

# Airds Bradbury



## RENEWAL PROJECT

**MP10\_0186 | Concept Plan | Environmental Assessment Report**

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Prepared for Housing NSW | Landcom | Campbelltown City Council  
By BBC Consulting Planners | May 2011

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- Appendix 11: Integrated Social Sustainability and Health Impact Assessment and Plan prepared by Heather Nesbitt Planning and Community Dimensions Pty Ltd
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## STUDY TEAM

A range of consultants have contributed to the preparation of the Concept Plan for the Airds Bradbury Urban Renewal Project and to the preparation of this Environmental Assessment. The team includes:

| <b>Consultancy</b>                                            | <b>Company</b>                                           |
|---------------------------------------------------------------|----------------------------------------------------------|
| Lead Consultant; Urban Design and preparation of Concept Plan | Urbis                                                    |
| Open Space Review                                             | Urbis                                                    |
| Statutory Planning                                            | BBC Consulting Planners                                  |
| Traffic / Transport                                           | AECOM                                                    |
| Water Cycle                                                   | Storm Consulting                                         |
| Engineering                                                   | Mott MacDonald Hughes Trueman                            |
| Geotechnical                                                  | GeoEnviro Pty Ltd                                        |
| Contamination                                                 | JBS Environmental Pty Ltd                                |
| European Heritage                                             | Ginninderra Consulting                                   |
| Aboriginal Heritage                                           | Jo McDonald Cultural Heritage Management                 |
| Ecological                                                    | Hayes Environmental                                      |
| Landscape                                                     | JMD Design                                               |
| Social Sustainability                                         | Heather Nesbitt Planning<br>Community Dimensions Pty Ltd |

## STATEMENT OF VALIDITY

### Submission of Environmental Assessment

Prepared under Part 3A of the *Environmental Planning and Assessment Act, 1979*

### Environmental Assessment prepared by

|                |                                                                             |
|----------------|-----------------------------------------------------------------------------|
| Name           | Dan Brindle                                                                 |
| Qualifications | B Econ; MSc URP; MPIA                                                       |
| Position       | Director                                                                    |
| Address        | BBC Consulting Planners<br>Level 2, 55 Mountain Street<br>Broadway NSW 2007 |
| In respect of  | MP10_0186, Proposed Concept Plan Airds Bradbury<br>Renewal Project          |

### Applicant and Land Details

|                      |                                                    |
|----------------------|----------------------------------------------------|
| Applicant name       | Housing NSW                                        |
| Applicant address:   | Level 1, 223-239 Liverpool Road, Ashfield NSW 2131 |
| Land to be developed | Refer to EA                                        |

**Environmental Assessment** An environmental assessment is attached hereto

Statement of Validity I certify that I have prepared the contents of the environmental assessment in accordance with the Director-General's requirements (dated 10 December 2010) and that to the best of my knowledge, the information contained in the environmental assessment is neither false nor misleading.



Signature

Name Daniel Brindle

Date 27th May 2011



## EXECUTIVE SUMMARY

### Project Overview

Landcom and Housing NSW are undertaking the long term rejuvenation of the Airds Bradbury public housing estate to create a sustainable, mixed community. The urban renewal of the area is proposed to address issues of urban structure, housing quality and social mix based on a detailed consideration of the characteristics of the site and its context including the existing community.

The current “Radburn” design of the estate has resulted in poor amenity and poor environmental and social outcomes, including poor quality open spaces, lack of surveillance and poor maintenance of common areas. The town house precincts contain a high percentage of public housing and concentrated disadvantage in poor quality urban form and dwellings.

The project vision is to make the Airds Bradbury Renewal Area:

*a great place to live, a place with good amenity, services and facilities in a socially mixed community offering opportunities for residents to realise their goals*

The project is being undertaken using the *Living Communities Model*, which is a model of estate renewal that pursues three equally important aims:

- Improve the housing and public spaces;
- Improve services and provide residents with better opportunities; and
- Support the local community to build its strengths, skills and overall capacity.

These three aims are backed by an approach which encompasses:

- Integration of all activities under one project with a common set of project aims and objectives; inclusive of social, economic and physical development;
- Clear and transparent communications and strong community engagement in all aspects of the project;
- Emphasising partnerships, with the community, local government, non-government organisations, the community housing sector and the private sector where appropriate; and
- A place based approach which emphasises what is best for the place and ensures strong coordination across all activities in the place.

### The Site

The Airds Bradbury Renewal Area is shown on **Figure 1** and covers an area of approximately 200 hectares. Within this area there are a number of sites in private ownership or owned by the Tharawal Aboriginal Corporation. No development is proposed on these sites and they do not form part of the land to which the concept plan application relates. The Airds Bradbury Renewal Area is referred to as “the site”.

The Airds Bradbury Renewal Area comprises approximately 1,540 dwellings, 94% of which are in public ownership with 91 privately owned dwellings.

## Proposed Development

The Airds Bradbury Renewal Project seeks to improve the quality of the social and urban environment by creating conditions conducive to the establishment of a sustainable place to live. The project comprises:

- A new urban structure within the renewal area reflecting a new street pattern and subdivision layout based around a series of existing and new infrastructure and dwellings;
- New land uses reflecting the new urban structure and subdivision pattern, including:
  - Renewed residential areas focussing on the staged development of existing townhouse precincts;
  - Renewed and upgraded utility services including stormwater management;
  - A rationalised network of open space;
  - Improvements to community facilities; and
  - Expanded town centre including potential for expanded retail, commercial and community uses.

Poorly performing townhouse areas are proposed to be demolished and redeveloped, whilst the existing cottages will be selectively upgraded and adjoining poorly maintained open space areas are to be incorporated as new and improved open space.

The Concept Plan for the project is shown on **Figure 2**.

The Concept Plan will be implemented in stages to maintain the community throughout the project and has been designed to respond to the changing property market conditions throughout this period. Upon completion, 30% of the final yield will be retained as public housing. Housing NSW will replace the public housing dwellings lost from the estate within the Greater Western Sydney region over the life of the project to align with its projected public housing client needs and the need to maintain the total stock number in the region.

The Concept Plan application aims to provide in the order of 2,104 dwellings upon completion of the project, comprising generally the following:

- Retention of 880 existing dwellings each on a separate lot (including the existing 91 privately owned dwellings), 262 of which will be retained by HNSW and 527 which are public housing to be sold;
- Retention of 53 seniors housing units and the provision of an additional 52 units; and
- 1,172 new dwellings/lots.

Overall an increase in dwellings from 1,542 to 2,104 is expected. These figures are indicative and are subject to change as the development proceeds depending on detailed design considerations, market responses and community demand.

In short the development as outlined in the Concept Plan includes:

- The demolition of existing townhouse dwellings and cottages and associated vegetation, structures including redundant roads and services;
- Alterations and additions to existing Housing NSW dwellings to be retained on the site;

- New subdivision and associated subdivision works including:
  - new and rejuvenated existing roads;
  - new stormwater management works;
  - utility services; and
  - bulk earthworks;
- Public domain improvements including new or embellished parks as part of a network of landscaped public open spaces and streets;
- Community facilities and community programs and services;
- The use of land for housing and related purposes.

A draft planning agreement under Sections 93F to 93L of the EP&A Act is being prepared. The proponent will enter into a planning agreement with Council to provide roads, social and community infrastructure, drainage and facilities and amenities generally as indicated in the Environmental Assessment Report.

A draft statement of commitments for the project has been prepared and is contained in Section 5.

### Consultation

The Concept Plan application reflects to outcomes of an extensive process of consultation with the community and with key stakeholders. Consultation through a Community Reference Group has occurred since 2000.

Housing NSW has undertaken regular community engagement activities with local residents since the launch of the community renewal project in 2009 attended by more than 1,500 people. These activities have included a number of large scale community events, like *Airds OutLOUD!* and more informal activities such as street barbeques and school holiday sports programs.

The Concept Plan has been prepared after extensive consultation with key stakeholders including the *Design OUTLOUD* consultation process held during May 2010.

Consultation with the community and key government and non-government agencies has occurred throughout the planning and design process and will continue through implementation.

### Planning Process

Section 75B of the Environmental Planning and Assessment Act, 1979 (the EP&A Act) provides that Part 3A of the EP&A Act applies to the carrying out of development that is declared to be a project to which this Part applies.

The Minister for Planning has declared the Airds Bradbury Renewal Project to be a project to which Part 3A applies. The Minister has authorised the proponent to submit a concept plan for the project.

The Director General has issued Environmental Assessment Requirements for the project (**Appendix 1**). This Environmental Assessment Report addresses these requirements. The Director General has delegated to Campbelltown City Council certain functions conferred on him under the Act and accompanying Regulation by instrument of delegation dated 16 December 2010 (**Appendix 2**).

## **Environmental Assessment Report**

This report and appended technical reports comprise a comprehensive environmental assessment of the Airds Bradbury Renewal Project. A thorough site analysis has led to the development of the Concept Plan and guiding principles for future development.

The proposal demonstrates a high level of consistency with prevailing planning instruments including State and Regional Environmental Plans and the provisions of Campbelltown (Urban Areas) Local Environmental Plan 2002 (CLEP2002).

An assessment of environmental impacts of the proposal indicates that the project and the principles guiding future development represent a beneficial environmental outcome. Positive social impacts will arise from the provision of a range of housing opportunities in an accessible and pleasant environment.

The assessment has concluded that the Site is suitable for the proposal and that the implementation of the Airds Bradbury Renewal Project is consistent with the public interest.

The Minister is requested to favourably consider the application.



# 1. INTRODUCTION

## 1.1 The Airds Bradbury Renewal Area

The Airds Bradbury Renewal Area (**Figure 1**) comprises the suburb of Airds and a small part of the suburb of Bradbury (“the site”).



**Figure 1 – The Site**

The site is bounded by Georges River Road to the north, St John's Road and Smiths Creek to the west, Greengate Road to the south and the Georges River Parkway Reserve to the east and is made up of three main elements:

- The Smiths Creek bypass corridor land (the abandoned transport corridor separating Airds and Bradbury no longer required for transport related purposes);
- The existing Airds and Bradbury public housing estates;
- non-residential uses such as the Airds shopping centre, Reiby Juvenile Justice Centre, schools, parks and community facilities.

Airds shopping centre consists of a supermarket, a pharmacy and a medical centre and an adjoining service station, tavern and indoor sports centre. Airds is served by a number public and private schools and a neighbourhood centre for the local residents.

There are a number of lots in private ownership within the area together with land owned by Tharawal Aboriginal Corporation. No development is proposed on these sites and they do not form part of the land to which the Concept Plan application relates. The existing Busways bus depot located off Georges River Road and the adjoining Integral Energy site are also excluded.

## 1.2 Background to the Airds Bradbury Renewal Project

The Airds Bradbury public housing area is one of five public housing areas in Campbelltown built in the 1970s and early 1980s by the (then) New South Wales Housing Commission. In common with other public housing areas of that era, significant parts of the Airds Bradbury public housing area are laid out in accordance with “Radburn” urban design principles, which have proven themselves unsuitable in a public housing context.

Much of the housing was built using the Radburn design principles which includes the separation of pedestrian and vehicular access resulting in dwellings facing onto parks and walkways, with access from car courts at the rear. Radburn designs have proven to be unsuitable for public housing communities because of poor vehicular access, unsafe rear lanes and inadequate surveillance of open spaces. Many of the townhouse dwellings have a high cost of maintenance and do not meet resident needs or Housing NSW’s current demand for dwellings. Road widths and drainage do not always meet current urban design standards. The estate is subdivided into “superlots” of hundreds of dwellings, rather than separate lots for each dwelling. This prevents Housing NSW from achieving tenure mix in the area.

The poor quality of housing and urban design and the concentration of social disadvantage results in urban decay and a poor quality and poorly maintained residential environment not appreciated or respected by many of the residents.

The Airds Bradbury Renewal Area contains significant areas of poor quality and underutilised open space. Usage rates, ease of maintenance, range of activities, attractiveness, local image all perform badly in the perception of residents and other stakeholders. Public housing areas in western Sydney have too much open space yet they lack the range of sustainable spaces, places and functions that make open space an enjoyable part of community life. Parks are in locations that are not safely accessible by the community.

The Smiths Creek bypass corridor is no longer required for transportation purposes and represents an underutilised resource in an existing urban area close to the centre of Campbelltown.

**Table 1** shows the number, type and ownership of dwellings within the site. Currently, 94% of the Project Area is public housing.

**Table 1- Existing Stock**

|                                            |      |
|--------------------------------------------|------|
| Social dwellings                           |      |
| Cottages                                   | 844  |
| Townhouses                                 | 645  |
| Seniors units                              | 53   |
| Total social dwellings                     | 1451 |
| Private dwellings                          | 91   |
| Total dwellings                            | 1542 |
| Existing concentration of social dwellings | 94%  |

As a result of this concentration of disadvantage, the community of Airds Bradbury experiences a range of social issues including high unemployment and poor health, low income, high percentage of single parent families, a lack of access to educational opportunities and other services and high crime rates. Over the years, the area has become highly stigmatised, further exacerbating the social and economic issues.

### 1.3 The Airds Bradbury Renewal Project Objectives

There are a number of key design objectives that have underpinned the development of the Concept Plan:

- Develop and deliver a holistic planning approach to focus on opportunities for rationalising some of the key public housing areas;
- Utilise the obsolete Smiths Creek bypass corridor;
- Balance conservation with security;
- Create safe and attractive areas of open space, which provides good surveillance and the opportunity for recreation;
- Improve efficiency in the use of land, services and infrastructure;
- Introduce and integrate new owners and residents to contribute to the creation and sense of identity, and provide a positive influence on the existing social-demographic characteristics of the locale;
- Create a vibrant town centre which becomes the “heart of the community”;
- Achieve government objectives and Housing NSW’s policy which is to introduce a mix of private ownership (approximately 70% of dwellings) within public housing estates (30% public housing) to create a sustainable and safe community;
- Provide a street pattern and housing form that increases accessibility, linkages, permeability and integrates the area with surrounding suburbs in a manner that improves safety and security and efficiency in the land use, services and infrastructure;



- Produce new housing development opportunities, whether for affordable or private housing;
- Encourage and consult with the current community groups and stakeholders to obtain their input and support for the plan, so that through capacity building they may begin to implement the plan;
- Produce a flexible and feasible Concept Plan that allows development in stages, by catering for:
  - Funding opportunities;
  - Market risks;
  - Housing NSW tenant complexities;
  - Infrastructure costs;
  - Socio-economic circumstances;
  - Seniors housing.

## 1.4 The Relationship of this Concept Plan Application to the Airds Bradbury Renewal Project

### 1.4.1 Concept Plan Application

The Concept Plan for which approval is sought has been based on background studies and a series of community and stakeholder consultations that have taken place over the past 2 years. This work has led to the preparation of a preferred concept plan for the renewal project.

Housing NSW has commenced community consultation and has put in place strategies for managing the relocation of existing public housing tenants who will need to move for the implementation of the Concept Plan as described in Section 3 of this report. This includes the provision of a housing team based in Airds.

Section 75B of the Environmental Planning and Assessment Act, 1979 (the EP&A Act) provides that Part 3A of the EP&A Act applies to the carrying out of development that is declared to be a project to which this Part applies.

The Minister for Planning has confirmed the Airds Bradbury Renewal Project as being a project to which State Environmental Planning Policy (Major Projects) 2005 applies and is thus declared to be a project to which Part 3A applies. The Minister has authorised the proponent to submit a concept plan for the project.

The Director General of the Department of Planning has delegated certain functions conferred on the Director General by Part 3A of the Act to Campbelltown City Council. Consequently the application for Concept Plan approval has been forwarded to, and will be processed by, the Council with the determination of the application remaining with the Minister for Planning. The Director General has issued Environmental Assessment Requirements for the project (**Appendix 1**). This Environmental Assessment Report addresses these requirements.



### 1.4.2 Planning Agreement

A draft planning agreement under Sections 93F to 93L of the EP&A Act is being prepared. The details of this agreement are being resolved. It is envisaged that the agreement will include:

- provision and embellishment of open space as described in Section 3.9.1 and in accordance with the indicative concept plans for the parks contained in **Appendix 14**;
- the provision of a community centre having an area of 300 square metres;
- stormwater management works;
- provision of bus stops in the form of seating and signs;
- movement systems (road works (including landscaping), streets to accommodate bus services, cycleways and pedestrian pathways.

As a consequence of the facilities provided under the planning agreement, no S94 contributions would be payable.

### 1.4.3 Draft LEP

The Campbelltown (Urban Area) Local Environmental Plan 2002 (CLEP) is the principal local environmental planning instrument applying to the site. The zoning of the site under the CLEP generally reflects the current pattern of land use with existing parks and some vacant and underutilised land included in an open space zone. Although not required for approval to be granted to the Concept Plan application, changes to zone boundaries to reflect the new land use and subdivision pattern are recommended.

In the terms of Section 75O(3) of the EP&A Act and Clause 8N of the EP&A Regulation, the proposed development is not prohibited and consequently the Concept Plan application can be approved.

The Minister is requested to make a determination that a provision of an environmental planning instrument prohibiting or restricting the carrying out of the project under Part 4 does not have effect as discussed in Section 1.5.2.

### 1.4.4 Draft DCP

The renewal project requires new streets and land uses to integrate into and existing built fabric resulting in some restrictions on the ability to locate streets and resulting block patterns. This ultimately affects the allotment sizes.

Housing NSW and Landcom propose to accommodate a range of housing types on lot sizes that differ from the controls allowable under the Campbelltown (Sustainable) City DCP 2009 (the DCP). Consequently some changes to the controls in the DCP are required and will be achieved by the preparation of an amending DCP. Controls likely to required change include:

- Allowable maximum FSR controls for various dwelling types;
- Minimum site size and street frontage width;
- The amount and dimensions of private open space;

- Controls relating to narrow lot dwellings;
- Subdivision controls for multi dwelling housing;
- Solar access provision to living areas and private open space.

On the basis of these amendments, the urban design team at Urbis advise that subdivision and proposed allotment size ranges under the Concept Plan are all capable of accommodating a dwelling that complies with the Part 3 of the State Environmental Planning Policy (Exempt and Complying Development) 2008. On this basis, whilst development for the purpose of dwellings under Part 4 on most new lots in Airds would involve non-compliance with the DCP, amendment may not be necessary to the extent that the housing is constructed under the State Environmental Planning Policy (Exempt and Complying Development) 2008 or any other SEPP including SEPP (Affordable Rental Housing) 2009.

A draft amending DCP is being prepared. It is envisaged that it will include the following controls:

- all allotments intended for residential housing will have a minimum site area of 200 square metres;
- all proposed allotments will have frontage to a street;
- residential buildings will not exceed 2 storeys and will have a height not exceeding 9.5 metres at the uppermost roof height measured vertically from existing ground level;
- development must not result in a significant loss of amenity (including solar access and visual and acoustic privacy) to adjacent properties and public places;
- dwelling houses:
  - are to be set back a minimum of 4.5 metres from the front boundary;
  - can include a roofed porch, veranda or balcony, set back 2.5 metres from the front boundary;
  - any garage doors are to occupy no more than 50% of the frontage width of, and are to be set back at least 5.5 metres, from the primary street boundary;
  - garages must be located to the rear of the lot where a secondary street or lane forms the side or rear boundary;
  - are to have an area of private open space that:
    - is located behind the primary building setback;
    - has a minimum area equal to 20% of the lot;
    - has a minimum levelled area of 16 square metres, and a minimum dimension of 4m;
    - is directly accessible from an internal living room;
    - provides a sunlit outdoor clothes drying line; and
  - are to have space behind the primary and secondary building alignments to store one 140 litre bin and two 240 litre bins out of view of the public domain;

- must comprise a mix of building materials or architectural treatments and have vertically proportioned windows facing streets;
- air conditioning units, meter boxes, satellite dishes and similar units are not to be visible from the street;
- corner lot dwellings must address both streets and articulate building bays on the Secondary Street, each no more than 6 metres long.

## 1.5 Development for which Approval is Sought

### 1.5.1 Development Summary

Approval is sought for a Concept Plan for the Airds Bradbury Renewal. The Concept Plan envisages the following development:

- The demolition of approximately 531 existing dwellings, vegetation and structures including roads and services (some 131 dwellings have already been demolished by Housing NSW);
- Subdivision of land including the consolidation of existing lots and the re-subdivision of land for residential and related purposes;
- Subdivision works including:
  - new streets;
  - new stormwater management works;
  - extended and upgraded utility services; and
  - bulk earthworks;
- Public domain improvements including new and embellished parks as part of a network of landscaped public open spaces and street trees and pedestrian and cycle paths;
- The construction of a multi-purpose community facility;
- Alterations and additions to existing Housing NSW dwellings to be retained on the site.
- The use of land for housing and related purposes.

The general features of the renewal are:

- Approximately 531 mostly town house dwellings will be demolished, with the balance (880 cottages/dwellings – 789 public and 91 private) retained;
- Rehousing the occupants of approximately 1058 dwellings from public houses to be demolished or sold;
- The construction of approximately 1,172 new dwellings and 52 seniors housing units (30% for public housing) located mainly within the demolished townhouse precincts and the undeveloped Smith Creek road corridor;
- A resulting increase in dwellings from 1,542 to 2,104, 30% of which will be public housing and 70% private and 56% of which will be new dwellings and 44% existing or retained dwellings;
- New and upgraded roads, utility services, parks and community facilities in association with the new development.

These numbers are approximate and may vary during more detailed design of subdivisions for each stage of the development and as a consequence of market forces or Housing NSW needs. Thus they are indicative of the development envisaged under the Concept Plan.

Existing public housing cottages to be retained as public housing will be progressively upgraded as part of the ongoing Community Renewal Strategy in place for the past 10 years.

### 1.5.2 Determinations for Approved Concept Plan

There are a number of elements of the development that can occur without the need for further environmental assessment. Specifically subsequent environmental assessment is not considered necessary for demolition of dwellings and associated urban infrastructure such as roads, vegetation and utility services undertaken in accordance with the processes outlined in Section 3.16. This is because sufficient detail of these works and assessment of their impacts is discussed in this Environmental Assessment.

It is possible that the Minister will make a determination under S75P(1)(b) to the effect that approval to carry out subsequent stages of the project is to be the subject of Part 4 of the Act. If this determination is made, the Minister is also requested to direct, pursuant to S75P(2)(c1), that a provision of an environmental planning instrument prohibiting or restricting the carrying out of the project under Part 4 does not have effect. This will enable early stages of the project to be approved prior to any housekeeping amendment to the LEP to be consistent with the Concept Plan as approved.

### 1.5.3 Draft Statement of Commitments

A draft statement of commitments has been prepared for the project and is contained in Section 5.

## 1.6 Consultation

The Concept Plan has been significantly informed by a comprehensive consultation process and community capacity building that has involved key stakeholders, technical consultants, government agencies and the community. Housing NSW has undertaken regular community engagement activities with local residents since the launch of the community renewal project in 2008. These activities have included a number of large scale community events, like Airds OutLOUD!, and more informal activities such as street barbeques and school holiday sports programs. Airds OutLOUD! was a key community capacity building event held in 2009 that included opportunity for contribution of ideas to inform the master planning process. The culmination of the consultation process was a three day Enquiry by Design (EBD) workshop ("Design OutLOUD") held in Airds Bradbury in May 2010 that brought together key stakeholders, residents, government agencies, and a range of specialist consultants to discuss the potential for new development and renewal within Airds Bradbury.

The workshop provided an opportunity to engage with specialist consultants to identify and provide input into the renewal of Airds Bradbury, and ensured that any additional or Agency-specific concerns were addressed in the design forum.

The key outcome from the Design OutLOUD workshop was the identification of three concept Masterplan Options. Each of the three options was generated by the Community

and Stakeholder's 'Big Ideas' for the future development of Airds Bradbury. The workshop summary report is contained in **Appendix 15**.

The options represent cohesive development solutions that holistically resolve various key issues for town centre location and development, community facilities and services, open space, access and connections and the provision of a variety of housing types and options. Each of the options was refined by designers, throughout the Design OutLOUD process, to best utilise innovative and sustainable urban design principles.

The three options defined by the Design OutLOUD event have been refined and further developed with input from stakeholders, and further testing by specialist consultants. This has resulted in the development of the Concept Plan.

Other consultation initiatives include:

- Community Reference Group convened – Sept 2008 meets monthly and with the BBQs is basically the main conduit to disseminating information to the community;
- Bradbury Airds Neighbourhood Connection - (government agencies, non government agencies, community, Landcom and HNSW reconvened 2008 - used to meet quarterly now meeting monthly
- BBQs – fortnightly from Mar 2009
- Bus trips x 5 from Nov 2009 - took community representatives of all demographics on bus trips to various projects to provide examples of functioning town centres, open space / parks and water features including Glenmore Park, Ropes Crossing and Garden Gates
- Walk OutLOUD – Sept 2009 - community walks through Airds Bradbury for the community to identify good and bad features within Airds Bradbury.
- Visioning workshop - Nov 2009 - government agencies and non government services providers.
- Street Meetings - From 15th March to 18th April 2011. HNSW and Landcom have commenced holding street meetings (day and evening sessions) to talk to residents about the Concept Plan and the rehousing program.

In addition there is a permanent Community Information Centre at Airds Shopping Centre open 5 days a week. The Airds Bradbury Renewal Project team provide newsletters and information to the community.

Community consultation has been enhanced by the establishment of a project office on site which is a base for the rehousing team and community development team.

The urban renewal process has had the benefit of the input of a range of key stakeholders including (but not limited to):

- Private landowners
- RTA
- Sydney water
- Transport NSW
- Integral Energy
- Busways
- Health NSW (South West Area Health Service)

- Aboriginal Housing Office
- Local church groups
- Local community service providers including Youth off the Streets, Airds Bradbury Community Centre, Argyle Community Housing
- DECCW
- Tharawal Aboriginal Corporation
- Department of Education and Training including representatives of local public and high schools
- NSW Rural Fire Services
- NSW Police.

