



Bloomfield Concept Plan Environmental Assessment

Application No. MP10_0021

August 2010

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EXECUTIVE SUMMARY

Proposed land uses

Concept Plan approval is being sought for the following:

- The residential subdivision of the land zoned R2 Low Density Residential and associated infrastructure.
- The staging of the residential subdivision of the R2 Low Density Residential land.
- The realignment of lot boundaries from nine (9) lots to five (5) lots.
- The retail floorspace in Area 2 to be increased from the 1,500m² to 3,500m² to assist in the viability of the retail floorspace.

Major Findings

Along with the upgrading of the Orange Bloomfield Hospital, and existing physical and social infrastructure, the site provides a logical means of establishing a new residential community at South Orange. It provides an opportunity to create a sustainable urban area with a desirable mix of jobs, housing and services located in close proximity to each other.

The supply of residential land along with other compatible mixed uses in an area of existing and future significant employment opportunities will assist in meeting State Government objectives of providing affordable housing and jobs in close proximity.

Investigations carried out for the proposal concludes that there will not be a significant impact on existing infrastructure such as the road network and services can be provided to the site. The proposal will contribute positively through its design incorporating ESD principles and in particular the harvesting of rainwater and reuse by NSW Industry & Investment for irrigation purposes at the Orange Agricultural Institute.

Background

Orange City Council's Sustainable Settlement Strategy (2004) was prepared to support the development of Council's new Draft Local Environmental Plan. The Settlement Strategy identified land at South Orange as having potential for urban residential development, and recognises the subject area as part of a South Orange urban growth strategy.

The Sustainable Settlement Strategy indicates that Orange has had a steady population growth and is expected to continue to grow, though the expansion of residential lands in the City of Orange is limited. The key constraints that the Settlement Strategy identified included water catchments to the south and east, existing agricultural land to the south and west, buffer areas surrounding industrial land, significant scenic or environmentally sensitive areas, areas already identified or in use as residential, institutional or special purpose, and areas for which the cost of servicing would far exceed any economic gain.

The subject site is located nearby to the Bloomfield site where work on the upgrading of the Orange Bloomfield Hospital has commenced, as well as adjacent to the site of the proposed new Orange Private Hospital approved under Part 3A of the Environmental Planning & Assessment Act 1979.

The subject site was investigated when the NSW Department of Lands undertook to assess Crown Land at Bloomfield, as part of the NSW Industry & Investment's landholdings of the Orange Agricultural Institute. A further study was undertaken by Peter Andrews + Associates Pty Ltd (2007), looking at future urban development potential, for the purpose of adding to Council's Local Environmental Plan.

The NSW Department of Planning authorised the submission of a Concept Plan and a State Significant Site Study in February 2008, to determine whether to list the site as a State Significant Site on Schedule 3 of the State Environmental Planning Policy (Major Projects) 2005. Subsequently, the site was rezoned for urban land uses. Director General's Requirements were then sought in 2010 for the Concept Plan Approval.

Consultation

Extensive consultation has taken place with Orange City Council and various agencies during the preparation of the State Significant Site Study, the preparation of the DG's Requirements and this Environmental Assessment.

Project Justification

The subject site is well located, close to existing and future employment opportunities, as well as health, educational and recreational facilities. The land identified for development purposes in this assessment will provide residential development and a local centre and will assist in the establishment of a 'hospital' suburb, supporting the existing and future medical and educational uses of the area. This will not only assist the economic development of Orange through the creation of jobs and services, but also establish new residential development in a suitable location that encompasses existing and future facilities to support population growth.

The proposed residential and retail development will assist in creating a village node, which will support the existing and future community and employment facilities that have already been commenced or proposed within this immediate area. The increase in the retail floorspace to 3,500m² will enable sufficient convenience services to be provided to the surrounding resident and worker populations and will not have a significant impact on the viability of the Orange CBD.

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STATEMENT OF VALIDITY

Submission of Environment Assessment for Bloomfield South Orange:
Prepared under Part 3A of the Environmental Planning and Assessment Act 1979.
Environmental Assessment prepared by:

Names: Vanessa Colclough
Director / Urban Planner

Qualifications: B.A. Bach.U.R.P. M.Prop.Dev. mpia CPP

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I certify that I have prepared the contents of this Environmental Assessment with specialist consultants and to the best of our knowledge, the information contained in this report is neither false nor misleading.

Signature:
Name: Vanessa Colclough
Date: 16 August 2010

1.0 INTRODUCTION

The NSW Government's landholdings at South Orange (which includes the Orange Agricultural Institute and surrounding lands) are ideally located in close proximity to the Orange Town Centre (Figure 1). It is also well located to existing and proposed employment lands in South Orange including the Bloomfield Hospital, the adjoining proposed new private hospital and ancillary uses and existing facilities such as the TAFE, the Orange Agricultural Institute, CADIA Mine and Orange airport. The majority of the NSW Industry & Investment's (DII) landholdings were identified in the Orange City Council's Sustainable Settlement Strategy (2004) as a future urban residential area. The site was subsequently zoned for urban land uses under Part 18 Bloomfield Site in Schedule 3 of the State Environmental Planning Policy (Major Development) 2005 ("Major Development SEPP") in April 2009.

Concept Plan approval is being sought for the development of the land zoned R2 Low Density Residential and the B4 Mixed Use Zone as described in Table 1 and as shown on Figures 2, 3 and 4.

