



# ***Vineyard Precinct (Stage 1)***

## ***Planning Report***

To view an electronic version in PDF format, visit the Department of Planning and Environment's website:  
[www.planning.nsw.gov.au](http://www.planning.nsw.gov.au)

© Crown Copyright 2016

Department of Planning and Environment

#### **Disclaimer**

While every reasonable effort has been made to ensure that this document is correct at the time of printing, the State of New South Wales, its agents and employees, disclaim any and all liability to any person in respect of anything or the consequences of anything done or omitted to be done in reliance or upon the whole or any part of this document.

#### **Copyright Notice**

In keeping with the Department of Planning and Environment's commitment to encourage the availability of information, you are welcome to reproduce the material that appears in this Precinct Planning Report for personal, in-house or non-commercial use without formal permission or charge. All other rights are reserved. If you wish to reproduce, alter, store or transmit material appearing in this Precinct Planning Report for any other purpose, a request for formal permission should be directed to:

Corporate Communications

The Department of Planning and Environment

GPO Box 39

Sydney NSW 2001

You are required to acknowledge that the material is provided by the Department or the owner of the copyright as indicated in this Precinct Planning Report and to include this copyright notice and disclaimer in any copy. You are also required to acknowledge the author (the Department of Planning and Environment) of the material as indicated in this Precinct Planning Report.

# Contents

<b>Executive Summary</b> .....	<b>5</b>
<b>1. Strategic planning context</b> .....	<b>9</b>
1.1 A Plan for Growing Sydney	9
1.2 North West Priority Growth Area Land Use and Infrastructure Strategy and Regional Road Network	10
1.3 Precinct Planning	11
<b>2. Precinct Context</b> .....	<b>14</b>
2.1 Location	14
2.2 Existing conditions	14
<b>3. Land use and Infrastructure delivery plan</b> .....	<b>17</b>
3.1 Vision, objectives and planning principles	17
3.1.1. Public domain and the natural environment .....	18
3.1.2. Transport and access .....	18
3.1.3. Land Use .....	19
3.2 Development below PMF	20
3.3 Infrastructure delivery and development sequencing	21
3.4 Bandon Road – Riverstone Precinct	23
3.5 Development outcomes	23
<b>Appendix A Strategic and Statutory Frameworks</b> .....	<b>27</b>
<b>Appendix B Consistency with Section 117 Statutory Directions</b> .....	<b>40</b>
<b>Appendix C Community and agency consultation</b> .....	<b>42</b>
<b>Appendix D Specialist Studies and Draft Stage 1 ILP outcomes</b> .....	<b>47</b>

## Tables

<b>Table 1</b> Land Use Outcomes for Stage 1 Vineyard Precinct .....	17
<b>Table 2</b> Current infrastructure capacity .....	21
<b>Table 3</b> Infrastructure delivery .....	21
<b>Table 4</b> Development Outcomes .....	24
<b>Table 5</b> North West Priority Growth Area Structure Plan details for the Precinct.....	30
<b>Table 6</b> Consistency with the Growth Centres Development Code.....	38
<b>Table 7</b> Consistency with Section 117 Statutory Directions.....	40
<b>Table 8</b> Key Issues for State and Local Government Agencies.....	43
<b>Table 9</b> Community feedback received at the Landowner Enquiry-by-Design Workshops .....	45
<b>Table 10</b> Precinct Planning response to technical issues .....	47

## Figures

<b>Figure 1</b> Vineyard Precinct (Stage 1) Draft Indicative Layout Plan .....	7
<b>Figure 2</b> North West and South West Priority Growth Areas.....	9
<b>Figure 3</b> Regional Road Network .....	11
<b>Figure 4</b> Existing features of the Vineyard Precinct.....	15
<b>Figure 5</b> Vineyard Stage 1 - Land between PMF and 1:100 flood levels. ....	20
<b>Figure 6</b> Sydney Water's planned servicing strategy - Vineyard Precinct (Package 3) .....	22
<b>Figure 7</b> North West Priority Growth Area Structure Plan (Edition 3).....	29
<b>Figure 8</b> Mud Map of Constraints and Opportunities (Discussion Paper, June 2014) .....	44

## Executive Summary

The Department of Planning and Environment (the Department) has been working with Hawkesbury City Council (Council) to develop an Indicative Layout Plan (ILP) for the Vineyard Precinct in Sydney's North West Priority Growth Area. The purpose of the ILP is to identify opportunities for urban development to support housing, and to plan for the infrastructure needs to support this growth. Located approximately 50 kilometres north-west of the Sydney CBD, the Precinct is in the Hawkesbury Local Government Area (LGA) and is currently zoned for rural purposes under Hawkesbury Local Environmental Plan 2012 (Hawkesbury LEP 2012).

A Plan for Growing Sydney establishes the NSW Government's vision for Sydney's future, which is a 'strong global city, a great place to live'. One of the biggest challenges to achieving this aim is how to provide for the 726,000 new homes and new jobs needed for the predicted 2.1 million new residents by 2036. One of the key actions of the plan is to maintain a steady supply of rezoned land for development including in the North West and South West Priority Growth Areas.

Since its release for precinct planning in August 2013 by the then Minister for Planning and Infrastructure, the Department has undertaken detailed investigations to identify suitable urban land uses and align the rezoning of land with the delivery of utility infrastructure. A draft ILP and associated development controls for the first stage of the Vineyard Precinct that will have access to utility infrastructure are now exhibited for public comment.

### Infrastructure delivery and development staging

Land use and infrastructure outcomes have been defined following the completion of technical studies for the Precinct. The Vineyard Precinct (Stage 1) Planning Report outlines the anticipated sequence of infrastructure delivery that will enable urban development to occur within the Precinct. Development of land is dependent on essential infrastructure, namely water, sewer and electricity, being available. The delivery of this infrastructure has commenced in the east of the Precinct adjacent to the Box Hill Precinct which has therefore informed the Stage 1 boundary.

### Regional road network

Transport for NSW is investigating opportunities to expand the transport network by identifying corridors and preserving them for future transport infrastructure. The first stage of the Outer Sydney Orbital corridor will look to identify a corridor from north of the North West Growth Centre to the south west of Sydney, connecting to the Hume Highway. As a result part of the North West Priority Growth Area lies within the study area of the Outer Sydney Orbital. Further information on what this means for the balance of the Precinct will continue to be investigated by the State Government.

The extension of the preferred-Bandon Road corridor between Windsor Road and Boundary Road, via Chapman, Commercial and Menin Roads is shown on the draft ILP. Planned as a regional road link between Richmond Road and Windsor Road, the corridor affects some properties within the Vineyard (Stage 1) Precinct, and will also require land to be acquired within the Riverstone Precinct. Further details are provided in **Section 3** of this report.

## Development of land below Probable Maximum Flood

Probable Maximum Flood (PMF) is an indication of the largest flood that could conceivably occur in an area. It is a measure used to identify the risks to life and property should a major flood event occur in the Hawkesbury Nepean Valley, which includes land in the Vineyard Precinct.

The Department is working with Infrastructure NSW, Roads and Maritime Services and the State Emergency Service to establish a planning framework and evacuation strategy to support planning within the floodplain. This work is led by the Hawkesbury-Nepean Valley Flood Management Taskforce.

Specific regard is being given to the types of land uses that could be supported on land below the PMF level within Stage 1 of the Vineyard Precinct. These land uses will be reviewed once the outcomes of the Taskforce are released ahead of rezoning of this portion of Stage 1.

The rezoning of land below the PMF may be deferred until such time as a comprehensive flood risk management strategy is in place for the Hawkesbury Nepean Valley. Around 80 hectares of proposed future urban land is located below the PMF. This translates to around 700 dwellings.

## Exhibition material

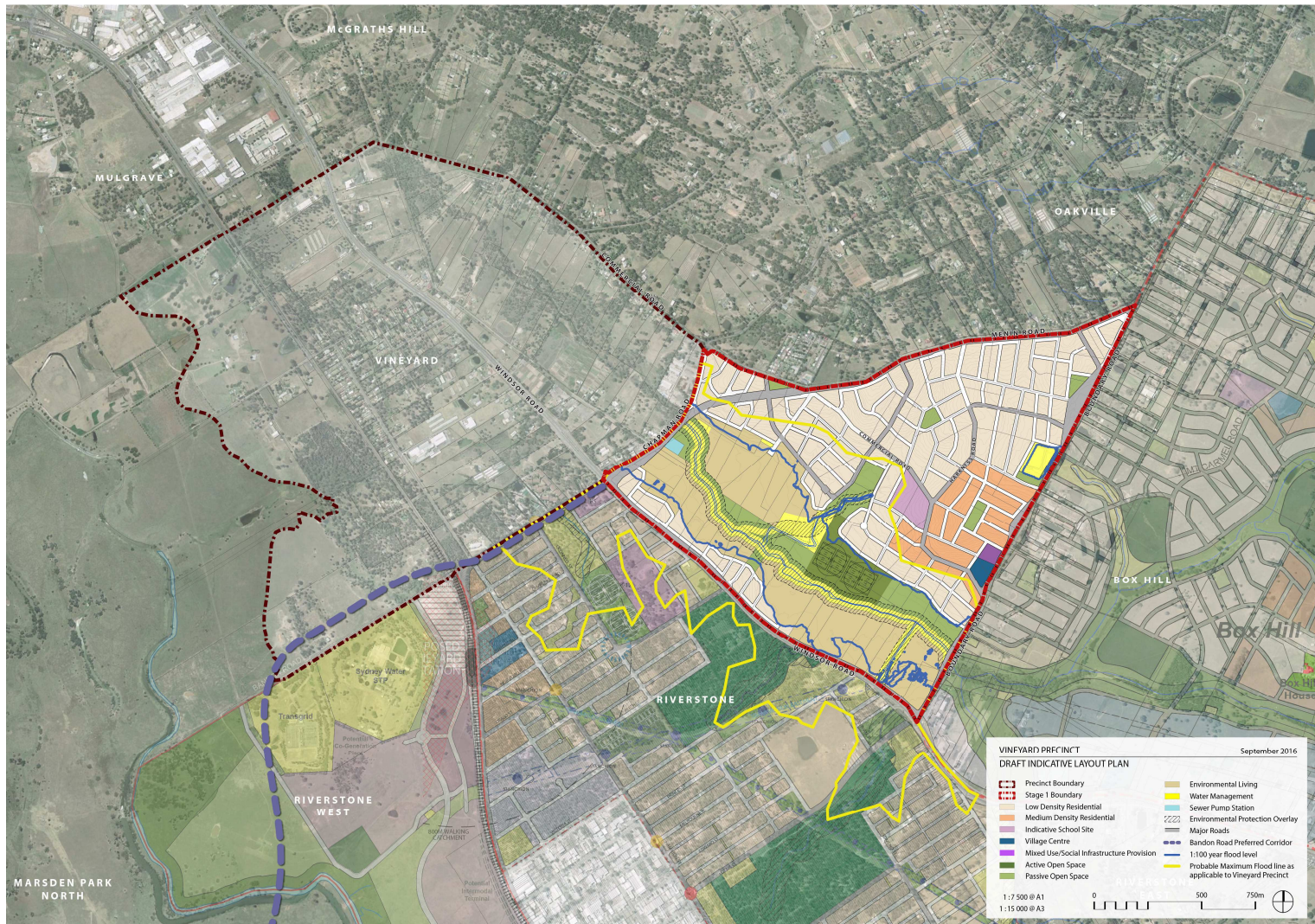
A number of documents have been placed on exhibition to allow the community and stakeholders to provide feedback to the proposed precinct plans for the Vineyard (Stage 1) Precinct.

The exhibition package includes:

- A plain English explanation of the planning controls for the Vineyard Precinct (Stage 1) proposed to be inserted into *State Environmental Planning Policy (Sydney Region Growth Centres) 2006* (Growth Centres SEPP);
- A draft ILP (**Figure 1**) illustrating the plan for development of land within Stage 1;
- A draft Vineyard Development Control Plan (DCP);
- A Vineyard Precinct (Stage 1) Planning Report (this document); and
- Technical studies prepared to inform the exhibition package.

Hawkesbury City Council is preparing a draft Section 94 Contributions Plan for land within Stage 1 to fund local infrastructure including local roads, drainage infrastructure and open space. The draft Section 94 Contributions Plan is expected to be exhibited in early 2017.

Feedback from land owners, Council and infrastructure agencies during exhibition will help to confirm whether the proposed first stage of rezoning is appropriate, and will enable stakeholders to contribute to the final Stage 1 precinct plan. The Department will continue to work with stakeholders to refine the planned land uses and infrastructure outcomes as required.



**Figure 1** Vineyard Precinct (Stage 1) Draft Indicative Layout Plan



**1. *Strategic Planning  
and Context***



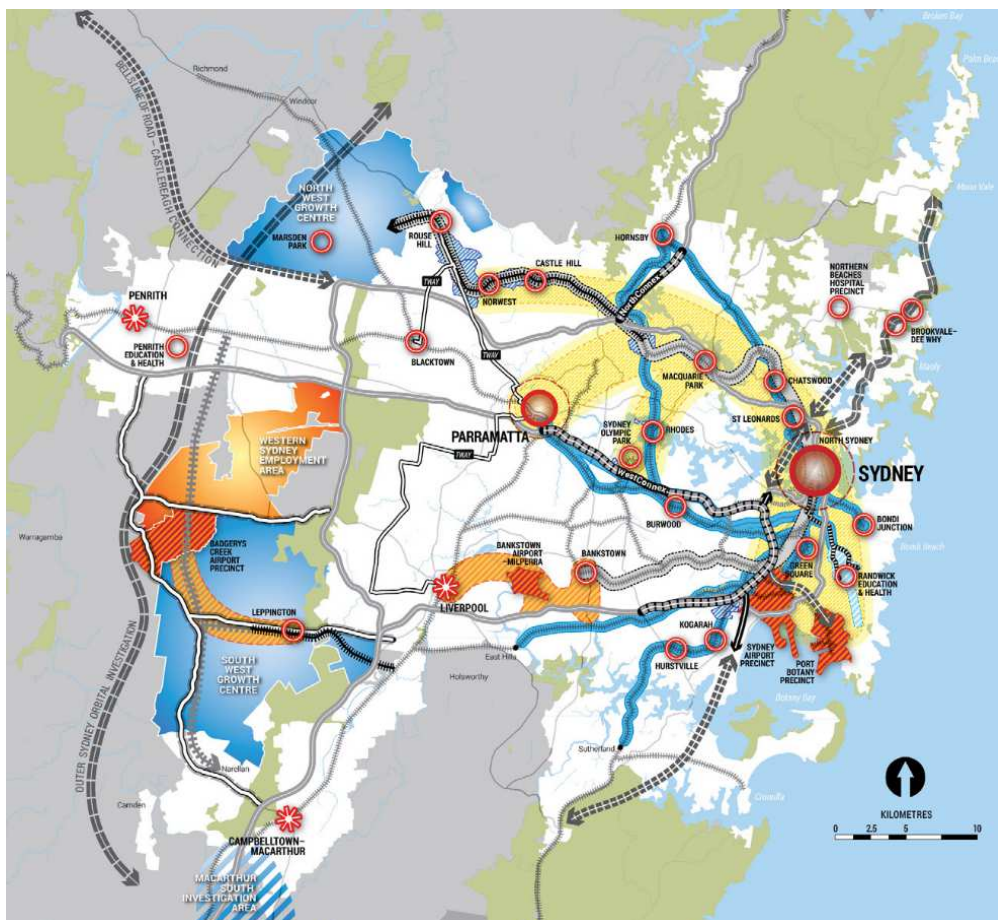
# 1. Strategic planning context

## 1.1 A Plan for Growing Sydney

A *Plan for Growing Sydney* provides a strategy to accommodate Sydney's future population growth for the next 20 years, as well as planning for employment, services and facilities, liveable communities and the natural environment. It sets directions to deliver timely and well planned greenfield precincts and housing and improve housing choice to suit different needs and lifestyles (Directions 2.3 and 2.4). Key priorities of the NSW Government are to:

- Maintain a steady supply of rezoned land for development including in the North West and South West Priority Growth Areas;
- Coordinate and deliver enabling infrastructure to assist the conversion of zoned land into homes;
- Allow for a range of housing types to be delivered to meet the needs of various household structures; and
- Support the provision of new infrastructure, such as the Sydney Metro Northwest and the upgrade of Richmond Road.

