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**CONSERVATION AND LAND
USE MANAGEMENT PLAN**

FOR

**CARRINGTON
CENTENNIAL CARE
LANDS**

**WEROMBI ROAD,
GRASMERE**

**MAY 2006
(REF: 5223)**

CONSERVATION AND LAND USE MANAGEMENT PLAN
FOR
CARRINGTON CENTENNIAL CARE LANDS

**WEROMBI ROAD,
GRASMERE**

MAY 2006

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EXECUTIVE SUMMARY

Context

The Carrington Centennial Care is on the verge of a major development phase for its strategic land holdings at Grasmere associated with the Carrington Centennial Care Hospital. Carrington Centennial Care is required to upgrade their hospital facilities to comply with current aged care standards. However the existing hospital is of significant heritage value and will be retained as part of the overall redevelopment.

Carrington Centennial Care have undertaken a concept Master planning exercise to direct the future development of the hospital grounds and associated lands. In the immediate future, a number of development applications will be submitted to construct the new Carrington Centennial Care Hospital and to expand the proposed independent living units.

This Conservation and Land Use Management Plan has been prepared by *Conacher Travers Pty Ltd* to be used as a key planning document for the future development of the site. The primary role of the Conservation and Land Use Management Plan is to guide the conservation, sensitive development and ongoing management of the lands over the next 20 years.

The concept Master Plan has initiated significant assessment in the areas of flora, fauna, aboriginal and european heritage, open space, landscape design and bushfire risk management in the pursuit of a concept development strategy.

Four (4) key conservation issues have been identified by the various site assessments including:

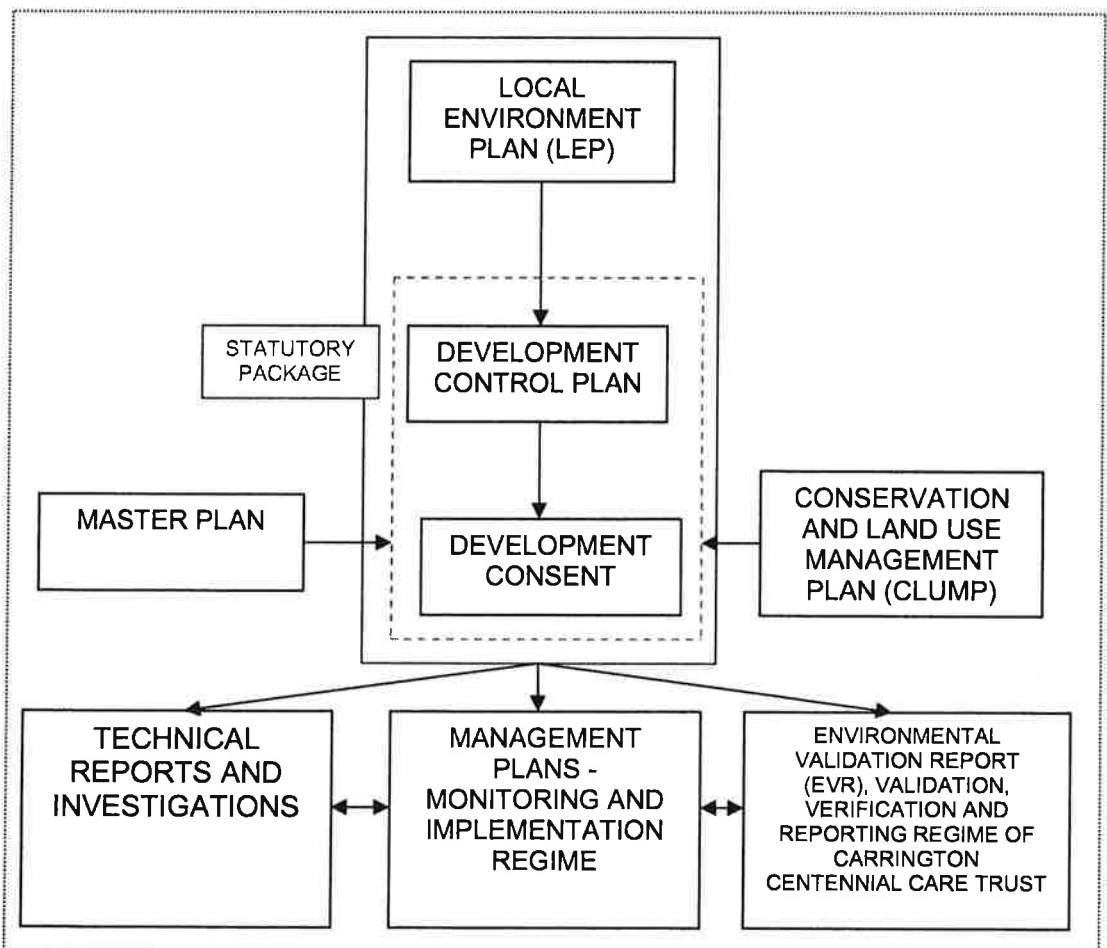
- Conservation of buildings that have heritage value
- Conservation of Aboriginal heritage sites
- Conservation of Endangered ecological communities and threatened species found onsite, and
- Conservation of the existing rural landscape character