Table 1 – Subject Landholdings

Land Description	Status and Tenure
Lot 7017 DP 750401 (road)	Reserve 97682 for Public Buildings, notified 15/2/1985
Lots 2 and 134 DP 750401	97682 for Public Buildings, notified 15/2/1985 Reserve
Lot 179 DP 750401	Reserve 1011448 for Future Public Requirements, notified 31/3/2006
Lot 63 DP 750401	Added to Reserve 84622 for Research Station (Agricultural), notified 6/12/1963
Lot 147 DP 750401	Reserve 97682 for Public Buildings, notified 15/2/1985
Lot 143 DP 750401	
Lot 7011 DP 1000831	Reserve 84622 for Research Station (Agricultural), notified 8/11/1963, addition 6/12/1968 (previous TSR:56781-rev'k 6/12/1968)
Lot 145 DP 750401	Reserve 84622 for Research Station (Agriculture), not 8/11/1963

Source: NSW Department of Lands (2007) and Hoynes Wheeler and Thorne Pty Ltd

The proposal for this concept plan application includes the following:

- The residential subdivision of the land zoned R2 Low Density Residential and associated infrastructure including:
 - Access onto Forest Road through the B4 Mixed Use Zone;
 - Seagull intersection at the intersection to the residential lands with Forest Road;
 - Water Reservoir;
 - Drainage swale; and
 - Local open space.
- The staging of the residential subdivision of the R2 Low Density Residential land.
- The subject land currently consists of 9 lots. A realignment of boundaries is proposed to five (5) lots, which will assist the development of the land and separate the lots from the existing land uses such as the Orange Agricultural Institute.
- Part 18 Bloomfield Site in Schedule 3 of the Major Development SEPP restricts the amount of retail floorspace in Area 2 to 1,500m². It is requested that this development standard for retail floorspace be amended and increased to 3,500m² to assist in the viability of the retail floorspace.

This Environmental Assessment has been prepared to justify the above development and provide information to address the Director General's Requirements. The study team for the project included:

Table 2 – Project Team

Tasks	Entity
Landowner's Representative	State Property Authority
Project Managers	Mitcham Nelson
Planning	Peter Andrews + Associates Pty Ltd
Economics	Pitney Bowes
Urban Design	Annand Alcock
Engineering	Cardno
Traffic	Colston Budd Hunt & Kafes Pty Ltd
Heritage	Susan McIntyre-Tamwoy

2.0 BACKGROUND

Orange City Council's Sustainable Settlement Strategy was prepared in 2004 to support the development of Council's new Draft Local Environmental Plan, conforming to the Standard LEP Template. The Settlement Strategy identified land at South Orange including the Bloomfield Site as having potential for urban residential development and recognises this area as part of the South Orange urban growth strategy.

In late 2007, the then Department of Primary Industries requested the Department of Planning to consider its site as a major development given its locality and the importance of providing urban lands to support the significant industries in the immediately surrounding area.

On 11 February 2008, pursuant to Clause 6 of the Major Development SEPP, the Minister for Planning formed the opinion that the proposed development constitutes a Major Project and also authorised the submission of a Concept Plan for the Site. In doing so, the Minister also formed the opinion that a State Significant Site Study ("SSS Study") be undertaken to determine whether to list the site as a State Significant Site in Schedule 3 of the Major Development SEPP.

A SSS Study was prepared to address the Department of Planning's issues that need to be considered and assessed pursuant to clause 8 of the Major Development SEPP. It was prepared in consultation with the relevant agencies including:

- Department of Planning;
- RTA;
- NSW Heritage Branch;
- The then NSW Department of Primary Industries;
- The then Department of Environment and Climate Change; and
- Orange City Council.

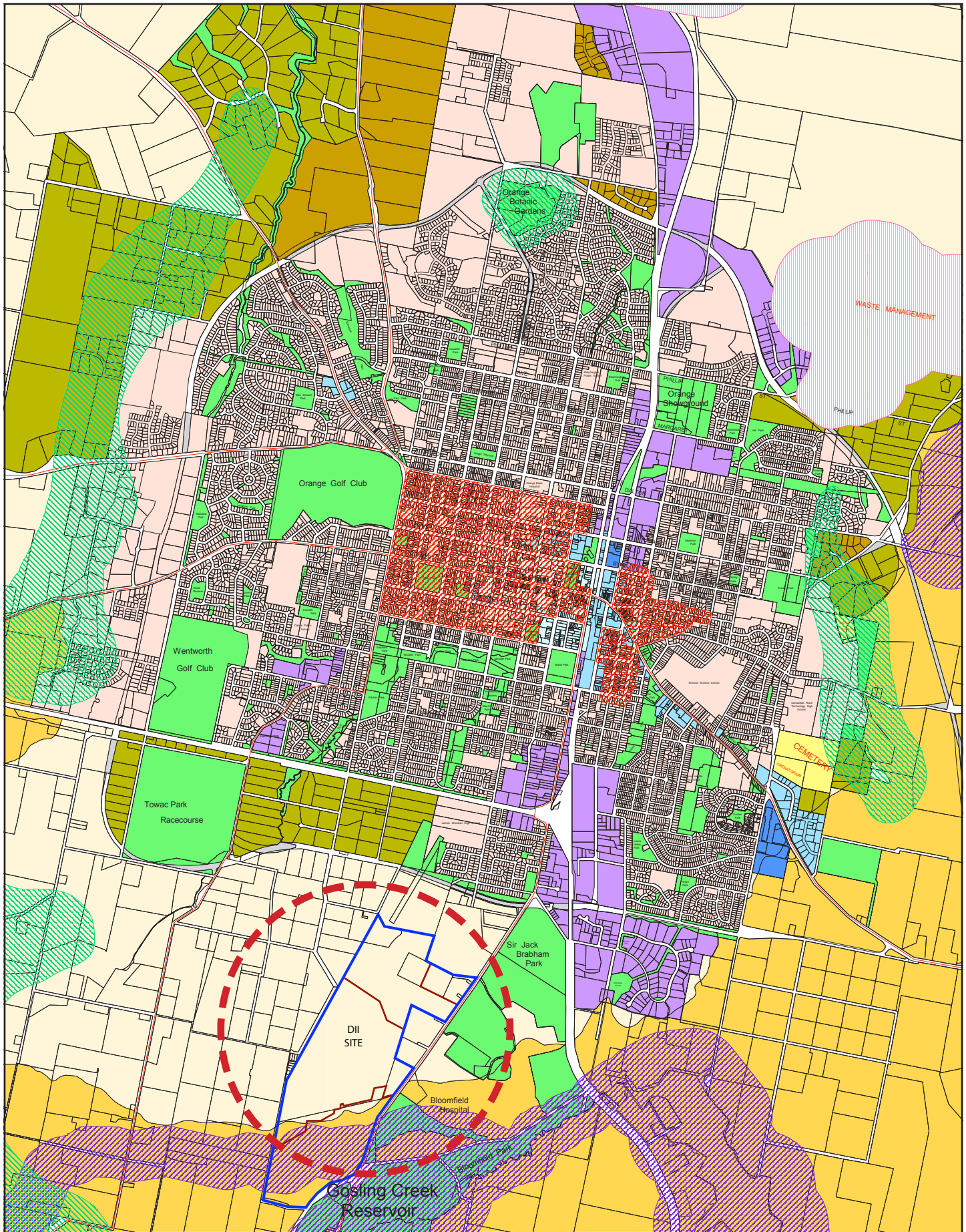
The SSS Study was placed on public exhibition from 17 December 2008 to 9 February 2009. Submissions were received during the public exhibition period and further information was provided to address these submissions.