**Figure 2** shows the location of the North West and South West Priority Growth Areas, and their proximity to the Parramatta CBD, regional city centres and strategic centres in Sydney's west.



**Figure 2** North West and South West Priority Growth Areas

Source: A Plan for Growing Sydney, 2014 (Department of Planning and Environment)

The draft Vineyard Stage 1 Precinct Plan implements key elements of Action 2.4.1 of A Plan for Growing Sydney, by:

- Allowing for a range of housing types to be delivered to meet the needs of various household structures;
- Proposing to rezone that part of the Precinct that will have access to essential enabling infrastructure (water, sewer and electricity);
- Progressively delivering land for an additional supply of 2,400 homes to meet demand from Sydney's growing population; and
- Coordinating the rezoning of land with the delivery of enabling infrastructure so that public and private investment in new development is focused on those areas where new communities can grow, with access to amenities, services and critical infrastructure.

## **1.2 North West Priority Growth Area Land Use and Infrastructure Strategy and Regional Road Network**

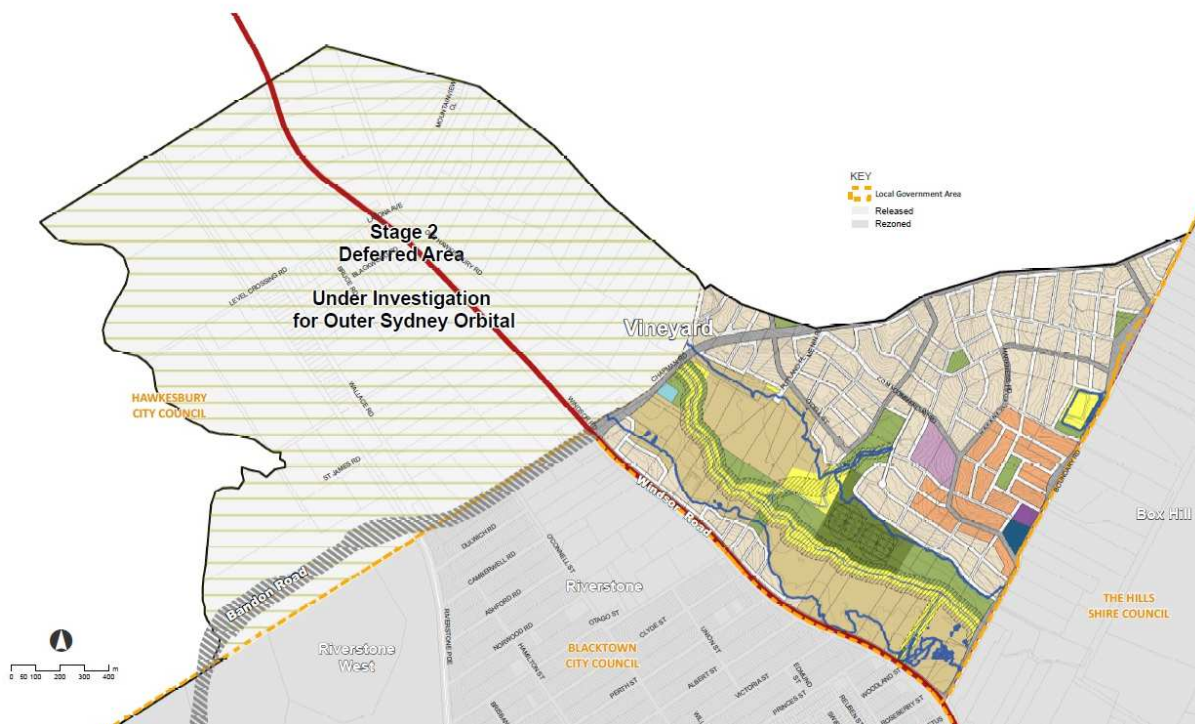
A Structure Plan for each Priority Growth Area has guided planning and development of land in the North West Priority Growth Area (refer to **Appendix A**). The Department is currently reviewing the North West Structure Plan 2006, and will produce a draft Land Use and Infrastructure Strategy for the North West for public consultation. With the majority of land in the North West already rezoned, the focus of the North West Land Use and Infrastructure Strategy will be on coordinating the infrastructure required to accelerate the delivery of new homes in the rezoned areas.

The Strategy will confirm the hierarchy of the road network to support the growth of the area. The indicative regional road network developed as part of the Strategy is shown below in **Figure 3**. Land in Stage 2 of the Vineyard Precinct is affected by the Outer Sydney Orbital study area, as shown below. This corridor will be confirmed by Government following further work by the Department and Transport for NSW.

In August 2016 Roads and Maritime Services (RMS) sought feedback from the community on the proposed Bandon Road preferred corridor. The Bandon Road preferred corridor (subject to funding availability) includes:

- a new 6km road connection between Richmond Road and Windsor Road through Marsden Park North, Riverstone West, Riverstone and Vineyard precincts; and
- a new road underpass of the Richmond railway line north of Vineyard Railway Station level-crossing.

The Bandon Road preferred corridor also proposes to provide an upgrade and realignment of the existing flood evacuation route on Wallace Road and Hamilton Street. An extension of this corridor through the Vineyard Precinct is proposed in this Precinct Plan.



**Figure 3** Regional Road Network

### 1.3 Precinct Planning

Precinct planning commences when land is ‘released for urban development’ by the Minister for Planning under the *Environmental Planning and Assessment Regulation 2000*. It establishes new planning controls and infrastructure delivery arrangements to enable urban development through:

- examining the existing context of the Precinct;
- identifying environmental constraints;
- exploring development opportunities and infrastructure requirements;
- responding to the legislative requirements and best practice guidelines of state and local government;
- addressing feedback received through community consultation; and
- confirming consistency of the draft planning package with relevant planning documents.

Precinct planning leads to the development of a draft indicative layout plan (ILP). The draft ILP is a response to the strategic planning context and inputs from the specialist studies, landowner and stakeholder consultation. Specialist investigations undertaken as part of precinct planning and documented in this report include:

- Social infrastructure and recreation
- Retail and employment
- Land capability and soil contamination
- Noise and vibration
- Odour
- Indigenous heritage
- Non-Indigenous heritage
- Biodiversity and riparian corridors

- Bushfire risk
- Water cycle management and flooding
- Infrastructure services
- Transport and traffic

The combined outcomes of precinct planning are included in the exhibition material that accompanies this Planning Report and rezoning of the Vineyard (Stage 1) Precinct comes with an amendment to *State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (Growth Centres SEPP)* and the adoption of the draft Vineyard Development Control Plan (DCP).

Precinct planning was overseen and directed by a Project Control Group (PCG) with senior representatives from the Department and Council. The PCG reviewed and directed the project at a strategic level and considered financial matters, the program and high-level negotiations.

The ongoing detailed planning work is undertaken by the Precinct Working Group (PWG). The PWG includes the Department's project manager and Council's project coordinator, with input from the master planning consultant, State agencies and technical specialists as required. The PWG facilitates effective management, communication and decision making at an operational level, and assists in negotiations with and coordinates input and decisions from State agencies.

Successful outcomes depend on a high degree of consultation and integration with specialist consultants, Council's technical specialists and key government stakeholders. The consultation process will continue to identify and resolve issues and conflicts to balance environmental, social and economic goals.



## ○ **2. *Precinct Context***

## 2. Precinct Context

### 2.1 Location

The Precinct is located at the northern end of the North West Priority Growth Area, approximately 50 kilometres northwest of the Sydney CBD in the Hawkesbury City Council local government area (LGA), as shown in **Figure 2**. The Precinct is immediately surrounded by the Box Hill Precinct to the south east and Riverstone and Riverstone West Precincts to the south. Further beyond, the Precinct is surrounded by the Hawkesbury region to the north, The Hills district to the east and the rest of the North West Priority Growth Area to the south.

### 2.2 Existing conditions

The 590 hectare Precinct has Bandon Road and Windsor Road as its southern boundaries. Boundary Road is the south eastern boundary, and Commercial Road and Menin Road are the northern boundaries of both the precinct and the North West Priority Growth Area. The western boundary of the Precinct runs partway through existing lots that slope westward towards and into the Eastern Creek floodplain. Refer to **Figure 4**.

Stage 1 is bound by Commercial Road and Menin Road to the north, Boundary Road to the east, Windsor Road to the south and Chapman Road to the west. The Killarney Chain of Ponds crosses through the Precinct extending from the Box Hill Precinct to the northern Precinct boundary. Windsor Road, which bisects the Precinct, is an arterial north-south road that was upgraded in 2006 to meet the 1 in 500 year flood event. It is a major evacuation route and provides access to the M2 and Parramatta to the south, and Windsor and Richmond to the north.

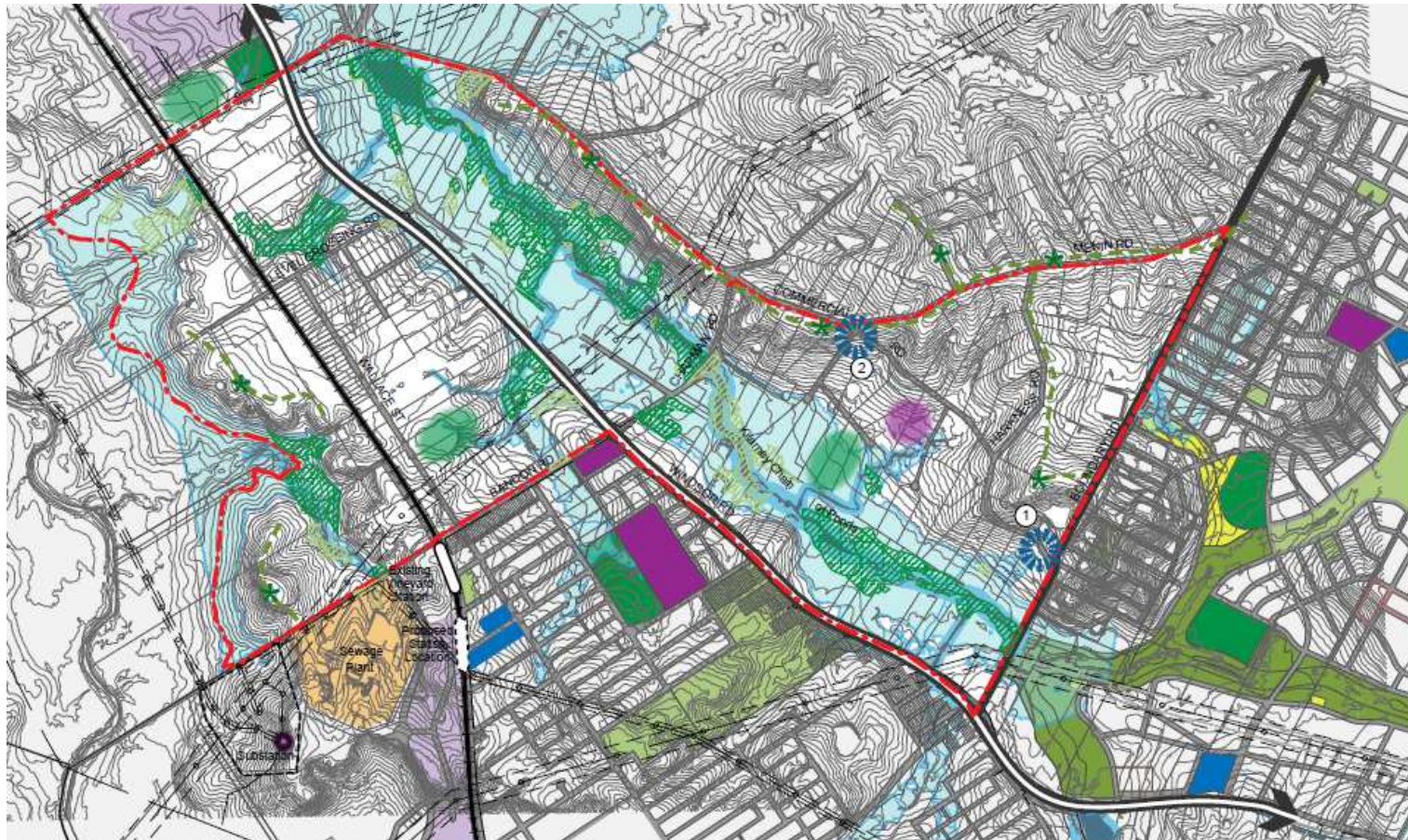
*Hawkesbury Local Environmental Plan 2012* (Hawkesbury LEP 2012) is the principal planning instrument applying to land use within the Hawkesbury Local Government Area. The Precinct is primarily zoned RU1 Primary Production and RU4 Primary Production Small Lot under the Hawkesbury LEP 2012.

As shown in **Figure 4**, the Precinct is predominantly characterised by rural residential properties, low intensity agriculture such as market gardens, poultry sheds and a mushroom grower, commercial activities and rural industries. The Precinct also contains patches of vegetation typical of four communities being Cumberland Plain Woodland, Cooks River/Castlereagh Ironbark Forest, Alluvial Woodland and Shale Gravel Transition Forest. Areas of remnant existing native vegetation (ENV) are located throughout the Precinct.

A number of watercourses are tributaries to the Killarney Chain of Ponds and area all in a relatively degraded condition. The Killarney Chain of Ponds is a fourth order stream and in moderate condition, and requires a riparian corridor of 40 metres on each side of the watercourse. The priority for riparian corridor conservation of the Killarney Chain of Ponds is high. The tributaries to the Killarney Chain of Ponds are first and second order streams.

There are a number of ridgelines across the precinct, primarily along Commercial Road and Menin Road, one which enters the Stage 1 area off Menin Road, and some in the west of the Precinct, which offer a combination of middle and distant views.

Three high voltage electricity transmission easements traverse the Precinct, in the south east, centre and north of the Precinct.



VINEYARD PRECINCT

Legend



Figure 4 Existing features of the Vineyard Precinct

A white line starts from the top left corner of the page and extends diagonally down to the left side of the page, ending at a small white circle.

**3. *Land Use and Infrastructure Delivery Plan***



## 3. Land use and Infrastructure delivery plan

### 3.1 Vision, objectives and planning principles

The vision for the Precinct (Stage 1) is to achieve sustainable development that meets the needs of a well-connected and diverse community, supported by local facilities and infrastructure.

The design of the draft ILP was based on the following objectives:

- planning controls are integrated and enable environmentally, economic and socially sustainable development;
- a diverse housing mix caters to a range of household types;
- ensuring that open space, the road network, and land required for drainage can support the level of development being planned for, as supported by a maximum density cap;
- connections to services, facilities, amenities and open space will be improved; and
- an urban identity is created that respects and capitalises on the natural features of the Precinct.

Planning controls for Stage 1 will support approximately 2,400 new dwellings. This could equate to a projected new population of 7,400 people. **Table 1** summarises key land use and development outcomes proposed for Stage 1.

**Table 1** Land Use Outcomes for Stage 1 Vineyard Precinct

Development parameters	Stage 1
Stage 1 Land Area	230ha
Low Density Residential (min. 15 – max. 18 dw/ha)	1,764 homes (98 ha)
Medium Density Residential (min. 20 – max. 30 dw/ha)	570 homes (19 ha)
Neighbourhood Shops	0.8 ha
Environmental Living (E4 zone)	93 homes (46.7)
Planned Public Open Space (sports fields)	8 ha
Planned Public Open Space (passive recreation space)	16.1 ha
Drainage and water management	16.3 ha
Schools (primary)	2.8 ha
<b>Maximum capacity – new homes</b>	<b>2,427 homes</b>
<b>Estimated Population</b>	<b>7,400 people</b>

The draft ILP is underpinned by the planning principles below. The principles are based on the specialist investigations, the North West Structure Plan and Explanatory Notes, the Growth Centres Development Code and input from stakeholders including State agencies and Hawkesbury City Council.

### 3.1.1. Public domain and the natural environment

The draft Vineyard Precinct Stage 1 Plan will:

- establish a public domain framework of streets and open spaces that create a connected network linking places within and adjoining the Precinct, particularly along the Killarney Chain of Ponds connecting Boundary Road to Chapman Road, with internal connections to surrounding residential areas;
- create a strong neighbourhood structure focused on a local centre on Boundary Road comprising a social infrastructure facility, social hubs and nearby school;
- use local and neighbourhood parks to take advantage of and retain the key environmental features of the Precinct, including high points, views to surrounding areas, creeks and areas of existing vegetation;
- integrate the Killarney Chain of Ponds with the drainage and open space network to create a spine with places for people to relax, workout and use as a connector, which will be owned and managed by Hawkesbury City Council;
- allow for 24.1 hectares of open space comprising 16.1 hectares of passive open space, and eight hectares for active open space including four playing fields;
- protect areas of biodiversity value within the riparian corridor and flood prone land, mostly through a Public Recreation or Special Use zone; and
- largely protect areas of Aboriginal cultural heritage importance within the environmental corridor and open space network.

