# Development Application
## Statement of Environmental Effects

# Jordan Springs Village – St Marys
## Medium Density and Mixed Use Development
Submitted to Penrith City Council
On Behalf of CID Group

March 2014 ■ 13395

JBA Urban Planning Consultants Pty Ltd ABN 84 060 735 104 w jbaplanning.com.au
North Sydney t +61 2 9956 6962 ■ Newcastle t +61 2 4927 0980

JBA Urban Planning Consultants Pty Ltd operates under a Quality Management System. This report has been prepared and reviewed in accordance with that system. If the report is not signed below, it is a preliminary draft.

This report has been prepared by:

Amanda Harvey 18/03/2014

This report has been reviewed by:

Andrew Duggan 18/03/2014

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# 1.0 Introduction

This Statement of Environmental Effects (SEE) is submitted to Penrith City Council (Council) support of a Development Application (DA) for a Medium Density and Mixed Use Development at Jordan Springs Village in St Marys.

This SEE is to be read in conjunction with several other comprehensive DAs that have either been approved or are being assessed by Council which relate to various components of the staged development of the Western Precinct. For ease of reference, the information and details contained within these DAs (including background, context and framework to the development of the Western Precinct) and are assumed to be known, with specific references made in this report where necessary. These DAs are summarised in Section 1.1 below.

The DA seeks approval for:

- site preparation, including tree removal and earthworks;
- construction 69 medium density dwellings;
- construction of a mixed use development comprising 160 residential flat units within 4 separate buildings, retail floor space and associated basement car parking areas;
- community title subdivision of the site;
- provision of associated landscaping and public domain improvements, including street trees; and
- provision of associated service and stormwater infrastructure.

The SEE has been prepared by JBA on behalf of CID Group and is based on the Architectural Drawings provided by ZTA Architects and Blue Print (see **Appendix A**) and other supporting technical information appended to the report (see Table of Contents). The report should also be read in conjunction with the Western Precinct Plan (WPP), which was adopted by the Council on 23 March 2009.

This report describes the site, its environs, the proposed development, and provides an assessment of the environmental impacts and identifies the steps to be taken to protect or lessen the potential impacts on the environment. Within this report, references to "the site" mean the land to which this DA relates.

The Capital Investment Value of the proposed development is greater than $20 million. In this regard and in accordance with State Environmental Planning Policy (Regional and State Development) 2011, the consent authority for the Development Application will be the Sydney West Joint Regional Planning Panel (JRPP). A copy of the Quantity Surveyors (QS) certificate is included with the DA form submitted with this report.

Capital Investment Value is defined in the Environmental Planning and Assessment Regulation 2000 as the value:

*"of a development or project includes all costs necessary to establish and operate the project, including the design and construction of buildings, structures, associated infrastructure and fixed or mobile plant and equipment, other than the following costs:*

*(a) amounts payable, or the cost of land dedicated or any other benefit provided, under a condition imposed under Division 6 or 6A of Part 4 of the Act or a planning agreement under that Division,*

*(b) costs relating to any part of the development or project that is the subject of a separate development consent or project approval,*

*(c) land costs (including any costs of marketing and selling land),*

*(d) GST (within the meaning of A New Tax System (Goods and Services Tax) Act 1999 of the Commonwealth)."*

## 1.1 Concurrences and Referrals

Clause 44 of SREP 30 applies to land adjacent to the Regional Park. Given the proposal involves the subdivision of land which abuts the Regional Park, referral of this DA to the Director-General of National Parks and Wildlife for comment is required.

The proposed development is also 'integrated development' in accordance with section 91 of the EP&A Act. Therefore in addition to development consent, the development requires:

- A bushfire safety authority issued by the Commissioner of the Rural fire Service, in accordance with section 100B of the *Rural Fires Act 1997*; and
- A controlled activity permit issued by the NSW Office of Water, in accordance with section 91 of the *Water Management Act 2000*.

## 1.2 Pre-Lodgement Meetings with Council

A pre-lodgement meeting in relation to the proposed development was held with Council on 31 October 2013. Subsequent to this the proposal was reviewed by Council's Urban Design Review Panel (UDRP) on 20 November 2013.

Issues raised at these meetings have been considered in preparing the proposal and are addressed in this report.

Taking into account Council's and the UDRP recommendations made in these meetings, alterations have been made to the original proposed schemes presented to the Council. Key amendments that are now incorporated and proposed include:

- alterations to the configuration of the public domain interface between the main street of Jordan Springs and the proposed piazza area;
- removal of designated off street car parking spaces adjacent to the Road 1 and the mixed use component of the development;
- the location and alignment of Road 1 to then create Road 2 to reduce the length of Road 1;
- ensuring the public domain works contribute and complement those works along the northern sections of the Jordan Springs town centre; and
- removal of the communal outdoor open space area to the west of Building D, given that sufficient public open space is in close proximity to the site (including the Lake and the Regional Park) and that the piazza will also serve to provide new open space.

It should be noted that Building E that formed part of the original design for the development is still the subject of design work and will the subject of a future and separate development application.

## 1.3 Background

### St Marys site

The former Australian Defence Industries (ADI) site at St Marys (St Marys site) was endorsed by the NSW Government for inclusion on the Urban Development Program (UDP) in 1993. With a total site area of 1,545ha, the St Marys site is located approximately 45km west of the Sydney CBD, 5km north-east of the Penrith City Centre and 15km west of the Blacktown City Centre. Refer to **Figure 1**.

Since 1993 (over 18 years) the St Marys Site has been earmarked to provide housing for Sydney's growing population within an environmentally sustainable framework. Development of the site has been underway since 2004.

Following the St Marys site's inclusion on the UDP in 1993, it was agreed between Blacktown and Penrith Councils (as the relevant local government authorities for the land) and the State Government that any rezoning of the St Marys site for urban development would occur via a Sydney Regional Environmental Plan (SREP) process.

Prior to preparing the SREP, in accordance with the provisions of the *Environmental Planning Assessment Act 1979*, a Regional Environmental Study (RES) was first prepared.

The time between 1994 and 2000 reflects a period in which numerous and extensive investigations were undertaken into the environmental values and development capacity of the St Marys site. This period also involved input and consultation with Penrith and Blacktown Councils, relevant state agencies, and the general public.

The first significant body of work involved preparing the Regional Environmental Study. The RES for the St Marys site, which investigated the key planning issues of biodiversity, Aboriginal heritage, decontamination, total water cycle management, transport, urban form, air quality, and business/employment development, was exhibited for public comment in October 1995, and finalised in May 1996.

The RES concluded that the St Marys site was suitable for some urban development subject to further assessment.

The further assessments and investigations included Aboriginal heritage, biodiversity, and flooding. This additional information helped inform the joint State and local government Section 22 committee formed at the time (under the EP&A Act) to determine areas across the St Marys site which should be conserved for biodiversity and Aboriginal heritage purposes and areas suitable for urban development.

Following the preparation of additional studies and management plans and further consultation with State and local government and the general public, the SREP and accompanying Environmental Planning Strategy (EPS) for the St Marys site were finally made in 2001.

The gazettal of the SREP formally set in motion the achievement of sustainable development outcomes at the St Marys site.

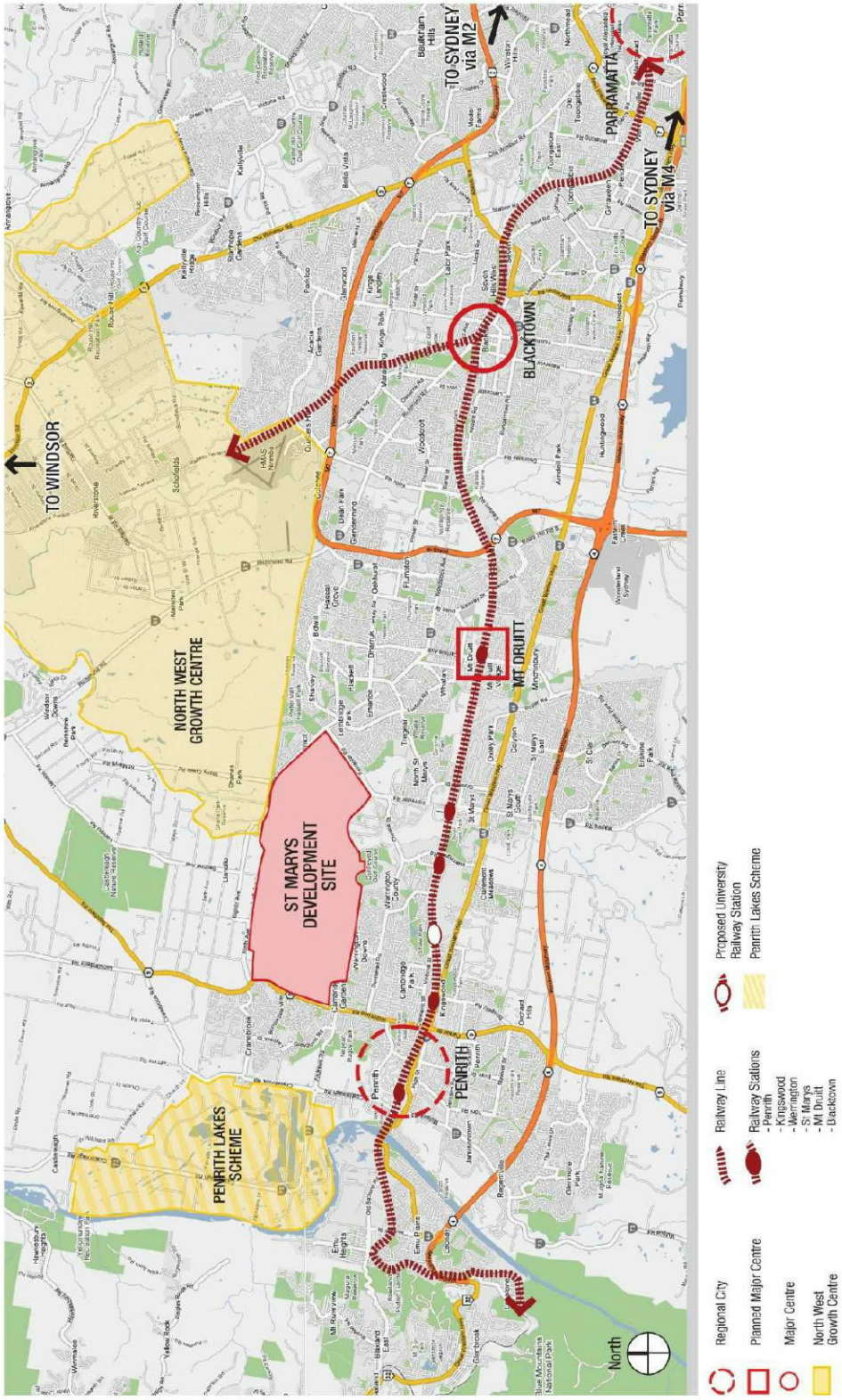


**Figure 1 –** Overall St Marys site location plan

## Sydney Regional Environmental Plan No 30 – St Marys (SREP 30)

SREP 30 is the main statutory planning framework document for the St Marys site. It contains planning principles, objectives, zoning and other provisions to control development.

At the time of the SREP's original gazettal, the planning strategy for development of the St Marys site included:

- Establishing a 630 hectare regional park;
- Dedicating 48 hectares of regional open space for parks and passive and active recreation areas; and
- Developing approximately 730 hectares of land for urban uses.

There have subsequently been two amendments to SREP 30, most noteworthy (from a biodiversity conservation perspective) was the increase in the area zoned for Regional Park (reflecting the Commonwealth Government's decision to conserve all land listed by the Australian Heritage Commission on the Register of the National Estate). This particular amendment resulted in the protection of a further 220 hectares of Cumberland Plain Woodland (bringing the area of land zoned as Regional Park to nearly 900 hectares), and conversely reduced the development potential of the St Marys site (from providing around 8,000 dwellings to now providing around 4,900 dwellings).

The land set aside for urban development (outside of the future 900ha Regional Park) is included within one of six (6) development precincts established under SREP 30 (refer to **Figure 2**). The subject site is located within one of the development precincts, referred to as the Western Precinct (or now more commonly known as Jordan Springs).

Prior to consent being able to be granted for development within a precinct, SREP 30 requires that the Minister first declare land as a release area, and following this a Precinct Plan is prepared and adopted for the precinct. In this regard, the Western (and Central) Precinct were declared release areas by the then Minister for Planning on 29 September 2006. These releases follow earlier declarations from the Minister for the release of other precincts, including the Eastern, North Dunheved and South Dunheved Precincts.


**Figure 2 –** Overall site plan of St Marys

## The Western Precinct Plan and DCS

Upon gazettal of Amendment No. 2 of SREP 30 in February 2009, the Western Precinct was wholly zoned Urban. Land zoned Urban is intended to primarily accommodate residential uses, with some limited non-residential development, such as local retail and commercial uses. The Western Precinct Plan (WPP) and accompanying Development Control Strategy (DCS) have been prepared and were adopted by the Council at its ordinary meeting on 23 March 2009. These are to guide the future development of the Western Precinct/Jordan Springs.

The WPP illustrates the manner in which the Western Precinct (Jordan Springs) is to be developed. A copy of the approved overall Framework Plan which sets the direction for the development of the precinct is reproduced at **Figure 3**.

As illustrated in the Framework Plan, the proposed development of the Western Precinct/Jordan Springs entails:

- a Village Centre, comprising a mix of retail, commercial, community, open space and residential uses, in the southern part of the precinct;
- predominantly residential development in the remainder of the precinct;
- construction of roads, including external connections to The Northern Road and Ninth Avenue and east to the Central Precinct; and
- provision of local open space, riparian corridors and stormwater basins.

It is anticipated that once fully developed Jordan Springs will accommodate some 3,000 dwellings with a residential population in the order of 6,500.