Extensive preliminary investigations, studies and discussions with Camden Council have led to the acknowledgement that with innovative design, conservation agreements, ecological protection and enhancement works, part of this site would be suitable for seniors living development in an integrated managed fashion. Primary to this integrated approach is the inherent ability of Carrington Centennial Care Trust to undertake day to day management of the landscape, conservation areas and trust owned infrastructure.

Role of the Master Plan & CLUMP

The current Master Plan studies provide a land suitability assessment of the site in terms of geophysical, heritage, visual and ecological criteria. These criteria were used to determine the overall conservation and development land use framework for the site as identified in the Master Plan and CLUMP. These documents form the basis for the creation of planning provisions aimed at providing a significant level of certainty for the community, in that this land will be protected to maintain the inherent heritage, environmental and visual values.

The manner in which the Master Plan and CLUMP relate to the statutory planning framework are shown below.



The Master Plan and Conservation and Land Use Management Plan are supported by technical reports and investigations produced by various specialists. These reports have identified desired outcomes which are converted to a series of considerations such that a validation and verification regime can be formulated for the whole development. This

Conservation and Land Use Management Plan addresses specific environmental, heritage and bushfire considerations and identifies the validation criteria for subsequent development applications.

Of importance to the implementation of development concepts is the introduction of the validation, verification and reporting regime that confirms any assumptions used in the Master Plan and verifies the successful implementation of the management strategies .

“Validation” is defined as:-

The development planning process in which the sites management issues and recommended outcomes are identified. Where appropriate, these issues and outcomes are addressed within specific management plans. The management plans specify a monitoring and implementation regime to be undertaken by the developer and the Trust.

“Verification” is defined as:-

The procedure confirming that the assumptions of the Master Plan have been verified and that the outcomes and recommendations of the supporting technical documents and management plans have been implemented. The verification procedure may consist of “verification reports” produced by specialist consultants and submitted according to the development consent conditions.

The CLUMP Masterplan and Environmental Validation Reporting encapsulate conservation planning and trust management as primary drivers for this project. The explanation of the way this is handled in planning terms is provided below.

Camden Local Environment Plan No 48

The land that is the subject to the Master Plan contains the following zonings under LEP 48. The majority of the land owned by Carrington Centennial Care to the north of Werombi Road is zoned Special Uses 5(a) (Retirement Village). The northern part of this parcel is zoned 1(c) (Rural “C” (0.4ha) Zone). The Carrington land to the south of Werombi Road is also zoned 1(c).

The existing and proposed use can be categorised as a retirement village. Although this use is not defined in the LEP or the EP&A Model Provisions (which it adopts), such a use is permissible in the 5(a) zone as the specific use indicated on the zoning map (in this case ‘Retirement Village’ is permitted in the zone with development consent.

Carrington Master Plan

The Master Plan will provide the basis on which Carrington site and associated lands will be redeveloped to facilitate future development in accordance with the CLUMP.