### 3.1.2. Transport and access

The draft Vineyard Stage 1 Precinct Plan will achieve:

- a hierarchy of roads that ensures efficient movement of vehicles and pedestrians around the Precinct. This will minimise conflicts between through and local traffic, ensure safe, quiet streets for residents, and provide direct access to the proposed village centre on Boundary Road, school and open space, as well as to local and regional road networks;
- key aspects of the road network include a proposed sub-arterial road that will be an extension of the Bandon Road corridor, generally following the alignment of Chapman Road, Commercial Road and Menin Roads, between Windsor Road and Boundary Road to support the regional road network;
- a special uses zoning identifies proposed road widening on some lots within Stage 1 with land proposed for acquisition by the NSW Government. The preferred-Bandon Road corridor was recently exhibited by RMS as a regional road connection from Windsor Road to Richmond Road and incorporates a grade-separated railway crossing beneath the Richmond Rail Line;
- a bus-capable road network that allows for most residents to be within walking distance of a bus stop;
- Utilisation of existing road and boundary alignments where possible to reduce the land required for the local road network, facilitate development and recognise historical property boundaries;
- convenient and safe connections walking and cycling connections throughout the local area and to open space and activity centres; and
- local streets adjacent to open space and riparian corridors to provide activity and surveillance and to take advantage of the amenity these areas will provide.

### 3.1.3. Land Use

The draft Vineyard Stage 1 Precinct Plan will achieve:

- a mix of housing types and sizes. This will create housing choice for a wide range of buyers or renters, and will encourage a diverse community;
- housing density and form that responds to environmental constraints, including topography, riparian corridors, infrastructure easements, flood prone land and vistas to heritage elements;
- within the low density residential areas a variety of housing choices will be available whilst maintaining a low density residential character, with small lot and semi-detached housing located around activity nodes and public transport routes, and larger lots adjoining areas of heritage and environmental importance;
- a density cap is proposed to manage the maximum number of dwellings that can be built in residential areas, to ensure that the future population does not exceed capacity of the planned infrastructure framework;
- medium density housing is located in close proximity to the village centre located on Boundary Road;
- the village centre will meet the local-scale shopping needs of future residents and will be accessible by future residents;
- social infrastructure provision is proposed directly adjacent to the village centre, to be acquired by Council;
- the existing electrical easements are managed and integrated within the design of the urban pattern;
- open space areas which are identified for acquisition by Council;
- proposed land uses in close proximity to the Killarney Chain of Ponds will respect, promote and enhance the local native vegetation and avoid any significant adverse effect on water catchments. Low impact residential development will be permissible in areas of special ecological, scientific or aesthetic values if development is compatible with the character of the area. This will be supported by minimum lot size controls that manage development in this area, to be confirmed following the outcomes of the Hawkesbury-Nepean Valley Flood Management Taskforce. In addition, home industries, community facilities, outdoor facilities and recreational uses may be considered on land adjoining the Killarney Chain of Ponds; and
- new development can only occur on flood prone land if building structures can be located above the 1 in 100 year flood level. It should be noted that the rezoning of land below the PMF may be deferred until the outcomes of the Hawkesbury-Nepean Valley Flood Management Taskforce are in place.

### 3.2 Development below PMF

New development can only occur on flood prone land if building structures can be located above the 1 in 100 year flood level. The development of land below the Probable Maximum Flood (PMF) extent will be confirmed following the outcomes of the Hawkesbury-Nepean Valley Flood Management Taskforce, which is investigating broader flooding and evacuation issues in the region.

Land that is below the PMF in Stage 1 has been suggested for very low to low residential densities, as shown in **Figure 5**. In order to ensure that development of land below the PMF can be appropriately supported by relevant infrastructure in a PMF event, including the regional road network, the rezoning of land that is below the PMF is to await the outcomes of the Taskforce. These suggested land uses will be reviewed once the outcomes of the Taskforce are known.

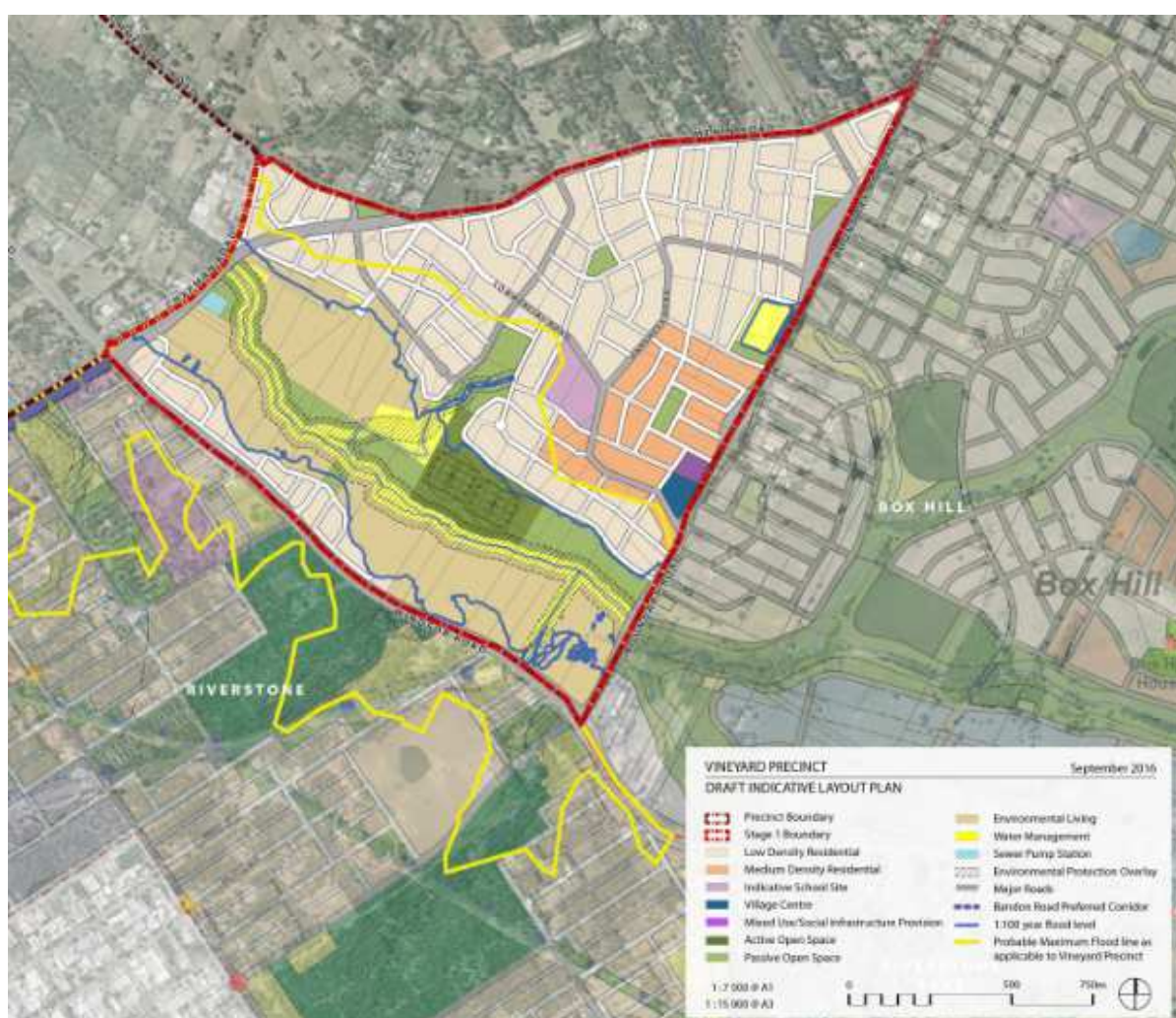


Figure 5 Vineyard Stage 1 - Land between PMF and 1:100 flood levels.

### 3.3 Infrastructure delivery and development sequencing

Existing infrastructure and essential services support the current rural land uses but have limited or no capacity for urban development. Substantial new and upgraded infrastructure will be needed, and delivery will be staged to match investment with demand.

The Infrastructure Delivery Plan identifies the infrastructure that will need to be delivered to enable the development of the Precinct such as water and sewer mains, electricity, gas, telecommunications and roads.

**Table 2** summarises the lot potential from each service provider. The table highlights that the maximum number of lots which can be serviced is limited by the need for additional electricity services.

**Table 2** Current infrastructure capacity

Utility type	Lot Potential
Water / Sewer	900
Electrical	400-500
Gas	800-1,000

The timely provision of primary utilities in line with the rezoning and development of land is often a significant constraint to development in new release areas. The Infrastructure Delivery Plan identifies where services are likely to be available first, and on this basis has identified a potential development front in the south east of the Precinct, as detailed in

**Table 3. Figure 6** shows the planned water and sewer services to Stage 1 by Sydney Water.

**Table 3** Infrastructure delivery

Type	Service availability
	Stage 1 (2,400 lots)
Potable water (trunk)	Yes
Potable water (lead-in)	No – to be privately delivered
Sewer (trunk mains)	Yes
Sewer (lead-in)	Yes – for part of the Precinct
Electricity	Current network capacity for up to 500 lots. A new substation in the vicinity of Riverstone East / Box Hill Precincts (note that a site has not been acquired) will ultimately provide electricity to the southern area of Vineyard.



**Figure 6** Sydney Water's planned servicing strategy - Vineyard Precinct (Package 3)

Under current NSW Government policy, funding for local infrastructure that can be collected by councils from Section 94 Contributions is limited to \$30,000 per residential lot. However, given the size of the Precinct, the significant amount of infrastructure required for the future residential and working population, and existing constraints, it is likely that the average Section 94 Contribution per residential lot will exceed the \$30,000 cap. The Section 94 Plan will be reviewed by the Independent Pricing and Regulatory Tribunal (IPART) prior to being adopted by Council.

Land within the remainder of the Vineyard Precinct will undergo detailed planning in the future when servicing arrangements are confirmed, and decisions about the Outer Sydney Orbital corridor are announced by the NSW Government.

### **3.4 Bandon Road – Riverstone Precinct**

The location of the preferred-RMS Bandon Road corridor as a link between Richmond Road and Windsor Road will require a review of the local road network within the north of the Riverstone Precinct. An at-grade realignment of the intersection of Bandon Road and Wallace Road will necessitate a corresponding adjustment of the intersection of Bandon Road and Hamilton Street.

The Department intends to prepare a revised draft ILP of the Riverstone Precinct for public exhibition in the first half of 2017.

### **3.5 Development outcomes**

Technical studies (summarised in **Appendix D**) have been prepared to inform the land uses and infrastructure within Stage 1 of the Vineyard Precinct. These proposed land uses and infrastructure are summarised in **Table 4**.

**Appendix D** describes how the key technical issues and constraints were addressed as part of the precinct planning process and incorporated into the draft ILP.

**Table 4** Development Outcomes

ILP Feature	Stage 1 Outcomes
<b>Residential areas</b>	<p>Approximately 2,400 dwellings incorporating a mix of housing types from single dwellings on a range of lot sizes to townhouses, terrace style houses and low scale flat buildings within walking distance of a proposed village centre, school and open space.</p> <p>Low density residential is located on land below the PMF.</p> <p>An E4 Environmental Living zone is proposed for land below the 1 in 100 year flood level.</p>
<b>Activity Centres</b>	<p>One village centre with capacity for up to 4,000m<sup>2</sup> of retail floor space fronting to Boundary Road and close to the bus network, open space, and the pedestrian and cycling network. A social infrastructure facility is proposed directly adjacent to the village centre.</p>
<b>Road network</b>	<p>The upgrade of existing roads, where necessary, will support increased traffic movements. New collector roads will provide for public transport accessibility.</p> <p>At a strategic planning level, local roads are often located on common property boundaries to distribute the construction costs between adjacent landowners. The proposed local roads identified on the ILP guide development only and may be varied at development application stage.</p> <p><b>Bandon Road</b> has been identified by RMS for upgrade as a sub-arterial road, providing links to Richmond Road south of Wianamatta Creek. The RMS-preferred Bandon Road corridor was exhibited in August 2016 and proposes a grade-separated rail crossing beneath the Richmond Rail Line.</p> <p>The future upgrade of Chapman Road, Commercial Road (perimeter) and Menin Road as a sub-arterial corridor and extension of the preferred-Bandon Road corridor is subject to further investigations as part of the review of the North West Structure Plan, which will result in the preparation of a Land Use and Infrastructure Strategy for the North West Priority Growth Area.</p> <p><b>Boundary Road</b> has been identified in both Vineyard and Box Hill Precinct Plans for upgrade as a collector road. The upgrade will include a bridge across the Killarney Chain of Ponds, the construction of pedestrian paths and the provision of one additional lane on each side. The road will conform to 80km/h design speed.</p> <p>A Strategic Concept Design was prepared for the upgrade of Boundary Road as part of planning for the Box Hill Precinct. The Vineyard ILP has been developed with consideration of this strategic design and the land requirements for the realignment and widening of the corridor. Land required to widen the existing roads to support a sub-arterial corridor are identified on the Land Zoning Map and Land Reservation Acquisition Map. Further detailed design will be undertaken to confirm the vertical and horizontal road alignment within the identified corridor.</p> <p><b>Proposed intersection upgrades</b> include:</p> <ul style="list-style-type: none"> <li>• widening of the intersection of Windsor Road and Chapman Road with land required for the intersection shown on the Land Zoning Map and Land Reservation Acquisition Map</li> <li>• new left-in, left-out access on Chapman Road north of intersection with Windsor Road, to provide access to the low density residential area fronting Windsor Road</li> <li>• a priority intersection at Chapman Road/ Old Hawkesbury Road</li> <li>• realignment of Chapman Road to meet with Commercial Road as a sub-arterial road</li> <li>• realignment of Menin Road at intersection with Boundary Road, with intersection treatment to be determined</li> <li>• designated intersection locations with Boundary Road to facilitate access to the Village Centre and residential areas, with intersection treatments to be determined</li> <li>• new left-in/left-out access on Windsor Road to provide access to the low density residential area.</li> </ul>
<b>Public transport</b>	<p>The road network provides opportunities for bus routes to directly access the surrounding higher order road network as well as key destinations such as the village centre.</p> <p>Public transport will be available via the bus-capable collector road network, with access to regional public transport facilities such as stations on the Sydney Metro Northwest (eg. Cudgegong Road Station), and on the Richmond Rail Line (eg. Vineyard and Riverstone Stations), as well as the bus transitway along Windsor Road.</p> <p>Road sections for local and collector roads are shown in the draft Vineyard DCP.</p>
<b>Utility infrastructure</b>	<p>Details of infrastructure required to service Stage 1 are provided within this report and the Infrastructure Planning Report.</p> <p>Existing and planned services will allow for initial development of up to 500 dwellings. Delivery of an electricity substation is required to service the total 2,400 dwellings in Stage 1.</p>



ILP Feature	Stage 1 Outcomes
<b>Open space network and social infrastructure</b>	Two double playing fields are proposed in Stage 1 as well as a network of passive open space along the Killarney Chain of Ponds providing walking and cycling trails and recreation opportunities. A number of pocket parks are proposed throughout Stage 1 which will create focal points for residents.
<b>Education facilities</b>	One primary school is proposed at the existing junction of Commercial Road and Harkness Road. Sections of Commercial Road and Harkness Road will support bus access to the proposed school site.
<b>Pedestrian and cycleway network</b>	Road designs will provide for on-road cycle lanes and off-road pedestrian/shared paths. A pedestrian and cycleway network is proposed along the Killarney Chain of Ponds, with surrounding open space, linking Boundary Road to Chapman Road. The design also encourages pedestrian and cycling connections from the Killarney Chain of Ponds to Windsor Road.
<b>Protection of the environment / Water Cycle Management and Flooding</b>	<p>Riparian corridors and areas of significant environmental values will be protected through appropriate zoning controls that are compatible with the natural and environmental character of the Precinct. Development controls and relevant stormwater management provisions are proposed with consideration given to the 1 in 100 year flood level.</p> <p>Two detention basins are proposed, one on Boundary Road and one on a tributary of the Killarney Chain of Ponds to service catchments within Stage 1.</p> <p>Areas identified as below the 1 in 100 year flood level are proposed for very low residential density as E4 Environmental Living, water cycle management, open space and environmental protection.</p>
<b>Biodiversity</b>	A Biodiversity Assessment has identified existing native vegetation (ENV) and Cumberland Plain Woodland (CPW) across the Precinct. Due to the utilisation of land below the 1:100 flood level for playing fields coupled with the lack of suitable areas for playing fields due to the steep terrain within Stage 1, some ENV will be lost resulting in a shortfall of ENV that is able to be protected. More detail is included in the Biodiversity Consistency Report and Strategic Assessment.
<b>Heritage</b>	Protection of areas of Indigenous heritage is incorporated with suitable land use recommendations. The ILP also considers the heritage significance of non-Indigenous heritage items being the Pitt Town Common, Pitt Town Common House and Windsor Road.



