediate rezoning (2012 LEP) to of these lands is not recommended.

The majority of these lands remain suitable for future urban purposes and as such should be again recognised as reservation areas within this Strategy and future LEP’s to protect the land supply from inappropriate development activity that may preclude its future highest and best use.

Where lands have been identified as constrained or have been considered to have a more appropriate land use, this strategy makes a recommendation for a zoning change to better reflect the land suitability and capability. This has occurred in the area South of Portland and land south of Magpie Hollow Road in Lithgow.

As indicated in above, the supply of residential lands is highly dependent on the willingness of land owners to bring their land on line. Where this fails to occur in some areas, further alternate urban supply lands may need to be considered to meet any future increase in demand. The establishment of a detailed land monitor and discussions with affected land owners will provide more certainty around these issues.

It will be a function of the LEP to determine how these lands will be zoned to ensure future reservation. The Standard LEP template provides a range of zones that may be used in this regard and careful consideration will be required to be given to ensure that land uses incompatible with urban development are restricted and that an appropriate MLS is applied to prevent inappropriate fragmentation.

This Strategy recommends a rural zone with a 20ha minimum lot size to areas to be held as strategic future urban land use as identified in the strategic framework plans in Chapter 14.

The LEP should also make provision for any subdivision of these lands to require concept plans to be submitted for the reservation area indicating how the subdivision will fit with the overall development of the land for urban purposes.

**POTTERY ESTATE**

There is currently 34.2ha of land within the Pottery Estate Study Area that is zoned Residential 2(a) as shown in Figure 14. The current zoning indicates residential, commercial and open space land use.
BACKGROUND

A large portion of the site has been associated with the industrial development of Lithgow over time, particularly with the opening of the Lithgow Valley Colliery and the Lithgow Pottery and Brickworks in the 1870s.

Following the opening of the coal mine in about September 1872, other uses of the site also took hold. The coal seams were overlaid with clay and shale and this allowed for the commencement of the brickworks and pottery at circa 1876. The mine and pottery works became a significant economic generator for the town. The pottery ceased operation in 1907 and the brickworks in 1945.
There is, therefore, a rich tapestry of heritage and other environmental issues such as, contamination, mine workings, presence of threatened species, steep slopes and riparian areas which affect a large portion of the site.

**PREVIOUS REZONING PROPOSAL**

A Draft LEP was prepared for the site in 2005. The local environmental plan proposed to rezone lands to alter the location of Business 3 zoned land to the east of Silcock Street to an area south of the existing commercial uses south of Valley Drive and to replace it with a Residential 2(a) zone.

The LEP also proposed minor amendments to the existing Open Space 6 zone to tidy up boundaries, delete unnecessary areas and provide for the historical quoits court and north flowing natural watercourse to be protected by an appropriate Open Space Zoning.

The LEP was stalled following the community and government authority consultation phase due to the requirement for a site auditors report to determine the capability of the site to manage contamination on the area east of Silcock St.

Preliminary interim advice from a site auditor indicated that the area of land to the east of Silcock St could only be signed off at the level for Residential with accessible soil, including garden (minimal home-grown produce contributing less than 10% fruit and vegetable intake), excluding poultry; Day care centre, preschool, primary school; Residential with minimal opportunity for soil access, including units; Secondary school; Park, recreational open space, playing field; Commercial/industrial and/or Other (please specify) Aged care facility subject to validation of remediation work authorised by the site auditor.

Any higher site auditors certificate would be subject to a number of requirements including a undertaking a risk assessment in accordance with relevant guidelines to assess potential risk (if any) residual soil may pose to human health in relation to potential vegetable gardens and poultry under the proposed development and assessing any additional investigation / remediation requirements to the satisfaction of a NSW DECC Accredited Site Auditor.

Due to the Draft LEP seeking a general residential 2(a) zone, the LEP could not proceed unaltered as a result of the interim site auditors report.

A final site auditors report was never issued and the Draft LEP has since lost its status due to the recent planning reforms.
SITE CONSTRAINTS

The extent of the primary constraints on the site have been identified in Figure 15

Additional to these primary constraints the site has also been identified as being affected by site specific constraints such as soil contamination, mine subsidence and identified habitat sites for the Bathurst Copper Butterfly and parts of the site are affected by State and Local Heritage listings.

A land area of 16.2 ha has been identified as having the highest constraints, being those of riparian corridor, areas of moderate to high biodiversity value, bush fire prone land, problem areas as defined on the declared mine subsidence district map and areas of remnant bushland and moderate to high slopes.

APPROPRIATE ZONING OF EXISTING DWELLINGS IN SILCOCK ST.