On 9 April 2009 the Minister for Planning listed the site as State Significant in Schedule 3 of the Major Development SEPP. The land is zoned under Part 18 of Schedule 3 as follows and as shown on Figure 4:

- R2 Low Density Residential;
- B4 Mixed Use; and
- SP2 Infrastructure.

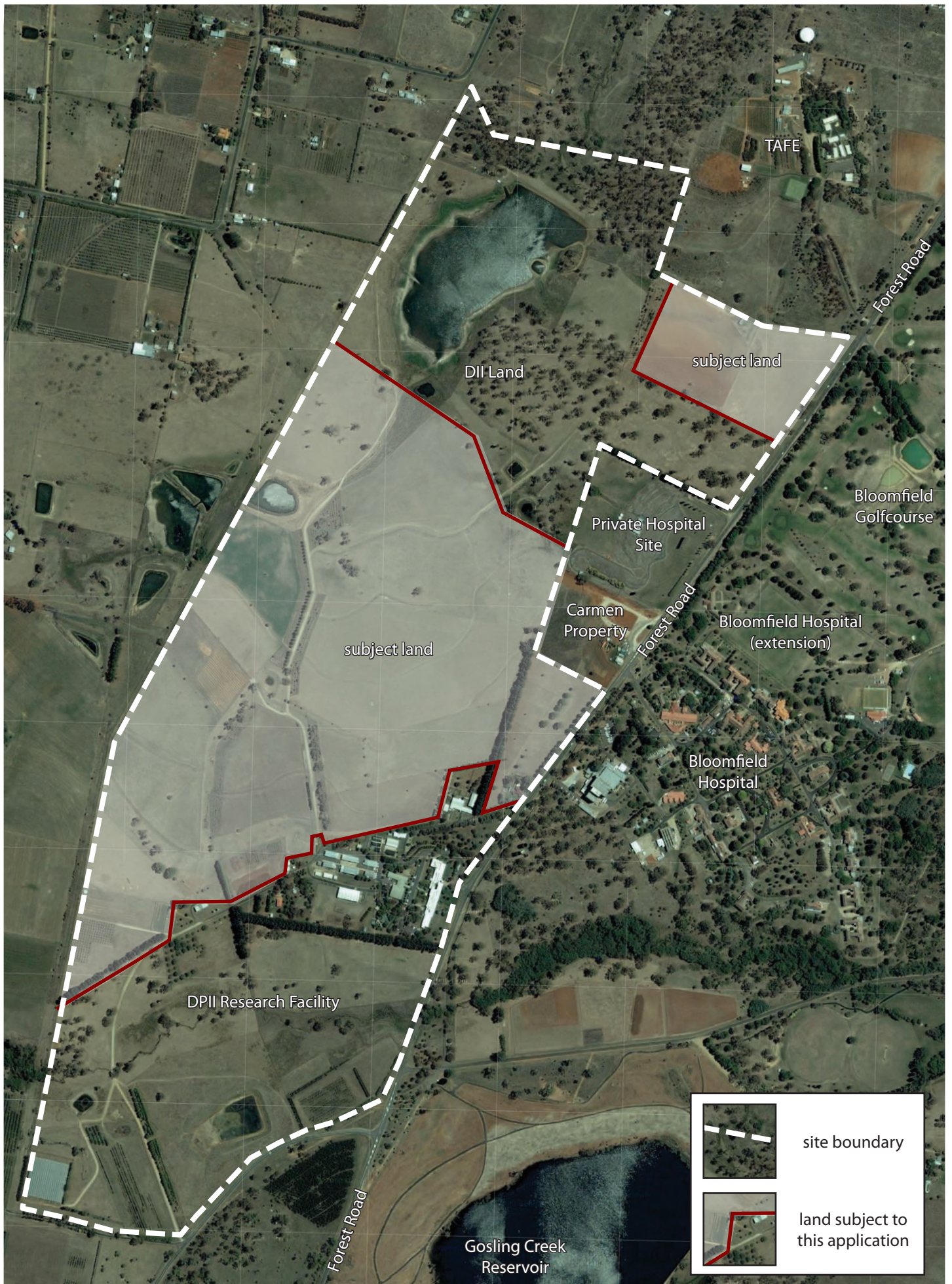
Part 18 Bloomfield Site of Schedule 3 of the Major Development SEPP also outlines the objectives for the zones and includes various development standards for future development.

Further, a request for a Concept Plan application was made to the Department of Planning and the Director General's Requirements ("DG's Requirements") were issued on 17 March 2010.