### 1.7 Structure of Environmental Assessment Report

The following table presents the Director-General's Environmental Assessment Requirements and indicates where each requirement is addressed in this report.

| Environmental Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Where addressed                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| <b>KEY ISSUES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                    |
| <b>Relevant EPI's policies and Guidelines to be Addressed</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                    |
| Planning provisions applying to the site, including permissibility and the provisions of all plans and policies including: <ul style="list-style-type: none"> <li>• Objects of the EP&amp;A Act;</li> <li>• State Environmental Planning Policy (Major Development) 2005;</li> <li>• State Environmental Planning Policy (Infrastructure) 2007;</li> <li>• State Environmental Planning Policy No.55 - Remediation of Land;</li> <li>• State Environmental Planning Policy No 65-Design Quality of Residential Flat Development;</li> <li>• State Environmental Planning Policy No 44 - Koala Habitat Protection;</li> <li>• NSW State Plan;</li> <li>• Sydney Metropolitan Strategy 'City of Cities';</li> <li>• Draft South-west Subregional Strategy;</li> <li>• Campbelltown (Urban Area) Local Environmental Plan 2002;</li> <li>• Relevant Development Control Plans; and</li> <li>• Nature and extent of any non-compliance with relevant environmental planning instruments, plans and guidelines and justification for any non-compliance.</li> </ul> | Section 4.1                                        |
| <b>Built Form and Urban Design</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                    |
| <ul style="list-style-type: none"> <li>• Height, bulk and scale of the proposed development within the context of the locality and adjoining residential and retail development; and</li> <li>• Details of the proposed open space and landscaped areas with specific consideration of Crime Prevention through Environmental Design.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Sections 2.5, 3.6, 4.2.<br><br>Section 3.9 and 4.2 |
| <b>Environmental and Residential Amenity</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                    |
| <ul style="list-style-type: none"> <li>• Impacts of the proposal on solar access, acoustic privacy, visual privacy, view loss and wind impacts (within the site and on surrounding development); and</li> <li>• Details of the measures to be implemented to achieve a high level of</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Section 6.1 - 6.5<br><br>Section 4.3               |



| Environmental Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Where addressed                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| environmental and residential amenity.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                             |
| <b>Staging</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                             |
| Details regarding the staging of the proposed development, including information regarding the current and future Project Applications and the extent of works proposed for each application.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Section 3.22                                |
| <b>Transport and Accessibility Impacts</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                             |
| <p>Provide a Transport &amp; Accessibility Study prepared with reference to the Metropolitan Transport Plan - Connecting the City of Cities, the NSW State Plan, the NSW Planning Guidelines for Walking and Cycling, the Integrated Land Use and Transport policy package, the NSW Bike Plan, Healthy Urban Development Checklist, Service Planning Guidelines - Sydney Contract regions, and the RTA's Guide to Traffic Generating Development, considering the following:</p> <ul style="list-style-type: none"> <li>• Provide an analysis of public transport provisions, walking and cycling connections within the vicinity of the proposed site and determine the adequacy of the proposal to meet the likely future demand for increased public transport and pedestrian and cycle access including the potential for improving accessibility to and from the site and connections to the wider region via sustainable transport modes and the need I associated funding for increased bus services (if required);</li> <li>• Identify a hierarchy of internal road and footpath connections to support bus services and increased walking and cycling;</li> <li>• Daily and peak traffic movements likely to be generated by the proposed development, including the impact on nearby intersections and the need I associated funding for upgrading or road improvement works (if required). The traffic impact assessment should consider base models with future traffic generated by the proposal;</li> <li>• Details of the proposed access, parking provisions and service vehicle movements, associated with the proposed development; and</li> <li>• Demonstrate a minimal provision of on site car parking for the proposed development " having regard to the site's accessibility to public transport, opportunities for car sharing, local planning controls and RTA guidelines (note: The Department supports reduced parking provisions, if adequate public transport is available for access to the site).</li> </ul> | <p>Section 3.2, 4.4</p> <p>Appendix 12</p>  |
| <b>Social Impact Statement</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                             |
| <p>Social considerations with respect to both the existing surrounding residents and the potential new residents which may be more vulnerable members of the community. The Social and Health Impact Statement should include but not be limited, to a consideration of:</p> <ul style="list-style-type: none"> <li>• Population characteristics - existing and expected changes;</li> <li>• Cultural diversity and any specific measures I services required;</li> <li>• Distribution of Housing NSW tenants and private residents and how this will be managed;</li> <li>• Adequacy of existing services, social infrastructure, employment opportunities and open space - and what new services etc will be required as a result of the incoming residents; and</li> <li>• How the existing community has been consulted regarding these future</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <p>Sections 2.6, 4.5</p> <p>Appendix 11</p> |

| Environmental Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Where addressed             |
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| changes, what their perceptions are regarding any impacts on existing social, health and safety issues and how this will be managed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                             |
| <b>Ecological Sustainable Development</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                             |
| Detail how the development will incorporate ESD principles in the design, construction and ongoing operation phases of the development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Section 3.20                |
| <b>Contributions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                             |
| Address Council's Section 94 Contribution Plan and/or details of any Voluntary Planning Agreement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Section 1.4.2               |
| <b>Heritage</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                             |
| A statement of significance and an assessment of the impact on the heritage significance of any heritage items and/or conservation areas should be undertaken in accordance with the guidelines in the NSW Heritage Manual, if required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Section 4.6.1<br>Appendix 6 |
| <b>Aboriginal Heritage</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                             |
| The EA shall address Aboriginal Heritage in accordance with the Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation 2005.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Section 4.6.2<br>Appendix 7 |
| <b>Bushfire</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                             |
| Demonstrate compliance with the relevant provisions of Planning for Bushfire Protection (PBP) 2006.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Section 4.8<br>Appendix 5   |
| <b>Biodiversity</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                             |
| Assess the biodiversity impacts of the project including: <ul style="list-style-type: none"> <li>conducting a field survey and documenting the findings in accordance with DECCW guidelines;</li> <li>identifying the likely impacts on threatened species, populations, endangered ecological communities and their habitats, including the Cumberland Plain Woodland, Shale - Sandstone Transitional Forest, Cumberland Plain Land Snail, Koala, Little Lorikeet and Green and Golden Bell Frog;</li> <li>identifying the extent, condition, any previous disturbance, and recovery capacity of any endangered ecological communities that will be impacted by the project and the extent of any proposed disturbance or removal;</li> <li>identifying the habitat of any threatened species including foraging, roosting, feeding and nesting trees and any proposed disturbance or removal; and</li> <li>actions taken to avoid and minimise or mitigate any identified impacts to protect the biodiversity of the area.</li> </ul> | Section 4.7<br>Appendix 5   |
| <b>Drainage</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                             |
| Drainage issues associated with the proposal including stormwater and drainage infrastructure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Sections 3.15, 4.9          |



| Environmental Requirements                                                                                                                                                                                                                                                     | Where addressed                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
|                                                                                                                                                                                                                                                                                | Appendix 8                         |
| <b>Flooding</b>                                                                                                                                                                                                                                                                |                                    |
| An assessment of any flood risk on site in consideration of any relevant provisions of the NSW Floodplain Development Manual (2005) including the potential effects of climate change, sea level rise and an increase in rainfall intensity.                                   | Sections 3.15, 4.9<br>Appendix 8   |
| <b>Utilities</b>                                                                                                                                                                                                                                                               |                                    |
| In consultation with relevant agencies, the EA shall address the existing capacity and any augmentation requirements of the development for the provision of utilities including staging of infrastructure works.                                                              | Sections 3.14, 4.10<br>Appendix 10 |
| <b>Noise and Vibrations</b>                                                                                                                                                                                                                                                    |                                    |
| Provide a quantitative assessment of the potential demolition, construction, operation and traffic noise impacts of the project.                                                                                                                                               | Section 4.11                       |
| <b>Waste</b>                                                                                                                                                                                                                                                                   |                                    |
| <ul style="list-style-type: none"> <li>Identify, quantify and classify the likely waste streams to be generated during construction and operation; and</li> <li>Describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste.</li> </ul> | Section 3.19                       |
| <b>Consultation</b>                                                                                                                                                                                                                                                            |                                    |
| Undertake an appropriate and justified level of consultation in accordance with the Department's Major Project Community Consultation Guidelines October 2007.                                                                                                                 | Section 1.6                        |
| <b>GENERAL</b>                                                                                                                                                                                                                                                                 |                                    |
| An executive summary                                                                                                                                                                                                                                                           | Front                              |
| A thorough site analysis including site plans, aerial photographs and a description of existing and surrounding environment                                                                                                                                                    | Section 2                          |
| A thorough description of the proposed development                                                                                                                                                                                                                             | Section 3                          |
| An assessment of the potential impacts of the project and a draft statement of Commitments outlining environmental management, mitigation and monitoring measures to be implemented to minimise any potential impacts of the project                                           | Section 4 and 5                    |
| Plans and documents outlined below                                                                                                                                                                                                                                             |                                    |
| A signed statement from the author of the Environmental Assessment certifying that the information contained in the report is neither false or misleading                                                                                                                      | Front                              |
| A Quantity Surveyor's Certificate of Cost to verify the capital investment value of the project (in accordance with the definition contained in the                                                                                                                            | To be provided                     |

| Environmental Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Where addressed                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Major Development SEPP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                  |
| A conclusion justifying the project taking into consideration the environmental impacts of the proposal, the suitability of the site and whether or not the project is in the public interest                                                                                                                                                                                                                                                                                                                                                               | Section 6                                                                                        |
| <b>PLANS AND DOCUMENTS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                  |
| <b>An existing site survey plan:</b> <ul style="list-style-type: none"> <li>• the location of the land, boundary measurements, area (sq.m) and north point;</li> <li>• the existing levels of the land in relation to buildings and roads;</li> <li>• location and height of existing structures on the site; and</li> <li>• Location and height of adjacent buildings and private open space.</li> <li>• All levels to be to Australian Height Datum.</li> </ul>                                                                                           | See figures                                                                                      |
| <b>A site analysis plan</b> which identifies existing natural elements of the site (including all hazards and constraints), existing vegetation, footpath crossing levels and alignments, existing pedestrian and vehicular access points and other facilities, slope and topography, utility services, boundaries, orientation, view corridors and all structures on neighbouring properties where relevant to the application (including windows, driveways, private open space etc).                                                                     | See figures                                                                                      |
| <b>A locality/context plan</b> at an appropriate scale should be submitted indicating: <ul style="list-style-type: none"> <li>• significant local features such as parks, community facilities and open space and heritage items;</li> <li>• the location and uses of existing buildings, shopping and employment areas;</li> <li>• Traffic and road patterns, pedestrian routes and public transport nodes.</li> </ul>                                                                                                                                     | See figures                                                                                      |
| <b>Architectural drawings</b> at an appropriate scale illustrating: <ul style="list-style-type: none"> <li>• the location of any existing building envelopes or structures on the land in relation to the boundaries of the land and any development on adjoining land;</li> <li>• location of proposed buildings envelopes;</li> <li>• indicative elevation plans;</li> <li>• the height (AHD) of the proposed development in relation to the land;</li> <li>• indicative changes to the level of the land by excavation, filling or otherwise.</li> </ul> | Indicative building types and typical street elevations described in Section 3.9 and Appendix 16 |
| <b>OTHER PLANS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                  |
| <b>Stormwater concept plan:</b> illustrating the concept for stormwater management;                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Appendix 8                                                                                       |
| <b>Geotechnical report:</b> prepared by a recognised professional which assesses the risk of geotechnical failure on the site and identifies design solutions and works to be carried out to ensure the stability of the land and structures and safety of persons;                                                                                                                                                                                                                                                                                         | Appendix 3                                                                                       |
| <b>View analysis:</b> Visual aids such as a photomontage must be used to                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Section 4.3                                                                                      |

| Environmental Requirements                                                                                                                                                                                                | Where addressed             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| demonstrate visual impacts of the proposed building envelopes in particular having regard to the siting, bulk and scale relationships from key areas;                                                                     |                             |
| <b>Landscape plan:</b> illustrating treatment of open space areas on the site, screen planting along common boundaries and tree protection measures both on and off the site; and                                         | Appendix 14                 |
| <b>Shadow diagrams:</b> showing solar access to the site and adjacent properties at summer solstice (Dec 21), winter solstice (June 21) and the equinox (March 21 and September 21) at 9.00 am, 12.00 midday and 3.00 pm. | Section 3.6 and Appendix 16 |

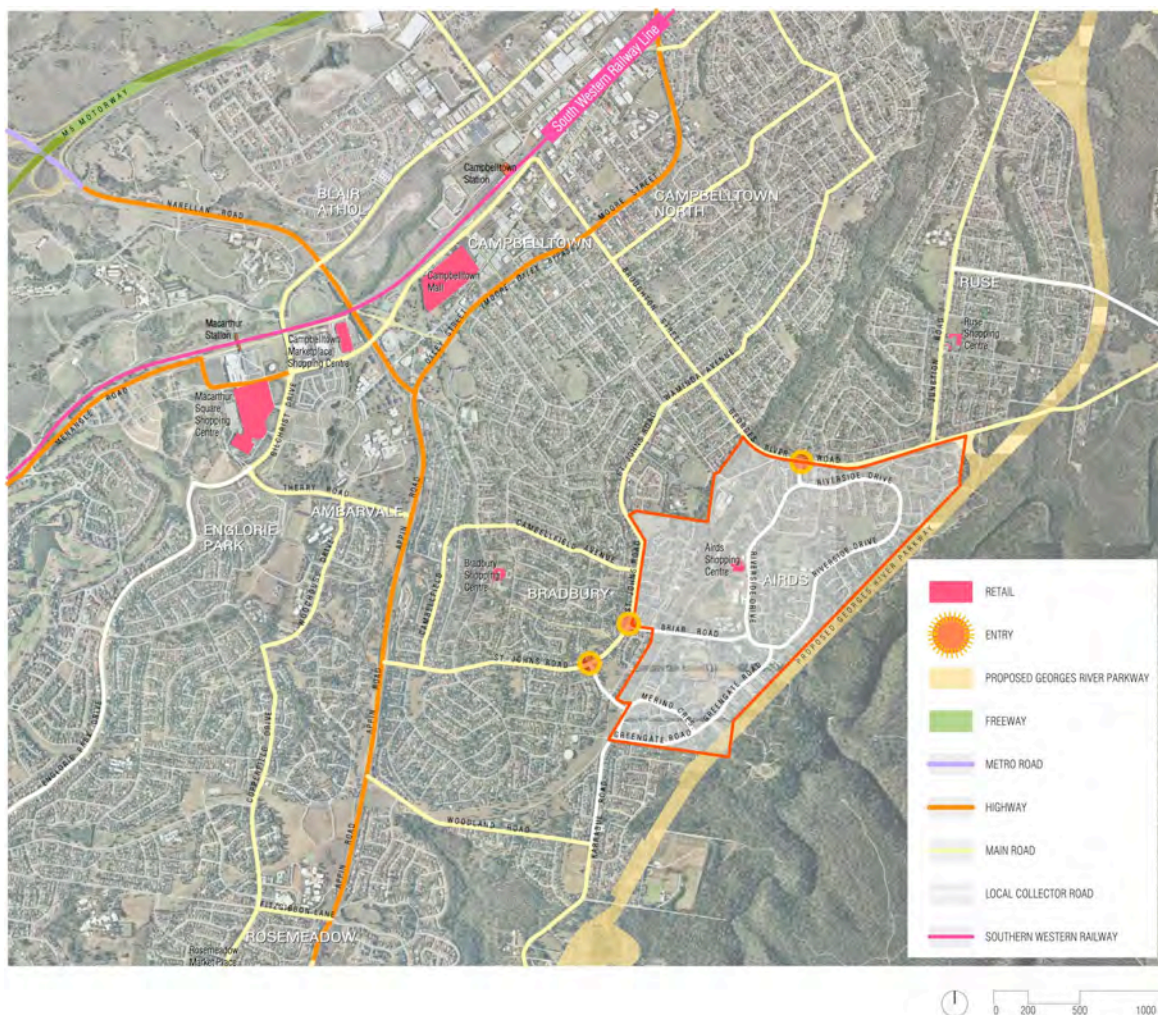
## 2. SITE ANALYSIS

### 2.1 Introduction

The Concept Plan has been the culmination of a detailed process of site analysis and review and consideration of options undertaken by Urbis. The key site characteristics are summarised below and discussed in greater detail in the appendices to this EA.

### 2.2 Regional Context

The suburbs of Airds and Bradbury are located approximately 2.5 km south east of the Campbelltown CBD, the regional centre of the Macarthur Region, about 50 km from the City of Sydney. Airds and Bradbury are established residential suburbs with good external arterial road links to the CBD, Macarthur Square Shopping Centre and Campbelltown Hospital. Campbelltown train station acts as a major transportation interchange, being serviced by a number of metropolitan and regional lines (**Figure 3**)



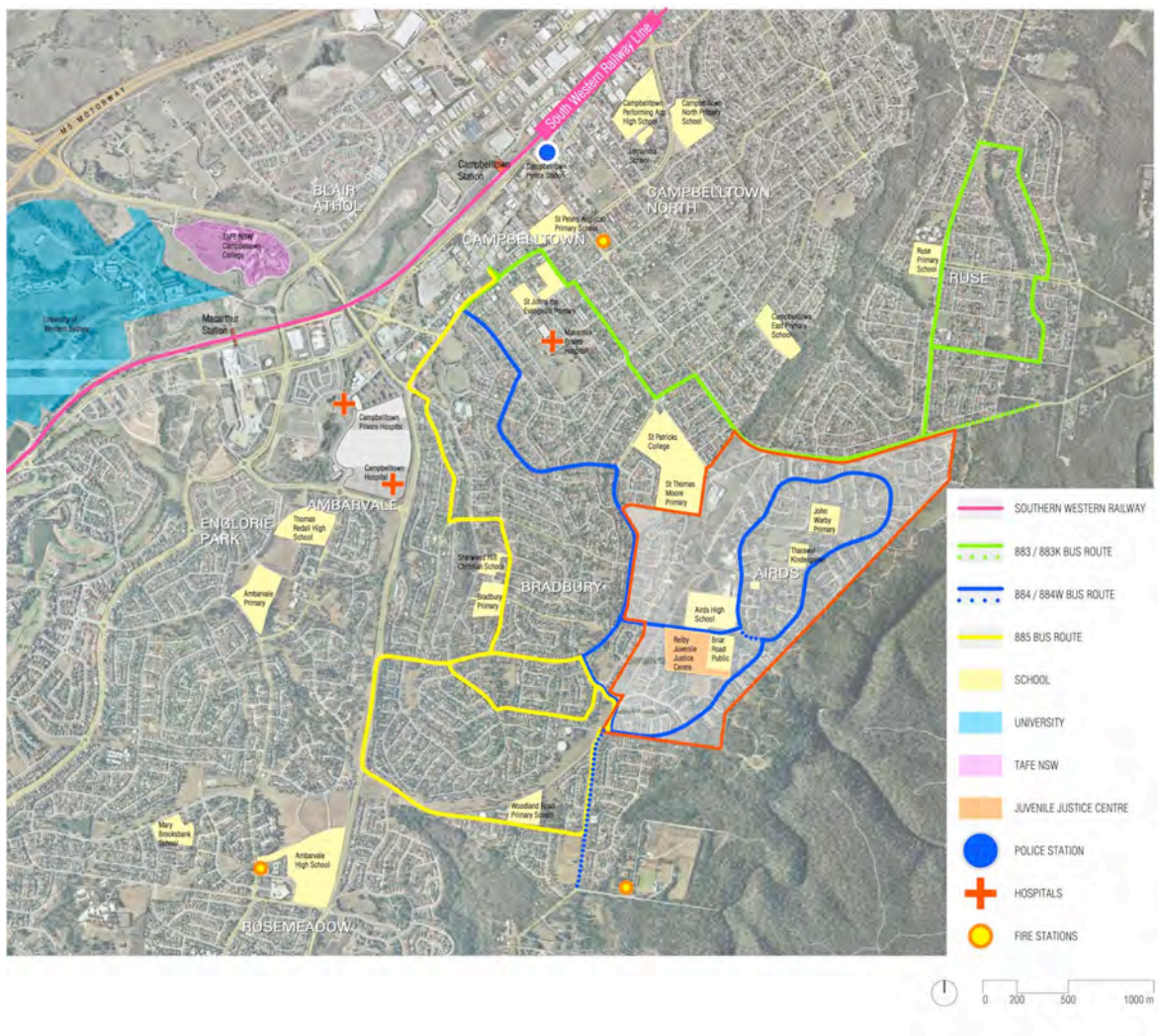
**Figure 3 - Context**



The site is accessible to the facilities and services on offer in the regional centre, with relatively direct access provided to the CBD via Broughton Street/ Georges River Road. Access to Georges River Road from within the site is poor given the circuitous nature of Riverside Drive and the lack of multiple and legible access points onto Georges River Road (**Figure 4**).

In addition, whilst two access points are provided into Airds Bradbury off St John's Road, which connects with Appin Road and Broughton Street, the overall legibility of these linkages from within the study area is poor.

There are a number of educational facilities located within and adjoining the site including Briar Road Public School; Airds High School and John Warby Primary School. Directly to the north-west of the study area are St Thomas More Primary and St Patricks College, private schools within walking distance of Airds Bradbury.



**Figure 4 – Facilities and Services**

Campbelltown Hospital, Campbelltown Private and Macarthur Private Hospital are all located less than 2.5km from the study area. Further to the west is the University of Western Sydney and the South Western Sydney Institute of TAFE, both positioned between the M5 and the South Western Rail Line.

Busways operates limited bus services to Airds Bradbury. Whilst these services travel through the Campbelltown CBD, they do not extend to Campbelltown Station.

## 2.3 Airds Bradbury

Airds Bradbury incorporates an expansive open space system that both links and segregates individual dwellings and townhouse precincts.

The Airds public housing estate is physically separated from surrounding residential areas, including Ruse, by Georges River Road and the Smiths Creek Corridor. Development within Airds is generally contained within these defined boundaries. The remaining parts of the site are predominantly public housing located in Bradbury, and are separated from the Airds estate via the Smiths Creek Corridor.

The local neighbourhood centre consists of a small shopping centre which has a foreboding image, a tavern, BP service station, and a former indoor sports centre. The shopping centre is located centrally within the Airds public housing estate although not at a focal point of the road network. It is surrounded by large areas of public open space so that land uses are not consolidated around the town centre thus discouraging walking trips. An existing pond is within this open space system around the centre.

The three main vehicular entries to the renewal area are not legible gateways. The legibility of these entrances is poor, particularly in defining a sense of arrival.

When comparing the edges of Bradbury and surrounding suburbs, it is clear that other suburbs are less defined whereas Airds Bradbury has distinct edges and entrances.

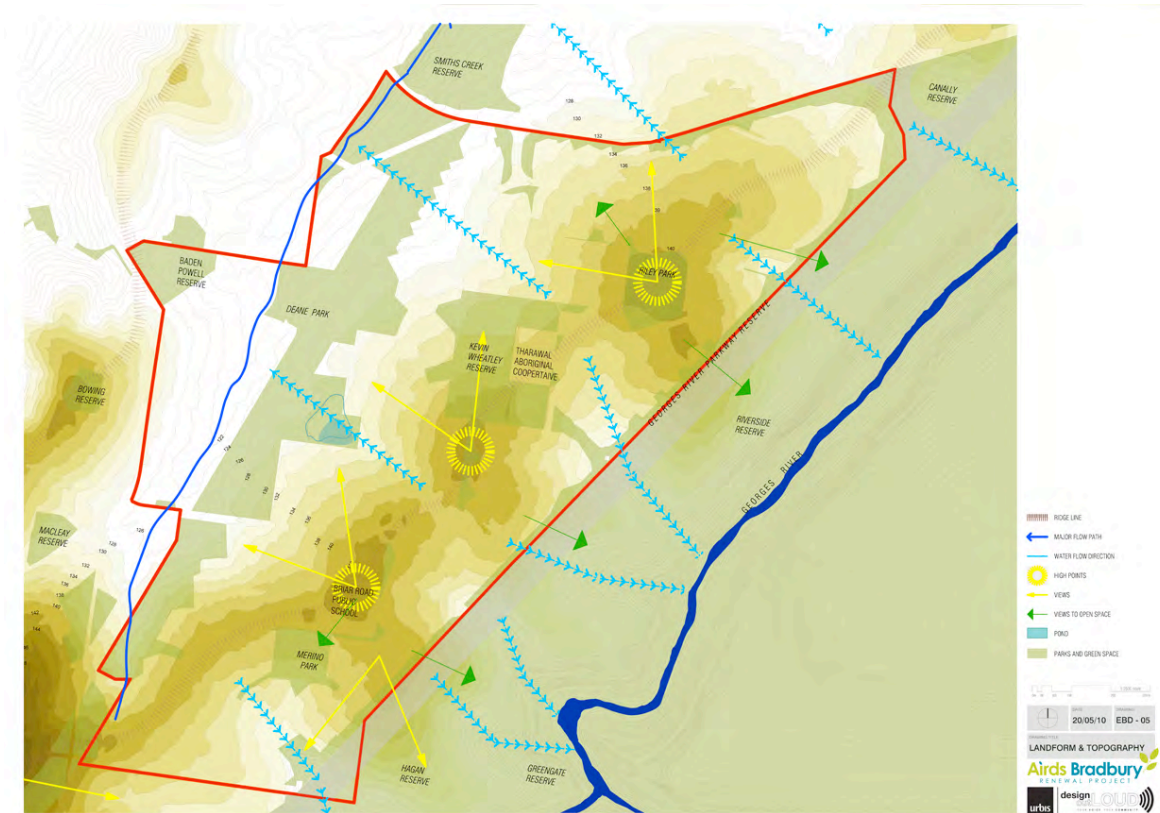
## 2.4 Natural Environment

### 2.4.1 Topography and Landform

The site consists of gently undulating terrain. A defining ridge runs north east to south west near to the eastern boundary and provides a number of localised high points and two main drainage catchments as shown on **Figure 5**. The eastern edge of the site drains directly into Georges River whilst the western part of the site drains to Smiths Creek located near the western boundary of the site which flows into Bow Bowing Creek through the Campbelltown urban area and ultimately into Georges River.