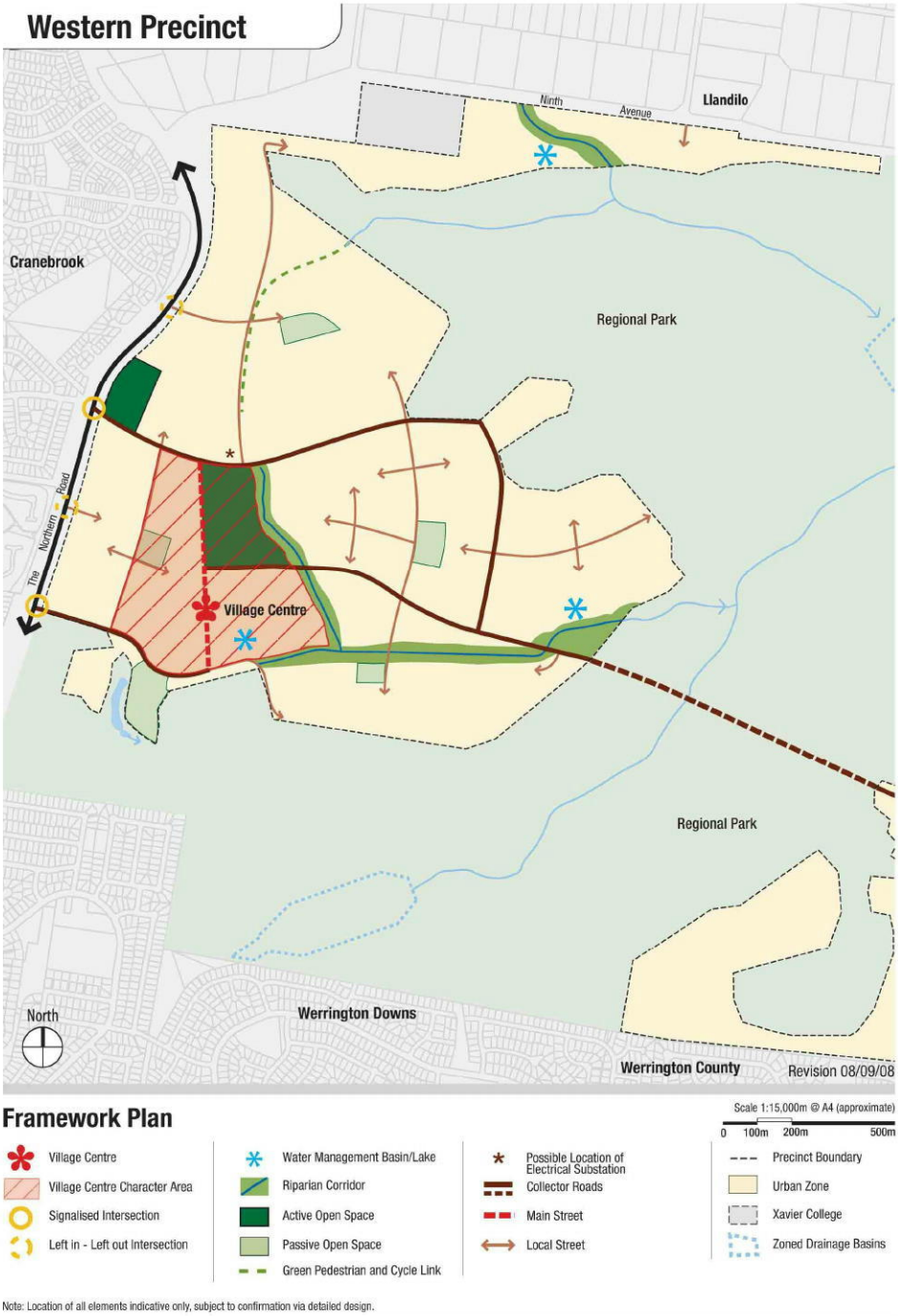


**Figure 3 –** Western Precinct Framework Plan

## Status of Development

A significant amount of development across a number of the St Marys development precincts (including the Western Precinct/Jordan Springs) has occurred to date and is underway. At the time of this Report, the development status of the main components of the broader St Marys project being delivered under the approved planning and implementation framework is as follows:

- The Project is home to 1,200 people;
- 950 residential allotments have been developed, 481 homes are occupied and a further 150 are under construction;
- A Village Centre comprising a supermarket, speciality stores and commercial premises has been built;
- A Catholic Secondary College and local Primary School have been built and are operating;
- A $3.7m Community Resource Hub, that caters to local residents' social, recreational, community health and education needs has been built and opened for use by the community;
- $3.7m Oval comprising a flood-lit and irrigated multi-purpose playing field, two tennis courts and two basketball/netball courts, along with parking, amenities, playgrounds, picnic and barbecue facilities has been constructed;
- Eight (8) parks and playgrounds have been constructed and are open to the public;
- The Project Skilling and Employment Centre, which brings together jobseekers and employers by identifying local employment opportunities has assisted 2,200 people to find jobs;
- The transfer of ownership and management of the Regional Park to the NSW NPWS has commenced, with 70 hectares of land transferred and capital improvement contributions totalling $1.3m paid to date;
- External road infrastructure is being progressively delivered;
- 38 affordable housing allotments have been, or are in the process of being, transferred to the NSW Government (Centre for Affordable Housing) at no cost to Government as part of the State Development Agreement contributions package;
- The Project has been selected by the Commonwealth Government for receipt of infrastructure finance of $8.7m to facilitate delivery of 490 allotments under the Housing Affordability Programme – 450 allotments have been delivered under the Programme to date; and
- $230m development expenditure on infrastructure, works facilities and services.

## Drainage Channel Development Application

On 16 January 2014, Lend Lease submitted a development application to Council for the construction and embellishment of the drainage basin that will be situated directly to the south of the site. The works include construction of a stormwater channel, associated civil works, including earthworks and tree removal and landscape embellishment works.

In preparing the subject DA consideration has been given to the scope and relationship of works to be undertaken by Lend Lease. This is particularly relevant to the proposed stormwater drainage works proposed by the subject DA.

## Previous DAs

This DA must be considered within the context of the other key DA's for Jordan Springs already lodged, proposed to be lodged to or approved by Penrith City Council. Of particular importance to the subject DA are the following:

- construction of the Sales and Information Centre – DA 09/1317
- subdivision that connects with Main Street - DA 10/0208
- the town Square, main street, and southern entry boulevard landscaping and embellishment DA - DA10/0680
- Village Lake DA/EIS - DA10/0851
- Woolworths shopping centre and associated at grade car park
- Mixed use development (north of the sales and info building)

## Commonwealth Approvals

The Commonwealth environmental assessment of the development of the St Marys site was completed under the (now repealed) *Commonwealth Environment Protection (Impact of Proposals) Act 1974* (EPIP Act) with certification provided under the *Environmental Reform (Consequential Provisions) Act 1999*.

As the St Marys project as a whole was assessed under the EPIP Act, no further assessment in relation to Commonwealth threatened species and ecological communities is required under the *Environment Protection & Biodiversity Conservation Act 1999*.

In addition, the development of the St Marys site has been assessed by the Australian Heritage Commission pursuant to the requirements of the *Australian Heritage Commission Act 1975*.

# 2.0 Site Analysis

## 2.1 Site Location and Context

The site more broadly forms part of the Western Precinct, or Jordan Springs as it is more commonly now known. The two terms are used interchangeably within this SEE.

The Western Precinct is one of six (6) development precincts earmarked for urban development under SREP 30 for the St Marys site, with the remaining majority of the St Marys site set aside for conservation purposes through the establishment, protection and management of a 900ha Regional Park.

The site is located within the southern portion of Jordan Springs and adjoins the Regional Park and south of Stage 1 of the precinct. A Location Plan of the site in the context of Jordan Springs and the 900ha Regional Park is provided below at **Figure 4**. The site is irregular in shape and located approximately 200m to the east of The Northern Road.

The site is approximately 5km north-east of the Penrith City Centre and 12 km west of the Blacktown City Centre. The Great Western Highway is located another 1 kilometre south and the M4 Motorway a further 1.5 kilometres south.

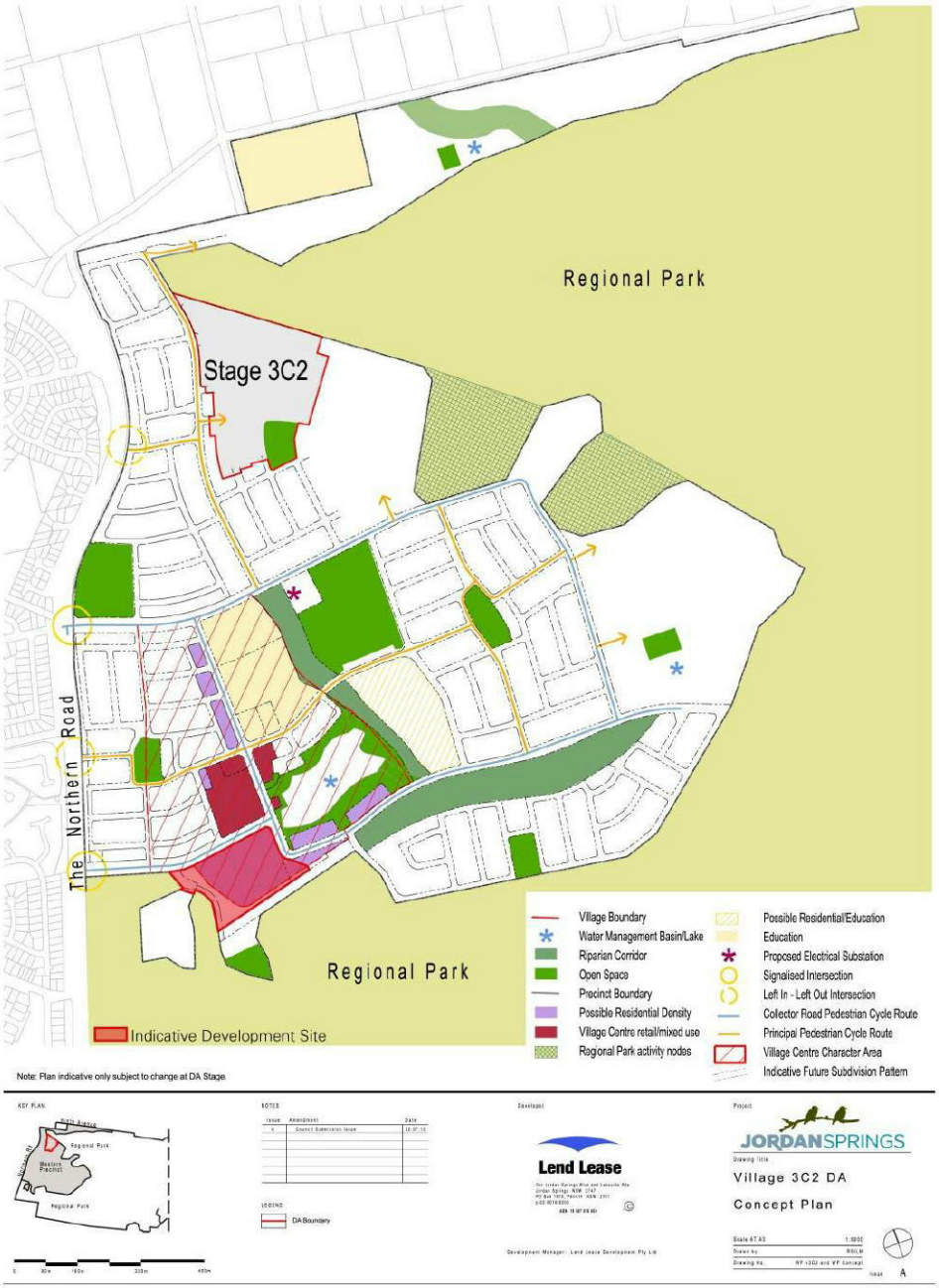


**Figure 4** – Jordan Springs Village Concept Plan

## 2.2 Ownership & Legal Description

The site is owned by St Marys Land Limited and is being developed by CID Group the applicants for the proposed development application.

The extent of site is illustrated in **Figure 5** below and is legally described as:

- Lot 3991 in DP 1190132
- Lot 3989 in DP 1190132
- Part Lot 3990 in DP 1190132

Deposited Plan 1190132 was registered with Property and Land Titles on 15 January 2014. A copy of a recent Site Survey prepared by Lawrence Group is included at **Appendix B** and the current DP Plan and Section 88B instrument for DP 1190132 is included with the proposed Subdivision Plans at **Appendix C**.

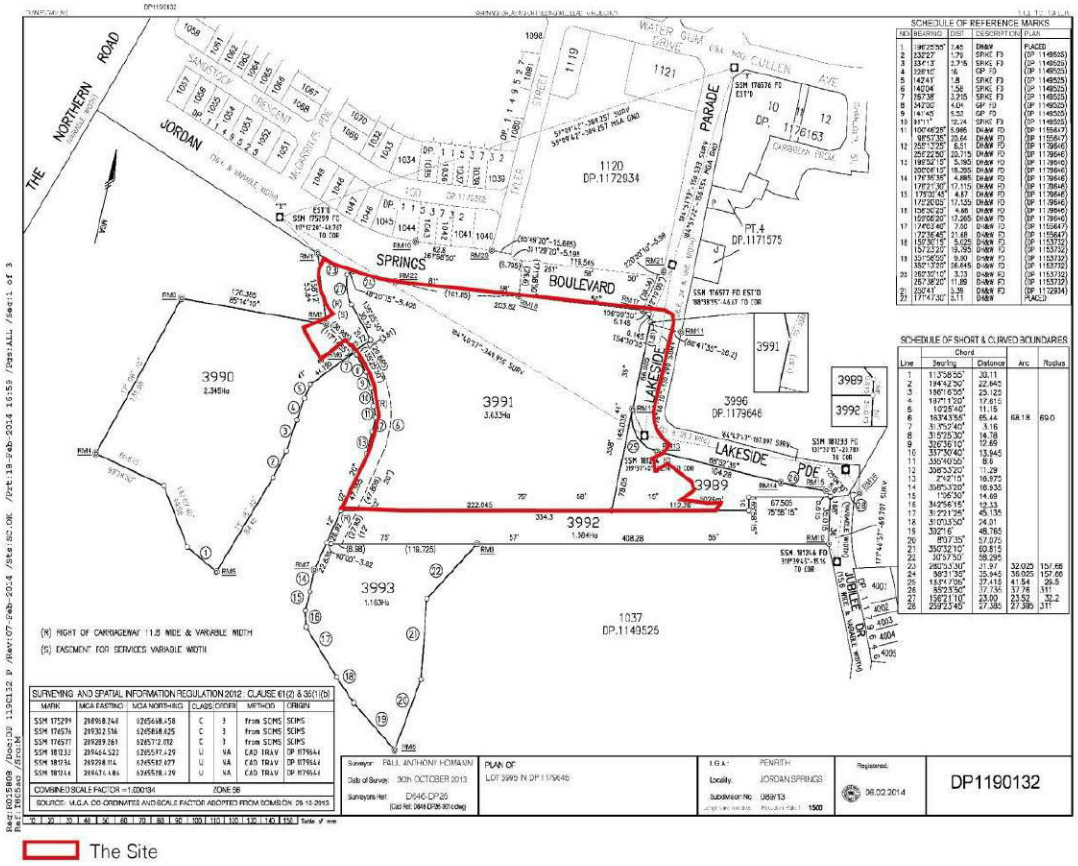


**Figure 3 –** Site Plan

## 2.3 Existing site conditions

The site comprises cleared pasture with stands of trees and scattered vegetation. The land slopes from the north-west corner to the south-east portions of the site. There are also drainage lines/depressions located across the site. **Appendix B** includes Site Survey, which provides further details.