The purpose of the Master Plan is to outline long-term proposals and overall layouts within individual precincts identified on the land. It has been prepared as an integral support tool, aimed at providing the community with realistic expectations about the planned conservation and future development pattern on this land.

The Master plan principles and strategies are:

- To provide a clear vision for the development and management of the site for the next 20 years.
- To identify the areas suitable for development and those which are to be conserved and managed as natural areas.
- To respect the history of the site (including aboriginal heritage) whilst ensuring an appropriate balance is achieved between maintaining heritage significance and permitting development needed to fund the necessary upgrade and maintenance of important buildings and archaeological sites.
- To provide guidelines for the future development of the site that will assist in minimising environmental impact.
- To provide management strategies that will ensure the appropriate management of both natural and development areas in the long term.
- To encourage development which is consistent with the principles of Ecologically Sustainable Development (ESD).
- To maintain the rural ambience of the area.

Conservation and Land Use Management Plan

The Conservation and Land Use Management Plan is the most important dynamic of the planning documents that council is to consider when granting consent to proposed development on the land. Of significance to the planning scheme proposed is the comprehensive nature of the Conservation and Land Use Management Plan in the way it integrates the LEP and the Master Plan in the form of an adopted Development Control Plan.

Key features of the CLUMP include:

- A Conservation and Land Use Plan delineating the large scale conservation and mixed use development areas.

-
- A set of Master planning principles to help ensure best practice environmental and development outcomes.
 - Considerations for the assessment of future development applications in accordance with the provisions of the DCP and provisions contained within the CLUMP.
 - Precinct Guidelines including character, visual, landscaping, and conservation statements.
 - Flexibility in the planning process to ensure that a diverse range of developments can be designed in response to the ecological, visual and geophysical characteristics as well as changing social, demographic and market circumstances.

Development applications for portions of the site will provide detailed information as required by Camden City Council in accordance with the precinct guidelines provided in the CLUMP and the Concept Master Plan.

The Conservation and Land Use Management Plan fulfils an important facilitation role to achieve agreement amongst all stakeholders on the future management of the Carrington Centennial Care lands. It summarises the site constraints and characteristics, the ecological and heritage conservation features and establishes a development framework in which the desired landscape outcomes can be achieved. As part of the Development Control Plan, the CLUMP provides a long term direction and commitment by Carrington Centennial Care to develop the lands consistently but in response to changing social and demographic needs.

The validation criteria identified within the body of the CLUMP become the considerations for each subsequent development application and are required to be addressed in order to achieve the desired ecological, heritage, visual and development outcomes.

The remainder of the CLUMP is devoted to setting precinct guidelines including visual, building and landscape character statements that guide development within each precinct as depicted in Figure 1.

The CLUMP commits Carrington Centennial Care to stated ecological, heritage, landscape and visual conservation outcomes throughout the life of the development in accordance with agreements made with Camden City Council and other relevant stakeholders.

Key Ecological Values of 'Carrington' site

The key ecological values associated with the Carrington Master Plan area have been confirmed through a series of flora and fauna surveys carried out over a number of years. These values include:-

- Protection and restoration of the Endangered Ecological Community (EEC) Cumberland Plain Woodland.

-
- Provision of potential habitat for the threatened flora species *Pimelea spicata* within the Cumberland Plain Woodland.
 - Habitat for three (3) threatened fauna species including Large-footed Myotis (*Myotis adversus*), Grey-headed Flying-fox (*Pteropus poliocephalus*) and Cumberland Plain Land Snail (*Meridolum corneovirens*).
 - The proposal allows for the retention and long term protection of the majority of existing vegetation within the site.
 - Provision of a variety of remnant native vegetation providing seasonally different foraging resources.
 - Provision of a locally significant biodiversity resource for a wide range of native species.
 - The site contains a high proportion of hollow bearing trees within remnant vegetation providing a wide diversity of roosting, foraging habitats and on-ground refugia.
 - Ecological functioning of all the existing vegetation communities and habitats.
 - Protection of surface water resources and regulation of existing water tables.