The gentle slope poses no real constraint to development.

An existing water body in the form of a pond is located near the shopping centre.



**Figure 5 - Landform**

#### 2.4.2 Geology, Soils and Groundwater

Geotechnical investigations (**Appendix 3**) reveal the site to be generally underlain by thin topsoil/fill and fill overlying residual clays overlying bedrock. The upper bedrock unit comprises of Ashfield Shale and the lower bedrock unit comprises of Hawkesbury Sandstone. The laboratory test results indicate the natural clay to be plastic and generally moderately reactive and non to slightly saline with localised moderately saline soil at lower depths.

Soil salinity is not considered significant within the site. Acid sulphate soil was not encountered in the investigations and is not considered to impact on the proposed redevelopment of the site.

The investigations identified no major geotechnical constraints on the site and contained recommendations in relation to earthworks, excavations and building foundations.

The investigations into the stability of the existing dam embankment indicated that the embankment was considered inadequate and total reconstruction of the embankment was recommended.

The site is situated within the upper catchment area of the Georges River system. Regional surface runoff and near perched groundwater in the area tends to flow in a general direction to the north west into Smith Creek.

Deep groundwater tends to flow to the east into Georges River which is situated about 400m from the site.



### 2.4.3 Contamination

A preliminary site investigation has been undertaken by JBS Environmental Pty Ltd (**Appendix 4**). The objectives of the investigation were:

- to document the history of the site to identify areas of environmental concern and contaminants of potential concern associated with the current and former landuses;
- to conduct limited sampling and analysis to confirm the findings of the site history review; and
- to draw preliminary conclusions regarding the likely suitability of the site from a contamination viewpoint, for the proposed uses, or, make recommendations to enable such conclusions to be drawn.

The investigation was conducted in general accordance with relevant NSW Department of Environment and Climate Change guidelines.

The area was used for farming from the early 1800s to the 1970s, with an occasional residence or commercial property. In the 1970s, much of the area was subdivided into housing estate, with a number of schools established. In the 1980s, residential development continued, as did the development of the commercial area within Airds.

Based on the site history and site inspection, some areas of environmental concern and associated contaminants of potential concern have been identified and will be the subject of further assessment and potential remediation.

The service station on Riverside Drive, the bus depot and substation adjacent to the western site boundary are considered to be potential offsite sources of contamination. Based on the likely presence of petroleum storage in aboveground or underground tanks at the service station and depot, and of potential PCBs in transformers and capacitors at the substation, these facilities have the potential to impact the site predominantly via migration of potentially contaminated groundwater.

The investigation has identified that the main contamination issue at the site is asbestos, which is present as fragments of ACM on the ground surface and in fill materials. The extent of asbestos impact at the site will require to be assessed through a detailed site investigation process, and appropriate remediation/ management plans developed to outline the steps required to make the site suitable for the proposed development.

The report recommends that, at each stage of the proposed development, a detailed site investigation be undertaken based on the findings of this preliminary investigation. Where a detailed site investigation identifies contamination at levels which pose a risk under the proposed land use(s), then these are required to be addressed through the planning process in accordance with current regulatory requirements.

### 2.4.4 Flora and Fauna

Comprehensive investigations into the ecological qualities of the site have been undertaken by Hayes Environmental in their report contained in **Appendix 5**.

The key features of existing vegetation are:



1. A small patch of Cumberland Plain Woodland occurs immediately to the north of the Airds shopping centre. This patch consists of scattered old remnant trees, surrounded by younger regrowth trees. The shrub layer is generally absent or very sparse, and of limited species diversity. The groundcover, although mown, contains a good variety of native species, but also many exotic grasses and herbs. The patch has been disturbed through selective clearing, rubbish dumping, and edge effects, and is criss-crossed by tracks and services. Differences in the reporting of dominant understorey species between AMBS (2001 & 2002) and Anne Clements (2003) could be accounted to different seasonal and climatic conditions, and the variability of vegetation within the patch.
2. The northern section of the undeveloped major road corridor, and lands along Smiths Creek to the west and north of the Busways Bus Depot, contain a mosaic of modified but regenerating Shale Sandstone Transition Forest and abandoned pasture. There is a patchy canopy of native eucalypts, with some aged remnant trees located within the riparian zone of Smiths Creek. There is a patch of exotic grassland immediately east of the electricity substation.
3. Vegetation within the riparian zone of Smiths Creek has been degraded through weed-invasion to the extent that it barely constitutes a native vegetation community. This area is considered to have a very low regeneration potential.
4. The southern section of the undeveloped major road corridor, ie south from approximately level with Hartigan Way which is on the western side of the corridor, consists of cleared open grassland with scattered trees. The grassland contains a mixture of native and exotic grass species. The area is disturbed through mowing and burning, and is not representative of any native ecological community.
5. An existing pond is located to the southwest of the Airds shopping centre. The pond collects run-off from the upslope residential development, and has been significantly affected by rubbish dumping and weed invasion. The pond is ringed by macrophytic vegetation, with open water in its centre. Surrounding lands consist of cleared open grassland dominated by exotic species.
6. Scattered trees occurring throughout the residential and business zones of the study area (including the open space areas within the Georges River Road reserve) are generally remnant native species from the ecological communities that would once have occurred across these parts of the study area, ie Cumberland Plain Woodland and Shale Sandstone Transition Forest, along with some planted ornamental specimens. There are no intact areas of native bushland in these zones.
7. The western fringes of the Georges River Riverside Reserve (immediately east of the study area) have been substantially disturbed through clearing, thinning and burning adjacent to the existing residential development. However, to the east of the disturbed fringe, the reserve contains large areas of relatively intact native vegetation, identified by NPWS (2002) as predominantly Shale Sandstone Transition Forest and Upper Georges River Sandstone Woodland.

Key findings in relation to ecological values on the site are summarised in **Figure 6**.



**Figure 6 - Biodiversity**

### 2.4.5 European Heritage

There is one identified item of heritage significance within the renewal area listed within Campbelltown (Urban Area) LEP 2002. The *Airds Bradbury European Heritage Study* prepared by Katherine Maish (Ginninderra Consulting) identifies this as an item of local importance (**Appendix 6**). This building will remain under the Concept Plan.

### 2.4.6 Aboriginal Heritage

An assessment of Aboriginal heritage has been undertaken by Jo McDonald Cultural Heritage Management and is contained in **Appendix 7**. The report in *Appendix 7* provides an overview of the approach being taken to address the DGRs and the preliminary background research and mapping results. The report outlines the recommended approach to strategically managing the Airds Bradbury Renewal project on the basis of landscapes which have been identified as having Aboriginal heritage sensitivity. The assessment included a site visit by the study team and Aboriginal representatives. On the basis of the field inspection of the study area and the intactness/integrity of archaeological deposits in surrounding areas, three areas of the study area may contain significant intact archaeological deposit. These localised areas therefore may have high scientific significance.

The majority of the study area, however, is already highly disturbed and has low to no archaeological significance.

Consideration of the Concept Plan reveals that there are two locations of potential conflict between high sensitivity areas and likely development impacts: an area at the south of the remnant bushland, where there are proposed playing fields – and in an area in the north-east of the bushland where there are proposed houses. These two locations will require further negotiations between the Aboriginal community and Landcom and an application of the strategic management approach to landscapes of archaeological sensitivity. These negotiations will take place during the detailed design phase.

#### 2.4.7 Bushfire Issues

The site adjoins a significant tract of bushland along its eastern boundary, to which the extent of Asset Protection Zones (APZs) have been determined for consideration in the Concept Plan and subsequent applications.

#### 2.4.8 Drainage and Flooding

There are two main drainage catchments, the main being Smiths Creek. The Smiths Creek trunk drainage system is divided into two sections. A piped drainage network following Kullaroo Avenue and then Creigan Road conveys flows from the upper areas of the catchment and discharges into Smiths Creek at the northern end of Creigan Road.

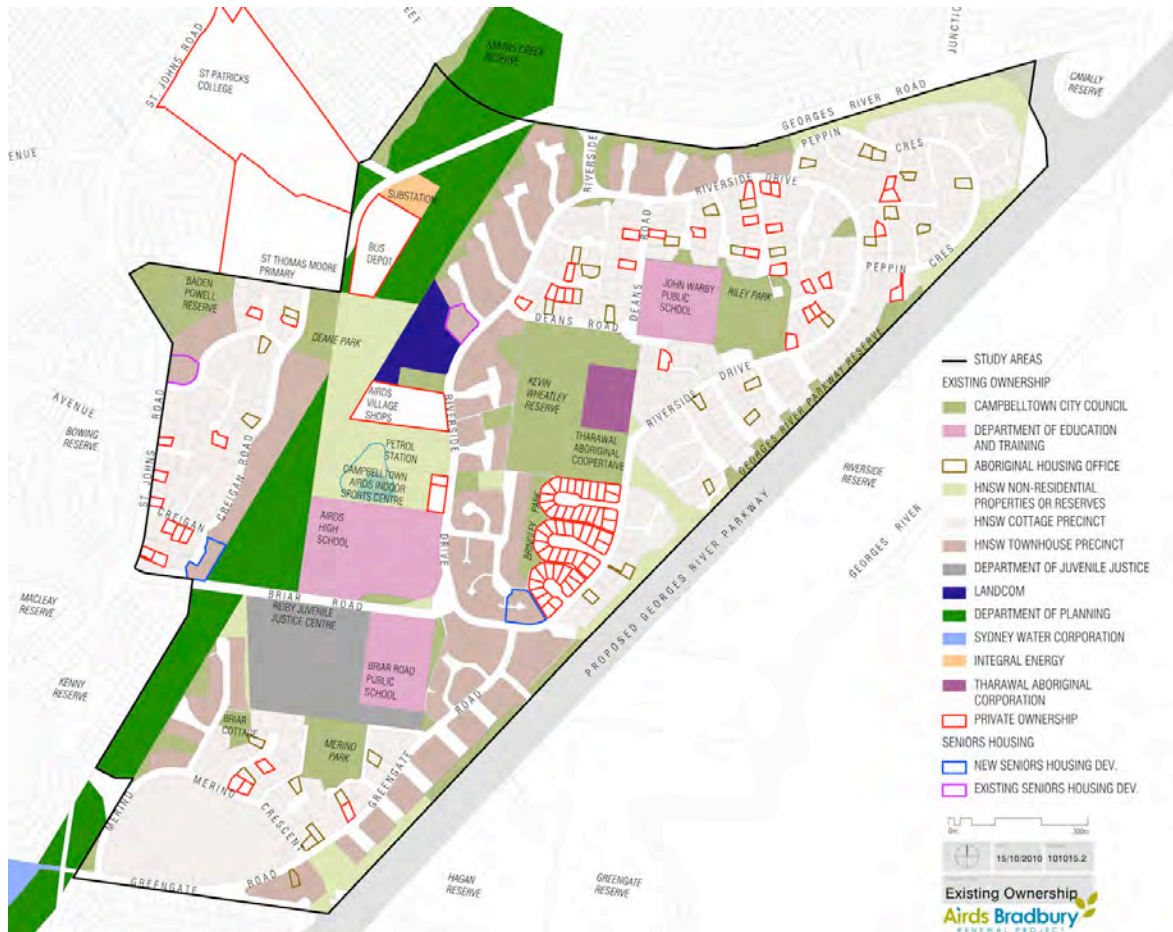
Overland flow paths across the site create the potential for flood hazard at isolated locations with limited overland flow capacity. Flood modelling shows that the flooding of Smiths Creek is relatively well constrained within the Smiths Creek corridor (**Appendix 8**).

### 2.5 Manmade Environment

#### 2.5.1 Site Description and Ownership

The site comprises the properties contained in **Appendix 9** and other Crown lands. Within this area there are a number of sites in private ownership or owned by the Tharawal Aboriginal Corporation (**Figure 7**). No development is proposed on these sites and they do not form part of the land to which the concept plan application relates. The Airds Bradbury Renewal Area is referred to as “the site”.





**Figure 7 – Land Ownership**

### 2.5.2 Traffic Transport and Accessibility

The main collector roads within the study area is Riverside Drive and Briar Road which connect to Georges River Road and St Johns Road. Local roads within the study area mainly consist of cul-de-sacs, connecting to the collector roads.

The major road network in vicinity of the study area includes the South Western Freeway, Badgally Road, Narellan Road, and Appin Road / Moore-Oxley Bypass. These roads connect to the sub-arterial roads such as Broughton Street / Georges River Road, Junction Road and St Johns Road surrounding the study area. Riverside Drive, which is the main collector road through the study area, connects to Georges River Road to the north and St Johns Road to the south. The majority of the roads surrounding the study area run in a north-south direction with only a limited number of roads orientated in an east-west direction.

**Figures 8 to 11** shows existing access characteristics.

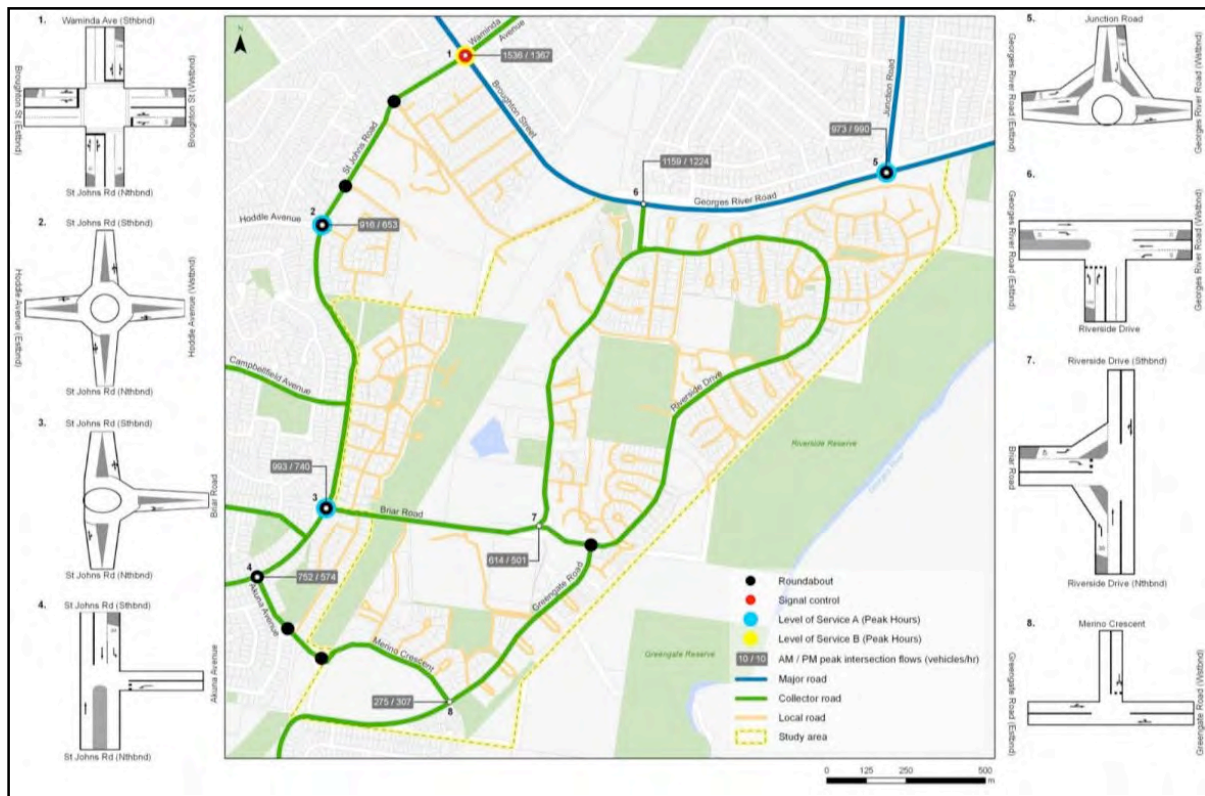


Figure 8 – Road Network

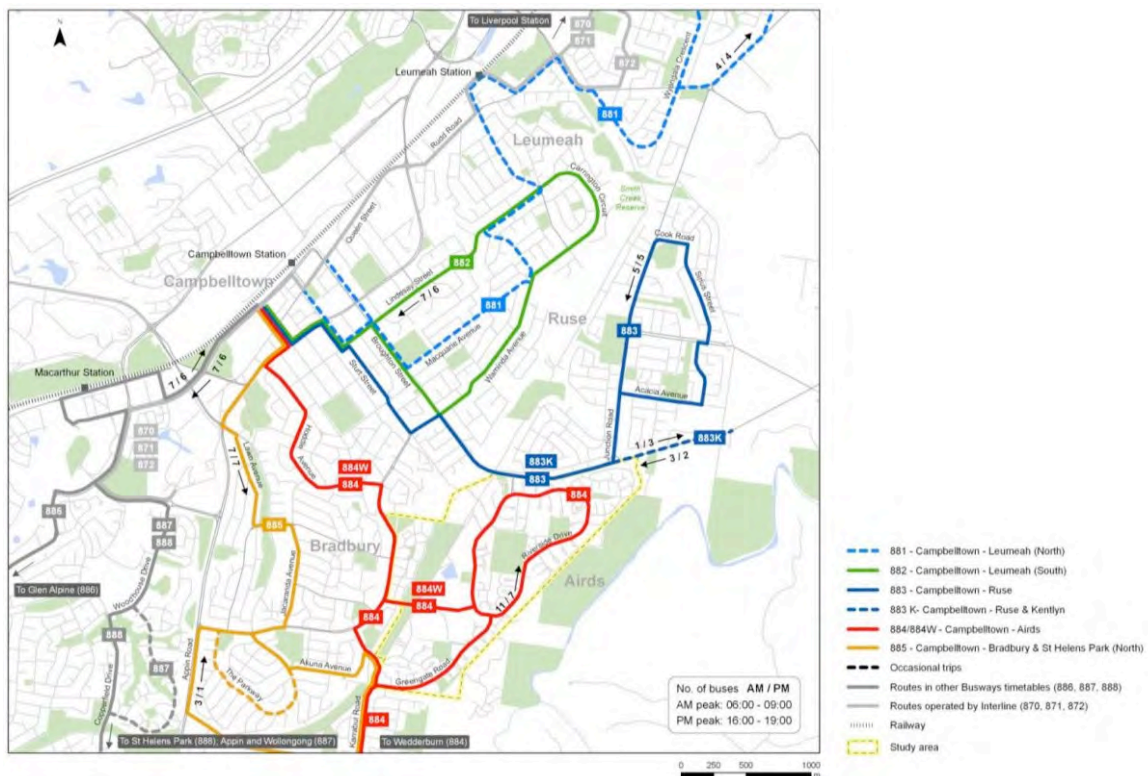
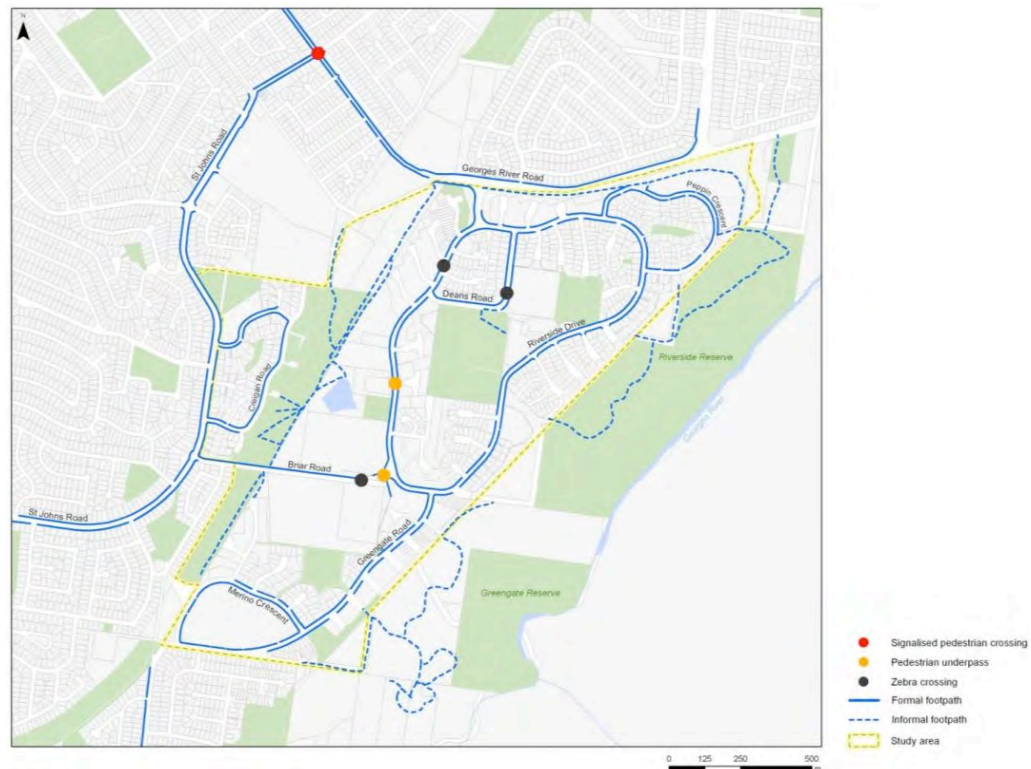


Figure 9 – Buses





**Figure 10 - Cycle Paths**



**Figure 11 – Pedestrian Network**

### 2.5.3 Built Form and Character

A majority of Airds Bradbury has dwellings set well back from the street with poorly defined front and rear yards. Roads are wide and inefficient with large grassed median islands located on secondary roads. Dwellings are tightly grouped around narrow ways which are usually concrete or paved and bounded by high timber paling fences.

There are significant areas of underutilised open space typically adjacent to roadways, at entrances to walkways and townhouse clusters and along service road reserves.

The streetscape character differentiates Airds from its surrounding areas. The adjoining neighbourhoods accommodate streets with consistent setbacks, plantings and fencing. Parks and open areas are well proportioned and clearly defined. Dwellings are similar in size with much larger footprints on larger lots and front and rear yards are generally well maintained with a variety of exotic plantings.

Dwellings are predominantly one to two storeys, in a low density attached, detached, or semi-detached configuration. The majority of dwellings have similar materials and finishes, notably:

- Brown and red clay roof tiles.
- Red, brown and crème brickwork.
- Horizontal timber panelling.
- Timber paling or cyclone safety fencing.

The appearance of similar building forms, heights, colours and materials leads to a homogenous appearance of buildings across the estate. This causes the estate to be distinguishable from surrounding residential neighbourhoods, and does not accommodate the need for self-expression by residents through personalisation of dwellings.

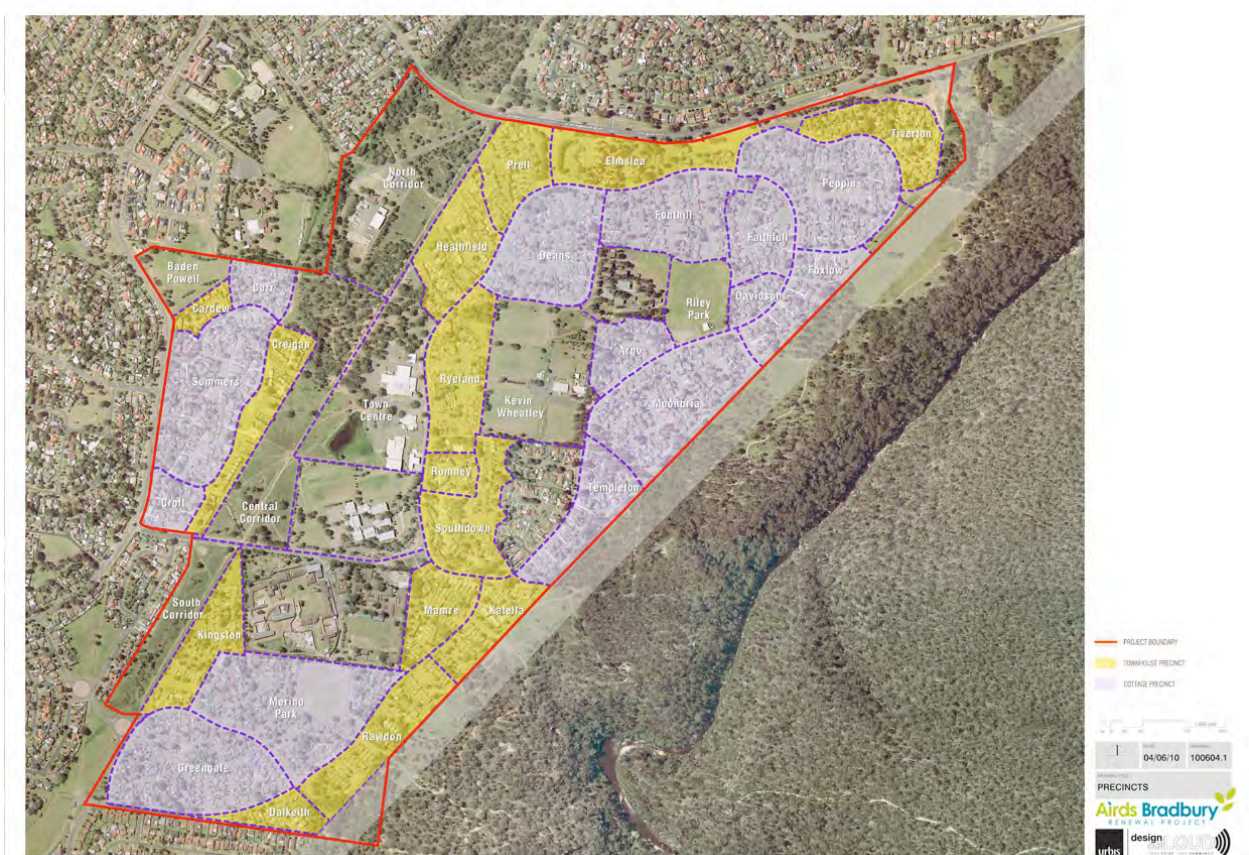
There are 12 townhouse precincts within Airds Bradbury (**Figure 12**)

The built form of these precincts is characterised by:

- Concentration of small, multi-level house types.
- Large, obtrusive carports located on the street boundary.
- Rear yards and carports fronting the Ways with in some cases high fencing.
- No special provision of garbage or servicing.
- Limited variation in building style.
- Repetition in materials finishes and colours.