### 2.3.1 Flora and Fauna

Flora and fauna within the Western Precinct (including the site) has been well documented in numerous Ecological Assessments and Surveys undertaken in support of the development of the St Marys site, the Western Precinct as a whole (chiefly the Western Precinct Biodiversity Assessment) and more specifically in relation to the various development stages and works to date. These assessments have been completed by numerous consultants representing a large variety of agencies and organisations under both Federal and State processes over a prolonged period.

Cumberland Ecology has assessed the impact of the proposed development on the flora and fauna species and ecological communities located within the site and concluded that a precautionary Species Impact Statement is required for the subject species.

A Species Impact Statement (SIS) has therefore been prepared by Cumberland Ecology (see **Appendix D**) in accordance with the *Threatened Species Conservation Act 1995* and the requirements of the Director General of the Department of Premier and Cabinet (Office of Environment and Heritage). It should be noted that the extent to which this assessment has been carried out extends beyond the boundaries of the proposed development site.

An overview of the flora and fauna species and ecological communities documented within the SIS to be present on the subject site (and Western Precinct more broadly) is provided below. Details of the other assessments are appropriately referenced and documented.

#### Flora

The plant communities that predominantly occur on the subject site include patches of regenerating Cumberland Plain Woodland (CPW) and poor quality (exotic dominated) grassland which is derived from past historic clearing of CPW (refer to as 'derived native grassland'). There are minor occurrences of three other communities on the subject site, being River flat Eucalypt Forest (RFEF), planted (non-indigenous) trees, and freshwater wetlands.

CPW (which includes derived native grasslands) is listed as a 'Critically Endangered Ecological Community' (CEEC) under the *Threatened Species Conservation Act 1995* (TSC Act). RFEF and Freshwater Wetlands are listed as Endangered Ecological Communities (EEC) under the TSC Act.

A small number of threatened flora species are present within the Western Precinct, including *Grevillea juniperina* subsp. *juniperina, Pimelea spicata*, and *Pultenaea parviflora*. Other threatened flora species have been recorded in close proximity to the Western Precinct, including M*arsdenia viridiflora subsp. viridiflora*. None of these species are within the site or on land adjacent to the site.

Mature Cumberland Plain Woodland (CPW)
Mature CPW refers to well established vegetation that typify CPW. It generally contains a higher diversity of native species and is generally more intact structurally than CPW elsewhere in the Western Precinct.

A patch of mature CPW is present along the wester to south-western section of the site and extends southwards into the adjacent Regional Park.

Regenerating Cumberland Plain Woodland (CPW)
Regenerating CPW refers to both the regeneration of sapling and juvenile *Eucalyptus moluccana* (Grey Box) and also the generally reduced diversity of native ground cover species that typify CPW, being a grassy open woodland community. In terms of the subject site regenerating CPW occurs mainly in the central areas of the site.

Derived Native Grassland (CPW)

Derived native grassland in this context refers to grassland that has resulted from past activities associated with the clearing of CPW.

The majority of this grassland found within the site supported a high concentration of weeds, being dominated by a few species of exotic grasses, mainly *Briza subarista* and also *Cynodon dactylon* (Couch grass). Exotic herbs were also common and included; *Senecio madagascariensis* (fireweed), *Linum monogynum* and *Richardia stellaria*.

Regenerating River flat Eucalypt Forest (RFEF)
River flat Eucalypt Forest has a limited occurrence in the Western Precinct, occurring in a regenerating form as a 10m wide band either side of a drainage line in the south of the precinct. The majority of this vegetation is unvaried in composition from the surrounding woodland.

This community does not occur on the site but is present elsewhere in the Western Precinct.

Planted Trees
Small areas of planted, non-indigenous trees are found within the Western Precinct. These mainly consist of rows of *Corymbia maculate* (Spotted Gums) on the western boundary, along The Northern Road.

This community is not listed.

Freshwater Wetlands
Sedgeland, a form of Freshwater Wetland, occurs in very small local patches throughout the Western Precinct. These wetlands, which are generally artificially created by a small scraping of the soil that has resulted in a depression, have native plant species present (e.g. Carex appressa, Juncus sp. and *Persicaria decipiens*).

This community does not occur on the subject site, but is present within parts of the Regional Park adjacent to the site.

### Fauna

The main fauna habitats within the subject site include grassland, woodland, riparian vegetation associated with minor tributaries and drainage lines, and wetland. In general the extent of historic disturbance and land management activities has significantly limited the suitability of the site and Western Precinct to provide habitat for native species. No threatened fauna species were recorded on the site.

## 2.3.2 Heritage

### Indigenous

An Archaeological Assessment of Indigenous Heritage Values in the Western Precinct (Jo McDonald, 2008) forms part of the adopted WPP. As discussed in the Archaeological Assessment, site surveys have identified a total of 39 surface archaeological sites, with almost 250 artefacts recorded within the Western Precinct. The subject site coincides with one (ADI-17) of the 39 surface sites recorded across the Western Precinct. Sub-surface investigations at the western end of St Mary's future urban area have discovered over 7,000 stone artefacts.

Within the precinct, about 130 ha of land has been identified as having moderate to very high potential for containing intact archaeological evidence. (i.e. being within Zones 1, 2 or 3 in the Archaeological Assessment / WPP).

Seven salvage areas within the Western Precinct are identified by the Archaeological Assessment / WPP as requiring archaeological salvage works prior to development taking place. Permits allowing testing and salvage excavations of Aboriginal objects or places on the site have been issued by the Director General of the Department of Environment Climate Change and Water (DECCW) under section 90 of the *National Parks and Wildlife Act 1974* (NPW Act) (AHIP No. 10996059 and AHIP No.1096059).

The subject site is not located within any of the identified salvage areas.

Salvage works in Salvage Areas 3 and 4 have since been completed and are documented in the Archaeological Subsurface Investigations report prepared by Jo McDonald Cultural Heritage Management.

### European

In relation to non-indigenous heritage, there are four heritage items listed under SREP 30 located within the Western Precinct (Sites 9, 14, 15 and 16). A comprehensive Archaeological Assessment of these four heritage items was undertaken as part of the preparation of the WPP, prepared by Casey & Lowe Pty Ltd. None of the four heritage items are located within or are in the vicinity of the subject site.

## 2.3.3 Bushfire Hazard

Land within the Western Precinct including the site, is largely classified as Bushfire Prone Land due to the proximity of large areas of unmanaged bushland within the adjacent Regional Park. Specific bushfire management, protection and mitigation strategies are included in the adopted WPP. These have been incorporated into the proposal.

## 2.3.4 Water and Drainage

A detailed analysis of the existing drainage characteristics of the Western Precinct is contained in the Water, Soils & Infrastructure Report (2009) prepared by SKM that forms part of the WPP. The report concludes that the entire Jordan Springs / Western Precinct is outside of the Probable Maximum Flood (PMF) level of South Creek. As such, it is not at risk of flooding in the 100 year annual recurrence interval (ARI) storm event.

## 2.3.5 Contamination

Throughout the 1990s Jordan Springs was the subject of extensive investigation and remediation and subsequently a NSW EPA accredited Site Auditor issued the following Site Audit Statements (SAS) for the precinct:

- Part Western Sector covered by SASs CHK001/1; and
- Part Southern West Sector covered by SASs CHK001/1, 001/6 and 001/7.

The information presented in the remediation and validation reports for these sectors has been used to develop a Contamination Management Plan for Jordan Springs which is included in the adopted WPP. The majority of the precinct, including the subject site, has been assessed by the site auditor to pose a negligible risk to the public or the environment with regard to chemical contamination or explosive ordnance.

## 2.3.6 Soil and Groundwater

Extensive groundwater and salinity investigations have been carried out across the St Marys site over the years. A summary and review of the previous studies and investigations relevant to the Western Precinct was undertaken by SKM within their Water, Soils Infrastructure Report (2009) forming part of the WPP. In summary, the Western Precinct has the following subsurface conditions:

- The site is underlain by Triassic Bringelly Shale (from the Wianamatta Group) and Pleistocene to Tertiary alluvial sediments.
- The site comprises two alluvial soil landscape types – Luddenham soils (moderate salinity potential) and South Creek soils (high salinity potential).
- Two groundwater-bearing systems are present within the St Marys site.

- Apparent electrical conductivity (ECa) was identified to be generally low in the Western precinct.
- The alluvial clays are highly silty and of medium plasticity.
- Soil analysis shows that the clays are of generally low salinity.
- Shallow groundwater occurs at depths of 3 – 6m and is of low salinity.

## 2.4 Transport and Access

The main collector road network through Jordan Springs consists of a loop road system around the Western Precinct. The main road entry to the precinct is Jordan Springs Boulevard, which connects to Lakeside Parade.

These act as collector roads through the precinct. Jordan Springs is the connecting road to Northern Road, which is a Classified Road serving the northern portion of the Penrith LGA. Northern Road is the subject to upgrades at the moment, which are due for completion by mid-2015.

Bus route 783 currently serves the precinct by providing services at 30 minute intervals between 6.42am and 7.44pm on a typical weekday. This route provides access to the Penrith Railway Station.

## 2.5 Surrounding Future Development

The site is currently surrounded to the north by the first stages of urban development of Jordan Springs, woodland zoned as Regional Park adjoining to the south, and open space to the south west in accordance with the St Mary's Western Precinct Plan (WPP).

The site adjoins Lakeside Parade to the east and Jordan Springs Boulevard to the north, which forms the main road entry from Northern Road (see **Figure 6**). These roadways also form the Main Street Town Centre of Jordan Springs.

Development is underway to the north of the site including the development of Woolworths supermarket, an associated shopping centre and at grade car parking area (see **Figure 7**). Further north beyond Town Square is the location for a mixed use development that is also a maximum of 6 storeys (see Context Plan in **Appendix A**).

Following the development of the Western Precinct in accordance with the WPP, the site will be surrounded by:

- Urban residential development comprising predominately single dwellings to the north west (part);
- Regional Park to the south;
- The remainder of the Jordan Springs Village to the north; and
- The Village Lake further east of Lakeside Parade.

The adjoining 900ha Regional Park, which is to be established under the *National Parks and Wildlife Act 1974* as a reserve, is of strategic importance to the State government and Office of Environment and Heritage.

**Figure 4 –** View along Lakeside Parade looking south towards the development site

**Figure 5 –** View of shop premises to the south of the Woolworths car park, along Jordan Springs Boulevard

## 2.6 Site Opportunities and Constraints

The main planning and design opportunities presented by the Site are that it:

- is zoned for medium to high density residential development;
- forms part of the southern end of the Village Centre, for which the future desired character that is to comprise a variety of apartment and retail buildings;
- presents an opportunity for a higher density and contemporary residential development;
- is of a suitable size to accommodate development;
- is well located in relation to public transport;
- has utility services available to support development;
- fronts and has direct access from both Jordan Springs Boulevard and Lakes Parade;

- is adjacent to high quality open space areas within the Regional Park, and later the Local Park No.3 as identified in the WPP; and
- has subsoil conditions suitable for development.

The main constraints to development are that the Site:

- has a number of trees; and
- has site gradient levels that are less than the adjoining dam within the Regional Park to the west and is subject to overflows from the dam during heavy rain periods.

The opportunities and constraints applying to the site have been addressed in the by the proposal, which is described in the subsequent chapters of this report.

# 3.0 Description of Overall Proposed Development

This application seeks approval for the following development:

- site preparation, including tree removal and earthworks;
- construction 69 medium density dwellings;
- construction of a mixed use development comprising 160 residential flat units within 4 separate buildings, retail floor space and associated basement car parking areas;
- community title subdivision of the site;
- provision of associated landscaping and public domain improvements, including street trees; and
- provision of associated service and stormwater infrastructure.

The development comprises of two key components. The first is located over the western portion of the site, which will include a large group of town houses structured around a residential street pattern. This is referred to as the townhouse development throughout this report. The second component is located within the eastern portion of the site, which is the mixed use component of the development and is shop top housing over basement parking, referred to the mixed use development. See **Figure 8** for layout of the proposed development.

Photomontages of the proposed development are shown in **Figures 9, 10** and **11**, and included **Appendix E**.


**Figure 6 –** Site Context Plan

**Figure 7 –** Photomontage of development as viewed from Jordan Springs Boulevard

**Figure 8 –** Photomontage view of the proposed mixed use development from Lakeside Parade

**Figure 9 –** Photomontage view of Piazza towards the Jordan Springs Town Centre and Lakeside Parade

The proposed development is illustrated on the following plans/drawings:

- Subdivision Plans, prepared by Lawrence Group included at **Appendix C**;
- Architectural Plans for the mixed use development prepared by ZTA Architects and included at **Appendix A**;
- Architectural Plans for the medium density component of the development prepared by Blue Print and included at **Appendix A**;
- Engineering Plans, prepared by J Wyndham Prince and included at **Appendix F**; and
- Landscape Plans prepared by Clouston Associates and included at **Appendix G**.

## 3.1 Site Preparation and Bulk Earthworks

Engineering Plans prepared by J Wyndham Prince illustrating the areas of the site subject to earthworks including cut and fill are included at **Appendix F**. Proposed earthworks include:

- excavation of the eastern portion of the site to later accommodate the basement parking areas for the mixed use component of the development;
- redistribution of fill to raise levels over the western portion the site; and
- grading for the provision of road allotments and town house dwelling allotments.