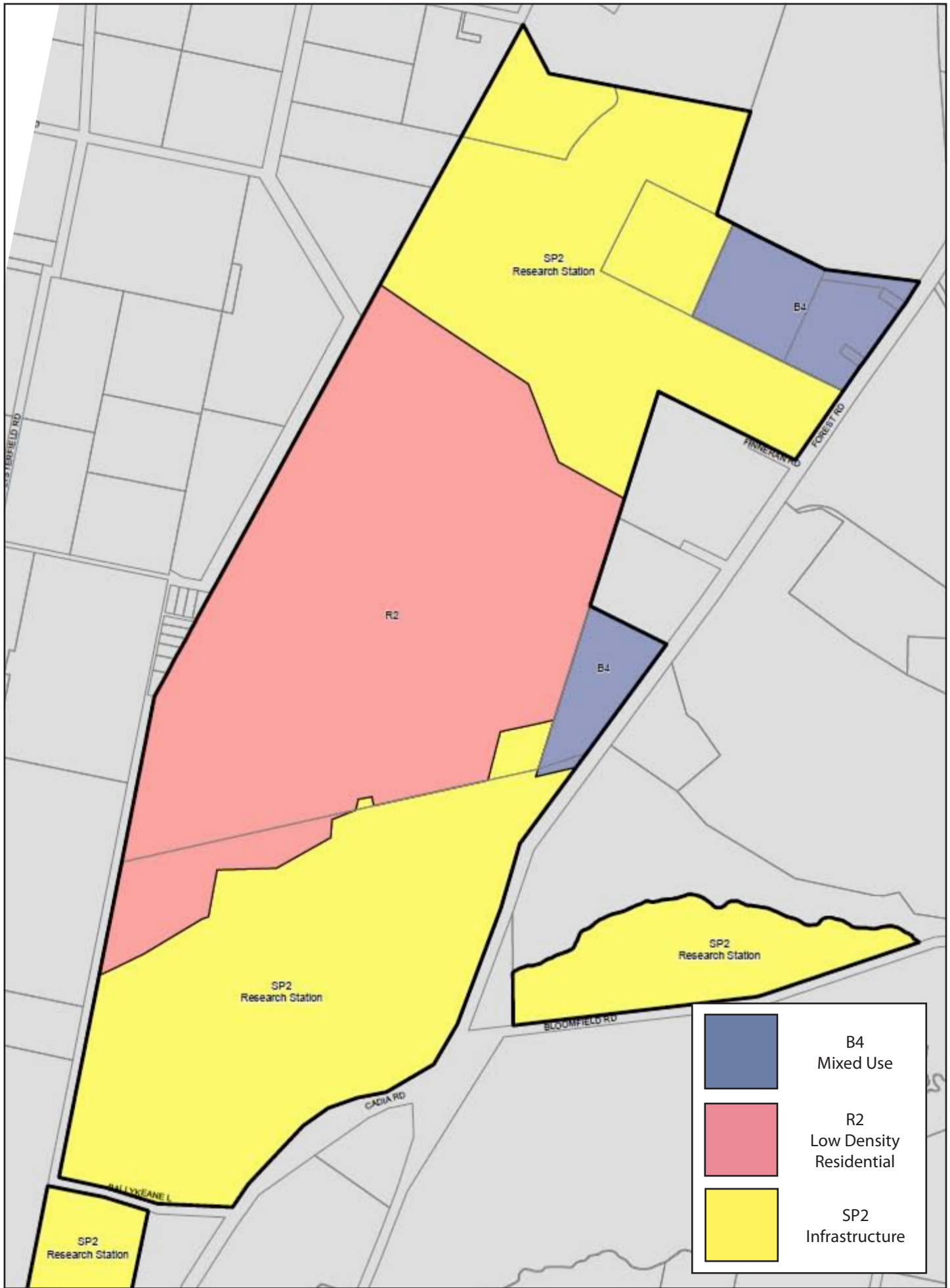
South Orange DII Site
FIGURE 1: LOCALITY PLAN





South Orange DII Site
FIGURE 2: SUBJECT SITE PLAN





South Orange DII Site
FIGURE 4: ZONING PLAN

1:10000 @ A4

0 100 200m



3.0 DIRECTOR GENERAL'S REQUIREMENTS

This Environmental Assessment addresses the issues outlined in the DG's Requirements and a summary is presented in Table 3. The DG's Requirements are also attached as Appendix 1.

Table 3 – Environmental Assessment Requirements

Item	Requirement	Chapter of Environmental Assessment
	KEY ISSUES	
1.	Relevant Environmental Planning Instruments, Policies and Guidelines to be addressed – including: ▪ Describe the planning provisions applying to the site, including permissibility and the provisions of all plans and policies including: ○ Objects of the EP&A Act; ○ State Environmental Planning Policies (SEPPs), including: ▪ SEPP (Major Development) 2005; ▪ SEPP (Infrastructure) 2007; ▪ SEPP 55 – Remediation of Land; ○ NSW State Plan ▪ Justify any deviations from the development standards specified in Schedule 3, part 18 of SEPP (Major Development) 2005; and ▪ Consider the Orange City Council Instruments, policies and strategies, including the Orange Sustainable Settlement Strategy and Local Environmental Study.	Section 7.0
2.	Layout and Future Character – including: ▪ A site analysis to identify the relevant natural and built environmental features. The site analysis should form the basis for justifying the configuration of the development of the land; ▪ Details of the proposed layout, demonstrating incorporation of the principles for: ○ Sustainable subdivision design; ○ Appropriate mix of lot sizes and future housing diversity, with consideration of provisions for affordable housing; ○ Safe subdivision design, including traffic, road design, pedestrian safety and Crime Prevention through Environmental Design Principles; ▪ Suggested controls and urban design guidelines applicable to the development, including the subdivision pattern, lot sizes and yield, road hierarchy and design, development controls, future built form, character and management arrangements; ▪ Details of the proposed uses in the B4 – Mixed Use zone, with consideration of function and relationship of uses given the fragmented nature of the zone; ▪ Details of the proposed landscaping and open space areas; ▪ View analysis, including artist's perspective and photomontages; ▪ Links with existing and proposed urban development in the area; and ▪ Integration with the existing character of the surrounding land uses.	Section 6.0 + Appendices 2, 3 and 10
3.	Staging – Including: ▪ Details of any proposed staging, including: ○ The extent of the area and works proposed for each stage; and ○ The predicted timing for each stage (and the implications for the delivery of infrastructure and services required).	Section 6.0 + Figure 10
4.	Economic Impacts – Including: ▪ Provide a detailed description of the proposed retail space including: ○ Consideration of the likely demand for retail space; and ○ Justification for the proposed floor space, number and type of retail spaces to be provided; ▪ Provide an economic impact assessment to determine the potential	Sections 7.4.1 and 9.1