Consequently, townhouse forms are perceived to be less desirable housing types. They have a poor image and contribute to a setting for undesirable social behaviour.





**Figure 12 - Precincts**

### 2.5.4 Adjoining Precincts

The suburbs of Bradbury, St Helens Park and Ruse all adjoin Airds to the west, south and north. The remaining east side is flanked by bushland leading to the Georges River.

### 2.5.5 Community Facilities

Airds has a number of community facilities that provide a wide range of services and opportunities for residents. These facilities are:

- Airds High School;
- Briar Road Public School;
- John Warby Public School;
- Amarina Child Care Centre;
- Briar Cottage (operating KU Macarthur Learning Together In Preschool and KU Briar Cottage Preschool);
- Oorangah Wanderrah Child Care Centre;
- Airds Bradbury Youth Centre;
- Airds Bradbury Community Centre;
- Burnside Child and Family Centre;
- Campbelltown Airds Indoor Sports Centre ('The Leisure Centre');



- Campbelltown Child and Family Centre;
- Deans Road Centre;
- Hart House;
- Harmony House;
- Local Enterprise Centre;
- Reachout Centre;
- Reiby Juvenile Justice Centre (including Dorchester School);
- St Andrew's Anglican Church; and
- Tharawal Medical Corporation.

### 2.5.6 Public Open Space

Airds Bradbury includes approximately 21 reserves and parks totalling approximately 37.19ha of open space (**Figure 13**). There are five distinct parks including Deane Park, Riley Park, Kevin Wheatley Reserve, Brindley Park and Merino Reserve. A long corridor of public open space at the eastern extent of the study area comprises Peppin Park, River Reserve, Georges Parkway Reserve, Greengate and Hagan Reserve.

The Smiths Creek Corridor also acts as a major open space area, separating Airds and Bradbury. The abandoned road corridor is predominantly used for informal pedestrian pathways.

There is also a range of other smaller open spaces that act as neighbourhood parks.

Issues with the present open space provision include:

- Lack of causal surveillance and visual ownership of open space creates safety issues for users;
- Lack of connectivity between public open spaces and areas of activity such as shops and schools;
- Visual dominance of open space is detrimental to the quality of the public domain, which should provide a degree of enclosure to users;
- Ongoing maintenance costs associated with large extent of underutilised open space.

Opportunities to improve open space include:

- Better use of open space areas to provide a more focused area with a defined role and function;
- Relocate open space to encourage highest and best use of land within the study area and around the town centre;
- Redesign open spaces to improve the casual surveillance of the public domain and open space areas consistent with CPTED principles.
- Improve accessibility to important destinations such as shops and schools by re-arranging open space areas.
- Link open space network with broader Campbelltown open space network.



**Figure 13 – Public Open Space**

### 2.5.7 Availability of Utility Services

Investigations into existing utility services have been undertaken by Mott MacDonald Hughes Trueman (**Appendix 10**)

#### **Water and Sewer**

Water services are available to the area including the Kentlyn Water Pumping Station near Georges River Road and major trunk mains along the Smiths Creek bypass corridor. These mains will be retained in situ and will require protection during the development. This has influenced the resulting urban design. Other trunk and reticulation mains will be relocated and reused as required to serve the new development.

Existing external sewer mains will be retained and modified as required with internal mains adjusted as required to service the new urban form.

#### **Electricity**

The existing electrical servicing is primarily by underground reticulation. The Kentlyn Zone Substation is located at Airds towards the north west of the site. This substation is

under investigation for an upgrade by Endeavour Energy to meet the needs of the area. Augmentation of services will be required to meet the needs of the development.

The area proposed to be developed contains electricity easements and 66kV overhead transmission lines which are proposed to be placed underground.

### Gas

Existing gas mains are located throughout the Airds estate; the gas mains within the major roads should be retained. These are located in Riverside Drive and Briar Road. Additional gas infrastructure may be required to service the development.

### Telecommunications

Telecommunication network consists of reticulated services but contains no exchange or major through routes.

Additional underground conduit may be required for Telstra, NBN and other carriers to cater for increased demand in telecommunications services in the future such as Broadband, cable television and optical fibre cabling.

### Conclusion

All services are available and can be readily augmented to meet the needs of the development.

## 2.6 The Existing Community

The Airds Bradbury community is complex and is characterised by high levels of socio-economic disadvantage. Based on the 2006 Census results for the area (based on census collector districts within which the site is located), the community displays the following characteristics (see *Integrated Social Sustainability and Health Impact Assessment* prepared by Heather Nesbitt Planning and Community Dimensions Pty Ltd contained in **Appendix 11**):

- High level of relative social disadvantage – with Airds ranked as the second most disadvantaged suburb in the Campbelltown LGA (after Claymore).
- Over half (50.2%) of all residents were aged under 25 years old - this youthful age profile is very different to that of the Local and District Areas where younger age groups comprise 37% and 40% respectively. Preschoolers and school aged children dominate the age profile.
- Small proportion of older residents - the Study Area has a small proportion (2.8%) of residents aged 70 years and over compared to Campbelltown LGA (4.9%). This is also reflected in the proportion of lone person households in the Study Area which at 18%.
- Large and young indigenous population – comprising 11.8% of the total population with this significantly higher than both the Local (3.1%) and District Areas (2.7%). The Study Area houses a total of 564 indigenous residents living in an estimated 154 dwellings, the majority being single parent families with children (61%). More than half (59% or 292 persons) of indigenous residents are children/youth aged under 19 years old.
- High proportion (40.2%) of household incomes less than \$500/week – with this significantly higher than both the Local (17.9%) and District Areas (17.4%).

- Almost one in three low income households (29%) in Airds are in rental stress – with these households paying more than 30% of income on housing rental costs. This is consistent however with the Local (29%) and District Areas (27.5%)
- More than one in three low income households (37.5%) in Airds are in mortgage stress – with these households paying more than 30% of income on home mortgages. This is the highest in the LGA and higher than for the Local (10.6%) and District Areas (12.5%).
- Low labour force participation rate (39.5%) – highlighting the large number of persons who are not involved in the workforce
- Low proportion of residents (19.5%) who have completed Year 12 – with this much lower than for the Local (34%) and District Areas (36.1%) although many have some form of qualifications (some 50%). This may reflect a lack of appropriate/current qualifications which are relevant to employment.
- Majority of employed residents (62.1%) working in labourer/elementary sales/transport occupations – this is almost double the rate of the Local and District Areas.
- More than half (58%) of all dwellings do not have internet connection – with this much higher than for the Local (36.7%) and District Areas (36%).

## 3. THE PROPOSAL

### 3.1 The Airds Bradbury Concept Plan

Approval is sought for a Concept Plan for the Airds Bradbury Renewal as shown on **Figure 2**. The Concept Plan comprises the following development:

- The demolition of approximately 645 dwellings, vegetation and structures including roads and services (131 already demolished);
- Subdivision of land including the consolidation of existing super lots and the re-subdivision of land for residential and related purposes;
- Subdivision works including:
  - new roads;
  - new stormwater management works;
  - extended and upgraded utility services; and
  - bulk earthworks;
- Public domain improvements including new and upgraded parks as part of a network of landscaped public open spaces and street trees and pedestrian and cycle paths;
- Alterations and additions, including the construction of new community facilities;
- Alterations and additions to existing Housing NSW dwellings to be retained on the site.
- The use of land for housing and related purposes.

The general features of the renewal are:

- Approximately 531 mostly town house dwellings will be demolished, with the balance (880 cottages/dwellings – 789 public and 91 private) retained;
- Rehousing the occupants of approximately 1058 dwellings from public houses to be demolished or sold;
- The construction of approximately 1,172 new dwellings and 52 seniors housing units (30% for public housing) located mainly within the demolished townhouse precincts and the undeveloped Smith Creek road corridor;
- A resulting increase in dwellings from 1,542 to 2,104, 30% of which will be public housing and 70% private and 56% of which will be new dwellings and 44% existing or retained dwellings;
- New and upgraded roads, utility services, parks and community facilities in association with the new development.

These numbers are approximate and may vary during more detailed design of subdivisions for each stage of the development and as a consequence of market forces or Housing NSW needs. Thus they are indicative of the development envisaged under the Concept Plan.

There will be the progressive release of some 856 residential lots and 527 renovated existing cottages for sale to private home buyers/home builders.

The development will see the staged construction of new roads to provide more direct pedestrian and vehicular links to Bradbury (St Johns Road) and Ruse (Georges River

Road) and to provide a more connective and robust urban structure together with an extensive street planting program to improve the amenity of the area.

Works are planned to be completed by 2026 subject to market demand and the rehousing program, providing a 15 year development time frame.

These works are proposed in stages and further approval will be sought as discussed in Section 1.5.2.

### 3.2 Street Systems and Access Arrangements

The Concept Plan provides an upgraded urban structure based on a more interconnective street system and improved access from the surrounding main road network. This provides an improved sense of arrival and gateway presentations for the area while improving the integration of the estate with the surrounding area.

The key transport objectives for the Concept Plan are:

- “De-Radburnise” the study area by improving linkages and overall connectivity within Airds Bradbury and to surrounding areas, focused on improvements to Riverside Drive, the main circular route through the study area;
- Improve vehicular and public transport access within Airds Bradbury and to adjoining areas;
- Optimise the location of the town centre having regard to existing and future road network, and public transport networks;
- Remove existing unsafe pedestrian underpasses;
- Provide safe and direct cycleways and pedestrian linkages connecting local services, schools and open spaces in Airds Bradbury as well as to other neighbourhoods;
- Identify recommended changes to existing road network to improve connectivity within the estate and to adjoining areas and to support the renewal process;
- Reinforce key internal and external east-west connections.

These are achieved by works that include:

- Relocating the existing Riverside Drive access at Georges River Road to the west which connects to a central spine through the new town centre of Airds.
- Providing a new access at Georges River Road through the extension of Deans Road.
- Providing a new direct connection to Junction Road through the extension of Peppin Crescent.
- Providing a new direct connection to Campbellfield Avenue through a new east-west collector road to the town centre of Airds.
- Integrating public transport, cycle paths and pedestrian paths into the above network.

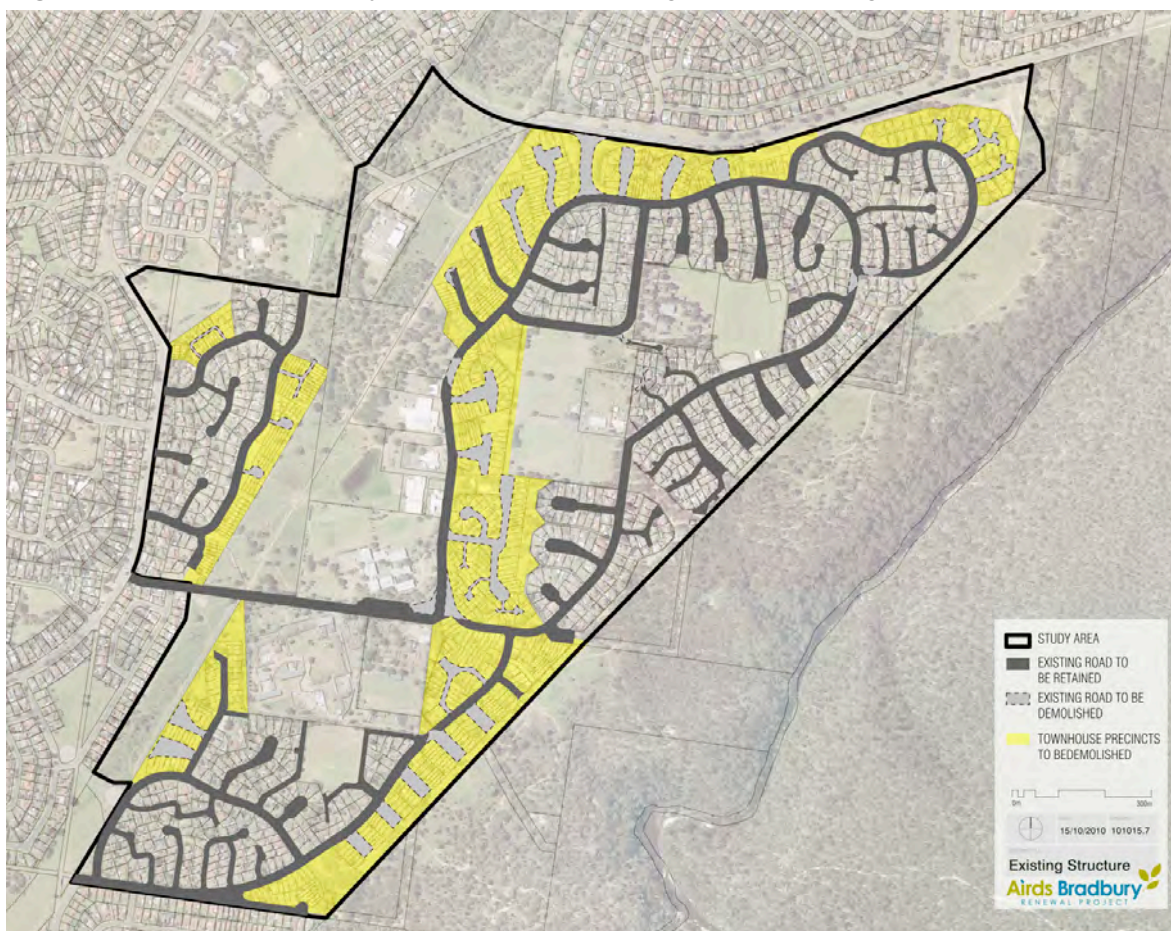
The access strategy incorporated into the Concept Plan is described in greater detail in the *Transport and Accessibility Study* prepared by Aecom accompanying the EA contained in **Appendix 12**.

Existing accesses at Briar Road, Akuna Avenue and Greengate Road will be retained. A number of new internal roads improve the connectivity of the study area including:



- A realigned Riverside Drive from the town centre to Georges River Road along the Smiths Creek Corridor. This forms part of the main collector into Airds from Georges River Road.
- A new grid road network surrounding the new town centre.
- A new east-west road (extension of Campbellfield Avenue) connecting Riverside Drive to St Johns Road.
- A new north-south road connecting the new Campbellfield Avenue extension and Merino Crescent along the Smiths Creek Corridor.
- An extension of Riverside Drive to the south of Briar Road to connect with Greengate Road.
- A new road along the edge of the proposed Georges River Parkway, south of Briar Road.

Existing roads will be retained and incorporated into the new structure as indicated on **Figure 14**. Minor works may be required to existing streets to integrate with new works.



**Figure 14 - Demolition**

### 3.2.1 Street System

**Figure 15** shows the proposed Concept Plan street system as discussed above.

Proposed road cross-sections have been designed to ensure that all road users (such as pedestrians, cyclists, buses and cars) are catered for within the road reserve. Cross-sections of all roads within the proposed development are included in **Appendix 12**.

Most of the road cross-sections, except laneways will have on-street parking provision on both side of the road. On some of the existing local streets such as Riverside Drive and Greengate Road, on-road cycleways will be relocated to off-road shared paths to facilitate on-street parking while maintaining the carriageway width and road reserve



**Figure 15 – Road Hierarchy**

### 3.2.2 Public Transport

The road network and intersection treatments have been designed to accommodate efficient bus movements between Airds and Campbelltown. Early consultation with Busways has been undertaken to develop an indicative bus network for Airds Bradbury.

The proposed bus routes are shown in **Figure 16**.

Busways is confident that the proposed bus routes will be acceptable by Transport NSW given its experience of bus route planning in the region. The proposed bus catchment (400m on each side of the bus route) will cover over 90 percent of the Airds Bradbury study area.





**Figure 16 – Public Transport**

### 3.2.3 Walking and Cycle Network

Concept walking and cycling networks have been developed with reference to a range of published guidelines and policies including the Planning Guidelines for Walking and Cycling (Department of Planning, 2004). The network is intended to provide safe and efficient routes that present a viable alternative to car travel for local and regional trips. The improved road network within the study area improves cycle and pedestrian connections.

A network of off-road shared paths and on-road cycle paths is proposed to link key amenities such as open spaces, schools and the facilities in the town centre. The internal cycle network will also connect with the on-road cycle network along St Johns Road and Campbellfield Avenue as well as the off-road shared path link on the northern side of Georges River Road.

The proposed bicycle routes are shown in **Figure 17**.

The majority of existing on-road cycleways will be converted to off-road shared path to provide a safer environment for cyclists and to cater for on-street parking provision. On-road cycleways are provided in the vicinity of the town centre to segregate pedestrian and cyclists.



**Figure 17 – Cycle Routes**

New off-road cycleways are proposed along the Smiths Creek Corridor and the Georges River Reserve.

Footpaths are provided along all roads (except laneways) Additional pedestrian refuges are proposed outside schools, major open spaces, senior living areas as well as the town centre to facilitate safe crossing opportunities for pedestrians.

The proposed pedestrian facilities in Airds Bradbury are shown **Figure 18**.

The existing pedestrian underpasses in the vicinity of the town centre will be closed and replaced by more direct on-road pedestrian crossing facilities.



**Figure 18 – Pedestrian Network**

### 3.2.4 Sustainable Travel Measures

In addition to the infrastructure and service upgrades discussed above, other sustainable travel initiatives have been identified for consideration during project implementation including items such as:

- Household Information Packs for the new dwelling units within Airds Bradbury, which would incorporate public transport leaflets, route maps and timetables, pedestrian and cycle network maps including leisure maps, and information on sustainable community initiatives and other local community projects to reduce travel or encourage uptake of sustainable modes.
- A local Bicycle User Group (BUG), which the local community could be encouraged to set up or join an existing BUG which is active in the local vicinity and which works to encourage bicycle use and promotes bicycle rides and initiatives.
- School travel plans for the local schools (including a walking school bus program), which can lead to a mindset which encourages active travel throughout life for both children and parents for other journeys. Access by walk and cycle will be facilitated by continuous, high quality pedestrian and bicycle paths.
- Car share scheme, which would reduce the residents' need to own and operate their own vehicle, safe in the knowledge that they can get access to a vehicle if they require one. Campbelltown Council could consider extending the provision of



established car share schemes using an established provider (such as GoGet) to set up a car sharing network for Airds Bradbury.

### 3.3 Urban Structure

#### 3.3.1 Existing Condition

Airds Bradbury currently incorporates a layout which employs an expansive open space system, located and designed in a way that segregates individual dwellings and townhouse precincts.

The Airds public housing estate is physically separated from surrounding residential areas, including Bradbury, via Georges River Road and the Smiths Creek Corridor, with Georges River Road forming the estates northern boundary. Development within Airds is generally contained within these defined boundaries. The remaining parts of the study area are predominantly public housing located in Bradbury which are physically separated from the Airds estate via the Smiths Creek Corridor.

The local neighbourhood centre consists of a small shopping centre, a tavern, a service station, and an indoor sports centre. The village centre is located centrally within Airds public housing estate; however it is surrounded by large areas of public open space. Land uses are not consolidated around the town centre, with a relatively low level of residential dwellings located within a walkable catchment of 400m.

There are three main vehicular entries to Airds Bradbury - whilst assisting to define the separation of Airds Bradbury from surrounding neighbourhoods, they are not tangible or positive gateways. The legibility of these entrances is poor, particularly in defining a sense of arrival. There is however a clear physical separation of the Airds public housing estate from surrounding areas due to the location of the Smiths Creek Corridor and the inward looking nature of the estate as a result of it being founded on Radburn design principles.

There are limited formal vehicular and pedestrian connections between Airds and Bradbury over the Smiths Creek Corridor.

#### 3.3.2 Design Response

The Concept Plan approach is to create an urban structure of a scale and appearance that responds to the residential areas. It increases residential density around the improved community, retail and amenity facilities within the existing town centre location to ensure walkable catchments. A series of main vehicular entry points into the study area positively reinforce a sense of arrival with formalised major pedestrian and cycle movement paths integrated into the street system. The Concept Plan incorporates the following:

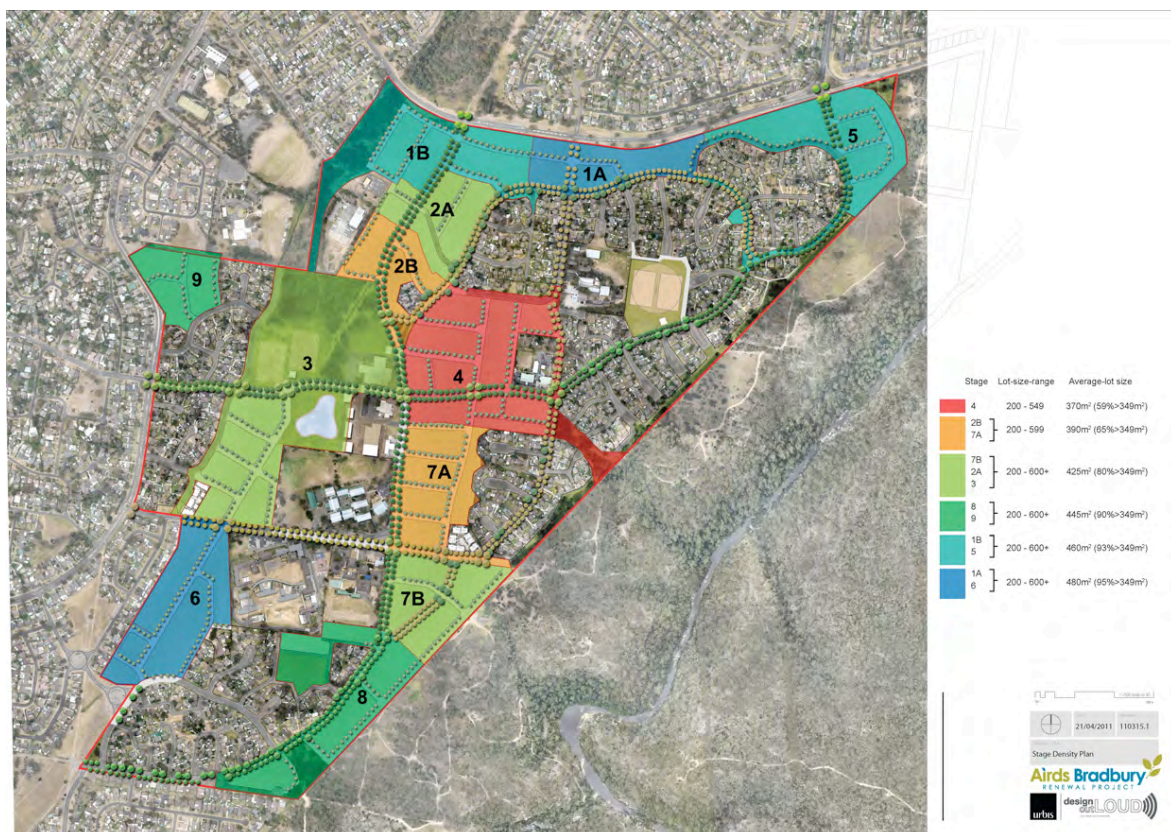
- Reconfigured the open space network to respond to community needs, is safe and accessible and is linked to the pedestrian and cycle network;
- Use an appropriate combination of building location, material selection and landscape treatment to create appropriate edge treatments and transition zones;
- Preserve key community cultural resources;
- Reward higher densities with greater amenity;
- Improve community safety by introducing street edges to open spaces and fronting housing towards open spaces;



- Establish new roads to create new blocks of a size suitable for a variety of residential densities and to improve vehicle and pedestrian accessibility and safety;
- Locate new roads along the edges of open spaces to encourage surveillance and improved access;
- Locate high density residential development near the existing centre and new community and retail facilities;
- Establish new pedestrian and vehicular links to the centre and open space.
- Align new roads to link with adjoining residential areas.

### 3.4 Subdivision Pattern

The Concept Plan (**Figure 2**) contains an indicative street layout. Subdivision to create lots within the blocks formed by the new streets is proposed to be subject to subsequent applications. A range of lot sizes and average lot sizes are proposed as indicated in **Figure 19**. This is subject to refinement and change during the detailed design process.



**Figure 19 – Average Lot Size**

**Figure 20** is an illustrative design of a subdivision pattern envisaged by Concept Plan with indicative dwellings.

The proposed subdivision pattern provides a range of lot sizes with the more intensive development located closer to the town centre and along the main north south access street.

The subdivision and built form will be guided by sound planning principles and with the provisions of Campbelltown (Sustainable) City DCP 2009 (the DCP) with some amendments as discussed in Section 1.4.4.

Lot sizes range generally from 300 square metres to 500 square metres with some lots with a minimum of 200 square metres. These will be located primarily in close proximity to the town centre. The range of lot sizes will also allow for small lot housing and integrated housing.

Lots will be designed to accommodate dwelling houses envisaged in the General Housing Code or complying with the amended DCP.