○ **4. Appendices**

# Appendix A Strategic and Statutory Frameworks

## State and regional planning strategies

### 1. State Priorities

A number of key policy priorities are being actioned by the NSW Government. The Premier's Priorities represent 12 of the 30 key policy priorities to guide government policy and budget decision making, and deliver on community priorities. The key strategies are:

- Strong budget and economy;
- Building infrastructure;
- Protecting the vulnerable;
- Better services; and
- Safer communities.

### 2. A Plan for Growing Sydney

*A Plan for Growing Sydney* provides a strategy to accommodate Sydney's future population growth for the next 20 years, as well as planning for employment, services and facilities, liveable communities and the natural environment. It sets directions to deliver timely and well planned greenfield precincts and housing and improve housing choice to suit different needs and lifestyles (Directions 2.3 and 2.4). Key priorities of the NSW Government are to:

- Maintain a steady supply of rezoned land for development, including in the North West and South West Growth Centres (now referred to as the North West and South West Priority Growth Areas);
- Support the provision of new infrastructure, such as the Sydney Metro Northwest and the upgrade of Richmond Road;
- Coordinate and deliver enabling infrastructure to assist the conversion of zoned land into homes; and
- Allow for a range of housing types to be delivered to meet the needs of various household structures.

### 3. Draft North West Sub-Regional Strategy

Subregional strategies have been prepared to translate objectives of the former Metropolitan Strategy and State Plan to the local level. The North West Sub-Region covers an area broader than just the North West Priority Growth Area. The draft North West Subregional Strategy prepared in December 2007 aims to guide land use planning until 2031.

The vision for the North West region involves achieving eight key directions:

- Plan for major housing growth (an additional 148,000 new homes, approximately 355,000 by 2031);
- Plan for major employment growth (an additional 142,000 jobs in the region by 2031);
- Develop Penrith as a Regional City;
- Strengthen the role of centres, such as Blacktown Major Centre;
- Improve access to, from and within the subregion, including the coordination of the Sydney Metro Northwest and the extension of transport networks within the North West Priority Growth Area;
- Protect rural and resource lands;

- To protect and manage regionally significant bushland and open space; and
- Improve access to open space and recreation opportunities.

These priorities are reflected in the recently released strategy, A Plan for Growing Sydney.

The planning process for the Precinct has considered these directions to achieve optimal land use planning outcomes such as:

- Prioritising the rezoning of up to 2,400 new homes in Stage 1 of the Precinct where access to enabling infrastructure is being progressively delivered;
- Concentrating residential densities around the Village Centre and key transport routes; and
- Designating land for open space and conservation purposes to protect unique areas within the Precinct whilst balancing the residential and employment land requirements for the Precinct.

The Greater Sydney Commission is currently preparing District Plans to set the direction for the longer term regional planning for Greater Sydney. The District Plans will determine the best locations for new homes with easy access to transport, jobs and open space. The identification of Vineyard as a Priority Precinct will be incorporated into the District Plan for the North West Region. The draft District Plans will be exhibited from late 2016 through to March 2017 and, when finalised, will supersede the draft North West Sub-Regional Strategy. The strategic direction provided by the District Plans will be included within the finalisation of the Precinct Plan for Vineyard.

#### **4. North West Structure Plan**

The Structure Plan (**Figure 8**) was prepared by the then Department of Planning in 2005 and is a guide to the detailed planning of the Precinct. Under the Structure Plan and associated documents, over 70,000 new dwellings are planned to be delivered in the North West Priority Growth Area over the next 25 to 30 years.

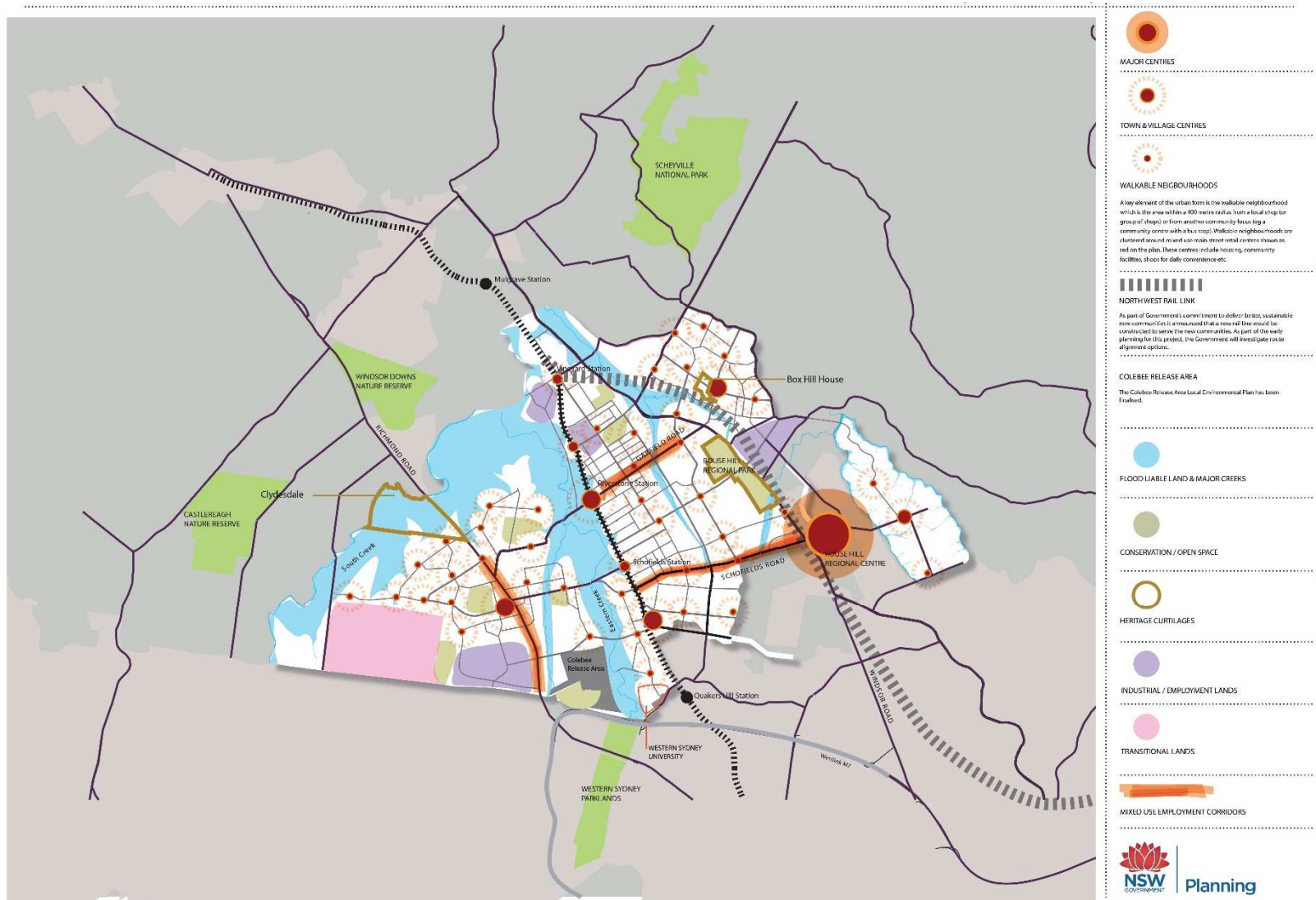


Figure 7 North West Priority Growth Area Structure Plan (Edition 3)

The Structure Plan identifies key site constraints, opportunities for different land uses and development, regional road links and public transport requirements, as well as sets approximate residential dwelling and population targets and indicative development parameters for the Vineyard Precinct (refer to **Table 5**). As these were developed at a very broad scale, they provide targets and flag issues that are addressed in much finer detail through the precinct planning process. Planning principles underpinning the Stage 1 ILP are defined in **Section 3** of this Planning Report.

**Table 5** North West Priority Growth Area Structure Plan details for the Precinct

Category	North West Priority Growth Area Structure Plan - Development Parameters	Precinct Planning Response
<b>Target Dwelling Yield</b> <b>Target Population</b>	2,500 dwellings 7,000 people	<p>The Structure Plan 2006 established an indicative dwelling target for the Vineyard Precinct. The results of the housing market analysis have identified the potential demand for housing above this target.</p> <p>The draft ILP proposes 2,400 dwellings in Stage 1 in the form of a range of housing including detached dwellings, small lot housing, semi-detached housing, townhouses and apartments, to meet the needs of the future population.</p>
<b>Public Transport</b>	<p>The Structure Plan makes use of, and improves, the existing network of rural roads. The network will be extended and enhanced to accommodate the increase in travel demand.</p>	<p>The road network is designed to accommodate district and regional bus services throughout the Precinct, optimising public transport access.</p> <p>A bus-capable road network can be accommodated within the Precinct to ensure all residents are serviced by public transport.</p>
<b>Roads</b>	<p>Existing arterials will be upgraded. These improved roads will also accommodate either bus priority measures, transit lanes or a centre median transitway.</p>	<p>The Structure Plan does not identify any roads within or surrounding Vineyard Precinct for future upgrades. Windsor Road, an arterial road, was upgraded in 2006. This exhibition report has identified the need for the upgrade of Chapman Road, Commercial Road (Perimeter) and Menin Road as a sub-arterial road corridor with further design to be undertaken. Any changes to the ILP road network as a result of potential future upgrade of these roads will need to be reviewed in detail at a later stage.</p>
<b>Retail</b>	<p>The Structure Plan identifies the need for two or three Neighbourhood Centres and industrial areas</p>	<p>The technical investigations recommended one village centre, rather than two or three neighbourhood centres given the proximity of centres in the Box Hill and Riverstone Precincts, as well as the higher-order Rouse Hill Town Centre. The proposed village centre is well positioned at the junction of two existing roads.</p> <p>A range of small scale commercial uses will be permissible in the residential areas.</p> <p>Technical investigations did not recommend the provision of industrial uses within the Precinct due to adequate supply of industrial land in the vicinity of the Precinct, including in Mulgrave/McGraths Hill, Box Hill, Box Hill Industrial, Area 20 and Alex Avenue.</p>

Category	North West Priority Growth Area Structure Plan - Development Parameters	Precinct Planning Response
<b>Employment</b>	Vineyard has been identified in the Structure Plan as an area suitable for industrial/ employment use.	As mentioned above, technical investigations suggested that the provision of industrial land within the Precinct was not warranted, however, the ILP provides opportunities for mixed use development, including a range of employment uses in the proposed Village Centre.
<b>Natural habitats</b>	Environmentally sensitive lands are also to be protected. Areas with conservation value will be protected through public ownership.  Significant creeks and other sensitive environments will be managed through detailed Precinct Planning.	The 1 in 100 year flood level along the Killarney Chain of Ponds has been refined as part of precinct planning. Riparian corridors and land below the 1 in 100 year flood level generally has little development potential and high ecological significance. These areas will be zoned appropriately to ensure conservation and enhancement of native vegetation and protection of surface and groundwater quality and flows, while allowing low intensity residential development that is not likely to adversely affect the ecological and aesthetic values.  Drainage basins have been indicatively sized and located to capture the increased runoff resulting from urban development in order to maintain flood conditions as close as possible to pre-development conditions.
<b>European Heritage</b>	Any future development within a heritage curtilage will be subject to approval requirements under the <i>Heritage Act, 1977</i> .	The Structure Plan does not identify curtilages within the Vineyard Precinct. Recommendations contained within the technical assessment prepared by Extent Heritage for listing the Pitt Town Common House as an item of European Heritage have been adopted.

## 5. Draft Land Use and Infrastructure Strategy 2015

Action 2.4.1 of *A Plan for Growing Sydney* is to 'deliver greenfield housing supply in the north west and south west growth centres'. To implement this, the Department is preparing a new Land Use and Infrastructure Strategy for the North West priority land release area. Work on the draft Land Use and Infrastructure Strategy is well underway.

While the rezoning of land will continue at a steady rate to meet Government targets, planning in Priority Growth Areas will be transformed through new land use and infrastructure strategies.

The Land Use and Infrastructure Strategy for the North West priority release area will guide future growth opportunities. The Strategy will:

- Better define how much growth is possible in each area and the potential growth rate.
- Align the amount and location of land that is rezoned with the efficient delivery of infrastructure and rates of demand for new housing and jobs.
- Streamline statutory approvals by dealing with issues more strategically and reducing the complexity and timeframes for development approvals.
- Be transparent about the land release process and how information is accessed.
- Be accessible through a digital platform with an interactive mapping tool to make information more readily available, and to enable updates as information changes.
- The new approach will provide more certainty for landowners, developers, the broader community and State and local government, on rezoning and delivery timings, rate changes, and land tax implications.
- In particular, the Strategy is considering the regional road network within the North West Priority Growth Area including a sub-arterial corridor along perimeter roads to Stage 1.

## 6. Sydney's Bus Future

Sydney's Bus Future, dated December 2013 defines the future long-term bus service needs for the North West Priority Growth Area. Development guidelines for bus routes within the North Priority Growth Area include provision of services that:

- Link existing and new major centres and rail stations;
- Establish a rapid route that connects Rouse Hill to Blacktown via Marsden Park, using major road including Schofields Road and Richmond Road;
- Investigate suburban routes to connect the North West Priority Growth Area and its new rail link to Penrith via Ropes Crossing, and to the Western Sydney Employment Area and Prairiewood;
- Provide additional local bus services to service new suburbs developing across Western Sydney; and
- Deliver new bus-train interchange facilities as part of the Sydney Metro Northwest.

Planning for the Precinct has taken these objectives into consideration. The specialist studies undertaken for the Precinct have considered the above strategies and proposed a number of strategic corridors and local connections that would support a future bus network.



## 7. Rail Crossing Study

In addition to community consultation undertaken by the Department, the Roads and Maritime Services has undertaken community consultation for the grade separation of east-west roads across the Richmond Rail Line and specifically a proposed alignment generally utilising the Bandon Road corridor, to connect Windsor Road to Richmond Road. The proposed alignment was publicly exhibited from November 2014 to February 2015. It is noted that the rail crossing is outside the boundaries of the Stage 1 area.

## Statutory Planning Framework

### 1. NSW Environmental Planning and Assessment Act 1979

The NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) and the NSW *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation) provide the statutory planning context for environmental assessment and approval in NSW.

Clauses 275 and 276 in the EP&A Regulation relate to the release of land in growth centres for urban development and the preparation of a Development Code to provide guidelines in conjunction with the Growth Centre Structure Plan. In accordance with Clause 276(1) of the EP&A Regulation the former Minister for Planning and Infrastructure released the Vineyard Precinct in August 2013.

### 2. SEPP (Sydney Region Growth Centres) 2006

The Growth Centres SEPP is the primary statutory plan governing the release and rezoning of land in the Growth Centres and establishes the broad planning controls required to oversee the development of the Growth Centres. The aims of the SEPP are:

- To co-ordinate the release of land for residential, employment and other urban development in the North West and South West Growth Centres in the Sydney region;
  - To enable the Minister from time to time to designate land in those growth centres as ready for release for development;
  - To provide for comprehensive planning for those growth centres;
  - To enable the establishment of vibrant, sustainable and liveable neighbourhoods that provide for community well-being and high quality local amenity;
  - To provide controls for the sustainability of land in those growth centres that have conservation value;
  - To provide for the orderly and economic provision of infrastructure in and to those growth centres;
  - To provide development controls in order to protect the health of the waterways in those growth centres;
  - To protect and enhance land with natural and cultural heritage value; and
  - To provide land use and development controls that will contribute to the conservation of biodiversity.
- Further, the Growth Centres SEPP outlines development controls for:
- Determining development applications prior to and after the finalisation of the precinct planning process;
  - Flood prone and major creeks land;
  - Clearing native vegetation; and
  - Cultural heritage landscape area.