Road grading is predominantly determined by stormwater drainage requirements. Most of the future residential lots will require regrading to shed stormwater to roadways.

Batter works are proposed to occur outside the site boundaries (excluding where adjoining the Regional Park) in order to grade and match existing levels surrounding the development. The site of the mixed use component of the development is to be excavated to facilitate the construction of two basement parking levels (see Engineering Plans at **Appendix F** for more detail).

In order to achieve the necessary site levels all of the trees across the site will require removal (see Engineering Drawings at **Appendix F** for more detail).

## 3.2 Road Hierarchy and Design

Proposed Road Layout Plans and Sections prepared by J. Wyndham Prince (NSW) Pty Ltd are included with Engineering Drawings at **Appendix F**.

### Intersections

As shown in the Engineering Plan there are three road intersections to be constructed to serve the proposed development. These include:

- a western access from Jordan Springs Boulevard to the development site
- a central access from Jordan Springs Boulevard to the development site
- an eastern access from Lakeside Parade to the development site.

The western and central accesses will accommodate all turning movements. However the eastern access from Lakeside Parade will only accommodate left in/left out movements. All access will be Give Way controlled intersections. Works to facilitate these intersections include the creation of a median along Lakeside Parade and alterations to the existing median along Jordan Springs Boulevard.

### Roads

To serve the development four local internal roads will be constructed also (ie. Roads 1 to 4). Road 1 will be the key load road serving the development, and will connect at both proposed road intersections at Jordan Springs Boulevard.

Roads 3 and 4 will serve as connecting roads between either ends of Road 1, whereas Road 2 will serve to connect the development with Lakeside Parade. Road 5 will only be constructed off the proposed roundabout to Road 1 and 3 in anticipation of future development of the urban land to west and outside the development site.

With exception of proposed Roads 3 and 4, the proposed hierarchy of roads has been designed in accordance with those roads described in the Western Precinct DCS. The dimensions for each of these roads are shown in the Engineering Plans at **Appendix F** and outlined in the table below.

| Dimension | Road 1 | Road 2 | Road 3 | Road 4 | Road 5 |
|---|---|---|---|---|---|
| Verge 1 | 2.5m | 2.5m | 2.5m | 1.2m | 2.5m |
| Verge 1 footpath | 1.2m | 1.2m | 1.2m | 1.2m | 1.2m |
| Carriageway | 8.0m | 8.0m | 7.0m | 7.0m | 8.0m |
| Verge 2 | 2.5m | 2.5m | 2.5m | 2.5m | 2.5m |
| Verge 2 footpath | 1.2m | 1.2m | 1.2m | 1.2m | 1.2m |
| Total Road Reserve | 13.0m | 13.0m | 12.0m | 10.7m | 13.0m |

## 3.3 Subdivision

The proposed development will be subdivided under Community Title arrangements. Details of the proposed allotments arrangements, staging and Section 88B instruments in support of the development are outlined in the Subdivision Plans and draft Section 88B instruments at **Appendix D**.

The initial subdivision for the site will include the reconfiguration of Lots 3989 and 3991 to create large proposed Lots 100 and 101. The subsequent subdivision is to create 9 development allotments and road reserves over proposed Lot 100. As part of this work a right of carriageway over Lot 3990 will apply to afford the construction of proposed Road 1 over this part of Lot 3900. A further easement for services will also be applied to this part of Lot 3900 and a right of access applied to Road 2 to enable secondary access to proposed Lot 101(see Section 88B Instruments at **Appendix C**).

Lot 1 includes community land held as common property, which will be embellished with landscaping. A table showing the uses for each proposed allotment is shown in the table below. Subsequent to this further allotments will be created for each proposed townhouse.

| Proposed Community Title Lot | Proposed Use |
|---|---|
| Lot 1 | Roads |
| Lot 2 | Townhouses |
| Lot 3 | Townhouses |
| Lot 4 | Townhouses |
| Lot 5 | Townhouses |
| Lot 6 | Townhouses |
| Lot 7 | Townhouses |
| Lot 8 | Mixed Use Development |
| Lot 9 | Future Residential Lot |

## 3.4 Public Domain Works

The proposed extent of landscaping for and throughout the development is illustrated in the Landscape Plans prepared by Clouston Associates at **Appendix G**. Extent of works includes:

- Provision of street trees and landscaping along the edges of all proposed roads;
- planting of ornamental trees and public domain improvements will be provided along Lakeside Parade to correspond to the street tree planting along remainder of the main street and town centre;
- construction of a public domain plaza, referred to as the piazza, that is the central feature of the mixed use component of the development; and
- landscaping around the mixed used buildings.

It should be noted that with exception of trees along Jordan Springs Boulevard and on land to which proposed Lot 1 relates, all other street trees for the medium density component of the development will be planted within each of the proposed town house allotments.

The vision for the development outlined in the Landscape Statement prepared by Clouston Associates (see **Appendix G**) includes:

- integrating themes of water into the development to correspond to the adjacent lake, through the use of in ground lighting, raised turfed beds and shade canopy in the centre of the piazza;
- ensuring pedestrian permeability between the medium density and mixed use components of the development and through the piazza, by using defining landscape features and enhanced sightlines;
- using complementary landscaping within the development to correspond with the rest of the main street of the Jordan Springs town centre; and
- creating themes within the piazza that will attract and allow people to congregate.

## 3.5 Stormwater Management

The development will include an overall water management system to support the street network and the development. Specifically this will include a system of a in road and inter allotment drains that will flow to a temporary sediment basin south of Road 2 and directly north of the drainage channel to be constructed by Lend Lease. All water from this system will drain directly into the drainage channel via a gross pollutant trap. This water will then flow to the east lake. See Engineering Drawings at **Appendix F** for more detail.

## 3.6 Utility Services

Consultation with relevant utilities service providers was undertaken in the preparation of the WPP (documentation of which is provided at Appendix F of the WPP) and by the applicant in relation to previous DAs for the subdivision of the Western Precinct for urban land uses. From these consultations, it is concluded that the site is serviceable with water, sewer, electricity and telecommunications, subject to extensions/augmentation of utilities infrastructure as part of the future development of the Western Precinct.

# 4.0 Description of the Mixed Use Development

The following subsections further describe the proposed mixed use component of the development as illustrated and detailed in the Architectural Plans by ZTA Architects at **Appendix A**.

The mixed use component of the development fundamentally comprises the construction of residential flat buildings with lower ground commercial premises, over two basement levels of parking. The ground level of the development will be activated by a privately owned but publicly accessible and landscaped piazza.

## 4.1 Numerical Overview

The following table provide key development information for the mixed use development.

| Component | Proposal |
|---|---|
| Height<br>▪ Metres (max)<br>▪ Storeys (not including basement levels) | <br>20.3m<br>6 |
| Total Non- residential floor space | 2,497m$^2$ |
| No. of apartments | 160 units |
| Total no. of car spaces | 573 car spaces<br>(including 32 accessible parking spaces) |
| Bicycle Parking – Commercial | 42 spaces |
| Bicycle Parking – Residential | 14 spaces |

**Note:** The term **Height** refers to *"the vertical distance between ground level (existing) and the highest point of the building, including plant and lift overruns, but excluding communication devices, antennae, satellite dishes, masts, flagpoles, chimneys, flues and the like."*

The following table outlines the proposed unit mix for the development. 11.25% or 18 of the total number of units proposed are adaptable units. Each unit has been afforded a generous amount of floor space.

| Unit Type | Number of Units | Dwelling size |
|---|---|---|
| 1 Bedroom Unit | 20 (13%) | 63-65m$^2$ |
| 2 Bedroom Unit | 123 (77%) | 80-127m$^2$ |
| 3 Bedroom Unit | 17 (10%) | 110-130m$^2$ |
| Total | 160 (100%) | - |

### Building Height

- Building A – 6 storeys
- Building B – 6 storeys
- Building C - 5 storeys
- Building D – 6 storeys

### Minimum Separation between Buildings

- Buildings A & B – 10.8m over first 4 storeys (habitable to non-habitable)

- Buildings A & B – 12m over first 4 storeys (habitable to habitable)
- Buildings A & B – 10.8m over 5th and 6th storeys (habitable to non-habitable)
- Buildings A & B – 12m over 5th and 6th storeys (habitable to habitable)
- Buildings B & C – 16m over first 4 storeys
- Buildings B & C – 18.9m over 5th storey
- Buildings C & D – 19.3m over first 4 storeys
- Buildings C & D – 19.3m over 5th storey
- Buildings D & A – 13.6m over first 4 storeys
- Buildings D & A – 14.6m over 5th and 6th storeys (habitable to habitable)

### Parking and Access

All parking will be providing over two basement levels. The upper level (Basement Level 1) will be publicly accessible and be will made available to patrons of the restaurants and retail premises. Vehicle access to Basement Level 1 will be made direct from Road 1. Pedestrians will access the piazza from Basement Level 1 via a publicly accessible lift.

The lower level of parking (Basement Level 2) will be accessible to occupants of the residential apartments, and will be separately accessed from Road 2. Pedestrians from this level can obtain access to each residential building via dedicated lifts to each of the buildings.

| Car Parking Spaces | Basement Level 1 | Basement Level 2 |
|---|---|---|
| Residential | - | 289 |
| Retail/Commercial | 248 | - |
| Disabled Parking | 14 | 18 |
| Total | 262 | 307 |

## 4.2 Urban Design Principles

ZTA Architects has prepared a detailed assessment of the proposal against the principles of SEPP 65, which is included at **Appendix H**. Based on this assessment the planning and design principles adopted for the proposed development of the mixed use site are as follows:

- provide a development which responds to the desired future character and existing urban design context of Jordan Springs Boulevard and Lakeside Parade;
- provide contemporary and higher density built elements within a public domain platform;
- adopt an appropriate scale in terms of bulk and height to correspond with denoting the site as an integral part of the Village Centre for Jordan Springs;
- align the development to address both Jordan Springs Boulevard and Lakeside Parade with appropriate setbacks, built form articulation and street level activation;
- provide suitable separation between the private domain and the public domain at the ground floor, while affording suitable spaces for ground floor uses in the piazza;
- provide residential development that contributes to village life with increased activity at the weekends and in the evenings;
- development of a mixed-use centre with a wide range of housing, employment and recreation opportunities;
- create a high quality public domain that is safe and accessible for all, during and outside business hours and is family friendly;

- provide substantial landscaping around the buildings by establishing an open piazza that is accessible to the public and that will enhance the residential buildings and contribute to the town centre;
- create positive interfaces between public space and private components of the development;
- provide all apartments with private terraces or ground floor open spaces that provide good levels of amenity;
- develop a high quality public domain space with durable and attractive finishes, furniture, lighting and landscaping; and
- provide a rich palette of materials and finishes that are reflective of the natural elements found in the nearby Regional Park.

## 4.3 Piazza

An open air piazza will be the central focus of the mixed used component of the development. The piazza has been designed to not only link the four residential buildings together, but to provide new open space, dining and retail opportunities for residents of Jordan Springs. The plaza concept also helps to promote and activate the street levels by flowing through to the main street of the town centre and provide a family orientated component of the development.

The piazza is expected to be activated during the day and night with complementary retail and restaurant development, but also with the use of creative and interactive landscaping, such as night time lighting.

Key elements of the piazza and its landscaping include:

- sculptural shade structures that mimic trees;
- a large floating shade canopy at the centre of the piazza;
- raised planter beds, which will be turfed and provide opportunities for informal seating;
- linear lighting embedded into the pavement, which will light up in the evening and visually activate the piazza;
- the installation of an interactive children's noise surface play area near the outdoor dining areas;
- large format paving, with smaller and darker paving around the edges of the piazza;
- dense planting to the west of the truck/garbage loading area to further screen this area from view along Road 1; and
- provision of streetscape planting, trees and paving use of  along all four road edges which are reflective of the existing landscaping in the main street.

The shade structures within the piazza will act as key vertical features o f the piazza and will help provide refuge from the sun on hot days.

## 4.4 Retail/Commercial Premises and Restaurants

A total of 5 restaurants and 9 retail shops will be proposed to be incorporated into each of the proposed buildings at ground level. The location of each retail and restaurant premises is nominated on the architectural plans at **Appendix A**. The intention is that these uses will add to the vibrancy of the piazza as a public gathering space and maximise opportunities for businesses to flourish in a newly establishing town centre.

The retail spaces will be interchangeably used for retail and commercial businesses to accommodate for a diverse employment related uses and complementary retail development. It is anticipated that these premises will accommodate businesses such as hair dressers, small office premises, and the like.

The small retail premises will likely operate between maximum hours of 7am and 7pm. These hours align with the maximum hours align permitted under the Exempt and Complying SEPP exempt provisions for use of retail premises.

The restaurants have been positioned in locations where maximum solar access is obtained during the winter solstice (22 June). They will operate from 8am to 10pm Monday to Wednesday and 8am to 11pm Thursday to Sunday.

The fit out and use of the restaurant and retail premises will be the subject of separate and future approval.

## 4.5 External Materials and Finishes

A schedule of materials and finishes is included with the Architectural Plans at **Appendix A**. The selection of materials and finishes have been designed to reflect natural elements found in the adjoining Regional Park, while ensuring to deliver a modern exterior.

The key finishes and materials proposed include:

- Precast concrete moulds with engraved artwork
- Cladding of three different finishes and colours
- Brickwork using two different shades
- Powdered coated and cut steel privacy screens

## 4.6 Loading

Loading deliverables are to be made to an outdoor loading bay at the south western corner of Building D. Adjacent to this is two separate waste storage areas, one for commercial waste collection and the other for residential waste collection. Vehicles entering the bay will reverse into the bay.

Two additional on street loading areas are proposed to be situated along Lakeside Parade and Road 1, adjacent to the pedestrian entries to the piazza.

## 4.7 Waste Management

Further to the above, each residential level of each building includes one or more garbage chutes that will allow garbage to drop a collection point in the Basement Level 1. Bins are replaced with empty bins and bins with garbage are manually transferred via a service lift in Building D to the waste collection area adjacent to the loading bay.