Item	Requirement	Chapter of Environmental Assessment
	impacts on the Orange Town Centre (including consideration of existing and likely future retail development within the Orange LGA); and ▪ Demonstrate there is sufficient demand for the proposed retail space and that the space would not significantly impact on the viability and vitality of the Orange Town Centre.	
5.	Social and Community – including: ▪ Identify the social and community facilities required to provide for the community and ensure social integration; and ▪ Describe the measures to be implemented to provide for the timely provision of these facilities.	Section 9.2
6.	Agricultural Land – including: ▪ An assessment of the impact on primary production and practices for adjoining rural areas and consider any potential impacts on food production.	Section 9.3 + Appendix 10
7.	Ecologically Sustainable Development (ESD) – including: ▪ A description of how the development will incorporate ESD principles in the design of the area, including consideration of infrastructure for: ○ Rainwater harvesting and water reuse; ○ Energy efficiency and renewable supply; and ○ Waste recycling, minimisation and trip containment.	Sections 9.3 and 9.4 + Appendix 10
8.	Transport & Accessibility Impacts – including: ▪ Provide a Transport & Accessibility Impact Assessment prepared in accordance with the RTA's Guide to Traffic Generating Developments and making reference to the NSW Planning Guidelines for Walking and Cycling and the Integrating Land Use and Transport Policy package, considering the following issues: ○ Adequacy of access arrangements to surrounding areas and consideration of the impacts on access for neighbouring sites; ○ Traffic generation including daily and peak traffic movements likely to be generated by the project and cumulatively at various stages of the development (Taking into consideration the traffic likely to be generated from proposed and approved developments and predicted future growth); the impact on the safety and capacity of the surrounding road network and nearby intersections; and the need and provision of upgrade, road improvement works, or funding; ○ Road design, in accordance with Australian Standards, and demonstrating how the road layout design supports safe and efficient bus access in accordance with the NSWMTI Metropolitan Servicing Guidelines; ○ Car parking (note: the Department supports reduced parking provision, if adequate public transport is available to access the site); ○ Measures to promote sustainable means of transport including public transport usage, pedestrian and bicycle linkages both within the site and to key destinations, and the potential for implementing a location specific sustainable travel plan; ○ Demonstrate how users of the development will be able to make travel choices that support the achievement of relevant State Plan targets; ○ Describe the existing pedestrian and cycle movements within the vicinity of the site and determine the adequacy of the proposal to meet the likely future demand for increased public transport and pedestrian and cycle access; and ○ Provide an assessment of the implications of the proposed development for non-car travel modes (including walking and cycling, and the provision and cost of public transport and supporting infrastructure).	Section 9.5 + Appendix 6

Item	Requirement	Chapter of Environmental Assessment
9.	Soil and Water – including: - A site water balance for the project, including a description of the measures that would be implemented to minimise the use of potable water; - A description of any watercourses or riparian corridors on site and details of the measures to protect and enhance these waterways; - Consideration of potential impacts on groundwater, with details of any groundwater interception and dewatering required during construction and an assessment of the impacts on the quality and quantity of groundwater; - An assessment of impacts on adjacent water users (including any groundwater dependent ecosystems); - Plans of the proposed drainage and stormwater infrastructure, in accordance with the principles of Water Sensitive Urban Design, including details of any water management structures; and - Consideration of the potential flooding (with consideration of climate change), contamination and salinity impacts.	Section 9.6 + Appendix 10
10.	Heritage – including: - Impacts on both Aboriginal and non-Aboriginal Heritage; and - Proposed mitigation and management measures.	Section 9.7 + Appendix 11
11.	Biodiversity – including: - An assessment of the potential impacts of the project on threatened species, migratory species and endangered ecological communities; and - A description of the measures proposed to enhance the biodiversity conservation value of the site.	Section 9.8 + Appendix 7
12.	Bushfire Risks – including: Provide an assessment in accordance with the requirements of Planning for Bushfire Protection 2006 and identify the ongoing management arrangements for any asset protection zones required.	Section 9.9
13.	Utilities and Services – including: - Describe any existing utilities and services onsite; - Prepare an utility and infrastructure delivery strategy, to provide for the supply of water, sewerage, stormwater, gas, electricity and telephone services; and - Consider technologies and options to reduce the demand or need for servicing or provide for the supply of sustainable services.	Section 9.10 + Appendix 10
14.	Developer Contributions and/or Planning Agreements – including: - An assessment of the demand for local and regional services and an outline of the proposed mechanisms to ensure suitable funding and timely provision of these services; and - Details of the scope of a proposed planning agreement and/or developer contributions between the proponent, Council and other agencies for matters such as community, regional and local infrastructure.	Section 10.0
15.	Noise – including: A quantitative assessment of the potential construction and traffic noise impacts of the project.	Section 9.11
	References	
	The Environmental Assessment must take into account relevant State government technical and policy guidelines.	Reference section of each report
	Consultation	
	During the preparation of the Environmental Assessment, you should consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. In particular you must consult with the: - Orange City Council; - The Department of Environment Climate Change and Water;	Section 8.0