Key Heritage Values of 'Carrington' site

The following heritage buildings located on the site are to be retained and conserved:

- Carrington Convalescent Hospital
- Masonic Cottage Hospital
- The Former Morgue
- Grasmere Villa
- River Cottage

Key Conservation Outcomes

In accordance with the Master Plan documentation, the following conservation outcomes have been identified within the heritage reporting and Vegetation Management Plan (including Offsetting Strategy)

- The protection of 20ha of Cumberland Plain Woodland and restoration of 11ha of Cumberland Plain Woodland.
- The restoration and protection of riparian zones within the site.
- The protection of significant aboriginal sites.
- The management of historical buildings for conservation purposes.
- The creation of the Northern and Southern Conservation Precincts.

As a result of the key conservation outcomes, precinct guidelines have been prepared which are commensurate with the ecological, heritage and visual conservation objectives.

In conclusion the Conservation and Land Use Management Plan provides a list of ecological, heritage and bushfire commitments to be implemented by Carrington Centennial care as part of the site's long term development.

TABLE OF CONTENTS

SECTION 1	INTRODUCTION	1
	1.1 Background	1
	1.1.1 Role of the Masterplan and Conservation and Land Use Management Plan	1
	1.1.2 Objectives of the Conservation and Land Use Management Plan	1
	1.2 Strategic Planning Framework	2
	1.3 Conservation and Land Use Management Plan Structure	4
	1.4 Statutory Requirements	4
	1.4.1 National Legislation	4
	1.4.2 State Legislation	5
SECTION 2	CONSERVATION MANAGEMENT PRINCIPLES	13
	2.1 Environmental Management Principles	13
	2.2 Biodiversity Conservation	14
	2.2.1 Key Ecological Values	14
	2.2.2 Conservation Zones	15
	2.2.3 Threatened Species	15
	2.2.4 Connectivity	16
	2.2.5 Riparian Zones	16
	2.2.6 Habitat and Forage Trees	16
	2.2.7 Habitat Linkages	17
	2.2.8 Noxious and Environmental Weed Control	17
	2.2.9 Pest Management	18
	2.2.10 Mitigating Impacts of Bushfire Protection works	18
	2.3 Heritage Management Principles	18
	2.4 Heritage Conservation	19
	2.4.1 Priority Heritage Values	19
	2.4.2 Building Restoration	20
	2.4.3 Aboriginal Site Protection	21
	2.4.4 Maintenance	21
	2.5 Scenic Conservation	22
SECTION 3	CONSERVATION AND LAND USE MANAGEMENT STRATEGY (Issues, Strategies, Principles and Validation Criteria)	23
	3.1 Heritage Management	23
	3.2 Ecological Conservation Management	24
	3.3 Groundwater and Stormwater Management	26
	3.4 Bushfire Protection	28
	3.5 Management of Visual Values	30
	3.6 Soil Erosion and Sedimentation	31
	3.7 Urban Infrastructure	32

TABLE OF CONTENTS (Cont.)

	3.8 Management of Odour	33
	3.9 Carrington Centennial Trust Management Framework	34
	3.9.1 Trust Management Structure	34
	3.9.2 Carrington Centennial Trust Management	34
SECTION 4	LAND USE ASSESSMENT AND DEVELOPMENT REQUIREMENTS	36
	4.1 Land Suitability and Capability Assessment	36
	4.1.1 Development Types	36
	4.2 Development Objectives	37
	4.3 Precinct Guidelines	38
	4.3.1 High Care Accommodation – Precinct 1	38
	4.3.2 Independent Living Accommodation – Precincts 2, 3 and 7	40
	4.3.3 Community Facilities – Precincts 4 and 8	42
	4.3.4 Active Recreation – Precincts 5 and 9	43
	4.3.5 Bushland Conservation – Precincts 6 and 10	44
SECTION 5	CONSIDERATIONS FOR VALIDATION OF THE DEVELOPMENT	46
	5.1 Environmental Considerations	46
	5.2 Heritage Considerations	47
	5.3 Bushfire Considerations	47
SECTION 6	CONCLUSIONS AND RECOMMENDATIONS	48
	BIBLIOGRAPHY	51
FIGURES	FIGURE 1: Conservation and Land Use Plan	
	FIGURE 2: Vegetation Management Plan	
	FIGURE 3: Natural Features	
	FIGURE 4: Bushfire Protection Schedule	
	FIGURE 5: Opportunities and Constraints	
	FIGURE 6: Vegetation Tradeoffs and Offsets	