All garbage for the retail shops and restaurants is to be transferred by the operators directly to the commercial waste storage area adjacent to the loading bay. In the piazza designated bins will be provided to encourage appropriate disposal of waste. Management for the development will be responsible for maintaining and emptying these bins. More details are provided in the Waste Management Plan prepared by Elephants Foot and included at **Appendix H.**

## 4.8 Management of common areas

The management of common areas including open spaces will be the subject of a strata management plan for the development. The site and the overall mixed use development will be managed by an on-site manager. A dedicated office has been provided at ground level within the Building D.

## 4.9 Security

With exception of the publicly accessible basement parking Level 1, the lifts between basement Level 1 and the piazza and access to the public amenities, access controls will be provided at all other pedestrian and vehicle access points by way of secure doors and key access.

# 5.0 Description of the Medium Density Development

The following subsections further describe the proposed residential medium density component of the development as illustrated and detailed in the Architectural Plans by Blue Print at **Appendix A**.

This component of the development includes a total of 69 semi-detached and attached townhouses, each dwelling with individual garage access and with direct frontage to local streets. With exception of 4 dwellings along Jordan Springs Boulevard which are three storeys in height, all other town house dwellings are two storeys in height.

## 5.1 Numerical Overview

The key numeric development information is summarised in the table below.

| Dwelling | Site Area | Frontage | Min Setbacks (metres) | | Parking | Open Space | |
|---|---|---|---|---|---|---|---|
| | sqm | (metres) | Front | Rear | Spaces** | % | Sqm |
| 1 | 269.58 | 15.0 | 3.1 | 8.02 | 3 | 26% | 69 |
| 2 | 147.86 | 8.9 | 2.4 | 7.65 | 2 | 21% | 31 |
| 3 | 146.93 | 8.9 | 2.3 | 6.77 | 2 | 21% | 31 |
| 4 | 144.55 | 8.9 | 2.3 | 6.28 | 2 | 21% | 31 |
| 5 | 139.55 | 8.9 | 1.8 | 6.59 | 2 | 22% | 31 |
| 6 | 136.60 | 8.9 | 1.8 | 6.09 | 2 | 21% | 29 |
| 7 | 138.80 | 10.1 | 1.8 | 5.50 | 2 | 21% | 29 |
| 8 | 124.83 | 7.2 | 2.5 | 2.43 | 2 | 10% | 13 |
| 9 | 113.21 | 6.5 | 2.5 | 1.90 | 2 | 18% | 20 |
| 10 | 111.39 | 6.5 | 2.5 | 1.66 | 2 | 18% | 20 |
| 11 | 109.56 | 6.5 | 2.5 | 1.33 | 2 | 18% | 20 |
| 12 | 115.21 | 7.2 | 2.5 | 1.09 | 2 | 17% | 20 |
| 13 | 160.27 | 7.7 | 4.5 | 6.00 | 2 | 26% | 42 |
| 14 | 157.22 | 7.0 | 5.3 | 6.00 | 2 | 27% | 42 |
| 15 | 160.14 | 7.0 | 5.3 | 6.00 | 2 | 26% | 42 |
| 16 | 169.41 | 7.7 | 5.4 | 6.00 | 2 | 25% | 42 |
| 17 | 154.66 | 7.7 | 4.6 | 5.00 | 2 | 23% | 35 |
| 18 | 151.70 | 7.0 | 5.5 | 5.00 | 2 | 23% | 35 |
| 19 | 154.73 | 7.0 | 4.5 | 6.07 | 2 | 27% | 42 |
| 20 | 160.19 | 7.0 | 4.6 | 6.07 | 2 | 27% | 43 |
| 21 | 233.22 | 10.9 | 4.2 | 7.14 | 2 | 28% | 65 |
| 22 | 191.98 | 8.0 | 7.0 | 3.0 | 2 | 13% | 24 |
| 23 | 145.29 | 7.0 | 5.6 | 3.0 | 2 | 14% | 21 |
| 24 | 131.60 | 7.0 | 3.3 | 3.0 | 1 | 16% | 21 |
| 25 | 140.82 | 8.0 | 2.5 | 3.0 | 1 | 17% | 24 |
| 26 | 148.50 | 8.6 | 2.3 | 3.0 | 1 | 16% | 24 |
| 27 | 154.54 | 11.2 | 1.9 | 3.0 | 1 | 35% | 54 |
| 28 | 155.69 | 11.2 | 2.0 | 3.0 | 1 | 35% | 54 |
| 29 | 126.10 | 7.0 | 2.7 | 3.0 | 1 | 17% | 21 |
| 30 | 138.52 | 7.0 | 4.1 | 3.0 | 2 | 15% | 21 |
| 31 | 198.59 | 8.7 | 5.5 | 3.0 | 2 | 14% | 27 |
| 32 | 198.22 | 10.9 | 1.9 | 5.9 | 2 | 28% | 56 |
| 33 | 134.68 | 7.0 | 1.9 | 5.9 | 2 | 30% | 41 |
| 34 | 134.68 | 7.0 | 1.9 | 5.9 | 2 | 30% | 41 |
| 35 | 148.60 | 7.0 | 1.9 | 7.9 | 2 | 37% | 55 |
| 36 | 154.55 | 9.2 | 1.9 | 7.9 | 2 | 36% | 56 |
| 37 | 143.38 | 8.6 | 2.2 | 3.0 | 1 | 18% | 26 |

| Dwelling | Site Area | Frontage | Min Setbacks (metres) | | Parking | Open Space | |
|---|---|---|---|---|---|---|---|
| | sqm | (metres) | Front | Rear | Spaces** | % | Sqm |
| 38 | 135.01 | 8.0 | 2.2 | 3.0 | 1 | 18% | 24 |
| 39 | 135.01 | 8.0 | 2.2 | 3.0 | 1 | 18% | 24 |
| 40 | 134.71 | 8.0 | 2.2 | 3.0 | 1 | 18% | 24 |
| 41 | 132.59 | 8.0 | 2.0 | 3.0 | 1 | 18% | 24 |
| 42 | 132.45 | 8.0 | 2.0 | 3.0 | 1 | 18% | 24 |
| 43 | 137.63 | 8.0 | 2.8 | 3.0 | 1 | 17% | 23 |
| 44 | 134.63 | 8.0 | 2.0 | 3.0 | 1 | 18% | 24 |
| 45 | 132.65 | 8.0 | 1.9 | 3.0 | 1 | 18% | 24 |
| 46 | 140.82 | 8.6 | 1.9 | 3.0 | 1 | 18% | 26 |
| 47 | 135.01 | 8.0 | 2.2 | 3.0 | 1 | 18% | 24 |
| 48 | 134.36 | 8.0 | 2.2 | 3.0 | 1 | 18% | 24 |
| 49 | 139.65 | 8.0 | 2.3 | 3.0 | 1 | 17% | 24 |
| 50 | 135.98 | 8.0 | 2.2 | 3.0 | 1 | 18% | 24 |
| 51 | 135.01 | 8.0 | 2.2 | 3.0 | 1 | 18% | 24 |
| 52 | 135.01 | 8.0 | 2.2 | 3.0 | 1 | 18% | 24 |
| 53 | 135.01 | 8.0 | 2.2 | 3.0 | 1 | 18% | 24 |
| 54 | 135.01 | 8.0 | 2.2 | 3.0 | 1 | 18% | 24 |
| 55 | 135.01 | 8.0 | 2.2 | 3.0 | 1 | 18% | 24 |
| 56 | 135.01 | 8.0 | 2.2 | 3.0 | 1 | 18% | 24 |
| 57 | 137.02 | 9.7 | 1.9 | 5.4 | 1 | 28% | 38 |
| 58 | 131.33 | 7.0 | 1.9 | 5.4 | 1 | 29% | 38 |
| 59 | 201.66 | 10.9 | 1.9 | 5.4 | 2 | 30% | 60 |
| 60 | 132.59 | 8.0 | 1.9 | 3.0 | 1 | 18% | 24 |
| 61 | 132.59 | 8.0 | 1.9 | 3.0 | 1 | 18% | 24 |
| 62 | 132.59 | 8.0 | 1.9 | 3.0 | 1 | 18% | 24 |
| 63 | 132.59 | 8.0 | 1.9 | 3.0 | 1 | 18% | 24 |
| 64 | 132.59 | 8.0 | 1.9 | 3.0 | 1 | 18% | 24 |
| 65 | 132.59 | 8.0 | 1.9 | 3.0 | 1 | 18% | 24 |
| 66 | 132.59 | 8.0 | 1.9 | 3.0 | 1 | 18% | 24 |
| 67 | 132.59 | 8.0 | 1.9 | 3.0 | 1 | 18% | 24 |
| 68 | 138.90 | 8.0 | 1.9 | 3.0 | 1 | 17% | 24 |
| 69 | 134.84 | 8.0 | 1.9 | 3.0 | 1 | 18% | 24 |

** includes available in driveway parking in front of respective dwelling. These dwellings do not comply with the required setback for garages from a front boundary.

Cells highlighted in the above table indicate non-compliance with the required setback or open space provisions of the Western Precinct DCS. These matters are addressed in more detail in Sections 6.1.2, 6.4 and 6.6 of this report.

## Dwelling Mix

- 55 = 2 bedroom dwellings
- 14 = 3 bedroom dwellings

## External Materials and Finishes

A schedule of materials and finishes for the townhouses is included with the Architectural Plans at **Appendix A**. The townhouse dwellings will include a wide variety of finishes and in complementing shades of warm colours of beige through to browns.

## 5.2 Landscaping and Public Domain

Landscaping for the town house component of the development includes streetscape, rear yards, and common open spaces. See Landscape Plans prepared by Clouston Associates at **Appendix G** for more details.

# 6.0 Assessment of Environmental Impacts

This chapter contains our assessment of the environmental effects of the proposed development as described in the preceding chapters of this report.

Under Section 79C(1) of the EP&A Act, in determining a development application the consent authority must take into account a range of matters relevant to the development including the provisions of environmental planning instruments; impacts of the built and natural environment, the social and economic impacts of the development; the suitability of the site; and whether the public interest would be served by the development.

The assessment includes only those matters under Section 79C(1) that are relevant to the proposal.

## 6.1 Compliance with Relevant Strategic and Statutory Plans and Policies

The following legislation, strategies and planning instruments, which are relevant to the proposed development to be addressed:

- Draft Metropolitan Strategy for Sydney
- Draft North West Subregional Strategy 2007
- State Environmental Planning Policy 65 - Design Quality of Residential Flat Buildings, supported by the Residential Flat Design Code
- State Environmental Planning Policy (State and Regional Development) 2011
- State Environmental Planning Policy 55 - Remediation of Land
- State Environmental Planning Policy (Building Sustainability Index) (BASIX) 2004
- State Environmental Planning Policy (Infrastructure) 2007
- Sydney Regional Planning Policy No 30 – St Marys
- Precinct Plan and Development Control Strategy – Western Precinct, St Marys
- Penrith Development Control Plan 2006

The DA's consistency and compliance with the relevant strategic and statutory plans and policies is outlined below in the table below. Variations to, and non-compliance with, the key standards and guidelines highlighted in the table are discussed in detail in the following sections of this environmental assessment.

| Instrument/Strategy | Comments |
|---|---|
| **Strategic Plans** | |
| **Draft Metropolitan Strategy** | This DA is consistent with the Draft Metro Strategy in that it will:<br>– provide additional and varied housing opportunities that will contribute to the broader objective of providing affordable housing and catering to the diverse needs of the community; and<br>– will encourage use of public transport and other alternative modes of transport given the Site's close proximity to various forms of public transport and within the Jordan Springs Town Centre. |
| **Draft North West Subregional Strategy** | This DA is consistent with the Draft North West Subregional Strategy in that it will:<br>– provide additional housing that will support the economic and social viability of the Jordan Springs Town Centre;<br>– it will provide new residential development within the Jordan Springs Town Centre which has regional scaled services and good access to public transport;<br>– it will contribute to a mix of housing types within the area;<br>– it will contribute to the housing target of 14,000 new dwellings in Penrith between 2004 and 2031; and<br>– it will provide a high quality architecturally designed development which will increase the quality of design within the local area. |

| Instrument/Strategy | Comments |
|---|---|
| **State Planning Instruments and Controls** | |
| **SEPP 65** | ZTA Architects has prepared a Design Verification and Checklist (at **Appendix I**), which details how the proposed development accords with SEPP 65 principles and recommended rules of thumb under the accompanying Residential Flat Design Code (RFDC). |
| **SEPP 55** | Like the developable and cleared areas of Western Precinct, the site has been suitable remediated (see Section 2.3.5 above for more detail). On this basis the development site is considered to be suitable for the proposed development.. |
| **SEPP (BASIX)** | BASIX Certificates are included at **Appendix J**. The certificates demonstrate that all residential components of the development meet the necessary energy and water efficiency targets. |
| **SEPP (State and Regional Development)** | In accordance with State Environmental Planning Policy (State and Regional Development) 2011 the proposal is considered Regional Development as it is development that has a capital investment value of more than $20 million. Therefore, in accordance with clause 20 of the SEPP the Sydney West Joint Regional Planning Panel is the consent authority for this application. |
| **Infrastructure SEPP** | This policy does not apply to the development as the development does not seek access to a classified road. |

### 6.1.1 SREP 30 – St Marys

The following table includes a detailed assessment of the proposed development against the relevant provisions of SREP 30.

| Sydney Regional Planning Policy No. 30 – St Marys | |
|---|---|
| Zone – the site is zoned urban | The proposed development is permissible with consent. |
| Part 5 Performance Objectives | See detailed assessment below. |
| Cl 45 – The consent authority must consent to the subdivision of land | Approval is sought for subdivision as part of this proposed development. |
| Cl 50 – Where filling of land is proposed, this must not be inconsistent with the principles of the Floodplain Development Manual | All proposed earthworks will adhere to the requirements of the manual. Further to this, all proposed filling will be carried out on land that is not subject to flooding or lower than the PMF. |
| Cl 51 – Salinity | A detailed assessment has been carried out and applies to the broader Western Precinct area. The development will be carried in accordance with the WPP Soil and Water Management Plan. |
| Cl 52 – Tree removal | Permission is sought as part of this development for the removal of existing trees over the site. The impact of this work has been assessed by Cumberland Ecology (see Species Impact Statement at **Appendix D** & Section 4.11). |

| Sydney Regional Planning Policy No. 30 – St Marys | |
|---|---|
| Cl 59 – Retail and commercial development restricted | The maximum total GFA for 'shops' in the Western Precinct is 7,500sqm. The proposed development seeks to contribute addition retail floor space beyond that already approved for the Western Precinct, such that the total quantum of retail floor space for the precinct will be in excess of 7,500sqm. This may be permitted under cl 59(2) where it can be demonstrated that the resultant overall retail floor space for the precinct *"will not be greater than the total required to reasonably service the local residential community and workforce."*<br><br>Shops are defined under Schedule 4 of the SREP as development for the purposes of clubs, fast food take-away restaurants, hotels, local retail or commercial buildings, medical centres, restaurants.<br><br>A detailed assessment has been prepared by Macroplan (at **Appendix K**) that demonstrates that the proposed increase in retail development beyond the 7,500sqm set by clause 59 of the deemed SEPP will have little impact upon surrounding retail development and will serve the future community (also see Section 4.16.1 below). |
| Cl 60 – Services | The site can adequately be serviced with sewer, water and telecommunications to then support the proposed development. |