Item	Requirement	Chapter of Environmental Assessment
	- The Roads and Traffic Authority; - NSW Transport and Infrastructure; and - Relevant service providers for energy, gas and water etc. The consultation process and issues raised during this process must be described in the Environmental assessment.	
	General	
1.	An executive summary	Executive Summary
2.	A detailed description of the project, including: - A description of the site including cadastre and title details; - A thorough site analysis and description of the existing environment and approved operations/facilities; - Suitability of the site for the project; - Likely environmental impacts; - Design, construction, operation, maintenance, rehabilitation and staging, as applicable; - The alternatives considered; and - Justification for the project taking into consideration the environmental impacts of the project, the suitability of the site and whether or not the project is in the public interest.	Sections 6.0 and 11.0
3.	A risk assessment of the potential environmental impacts of the project, identifying the key issues for further assessment and a detailed assessment of these key issues, which includes: - A description of the existing environment, using sufficient baseline data; - An assessment of the potential impacts of all stages of the project, including any cumulative impacts, taking into consideration any relevant laws, policies, plans, guidelines and statutory provisions; and - A description of the measures that would be implemented to avoid, minimise, and if necessary, offset the potential impacts of the project.	Section 11.0
4.	Consideration of the following with any variations to be justified: - All relevant State Environmental Planning Policies; - Applicable local planning instruments and relevant legislation and policies.	Section 6.0
5.	A Statement of Commitments, outlining commitments to the proposal's management, provision of infrastructure, mitigation and monitoring measures with clear identification of who is responsible for these measures.	Section 10.0
6.	A conclusion justifying the project, taking into consideration its environmental and construction impacts, mitigation measures to address these impacts, its cumulative impacts, suitability of the site and whether or not the project is in the public interest.	Section 11.0
7.	A signed statement on the validity of the Environmental Assessment, the qualifications of person(s) preparing the Assessment and that the information contained therein is neither false nor misleading.	Signed Statement
	Plans and Documents	
1.	An existing site survey plan drawn at an appropriate scale illustrating: - The location of the land, boundary measurements, area (sq.m) and north point; - The existing levels of the land in relation to buildings and roads; - Location and height of existing structures on the site; - Location and height of adjacent buildings and private open space, and - All levels to be to Australian Height Datum.	Figure 3
2.	A Site Analysis Plan must be provided which identifies existing natural elements of the site (including all hazards and constraints), existing vegetation,	Figures 5, 6 and 7

Item	Requirement	Chapter of Environmental Assessment
	existing pedestrian and vehicular access points and other facilities, slopes and topography, utility services, boundaries, orientation, view corridors and surrounding infrastructure and land uses.	
3.	A locality/context aerial photograph and plan drawn at an appropriate scale should be submitted indicating: a. The site and project footprint; b. Significant local features such as parks, community facilities and open space and heritage items; c. The location and uses of existing buildings, medical, shopping and employment areas; and d. Traffic and road patterns, pedestrian routes and public transport nodes.	Figures 1 to 5
4.	Concept drawings at an appropriate scale, illustrating any proposed earth, road and/or infrastructure works or changes that would be made to the level of the land by excavation, filling or otherwise.	Figures 8 to 10 + Appendix 10
5.	Stormwater Concept Plan – illustrating the concept for stormwater management.	Appendix 10
6.	Landscape/Public Domain Concept Plan – illustrating treatment of open space/public domain areas, screen planting along common boundaries and tree protection measures both on and off the site.	Appendix 2
7.	View Analysis – Visual aids such as a photomontage must be used to demonstrate visual impacts of the proposed area, having regard to the siting, density, bulk and scale.	Appendix 3

4.0 SITE DESCRIPTION

4.1 Locality

The site is located in the City of Orange Local Government Area, and within the Parish of Orange and County of Bathurst. The site is on Forest Road opposite the Bloomfield Hospital site and immediately adjacent the Orange Agricultural Institute, approximately 3.5 kilometres from the Orange CBD. The land gently slopes towards the north and drains into the existing dam located on the SP2 zoned land. Refer Figure 6 Site Analysis.

The land that is the subject of this application forms part of the Part 18 Bloomfield site under Schedule 3 of the Major Development SEPP and as follows. Also refer Figure 3.

Table 4 – Subject Landholdings

Land Description	Status and Tenure
Lot 7017 DP 750401 (road)	Reserve 97682 for Public Buildings, notified 15/2/1985
Lots 2 and 134 DP 750401	97682 for Public Buildings, notified 15/2/1985 Reserve
Lot 179 DP 750401	Reserve 1011448 for Future Public Requirements, notified 31/3/2006
Lot 63 DP 750401	Added to Reserve 84622 for Research Station (Agricultural), notified 6/12/1963
Lot 147 DP 750401	Reserve 97682 for Public Buildings, notified 15/2/1985
Lot 143 DP 750401	
Lot 7011 DP 1000831	Reserve 84622 for Research Station (Agricultural), notified 8/11/1963, addition 6/12/1968 (previous TSR:56781-rev'k 6/12/1968)
Lot 145 DP 750401	Reserve 84622 for Research Station (Agriculture), not 8/11/1963

Source: NSW Department of Lands (2007) and Hoynes Wheeler and Thorne Pty Ltd

4.2 Zoning

On 9 April 2009, the Minister for Planning listed the Bloomfield site as State Significant in Schedule 3 of the Major Development SEPP. The subject site is zoned under Part 18 of Schedule 3 as follows and as shown on Figure 4:

- R2 Low Density Residential; and
- B4 Mixed Use.

4.3 Regional Context

The site is strategically located in the southern growth corridor of Orange and is well located in relation to employment, recreational, and health and education services. South Orange comprises a mix of residential, industrial, recreational and institutional land uses fringing into rural /residential and agricultural uses. Significant land uses within the area include:

- South Orange Industrial Area;
- TAFE;
- Wangarang Industries;
- The existing Bloomfield Hospital and Community Health Services;
- Orange Ex-Services Country Club and Golf Course;
- Existing Cafe and general store;
- Sir Jack Brabham Park including extensive playing fields;
- Gosling Creek Reserve; and
- The Orange Agricultural Institute.