Precinct Planning for the Vineyard Precinct will result in an Amendment to the Growth Centres SEPP to establish the zoning and planning controls for the Precinct.

### 3. Special Infrastructure Contribution

Under Sections 94ED through to 94EM of the EP&A Act a Special Infrastructure Contribution (SIC) Plan was established for the Growth Centres. It provides for a one-off financial contribution payable by any developer or landowner in the Growth Centres who is developing or subdividing land in a manner triggered by the provisions of the plan. The SIC will help fund regional infrastructure required for development in the North West and South West Growth Centres over the next 30 years.

The Infrastructure Delivery Plan describes the regional and state infrastructure to be funded by the Contribution in relation to the Precinct. For more information refer to the Special Infrastructure Contribution Determination (on [www.planning.nsw.gov.au](http://www.planning.nsw.gov.au)). No specific infrastructure items of relevant to the Stage 1 are identified for funding from the SIC.

### 4. Section 94

Section 94 of the EP&A Act provides for a local council to prepare and implement a plan to capture payment to fund the provision of local services required by a development.

On 31 August 2010, the then Minister for Planning announced that development contributions for Greenfield sites are to be capped at \$30,000 per residential lot. Contributions Plans may exceed the cap only if approved by the Minister for Planning following a review process led by the Independent Pricing and Regulatory Tribunal (IPART).

Based on the current local infrastructure planning undertaken for the Precinct, the maximum residential contribution rates are anticipated to be above \$30,000 per lot and IPART will be required to review the plan.

### 5. Section 117 of the EP&A Act

Section 117 Directions of the EP&A Act require councils to address a range of matters when seeking to rezone land with a LEP. There is no statutory requirement for the directions to be considered during precinct planning. Nevertheless, the directions have been addressed as part of precinct planning and the draft ILP and associated documentation is generally consistent with relevant directions, as summarised in **Appendix B**.

### 6. Threatened Species Conservation Act 1995

The *Threatened Species Conservation Act 1995* (TSC Act) identifies and protects threatened and endangered species, populations and ecological communities. The objectives of the Act include:

- conserving biological diversity and promoting ecologically sustainable development;
- preventing the extinction and promoting the recovery of threatened species, populations and ecological communities;
- protecting critical habitats; and
- encouraging the conservation of threatened species, populations and ecological communities.

The TSC Act also provides for the Biodiversity Certification of environmental planning instruments such as the Growth Centres SEPP (as outlined above). The adoption of the Biodiversity Certification for the Growth Centres means that development on lands that are subject to certification no longer requires assessment under the TSC Act.

As part of the biodiversity certification of the Growth Centres SEPP the Growth Centres Biodiversity Offset Program was established. The program aims to permanently protect bushland inside and outside the Growth Centres through the acquisition of land for new reserves, and by establishing in-perpetuity conservation agreements, such as bio-banking agreements directly with landowners.

The Precinct Planning process has considered the presence of species, populations and communities listed under the TSC Act, and where possible has sought to conserve them. This issue is further addressed in **Appendix D**.

## **7. Environment Protection and Biodiversity Conservation Act 1999**

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) protects matters of National Environmental Significance (NES).

A Strategic Assessment of the Growth Centres under the EPBC Act was undertaken to enable development to proceed in the Growth Centres while protecting the environment. The Strategic Assessment considered the potential impacts of development on matters of national environmental significance for the whole of Sydney's Growth Centres. This allows strategic conservation outcomes to be identified and secured. It also provides greater certainty for those constructing new houses and employment areas, as well as infrastructure providers in the Growth Centres. The Strategic Assessment operates in parallel with Biodiversity Certification under the TSC Act.

## **8. Hawkesbury Local Environmental Plan 2012**

Under the Hawkesbury Local Environmental Plan 2012 (Hawkesbury LEP 2012) the Precinct is primarily zoned RU1 Primary Production and RU4 Primary Production Small Lots.

Once the Precinct Plan and the associated amendment to the Growth Centres SEPP is adopted, the planning controls in the Precinct Plan will come into force and the planning controls in Hawkesbury LEP 2012 will no longer apply to land within the Precinct.

## **9. Water Management Act 2000**

The *Water Management Act 2000* (WM Act) provides for the sustainable and integrated management of water resources of the State. Objectives of the Act relevant to the Precinct include:

- Applying the principles of ecologically sustainable development;
- Protecting, enhancing and restoring water sources, their associated ecosystems, ecological processes and biological diversity and their water quality; The classification of water courses;
- Fostering the sustainable and efficient use of water; and
- Integrating the management of water sources with the management of other aspects of the environment, including land, native vegetation and fauna.

The WM Act replaced a number of other Acts including the *Rivers and Foreshores Improvement Act 1948*. If practical, exemptions for the need for controlled activity approvals under the WM Act will be obtained across the Precinct.

Precinct Planning has addressed the requirements of the Act and the categorisation and management of riparian corridors is reflected in the draft ILP. The new Strahler methodology for riparian corridors adopted in June 2012 has been applied to the planning for the Precinct.

## **10. Rural Fires Act 1997**

Amongst its objectives, the *Rural Fires Act 1997* (RF Act) seeks to prevent, mitigate and suppress bush fires and protect life and property from bush fire.

Under Section 100B of the RF Act, approval is required from the NSW Rural Fire Service for development on bush fire prone land. Approval is subject to the development's compliance with standards regarding setbacks, provision of water supply and other matters necessary to protect persons, property or the environment from bush fire danger.

Precinct Planning has addressed the aims of the Act and the management of potential bush fires by the identification of appropriate Asset Protection Zones for the Precinct. Further assessment of development on bush fire prone land will be required at development application stage to ensure compliance with the requirements of Section 100B of the RF Act.

## **11. National Parks and Wildlife Act 1974**

The *National Parks and Wildlife Act* (NPW Act) provides the primary basis for the legal protection and management of Aboriginal sites and relics within NSW. The NPW Act requires amongst other things:

- Consultation with the Office of Environment and Heritage (OEH) prior to development to determine the existence of items of Aboriginal heritage;
- Consultation with local Aboriginal groups; and
- Consent to disturb or destroy Aboriginal heritage sites/items.

Precinct Planning has addressed the requirements of the NPW Act through consultation with OEH on the methodology and results of Aboriginal heritage investigations, consultation with and the participation of Aboriginal groups in field investigations and reporting, and recommendations for the management of Aboriginal heritage. Land containing Aboriginal cultural heritage impacted by future development will be subject to an application for an Aboriginal Heritage Impact Permit of the NPW Act. Local Aboriginal Land Councils and stakeholders were consulted in accordance with the *Protocol for Aboriginal Stakeholder Involvement in the Assessment of Aboriginal Heritage in the Sydney Growth Centres*.

## **12. Heritage Act 1977**

The *Heritage Act 1977* includes a range of provisions for identifying and protecting items of environmental heritage. The Act controls development of, or in the vicinity of, a State heritage item. The State Heritage Register, established under Section 22, lists items which have been assessed as being of State significance. There are no State Significant heritage items within the Precinct.

## **13. State Environmental Planning Policy (Infrastructure) 2007**

The Infrastructure SEPP replaces a range of SEPPs relating to the provision of infrastructure across NSW. It aims to establish clear rules in relation to the permissibility of various infrastructure types (including roads, rail, water and sewer, electricity, schools and health facilities). The Infrastructure SEPP specifies whether certain types of infrastructure are permissible with or without consent in the various zones identified in the *Standard Instrument (Local Environmental Plans) Order 2006*. The provisions of the Infrastructure SEPP have been considered in the preparation of the Precinct Plan.

## **14. State Environmental Planning Policy 19 – Bushland in Urban Areas**

SEPP 19 aims to protect and preserve bushland within urban areas. Planning for the Precinct involves the conservation and enhancement of areas of bushland that are of high value relative to other vegetation within the Precinct. Future development will need to be managed in accordance with SEPP 19.

## **15. State Environmental Planning Policy 55 – Remediation of Land**

SEPP 55 aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment. It specifically requires consideration of contamination when rezoning land and in determining Development Applications.

When rezoning land the planning authority must consider whether the land is contaminated and consider whether the land is suitable in its contaminated state or is satisfied that the land will be remediated before the land is used for that purpose.

*Managing Land Contamination – Planning Guidelines* (Department of Urban Affairs and Planning and Environment Protection Authority 1998) provides guidance on the level of assessment that is required to satisfy clause 6, for large rezonings as follows:

*“Rezonings that cover a large area... usually describe proposed land uses very generally both in type and location. This makes it difficult for a planning authority to be satisfied that every part of the land is suitable for the proposed use(s) in terms of contamination at the rezoning stage. In these cases, the rezoning should be allowed to proceed, provided measures are in place to ensure that the potential for contamination and the suitability of the land for any proposed use are assessed once detailed proposals are made.”*

Based on the guidance provided above, the requirements of SEPP 55 have been considered during Precinct Planning and will be further addressed during the development assessment process.

## **16. State Environmental Planning Policy – Hawkesbury Nepean River**

State Environmental Planning Policy – Hawkesbury Nepean River seeks to protect the environment of the Hawkesbury-Nepean River system. Development within the catchment is required to consider the general and specific principles and controls listed in the SEPP to ensure that the impacts of future land use are considered in a regional context. Killarney Chain of Ponds drains to South Creek and the Hawkesbury River. Precinct Planning has considered the impacts of the development on the health of the system.

## **Other relevant plans**

### **17. Growth Centres Development Code**

The Growth Centres Development Code was released in October 2006 to guide the precinct planning process. The Development Code contains precinct development parameters, guidelines for the preparation of an ILP, including an environmental analysis of a Precinct and an urban form analysis for development of a Precinct.

The Development Code has been used by the project team as a reference document in the undertaking of all studies and generally as part of the precinct planning process. Refer to **Table 6**, below for a discussion on the consistency of the ILP with the Development Code.

**Table 6** Consistency with the Growth Centres Development Code

Development Code Requirements	Proposed Precinct Planning Controls
<b>A. Key Inputs</b>	
<p><b>Density targets:</b></p> <ul style="list-style-type: none"> <li>• Low: 12.5-20 dwellings/ha</li> <li>• Medium: 20-40 dwellings/ha</li> <li>• High: 40 dwellings/ha</li> </ul>	<p>Density controls for the Precinct are:</p> <ul style="list-style-type: none"> <li>• Low (Zone R2): 15-18 dwellings/ha</li> <li>• Medium (Zone R3): 25-30 dwellings/ha</li> </ul> <p>Ultimate development of the Vineyard Precinct to the minimum densities proposed in the proposed SEPP amendment will achieve a yield of approximately 2,400 dwellings in Stage 1.</p> <p>The North West Structure Plan identifies an estimated 2,500 dwellings for Vineyard.</p> <p>Development at higher densities than the minimums specified will be possible and will result in greater yields.</p> <p>Medium densities are proposed in proximity to major roads and within walking distance of a proposed village centre, school and open space, and low residential densities for the balance of the stage.</p>
<p>Indicative lot sizes:</p> <ul style="list-style-type: none"> <li>• Townhouses, semi-detached and detached small dwellings: up to 350 m<sup>2</sup></li> <li>• Detached medium: 350-450m<sup>2</sup></li> <li>• Detached large: 450m<sup>2</sup>+</li> </ul>	<p>Minimum lot sizes for the Precinct are:</p> <ul style="list-style-type: none"> <li>• Multi-unit dwellings: 375m<sup>2</sup> - 1500m<sup>2</sup></li> <li>• Attached dwellings: 375m<sup>2</sup> - 1500m<sup>2</sup></li> <li>• Semi-detached dwellings: 250m<sup>2</sup> - 300m<sup>2</sup></li> <li>• Secondary dwellings: 450m<sup>2</sup></li> <li>• Dual occupancy: 400m<sup>2</sup> - 500m<sup>2</sup></li> <li>• Detached dwellings: 300m<sup>2</sup></li> <li>• Detached dwellings in the Environmental Management zone: 1,500m<sup>2</sup> – 20,000m<sup>2</sup></li> </ul>
<p>Employment and retail:</p> <p>Town and village centres contain services for a number of adjacent communities and contain secondary retail (supermarkets, specialist shops, mini-majors)</p> <p>Walkable communities are linked to a small scale mixed activity zone to encourage local community integration</p>	<p>The draft ILP contains one Village Centre at the intersection of Commercial and Harkness Roads.</p> <p>The Precinct provides approximately 0.8 hectares of land for this Village Centre. Neighbourhood shops will be permissible on this land.</p> <p>Other community facilities such as a school and open space have been positioned to form a focus for neighbourhood activity.</p>
<p>Mixed use employment corridors provide for a variety of commercial and industrial opportunities that take advantage of exposure along arterial and sub-arterial roads</p>	<p>Technical investigations did not make recommendations for commercial or industrial corridors within the precinct. There is adequate supply of commercial and employment land within the adjoining precincts including Mulgrave/McGraths Hill, Box Hill, Box Hill Industrial, Cudgegong Road (Area 20) Precinct and Alex Avenue.</p>

<b>B. Urban Form Analysis</b>	
B.9 Street pattern A hierarchy of town centre streets that include main streets, secondary streets and lanes	The draft ILP contains one Village Centre which is located at the intersection of Commercial and Boundary Roads (existing roads). A hierarchy of streets have been provided with typical street cross sections included in the draft Vineyard Precinct Development Control Plan (DCP).
B.10 Lot layout and orientation Optimal lot size and orientation is defined for solar access	Blocks have been designed to maximise the north-south or east-west orientation of lots, to achieve appropriate solar access. The layout has also considered and responded to the irregular existing lot boundaries, and aims to increase development potential. In certain areas of the Precinct the road layout responds to natural conditions or has been designed to optimise heritage views.
<b>C Mixed Use Town Centres, Neighbourhoods and Housing</b>	
C.1 The DCP should set FSR controls, height and minimum landscape development controls for lots greater than 350 square metres	The proposed SEPP amendment is generally consistent with the Standard Instrument LEP. In accordance with the Standard Instrument, building height controls have been provided in the Precinct Plan where appropriate. Setbacks, landscaping and other controls are included in the draft DCP for the Precinct. These controls will regulate the scale and intensity of development throughout the Precinct.
C.3 Streets Road cross sections and dimensions are identified for use in Precinct Plans	Cross-sections for streets within the Precinct are provided within the draft Vineyard DCP. The road cross sections and dimensions are generally consistent with the Development Code.