The proposed development is consistent with the Performance Objectives set out in the clauses 22 to 35 of Part 5 of SREP 30 for the following reasons:

- The proposed development is in accordance with the ecologically sustainable development of the land, as prescribed by the WPP;
- The proposed subdivision works will not result in adverse impacts to air quality, with appropriate management measures to be incorporated during construction as well as minimising vehicle pollution by promoting pedestrian and cycle use within the street network;
- Proposed works are confined to the Urban Zone, with the conservation significance of the Regional Park accordingly being protected;
- The proposed works will not result in further disturbance to indigenous heritage items within the Western Precinct. Appropriate consents and approvals have been obtained to allow for development to occur;
- The proposal represents a further stage in creating a new residential community within the Western Precinct, which will be serviced by a full range of both hard and soft infrastructure;
- Residents of the development will have convenient access to a range of open space and recreation areas, including the lake to the east and the Regional Park to the south;
- The interim Stormwater Management Systems to be implemented ensure appropriate water cycle management in relation to the proposal;
- The road layout of the proposed subdivision is consistent with the design and street hierarchy established within the WPP, linking into the approved surrounding road network;
- The proposal contributes towards the provision of an attractive and safe built environment which satisfies a diverse range of community needs;
- The development will contribute to providing local employment opportunities;
- Noise between proposed retail and restaurant development will be minimised to residential development within and outside of the development (see Section 4.5.2 for more detail);
- The development supports the provision of a range of building types and forms within Jordan Springs, in ideal proximity to public transport, community and recreation facilities, and retail; and

- The subdivision layout ensures an appropriate delineation of private and public spaces.

The Western Precinct as a whole is zoned 'urban' in accordance with clause 36 of SREP 30. The proposal is consistent with the objectives for the Urban Zone set out in clause 40 (1) of SREP 30 as it will ensure that the zone is primarily used for residential purposes and associated facilities.

Also in accordance with clause 40 (2) of the SREP, 'housing', 'roads', 'drains', 'local retail or commercial premises', 'restaurants' and 'shops' are permissible in the Urban zone, subject to consent.

Clause 20 of the SREP requires the consent authority to take the Precinct Plan for the Western Precinct into account when assessing the proposed development. The proposed development aligns with the latest revised framework and village plan for the precinct (see **Figure 3**).

### 6.1.2 Western Precinct Plan & DCS

**Table 1 –** Compliance with Western Precinct Plan & DCS & Penrith DCP 2006

| **Local Planning Instruments and Controls** | | |
|---|---|---|
| **Provision/ Standard** | **Requirement** | **Compliance** |
| **Western Precinct DCS** | | |
| **Street Types** | Local Street – minimum total reserve of 15.6m (8m carriageway + 3.8m each side of street for verge) | Roads 1 and 2 will provide the necessary carriageway width of 8m. However, Roads 3 and 4 will have reduced carriageway widths of 7m. The suitability for this reduced road width is discussed in Section 4.6 below.<br><br>Verge widths for all roads are less than the required 3.8m on either side of the carriageway, being either 2.5 or 1.2m in width. The engineering drawings at Appendix X demonstrate how these reduced verge widths are able to accommodate the necessary services, infrastructure and footpaths. It should be noted that street trees will be planted within the front yards of each of the town house dwellings, with exception of those dwellings along Jordan Springs Boulevard.<br><br>The proposed intersection alterations to Jordan Springs Boulevard and Lakeside Parade will not alter the road carriageway or verge capacities. |
| **Landscape Character** | The piazza and streetscape landscaping will serve to complement the village centre by providing urban space that relate to increased built form and function for gathering of people and good access to facilities and services.<br><br>The landscaping treatments will integrate well wit the proposed built form designs and serve to build upon the existing streetscape character along Lakeside Parade and Jordan Springs Boulevard.<br><br>Materials and finishes for public domain treatments will be durable. Landscaping in the piazza also effectively incorporates public art into the design of the development.<br><br>A wide use of landscape treatments and tree species are proposed to be used to help distinguish the main street and town centre from the low scale residential development of the townhouses. | |

| Local Planning Instruments and Controls | | |
|---|---|---|
| **Provision/ Standard** | **Requirement** | **Compliance** |
| **Concept Plans** | Village Centre | The development achieves the vision sought by the Concept Plan for the Village Centre by:<br>- incorporating a mix of uses to best achieve integrated development outcomes;<br>- ensuring built form development addresses public spaces and streets to then increase opportunities for passive surveillance and activate street frontages; and<br>- ensuring built form development denotes the Jordan Springs town centre. |
| | Bushland Edge | The development has the built form and landscaping character sought by the Concept Plan for the Bushland Edge areas by:<br>- ensuring dwellings address and look out to the Regional Park to gain attractive views to offer natural surveillance of these parkland areas;<br>- incorporating the necessary APZs within the road reserves to then protect dwellings from the threat of bushfire; and<br>- being of low density in scale. |
| | Urban Area/ Neighbourhood | The development has the built form and landscaping character sought by the Concept Plan for Urban Area/Neighbourhood areas by:<br>- providing low scale and modern building s that address street frontages; and<br>- providing a new dwelling typology that will help to provide further housing diversity within Jordan Springs. |
| **Built Form Housing** | Attached Dwelling<br><br>(Dwellings 1-7, 13-25,28-36, 57-59 ) | **Lot size** – All dwellings comply<br>**Lot Frontage** – All dwellings comply<br>**Lot Depth** – All dwellings comply<br>**Front Setback** – No for some dwellings (see table at Section 3.4.1)<br>**Side Setbacks** – All dwellings comply<br>**Rear Setbacks** – All dwellings comply<br>**Open Spaces** – With except of proposed dwelling Lots 22, 23 and 31 all other attached dwellings comply with the required proportion of open space. The quantum of open space provided for these dwellings is not dissimilar to that provided by other allotments; therefore the same level of outdoor amenity will be afforded to those dwellings not provided with the required minimum of 15% of the overall lot area.<br>**Height** – All dwellings comply<br>**Parking** - All dwellings comply |
| | Semi- Detached<br><br>(Dwellings 26-27, 37-52, 64-69) | **Lot size** – All dwellings comply<br>**Lot Frontage** – All dwellings comply<br>**Lot Depth** – All dwellings comply<br>**Front Setback** – No for some dwellings (see table at Section 3.4.1)<br>**Side Setbacks** – All dwellings comply<br>**Rear Setbacks** – All dwellings comply<br>**Open Spaces** – All dwellings/lots comply<br>**Height** – All dwellings comply<br>**Parking** - All dwellings comply |
| | Urban-Sleeve (Dwellings 8 to 12) | **Lot size** – All dwellings comply<br>**Lot Frontage** – All dwellings comply<br>**Lot Depth** – All dwellings comply<br>**Front Setback** – All dwellings comply<br>**Side Setbacks** – All dwellings comply<br>**Rear Setbacks** – All dwellings comply<br>**Open Spaces** – All dwellings/lots comply<br>**Height** – All dwellings comply<br>**Parking** - All dwellings comply |

| Local Planning Instruments and Controls | | |
|---|---|---|
| **Provision/ Standard** | **Requirement** | **Compliance** |
| | Apartments/ Shop Top | **Unit Sizes –** All dwellings comply<br>**Frontages** – Complies on all street frontages<br>**Front Setback** – No (see table at Section 3.4.1)<br>**Side Setbacks** – Development complies<br>**Rear Setbacks** – Development complies<br>**Balconies area & 2.5m depth** – All units comply<br>**Height** – Maximum 6 storeys given the site is a key landmark site within the town centre and denotes the key intersection of Lakeside Parade and Jordan Springs Boulevard.<br>**Parking** - All units comply |

## General Housing Siting and Design Controls

The town house dwellings are able to comply with the controls included at Section 5.7 of the Western Precinct Development Control Strategy (DCS) given that:

- with exception of town houses along Jordan Springs Boulevard, a minimum of one tree will be planted in the front setback area of each town house dwelling lot. This approach is suitable given that the trees along the Boulevard are to t complement the existing streetscape planting pattern;
- use of dense vegetation has been proposed in locations where it will not impede natural surveillance of the public domain;
- they have been designed with offset windows and/or provide adequate separation between dwellings (especially as the upper levels) to then minimise loss of privacy;
- the design of fencing has been selected to complement the design of the townhouse dwellings;
- garages do not account for more than 40% of the total frontage width of anyone of the townhouse dwellings, and thereby do not dominate the façade of any of the dwellings; and
- ample space has been afforded to each dwelling to include clothes lines, rainwater tanks and storage of waste bins.

## 6.2 Urban Design – Mixed Use Development

The mixed use development has been designed to meet the broad needs of the market whilst setting high standards for community living in Jordan Springs. It will provide a sense of place that is coherent and provides a cohesive experience by making sure that the design responds reflects and maximises the existing Town Centre character.

The piazza and its surrounding development will be a vibrant place with a greater sense of belonging focused in providing a range of uses such as living, retail, commercial, open spaces and urban spaces where people can meet and interact.

The key design outcomes for the mixed use development are that it:

- maximises residential densities in close proximity to the Town Centre, and thereby services, facilities and public transport;
- provides a southern anchor to the Main Street (along Lakeside Parade);
- provides east west pedestrian and roads links to Town centre and has direct links to the Regional Park and the future Neighbourhood Park;
- will serve to protect the piazza from hot prevailing winds during summer due to the orientation and layout of the surrounding buildings;
- maintains and reinforces view lines to nearby open spaces, the Regional Park and the Town Centre;
- provides a legible and permeable pedestrian layout in the piazza to aid in way finding through the development and out towards the adjoining street network; and
- clearly defines the private and public domain areas of the development.

### 6.2.1 Built Form

Although the WPP DCS sets a general maximum building height limit of 4 storeys, 6 storeys may be achieved in the town centre where development is located on a key landmark site within the Village Centre and the proposed development has merit. The site of the mixed use development is considered to be of landmark quality given it is situated within the town centre, will form part of the main street of Jordan Springs and is located at the key road intersections of Jordan Springs Boulevard and Lakeside Parade. In consulting with Council, it was agreeable to the proposed 6 storey heights sought by the proposed development.

The merits for why the development should be of the scale and proportion proposed are that it:

- the height of the development graduates upwards from the townhouse development to the west towards the mixed use development that clearly denotes that the mixed use development forms part of the Jordan Springs Town Centre;
- ensures that large portions of the piazza will not be detrimentally overshadowed by the development during mid-winter;
- will not detrimentally overshadow the private open space areas for the adjoining and proposed townhouse development to the west; and
- is set back at the upper levels and articulated to break up the mass and bulk of the buildings.

### 6.2.2 Design Quality & Streetscape

The proposed mixed use development will interface with existing public domain areas of Jordan Springs Boulevard and Lakeside Parade, and will help to create new streetscapes along proposed Roads 1 and 2.

As illustrated in the photomontages at **Figures 8** and **9** (and included **Appendix E**) the proposed mixed use development respects these streetscapes by:

- providing the buildings to the street edge with appropriate setbacks to define the street while accommodating landscaping within the site and within the public domain that will serve to provide a treed streetscape;
- developing a height and scale of building envisaged by the desired future character of the area;
- ensuring that all frontages of the development address both to the street and the piazza;
- providing separate buildings with different but complementary façade and balcony designs;
- providing modulated and articulated building facades;
- setting backing back and setting down the loading area from the street height of the adjoining Road 1. In combination with extensive landscaping the loading area will somewhat concealed from public view, and will not detract from the upper residential levels of Building D;
- providing direct access to the development from all four street frontages; and
- incorporating a modern design that is contemporary.

## 6.3 Internal Amenity - Apartments

The proposed apartment units have been designed to ensure versatile use of space that will afford a range of dwelling types with good levels of internal amenity.

The internal layouts for the proposed apartments are appropriate and functional given that they:

- are varied in design to suit the needs of different people and circumstances;
- ensure habitable areas directly open out to a balcony or courtyard area to provide a greater living space;
- provide opportunities for future adaptability that suits the changing mobility needs of occupants;
- can accommodate a variety of furniture arrangements to suit the occupant; and
- facilitate a good level of internal circulation.

### 6.3.1 Solar Protection

The use of balconies, horizontal and vertical blade walls, balcony division walls and screening will serve to protect the building and its occupants from the heating effect of solar radiation during the summer months. These features will assist in ensuring sustainable development outcomes given that it will:

- benefit from the ability to make use of trapped solar heat gain during the winter months;
- prolong the use of balconies during winter months;
- protect residents and the building from extreme solar radiation during summer months; and
- encourage occupants to naturally heat and cool their apartments.

## 6.4 Urban Design and Built Form – Townhouses

The proposed subdivision pattern seeks to provide a traditional lot layout, with the lots generally being rectangular in shape. The proposed layouts for the town house sites are considered acceptable given that:

- a logical and uniform subdivision pattern is proposed;
- dwellings generally comply with the WPP DCS built form and landscape controls; and
- the provision of a large number of regular shaped lots enables the provision of more affordable and efficient dwelling designs to be constructed.