SECTION 1.0 – INTRODUCTION



1.1 BACKGROUND

This Conservation and Land Use Management Plan has been prepared to establish an agreement between all stakeholders regarding the ecological, heritage, visual, buildings and landscape outcomes to be achieved over the next 20 years. In addition this Conservation and Land Use management Plan establishes validation criteria under which all subsequent development applications are assessed to ensure that they are consistent with the Master Plan and Conservation and Land Use Management Plan.

1.1.1 Role of the Master Plan and Conservation and Land Use Management Plan

The current Master Plan studies provide a land suitability assessment of the site in terms of geophysical, heritage, visual and ecological criteria. These criteria were used to determine the overall conservation and development land use framework for the site as identified in the Master Plan and CLUMP. These documents form the basis for the creation of planning provisions aimed at providing a significant level of certainty for the community, in that this land will be protected to maintain the inherent heritage, environmental and visual values.

1.1.2 Objectives of the Conservation and Land Use Management Plan

Key features of the Conservation and Land Use Management Plan include:

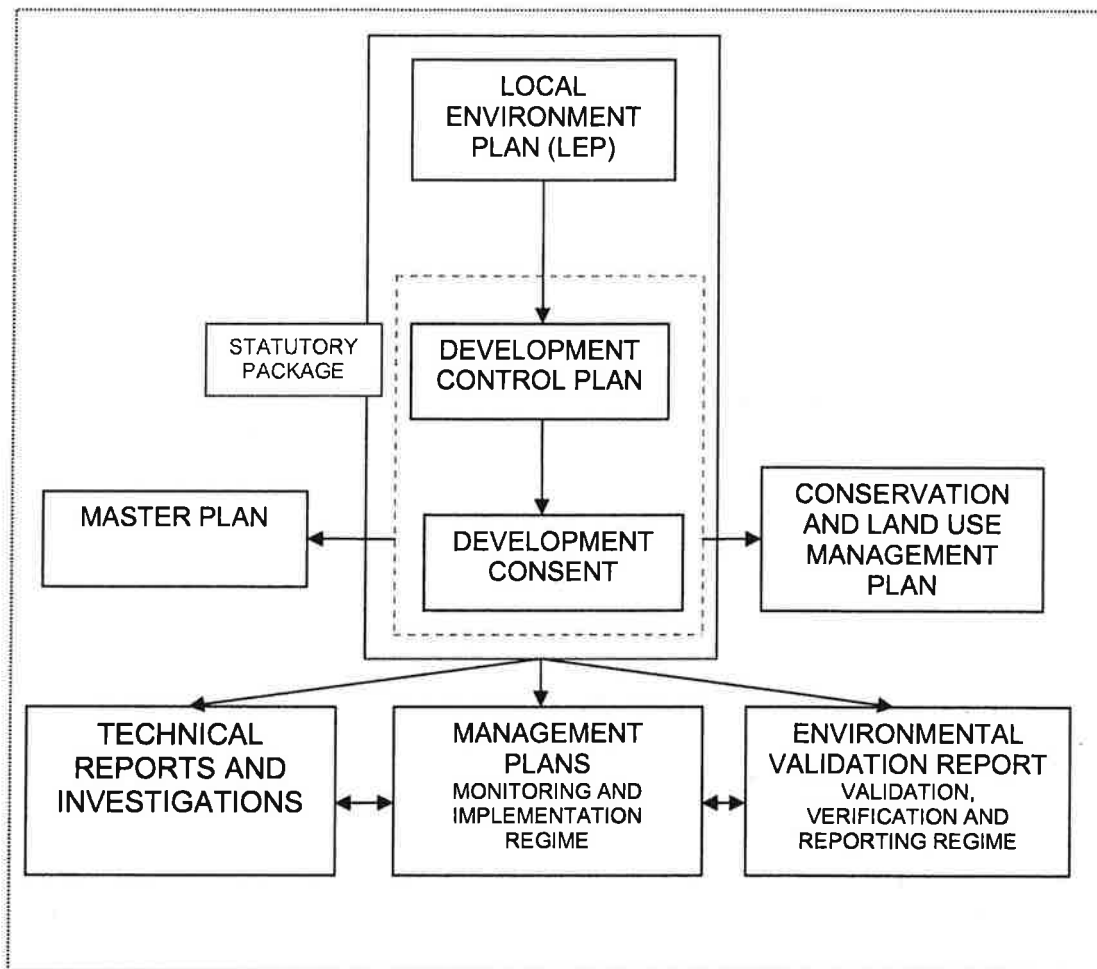
- A Conservation and Land Use Plan delineating the large-scale conservation and mixed-use development areas.
- Descriptions and precinct character statements to assist Council and the developer to determine appropriate land uses and built forms for particular portions of the site.
- Flexibility in the planning process to ensure that a diverse range of development types can be designed in response to the particular ecological, visual and geophysical characteristics of the site as well as changing social, demographic and market circumstances.