# Appendix B Consistency with Section 117 Statutory Directions

**Table 7** Consistency with Section 117 Statutory Directions

Direction	Compliance
<b>1. Employment and Resources</b>	
Direction 1.1 – Business and Industrial Zones	Direction 1.1 applies to a planning proposal that will affect land within an existing or proposed business or industrial zone. The Vineyard Precinct is currently predominantly zoned RU1 Primary Production and RU4 Primary Production Small Lots under the Hawkesbury LEP 2012 and this Direction is therefore not applicable to the Precinct.
Direction 1.2 – Rural Zones	The Precinct is currently predominately zoned RU1 Primary Production and RU4 Primary Production Small Lots under Hawkesbury LEP 2012. The proposed SEPP amendment will rezone the land for a range of urban land uses. The proposed amendment is therefore inconsistent with the Direction. Clause 5(c) of the Direction provides for inconsistencies that are justified by a strategy. The proposed amendment is consistent with the North West Structure Plan and North West Subregional Strategy 2007 and is therefore considered justifiably inconsistent.
Direction 1.3 – Mining, Petroleum Production and Extractive Industries	The Precinct does not contain any known resources of coal, other minerals, petroleum or extractive material that are of either State or regional significance, or any existing mines, petroleum production operations or extractive industries. The Precinct is not within the Department of Industry’s Mineral Resources Audit referral area.
Direction 1.4 – Oyster Aquaculture	Not applicable
Direction 1.5 – Rural Lands	Not applicable
<b>2. Environment and Heritage</b>	
Direction 2.1 – Environmental Protection Zones	The proposed SEPP amendment includes provisions that facilitate the protection and conservation of environmentally sensitive areas. RE1 Public Recreation and SP2 Infrastructure zones are proposed for land considered flood liable, containing existing native vegetation and riparian corridors. The Growth Centres SEPP also contains provisions to ensure the protection of environmentally sensitive land. The proposed amendment does not reduce the environmental protection standards that apply to land in the Precinct and is therefore considered consistent with the Direction.
Direction 2.2 – Coastal Protection	Not applicable
Direction 2.3 – Heritage Conservation	The proposed SEPP amendment contains provisions that facilitate the conservation of both indigenous and non-indigenous heritage items and areas of cultural heritage significance. Studies of both the indigenous and non-indigenous heritage in the Precinct have been undertaken as part of the precinct planning process. It is considered that the proposed amendment is consistent with the Direction.
Direction 2.4 – Recreation Vehicle Areas	The proposed SEPP amendments do not allow land to be used for a recreation vehicle area.
<b>3. Housing, Infrastructure and Urban Development</b>	
Direction 3.1 – Residential Zones	The proposed SEPP amendment is consistent with the Direction because it will broaden the choice of housing types and locations; make more efficient use of existing infrastructure and services; reduce the consumption of land for housing and associated urban development on the urban fringe; and be adequately serviced with improved urban infrastructure.
Direction 3.2 – Caravan Parks and Manufactured Home Estates	Caravan parks and manufactured home estates are not permissible uses within the residential zones of the plan. However, the inconsistency is justified by a strategy (the adopted North West Structure Plan which was approved by the then Director-General) which considers the objective to provide for a variety of housing types.
Direction 3.3 – Home Occupations	The plan is consistent with the direction as it permits home occupations in the R2 and R3 residential zones without consent.
Direction 3.4 – Integrating Land Use and Transport	The objective and requirements of the direction are achieved through implementation of the requirements of the Growth Centres Development Code and consistency with the adopted North West Structure Plan.
Direction 3.5 – Development Near Licensed Aerodromes	Not applicable



Direction 3.6 – Shooting Ranges	There are no known shooting ranges within the Precinct or adjacent to the Precinct.
<b>4. Hazard and Risk</b>	
Direction 4.1 – Acid Sulfate Soils	The area is mapped as Class 5 of the Acid Sulphate Soil Risk Map and will therefore be mapped on the Acid Sulphate Soils Map under the Growth Centres SEPP.
Direction 4.2 – Mine Subsidence and Unstable Land	This direction is not applicable as the Precinct is not within a mine subsidence district.
Direction 4.3 – Flood Prone Land	The proposed SEPP amendment is generally consistent with this Direction. Land below in the 1 in 100 year flood level is proposed to be zoned RE1 Public Recreation, SP2 Infrastructure and E4 Environmental Living. Residential development on the land proposed to be zoned E4 Environmental Living will be subject to flooding planning controls that will be included in the amended Growth Centres SEPP.
Direction 4.4 – Planning for Bushfire Protection	The RFS has been consulted as part of the precinct planning process. The proposed SEPP amendment has been prepared with regard to <i>Planning for Bushfire Protection 2006</i> . The SEPP will introduce controls that avoid placing inappropriate developments in hazardous areas. Appropriate asset protection zones have also been established through the precinct planning process. The proposed SEPP amendment is consistent with the Direction.
<b>5. Regional Planning</b>	
Direction 5.1– Implementation of Regional Strategies	Not applicable
Direction 5.2 – Sydney Drinking Water Catchments	Not applicable
Direction 5.3 – Farmland of State and Regional Significance on the NSW Far North Coast	Not applicable
Direction 5.4 – Commercial and Retail Development along the Pacific Highway, North Coast	Not applicable
Direction 5.5 – Development in the Vicinity of Ellalong, Paxton and Millfield	Not applicable
Direction 5.6 – Sydney to Canberra Corridor	Not applicable
Direction 5.7 – Central Coast	Not applicable
Direction 5.8 – Second Sydney Airport: Badgerys Creek	Not applicable
Direction 5.9 – North West Rail Link Corridor Strategy	This Direction is not directly related to the area, however consideration has been given to the area's proximity to the proposed Sydney Metro Northwest (previously North West Rail Link).
Direction 5.10 – Implementation of Regional Plans	Under the Greater Sydney Commission Act, <i>A Plan for Growing Sydney</i> is deemed to be the Regional Plan for the Greater Sydney Region. Refer to Direction 7.1.
<b>6. Local Plan Making</b>	
Direction 6.1 – Approval and Referral Requirements	The plan is consistent with the direction and does not contain provisions requiring concurrence, consultation or referral which have not been approved. The plan does not identify any development as designated development.
Direction 6.2 – Reserving Land for Public Purposes	The plan creates reservations of land for public purposes. Approval has been sought by the Department from all nominated acquisition authorities.
Direction 6.3 – Site Specific Provisions	The proposed SEPP amendment does not include provisions that permit particular development on specified lands with the exception of Lot 2 in Deposited Plan 559566 and Lot 31 in Deposited Plan 1089253 – Additional permitted use allowing development for the purpose of a motel and pub (Vineyard Hotel and Motel). The inclusion of the potential for later listing of such uses within Schedule 1 is consistent with the Standard Instrument and the direction.
<b>7. Metropolitan Planning</b>	
Direction 7.1 – Implementation of the Metropolitan Plan for Sydney 2036	The draft Precinct Plan achieves the overall intent of the <i>A Plan for Growing Sydney</i> .
Direction 7.2 – Implementation of Greater Macarthur Land Release Investigation	Not applicable

# Appendix C Community and agency consultation

## 1. General

There are a total of 98 separate land parcels owned by 93 different landowners within Stage 1 of the Vineyard Precinct. The focus of consultation with landowners has been to provide information about the precinct planning process and to engage and inform landowners during precinct planning, exhibition and rezoning. Consultation with landowners and the broader community has been conducted through:

- The Department's and Council's websites
- Community information sessions
- Landowner Enquiry-by-Design (EBD) workshops
- Community newsletters
- Growth Centres Community Information telephone and email service
- Newspaper advertisements
- Public exhibition material
- Individual meetings as requested

## 2. Community Information Sessions

Two Community Information Sessions were held at the Vineyard Church (357 Windsor Road, Vineyard) on 24 and 28 October, 2013 which were attended by 139 people in total. The objective of these sessions was to explain the precinct planning process as well as giving the community an opportunity to meet Department representatives and ask questions.

Two Landowner Enquiry-by-Design workshops were held on 10 and 12 June, 2014. Approximately 135 landowners attended as well as a Council representative. Findings from technical studies carried out during the Precinct Planning process were presented to the landowners and exercises were used to gain local information and insight from the existing community on future land uses and locations.

The workshop activities comprised group discussions where landowners could contribute their ideas on suggested locations for certain land uses such as a retail centre, schools and open space. Information provided at these sessions by landowners was published on the Department's website ([www.planning.nsw.gov.au](http://www.planning.nsw.gov.au)) and used by the Department to weigh up the merits of key land uses and locations.

A summary of feedback from these sessions is provided in **Part 5 of this Appendix**, below. Many of the comments supported the general direction of the mud-map presented at the workshops. Generally speaking, support was shown for:

- Medium residential densities along Windsor Road;
- An open space corridor within flood-prone land along the Killarney Chain of Ponds to protect the environmental values of this area, which has little development potential. Include walking and cycling trails within this open space corridor;
- School located next to playing fields north of the Killarney Chain of Ponds;
- Larger lot sizes in the vicinity of the Killarney Chain of Ponds;
- Low density housing on the northern portion of the Precinct, particularly along Commercial/ Menin Roads to provide a transition into the rural character of the area outside the Precinct to the north; and
- Upgrade of Chapman Road and Boundary Roads to be raised above the 1:100 year flood level.

- In addition to the comments addressed in **Part 5 of this Appendix**, below, a number of general queries and comments were raised at the workshops which were addressed in Community Update 3 which was sent to landowners in November, 2014:
- Clarification on how flooding is identified and will be addressed;
- Future of the Vineyard Station;
- Changes to the Bandon Road corridor;
- Land use permissibility on land containing Existing Native Vegetation (ENV) and process to validate the presence of ENV in the Vineyard Precinct;
- Process of acquisition of land for public uses;
- The minimum number of dwellings required in the Precinct;
- Heritage items within the Precinct;
- Timeframe for development; and
- Impact of land values on rates and land tax.

### 3. Community Newsletters

The focus of the newsletters has been to keep the community informed about precinct planning. Three newsletters have been sent to landowners within the Precinct, as follows:

- Community Update 1 – 21 February, 2014
- Community Update 2 – 21 March, 2014
- Community Update 3 – 14 November, 2014

### 4. State agency and stakeholder consultation

The Department and Council have been partners throughout the precinct planning process, representing State and local government interests with government agencies and technical specialists through site visits, workshops and focus meetings.

State agency input to Precinct Planning is essential to achieving consistency with relevant legislation and the effective coordination of infrastructure and services provision. As the responsibilities of agencies are often inter-related, the Department has facilitated and coordinated agency input. Agencies have also reviewed various technical studies that address their areas of responsibility (refer to **Table 8**), and provided input to the development of the draft Stage 1 and 2 Precinct Plans, and proposed development controls.

**Table 8** Key Issues for State and Local Government Agencies

Issue	Agency
Chapman Road/ Bandon Road upgrade	RMS, Council
ILP design, land use, open space, heritage, water cycle management, social infrastructure and traffic issues	Council
Boundary Road upgrade and interface with the Box Hill Precinct	The Hills Shire Council
Timing of delivery of water and sewer services	Sydney Water
Electricity services	Endeavour Energy

These issues are discussed in detail in **Appendix D** of this Planning Report. Agency and stakeholder consultation will continue following the exhibition period, and the Minister for Planning and Environment will consult with relevant Ministers prior to finalising the Amendment to the Growth Centres SEPP.

### 5. Results of Community Consultation

The following map (**Figure 8**) was presented at landowner enquiry-by-design workshops in June, 2014. Feedback received is addressed in **Table 9**.

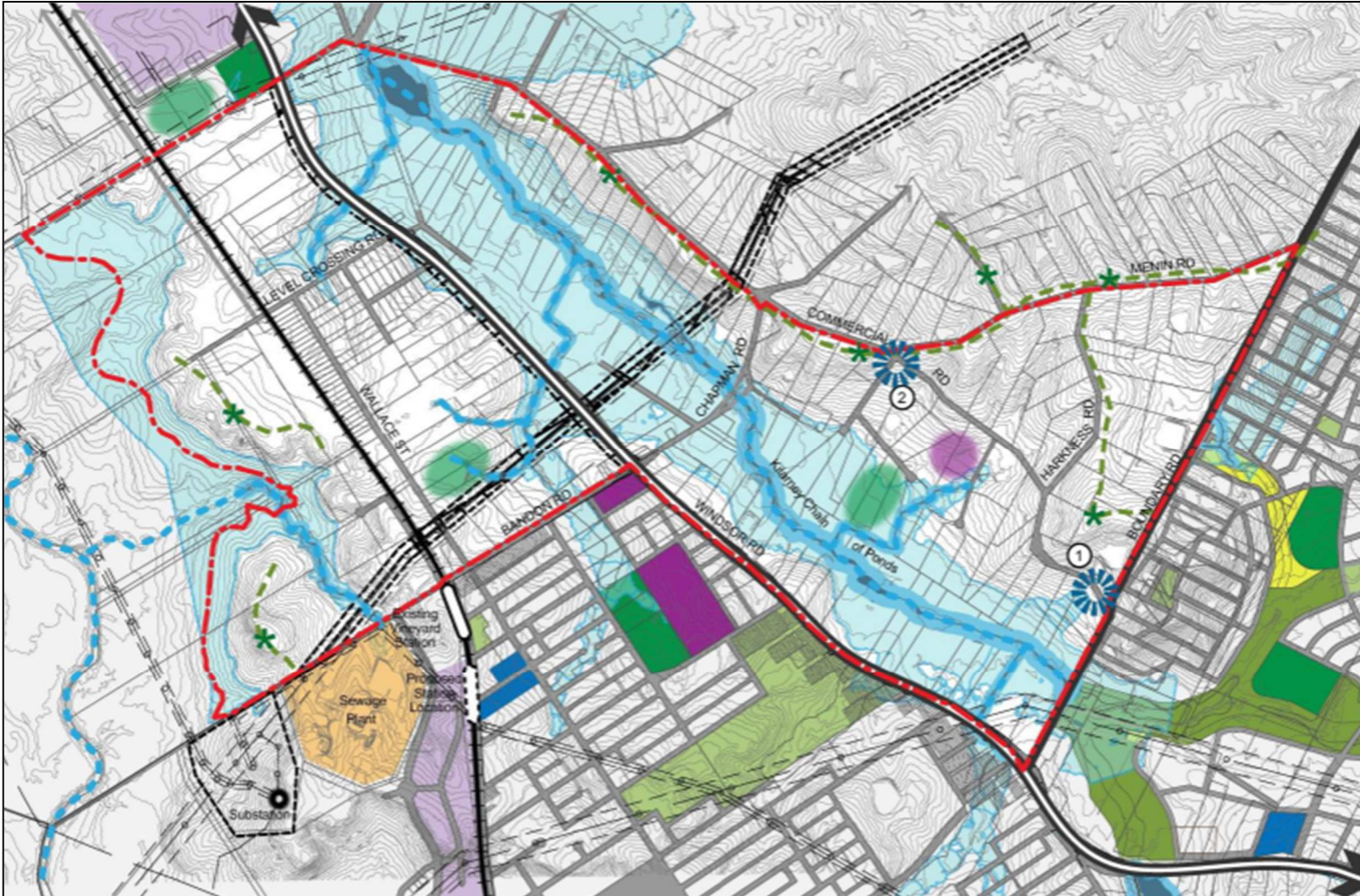


Figure 8 Mud Map of Constraints and Opportunities (Discussion Paper, June 2014)

**Table 9** Community feedback received at the Landowner Enquiry-by-Design Workshops

ILP Workshop Feedback	Response in draft ILP
<b>Planning Together</b>	
<ul style="list-style-type: none"> <li>• Important to have infrastructure ready prior to housing development</li> <li>• Ensure infrastructure (transport) is accessible</li> <li>• Continue transparent consultation with landowners</li> </ul>	<p>A staged rezoning approach has been adopted to ensure that future development can be supported by adequate infrastructure provisions.</p> <p>The proposed bus network builds upon the existing North West Priority Growth Area Bus Servicing Strategy and provides adequate access throughout the precinct. The bus services also provide links to the nearby rail stations being Vineyard, Schofields and Rouse Hill Stations.</p> <p>The Department will continue transparent consultation with landowners and will aim to incorporate community feedback in the updated ILP.</p>
<b>Liveable Community</b>	
<ul style="list-style-type: none"> <li>• Maintain the historical, aesthetic and natural values of the precinct</li> <li>• Provide affordable housing that is aligned with the character of the area</li> <li>• Manage traffic impact on road network</li> <li>• Improve public transport</li> <li>• Provide ample parking</li> </ul>	<p>The zoning and subdivision pattern has considered the existing natural and physical characteristics of the area. The environmental and aesthetic value of land in the vicinity of the Killarney Chain of Ponds will be protected through appropriate zoning controls. The Pitt Town Common House has been nominated for listing as items of environmental heritage in the Growth Centres SEPP. Any future development applications will be assessed in consideration of the heritage significance of these items.</p> <p>A range of housing types and densities will be permissible in the residential zones, which will contribute to improved housing affordability.</p> <p>Detailed traffic investigations have been undertaken for the Precinct to identify the traffic and transportation impacts of development within Vineyard and outline requirements for road or intersection upgrades.</p> <p>A network of accessible public transport, including regional and district bus services will be provided to the site, which provide access to the key nearby centres as well as railway stations.</p>
<b>Economic Prosperity</b>	
<ul style="list-style-type: none"> <li>• Locate shops/business close to housing and transport</li> <li>• Concerns of land conflict between existing rural businesses and new development</li> <li>• Create local jobs to avoid commuting and traffic</li> </ul>	<p>The proposed Village Centres is located at the intersection of Boundary and Commercial Roads with great access to the road network and bus services. The village centre is supported by medium density residential use.</p> <p>Land use and zoning provisions have been developed in consideration of the existing characteristics of the area. Any potential conflict with surrounding land use will be assessed at development application stage.</p> <p>The ILP envisages employment uses within the Village Centre. Further employment use will be accommodated in the nearby centres such as Rouse Hill, Marsden Park and Marsden Park Industrial precincts.</p>