### 6.4.1 Design Quality

The proposed town house dwelling designs will have a positive impact upon the built environment and streetscape in that:

- a mix of two and three storey dwellings are provided, which provide built variety to the streetscape;
- the proposed dwellings are sympathetic in terms of scale, height, bulk and design in accordance with that envisaged in the Western Precinct DCS;
- the dwellings are appropriately designed to respond to the microclimate including sun, shade, breeze and general weather;
- the dwellings offer the ability to form a good interface with public domain and Regional Park;
- the dwellings incorporate appropriate materials, textures, forms and colours that complement the local landscape;
- the dwellings incorporate energy efficient measures;
- the proposed dwelling designs ensures affordable housing designs are provided to the market; and
- all dwellings have private outdoor spaces in the form of courtyards or soft landscaped areas that contributes to softening the form of the dwellings.

### 6.4.2 Streetscape

As shown within the elevation plans provided at **Appendix A** and the Photomontages at **Appendix E**, the proposed design for the town house dwellings will have a positive impact on the Western Precinct as a whole on the streetscape for the following reasons:

- the proposed designs will provide attractive and varied streetscapes;
- the proposed designs are of a high quality contemporary architectural design which will contribute to the character of the local environment and provide an attractive visual outlook;
- the proposed dwellings will use high quality and durable finishes to ensure that they comply with the residential character of Jordan Springs;
- the use of varied colour schemes and palettes allow the dwellings to form individual identities to the streetscape whilst still providing an consistent building form; and
- the use of architectural elements such as porches and pitched roofs define the dwelling entries and facades.

### 6.4.3 Setbacks and Heights

As identified within Section 6.1.2, some of the proposed townhouses do not comply with the required front setbacks. This includes proposed variations to the front setback from garages for various lots.

These variations to the front setbacks are sought on the basis that the relevant dwelling designs will:

- maintain a continuous built form to the streetscape providing an attractive visual character to Jordan Springs and adjoining Regional Park;
- provide an continuum of modern styled terraces of both semi-detached and attached configuration;
- provide medium density dwellings that accords with the affordable and efficient design expectations set by the Western Precinct Plan and Jordan Springs Village concept plan;
- avoid overlooking to the side boundaries of living spaces with the adjoining dwelling and private open space;
- providing an efficient use of land area and space;
- provide finishes and colour schemed that will complement Western Precinct; and
- Adequate on street parking will be provided in the vicinity to offset the ability for an additional car to park in the driveway (see Section 6.6 for more detail).

Further to the design merit of the dwellings, it should be noted that the dwellings will provide:

- the dwellings achieve the minimum requirement for rear setbacks to then provide usable private open spaces; and
- the majority of dwellings achieve the solar access provisions to the rear landscape open space and to the living / dining areas.

Also it is considered that the variation to setbacks will not compromise the objectives of the design elements within the Western Precinct DCS in that the development will:

- contribute to the range of housing forms and densities in the precinct;
- provide a level of development that complements and enhances the Regional Park;
- adequately achieves and maintains building envelopes that are suitable and appropriate to the scale and character of the desired streetscape and future amenity;
- encourages the use of high quality external materials and finishes; and
- provides a high level of private and public domain landscaping.

## 6.5 Impact on Adjoining Properties

### 6.5.1 Overshadowing

Hourly shadow diagrams have been prepared and are included with the architectural plans at **Appendix A**. They show the shadows cast by all new proposed dwellings between the hours of 9.00am and 3.00pm mid-winter (winter solstice on 21 June).

These diagrams illustrate that:

- most townhouse dwellings will receive at least 3 hours of solar access to the corresponding private open space areas;
- no part of the development will cast shadows during mid-winter to any adjoining existing development; and
- adequate solar access will be obtained within the piazza area.

Based on these outcomes it is considered that the proposed development does not detrimentally impact upon adjoining sites with regard to overshadowing.

### 6.5.2 Noise

One concern raised by Council was the potential for unacceptable noise levels from the night time use of the restaurants to adjoining residential development. Acoustic Logic has assessed the potential for this under worst case situations and determines that potential noise emissions will likely exceed acceptable levels to those units facing towards the piazza (see Environmental Noise Impact Assessment at **Appendix L**). There is likely some units and townhouses 1 to 12 will also be impacted upon by traffic noise from Jordan Springs Boulevard and Lakeside Parade.

Acoustic Logic also recognises that noise may also transfer between the townhouse dwellings to comprise occupants' amenity and privacy.

Consequently and to mitigate noise emissions Acoustic Logic has recommended that the following measures be carried out:

- use 6.38mm Lam glazing thickness for windows facing the piazza or adjoining main streets;
- use of light weight roofing materials such as tiles and/or metal roof decking to living areas for all townhouses;
- use of 1 layer of minimum 7mm fibre cement sheet external cladding for bedrooms facing Jordan Springs Boulevard;
- use of 1 layer of minimum 7mm centre sheet external cladding/64-92mm stud with 75mm thick 11kg/m3 glass wool insulation to cavity of all other townhouse dwellings;
- use of alternative ventilation or air-conditioning to habitable rooms facing the streets and/or the piazza area;
- limiting internal background music in restaurants to 70dB(A) $L_{eq}$;
- ensuring that slab thickness between the ground floor and residential units above is a minimum of 150mm;
- waste from restaurants not be removed these premises during the evenings; and
- management of patrons will on and exiting the restaurant premises.

To ensure plant noise emissions are kept to recommended accepted levels, Acoustic Logic recommend the use of appropriate mechanical plant that will ensure environmental noise emission criteria is satisfied (see **Appendix K**). Plant equipment will be selected at the detailed design stage of the development and appropriate

acoustic treatments such as duct lining, acoustic silencers and enclosures will be utilised also, if deemed necessary to further mitigate noise emissions.

Although the enclosed car parking areas are not expected to impact upon receivers around the development, there is potential for the use of the loading dock to generate unacceptable noise emissions. To minimise noise intrusions Acoustic Logic recommend that the use of the loading dock for truck movements be restricted to 7am to 10pm Monday to Saturday and 8am to 10pm on Sundays and public holidays.

## 6.6 Transport and Accessibility

GTA Consultants have prepared a detailed Transport Impact Assessment, which is included at **Appendix M**. The report provides assessment relating to suitability of the development with regard to adequate provision of car parking, traffic impacts, pedestrian and bicycle requirements and access arrangements.

It should be noted that SKM's Western Precinct Plan Traffic and Transport Report (2009) was relied upon to help develop a suitable road layout and framework for which Jordan Springs was designed and planned and then later incorporated into the Western Precinct Plan. This report demonstrates what road and transport network improvements were needed to support the overall development of Jordan Springs. GTA has considered this report in preparing it Transport Impact Assessment report.

All proposed roads to be constructed for the development are 'local roads'. With exception of Roads 3 and 4, the remaining roads are designed in accordance with the Western Precinct Plan Development Control Strategy (WPP DCS) dimensional requirements for carriageway widths. Whereas, all of the proposed roads for the development have reduced verge widths less than the required under the WPP DCS.

Council raised concern that the reduced road widths for Roads 3 and 4 would be not be adequate in width to accommodate garbage or similar sized vehicles to adequately manoeuvre along these roads. Consequently GTA has prepared a Safety Audit (at **Appendix N**) that demonstrates not only that these reduced road widths are adequate but also demonstrates that the proposed road layout and configuration is suitable for the proposed development and the eventual traffic flows along these roads.

Council raised concern that the reduced verge widths would be inadequate to suitably accommodate services, footpaths and street trees. Because the development will be a community titled development street trees will have be planted in the front yards of most proposed townhouse allotments, with exception of those dwellings along Jordan Springs Boulevard. All proposed footpaths along the proposed roads incorporate a 1.5m to Council's requirements. JWP has provided section drawings (see **Appendix F**) that illustrate all services can be adequately accommodated with the reduced verge widths.

As a consequence of the reduce verge widths and in some cases reduced front setbacks for townhouse garages, there is insufficient space in the front of these allotments to then accommodate a parked car that does not obstruct pedestrian access along the verge and/or wouldn't result in the parked car protruding on the street. Although the WPP DCS requires that a minimum of one parking be provided for each dwelling (for which all town houses are able to comply with), it is implied that parking can be accommodated in the driveway by virtue of complying with the required 5.5m front minimum setback for garages. To offset this loss of parking, GTA has assessed whether there is sufficient parking on street in the vicinity of the townhouse development to accommodate this potential demand and general demand for on street parking. They conclude that adequate parking has been provided to serve both these purposes (see Transport Impact Assessment at **Appendix M**).

The provision of parking within the mixed use development is considered by GTA to be adequate and complies with the requirements under the WPP DCS. It should be noted that in order to facilitate the interchangeable use of retail and commercial floor space of ground floor units as sought by this development (see Section 4.0), in preparing the

development a rate of parking for retail development would relied upon to minimise demand upon street parking.

GTA's Transport and Impact Assessment also concludes that the levels of traffic that may be generated by the development will be adequately accommodated by the local and regional road network with minimal impact. Further GTA concludes that all affected intersections (new and existing) will be able to operate within satisfactory Levels of Service (LOS). The report also indicates that because of the configuration of the proposed road layout and road lengths, this road arrangement will likely discourage speeding of vehicles through this part of Jordan Springs.

GTA has also formed the view that the current bus service will adequately service the residents, workers and visitors to the development, particularly as the service provides direct access to Penrith Railway Station and is a regular service.

The layout and configuration of the proposed basement car parking levels has been reviewed by GTA. This review indicates that the layout is expected to operate satisfactorily.

## 6.7 Crime and Public Safety

A Crime Prevention Through Environmental Design (CPTED) Report has been prepared by JBA Planning and is attached at **Appendix O**. The report has been prepared to consider the potential opportunities for crime given the scale of the development, its relationship the town centre and the mix of uses that will attract various people to the development.

The report identifies a number of recommendations to be incorporated into the detailed design of the proposed building which are expected to serve to reduce the risk of criminal activity and encourage the safety of all users of the development. These measures will in turn encourage positive activation of the public domain areas of the development, most notably that of the piazza and the adjoining streets.

## 6.8 Water Cycle Management

A Soils, Groundwater and Salinity Management Strategy for the Western Precinct is contained in the Water, Soils and Infrastructure Report and adopted by Council as part of the WPP. The implementation of the measures set out in the Interim Stormwater Management Strategy for the development (see Engineering Drawings at **Appendix F**) will ensure the proposal is consistent with the WPP, specifically:

- Appropriate sediment and erosion controls measures will be implemented during the construction and earthworks phase of development, as described at Section 16.13.2. These measures will be in accordance with the NSW Department of Housing's Managing Urban Stormwater – Soil and Conservation ('The Blue Book') and the requirements of Council;
- Post development flows will be consistent with the WPP water cycle management provisions;
- Sufficient interim and long term stormwater detention is provided for 2, 10 and 100 Average Recurrence Interval (ARI) rainfall events; and
- Adequate measures to prevent the proposed development resulting in or being impacted upon by increased soil salinity.

The proposed development will include rainwater tanks that will also contribute to suitable reuse of water by the development and will assist in minimising runoff to the overall system for Jordan Springs.

Given consistency of the proposed development with the management strategies incorporated within the Water, Soils and Infrastructure Report, the proposed development is appropriate with regard to water management.

## 6.9 European & Indigenous Heritage

There are 4 heritage items listed under SREP 30 located within the Western Precinct (Items 9, 14, 15 and 16). None of these four heritage items are located in the vicinity of the subject site; consequently, the proposed development will not likely have any impact on these items.

Given that development site is not located within any of the identified salvage areas, and salvage works in Salvage Areas 3 and 4 within other part of the Western Precinct have since been completed and are documented in the Archaeological Subsurface Investigations report prepared by Jo McDonald Cultural Heritage Management, the proposed development is not expected to give rise to any impacts on any known items of Indigenous heritage.

## 6.10 Contamination

As discussed in the WPP, the St Mary's Precinct has been subject to extensive investigation and remediation, where necessary, throughout the 1990s. The Environmental Protection Agency (EPA), now DECCW, has been involved throughout this process and an EPA accredited Site Auditor issued Site Audit Statements for the St Mary's site.

Nevertheless, in order to ensure the appropriate management of any sub-surface contamination that may be encountered during future works in the Western Precinct, a Contamination Management Plan (CMP) has been adopted by the Council as part of the WPP. The CMP outlines the measures to be undertaken should contamination and/or explosive ordnance material be uncovered during the proposed works.

No further Site Audit Statements are required to be issued in relation to the development of the subject land.

### 6.10.1 Chemical Contamination

In the case of suspected chemical contamination being uncovered during earthworks, the measures that will be implemented, in accordance with the CMP include:

- Quarantining or suspected contamination by a suitably qualified Environmental Consultant to protect the workforce from exposure to the contaminants and prevent the spread of contamination;
- Suspected asbestos containing materials should be managed in accordance with the relevant Work Cover requirements and a site specific Asbestos Management Plan.
- A suitably qualified Environmental Consultant is to be contacted to assess the nature and extent of the suspected contaminant and determine the appropriate remedial actions, which may include removal of the material to a licensed facility.
- The report on the remediation and validation will be undertaken in conjunction with an independent auditor. The auditor must issue a Site Audit Statement to indicate that the site is suitable for its intended use. Upon receipt of this the quarantine barriers can be removed and earthworks continue.
- A Sampling Analysis Plan is to be prepared if the contamination is found to be extensive.
- It may be possible to move and stockpile the contaminated material should it be critical to the project schedule. Validation sampling is required before earthworks can commence.
- If the environmental consultant determines that the material is not contaminated the quarantine restrictions can be lifted and earthworks in that area can continue.

### 6.10.2 Explosive Ordnance Material

Should potential explosive ordnance debris or other suspicious foreign debris be uncovered, earthworks will cease immediately and the area affected will be quarantined by an appropriate barrier to prevent access and protect the workforce from potential injury. The following measures, as detailed in the CMP undertaken:

- The Site Manager will make a preliminary assessment of whether material is miscellaneous debris, fragment or explosive ordnance or complete piece of explosive ordnance;
- Where the Site Manager confidently identifies objects(s) as non-explosive ordnance debris, or to be minor harmless fragments of ordnance debris, the material is to be removed from the excavation and disposed of appropriately;
- Where an object or material is considered to be a potentially explosive device, the Site Manager will contact an appropriately qualified Ordinance Contractor to assess the item and affected area;
- Should the Ordinance Contractor determine material is harmless, the object(s) can be removed and disposed of appropriately, the quarantine lifted and earthworks continue;
- If the Ordinance Contractor determines material to be explosive, it is to be disposed of in an appropriate way; and
- It may be necessary to carry out further surveys in accordance with QA/Validation procedures.