**Figure 20 - Illustrative Lot Layout**

### 3.5 Activities and Land Use

#### 3.5.1 Existing Condition

The majority of the study area is owned by Housing NSW or Campbelltown City Council with a number of allotments privately owned. Ownership of the Smiths Creek Bypass Corridor is held by Housing NSW and LPMA, with smaller areas also owned by Landcom and Campbelltown City Council. Most of the sites within the existing town centre are under private ownership, limiting the potential to relocate the town centre to an alternate location.



Access into the existing town centre is restricted to a single point of entry off Georges River Road, and two points of entry off St Johns Road. This acts to isolate the area and limits ease of mobility to surrounding neighbourhoods. Overall, there is a clear lack of permeability and inefficiency in movement patterns both within the site and to and from surrounding areas.

### 3.5.2 Design Response

The Concept Plan seeks to integrate and improve upon the existing activities and improve accessibility to the wider regional network. It aims to connect destinations and population by an integrated pedestrian, cycle, public transport and vehicle network through the streets and parks. It also aims to:

- encourage a variety of retail and community developments within the town centre;
- integrate the open space in Deanes Park, Smiths Creek Corridor and the pond with Town Centre retail and commercial development;
- make Airds Bradbury a viable centre for retailing, commercial, community, cultural, and entertainment uses;
- enhance and improve the amenity of the site through redevelopment of the existing social housing, introduction of increased private housing and improved access to local services by non-car based transport;
- develop social uses and spaces for the local community;
- reinforce the vehicular, pedestrian and visual links between shopping and community facilities and the surrounding residential areas; and;
- create a safe and enjoyable environment.

The Concept Plan achieves these aims by:

- supporting the broader retail role of the town centre via new road, cycle and pedestrian links and increased densities near the town centre;
- creating a multi-purpose community centre (including small retail opportunities);
- accommodating the potential for other community facilities including child care;
- retaining important elements of the community such as the schools;
- supporting existing and future initiatives for a community garden;
- encouraging walking and cycling via pedestrian and cycling networks that lead to destinations and provide safety and interest;
- encouraging greater informal social interaction via building that front public spaces, and designing properties to have semi-private areas to the front of the dwelling;
- supporting employment by increasing densities near the town centre and improving connections;
- Increase activity on the street by formalising on-street parking.

## 3.6 Built Form

### 3.6.1 Existing Condition

A majority of Airds Bradbury has dwellings set well back from the street with poorly defined front and rear yards. Dwellings are tightly grouped around narrow ways which are usually concrete or paved and bounded by high timber paling fences.

Key characteristics include

- Most dwellings in the town house precincts do not:
  - Have a street address with clearly identifiable dwelling numbers or letterboxes;
  - Permit adequate surveillance of streets and ways;
  - Have appropriate orientation for natural sunlight access;
- Homogenous building forms, scale, colours and materials create the appearance of sameness across the estate;
- Low visual and physical quality of some buildings that are dilapidated detracts from the streetscape;
- Inconsistent setbacks and building lines characterise streets particularly in the town house precincts;
- Poorly defined public and private open space creates confusion over land ownership;
- Large inefficient road reserves;
- A range of visually dominant and poorly defined open spaces; and
- Ageing, dilapidated or vandalised structures.

### 3.6.2 Design Response

The built form envisaged under the Concept Plan has been driven by the suburban character of the surrounding area and the need to increase density and achieve increased housing provisions in areas with good access to services and transport.

The renewal project will reduce the concentration of social housing to 30% of all dwellings and will follow the traditional pattern of houses and front yards addressing the street. It also aims to emphasise the special qualities of the local environment through the built form and landscape design.

The Concept Plan seeks to:

- Provide a range of dwelling types in response to market demands;
- Provide a subdivision layout whereby new dwellings address and reinforce the street through appropriate building siting and orientation;
- Provide buildings that can be constructed to enhance safety through design, by providing casual surveillance over areas of public open space, including streets and paths;

- Provide varied built edges which respond to open spaces, reinforcing their importance to the community and improving their surveillance;
- Improve the character with higher density housing types, such as attached homes which are designed to resemble a large two-storey home;
- Improve community safety and encourage social interaction by orienting dwellings to the street, parks, and other public spaces;
- Reduce stigma of social housing by designing all dwellings to present a similar built form to the surrounding private housing;
- Encourage more active and inviting streetscapes by designing car parking structures and hardstand areas to complement the built form of dwellings and to avoid dominating the streetscape.

### 3.7 Height, Bulk and Scale

The majority of the renewed estate will be one or two storeys in height so that the proposed development is consistent with the suburban character of the adjoining residential suburbs. The revitalised town centre will range in height up to a maximum of three storeys, with an increase in density to take advantage of the proximity to services and to allow for the likely future development within the Town Centre itself.

The Concept Plan seeks to:

- Reinforce the extension of Campbellfield Avenue as main street by providing an active retail edge, allowing direct access to shops, outdoor dining, and discrete vehicle entries;
- Create a strong built edge to the existing and proposed streets in the town centre to reinforce the public domain in terms of definition, amenity and safety;
- Increase density within and adjacent to the town centre to gradually fall to meet the surrounding residential context;
- Provide a varied built edge, which responds to the town centre recreational areas, reinforcing its importance to the community and improving its surveillance;
- Maintain the suburban feel and character of the area through the selection of appropriate density housing types;
- New dwellings are to present a similar built form and external appearance so that a casual observer is less likely to be able to distinguish a difference in public and private ownership.

### 3.8 Housing

The Concept Plan envisages housing as follows:

- Approximately 827 retained cottages, some of which will be sold and some retained as public housing which will be upgraded as part of the Community Renewal Strategy;
- 1,172 new dwellings to be constructed on lots created through the new subdivisions, some of which will be for public housing and some by purchasers of new lots;

- Potential for integrated housing or small lot housing on smaller lots created through the new subdivisions;
- seniors housing units on sites selected by Housing NSW as suitable for this purpose (52 units in addition to the 53 recently completed units);
- multi-unit housing by Housing NSW.

It is expected that the predominant built form will be detached and attached dwelling houses with some small lot housing forms and seniors units.

The nature of housing to be constructed on lots proposed under the Concept Plan has not been determined at this stage. Examples of building types that may be appropriate on the range of lots envisaged are provided in **Appendix 16**. This includes typical street elevations and solar access diagrams to give an indication of the anticipated built form character and resulting residential amenity.

### 3.9 Public Domain

The public domain comprises the proposed parks and reserves and the streets including off street movement systems.

Concepts for the public domain have been prepared by JMD Design as described below.

The public streets and open space areas provide both legibility and unity to the renewal. The functional and operational restrictions placed on the public domain leads to the adoption of a strategic approach in the identification of the areas which may deliver maximum impact in the elements of the public domain. The critical areas within the open space, the town centre and the streetscape have been highlighted to maximise the potential outcomes delivered by the public domain and open space strategy.

It should be noted that as part of the HNSW 'Green Street' Program substantial numbers of semi-mature street trees have been planted in the existing streets. Where possible these trees will be retained and supplemented.

#### 3.9.1 Open Space

The provision of open space within the renewal area is based on detailed assessment and review of open space opportunities and needs undertaken by Urbis (**Appendix 13**)

The design objectives for the open space system (as described in the Landscape Statement prepared by JMD Design) are:

1. Design to consider context, history and future use;
2. Open spaces to be contemporary in nature and innovative;
3. Passive parks to cater for a broad range of users, mix of spaces and both structured and informal recreation activities;
4. Design to promote passive surveillance of open space;
5. Maximise co-location and sharing opportunities of active recreation facilities;
6. Park buildings to be functional and aesthetically pleasing in design and be located to integrate not dominate open space areas;
7. Lighting restricted to key pedestrian thoroughfares only;
8. Minimise visual impact of carpark and other infrastructure in open space;



9. To encourage planting and landscape treatment which build the environmental value of the site including biodiversity and native fauna habitat.

The Landscape Plan is shown on **Figure 21**.



**Figure 21 – Landscape Concept**

Park design requirements are:

1. Parks shall generally be located as illustrated on the Landscape Master Plan;
2. Include facilities within public open spaces generally in accordance with Concept landscape plans which have been developed with Council's input;
3. Where existing significant trees are located within the park areas consider detailed grading to maintain existing ground levels and allow retention of trees;
4. Lighting shall conform with the current Australian Standards, including AS 1158 Lighting for Roads and public spaces AS 2560 –Sports field Lighting;
5. Landscaping and built structures shall not create obscured areas. Ensure tree species selected in public areas can be maintained with a clear trunk to a minimum of 2 metres;

6. Incorporate planting of indigenous species and vegetation communities to enhance native fauna habitats;
7. Reduce water usage by using indigenous and low water tolerant species and efficient irrigation systems;
8. Native planting should be considered as deep root planting to reduce salinity risk;
9. Circulation and connections: Generally Bicycle Paths in road verges shall comply with Austroad Guide to traffic Engineering Practice Pt 14- Bicycles and AS 1742.9 Manual of Uniform Traffic Control Devices Part 9 Bicycle Facilities. Cycling and walking pathways in open space shall be 2.5m for shared cycleway/pedestrian pathways and 1.5m for other pathways". Reinforced and coloured concrete vehicular crossing points shall be included to allow maintenance vehicles.

Parks are provided at Deanes Park (11.86 hectares), Riley Park (2.3 hectares) and Merino Reserve (1 hectare). An additional 3.95 hectares of linear open spaces and bushland connectivity provides an interface with the Georges River Parkway and access to the parkway.

Details of the parks and park embellishment are contained in the Landscape Statement prepared by JMD Design in **Appendix 14**.

### 3.9.2 Streets

*The landscape character of the street is created by well defined front gardens, street trees and the visibility of backyard trees beyond the house. The streetscape is a major contributor to the quality of the overall neighbourhood.* (Built Form Guidelines for Landcom Projects May 2008)

The streetscape strategy objectives of the Concept Plan are:

- Establish a logical street hierarchical pattern;
- Facilitate easy accessibility within the site by building and augmenting where necessary, the existing street layout and hierarchy;
- Reinforce connections to existing road patterns adjoining the site;
- Provide strong repetitive elements of appropriate character and in scale with the residential development to create a unity for the suburb;
- Highlight gateways and nodes to provide legibility within the suburb;
- Promote solar access through the use of deciduous trees;
- The landscape overlay is intended to reinforce the street hierarchy as part of the public domain streetscape strategy.

Street tree principles of the Concept Plan are

- Define and reinforce site entrances by introducing landmark planting;
- Reinforce legibility of street hierarchy by defining node typology, facilitate orientation/navigation across the site by reinforcing nodes / intersections along Collector Roads (landmark planting);
- Preserve and enhance views, reinforce gateways to Airds
- Street trees shall be planted to both sides of all streets, where feasible;

- Use of predominantly indigenous species for street tree plantings in outer perimeter streets to enhance existing character and biodiversity of native vegetation;
- Deciduous trees have been located on east west road axis and evergreen species on north south road axis to increase solar access and temperature control;
- Use species for street tree plantings which will reach a mature size appropriate to the scale of the streets;
- Street tree planting shall be coordinated with subdivision layout, traffic plans and services layouts to ensure appropriate integration with vehicle crossovers, sight lines, lighting and other services;
- Large scale tree planting: where space allows in the road verge such as at road intersections and corners larger scale evergreen trees are utilised to provide an emergent tree canopy over and above the general roofline of housing to give Airds a verdant appearance when viewed from a distance;
- Street trees planted will be in accordance with the Council's specifications.

The street tree strategy is shown on **Figures 22 and 23** with additional details included in **Appendix 14**.



**Figure 22 – Street Tree Strategy 1**





**Figure 23 – Street Tree Strategy 2**

### 3.10 Community Facilities and Services

The Concept Plan envisages that the site can be used for a range of community facilities generally permitted in residential zones. As part of the renewal process, the proponent will construct a new multi-purpose community centre having a gross floor area of 300 square metres.

It is proposed that the existing indoor recreation facility will be used by Housing NSW as a community base during the implementation of the renewal project containing offices to be used by the rehousing team, the project team and the community support workers. This facility will also contain multi-purpose meeting spaces for use by the community organised through Housing NSW.

Community services will be provided by Housing NSW and Campbelltown Council during the renewal program. Community facility and services needs have been identified in the Integrated Social Sustainability and Health Impact Assessment Report prepared by Heather Nesbitt Planning and Community Dimensions Pty Ltd (**Appendix 11**).

The recommendations of this report will be discussed and negotiated with key stakeholders and will form the basis if a Strategic Social Plan to be prepared by Housing NSW to guide the implementation phase of the renewal project.

### 3.11 Land Use

The Concept Plan envisages the following land uses:

- Residential uses as described in Section 3.8 which include detached and attached dwellings, seniors housing, integrated housing and multi-unit housing. The Concept Plan envisages a variety of residential types would be permissible on the site;
- Open space in the form of parks and reserves including active spaces and conservation managed spaces as discussed in Section 3.9;
- Community facilities to meet the needs of the development including the facilities identified in Section 3.10;
- Continuation of the retail centre, tavern and service station with the potential for redevelopment and alterations and additions to town centre functions.

### 3.12 Town Centre

The town centre is envisaged as a focal point where shopping, working, leisure, sporting and community activities can take place. The Concept Plan envisages an expanded Town Centre with additional retail, commercial and community uses. These uses have sought to integrate in with the existing shopping centre, in the context of integrating the town centre into the renewal area.

#### 3.12.1 Location

The revitalised town centre is located at the intersection of two main roads being the existing Riverside Drive, and the extension of Cambellfield Avenue, incorporating and to the south of the existing shopping centre. The identity of the town centre will be clearly delineated from other areas of Airds and Bradbury, through proposed expanded retail/commercial activities, signage, street furniture and landscape treatment evocative of town centres.

#### 3.12.2 Car parking

As the Town Centre seeks to attract a concentration of pedestrian activity, pedestrian safety is to be safeguarded through proposed discrete vehicular entry/exit points to car parks located away from main pedestrian flows. Convenience parking can be incorporated into the Town Centre to enable passing drivers to easily access retail services.

#### 3.12.3 Pedestrian / bicycle movement

Efficient pedestrian movements can be incorporated into the Town Centre concept through a dedicated pedestrian zone to provide a high quality and safe public realm. Pedestrian links are to be reinforced between the existing shopping centre and proposed town centre uses to the south. Bicycle paths are proposed to connect from the town centre to the adjoining recreational area that accommodates natural assets and facilities such as the pond, rugby fields, basketball courts, and barbeque and picnic areas.



### 3.13 Alterations and Additions to Housing NSW Houses

Alterations and additions to dwelling houses owned by the Housing NSW that will be retained on the site will be undertaken. It is anticipated that approximately 770 cottages will be upgraded with some 527 some of sold and the balance retained by the Housing NSW. These figures are subject to change during the project.

Alterations and additions include external and internal alterations. It is intended that there will be no discernable differences externally between social and private dwellings.

### 3.14 Utility Services

Utility services serving the site are described in Section 2.5.7 and **Appendix 10**. All utility services are available or can be readily extended to meet the needs of the development. The Concept Plan seeks to minimisation of the disruption to the existing services and thus the residents within the precincts where private residents are being retained.

### 3.15 Water Cycle Management

The proposed Concept Plan water cycle management strategy is described in detail in the Water Cycle Management Report prepared by Storm Consulting Pty Ltd and contained in **Appendix 8**.

The strategy comprises a range of elements that work together to deliver an integrated outcome addressing each of the following:

- stormwater quality improvement;
- flooding and detention;
- potable water substitution;
- environmental restoration/rehabilitation.

A number of options for stormwater detention have been investigated with the preferred option being the provision of detention in the Smiths Creek corridor. The existing pond near the town centre will be retained and enhanced. Stormwater will be detained upstream of Georges River Road with the construction of a low wall to detain the 1 in 100 year flow and by modifying the existing culvert.

In relation to flooding, Storm Consulting advises that post development a small flood wall 300mm high will also be required on the boundary one of the lower lying lots following which there will not be any flooding of surrounding lots in the 1 in 100 year ARI event.

This will provide the required detention for the development.

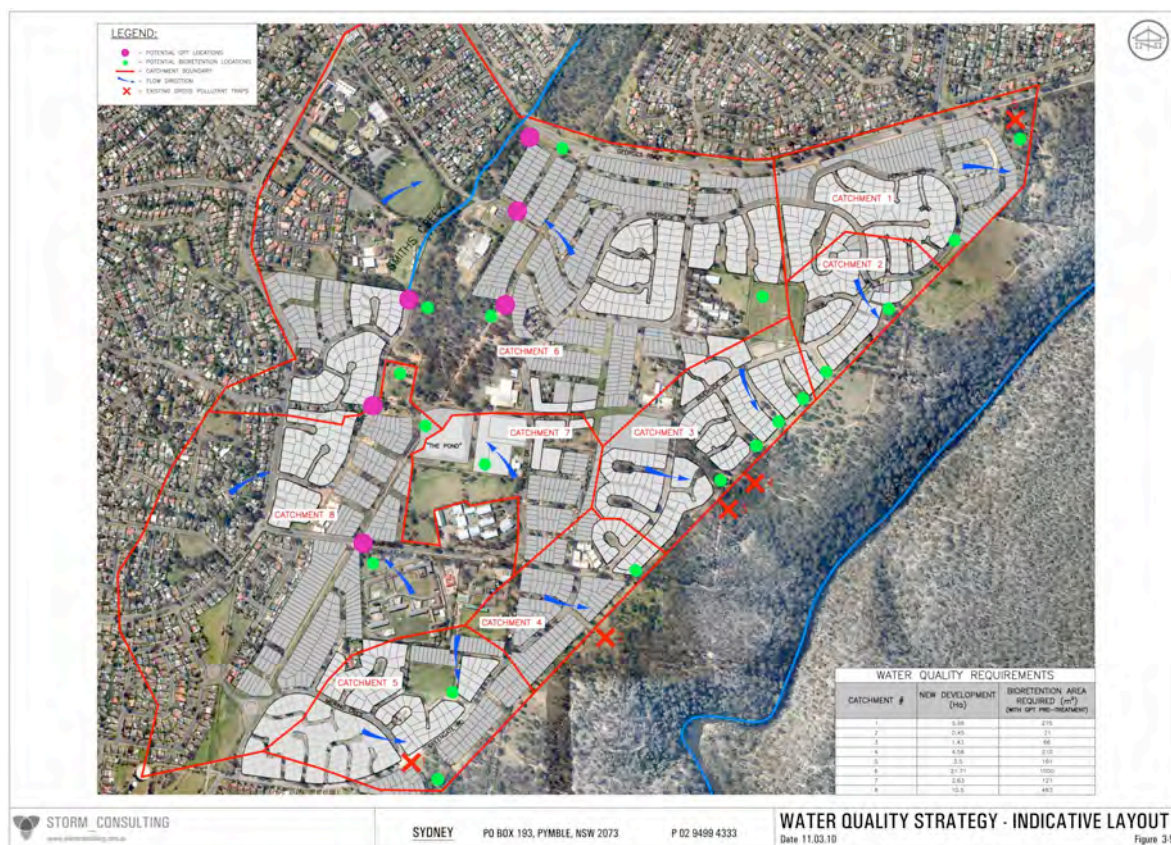
Drainage corridors for the development must be designed to convey flows for the 100year ARI storm event.

The eroding channel within the Smiths Creek corridor needs to be rehabilitated by employing the Natural Channel Design Guidelines (Brisbane City Council, 2003). Combinations of rock armouring balanced with vegetation will stabilise the stream. The weeds in the corridor need to be removed, commencing with noxious weeds and followed by environmental weeds. A revegetation plan will allow for the introduction of enhanced biodiversity, however, this must not increase the stream roughness above acceptable levels for flooding.

There is also the potential for stormwater harvesting for the two proposed playing fields in the Smiths Creek corridor should this have any long term impact.

It should be noted that the cumulative effect of rain tanks, bioretention systems, the pond and stormwater harvesting will also provide distributed detention across the proposed development, meaning that the results are conservative. The detention effects of these items has not been modelled or reported in the results.

Stormwater quality targets for the development can be met by combining the effects of rainwater tanks on individual lots with bio-retention systems either in road corridors or as end of line basins. End of line bio-retention is preferred which can have pre-filtering using gross pollutant traps (GPTs), or by installing sediment/litter trapping devised. The proposed water quality strategy is shown on **Figure 24**.



**Figure 24 - Stormwater Quality Strategy**

### 3.16 Demolition

Development envisaged under the Concept Plan requires the progressive and managed demolition of existing dwellings primarily within the town house precincts on the site. As with the construction phases, the demolition of existing dwellings will be staged as discussed in Section 3.22.

It is envisaged that a further 531 dwellings are to be demolished although it is expected that this figure may change as detailed design progresses and as more information comes to hand on the condition of existing dwellings.

Demolition will take place progressively within each stage. Residents will be progressively rehoused. Housing NSW has established a rehousing team to assist tenants through this period.

Approval is sought for the demolition of existing dwellings and structures on the site which are necessary for the development to proceed.

The demolition will be in accordance with the requirements as set out under the Australian Standard AS2601 – 2001: The Demolition of Structures which is incorporated into the Occupational Health and Safety Act 2000 which is administered by WorkCover NSW.

Demolition will include:

- the removal of all improvements;
- breaking down and removing all foundations and footings;
- breaking up and removing road pavements, footpaths and services not required for the development;
- removal of debris and rubbish.

Barriers will be erected around the work area to protect the public.

A Hazardous Building Materials Management Plan will be prepared prior to demolition commencing. This report will indicate the construction materials to be demolished on-site and the mechanism for controlling and managing the demolition and disposal of possible hazardous materials. Methods used to safely demolish and dispose of any hazardous materials will be provided. The demolition process will be controlled by specific guidelines including the Occupational Health and Safety Regulation 2001 and all WorkCover requirements.

An erosion and sediment control plan will be prepared to control run off during the demolition process.

A Waste Management Plan will be prepared prior to demolition commencing. Where possible materials will be recycled for reuse on the Site.

Gas, electricity, water, sewer and telecommunications will be sealed at relevant Site entrance points and will be undertaken according to the relevant utility standard.

A Site Management Plan will be prepared to ensure the safety of the existing residents during the demolition program. This will include, but will not be limited to:

- means of providing pedestrian and vehicular access to existing dwellings including temporary access as required;
- means of managing noise and dust;
- means of advising the community of the construction program on a regular basis;
- means of communicating with the contractor and clear procedures for registering complaints and follow-up.

The demolition program will involve consultation with the rehousing and community renewal teams.

It is considered that these works can proceed without further environmental assessment and a determination to this effect is requested.

### 3.17 Earthworks

Bulk earthworks will be undertaken on a stage by stage basis although there will be some transfer of excavated material between stages requiring short term stockpiling. Regrading works will be undertaken to modify and enhance overland flow paths, to provide for new road construction and to provide suitable building platforms. All efforts will be made to achieve a balance of cut to fill. Additional earthworks will be required for road, drainage and utility works.

### 3.18 Tree Removal

The site contains a number of mature trees that have grown following completion of the housing estate. These are located in a number of areas including parks and vacant lands, in front and rear yards and occasionally along streets. The Concept Plan has been prepared having regard to the location of trees. Consideration has been given to locating trees within parks where consistent with other planning objectives. Most of the trees in the cottage precincts retained as part of the Concept Plan will be kept. Other trees along or adjoining streets to be retained are also likely to be not affected.

It is inevitable that the renewal process will result in the removal of trees in the areas to be redeveloped. This is necessary to redesign the street network and construct new dwellings. Trees to be removed will be replaced with new street trees as outlined in Section 3.9. Trees are also likely to be planted on residential lots.

### 3.19 Waste Management

Waste materials result from construction and demolition (C&D) activities. C&D waste quantities can be significant for urban renewal projects, such as Airds Bradbury. Effective planning and management can prevent unnecessary disposal to landfill and consumption of resources. Recycling and reuse options must be considered on all projects with significant quantities of C&D waste.

Landcom's minimum targets will be incorporated in the delivery stage project management brief, tender package (sustainability returnable schedule) for development partners and associated Project Delivery Agreement (PDA), Builder Agreements, civil works contracts and building contracts (where building activity is a direct Landcom contract). The overarching Landcom target is to achieve 95% recovery (reuse and recycle) of total construction and demolition waste materials generated from sum of civil works contracts completed in that year.

The Concept Plan application does not envisage any works other than demolition of existing dwellings. It is proposed that a construction waste management plan will be prepared prior to commencement of construction as part of a construction management plan and a commitment to this effect is included in the statement of commitments.