ILP Workshop Feedback	Response in draft ILP
<b>Value the Environment</b>	
<ul style="list-style-type: none"> <li>Balance land for development with green space</li> <li>Land that is constrained or needs to be protected should be able to be used for benefit of the community</li> </ul>	<p>The environmental and aesthetic value of land surrounding the Killarney Chain of Ponds will be protected through appropriate zoning provisions. Land directly north of the Killarney Chain of Ponds will be dedicated as passive and active open space with playing fields, foot paths and cycleways. A large area of land south of the Killarney Chain of Ponds is affected by the 1 in 100 year flood. This area will be zoned E4 Environmental Living with limited development potential.</p>
<b>Roads</b>	
<ul style="list-style-type: none"> <li>Raise Chapman Road and Boundary Road to provide reliable emergency access to Windsor Road</li> <li>Retain semi-rural character of Windsor Road</li> <li>Existing Windsor/Boundary Road intersection will not cope with future traffic</li> </ul>	<p>It is understood that Windsor Road will have limited capacity to accommodate traffic from the Vineyard Precinct in a severe flood event. While traffic south of the Killarney Chain of Ponds will use Windsor Road as a flood evacuation route, residents north of Killarney Chain of Ponds will use Menin Road and then Boundary Road to the north towards Old Pitt Town Road.</p> <p>The semi-rural character of Windsor Road is aimed to be retained through environmental zoning provisions for the majority of land that is below in the 1 in 100 year flood level. Land above the 1 in 100 year flood level benefits from good road access and has potential for development as low density residential.</p> <p>Technical investigations indicate that the intersection of Windsor and Boundary Roads will operate satisfactorily.</p>
<b>Village Centre</b>	
<ul style="list-style-type: none"> <li>Village Centre at the intersection of Commercial and Menin Roads was identified by a number of stakeholders as the preferred location</li> <li>Concerns were raised regarding safe access to a Village Centre at the intersection of Commercial and Boundary Roads</li> </ul>	<p>The proposed location of the village centre was selected based on the likely residential catchment it will serve, and surrounded by medium density residential development. Access to the centre will be via Commercial Road only to minimise traffic movement conflicts and promote safe ingress/egress.</p>

**Appendix D** of this Planning Report provides further technical details on these issues and outcomes.

## Appendix D Specialist Studies and Draft Stage 1 ILP outcomes

Specialist studies provided baseline information and analysis to inform the preparation of the draft Stage 1 ILP. The following provides an overview of the investigations and recommendations from these specialist studies which are contained in the Precinct Planning Exhibition Package and are available on the Department's website [www.planning.nsw.gov.au](http://www.planning.nsw.gov.au).

**Table 10** Precinct Planning response to technical issues

Key issues	
Technical Study	Precinct Planning Response
<b>Land Capability and Contamination</b>	<p>The technical study indicates that the risk of contamination in the Precinct is generally considered to be low to moderate, with higher risk associated with certain commercial properties. These sites will require detailed site investigations and Hazardous Building Materials Survey of buildings constructed during or before 2003.</p> <p>In general, salinity and contamination risks in the Precinct are not expected to be severe enough to prevent rezoning or redevelopment of the Precinct. Areas within Stage 1 that are recommended for further assessment of contamination risk, or require measures to be implemented to address salinity are contained within the draft Vineyard DCP. Further investigations into salinity and land contamination will be required at the Development Application stage.</p>
<b>Biodiversity and Riparian Corridors Assessment</b>	<p><b>Relevant Biodiversity Certification Order conditions</b></p> <ul style="list-style-type: none"> <li>The draft Conservation Plan identifies 18.2 hectares of ENV to be retained within Stage 1 of the Vineyard Precinct to maintain parity with the 2,000 hectare requirement across the Growth Centres.</li> <li>An assessment undertaken by Eco Logical Australia considered existing ENV within Stage 1.</li> <li>Within Stage 1, 18.2 hectares of ENV would need to be retained under the draft Conservation Plan. A total of 15.3 hectares of ENV was validated on non-certified land; however 4.4 hectares of validated non-certified ENV is required to be cleared. An additional 1.6 hectares on certified land is able to be used as an offset and will become non-certified. As a result, a total of 12.5 hectares of ENV will be protected in non-certified areas using SP2, RE1 and E4 zones.</li> <li>Additional areas of ENV to be protected in currently certified areas will become non-certified land in an amended Biodiversity certification map under Schedule 7, Part 7 of the TSC Act 1995.</li> <li>Details are provided in the Biodiversity Consistency Reports in the appendix to this Planning Report.</li> </ul> <p>The draft Precinct Plan proposes the following management measures:</p> <ul style="list-style-type: none"> <li>Water quality and detention basins are located in areas of low conservation significance to minimise the loss of existing habitat across the site.</li> <li>Protection of ENV within riparian corridors and passive open space, the majority of which will be in public ownership, with multiple uses of the riparian corridors for open space purposes; the protection of a large area of ENV both north and south of the Killarney Chain of Ponds through E4 Environmental Living zoning.</li> <li>The protection of vegetation along the Killarney Chain of Ponds corridor for flooding, open space and drainage to provide a buffer to urban development. These areas contain vegetation remnants within the riparian corridors which are to be protected within the open space network.</li> <li>The riparian corridors and associated ENV will be contained within the RE1 Public Recreation and SP2 Infrastructure zones under the proposed SEPP Amendment. The Killarney Chain of Ponds is classified as a 4th order stream while other streams are generally of 2nd or 1st order status (refer to Water Cycle Management and Flooding, below, for further details in relation to riparian corridors).</li> </ul>

Key issues	
Technical Study	Precinct Planning Response
	<ul style="list-style-type: none"> <li>The Precinct Plan will establish a framework in which the condition of the vegetation within these corridors can be improved in the future with appropriate revegetation and rehabilitation, to allow the riparian corridors to function as natural creek systems. Provisions in the proposed SEPP amendment and the draft DCP will protect ENV through zoning, Riparian Protection Areas and Native Vegetation Protection controls.</li> </ul>
<b>Non-Indigenous Heritage</b>	<p>A number of items of non-indigenous heritage significance were identified within Stage 1. To mitigate impacts of future development on these items, the following measures have been proposed:</p> <p><b>Pitt Town Common</b></p> <ul style="list-style-type: none"> <li>The Common falls across a large area of land within Stage 1, bound by Boundary Road to the east and Commercial and Menin Roads to the north. To the south east the Common is bounded by the Killarney Chain of Ponds and to the south west, it is in close proximity to Windsor Road.</li> <li>AHMS recommended that the heritage of the Common should be recognised in the ILP and the cadastral boundaries and roads established by the subdivision of the Common in the late 19th and early 20th centuries should be retained in a form that is recognisable in the landscape, such as property boundaries, paths and roads.</li> <li>The recommendations are reflected on the draft Stage 1 ILP and DCP controls: <ul style="list-style-type: none"> <li>Low density residential development is proposed for the majority of this heritage significant land.</li> <li>The local road layout partly aligns with the significant historical property divisions as shown on the draft Stage 1 ILP.</li> </ul> </li> </ul> <p><b>Pitt Town Common House (52 Chapman Road)</b></p> <ul style="list-style-type: none"> <li>The house is located on Lot 47 DP 752050. Present evidence indicates that the house was built in the 1880s and given its probable age, the house is rare for the locality, where most extant development dates to the mid and late twentieth century.</li> <li>AHMS recommends that the entire lot should be nominated for listing as an item of environmental heritage in the Hawkesbury LEP and the SEPP.</li> <li>The following recommendations are reflected on the draft Stage 1 ILP, SEPP maps and DCP controls: <ul style="list-style-type: none"> <li>The site to be listed as a heritage item in the SEPP maps.</li> <li>The potential heritage impact of any development proposed for the property itself and surrounding roads and properties should be considered in the design and assessment stages, with the intention being to avoid and/or minimise impact where possible.</li> </ul> </li> </ul>
<b>Indigenous Heritage</b>	<p>The Indigenous Heritage assessment identified listed AHIMS sites as well as areas of varying degrees of probability of Aboriginal significance. Precinct planning has had regard for the listed sites and in particular areas of high probability which are largely located along the Killarney Chain of Ponds, to avoid disturbance of potential sites. It should be noted that due to limited site access, AHMS was not able to undertake testing in areas deemed to have potential for artefacts. Accordingly, the draft Precinct Plan has proposed to:</p> <ul style="list-style-type: none"> <li>preserve listed AHIMS sites for open space purposes where possible, such as adjacent to the Killarney Chain of Ponds;</li> <li>setback residential areas from areas of high probability for Aboriginal significance; and</li> <li>align major roads and drainage basins outside of areas of high probability for Aboriginal significance as much as possible.</li> </ul> <p>The assessment concluded that none of the identified Aboriginal heritage features would necessarily prevent development of the Precinct; however future development must avoid harm to Aboriginal objects where possible. In general, the following recommendations are made:</p> <ul style="list-style-type: none"> <li>avoid harm to Aboriginal objects where possible;</li> <li>apply for an Aboriginal Heritage Impact Permit (AHIP) for Aboriginal objects where harm cannot be avoided;</li> </ul>



Key issues	
Technical Study	Precinct Planning Response
	<ul style="list-style-type: none"> <li>mitigate harm to Aboriginal objects. This would be a particular requirement for sites or areas with high archaeological or cultural values. An AHIP would be required for mitigation activities; and</li> <li>implement ongoing management strategies for avoiding harm to Aboriginal objects.</li> </ul> <p>The technical study recommends that sub-surface excavation be implemented in areas of high, moderate/high and moderate archaeological potential, as mapped in the DCP, to characterise and assess the significance of any buried sub-surface cultural materials. Information on these deposits is currently uncertain, and any potential impact to these areas would require such investigations to ensure an AHIP could be obtained from OEH. Test excavations should focus on areas of potential impact, but also consider conservation areas if they are designated as such due to heritage values.</p>
<b>Bushfire Assessment</b>	<p>The draft ILP has been designed so that the majority of APZs fall within open space areas or over the adjoining road network to reduce the impact on development potential. The indicative road layout also places considerable weight on evacuation procedures with the implementation of perimeter roads and a well-connected road system that avoids dead end streets, where possible, with links to neighbouring areas and Precincts. Less sensitive land uses such as open space and drainage basins have also been included in the draft ILP in certain areas that are adjacent to existing and potential bush fire hazards.</p> <p>The development of the Precinct will occur progressively over a period of many years. This means that, over this period, bushfire risk will change as vegetation is cleared or reinstated. Consideration of bushfire risk will therefore need to respond to these changing conditions, and consider the particular risks to development sites at the time development is proposed, and with consideration of the current and future development potential of adjoining land.</p> <p>Measures for Bush Fire Risk Management are outlined in the draft DCP and will be required to be implemented during the development phase. As a minimum, this would include the preparation of a Bushfire Protection and Assessment Report in accordance with PBP 2006 to accompany development applications for subdivision on land identified as bush fire prone on the Hawkesbury Bush Fire Prone Land Map. For future development of individual dwellings, exemptions for the further consideration of bushfire requirements may apply, in accordance with recent changes to the Environmental Planning and Assessment Regulation.</p>
<b>Odour Assessment</b>	<p>A Level 2/3 odour assessment conducted for the Vineyard Precinct found that there are several odour sources that have potential to impact upon the proposed development area, being a mushroom production operation (located in Stage 2), a sewerage treatment plan (located outside of the Precinct) and several poultry farms (located outside the Precinct).</p> <p>The report highlights the potential land use conflicts between future urban uses and the existing odour-generating uses. It is important to note that:</p> <ul style="list-style-type: none"> <li>the entire North West Priority Growth Area was identified for urban development in 2005 and rezoning of surrounding Precincts has occurred over recent years;</li> <li>some of the odour-generating sources that were assessed during the Level 2/3 study are located outside of the Stage 1 Vineyard Precinct or in other Precincts that have been rezoned (Box Hill) while others in the unzoned stages will have the ability to redevelop over time, once rezoned; rezoning of the Vineyard Precinct will occur in stages to respond to servicing and market demand, which will ultimately provide existing operations with the opportunity to plan for their future; and</li> <li>while poultry farming may impact on residential amenity as the Precinct develops (particularly in the early stages of urbanisation), poultry farms within the North West Priority Growth Area are expected to cease operations progressively after rezoning. The specialist study assumed during the assessment that all poultry farms are in active operation and a standard separation distance was applied to all.</li> </ul> <p>The assessment acknowledges that the land in the Precinct will be rezoned predominantly for residential purposes and as a result, it is likely that the current odour sources would be progressively developed over time for urban development. As such, these odour sources need not be considered as permanent limiting factors for the development of the Precinct if appropriate mechanisms are available to inform future residents of the odour issue that is present within parts of the Precinct. The draft DCP includes advice to this effect, and requirements for additional investigations where necessary.</p>

Key issues	
Technical Study	Precinct Planning Response
<b>Noise Assessment</b>	<p>Three primary noise constraints for development within Stage 1 Vineyard Precinct were identified in the specialist assessment, with associated recommendations as follows:</p> <ul style="list-style-type: none"> <li>• Vineyard Hotel located at the intersection of Windsor Road and Boundary Road – land immediately surrounding the site should be considered for commercial use;</li> <li>• Future surrounding development in other Growth Centre precincts – Any proposed noise generating development along the western boundary of the Box Hill Precinct and common boundary of Riverstone Precinct should be reviewed.</li> <li>• Road traffic, particularly on the major road network (Windsor Road, Commercial Road, Chapman Road) – Use noise mitigation measures into building design of noise sensitive developments.</li> </ul> <p>The Noise Assessment has considered the traffic volumes on existing and proposed roads within and immediately surrounding the Precinct based on the Transport Assessment undertaken by ARUP (refer to the technical study for further information). The Stage 1 ILP proposes the following mitigation measures:</p> <p>Land in the vicinity of Vineyard Hotel is generally flood affected and is not suitable for commercial use. The land is separated from the surrounding residential areas by a riparian corridor running in a northeast-southwest direction. Adequate separation is also provided from the surrounding residential areas to the north, south and east through the provision of open spaces and roads.</p> <p>Surrounding land outside the Vineyard Precinct is predominantly residential and is not expected to constrain further residential zoning within the Vineyard Precinct. Any noise generating developments will be reviewed at a future DA stage.</p> <p>As it is not feasible to exclude noise sensitive development in the vicinity of the major road network, appropriate DCP controls have been adopted, requiring noise mitigation measures and acoustic treatments to dwellings.</p> <p>It is considered that as a result of these measures, the Vineyard Precinct is suitable for urban development and that appropriate noise mitigation measures are proposed that will balance the proposed land uses, and will be supplemented by the staged rezoning and subsequent development over time.</p>
<b>Social Infrastructure and Recreation</b>	<p>Elton Consulting undertook a Social Infrastructure Assessment for the Vineyard Precinct to identify the demand for social infrastructure by future residents such as active and passive open space, schools and community facilities.</p> <p><b>Open Space</b></p> <p>As identified in Elton's report, full development of the Vineyard Stage 1 Precinct will generate demand for:</p> <ul style="list-style-type: none"> <li>• approximately 21 ha of public open space;</li> <li>• 2 double playing fields;</li> <li>• provision of outdoor sports courts for tennis and netball in off-site complexes;</li> <li>• passive open space as per council's design requirements; and</li> <li>• linear open space along the creek corridor to provide walking and cycling trails that provide recreation opportunities and linkages to key destinations.</li> </ul> <p>Stage 1 will provide:</p> <ul style="list-style-type: none"> <li>• 16.1 ha of passive open space;</li> <li>• 8 ha of active open space;</li> <li>• 2 double playing fields; and</li> <li>• a linear open space along the Killarney Chain of Ponds providing north-south and east-west links within the precinct, with cycleways and other recreational opportunities.</li> </ul> <p>The above open space provisions are expected to meet demand generated from Stage 1 development of the Precinct. Additionally, the future population of Vineyard will rely on existing open space and recreation facilities in the wider district for access to regional open space and sporting and aquatic facilities.</p>