Currently as shown in Figure 14 dwelling allotments to the west of Silcock St are affected by the Open Space 6 zone. It is believed this zone was applied to identify lands that were subject to high mine subsidence related risks. These dwellings were historic miners cottages and at the time of the making of the LEP were held in common ownership. The allotments have since been subdivided and the dwellings offered for sale to long term residents.
As the majority of these dwellings are existing and land use into the future it not likely to change, it is the recommendation of this Strategy that these allotments attract a residential zoning to reflect current land use as indicated in Figure 3 Chapter 14. Any mine subsidence issues present can be dealt with appropriately through the Mine Subsidence Act and regular building assessment.

**RECOMMENDED FUTURE LAND MANAGEMENT**

The Pottery Estate due to its strategic location and the fact that the majority of the site is held in one land holding demands a more strategic approach to its future development and identification of the land suitability and capability. The locational characteristics of the site, being in close walking distance to the CBD and shopping facilities, lends itself to high density residential land use that more comfortably sits with the contaminated state of the land and in particular appropriate forms of Seniors Housing.

The exhibited Draft strategy had recommended the back zoning of the residential lands in this area to an environmental holding zone pending investigations to identify the capability and suitability of the land for urban purposes.

However, it has been argued that the extent and impact of the hazards and constraints of this site cannot be clearly defined until detailed development plans are formulated. It is further argued that there are adequate legislative checks and balances called up by the development assessment process to ensure that land is not developed beyond its capability.

This argument is supported in principle. This site, if properly managed and developed does have the potential to positively contribute to the strategic aims of the land use strategy. Whilst it may be preferable to consider the site capability holistically, it is recognised that this may not be reasonably practicable and back zoning of the entire site may unnecessarily sterilise lands.

The development assessment process would be able to achieve similar results if guided by suitable criteria defined in both the LEP and DCP for the site. The new LEP will require a clause requiring the following matters to be considered in a detailed development control plan for the site:

- the layout and design of both vehicular and pedestrian traffic throughout the site;
- the need to integrate the mixed land uses of the site through appropriate design / buffers;
- minimising the impact of development upon the heritage significance of the cultural landscape, including both the built and archaeological heritage items within the site and proposed means of conservation management;
- any areas of land that may be restricted due to the impact of mine subsidence, slope, bushfire, flooding or inundation or any other identifiable hazard;
- investigation and identification of any areas of land affected by any likely sources of contamination and the means to alleviate any risk of injury or harm;
- stormwater and water quality management;
- conservation of natural watercourses;
- protection of any potential habitat of any identified threatened species of flora and fauna, in particular the Purple Copper Butterfly (Paralucia spinifera);
- the servicing of the land; and
- management of public lands.
It is however considered appropriate that the following areas of the site be zoned environmental to manage future land use:

- riparian corridors
- areas of moderate to high biodiversity value
- bush fire prone lands
- problem areas as defined on the declared mine subsidence district map
- areas of remnant bushland
- areas of moderate to high slope.

These areas are shown in Figure 16 below:

**NOTE:** Commercial land use of this site is further discussed in Chapter 12 Employment Lands
MANAGING RESIDENTIAL DENSITY, CHARACTER AND AMENITY

The implementation of the recommended Settlement Hierarchy as defined in Chapter 4 and the likely demand shift towards higher density living due to changing demographics will place additional pressure on the town centres to absorb higher density residential growth. With that growth, comes additional pressure to properly plan and manage impacts upon the existing character and amenity of existing areas. It is not considered appropriate that these issues be addressed purely on a site by site basis as it the cumulative impact of such developments that can impact upon character and amenity.

It is anticipated that Council will have a detailed housing strategy and ageing strategy to inform the first five year review of the LEP and the relevance of the following approach to manage these planning issues can be re-examined against the findings of these Strategies and the stated targets for achieving higher density living opportunities in each precinct at this time.

To ensure that the main town centres retain their character whilst encouraging growth opportunities; it is considered that these areas would benefit from an urban design master plan that could include consideration of, but not limited to, the following:

- Improved streetscape amenity and safety
- Transport networks and local roads
- Pedestrian access connectivity between shops, houses and places of recreation
- Adaptive reuse of heritage buildings
- Open space evaluation
- Bicycle networks.

A planning framework for each of these town centres is provided in Chapter 14

LITHGOW

The uniform residential zone and lack of a supporting Development Control Plan for the Lithgow town centre has not been effective in encouraging a mix of residential density. One reason for this could be that no direction is provided to the development industry as to where this form of development would reasonably be encouraged and where community values and expectations have been balanced through a robust planning process.

This Strategy will therefore recommend the investigation of the application of dual planning tools such as a range of residential zones across the Lithgow town centre to vary land use permissibility and the identification of a range of minimum lot sizes.

Identification of the zoning boundaries would generally follow the existing development densities as reflected in the existing average lot size as indicated in Figure 6. Such approach will be used to concentrate medium density development in and around the core commercial areas and higher order infrastructure and providing for lower densities towards the town fringes.