Apart from the employment opportunities generated from a number of the above uses, the Cadia Mine is a significant employer. The Cadia Valley Operations is the largest gold and copper producer in NSW and one of Australia's largest gold producers. Forest Road, which runs along the eastern boundary of the site and Cadia Road are major access routes to the mine (www.newcrest.com.au).

Cadia Holdings has approval to extend the Cadia mine operations for another 20 to 30 years. Its current operations were to cease in 2013. It employs approximately 950 persons and this is expected to remain unchanged with periodic temporary increases occurring during construction periods (Cadia Holdings Pty Limited, 2006). Whilst the number of employees is expected to remain relatively unchanged the substantial increase in the mining operations will provide stability to the workforce and regional economy.

Orange Airport is also located close to the site providing easy access to air transport to Sydney and other destinations.

Redevelopment of the Orange Bloomfield Hospital, which is located across the site on Forest Road, is currently under construction. The Environmental Assessment for the project states that the proposed development will increase employment by 397 full time equivalent staff resulting in a total of 1060 full time equivalent positions at the Bloomfield site.

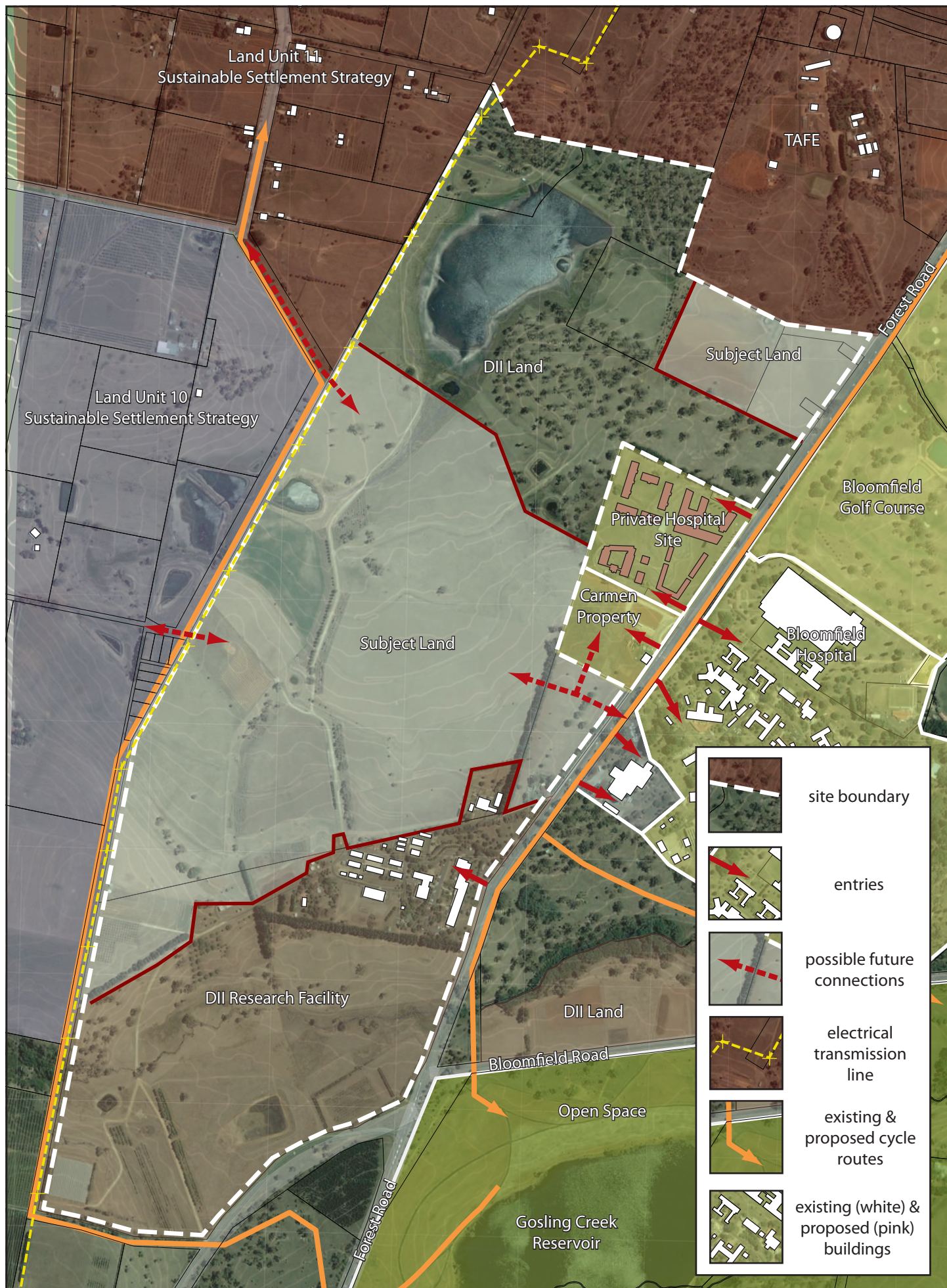
The Orange Private Hospital, which is proposed adjacent to the subject site has been approved under Part 3A of the EP&A Act on Lot 1 in DP 549856. It has a total site area of approximately 6 hectares and is the site of the disused Drive In Theatre fronting Forest Road. The proposal takes advantage of the proximity of the Orange Bloomfield Hospital on the site opposite Forest Road. The new private hospital will supplement the services to be provided at the Bloomfield hospital and assist in generating further employment and training opportunities and retention of medical expertise in regional NSW.

The subject site is strategically located in the southern growth corridor of Orange and is well located in relation to employment, recreational, and health and education services. South Orange comprises a mix of residential, industrial, recreational and institutional land uses fringing into rural /residential and agricultural uses.