The envisaged waste management regime is shown in the following table:



| DEMOLITION/SUBDIVISION STAGE                                                                                                                                                                                                                                                                                                |                                                                                                        |                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| MATERIALS ON SITE                                                                                                                                                                                                                                                                                                           | DESTINATION                                                                                            |                                                                                       |
|                                                                                                                                                                                                                                                                                                                             | Re-Use and Recycling                                                                                   |                                                                                       |
| Type of Materials                                                                                                                                                                                                                                                                                                           | ON-SITE                                                                                                | OFF-SITE                                                                              |
| Excavation material                                                                                                                                                                                                                                                                                                         | Project aims for balance of cut and fill which may involve stockpiling between stages.                 | Any excess will be removed from site as clean fill                                    |
|                                                                                                                                                                                                                                                                                                                             | Topsoil stripped and re-used                                                                           |                                                                                       |
| Green Waste                                                                                                                                                                                                                                                                                                                 | Trees to be chipped on site for re-use as landscaping mulch                                            | Any remainder to Camden soil mix, Narellan or equivalent for recycling.               |
| Bricks                                                                                                                                                                                                                                                                                                                      |                                                                                                        | To crushing & recycling plant (Jack's Gully Waste Management, Narellan) or equivalent |
| Concrete Access ways                                                                                                                                                                                                                                                                                                        | Possibly used as recycled road base, structural fill crushed on site. Any remainder to re-cycle plant. | To crushing & recycling plant                                                         |
| Footpaths / Driveway / Kerbs etc.                                                                                                                                                                                                                                                                                           | Possibly used as recycled road base, structural fill crushed on site. Any remainder to re-cycle plant. | To crushing & recycling plant                                                         |
| Timber:                                                                                                                                                                                                                                                                                                                     |                                                                                                        | To crushing & recycling plant                                                         |
| Plasterboard                                                                                                                                                                                                                                                                                                                |                                                                                                        | To crushing & recycling plant                                                         |
| Metal – General (Includes reinforcement)                                                                                                                                                                                                                                                                                    |                                                                                                        | To crushing & recycling plant                                                         |
| Road Material - AC                                                                                                                                                                                                                                                                                                          | Mill For Reuse, structural fill                                                                        |                                                                                       |
| Road Material - Base                                                                                                                                                                                                                                                                                                        | Possibly used as recycled road base, structural fill crushed on site. Any remainder to re-cycle plant. | To crushing & recycling plant                                                         |
| Ongoing Management of waste during the subdivision construction will be limited to general waste disposal by the nominated civil contractor. Waste disposal and recycling facilities requirement will be incorporated into the Construction and Environmental Management Plan to be implemented by the approved contractor. |                                                                                                        |                                                                                       |

### 3.20 Sustainability

In striving for sustainability, development should contribute to the enhancement of the natural environment and to provide land and resources in an appropriate condition for future generations.

A major aim of sustainability is to decouple economic growth from increased use of resources and generation of waste. This can be achieved through more efficient use of resources – getting more value out of each unit of energy and mineral extracted from the ground and increasing the efficient use of water. Minimising waste in all stages of production, together with reuse and recycling of the end product, all contribute to resource efficiency and an improved ecological footprint. The Concept Plan is founded on the



principles of sustainability. Sustainability is enhanced by the Concept Plan in a number of ways:

- Reuse of an existing developed site to provide improved housing, improved public transport accessibility and better use of available urban services in a location that is accessible to the centre of Campbelltown;
- Providing an urban form that facilitates walking and cycling in safety and with more direct access to facilities and services;
- Minimising impacts on existing endangered ecological communities within the less developed sections of the Smiths Creek bypass corridor;
- The requirement for all new dwellings to be designed to achieve BASIX requirements;
- The provision of a stormwater management system that provides controls over water quality prior to discharge off site and opportunities for rainwater harvesting;
- Providing a housing mix and urban form that is conducive to the on-going social sustainability of the precinct.

Subsequent applications for approval for stages of the renewal will give further specific consideration to sustainability.

Sustainability initiatives will be implemented during design construction and operational phases of the project and will include the following.

### 3.20.1 Design

- Retention of core biodiversity areas within the site and provision of conservation and open space connectivity;
- Water sensitive urban design measures that will result in improvement in water quality, incorporate the riparian network and integrate with urban design;
- Connectivity to regional infrastructure to support more efficient transport within the wider region;
- Potable water supply conservation and identification of integrated options for stormwater harvesting and re-use in parklands;
- Reduction in travel distances and improved mode share split by:
  - Revitalising the Town Centre and locating related land uses centrally to maximise the opportunity for multipurpose trips;
  - Providing a street network with a high level of connectivity and permeability;
  - Locating public transport corridors within 400 metres walking distance of the majority of dwellings;
  - Connecting public transport corridors to key local destinations;
  - Providing an interconnected network of pedestrian priority streets and open space corridors to encourage walking between residences and facilities; and,

- Providing a system of on-street and off-street cycleways to encourage bicycle usage.

### 3.20.2 Construction

- Re-use of the existing developed site to provide improved housing, improved public transport accessibility and improved community and recreational facilities;
- Reduction of subdivision construction waste going to landfill by recycling excavated materials 'in-situ';
- Recovery and recycling of waste materials from existing dwellings to be demolished;
- Reduction in waste from homes, during and after construction, by educating builders and residents on the benefits of waste minimisation;
- Undertake environmental and OH&S audits on all civil works and building contracts;
- All construction contracts let to include sustainable materials, design and practices requirements.

### 3.20.3 Operation

- Reduction in potable water usage through BASIX initiatives;
- Reduction in greenhouse emissions through BASIX initiatives;
- Achieving a 6 star thermal efficiency rating through NatHERS;
- Providing homeowner/resident kits to inform residents of the resource efficiency features and initiatives and the benefits available.

## 3.21 Safety and Security

Subdivision layout enhances safety through design, by providing casual surveillance over areas of public open space, including streets and paths. Building design and orientation, subject to further approval will also be considerate of safety and security.

Additional road and pedestrian connections are proposed to improve permeability and safety across the site. Pedestrian amenity and safety can be enhanced throughout the development precincts by establishing formal pathways that are clearly visible from the public domain.

Parks have been designed and located to encourage passive surveillance and public safety through their location in relation to adjoining streets, choice of landscaping, street furniture and lighting.

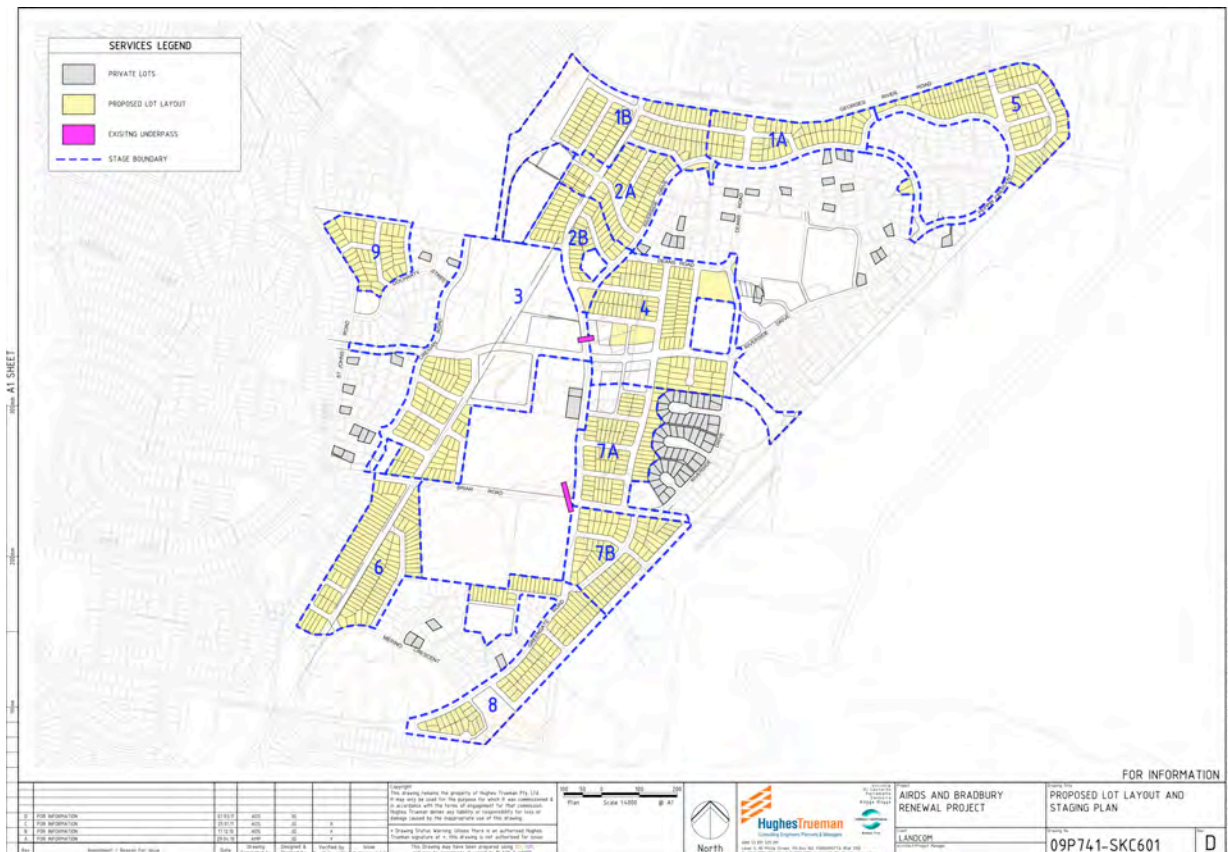
Subsequent applications will give further consideration to principles of CPTED when design details are advanced.

## 3.22 Development Staging

Subsequent to the approval of the Concept Plan application, separate applications will be lodged for all works and development on the land, including subdivision, the carrying out of works, the erection of buildings, and any other matters for which further approvals or environmental assessment is required by the terms of the Ministers approval.

As stated above, it is submitted that no further environmental assessment is required for the demolition of buildings, structures, vegetation or services.

The indicative staging plan is shown in **Figure 25**. The development will proceed generally from the north to the south. The sale of Housing NSW properties will occur generally at the time new lots are produced and sold.



**Figure 25 - Staging**

### 3.23 Off-Site Works

The implementation of the Concept Plan may require additional works located off site this might include intersection works and works to lead in infrastructure trunk mains and services. Such works to be the subject of separate applications pursuant to the Concept Plan are envisaged by the Concept Plan.

### 3.24 Consideration of Alternatives

Considerations have been given to a range of alternatives to the Concept Plan. An important example of this is the options developed and considered through the Airds Bradbury Design OutLOUD initiative. Over three days in May, 2010, from the 20th to the 22nd, a Design OutLOUD workshop was held in Airds Bradbury to identify community and stakeholder ideas to guide the integrated social and physical renewal of the neighbourhood. This process is described in greater detail in the Design OutLOUD Summary Report prepared by Urbis and contained in **Appendix 15**.

As a result of this process three options for the urban structure and form of the renewal process were developed. These options were further refined and developed with input from stakeholders, and further testing by specialist consultants.

This process culminated in the development of the Concept Plan included as **Figure 2**.



## 4. KEY ENVIRONMENTAL ASSESSMENT ISSUES

### 4.1 EPIs Policies and Guidelines

#### 4.1.1 Strategic Context

##### **NSW State Plan**

The NSW State Plan was released in 2010 as a long term plan to deliver education, health, transport and policing to planning, environmental protection and community services. It aims for better transport and more liveable cities.

*The State Plan is the community's vision for the future of NSW in which:*

- 1. Our transport network is world class—safe, reliable and integrated. Our cities and towns are great places to live, and we experience a high quality of life*
- 2. Our economy grows stronger—supporting jobs and attracting business investment*
- 3. Our children are better educated, our people more skilled and we are known for our research and innovation*
- 4. Our health system provides the highest quality care accessible to all*
- 5. Our energy is clean, our natural environment is protected and we are leaders in tackling climate change*
- 6. Our community is strong and the most disadvantaged communities and our most vulnerable citizens are supported*
- 7. Our police and justice system keep the community safe.*

The plan aims to deliver 9,000 new homes for social housing through ongoing partnership with the Federal Government and the Housing NSW Building Plan. It states the following:

*The importance of social inclusion was also consistently raised, with a focus on better linking appropriate and affordable housing with public transport and community infrastructure to engage disadvantaged and marginalised communities.*

*Priority groups include Aboriginal communities, ethnic communities, young people, women, elderly, people with a disability or mental illness, the homeless, and low income earners.*

*Our immediate efforts are focused on enabling an orderly supply of land for housing and employment uses in high growth regional areas in NSW*

The table following shows how the project will address the various goals set by the State Plan:

| Heading                                          | Goal                                        | Relevant project activity                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rights, Respect and Responsibility               | Keeping people safe                         | <p>The project will reduce opportunities for crime by providing safer parks and ensuring CPTED principles are followed in new designs.</p> <p>The work will ensure there is good surveillance of public areas and well defined private areas.</p>                                                                                                                                                                                                                                               |
|                                                  | Building harmonious communities             | <p>The project will include community development activities and involve extensive community engagement. Community activities will be aimed at various sections of the community including youth, people with a disability, families, aged persons, etc, to minimise social exclusion of any part of the community.</p> <p>The aim is to reduce antisocial behaviour and increase participation and integration in community activities.</p>                                                    |
| Delivering Better Services                       | Healthy communities                         | <p>The project will include the undertaking of a Health Impact Assessment (HIA) as part of Housing NSW's partnership with the South West Area Health Service and UNSW. The aim of the HIA will be to ensure that community health aspects are taken into consideration in any decision making on the estate.</p> <p>Community development activities will include partnerships with NGOs who work to improve health through reduced obesity, smoking, illicitly drug use and risk drinking.</p> |
|                                                  | Students fulfil their potential             | The project will include a Learning and Employment stream with various partners that may provide vocational training for students.                                                                                                                                                                                                                                                                                                                                                              |
|                                                  | A high quality transport system             | The project will provide safer local road designs and look at opportunities to provide better accessibility for public transport routes throughout the estate.                                                                                                                                                                                                                                                                                                                                  |
|                                                  | Customer friendly services                  | The project will ensure the integration of services delivered by various government agencies.                                                                                                                                                                                                                                                                                                                                                                                                   |
| Fairness and Opportunity for the Most Vulnerable | Strengthening Aboriginal communities        | As part of the project partnerships will be established with local Aboriginal community groups, such as Tharawal Health Services to ensure improved health and education outcomes for Aboriginal people.                                                                                                                                                                                                                                                                                        |
|                                                  | Opportunity and support for most vulnerable | As part of the project partnerships will be established with NGOs and other government agencies to increase employment and community participation for people with disabilities and other vulnerable groups in the community.                                                                                                                                                                                                                                                                   |
|                                                  | Early Intervention to tackle disadvantage   | Partnerships will be established with NGOs and other government agencies to ensure appropriate services to families and children in line with the principles of prevention and early intervention.                                                                                                                                                                                                                                                                                              |
| Growing Prosperity across NSW                    | NSW Open for business                       | The project will include a Learning and Employment stream with various partners such as Workventures to encourage local business enterprise and appropriate training to meet local needs.                                                                                                                                                                                                                                                                                                       |
|                                                  | Stronger rural and regional economies       | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Heading            | Goal                              | Relevant project activity                                                                                                                                                                                                                                    |
|--------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environment Living | for Securing our water and energy | New development will use appropriate water sensitive and environmentally efficient urban design principles.                                                                                                                                                  |
|                    | Practical environmental solutions | Any new development will take into consideration relevant environmental issues such as retention of Cumberland Plain forests, protecting Georges River and acid sulfate soils.                                                                               |
|                    | Improved urban environment        | <p>The project will provide opportunities for new housing development and assist with keeping housing affordable in the region.</p> <p>The project will encourage more usage of local parks by ensuring they are accessible and have a safe environment.</p> |

### Metropolitan Plan 2036

The Metropolitan Plan for Sydney 2036 was released in November 2010 and updates the previous Metropolitan Strategy “City of Cities” from 2005 and its anticipated population, economic and demographic trends. It also integrates the Metropolitan Transport Plan to deliver a 25 year Metropolitan Plan for Sydney until 2036. It aims to guide Sydney’s growth and coordinate efforts by the NSW Government and local councils and integrates land use, urban and funded transport planning to provide a framework for sustainable growth and development across the city.

The plan has 8 challenges for Sydney’s future:

- Strengthening a City of Cities
- Growing and Renewing Centres
- Transport for a Connected City
- Housing Sydney's Population
- Growing Sydney's Economy
- Balancing Land Uses on the City Fringe
- Tackling Climate Change + Protecting the Environment
- Achieving Equity, Liveability and Social Inclusion

The plan states that Sydney’s population is growing faster than previously expected and the composition of the population is changing due to increasing life expectancy. By 2036, the number of people aged 65 and above will more than double to just over one million, requiring new, more varied housing, social infrastructure and community services. By 2036, half the city’s population will live in Western Sydney (up from 43% in 2006) and the South West Subregion is expected to experience the highest level of growth

In addition, the average household size is falling, creating demand for smaller, more affordable homes. As a result, Sydney will need 770,000 additional homes by 2036 which is a 46% increase on the city’s current 1.68 million homes.

The location of new homes and jobs are to reflect transport capacity and will determine how effectively Sydney develops as a compact and connected city.

The plan updates the draft South West Subregional housing targets, moving the timeframe to 2036 and represents a shift towards more homes in established areas. The dwelling target for the south west from 2006-2036 has been revised to 155,000 with the area targets to be revised in the Subregional Strategies in partnership with local government and State agencies. The Airds Bradbury Concept Plan aims to provide new housing and renew existing housing across the site area. Overall an increase in dwellings from 1,542 to 2,104 is expected with the Concept Plan remaining an element of flexibility regarding the size and type of new housing through the development stages to reflect the population's changing needs.

The plan states the following in relation to renewing social housing stock:

*Many older dwellings are no longer appropriate for current tenants. Redevelopment of estates presents an opportunity to renew housing stock, build more homes and help achieve Metropolitan Plan objectives and housing targets.*

This approach has evolved from a primary focus on asset renewal to improve the physical environment, build community capacity and develop partnerships with local organisations to improve access to services for public housing areas. This approach is showing significant promise in places like Minto and Bonnyrigg and now Airds Bradbury.

The Concept Plan addresses issues of urban structure, housing quality and social mix based on a detailed consideration of the characteristics of the site and its context including the existing community.

One of the key aims of the renewal project is to improve efficiency in the use of land, services and infrastructure while emphasise partnerships, with the community, local government, non-government organisations, the community housing sector and the private sector where appropriate is a way similar to the Minto Urban Renewal.

The aim is to achieve government objectives and Housing NSW's policy which is to introduce a mix of private ownership (approximately 70% of the estate) within public housing estates (retain 30%) to create a sustainable and safe community. Housing NSW will replace the public housing dwellings lost from the estate within the Greater Western Sydney region over the life of the project to align with its projected public housing client needs and the need to maintain the total stock number in the area.

### **Draft South West Subregional Strategy**

Direction C4 of the Subregional Strategy aims to improve the affordability of housing through an increase in the provision of public housing and the construction of additional affordable housing units.

Direction C4.2 of the Subregional Strategy aims to redevelop and regenerate Housing NSW stock. Housing NSW is a significant landholder in this region yet the Draft Strategy identifies that many of these properties are not as appropriate for the needs of current and future clients as when they were first developed.

Redevelopment of these properties would allow them to be reconfigured to better match clients needs in terms of dwelling size, location and special requirements, while at the same time implementing best practice urban design

There is a significant amount of low and medium density public housing within the subregion, particularly around Minto, Warwick Farm, Campbelltown (including Claymore and Airds) and Macquarie Fields. These sites provide opportunities for redevelopment



over the next 25 years, and the Government will have the challenge of providing housing stock to match changing household requirements, with an increase in the demand for one and two bedroom dwellings in close proximity to centres. Redevelopment of housing estates will also provide opportunities to increase densities.

Airds and Bradbury are both identified as containing neighbourhood centres in the hierarchy of retail centres.

#### 4.1.2 Commonwealth Considerations - EPBC Act

The Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) commenced on 16 July 2000. The Act introduces a new assessment and approvals system for:

- actions that have a significant impact on matters of national environmental significance;
- actions that have a significant impact on the environment of Commonwealth land; and
- actions carried out by the Commonwealth Government.

Under the assessment and approval provisions of the EPBC Act, actions that are likely to have a significant impact on a matter of national environmental significance are subject to a rigorous assessment and approval process. An action includes a project, development, undertaking, activity, or series of activities.

The Act identifies seven matters of national environmental significance:

- World Heritage properties;
- National Heritage places;
- Ramsar wetlands of international significance;
- nationally listed threatened species and ecological communities;
- listed migratory species;
- Commonwealth marine areas; and
- nuclear actions (including uranium mining).

The Government is considering amendments to the EPBC Act and its regulations to include “greenhouse triggers” and “access to biological resources”.

There are no relevant World Heritage properties, National Heritage places, Ramsar wetlands, Commonwealth marine areas or Commonwealth lands on the Site.

The only matters of national environmental significance of potential relevance to the site relate to the potential for a limited number of endangered ecological communities. No nationally listed threatened species or ecological communities were recorded on the site.

The Concept Plan as a whole, including the proposed mitigation measures and off-sets set out in **Appendix 5** would not be likely to impose a significant impact upon any matter of National Environmental Significance.

However, given the scale of the project, and the variety of threatened species and ecological communities present, it is recommended that the project be referred to the Commonwealth Minister for Environment and Heritage under the EPBC Act, for certainty.

#### 4.1.3 Key Legislation

##### **Environmental Planning and Assessment Act 1979 (EP&A Act)**

The objects of the Environmental Planning and Assessment Act 1979 ("the Act") are:

*"(a) to encourage:*

*(i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,*

*(ii) the promotion and co-ordination of the orderly and economic use and development of land,*

*(iii) the protection, provision and co-ordination of communication and utility services,*

*(iv) the provision of land for public purposes,*

*(v) the provision and co-ordination of community services and facilities, and*

*(vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and*

*(vii) ecologically sustainable development, and*

*(viii) the provision and maintenance of affordable housing, and*

*(b) to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and*

*(c) to provide increased opportunity for public involvement and participation in environmental planning and assessment."*

It is considered that the development envisaged under the Concept Plan is generally consistent with these objects

Part 3A of the Environmental Planning and Assessment (EP&A) Act 1979 took effect on 1 August 2005 and provides an assessment and approvals process for major infrastructure and other projects where the Minister for Infrastructure and Planning is the approval authority.

The provisions of Part 3A apply to major projects where the Minister has made a declaration relating to the specific development or a class of developments to which that project belongs.

The Minister for Planning has declared the Airds Bradbury Urban Renewal Concept Plan to be a project to which Part 3A of the Act applies.

##### **Threatened Species Conservation Act 1995**

The Threatened Species Conservation Act 1995 has the following objects:

*"(a) to conserve biological diversity and promote ecologically sustainable development, and*

- (b) *to prevent the extinction and promote the recovery of threatened species, populations and ecological communities, and*
- (c) *to protect the critical habitat of those threatened species, populations and ecological communities that are endangered, and*
- (d) *to eliminate or manage certain processes that threaten the survival or evolutionary development of threatened species, populations and ecological communities, and*
- (e) *to ensure that the impact of any action affecting threatened species, populations and ecological communities is properly assessed, and*
- (f) *to encourage the conservation of threatened species, populations and ecological communities by the adoption of measures involving co-operative management.”*

An ecological and bushfire report has been prepared for the site the findings of which are discussed in Section 4.7. The Concept Plan is consistent with the guidelines and directions in this report relating to biodiversity.

### **Rural Fires Act 1997**

Section 63 of the Rural Fires Act 1997 details duties of public authorities and owners and occupiers of land to prevent bush fires as follows:

- “(1) *It is the duty of a public authority to take the notified steps (if any) and any other practicable steps to prevent the occurrence of bush fires on, and to minimise the danger of the spread of a bush fire on or from:*
  - (a) *any land vested in or under its control or management, or*
  - (b) *any highway, road, street, land or thoroughfare, the maintenance of which is charged on the authority.*
- (2) *It is the duty of the owner or occupier of land to take the notified steps (if any) and any other practicable steps to prevent the occurrence of bush fires on, and to minimise the danger of the spread of bush fires on or from, that land.*
- (3) *A public authority or owner or occupier is liable for the costs incurred by it in performing the duty imposed by this section.*
- (4) *The Bush Fire Co-ordinating Committee may advise a person on whom a duty is imposed by this section of any steps (whether or not included in a bush fire risk management plan) that are necessary for the proper performance of the duty.”*

An analysis of the bushfire hazard (vegetation and bushland) within and adjoining the study area has been carried out by Hayes Environmental in an Ecology and Bushfire Assessment which determines the location and extent of necessary bushfire protection measures such as Asset Protection Zones (**Appendix 5**). These measures will be taken into consideration in the design of subdivisions for the affected stages.

### **Roads Act 1993**

Section 138 of the Roads Act 1993 requires that:

- “(1) *A person must not:*
  - (a) *erect a structure or carry out a work in, on or over a public road, or*

- (b) *dig up or disturb the surface of a public road, or*
- (c) *remove or interfere with a structure, work or tree on a public road, or*
- (d) *pump water into a public road from any land adjoining the road, or*
- (e) *connect a road (whether public or private) to a classified road,*  
*otherwise than with the consent of the appropriate roads authority.”*

Consent is not required under Section 138 of the Roads Act at this stage. Future applications may trigger this Section.

Application will need to be made to close the public roads on the Site. Application for closure of the Crown (paper) road can be made by any person. Part 4 of the Roads Act specifies the process of application, notification, decision, closure and disposal of the former road.

#### 4.1.4 Relevant State Environmental Planning Policies

##### **State Environmental Planning Policy (Major Development) 2005**

State Environmental Planning Policy (Major Development) 2005 was gazetted in May 2005 and aims to identify development of economic, social or environmental significance to the State or regions of the State, so as to provide a consistent and comprehensive assessment and decision-making process for that development. The Minister for Planning is the consent authority for development of the type, value or in a location, generally as identified in the SEPP, and Part 3A of the Act applies to the development.

Subsection 6(1) of the SEPP specifies that:

*“Development that, in the opinion of the Minister, is development of a kind:*

- (a) *that is described in Schedule 1 or 2 ...is declared to be a project to which Part 3A of the Act applies.”*

Schedule 1 of the SEPP is entitled ‘Part 3A projects – classes of development’ and specifies criteria on a class specific basis which determines whether the project is a ‘major project’ pursuant to Part 3A. Group 13 refers to ‘*Residential, commercial or retail projects*’. Clause 1 in Group 13 of Schedule 1 states as follows:

##### **“13 Residential, commercial or retail projects**

- (1) *Development for the purpose of residential, commercial or retail projects with a capital investment of more than \$100 million.*

The renewal project has a capital investment value in excess of \$100 million. The Minister has formed the opinion that the proposal for the Airds Bradbury urban Renewal Concept Plan is of a kind referred to in clause 13 of Schedule 1 and consequently declared it to be a project to which Part 3A applies.