An urban assessment will be undertaken in the development of the 2012 LEP to determine appropriate height controls for the residential areas.

The Strategy also recommends that a development control plan be prepared to provide further detail and development standards to address the range of building density and design parameters.
Residential lands in Lithgow are indicated in Figures 3, 4 and 5 in Chapter 14.

Figure 17. Proposed Lot Size Differentiation
WALLERAWANG AND PORTLAND

As there is currently little development pressure for higher density residential development in these town centres it is not considered necessary to apply a range of residential zonings. It is recommended that there be only one general residential zoning supported by a varying lot size map within the 2012 LEP. Detailed development control provisions can be provided through a Development Control Plan for each centre to address the range of building density and design parameters.

The residential areas of these towns are indicated in Figures 13 and 19 in Chapter 14.

SENIORS HOUSING

Due to the likely significant demand for this form of housing into the future, this Strategy proposes to permit seniors housing where all other forms of housing are permitted.

This approach should provide sufficient flexibility to encourage the private market to provide such housing.

There are two key sites in the Lithgow urban area that lend themselves to this form of development. These areas are the former RSL site and surrounds, and land to the east of Silcock St in the Pottery Estate as shown in Figure 18 below. These areas are located within close proximity to the Lithgow CBD and services, would be consistent with density of this form of housing and each area offers different capabilities for a range of seniors housing from self-care, to assisted care and hostel care.

Figure 18. Potential Seniors Housing Locations
HOW WILL RECOMMENDED STRATEGIC DIRECTION AFFECT IDENTIFIED LAND SUPPLY AND FUTURE LAND REQUIREMENTS

The Table below shows the new supply figures following implementation of the recommended strategies and actions against a continuation of current demand levels. It is apparent that the LGA would be well placed in all precincts to accommodate residential growth throughout the life of this Strategy without the need for further land rezoning and release.

Should demand levels change this Strategy has identified sufficient lands within the urban core reservation layer that may come on line to meet new demand.

Table 9. Revised Supply and Demand

<table>
<thead>
<tr>
<th>Zone/Precinct</th>
<th>Current Land Supply</th>
<th>Revised Supply from LUS</th>
<th>Current Dwelling Demand to 2031(20yrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithgow</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>1352 (46.6yrs)</td>
<td>1352 (46.6yrs)</td>
<td>580</td>
</tr>
<tr>
<td>Rural</td>
<td>141 (37.6yrs)</td>
<td>141 (37.6yrs)</td>
<td>75</td>
</tr>
<tr>
<td>Large Lot Residential</td>
<td>25 (12.5yrs)</td>
<td>146 (72yrs)</td>
<td>40</td>
</tr>
<tr>
<td>Precinct Total</td>
<td>1518</td>
<td>1639</td>
<td>704</td>
</tr>
<tr>
<td>Wallerawang</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>103 (79yrs)</td>
<td>103 (79yrs)</td>
<td>26</td>
</tr>
<tr>
<td>Large Lot Residential</td>
<td>107 (53.5yrs)</td>
<td>341 (170.5yrs)</td>
<td>40</td>
</tr>
<tr>
<td>Residential</td>
<td>396 (66yrs)</td>
<td>190 (31yrs)</td>
<td>123</td>
</tr>
<tr>
<td>Precinct Total</td>
<td>606</td>
<td>634</td>
<td>195</td>
</tr>
<tr>
<td>Portland</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>99 (66yrs)</td>
<td>99 (66yrs)</td>
<td>30</td>
</tr>
<tr>
<td>Large Lot Residential</td>
<td>192 (38.4yrs)</td>
<td>334 (70yrs)</td>
<td>95</td>
</tr>
<tr>
<td>Residential</td>
<td>801 (133.5yrs)</td>
<td>84 (14yrs)</td>
<td>116</td>
</tr>
<tr>
<td>Precinct Total</td>
<td>1092</td>
<td>517</td>
<td>244</td>
</tr>
<tr>
<td>Rural Nth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>1930 (241yrs)</td>
<td>1019 (127yrs)</td>
<td>160</td>
</tr>
<tr>
<td>Large Lot Residential</td>
<td>11 (5.5yrs)</td>
<td>57 (28.5yrs)</td>
<td>40</td>
</tr>
<tr>
<td>Village</td>
<td>42 (84yrs)</td>
<td>15 (30yrs)</td>
<td>9</td>
</tr>
<tr>
<td>Precinct Total</td>
<td>1983</td>
<td>1091</td>
<td>209</td>
</tr>
<tr>
<td>Rural Sth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>1272 (76yrs)</td>
<td>763 (44yrs)</td>
<td>346</td>
</tr>
<tr>
<td>Large Lot Residential</td>
<td>247 (22.45yrs)</td>
<td>271 (24yrs)</td>
<td>221</td>
</tr>
<tr>
<td>Village</td>
<td>33 (16.5yrs)</td>
<td>4 (2.5yrs)</td>
<td>32</td>
</tr>
<tr>
<td>Precinct Total</td>
<td>1552</td>
<td>1038</td>
<td>599</td>
</tr>
</tbody>
</table>
| Total         | 6751                | 4919                     | 1951dwellings
SUMMARY OF KEY ACTIONS