The Conservation and Land Use Management Plan deals with the following matters;

- The conservation values of the site including vegetation communities, threatened species, riparian corridors, and other natural features of the site.
- The scale of any development and its integration with the existing landscape.
- The implementation of the development together with the various obligations for conservation, maintenance and protection and restoration of the environment.
- The environmental validation of any development possibilities given the significance of the natural attributes of the site.
- The verification that requirements, obligations and environmental targets and outcomes are achieved and maintained during the life of the development.

1.2 STRATEGIC PLANNING FRAMEWORK

The statutory relationship and status of the LES, Master Plan and Conservation and Land Use Management Plan are illustrated in the following diagram:



Of importance to the implementation of development concepts is the introduction of the validation, verification and reporting regime. "Validation" is defined as:-

The development planning process in which the sites management issues and recommended outcomes are identified. Where appropriate, these issues and outcomes are addressed within specific management plans. The management plans specify a monitoring and implementation regime to be undertaken by the developer and the community association.

"Verification" is defined as:-

The procedure confirming that that the assumptions of the Master Plan have been verified and that the outcomes and recommendations of the supporting technical documents and management plans have been implemented. The verification procedure may consist of "verification reports" produced by specialist consultants and submitted according to the development consent conditions.

1.3 CONSERVATION AND LAND USE MANAGEMENT PLAN STRUCTURE

The Conservation and Land Use Management Plan has been divided into 7 sections.

- Section One details the aims of the Conservation and Land Use Management Plan and its structure.
- Section Two provides a description of the development area.
- Section Three outlines the conservation management principles.
- Section Four outlines the conservation and land use suitability assessment.
- Section Five outlines the conservation and land use strategies used to address the conservation and land use issues specific to the development area.
- Section Six details the precinct guidelines included in the Master Plan.
- Section Seven outlines the desired outcomes of the Master Plan as a result of implementation of the conservation and land use management strategies.
- Section Eight outlines the ecological, bushfire and environmental management considerations which will be taken into account during the environmental validation process.

The conservation management issues have been identified by a multidisciplinary team as part of the planning process. The main environmental management issues have been comprehensively addressed in the following supporting technical documents and management plans.

- Bushfire Protection Assessment (*Conacher Travers, 2006*)
- Flora and Fauna Assessment (*Conacher Travers, 2006*)
- Vegetation Management Plan (*Conacher Travers, 2005*)
- Offsetting Strategies Report (*Conacher Travers, 2005*)

1.4 STATUTORY REQUIREMENTS

1.4.1 National Legislation

(i) Environment Protection and Biodiversity Conservation Act (1999)

Where a proposed activity is located in an area identified to be of NES, or such that it is likely to significantly affect threatened species, ecological communities, migratory species or their habitats, the matter needs to be referred to Department of the Environment and Heritage (formerly Environment Australia).

The Flora and Fauna Assessment (*Conacher Travers* 2005) identified the following species and communities of National Environmental Significance.