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

State Environmental Planning Policy (Infrastructure) 2007 (“SEPP Infrastructure”) provides for the effective delivery of infrastructure across the State in many cases including special provisions for development by or on behalf of public authorities. Such infrastructure types include:

- Educational establishments



- Housing (including specific provisions for Housing NSW)
- Road infrastructure
- Stormwater management systems

The policy may have on-going application to the site.

The Concept Plan envisages more than 200 lots with additional access proposed to Georges River Road and St Johns Road. Referral to the RTA may be required.

#### **State Environmental Planning Policy (Affordable Rental Housing) 2009**

State Environmental Planning Policy (Affordable Rental Housing) 2009 promotes the development of new affordable rental housing in New South Wales by providing development and design controls that assist with the delivery of housing stock for low and low-middle income earners and homeless and other disadvantaged people who may require support services, including group homes and supportive accommodation.

The Concept Plan is consistent with the provisions of this policy with elements of the development permissible with or without consent under this policy.

#### **State Environmental Planning Policy No. 55 (Remediation of Land)**

State Environmental Planning Policy No. 55 (Remediation of Land) ("SEPP 55") aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment by specifying certain considerations to be had in determining development applications in general, by requiring that remediation work meets certain standards.

The EA contains a report of a preliminary investigation on soil contamination on the site (**Appendix 4**). This included limited soil sampling. The report enables the nature of potential contamination to be identified and recommends a procedure for more detailed testing and, if necessary, remediation as part of the redevelopment process to ensure that the site can be confirmed by site audit that it is suitable for the proposed uses.

#### **State Environmental Planning Policy No. 65 Design Quality of Residential Flat Development**

State Environmental Planning Policy 65 (SEPP65) aims to improve the design quality of residential flat development in New South Wales.

This Policy applies to development for the erection of a new residential flat building, and the substantial redevelopment or the substantial refurbishment of an existing residential flat building. The Concept Plan does not envisage any residential flat buildings of three or more storeys. Were such development to occur, this SEPP would apply.

#### **State Environmental Planning Policy No. 44 Koala Habitat Protection**

State Environmental Planning Policy 44 (SEPP44) aims to encourage the proper conservation and management of areas of natural vegetation that provide habitat for koalas to ensure a permanent free-living population over their present range and reverse the current trend of koala population decline.

The *Ecological and Bushfire Assessment* by Hayes Environmental (**Appendix 5**) addresses SEPP 44 and states that some patches of vegetation within the subject site contain Koala 'feed tree species' and are likely to constitute 'potential koala habitat' under SEPP44.

However, the subject site does not constitute 'core koala habitat' as defined by SEPP44, therefore, there is no requirement to prepare a formal plan of management in accordance with Part 3 of SEPP44.

### **State Environmental Planning Policy (Building Sustainability Index BASIX) 2004**

BASIX is the Building Sustainability Index, the State Government's web-based planning tool designed to assess the potential performance of new homes against a range of sustainability indices, being: Landscape, Stormwater, Water, Thermal Comfort and Energy. BASIX aims to reduce the environmental impact of these features of new development and to produce homes that are more comfortable and cheaper to run than most existing homes.

The BASIX SEPP was gazetted on 25 June 2004, and operates in conjunction with the Environmental Planning and Assessment Amendment (Building Sustainability Index: BASIX) Regulation 2004 to ensure the effective introduction of BASIX in NSW. The SEPP ensures consistency in the implementation of BASIX throughout the State by overriding competing provisions in other environmental planning instruments and development control plans, and specifying that SEPP 1 does not apply in relation to any development standard arising under BASIX.

A BASIX assessment will be required to accompany any application for housing proposed in accordance with the Concept Plan.

#### **4.1.5 Greater Metropolitan Regional Environmental Plan No 2—Georges River Catchment**

The general aims and objectives of this plan are as follows:

- (a) to maintain and improve the water quality and river flows of the Georges River and its tributaries and ensure that development is managed in a manner that is in keeping with the national, State, regional and local significance of the Catchment,*
- (b) to protect and enhance the environmental quality of the Catchment for the benefit of all users through the management and use of the resources in the Catchment in an ecologically sustainable manner,*
- (c) to ensure consistency with local environmental plans and also in the delivery of the principles of ecologically sustainable development in the assessment of development within the Catchment where there is potential to impact adversely on groundwater and on the water quality and river flows within the Georges River or its tributaries,*
- (d) to establish a consistent and coordinated approach to environmental planning and assessment for land along the Georges River and its tributaries and to promote integrated catchment management policies and programs in the planning and management of the Catchment,*
- (e) to encourage more effective consultation between local government and State Government agencies in executing the responsibility for environmental planning within the Catchment,*
- (f) to provide a mechanism that assists in achieving the water quality objectives and river flow objectives agreed under the Water Reform Package.*

The specific aims and objectives of this plan are as follows:

- (a) to preserve and protect and to encourage the restoration or rehabilitation of regionally significant sensitive natural environments such as wetlands (including mangroves, saltmarsh and seagrass areas), bushland and open space corridors within the Catchment, by identifying environmentally sensitive areas and providing for appropriate land use planning and development controls,*
- (b) to preserve, enhance and protect the freshwater and estuarine ecosystems within the Catchment by providing appropriate development,*
- (c) to ensure that development achieves the environmental objectives for the Catchment.*
- (d) to identify land uses in the Catchment which have the potential to impact adversely on the water quality and river flows in the Georges River and its tributaries and to provide appropriate planning controls aimed at reducing adverse impacts on the water quality and river flows,*
- (e) to conserve, manage and improve the aquatic environment within the Catchment which is a significant resource base for the aquaculture industry, by providing controls aimed at reducing pollution entering the Catchment's watercourses,*
- (f) to protect the safety and well being of the local and regional community in accordance with standards and processes aimed at improving the water quality and river flows in the Catchment to enable recreation,*
- (g) to aid in the improvement of the environmental quality of Botany Bay in conjunction with other regional planning instruments.*

The development is located within an established urban area. Measures are proposed to manage stormwater quality and quantity during construction and operation as outlined in the Water Cycle Management Plan contained in **Appendix 8**. This includes improvements in stormwater treatment and management on the site. The Site will be fully serviced and existing services upgraded or replaced as required. This will be to the benefit of downstream receiving waters and comply with the aims, objectives and provisions of this REP.

#### 4.1.6 Local Environmental Planning Policies

##### **Campbelltown (Urban Area) Local Environmental Plan 2002;**

Pursuant to the provisions of Campbelltown (Urban Areas) Local Environmental Plan 2002 ("the CLEP"), the site has various zonings including:

- 2(b) Residential B
- 5(a) Special Uses (School) and 5(a) Special Uses (Institution)
- 5(e) Special Uses (Public Purposes Corridor)
- 6(a) Open Space
- 10(c) Local Comprehensive Centre

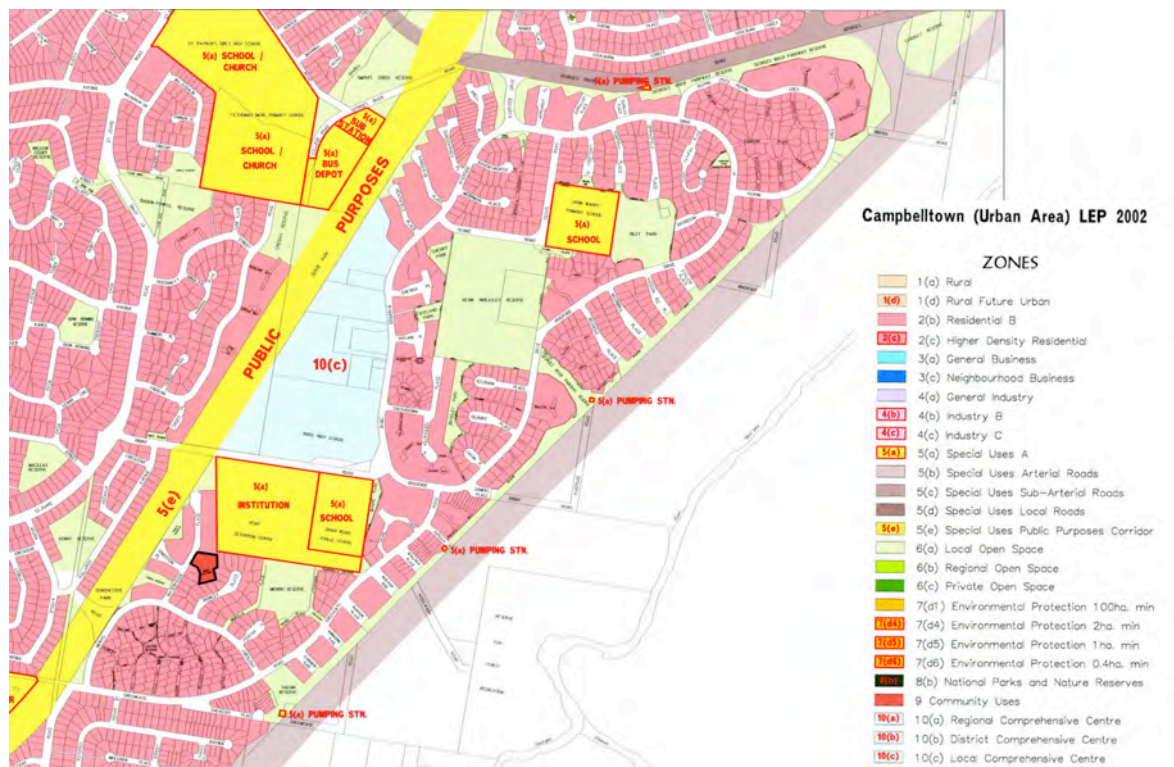
The site is adjacent to land with Zone 5(b) and 5(c) Special Uses Arterial and Sub-arterial Roads. Local roads are mostly unzoned.

Existing zoning is shown on **Figure 26**. The existing zoning of the site reflects the current pattern of development and consequently the proposed Concept Plan is not totally

consistent with the current zones or their objectives. The Concept Plan envisages development that would be prohibited within certain zones that apply to the site including the open space and special uses zones. Although not required for approval to be granted to the Concept Plan application, changes to zone boundaries to reflect the new land use and subdivision pattern are recommended.

In the terms of Section 75O(3) of the EP&A Act and Clause 8N of the EP&A Regulation, the proposed development is not prohibited and consequently the Concept Plan application can be approved. This applies to the zoning of the land and any other provision that would otherwise prevent approval from being granted.

It is possible that the Minister will made a determination under S75P(1)(b) to the effect that approval to carry out subsequent stages of the project is to be the subject of Part 4 of the Act. If this determination is made, the Minister is also requested to direct, pursuant to S75P(2)(c1), that a provision of an environmental planning instrument prohibiting or restricting the carrying out of the project under Part 4 does not have effect. This will enable early stages of the project to be approved prior to any housekeeping amendment to the LEP to reflect a land use zoning consistent with the Concept Plan as approved.



**Figure 26 – Existing Zoning**

Other relevant provisions of the LEP are as follows.

Clause 32 deals with subdivision. Clause 32(2) provides that development consent under Part 4 must not be granted to the subdivision of land traversed by a zone boundary unless the boundaries of lots so created correspond generally with the boundaries between the zones as shown on the map and requires. As stated above the Concept Plan includes a



pattern of development that traverses existing zone boundaries. As discussed above this does not prevent approval of the Concept Plan.

Clause 32(3) prevents consent from being granted to any subdivision which includes the opening of a new road if that new road does not accord with any pattern of proposed roads indicated on the map unless the consent authority is satisfied that the proposed new road will provide adequate access to adjoining land and fulfils the objectives of the road pattern indicated on the map. The road pattern under the Concept Plan is different from that on the LEP map. New roads and realigned roads provide adequate access to adjoining lands. They fulfil the objectives of this control.

Clause 39 contains controls relating to earthworks and the preservation of trees. These matters relate to details that would be the subject of subsequent applications for the stages of the development.

Clause 42 deals with restrictions on access to or from roads within Zones 5 (b) and 5 (c). This includes Georges River Road and the future Georges River Parkway. Clause 42(2) provides that development must not be carried out on land adjoining a road within Zone 5 (b) unless all vehicular access to the land from that road is by way of another road which is not in Zone 5 (b). The indicative subdivision plan does not satisfy this control with some lots fronting Georges River Road.

Clause 42(3) provides that the consent authority may allow permanent vehicular access to and from the development by that road if alternative access to the development is neither practicable nor provided by another existing road or a proposed road identified in a development control plan.

The illustrative subdivision pattern prepared by Urbis and contained in **Figure 21** includes lots that have direct access from Georges River Road following a number of discussions on this matter with Council who have not objected to the direct access as shown on **Figure 21**.

Issues of road safety and efficiency of operation of the road network will be further considered in relation to applications for the construction of each stage of the project.

The implications of the proposed access arrangements under the Concept Plan are discussed in **Appendix 12**.

Clause 49 deals with development in the vicinity of a heritage item. Before granting consent to development in the vicinity of a heritage item, the consent authority must assess the impact of the proposed development on the heritage significance of the heritage item and of any heritage conservation area within which it is situated.

The only heritage item on the site is Briar Cottage located on Lot 43 in DP 261258 at 16 Waterhouse Place to the south west of Reiby Juvenile Justice Centre. The cottage is an Edwardian tuck-pointed brick house with a hipped Marsailles tiled roof and terra cotta roof ridging.

Development in accordance with the Concept Plan adjoins the northern and western boundary of the heritage item and includes the demolition of existing town houses located in close proximity to the northern boundary and the replacement of this with an accessway. Waterhouse Place is to be connected to a new street within the Smiths Creek bypass corridor to the north providing improved connectivity and improved access to the heritage item. The adjacent townhouses to the north and west will be redeveloped for dwelling houses, a form of dwelling compatible with nature of the existing heritage item.

No works are proposed to the cottage. Any subsequent work to the cottage would be undertaken in recognition of its local heritage significance.

Clause 53 contains provisions relating to land reserved for the Smiths Creek bypass corridor. This land is no longer required for this purpose.

Clause 56 enables development on existing roads and pathways if they are lawfully closed.

Clause 62 relates to development on land that may be affected by salinity. Salinity investigations were undertaken as part of the geotechnical investigation prepared by GeoEnviro Consultancy Pty Ltd. Soil salinity is not considered significant within the site and GeoEnviro Consultancy provide recommendations on good soil and water management strategies to be adopted for the proposed redevelopment of the site.

### ***Campbelltown (Sustainable City) Development Control Plan 2009***

The renewal project requires new streets and land uses to integrate into and existing built fabric resulting in some restrictions on the ability to locate streets and resulting block patterns. This ultimately affects the allotment sizes.

Housing NSW and Landcom propose to accommodate a range of housing types on lot sizes that differ from the minimums allowable under the Campbelltown (Sustainable) City DCP 2009 (the DCP). Consequently some modifications of the DCP are required. These modifications are discussed in Section 1.4.4 and will be the subject of a Draft DCP to amend the DCP. It is proposed that subsequent subdivision and building construction in accordance with the Concept Plan will be consistent with these new controls.

## **4.2 Built Form and Urban Design**

### **4.2.1 Height, bulk and scale**

The height bulk and scale of development envisaged under the Concept Plan is described in Sections 3.6 and 3.7. The Concept Plan envisaged development having a height generally of 1 to 2 storeys in the form of detached and attached dwellings. Some multi-unit housing such as seniors housing or other forms of social housing is also envisaged in selected locations, primarily close to the town centre and potential public transport services. The Concept Plan envisages an additional two seniors housing developments each comprising approximately 26 units. It is not expected that such multi-unit housing would exceed 2 storeys in height.

Development under the Concept Plan will be of a height and scale that is compatible with the height and scale of existing development. However the development envisaged under the Concept Plan will be of a much higher standard of urban design based on improved subdivision pattern and street system.

It is considered that the height and scale of development envisaged under the Concept Plan is appropriate in the context and compatible with the existing and desired future character of the area as envisaged under the urban renewal project.

### **4.2.2 Details of Open Space and Landscaped Areas with specific consideration of Crime Prevention through Environmental Design**

The proposed open space for the development is described in greater detail in Section 3.9 and **Appendix 14**. The main public parks are:

Deanes Park (11.86 hectares) – to be developed for active and passive recreation and conservation and regeneration of Cumberland Plain Woodland. It will contain 2 sports fields and a range of associated facilities and services including lighting, parking, amenities building, play areas and associated shade structures, public domain furniture and BBQs for picnics and informal use, pedestrian and cycle paths and public art;

Riley Park (2.3 hectares) – to contain 2 soccer fields with cricket wicket for summer use and associated facilities such as lighting, parking, amenities building and childrens play areas; and

Merino Reserve (1 hectare) – a passive park comprising landscaping, a run-around area, playground for informal play and seating and picnic tables. Details of the parks and park embellishment are contained in the Landscape Statement in **Appendix 14**.

An additional 3.95 hectares of linear open spaces and bushland connectivity provides an interface with the Georges River Parkway and access to the parkway.

Concepts for three parks have been prepared as a basis for on-going discussions with Council and for incorporation into a voluntary planning agreement for the provision of public amenities and facilities.

Principles of crime prevention through environmental design have been incorporated into the design of the parks in the following manner:

- Design to promote passive surveillance of open space by maximising public street frontages to parks;
- Maximise co-location and sharing opportunities of active recreation facilities to encourage active use of open spaces;
- Lighting restricted to key pedestrian thoroughfares only to provide safe circulation and to discourage inappropriate use after dark;
- Integrating public toilets with amenities facilities;
- Minimal use of fencing
- Lighting shall conform with the current Australian Standards, including AS 1158 Lighting for Roads and public spaces AS 2560 –Sports field Lighting;
- Landscaping and built structures not to create obscured areas. Ensure tree species selected in public areas can be maintained with a clear trunk to a minimum of 2 metres;
- Clearly defined pathways and cycleways;
- Development adjacent to parks address the street and promote passive surveillance of the parks;

In this way the form and detail design has been developed to incorporate the core principles of Crime Prevention Through Environmental Design (CPTED) and Safety By Design.

The design facilitates good **surveillance** by:

- the clear distinction between public and private domains with parks surrounded by streets in most cases;
- opportunities for passive surveillance from adjoining streets and from clearly delineated and lit pedestrian and cycle paths;

- appropriately scaled plantings to afford good visibility;

**Access control** is facilitated by:

- clearly delineated access points and pathways;
- lighting restricted to pathways at nights;
- a lack of fencing and other obstructions to movement in favour of access control through design;
- hiding or entrapment places are minimised;
- access to facilities and play areas are clearly identified from the surrounding road network.

**Territorial reinforcement** is enhanced by:

- clearly defined open space areas contained by streets;
- boundaries to parks clearly defined in most instances;
- co-location of facilities and sharing opportunities for more active use of spaces;
- landscaping and park furniture clearly delineating open space function.

### 4.3 Environmental and Residential Amenity

#### 4.3.1 Solar Access

The Concept Plan envisages the subdivision of the site predominantly for residential home sites having a range of areas. Lot orientation is influenced by the existing road network and existing development on the site that is being retained and integrated into the new urban structure.

Dwellings to be constructed via subsequent approvals are likely to be one or two storeys in height depending on the design. This enables overshadowing impacts on neighbouring properties to be adequately managed with dwellings designed to achieve reasonable levels of solar access to private open spaces and living areas.

The Concept Plan does not result in adverse outcomes in relation to solar access.

Indicative shadow diagrams have been prepared of a precinct indicating impacts on adjoining residential areas. Typical building types have been prepared to indicate a range of dwelling types suitable for lots created by subdivision (**Appendix 16**). This enables the conclusion to be drawn that solar access and overshadowing can be managed in the approvals process for individual dwellings on the lots created by subdivision in accordance with the Concept Plan.

#### 4.3.2 Acoustic and Visual Privacy

The built form proposed under the Concept Plan consists of predominantly detached or attached dwelling houses on a range of lot sizes. The nature of this development is such that amenity impacts resulting from noise and loss of privacy can be readily managed in the dwelling design process.



#### 4.3.3 View Loss

The topography of the site is influenced by a small ridgeline running north east to south west near to the eastern boundary of the site. This provides localised opportunities for more distant local views from locations such as Riley Park (to be retained) and Briar Road Public School. Otherwise views within the site are limited and are not considered to be affected by development in accordance with the Concept Plan to any significant extent.

#### 4.3.4 Wind Impacts

The built form resulting from the development will be in the range of one to two storey dwellings with some units and potentially 3 storey buildings near the town centre. Such residential buildings are well articulated and result in minimal disturbance to wind movement and will not result in any significant adverse impacts at ground level.

#### 4.3.5 Measures to be implement to achieve a high level of environmental and residential amenity

Measures to be implemented to achieve a high level of environmental and residential amenity include:

- And efficient urban structure that is interconnective and allows subdivision and dwellings that address the street;
- The implementation of Landcom and Housing NSW guidelines on street dimensions and character including landscaping;
- The provision of parks that are purpose built and designed to a high standard;
- Provision for dwellings that can be designed to achieve a high level of internal and external amenity.

### 4.4 Transport and Accessibility Impacts

#### 4.4.1 Introduction

The transport and accessibility impacts of the proposed development have been addressed by Aecom in their *Transport and Accessibility Study* contained in **Appendix 12**. Concept Plan proposals for access and movement are described in Section 3.2.

The study makes reference to a range of policies and guidelines in developing and assessing improved access options for the site by all modes. Consideration is also given to sustainable travel initiatives.

#### 4.4.2 Public Transport Provisions

The proposed Concept Plan incorporates an improved bus network to maximise accessibility of Airds Bradbury to the new town centre, schools and other local recreational facilities (open spaces and sports grounds). The Concept Plan allows two way bus movements and provision for bus stops with seating and signage. Ninety percent of the renewal area will be within 400 metres of a bus route.

The road design has flexibility for improvements in services with other areas subject to discussions with Busways and Transport NSW.

The Concept Plan facilitates improved public transport services.

#### 4.4.3 Walking and Cycling Connections

As discussed in Section 3.2.3, a network of on and off road cycle paths are provided to improve cycle access with the site and connecting with surrounding areas and established cycle paths in the area.

Footpaths are provided along all roads (except laneways) Additional pedestrian refuges are proposed outside schools, major open spaces, senior living areas as well as the town centre to facilitate safe crossing opportunities for pedestrians.

The existing pedestrian underpasses in the vicinity of the town centre will be closed and replaced by more direct on-road pedestrian crossing facilities.

#### 4.4.4 New Road Connections

The Concept Plan provides better accessibility to the surrounding areas through the following measures:

- *Relocating the existing Riverside Drive access at Georges River Road to the west which connects to a central spine through the new town centre of Airds.*
- *Providing a new access at Georges River Road through the extension of Deans Road.*
- *Providing a new direct connection to Junction Road through the extension of Peppin Crescent.*
- *Providing a new direct connection to Campbellfield Avenue through a new east-west collector road to the new town centre of Airds*

The Concept Plan also provides a number of new internal road networks improve the connectivity of the study area including:

- *A realigned Riverside Drive from the town centre to Georges River Road along the Smiths Creek Corridor. This forms part of the main collector into Airds from Georges River Road.*
- *A new grid road network surrounding the new town centre.*
- *A new east-west road (extension of Campbellfield Avenue) connecting Riverside Drive to St Johns Road.*
- *A new north-south road connecting the new Campbellfield Avenue extension and Merino Crescent along the Smiths Creek Corridor.*
- *An extension of Riverside Drive to the south of Briar Road to connect with Greengate Road.*
- *A new road along the edge of the proposed Georges River Parkway, south of Briar Road.*

These connections provide the structure for improved accessibility by all modes of travel including safer and more direct pedestrian and cycle connections and improve public transport accessibility.

#### 4.4.5 Traffic Impact Assessment

A traffic impact assessment of the redevelopment was undertaken, and in conjunction with a review of the public transport, pedestrian and cycle networks proposed, a package of transport-related measures were prepared, and consist of the following:

- Proposed infrastructure upgrades
- Extension of local bus services (Route 884 and 884W)
- Provision of new bus stops (up to 10 with seating and signage only)
- Internal footpaths, pedestrian refuges, cycle paths, road network and intersections
- Upgrade of Georges River Road / Junction Road intersection (roundabout) with an additional approach from Peppin Crescent
- Upgrade of Georges River Road / Bellinger Road intersection (give-way) with an additional approach from Deans Road
- New single lane roundabout for Georges River Road / realigned Riverside Drive
- New single lane roundabout for St Johns Road / extension of Campbellfield Avenue.

Proposed sustainable travel initiatives are:

- Household Information Packs for the new dwelling units within Airds Bradbury
- A local Bicycle User Group
- School travel plans for the local schools
- Car share scheme.

#### 4.4.6 Access, Parking Provisions and Service Vehicle Movements

The car park and servicing requirements for the new town centre of the proposed Concept Plan will also be determined based on Council and RTA requirements and relevant environmental planning instruments at a later approval stage when more design details are known. The road network has been designed to accommodate servicing vehicles as required.

### 4.5 Social Impact Assessment

An *Integrated Social Sustainability and Health Impact Assessment* prepared by Heather Nesbitt Planning and Community Dimensions is contained in **Appendix 11**. It identifies a number of important elements of the Concept Plan and the way it is implemented:

- Physical renewal;
- Development of a robust partnership with all key stakeholders;
- Design and construction of community facilities and infrastructure;
- Building a suburb where it is not possible to identify public or social housing from private housing;
- Need for both people and place based mechanisms;
- Need to address both local issues and links to the broader community;

- Community empowerment at appropriate levels;
- Partnerships between the public, private and community sectors; and
- Requirement for long term well-resourced support programs.