Key issues	
Technical Study	Precinct Planning Response
	<p><b>Community Facilities</b></p> <p>The Social Infrastructure Assessment identifies the following demand for community facilities based on the forecast population for Stage 1 of the Precinct:</p> <ul style="list-style-type: none"> <li>• A community centre of around 500 - 600m<sup>2</sup></li> <li>• A range of facilities to be provided by the commercial/ non-government sectors, as demand emerges and according to feasibility assessments. These facilities may include local cafes and informal meeting places, childcare centres and out of school care services, GPs and medical centres, Private schools, places of worship and residential and care facilities.</li> </ul> <p>Elton's analysis and the outcome of discussions with Hawkesbury Council identified that the western portion of the Precinct, which is outside the Stage 1 development area, would be a better location for a community centre. However, as there is not timeframe for the planning of the western portion of the Precinct, land is to be allocated within Stage 1 for a 'Social Infrastructure Facility' (6,000m<sup>2</sup>) which could contain a community centre.</p> <p>Access will also be required to district, sub-regional and regional level services in the wider area including:</p> <ul style="list-style-type: none"> <li>• higher order shopping and commercial services, to be provided in town centres in Riverstone, Area 20 and Rouse Hill;</li> <li>• public hospital services at Hawkesbury, Mount Druitt and Westmead Hospitals;</li> <li>• community health services in Hawkesbury and the in the longer term at Rouse Hill;</li> <li>• welfare and support services, primarily located in Riverstone, Hawkesbury, Mount Druitt and Rouse Hill;</li> <li>• emergency and safety services, existing or proposed, in adjacent Precincts; and</li> <li>• leisure and entertainment opportunities across the region, and particularly in nearby town centres.</li> </ul> <p><b>Education facilities</b></p> <p>Elton's analysis suggests that the Vineyard Precinct would generate demand for at least one new primary school.</p> <p>The Stage 1 area proposes an indicative location for a primary school site of approximately 2.8 ha. The school site in Stage 1 is proposed to be zoned for residential uses within which schools are also permitted uses. The zoning does therefore not preclude permitted land uses from developing; however a referral clause within the DCP will require a development application on potential school sites to be forwarded to the Department of Education prior to the consent authority making a determination.</p> <p>The Vineyard Social Infrastructure Assessment report does not consider the Precinct large enough to generate demand for a new high school. The Vineyard population can rely on spare capacity within Windsor High and Riverstone High in the short term and in the longer term will have access to new high schools in the Riverstone and Box Hill Precincts.</p>

Key issues	
Technical Study	Precinct Planning Response
<b>Traffic and Access</b>	<p>The results of the traffic modelling have informed the road classification, road capacity and intersection performance upgrades of the existing and future road network, taking into account the traffic volumes to be generated by the forecasted dwelling yield, residential densities and distributions, and retail and employment nodes.</p> <p>The draft Stage 1 ILP relies on a road network hierarchy to support the future land uses envisaged for the Precinct. This includes:</p> <ul style="list-style-type: none"> <li>• Windsor Road, a classified arterial road which will support the majority of traffic movements within Vineyard.</li> <li>• A number of existing internal roads to be upgraded/improved to form the framework for the higher order road network. These include Boundary Road, Bandon Road, Menin Road, Commercial Road and Chapman Road.</li> <li>• It should be noted that the Department of Planning and Environment, in collaboration with Transport for NSW is in the process of reviewing the North West Priority Growth Area Structure Plan 2006, with updated traffic modelling for the area being undertaken. The outcome of this work may influence the future role and classification of a number of roads in the Vineyard Precinct, particularly Boundary Road, Chapman Road, Commercial Road and Menin Road. Any change to the hierarchy of the road network as a result of the above process will require further review of the Vineyard Precinct Plan and associated technical studies.</li> <li>• Section 3.2 on this Planning Report discusses the higher order road network in more detail.</li> </ul> <p>The Precinct will be serviced by a number of bus routes which are proposed as part of the North West Sector Bus Servicing Plan. Bus stops, including associated amenities are recommended with a minimum spacing of 400m along the key regional routes such as Windsor Road and Commercial Road.</p> <p>Pedestrian connectivity will be improved across major roads through intersection upgrades and complementary controlled pedestrian crossing. The upgrade of the major road network will also include the provision of footpaths on both sides of the road carriageway in accordance with the standard road cross sections for the North West Priority Growth Area.</p> <p>The road upgrade works also include a number of dedicated bicycle routes, including shared pedestrian/cycle paths within minimum width of 3m for major roads, including Boundary Road and Commercial Road; and on-road cycleways (minimum 1.5m wide) recommended for roads with expected carrying capacity of less than 10,000 vehicles per day, providing connections to the regional bicycle network, including the existing shared path along Windsor Road. In addition, the ILP provides for opportunities for recreational cycle paths along the Killarney Chain of Ponds.</p>
<b>Water Cycle Management and Flood Management Strategy</b>	<p>The existing 100 year Average Recurrence Interval (ARI) flood depths and extents have been modelled and informed where development can occur and the size and location of drainage infrastructure that is required to enable urban development.</p> <p>The water cycle management strategy developed for the draft ILP adopts a trunk stormwater management approach. Water management areas are generally located at the lowest points in the catchment adjacent to the riparian corridor / flood prone land, with a detention basin being provided adjacent to the Killarney Chain of Ponds. Drainage flows from areas of low density residential will be managed via the road network, while flows from areas of medium density residential will be required to have their own on-site detention and water quality devices.</p> <p>The proposed water cycle management strategy has been designed to locate basins to detain as much of the catchments' runoff as possible to minimise the number of basins required; avoid existing vegetation and Aboriginal heritage sites, and maintain a natural creek flow continually through the Killarney Chain of Ponds.</p> <p>Detention basins have been designed through the hydrological analysis of the developed scenario to attenuate developed scenario flows back to existing for events ranging from the 2 – 100year ARI. In an attempt to maximise developable land the proposed detention basins have generally been located in areas that are outside local flooded areas but within regionally flooded areas. In the event of a regional flood from the Hawkesbury River the resultant runoff from the development is minute in comparison to the Hawkesbury river flooding, and the Vineyard runoff has little to no impact on flood levels.</p> <p>The Peak PMF flood even has been simulated in the proposed flood model. In the PMF event the precinct experiences backwater flooding from the greater Hawkesbury-Nepean catchment which further amplifies the impacts of flooding particularly on the lower regions of the site towards the First Ponds Creek/Windsor Road crossing. As Windsor Rd is cut off by severe flooding at FPC, safe refuge and evacuation is generally achieved to the south of the site in Riverstone. The regional SES flood evacuation plan governs the area however significant portion of the site remain unaffected by floodwaters and pedestrians should remain in these areas if possible. Properties along the Northern KCOP fringes that may be flood affected by the PMF event in the future will be able to safely evacuate to higher ground within the Vineyard</p>

Key issues	
Technical Study	Precinct Planning Response
	<p>Precinct. It is also recommended that any proposed new schools act as localised refuge points in times of flooding to reduce the risk of cars travelling along Windsor Road. Properties south of the KCOP that may be flood affected will be able to evacuate via Windsor Road.</p> <p>In the developed scenario, the construction of a road network and associated piped drainage structures will capture rainfall and runoff flows from the upper portions of the precinct catchments. In order to consolidate the proposed development layout and maximise the development potential of the precinct, minor flow paths and streams have been either:</p> <ul style="list-style-type: none"> <li>• realigned and channelized (where the existing stream-order of one applies); or</li> <li>• removed and replaced with formal drainage structures.</li> </ul> <p>Under existing conditions there are sections of the Killarney Chain of Ponds and its tributaries that have been significantly altered by agricultural/industrial works such that in some locations there is little to none discernible creek channel. In these areas the existing flooding is quite widespread, this is particularly evident in the tributaries where there has been significant manipulation to the existing floodplain with farm dams and pastures, here flood depths are generally quite shallow and an upgraded creek section is proposed to better manage nuisance water and floodwaters.</p> <p>Where existing riparian corridors exist these have been maintained and creek embellishment works proposed (these works are only proposed to 1st order streams). The existing classification has been maintained while the flows have been channelised. The result is a formal drainage channel with riparian offsets, better streamlined for configuration of developable areas.</p> <p>A continuous riparian corridor along the Killarney Chain of Ponds is identified on the draft ILP. The corridor is to be restored, revegetated and managed as a natural creek ecosystem, as well as providing a regional habitat function, passive recreation resource and scenic outlook within the Precinct. The majority of native remnant vegetation exists within the riparian corridors and will be retained and regenerated. The waterways will also accommodate water quality, flood management and ecological functions. By integrating these lands into the public domain, environmental and social objectives of Precinct Planning can be met and more consistent outcomes for the riparian corridors can be achieved.</p> <p>The riparian corridor is proposed to be brought into public ownership progressively as rezoning occurs, as part of the open space network and drainage lands. These are linked by pedestrian and cycling routes that follow the major internal road network. The connections will form part of the overall open space network and will provide green links through Stage 1 and will contribute to the total open space calculation for the Precinct.</p> <p>Changes to the ability of Councils to collect contributions under Section 94 of the EP&amp;A Act were announced by the NSW Government in October 2007. Under the changes, Council can no longer levy for Section 94 contributions to cover the cost of purchase of land and works to conserve riparian zones, as a mechanism for managing these corridors under the Water Management Act 2000. Where riparian lands serve a function that is able to be levied for under Section 94 (such as open space, pedestrian/cycle links or drainage), Council can utilise Section 94 funds to bring these lands into public ownership. The planning response to riparian corridors for the Precinct has been to locate some other elements of the public domain along key riparian corridors, to enable public uses that are compatible with the water quality, drainage, ecology and soil conservation functions of riparian zones.</p>

Key issues	
Technical Study	Precinct Planning Response
<p><b>Infrastructure Services and Staging</b></p>	<p>At present infrastructure in the Precinct is only provided to a rural standard and is not suitable for urban development. The Infrastructure Precinct Planning Report prepared by Mott MacDonald outlines local and regional level drinking water, sewerage, electricity and gas infrastructure required to meet the needs of the new community as well as an early activation sub-precinct based on the likely timing and staging of development, and delivery mechanisms.</p> <p>Servicing the Precinct will require investment by Government in water, sewer, electricity, road infrastructure and public transport. The Department has worked with infrastructure providers to ensure that the delivery of essential infrastructure will match demand from development. In particular:</p> <ul style="list-style-type: none"> <li>• drinking water and sewer infrastructure will be delivered in stages in accordance with Sydney Water's long term servicing strategy;</li> <li>• the Precinct will be serviced with electricity and gas to meet demand; and</li> <li>• Windsor Road was upgraded in 2006 to a 1 in 500 year flood planning level.</li> </ul> <p>The Stage 1 area (described as the early activation precinct) is based on the expected delivery of infrastructure from 2015, as described below. Initially, the combined delivery of services will have capacity for up to 500 lots with additional dwellings to have access to services as they are delivered:</p> <ul style="list-style-type: none"> <li>• the early activation precinct is driven by the delivery of water and sewer infrastructure from 2015, with some parts within Stage 1 likely to have access to services in 2018. The delivery of trunk sewer infrastructure from 2015 will service up to 900 low density residential lots, aligning with the water supply capacity as available;</li> <li>• limited electricity capacity from the Riverstone zone substation via new feeders will be available to service up to an additional 400 lots;</li> <li>• the Stage 1 area will have access to gas services for up to 800-1,000 lots. Beyond this, two secondary mains extended from the feeder mains would be required to service any new developments; and</li> <li>• sufficient capacity within the existing telecommunications conduit will satisfy demand within the early activation sub-precinct. Demand will ultimately drive the installation of telecommunication lines to development areas, to be installed within new public road reservations or as part of upgrades to existing roads.</li> </ul> <p>The balance of the Precinct is dependent on the delivery or augmentation of services before development can occur. The balance of the Precinct will be serviced in response to market demand. The Department will monitor the take-up of land for development in consultation with Hawkesbury City Council and the utility agencies to ensure that the rezoning of land occurs in a coordinated manner with services being available to meet demand.</p> <p>Based on the above programming of all utility infrastructure, it is proposed to rezone the Precinct in the order proposed, with Stage 1 to be rezoned first, and Stage 2 to be rezoned subject to the delivery of services and market demand being present.</p> <p><b>Infrastructure Delivery Plan</b></p> <p>The proposed rezoning sequence has been determined with the following in mind:</p> <ul style="list-style-type: none"> <li>• the delivery of roads will be largely influenced by the rate of development. For roads identified in the Section 94 Contributions Plan, delivery will be determined by the demand generated by development and the availability of Section 94 Contributions that Council will collect from development activity;</li> <li>• the delivery of drainage basins will also be largely influenced by the rate of development; the Stage 1 boundary is based on drainage catchments to ensure that urban runoff is managed through the road network, basins and water quality devices. Council will determine when land will be acquired for drainage purposes as demand arises and Section 94 funds become available;</li> <li>• rezoning of the balance of the Precinct will be undertaken as infrastructure delivery occurs and demand for land by the market exists.</li> </ul>

Key issues	
Technical Study	Precinct Planning Response
<b>Housing Analysis</b>	<p>The North West Priority Growth Area Structure Plan 2005 indicates potential for some 2,500 dwellings within the total Vineyard Precinct. Technical investigations indicate that Stage 1 of the precinct has capacity for 2,400 dwellings of low and medium density forms.</p> <p>Precinct planning has determined the distribution and mix of residential areas in Stage 1 based on an analysis of opportunities and constraints as well as the demographic assessment carried out as part of the technical investigation. Generally, a mix of housing types and sizes will be permissible throughout Stage 1 to create housing choice for a wide range of buyers or renters, and to encourage a diverse community. The planning controls will be flexible to enable the range of housing types to suit the needs of the market.</p> <p>The majority of the land in Stage 1 is proposed to contain low and medium density residential development. The typical density of housing in low density areas (R2 Zone) will be at least 15 dwellings per hectare up to a maximum of 18 dwellings per hectare, resulting in lots between 450 and 650 square metres, which is typical of many urban growth areas in Sydney. The minimum lot size in this density range is 250 square metres to encourage diverse and affordable housing options. A density range of 20-30 dwellings per hectare is proposed in the R3 medium density zone will permit a smaller housing product on varying lot sizes.</p> <p>The distribution of residential areas is generally based on the following principles:</p> <ul style="list-style-type: none"> <li>• low residential densities across the balance of the stage; and</li> <li>• medium residential densities in proximity to the proposed village centre, school, open space and collector roads.</li> </ul> <p>The Housing Analysis Report concludes demand for medium density housing at 15% of total dwellings and demand for low density housing at 85% of total housing. The split proposed in the ILP is approximately 12% medium density and 88% low density.</p> <p>Feedback from the community workshops indicated preference for medium density residential to be concentrated around the Village Centre and near the rail station on the Richmond Line. The community workshops also provided feedback on the preferred use of land that is constrained by flooding, topography and infrastructure easements. The community suggested that these areas be zoned for large lot, very low density residential development. The draft ILP generally proposes R2 Low Density Residential and E4 Environmental Living in these constrained areas (with the exception of flood-prone land to be zoned for public recreation and drainage purposes).</p>
<b>Economic and Employment</b>	<p>An assessment of the retail floor space demand in the Precinct was undertaken by SGS, and consideration of the hierarchy of centres in the Structure Plan has led to the identification of demand of a Village Centre within the Vineyard Precinct.</p> <p>Consideration was given to whether employment uses would be required within the Precinct based on the planned or available employment uses elsewhere in the North West Priority Growth Area and surrounding region. It was found that demand would exist for employment across a range of industries including local light industrial and urban support (wholesale trade; transport, postal and warehousing; construction; manufacturing; and other services) and retail main street functions (retail trade; administrative and support services; and other services).</p> <p>SGS advised that the Precinct, when fully developed, can support a small neighbourhood centre retail floor space of around 1500 square metres GFA on a site area of approximately 6,600 square metres, including allowances for car parking and employment uses. A retail centre is proposed in Stage 1 at the junction of Commercial and Boundary Roads on a 8,000 square metre site. This site is capable of achieving 2,000 square metres of retail floor space (gross floor area) and will be capable of accommodating a variety of uses including a small supermarket and small-scale neighbourhood services as a result of the 0.4:1 floor space control set out in the Floor Space Ratio Map. The neighbourhood centre will provide for retail and non-retail uses, as well as car parking.</p> <p>SGS's employment demand assessment suggested that around 500 population-driven jobs will be required to service the future population of Vineyard, but only 460 jobs will require additional floor space. In relation to demand for employment uses, the report concluded that demand for employment use is most appropriate within retail main street functions, ie. within the neighbourhood centre. The balance of jobs may be provided as home occupations.</p>