Action 11.1
- Adopt the Growth Management and Sustainability Principles and Settlement Hierarchy as outlined in Chapter 4 of this Strategy and ensure that future urban residential growth does not occur outside of layers A-C as indicated in Table 5 and Figure 4 of Chapter 4.

Action 11.2
- Identify the Marrangaroo Study Area as the LGA’s next urban release area and defer zoning until at least the 2016 LEP review. Development of this area to occur generally in accordance with the adopted Structure Plan (Figure 12 Chapter 11). This area to be retained in a rural zone in the Lithgow City 2012 LEP as a holding mechanism for future urban land use as indicated in Figure 5 of Chapter 14.

Action 11.3
- Develop a new suite of residential land use designations for the towns of Lithgow, Wallerawang and Portland in the Lithgow City 2012 LEP to reflect desired future character and density of residential areas as outlined in this Strategy and indicated in the LEP directions figures of Chapter 14.
- Determine appropriate minimum lot sizes to be applied to each new serviced residential land use designation to be applied in the Lithgow City 2012 LEP generally as follows:
  - General Residential 600m²
  - Medium Density Residential 400m²
  - Low Density Residential 800m²

Action 11.4
- Alter the zoning of lands within the areas known as “Pottery as identified in Figure 3 of Chapter 14 in the Lithgow City 2012 LEP.

Include a provision in the 2012 Lithgow City LEP to require the following, but not limited to, matters to be addressed in a Development Control Plan for the site:
- the layout and design of both vehicular and pedestrian traffic throughout the site;
- the need to integrate the mixed land uses of the site through appropriate design / buffers;
- minimising the impact of development upon the heritage significance of the cultural landscape, including both the built and archaeological heritage items within the site and proposed means of conservation management;
- any areas of land that may be restricted due to the impact of mine subsidence, slope, bushfire, flooding or inundation or any other identifiable hazard;
- investigation and identification of any areas of land affected by any likely sources of contamination and the means to alleviate any risk of injury or harm;
- stormwater and water quality management;
- conservation of natural watercourses;
- protection of any potential habitat of any identified threatened species of flora and fauna, in particular the Purple Copper Butterfly (Paralucia spinifera);
- the servicing of the land; and
- management of open space and public lands.
• Should these investigations identify any part of the site suitable for higher urban uses, prepare a planning proposal to alter the land use designation accordingly.

**Action 11.5**

• Alter the zone of the strip of houses either side of Silcock St, Pottery Estate, in the Lithgow City 2012 LEP, from Open Space to a residential land use designation to correct an anomaly of the 1994 LEP.

**Action 11.6**

• Back zone the existing Rural (Future Urban) 1(d) zones surrounding Lithgow, Wallerawang and Portland to an appropriate rural zone as a holding mechanism for future urban land use beyond the 2012 LEP as indicated in the LEP direction figures in Chapter 14.

**Action 11.7**

• Retain the land use designation of “Village” for the villages of Rydal, Cullen Bullen, Capertee and Tarana in the Lithgow City 2012 LEP as modified by the recommendations of this strategy.

**Action 11.8**

• Introduce a new minimum lot size for unserviced allotments in the village areas of 4000m²

**Action 11.9**

• Back zone in the Lithgow City 2012 LEP existing village lands in Portland as identified in Figure 19 of Chapter 14 to reduce pressure on sewage infrastructure and/or to better reflect the carrying capacity of the lands.

• Lands identified for future urban land use beyond the 2012 LEP are identified in Figure 21 of Chapter 14.

**Action 11.10**

• Alter the village boundary in Capertee as indicated in Figure 42 of Chapter 14.

**Action 11.11**

• Alter the village boundary in Rydal to provide a more compact form between Bathurst St and Cartwright St as indicated in Figure 30 of Chapter 14.

**Action 11.12**

• Alter the village boundaries of Tarana to remove undeveloped land to the south and east as indicated in Figure 27 of Chapter 14

**Action 11.13**

• Prepare a Development Control Plan to provide effective and appropriate land use management guidelines for residential development areas.

**Action 11.14**

• Prepare and administer a land monitor to track the demand and take-up of residential land supply. Identify appropriate thresholds levels to trigger the investigation of additional urban release areas.