The report identifies the following strategies for the renewal project in order to achieve the above:

- Rehousing / dislocation – addressing quality of life for rehoused residents, improved educational outcomes and quality of life for Aboriginal residents
- Community cohesion – through building community infrastructure and active / healthy / safe community
- Social service viability – focussing on population decline; school viability; providers to focus on support services; and public transport / active transport
- Social housing need – addressing the need for affordable and appropriate housing
- Integration – through community building
- Engagement – through community engagement
- Delivery – focussing on effective implementation

HNSW will be responsible for developing a Strategic Social Plan, based in the first instance on responding to the strategies and recommendations in this report. The Strategic Social Plan is to be developed in collaboration with local residents, non-government organisations and government agencies.

## 4.6 Heritage

### 4.6.1 European Heritage

Investigations into the history of development on the site and existing heritage items were conducted by Ginnindera Consulting Services as part of the Airds Renewal Project in 2003 (**Appendix 6**).

The assessment identified Briar Cottage as an item of European heritage significance. This is recognised through its listing on Campbelltown City Council's heritage register, and on the Jubilee Register of the National Trust.

Development in accordance with the Concept Plan adjoins the northern and western boundary of the heritage item and includes the demolition of existing town houses located in close proximity to the northern boundary and the replacement of this with an accessway. Waterhouse Place is to be connected to a new street within the Smiths Creek bypass corridor to the north providing improved connectivity and improved access to the heritage item. The adjacent townhouses to the north and west will be redeveloped for dwelling houses, a form of dwelling compatible with nature of the existing heritage item. No works are proposed to the cottage. Any subsequent work to the cottage would be undertaken in recognition of its local heritage significance.

### 4.6.2 Aboriginal Heritage

An assessment of Aboriginal heritage has been undertaken by Jo McDonald Cultural Heritage Management and is contained in **Appendix 7** as discussed in Section 2.4.6. On the basis of the field inspection of the study area and the intactness/integrity of



archaeological deposits in surrounding areas, three areas of the study area may contain significant intact archaeological deposit. These localised areas may have high scientific significance. The majority of the study area, however, is already highly disturbed and has low to no archaeological significance.

Consideration of the Concept Plan reveals that there are two locations of potential conflict between high sensitivity areas and likely development impacts: an area at the south of the remnant bushland, where there are proposed playing fields – and in an area in the north-east of the bushland where there are proposed houses. These two locations will require further negotiations between the Aboriginal community and Landcom and an application of the strategic management approach to landscapes of archaeological sensitivity. These negotiations will take place during the detailed design phase.

## 4.7 Biodiversity

### 4.7.1 Implications for Threatened Species Populations and Communities

Investigations into the biodiversity impacts of the development have been undertaken by Hayes Environmental (**Appendix 5**)

The ecological objectives of these investigations were to:

- identify and describe the ecological values of the Airds Bradbury locality, including endangered ecological communities, threatened flora and fauna species, and areas of important and critical habitat;
- identify and describe opportunities for improvement and/or management of existing ecological values within the study area and in the broader locality;
- address the DGRs relating to ecological assessment and biodiversity conservation, including consideration of the DECCW letter dated 9/12/10 that was appended to the DGR's for information only; and
- provide an assessment suitable for submission as part of an Environmental Assessment to be lodged under the Part 3A approvals process.

Key conclusions are:

- *Based upon the considerations detailed above, in Appendix 1 and in Appendix 4, development in accordance with the Concept Plan would not be likely to significantly affect any threatened species or populations listed on the schedules of the NSW TSC Act.*
- *Having regard to the critically endangered status of Cumberland Plain Woodland, and giving due consideration to the seven factors listed under s.5A of the EP&A Act, the impact upon this community from development in accordance with the Concept Plan could be significant.*
- *Similarly, due to the proportion of the local occurrence of Shale Sandstone Transition Forest that would be removed from the site, the impact upon this community from development in accordance with the Concept Plan could be significant.*

Consequently, Hayes Environmental provide a justification for the Concept Plan and a strategy to compensate for the impacts upon Cumberland Plain Woodland and Shale Sandstone Transition Forest.

Hayes Environmental finds that:

*Development in accordance with the Concept Plan (figure 1) would have the following impacts and benefits on ecological values within the subject site (refer to Figure 4):*

- 1. retention of the majority (approximately 3 hectares) of the existing patch of Cumberland Plain Woodland which occurs in the vicinity of the Airds shopping centre. There is an existing cleared corridor through the centre of the patch. This clearing would be utilised for installation of services, and for construction of a connecting cycleway. The cycleway through the patch of Cumberland Plain Woodland would have a compacted sandstone surface rather than concrete pavement, to minimise impacts upon adjacent vegetation.*
- 2. the patch would be conserved to maintain its ecological values, but would also be managed to meet social and safety concerns. The existing network of informal trails would be rationalised. Some trails would be retained and formalised. Tall shrubs and dense thickets would be reduced. Prickly shrubs would be planted to discourage off-track trampling of vegetation and anti-social behaviour.*
- 3. retention of the small stand of Cumberland Plain Woodland (approximately 0.19 hectares) in the northwestern corner of the juvenile justice centre.*
- 4. loss of the northeastern fringe of the main patch of Cumberland Plain Woodland within the subject site, and loss of two small isolated stands (a combined area of approximately 1.21 hectares).*
- 5. retention of approximately 3.73 hectares of Shale Sandstone Transition Forest within the site. These areas would be managed as per the retained patch of Cumberland Plain Woodland (refer to Point 2 above).*
- 6. loss of approximately 4.41 hectares of Shale Sandstone Transition Forest from the site.*
- 7. retention of a 20m wide riparian vegetation corridor along Smiths Creek, which would link the retained patch of Cumberland Plain Woodland to other remnant native vegetation to the north of the study area.*
- 8. impacts on Koala habitat are directly relational to impacts on native vegetation and trees within the site.*
- 9. retention of two existing narrow corridors of bushland which lead into the site from the Georges River Riverside Reserve. These areas appear to be used occasionally by Koalas, and provide a potential refuge for Koalas fleeing bushfire. Existing vegetation within these corridors would be retained. Additional trees and shrubs shall be planted to facilitate use of the corridors by Koalas, including planting of Koala feed tree species, and planting of shrubs to provide groundlevel protection to Koalas.*
- 10. tree links shall be retained from the end of each of the corridors, to direct Koalas toward open parkland areas within the subject site. Tree links on private land may be protected through covenants. Fencing within the tree link areas shall be of a type that can be climbed and crossed by Koalas. Dogs shall be kept excluded from tree link areas.*
- 11. retention of the existing pond in approximately its current location, although the pond will be drained and reconfigured before being restored and re-vegetated. A Fauna Management Plan shall be prepared and implemented prior to*

*commencement of draining of the pond, to manage native fauna throughout the reconfiguration process.*

- 12. The pond will be retained within a feature park for recreation. Some reed beds shall be planted within the pond, to provide habitat for native fauna.*
- 13. The road which separates the pond from the retained patch of Cumberland Plain Woodland will be designed to reduce traffic speed, for safer crossing by pedestrians and by wildlife (such as ducks).*

Hayes Environmental advise that the impact upon CPW would be compensated by the following actions and measures:

- 1. Enhancement of the retained 3 hectare patch of CPW northwest of the existing Airds Shopping Centre, through removal and control of weeds, rationalisation of existing tracks, controlled pedestrian and bike access, and supplementary tree and understorey plantings.*

*These actions would be set out within a Bushland Management Plan, prepared in consultation with Council.*

*The purpose of new plantings would be to revegetate existing clearings within the patch, to improve the structure of the community, and to increase floristic diversity of the community, particularly within the understorey.*

*Initial weed removal activities would be followed by 2 years of maintenance weeding, details to be set out in the Bushland Management Plan.*

*This patch of CPW is currently in poor condition, with a low floristic diversity. It is threatened by weed invasion and by ongoing incremental damage to the understorey.*

*The above management actions would improve the ecological function of the community, and maximise the long-term viability of this patch.*

- 2. Planting of CPW tree, shrub and groundcover species in groupings around the existing pond southwest of the Airds Shopping Centre.*

*This area has been previously cleared of native vegetation and is highly degraded. It does not currently support CPW.*

*New plantings in the pond area would serve a dual purpose – i) providing public amenity and an aesthetic surrounding to the pond, and ii) providing habitat for native fauna and an ecological extension to the retained patch of CPW.*

- 3. There is a possible further opportunity for enhancement of the existing small patch of CPW located in the northwestern corner of the Reiby Juvenile Justice Centre. Additional planting in this area would support this small and degraded patch of CPW. This possibility has not been explored at this stage.*

*The areas of CPW that would be removed from the site are highly degraded, and generally are represented by a stand of trees, with little to no native understorey vegetation. These areas have limited ecological function.*

*Trees and shrubs cleared from areas of CPW within the Airds Bradbury site would be replaced at a ratio of 4 trees/shrubs planted to 1 tree/shrub removed. Planting would occur primarily within the retained 3 ha patch of CPW, and around the pond.*

*New plantings would be within or adjacent to the existing patch of CPW, and would complement existing ecological function within this patch. This provides considerable certainty in the outcome of the proposed planting works, in contrast to revegetation projects which start from scratch on cleared land.*

Similarly, the impact upon SSTF would be compensated by the following actions and measures:

1. *Revegetation of SSTF on available lands along the Smiths Creek corridor, and implementation of weed control strategies for the corridor.*

*These actions would be set out within a Bushland Management Plan, prepared in consultation with Council.*

*The intent of works would be to increase viability of retained areas of SSTF within the Airds Bradbury site, to compensate for loss of habitat within the site, and to improve habitat connectivity along the Smiths Creek corridor for Koalas known to be resident in the Smiths Creek area.*

2. *Additional planting of SSTF trees and shrubs within the two retained SSTF corridors at the eastern edge of the Airds Bradbury site. Planting in these areas would improve the structure and floristic diversity of SSTF, and would also facilitate Koala use of these corridors.*
3. *Use of SSTF tree and shrub species as street trees and in landscape plans within the Airds Bradbury site, where suitable.*
4. *Revegetation of cleared lands to the east of the Airds Bradbury site, adjacent to the Georges River Riverside Reserve, to achieve the appropriate ratio of off-set planting to compensate for loss of SSTF on the site.*

*The areas of SSTF that would be removed from the Airds Bradbury site are highly degraded, with questionable viability. There is little to no native understorey vegetation, and apparently limited ecological function.*

*On this basis, a ratio of 4 hectares of extent of SSTF revegetated per 1 hectare of SSTF cleared would be likely to adequately compensate for impacts of development in accordance with the Concept Plan.*

*An estimated loss of 4.41 ha of SSTF would require revegetation of 17.74 ha of land (comprising lands along Smiths Creek within the Airds Bradbury site, and lands adjacent to the Georges River Riverside Reserve).*

*The density of plants in revegetated areas should mimic the density of plants in nearby areas of relatively intact SSTF within the Georges River Riverside Reserve.*

#### 4.7.2 EPBC Act

The Concept Plan as a whole, including the proposed mitigation measures and off-sets set out above of this report, would not be likely to impose a significant impact upon any matter of National Environmental Significance.

However, given the scale of the project, and the variety of threatened species and ecological communities present, Hayes Environmental recommended that the project be referred to the Commonwealth Minister for Environment and Heritage under the EPBC Act, for certainty.

#### 4.7.3 SEPP 44

Some patches of vegetation within the subject site are likely to constitute 'potential koala habitat', based on the tree species present.

The site does not constitute 'core koala habitat', based on lack of evidence of a resident population of Koalas.

There is no requirement under SEPP 44 to prepare a Koala Plan of Management.

Koala's have been recorded within the Airds Bradbury site on a number of occasions, but do not reside within the site.

Hayes Environmental find that development in accordance with the Concept Plan would not be likely to impose a significant effect upon the Koala, based on assessment pursuant to s.5A of the EP&A Act (the 'seven-part test'). Future detailed design of each stage within the Concept Plan would include details to maintain accessibility of treed areas providing potential bushfire refuge for Koalas.

Hayes Environmental recommended that Dr Robert Close be consulted during the detailed design and planning of each stage of the project, to incorporate features that increase protection of Koalas. Measures could include speed restrictions and better street lighting to minimise the risk of Koalas being hit by vehicles.

#### 4.7.4 Key Thresholds for Threatened Species Assessment

The Airds Bradbury Renewal Project has been assessed by Hayes Environmental against each of the four Key Thresholds set out in Step 5 of the Draft Guidelines for Threatened Species Assessment (DPI & DEC 2005). The results of this assessment are outlined below.

##### Threshold 1

*"whether or not the proposal, including actions to avoid or mitigate impacts or compensate to prevent unavoidable impacts will maintain or improve biodiversity values."*

The Airds Bradbury Renewal Project would maintain or improve specific biodiversity values in the study area, as set out in the following table.

##### Impact on Biodiversity Values

| Value                             | Impact                                                                                                                                                                                                                                                                                                                    | Outcome        |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Cumberland Plain Woodland         | <p>Loss of 1.21ha (comprised of several very small areas)</p> <p>Retention of 3.19ha (comprised of one 3ha patch, and a separate 0.19ha patch)</p> <p>Enhancement of structure and ecological function of main 3ha patch through weed control and revegetation</p> <p>4 trees/shrubs planted per 1 tree/shrub removed</p> | Improve Value  |
| Shale Sandstone Transition Forest | <p>Loss of 2.41ha of very poor condition SSTF, with very low regeneration potential</p> <p>Loss of 2ha of poor to moderate condition SSTF, with some limited regeneration potential</p> <p>Retention of 3.73ha of SSTF</p>                                                                                                | Maintain Value |



|                              | Revegetation of 17.74 ha of SSTF (being revegetation of 4ha of SSTF per 1ha cleared)<br><br>Revegetation to occur along the Smiths Creek corridor, and adjacent to the site within the Georges River Riverside Reserve                                              |                                                                           |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| Value                        | Impact                                                                                                                                                                                                                                                              | Outcome                                                                   |
| Koalas and Koala habitat     | Loss of 4ha of occasional habitat<br>Retention of 6.92ha of potential habitat<br>Revegetation of 17.74ha of land<br>Improvement of connectivity and habitat quality along Smiths Creek<br>Increase in extent of habitat within the Georges River Riverside Reserve. | Maintain Value in short term<br><br>Improve Value in medium and long term |
| Microchiropteran bat habitat | Loss of 5.62ha of potential habitat<br>Retention of 6.92ha of potential habitat<br>Revegetation of 17.74ha of land, plus additional planting of trees and shrubs within areas of CPW                                                                                | Maintain Value in short term<br><br>Improve Value in medium and long term |

## Threshold 2

*“whether or not the proposal is likely to reduce the long term viability of a local population of the species, population or ecological community.”*

Development in accordance with the Concept Plan would require removal of several very small areas of CPW. These areas are of negligible value with regard to the long term viability of the main patch of CPW. The long term viability of the main patch of CPW would be enhanced through improvement of the vegetation structure and its ecological function. The long term viability would also be enhanced through weed control works and rationalisation of the network of existing tracks.

Development in accordance with the Concept Plan would require removal of several areas of very poor condition SSTF which are not likely to be viable, and removal of several areas of poor to moderate condition vegetation with poor viability. These areas would be replaced by revegetation of SSTF on nearby land, at a ratio of 4ha planted per 1ha cleared. The planted areas would be designed to produce a structure and floristic diversity characteristic of SSTF. The vegetation would be maintained for a minimum of 2 years, to ensure the new plantings have established, and to promote establishment of a viable vegetation community. It is likely that the long term viability of SSTF in the study area would be improved.

There are no Koalas resident within the study area. Dispersing young Koalas are occasionally recorded in the suburb of Airds. The Concept Plan has been designed having regard to maintaining access routes for Koalas into Airds, and to facilitate Koala movements through Airds. It is not likely that development in accordance with the Concept Plan would reduce the long term viability of a local population of the Koala.

Development in accordance with the Concept Plan would result in loss of some areas of potential habitat for some threatened microchiropteran bat species. However, the site

does not contain any resources or features that are unique or scarce within the locality, nor any features likely to be of significance for breeding. Extensive tracts of intact habitat occur to the east of the site, providing habitat for microchiropteran bats. Microchiropteran bats are known to change roost sites regularly, and would not be likely to be dependent upon any particular tree within the site.

Development in accordance with the Concept Plan would not be likely to reduce the long term viability of any local population of threatened microchiropteran bat species.

### Threshold 3

*“whether or not the proposal is likely to accelerate the extinction of the species, population or ecological community, or place it at risk of extinction.”*

Local occurrences of both CPW and SSTF would be retained within the Concept Plan, and enhanced through additional planting, weed control, rationalisation of existing tracks etc. Development in accordance with the Concept Plan would not accelerate the extinction of either community, nor would place either community at risk of extinction.

A viable and actively growing population of Koalas is known to occur in the Georges River area. Development in accordance with the Concept Plan would not affect this population, nor accelerate the extinction of the species, nor place the species at risk of extinction.

Threatened microchiropteran bat species known and likely to occur within the site are also known to occur in the extensive vegetated areas conserved to the east of the site. The site does not contain any unique features or values for such species. Development in accordance with the Concept Plan would not accelerate the extinction of any microchiropteran bat species, nor place any microchiropteran bat species at risk of extinction.

### Threshold 4

*“whether or not the proposal will adversely affect critical habitat.”*

The Airds Bradbury Renewal Project would not affect any area of declared “critical habitat”.

## 4.8 Bushfire Management

An assessment of the bushfire implications of the Concept Plan has been undertaken by Hayes Environmental (**Appendix 5**) who conclude as follows:

*The assessment of bushfire protection for the Airds Bradbury Renewal Project concludes that the study area is suitable and capable to be developed as proposed in the Concept Plan whilst accommodating the minimum bushfire protection measures as required by NSW legislation and policy, namely ‘Planning for Bushfire Protection 2006’ (PBP).*

*The bushfire hazard to the east within the study area and within the adjacent Georges River Riverside Reserve presents a serious threat to the study area and this bushland-development interface will require an Asset Protection Zone (APZ) recommended to comply with PBP and would range from 25 m to 35 m for residential development.*

*Any retention or enhancement of the Smiths Creek bushland and riparian corridor may create a bushfire hazard that will require an APZ ranging in width from 10 m to 15 m for residential development depending on the width and continuity of the corridor. Similarly,*

*the retention or creation of smaller areas of vegetation within parks may also require an APZ depending on the size of the vegetation.*

*Areas requiring an APZ will also require a perimeter access road to be linked to an internal road system also capable of allowing safe access for firefighters while residents are evacuating the area. The road system is to be equipped with adequate water supply and hydrant locations.*

*As required by the DGRs, it is concluded that the Concept Plan can comply with 'Planning for Bushfire Protection 2006'.*

#### 4.9 Drainage and Flooding

Drainage issues associated with the Concept Plan are discussed in the report by Storm Consulting contained in **Appendix 8** and discussed in Section 3.15. The measures proposed in this report will ensure that appropriate arrangements can be put in place to manage the quantity and quality of stormwater flows in a manner that has no adverse impacts on flooding of adjoining lands.

#### 4.10 Utilities

As described in the Infrastructure Report prepared by Mott MacDonald (**Appendix 7**) and in Section 3.14, all utility services are available or can be readily extended to meet the needs of the development. Provision has been made for placing high voltage transmission lines along the Smiths Creek bypass corridor underground and for protecting large water mains in this area. Maximum use will be made of existing infrastructure. Discussions have been held with all relevant servicing authorities and will continue during the preparation of subsequent applications.

#### 4.11 Noise and Vibration

The main noise sources associated with the development are:

- Noise from the existing Kentlyn zone substation near the northern part of the site;
- Construction noise.

##### 4.11.1 Kentlyn Zone Substation

This substation is understood to comprise two 66kV/11kV 33 MVA transformers. Endeavour Energy has confirmed that the Kentlyn zone substation can accommodate the proposed increase in yield.

Endeavour Energy has previously undertaken acoustic investigations of the substation and is in discussions with the proponent to ensure that acceptable residential noise criteria are satisfied.

##### 4.11.2 Construction Noise

The construction of roads, dwellings and other buildings will involve the use of machinery such as excavators, dozers, dump trucks and concrete/asphalt trucks that are likely to create noise disturbance to nearby residents.

The noise created will be typical of residential subdivision work.

The proximity of works to existing residences on and adjoining the site will require management during construction.

It is proposed that a construction management plan will be prepared containing measure to manage construction noise and other construction impacts on nearby residents.

It is considered that reasonable and effective measures can be put in place to manage construction noise.

## 5. DRAFT STATEMENT OF COMMITMENTS

### 5.1 Draft Statement of Commitments

#### 5.1.1 Introduction

The Director General's Requirements require the proponent to include in an environmental assessment a statement of the commitments the proponent is prepared to make for environmental management and mitigation measures on the site showing how the project will be managed in an environmentally sustainable manner.

In submitting this draft statement of commitments, it is recognised that the application is for concept plan approval and that additional environmental assessment, including additional statements of commitment or conditions of approval, will be required prior to works commencing (other than demolition).

#### 5.1.2 General

- A. The development will be undertaken generally in accordance with the Environmental Assessment Report dated March 2011 prepared by BBC Consulting Planners Pty Ltd (including accompanying Appendices).
- B. Housing NSW and Landcom are committed to the principles of sustainability as defined in the Environmental Planning and Assessment Act 1979.
- C. The proponent will continue to consult with the local community during the development process.
- D. The proponent will continue to liaise with the Council during the development process.
- E. The proponent will enter into a planning agreement with Council to provide roads, social and community infrastructure, drainage and facilities and amenities generally as indicated in the Environmental Assessment Report.

#### 5.1.3 During Demolition

- A. Demolition will be undertaken in accordance with the requirements of Australian Standard AS2601 – 2001: The Demolition of Structures which is incorporated into the Occupational Health and Safety Act 2000 administered by WorkCover NSW.
- B. A Hazardous Building Materials Management Plan will be prepared prior to demolition commencing.
- C. An Erosion and Sediment Control Plan will be prepared to control run off during the demolition process.
- D. A Waste Management Plan will be prepared prior to demolition commencing. Where possible materials will be recycled for reuse on the Site.
- E. A Community Access and Safety Plan will be prepared to maintain access to, and to ensure the safety of, the existing community through the demolition process.
- F. Demolition will occur in consultation with the community and will be integrated with the strategies to be put in place to manage the process of change and rehousing on the site.



#### 5.1.4 Social Impacts

- A. The proponent will prepare and implement a Strategic Social Plan to develop a coordinated approach to service planning, service delivery and change management as recommended in the *Integrated Social Sustainability and health Impact Assessment* contained in Appendix 11 of the Environmental Assessment Report.
- B. The proponent will prepare and implement a Rehousing Process including establishing a Rehousing Team within Housing NSW.
- C. The proponent will prepare and implement a Communications Strategy throughout the development process.
- D. The proponent will obtain all necessary approvals required by State and Commonwealth legislation in undertaking the project.

#### 5.1.5 Access and Movement

- A. Roads will be constructed in accordance with the objectives principles and design criteria contained in Section 3.2 and Appendix 12 of the Environmental Assessment Report.

#### 5.1.6 Urban Design

- A. Development will take place generally in accordance with design guidelines contained in the Environmental Assessment.

#### 5.1.7 Water Cycle Management

- A. Stormwater management works will be undertaken generally in accordance with the Water Cycle Management Plan contained in Appendix 8 of the Environmental Assessment Report.
- B. Any existing stormwater infrastructure to be retained shall be designed and modified in accordance with the guidelines of the major and minor stormwater system in Australian Rainfall and Runoff, Water Cycle Management Plan in Appendix 8 of the Environmental Assessment Report and Australian Standards.

#### 5.1.8 Vegetation

- A. The proponent will undertake a survey of all trees and other site features prior to the commencement of construction of any stage of the project and will seek to retain as many trees as possible for incorporation into the new urban form.
- B. The proponent will provide landscaping to all streets and parks as outlined in the Environmental Assessment Report.

#### 5.1.9 Open Space and Community Facilities

- A. The public domain will be constructed and enhanced in accordance with the objectives and principles contained in Section 3.9 of the Environmental Assessment Report.
- B. Community facilities will be provided in accordance with the objectives and principles contained in Section 3.10 of the Environmental Assessment Report.

#### 5.1.10 Construction Management

- A. Prior to commencing construction, a Construction Environmental Management Plan will be prepared. This Plan will include:
- Development of a site specific soil erosion and sediment control plan,
  - Construction hours,
  - Air quality/dust control procedures,
  - Noise management procedures,
  - Waste management plan,
  - Flora and Fauna Protection Plan,
  - Community Safety Plan,
  - Arrangements for temporary pedestrian and vehicular access,
  - Storage and Handling of Materials Procedures,
  - Environmental Training and Awareness,
  - Contact and complaints handling procedures,
  - Emergency Preparedness and Response.
- B. All trees on the site that are not approved for removal are to be suitably protected by way of tree guards, barriers or other measures as necessary are to be provided to protect root system, trunk and branches, during construction.

## 6. CONCLUSION

This report and appended technical reports comprises a comprehensive environmental assessment of the Airds Bradbury Renewal project Concept Plan. An extensive period of consideration of constraints and opportunities which commenced in 2002, has been undertaken by a team of urban designers and specialist consultants, and development opportunities have been identified. This report describes the process of site analysis and Concept Plan preparation, and established and illustrates the guiding principles for future development.

The proposal demonstrates a high level of consistency with prevailing government policy and planning instruments including State and Regional Environmental Plans.

An assessment of environmental impacts of the proposal indicates that the project and the principles guiding future development represent an appropriate environmental outcome to be implemented through further approvals for subdivision and construction works. Water sensitive urban design will combine stormwater detention and treatment with open space and recreation opportunities. Significant positive social impacts will arise from the provision of a range of housing opportunities in a more connective and accessible residential environment.

The assessment has concluded that the site is suitable for the proposal and that the implementation of the Airds Bradbury Renewal Project is consistent with the public interest.

The Minister is requested to favourably consider the application.