## 6.11 Flora and Fauna

A Species Impact Statement relating to the proposed development (also covering other related DAs) has been prepared by Cumberland Ecology and is included at **Appendix D**.

The Species Impact Statement has been prepared following an assessment of the proposed development carried out pursuant to s.5A of the EP&A Act and has been prepared in accordance with the requirements of the EP&A Act, the *Environmental Planning & Assessment Regulation 2000*, the *Threatened Species Conservation Act 1995* and the requirements of the Director General of the Department of Premier and Cabinet (Office of Environment and Heritage). However, the SIS indicates that although the development will further fragment representatives of the CPW community from the Regional Park and will remove an area of CEEC, the removal of the CPW is not considered to constitute a significant impact within the meaning of section 5A of the EP&A Act (7 Part Test) to then warrant a Species Impact Statement (SIS) as has been prepared and included with the this DA.

However, on a precautionary basis, Penrith Council has requested that a SIS has been provided on a precautionary basis given that the development will involve the removal of TSC listed species and communities, despite that the impacts of the subject DA are not in themselves significant to require an SIS.

Reference should be made to the full Species Impact Statement for a description of and assessment of the impacts of the proposed development on relevant threatened species/ ecological communities.

In summary:

- The proposed development is not likely to have a significant impact on Cumberland Plain Woodland (CPW) such that the large and viable representatives in the Regional Park would be placed at risk of extinction.
- The proposal is unlikely to result in any threatened species or ecological community becoming extinct;

- Whilst the site provides some limited habitat for threatened plants, animals and ecological communities, the loss of the habitat (factoring in the size and quality of habitat protected within the 900ha Regional Park) is not considered to be significant;
- Known occurrences of threatened flora and fauna within the St Marys site are predicted to be secure in the long term as a result of the creation of the strategically important Regional Park;
- The impact of the proposal is well within the offsets created by the major conservation outcome resulting from the establishment of the Regional Park. This work has commenced.

The Species Impact Statement concludes that the proposed development will not have a significant adverse impact on the relevant threatened species/ecological communities.

## 6.12 Bushfire

The subject site is identified as bushfire prone land. A Bushfire Safety Authority from NSW Rural Fire Service is therefore required in relation to the proposed development (subdivision), in accordance with Section 100B of the *Rural Fires Act 1997*.

A Bushfire Protection Assessment (BPA) has accordingly been prepared in relation to the proposed development by Ecological Australia (refer to **Appendix P**). The BPA has had due regard to the requirements contained in the *Bushfire Protection Assessment – St Marys Western and Central Precincts'* prepared by BES (2009), which forms part of the WPP and the RFS published document '*Planning for Bushfire Protection 2006'*(PBP).

The BPA concludes that subject to the implementation of the below recommended bushfire protection requirements, an adequate standard of bushfire protection for the will be provided, which is appropriate for the issue of a Bushfire Safety Audit:

- A minimum 15m APZ is to be provided adjoining the Regional Park and future Drainage Corridor. The requirements are in accordance with PBP, and have been calculated by the accountability of radiant heat flux for forest and woodland at the development interface with the Regional Park;
- Ensuring that all landscaping complies with principles listed under Appendix 5 of the PBP;
- That the Bushfire Attack Level (BAL) for all dwellings facing Road 1 and the Regional Park be of BAL-29 to BAL-12.5 construction standards;
- All permanent APZs are to be established and maintained in accordance with the fuel management specifications of PBP; and
- Public roads, landscaping, reticulated water, parking, fire hydrants, electricity and gas are to comply with the relevant sections of PBP and Australian Standards.

## 6.13 Construction Impacts

A detailed Construction Management Plan will be prepared after a building contractor has been appointed and prior to any works commencing on the Site. The plan will address the potential impacts of construction including the following issues:

- access to the construction site;
- construction traffic;
- noise from demolition, excavation and construction;
- soil and water management/ erosion and sediment controls;
- dust suppression;

- geotechnical conditions and the impacts of vibration from excavation on surrounding properties (where relevant); and
- waste management including reuse and recycling of excavated material.

A Preliminary Construction Overview has been provided and included at **Appendix Q**. This indicates that the development will be constructed in 10 stages, although not necessary in the order that they are listed. Given the site can be readily isolated from adjoining development; the works can be completed in the order of stages that may be appropriate upon finalisation of a detailed Construction Management Plan.

### 6.13.1 Construction and Waste Management

The reuse and recycling of construction materials will be maximised both on and off the site and that waste is minimised as far as practicable. In addition to the use of materials on and off site, the impacts of the proposed bulk earthworks on the future residents in the vicinity of the development site will aim to mitigate noise impacts with the following:

- Maintaining significant distance between the proposed bulk earthworks and existing development;
- Comply with the relevant provisions of the *Environmental Operations Act 1997* and with DECCW's Interim Construction Noise Guidelines; and
- Undertaking all reasonable and practical measures by the onsite manager to reduce noise and vibration from the site.

### 6.13.2 Erosion and Sediment Control

In accordance with *St Marys Project Western Precinct Plan – Water, Soils Infrastructure Report (2009*) forming part of the WPP, erosion and sediment control measures are to be implemented during the proposed works. Measures to be implemented on site are detailed in the Soil and Water Management Plan by J Wyndham Prince at **Appendix F** and include:

- use of silt fences to direct stormwater and trap silt;
- use of barrier fences;
- use of straw bales as sediment filters;
- use of filter rolls; and
- inlet sediment trap.

Spoil material will be stockpiled temporarily to the west of Road 5.

### 6.13.3 Soil Salinity

The Soil and Water Management Plan forming part of the WPP includes recommended strategy measures to be implemented to address potential soil salinity issues, should they occur.

Specific measures to prevent the proposed development resulting in increased soil salinity to be implemented on the site are detailed on the Engineering Plans prepared by J Wyndham Prince at **Appendix F**. These measures are consistent with WPP recommendations and aim to reduce rainwater infiltration in locations at which recharging of the water table is likely to result in saline minerals rising up through the soil. These measures include:

- The shaping of landform so as to affect the rapid shedding of water to roadways and underground stormwater drainage systems;
- Collection of stormwater from paved areas and roofs for conveyance directly through sealed drains to approved discharge points along natural drainage lines/stormwater detention basins;

- The impervious lining of permanent stormwater detention structures and wetlands;
- Planting and retention (where possible) of native deep-rooted large flora species;
- Ensuring individual house blocks easily drain to catchment wide stormwater system to ensure salt does not accumulate in the garden beds, adjacent to building foundations or other salt sensitive infrastructure; and
- Minimisation of disturbance during construction and the implementation of appropriate erosion and sediment control strategies.

## 6.14 Accessibility & BCA Compliance

A Building Code of Australia and Access Report has been prepared by Matt Shuter & Associates and is included at **Appendix R**. This report provides an audit of the proposed mixed use development in relation to compliance with:

- Relevant provisions of the BCA;
- AS 1428.1 – 2009 "Design for Access and Mobility – Part 1: General Requirements for Access New Building Works"; and
- Commonwealth Disability (Access to Premises) Standards 2010

Matt Shuter & Associates has determined that the development is capable of complying with the 'Deemed to Satisfy' provisions of the BCA 2006 for mixed classification development of 2, 5, 6 and 7a. Where deviations from the 'Deemed to Satisfy' provisions arise, 'Alternative Solutions' will be employed to ensure that the development will comply with the BCA. The report also concludes that the proposed development can achieve compliance with the relevant access provisions of the BCA.

### 6.14.1 Fire Engineering

Innova Services has undertaken an assessment of the proposed development against the relevant fire engineering requirements of the BCA (See Fire Engineering Concept Report at **Appendix S**.

A number of variations are sought to the Deemed To Satisfy (DTS) provisions of the BCA. These include:

- Exit travel distances (BCA clause D1.4)
- Distance between alternative exits (BCA clause D1.5)
- Travel via fire-isolated exits (BCA clause D1.7)
- Fire hose reels (BCA clause D1.4)

The proposed fire engineered solution for the subject development will be completed in accordance with the Fire Engineering Guidelines by a C10 Accredited Fire Safety Engineer. Alternative olutions to these variations are outlined in the Fire Engineering Concept Report at **Appendix S** and are expected to be refined and developed in accordance with the DTS provisions of the BCA to ensure the development can comply with the relevant performance requirements of the BCA.

## 6.15 Contributions

The St Marys Penrith Planning Agreement is a Planning Agreement as governed by Subdivision 2 of Division 6 of Part 4 of the Environmental Planning and Assessment Act. The Planning Agreement excludes the application of sections 94 and 94A (but not the application of section 94EF - Special Infrastructure Contributions) of the Act related to development contributions for the provision of facilities and services at Jordan Springs.

## 6.16 Social and Economic Impacts

The proposed development will have a positive impact on the social and economic environment in that it will:

- provide for a more efficient use of land;
- increase housing choice in the area;
- provide new opportunities for people to gather; and
- further transform the Western Precinct as sought by the various strategies that support the delivery of the St Marys site.

### 6.16.1 Economic Impacts

Under clause 59 of SREP No. 30, the total gross floor extent of retail and commercial development with the Western Precinct is restricted to a maximum of 7,500sqm unless it can be demonstrated that:

> *"the total gross floor area (including the gross floor area of all other buildings used for retailing in the locality) will not be greater than the total required to reasonably service the local residential community and workforce."*

Once constructed the proposed development will effectively contribute a level of non-residential floor space that will exceed the maximum floor space for the Western Precinct under SREP 30.

In order to accurately determine what impact that this outcome will have the on surrounding competing development and to test whether the addition of retail and commercial floor space over and above that permitted by the SREP 30 is acceptable, Macroplan has carried out a detailed assessment (see the Economic Impact Assessment at **Appendix J**).

Macroplan's report indicates that based on the estimated turnover from the non-residential uses will have the largest estimated trading impact of approximately -5.9% upon the retail facilities at Penrith Panthers/Mulgoa Road. This level of impact is considered acceptable and within the normal bounds of competition. Furthermore these impacts are likely to dissipate as the population of Jordan Springs and surrounding development continues to grow. Moreover the contribution of new retail and commercial development is expected to have important economic benefits for the community by providing new employment opportunities, increase choice and convenience and improved amenity for local residents.

On this basis, the proposed development is considered to satisfy the tests under clause 59 of SREP 30 to then be deemed suitable for Jordan Springs.

## 6.17 Site suitability

The site is suitable for the proposed development given that it:

- is in close proximity to a range of services, particularly that of public transport to serve the needs of future occupants;
- has good access to the local and regional road network, and frontage to two key roads through Jordan Springs;
- it is zoned to accommodate the proposal within the framework established by SREP 30 consistent with ongoing development elsewhere across the St Marys site;
- has all necessary utility services available to service the development; and
- is of a suitable size to accommodate medium to high density mixed use and residential development, such as that proposed.

The proposed development is considered suitable for the site given that it:

- generally complies with St Marys SREP No. 30, the Western Precinct Plan and Development Control Strategy;
- best utilises the site to provide additional housing and choice in an economic climate of high demand;
- the proposed development complements and contributes to the activation of the main street of the Jordan Springs Town Centre;
- the works will continue to support and help realise the built form and public domain vision for the Jordan Springs Town Centre and more broadly the Western Precinct under the Western Precinct Plan;
- will help to further stimulate the housing and employment market in the local and regional area of Penrith; and
- will generate a quantum of traffic that will be adequately accommodated by the surrounding road network, to then not be detrimental to local or regional traffic management and flows.

Further the proposed development is located within a development precinct that is earmarked for that purpose under SREP 30 and set aside as being appropriate for urban development.

Confining development to designated development precincts ensures that the aims of SREP 30 with respect to conserving a representative and significant proportion of the natural values of the St Marys site are achieved (i.e. development being restricted to land outside of the 900ha Regional Park). The proposal is therefore suitable for the site and ensures development occurs within the environmentally sustainable development framework established under SREP 30 and carried through within the WPP.

## 6.18 The Public Interest

The works proposed in this application will contribute to the next stage of the residential development in Jordan Springs and help realise the vision for the town centre. The proposed development is considered in the public's interest in that it will:

- help facilitate housing supply;
- provide housing choice and affordability;
- contribute to a sense of community;
- create new employment opportunities;
- provide opportunities for recreation and entertainment not provided elsewhere in the precinct; and
- provide natural surveillance increasing safety and reducing crime in the area.

# 7.0 Conclusion

The proposed development will further reinforce the importance of the Jordan Springs Town Centre as a hub for retail development and support the delivery of new housing choices, as sought by the WPP.

The proposed development generally complies with the relevant planning controls in the WPP DCS, with the notable exception of some setbacks for townhouse dwellings. This departure is justified in Section 6.4 of the report, which demonstrates that this variation will still ensure that the desired streetscape character will be achieved. Moreover and in comparison, the consequences of this variation will have a negligible environmental impact and improved outcomes than if the development was to comply with this control.

The proposed development is found in this report to have planning merit on the basis that:

- the bulk, scale and footprint of the proposed building accord with these controls in WPP DSC;
- the building designs for the mixed use development incorporates a high level of articulation to the facades which further breaks up the scale of the buildings and helps to distinguish each of the buildings;
- it includes comprehensive landscaping;
- it will not have unreasonable impacts on adjoining properties in terms of solar access and privacy;
- a good level of internal amenity for the mixed use development is provided given the unit sizes and layouts, views, access to good quality open space, security and acoustic attenuation will be made available to the proposed units;
- it achieves the scores for water conservation and energy efficiency prescribed in BASIX;
- traffic generated by the proposal can be accommodated on the local road network at a satisfactory level of service;
- the access and car parking arrangements are suitable for the development and comply with the WPP DCS requirements;
- it includes appropriate waste management facilities for recycling , waste storage and collection;
- a construction management plan will be prepared prior to works to manage the impacts of construction;
- it will offer numerous and different housing choices for the locality of Jordan Springs;
- it will provide new and local opportunities for employment;
- help further activate the main street of Jordan Springs through appropriate landscaping treatments and extensive street level activation; and
- the location and attributes of the site are suitable for the proposed development, particularly in relation to the public transport nearby, good road access, the site area and dimensions.

Given the above merits we therefore propose that the DA be approved subject to standard and appropriate conditions of consent.