Further, the land to the west and to the north of the subject site has also been identified as potential future residential development under the Sustainable Settlement Strategy. Land to the west of the site has been identified as Land Unit 10 and land to the north is identified as Land Unit 11, similarly to the subject site.

Figure 6 Site Context provides an overview of the site and the surrounding development including approved future development and future residential lands as identified in the Sustainable Settlement Strategy.





South Orange DII Site
FIGURE 6: SITE CONTEXT

1:10000 @ A4 0 100 200m

5.0 SITE ANALYSIS

5.1 Existing Land Use

Orange Agricultural Institute is currently located on the subject site. The Institute's buildings are located to the south of the site with direct access from Forest Road. A large dam constructed by DII is located to the north of the subject site and provides a water supply to the Agricultural Institute.

5.2 Topography, Slope and Hydrology

The site is gently sloping with an east west ridgeline approximately located where the Agricultural Institute buildings occur, dividing the northern and southern catchments. Slopes are generally below 15% apart from a small area on the northern boundary north of the dam.

The northern catchment falls away from Forest Road and contains a non perennial creek that forms the headwaters of Blackman's Swamp Creek. This creek flows in a northerly direction through the centre of Orange, within an open concrete and enclosed pipeline system, which meets Summer Hill Creek below Suma Park Dam. A large dam is located at the northern end of the site, which provides water for the Agricultural Institute.

Land to the south of the Agricultural Institute campus buildings, is within the Brandy Creek catchment. This permanent waterway feeds into Gosling Creek, below Gosling Creek Dam, and continues to Spring Creek Reservoir. Brandy Creek lies within the designated catchment protection area for water supply.

5.3 Geology

The Department of Land's Assessment identifies the geology of the landscape surrounding Mount Canobolas as tertiary units consisting of basaltic intrusions and flows of the Cainozoic group associated with the Canobolas Volcanic Complex. There are no identified metallogenic resources recorded within the vicinity of the site.

The Assessment identifies rock outcropping in the site, however this is generally restricted to a minor area of inclined side slope along the western boundary of the Agricultural Institute. It considers that hazards including mining subsidence, earthquake significance, karst landscape and coastal attack do not impact the site.

5.4 Soils

The Department of Lands Assessment states that the Towac soil landscape covers land south and west of Orange, surrounding the slopes of Mount Canobolas. The area is then separated into two zones as mapped by the Soil Conservation Service as follows:

- *Class 3 – suitable for regular cultivation, structural soil conservation works such as graded banks, waterways and diversion banks, together with soil conservation practices such as conservation tillage and adequate crop rotation; and*
- *Class 5 – suitable for grazing, structural soil conservation works such as absorption banks, diversion banks and contour ripping, together with practices such as pasture improvement, stock control, fertilizer application, minimum cultivation for permanent pasture.*

5.5 Contamination

The Department of Lands report states that Lot 63 was reserved for a Night Soil Depot in 1911 and subsequently reserved for travelling stock and camping in 1925.

5.6 Vegetation

The subject area for the Concept Plan application is generally clear of mature vegetation.

5.7 Heritage

The Crown Land Assessment states that a number of aboriginal sites have been recorded within its study area. However, there are not any identified within the site subject to this report.

Buildings at the Orange Bloomfield Hospital are listed as heritage items and the NSW Heritage Branch has stated that the curtilage for the Hospital is along Forest Road.

5.8 Bushfire

The *Crown Land Assessment* found the bushfire hazard for the area is low, due to the gentle terrain, and grassy woodland vegetation type, but identified the remnant vegetation north of the dam and land on the eastern side of Forest Road as potential hazard areas.

Further, Orange Council has released draft Bushfire maps for its Local Government Area. This also identifies part of the northern area of the subject site as Vegetation Buffer (refer Figure 7).

5.9 Access and Transport

Forest Road and Cadia Road provide the major connections servicing the site and adjacent land uses connecting the area with Orange CBD. Council has identified the route for a future South Orange bypass, which is located to the north of the subject site.

Council has advised that a signalised intersection is proposed for the Bloomfield Hospital and the private hospital. The location of the intersection will be on Forest Road at the centre of the Private Hospital site.

Public bus transport is available to throughout Orange. An existing service currently operates through Warrendine, which is just north of the site.

5.10 Pedestrian and Cycle Pathways

A formalised cycleway and footpath extends along the eastern side of Forest Road connecting the Orange Bloomfield Hospital, TAFE, Orange Ex Services Club and recreation areas into the town street network.

Council has established a walking track along the western boundary of the site. Ballykeane Lane provides access to the southern extent of the Agricultural Institute, as well as being an integral link in the walking trail from Orange to Gosling Creek Reserve.

5.11 Utility Services

Power, water, sewerage and telecommunications services are currently within, adjacent or a short distance from the subject site.

Two significant public service departments are located within the assessment area, both containing a high level of development, with all services well established.

The Orange to Cadia 132 kv transmission line traverses to the north of the site and then runs along the western boundary. Augmentation of some services in the area is already taking place to meet expected demands from new developments. Further augmentation will be required as part of any urban expansion program.

5.12 Visual Quality

The *Draft Crown Land Assessment* considered relative scenic values of the site and concluded that the natural grassy woodland and the substantial dam in the northern part of the site are of moderate scenic quality, when taken in context, adjoining the highly modified developed landscape of the City. The Orange Agricultural Institute can also be described as exhibiting moderate scenic qualities, given the rolling, rural landscape. The heavily degraded riparian landscape of Brandy Creek is considered of low scenic quality.

Cultural plantings along the ridge top and within the Orange Agricultural Institute are important in reinforcing the ridge line as a major topographic element. Extensive views north over the City and hinterland, and to the adjoining rural land to the west are available from this part of the site. Existing vegetation along Forest Road contributes to the landscape character of the site and its surrounds (Department of Lands, 2007).