- Cumberland Plain Woodland
- Grey Headed Flying-fox

The Flora and Fauna Assessment recommends referral to DEH subject to measures proposed to mitigate impacts on Cumberland Plain woodland.

This Act requires that Commonwealth approval be obtained for certain actions. The Act provides an assessment and approvals system for actions that have a possible significant impact on matters of national environmental significance (NES).

Actions are projects, developments, undertakings, activities, and series of activities or alteration of any of these. An action that needs Commonwealth approval is known as a controlled action. A controlled action needs approval where the Commonwealth decides the action would have a significant effect on a NES matter.

1.4.2 State Legislation

(i) Threatened Species Conservation Act (1995) and relevance to the Development Area

The specific requirements of the *TSC Act* (1995) are required to be addressed in the assessment of flora and fauna matters. This requires the consideration of potential impacts on threatened species, populations and or ecological communities.

The factors to be taken into account in deciding whether there is a significant effect are set out in Section 5A of the *EP&A Act* (1979) and are based on an 8 part test of significance.

Where a proposed activity is located in an area identified as critical habitat, or such that it is likely to significantly affect threatened species, populations, ecological communities, or their habitats, a Species Impact Statement (SIS) is required to be prepared.

One Endangered Ecological Communities (EEC) that is listed on the NSW *TSC Act* occurs within the study area:

- Cumberland Plain Woodland

Three (3) threatened fauna species that are listed on the NSW *TSC Act* occur within the study area:

- Grey-headed Flying-fox (*Pteropus poliocephalus*)
- Large-footed Myotis (*Myotis adversus*)
- Cumberland Plain Land Snail (*Meridolum corneovirens*)

The significance of the impact of the proposed residential development on this community and these threatened species has been addressed via the 7-part test of Section 5A of the EPA Act, 1979.

It is considered that a significant effect on this Endangered Ecological Community and threatened fauna species would not result from the development, as currently proposed, due to the retention of the majority of vegetation within the Carrington (Northern) and Smalls Road (Southern) Conservation Precincts. In addition significant restoration works are proposed as a mitigative measure against any loss of Cumberland Plain Woodland habitat and the Threatened Species utilising the vegetation.

It is also considered that potential habitat for the threatened flora species, *Pimelea spicata*, occurs within the Cumberland Plain Woodland within the study area. This species has also been assessed via the 7-part test of Section 5A of the EPA Act, 1979.

(ii) Fisheries Management Act (1994)

The *Fisheries Management Act* (1994) provides a list of threatened aquatic species which require consideration when addressing the potential impacts of a proposed development. The Flora and Fauna Assessment (Conacher Travers 2005) concluded that no threatened aquatic species are affected by the proposed development.

(iii) National Parks and Wildlife Act (1974)

The Act consolidates and amends the law relating to the establishment, preservation and management of national parks and historic sites and the protection of native flora and fauna and Aboriginal relics throughout NSW. The relocation of threatened species such as Cumberland Plain Snail for development purposes will need to be approved by Department of Natural Resources (DNR). Likewise the removal of Cumberland Plain Woodland will require DNR approval.

(iv) Native Vegetation Act (2004)

In accordance with the principles of Ecologically Sustainable Development (ESD), the Act regulates the clearing of native vegetation throughout the state. Any development affecting native vegetation on rural or rural-residential zoned lands requires the approval of the Department of Natural Resources for the removal of native vegetation. The approval process requires a 'Biometric' Assessment to be undertaken by the local Catchment Management Authority to determine the net negative or positive vegetation outcomes. The aim of vegetation management under the Biometric assessment is to pass the maintain or improve test on relevant environmental values as identified in the assessment methodology.

Under Schedule 1, Part 3, Camden Council is excluded from the operation of the Act. It has therefore received no further consideration in regard to the planning for this site.

(v) NSW Biodiversity Strategy (1996)

Conservation of biological diversity is one of three core objectives of the National Strategy for Ecologically Sustainable Development (NSED). This strategy aims to bridge the gap between current activities and the effective identification, conservation and management of Australia's biological diversity.

All NSW government agencies and local government are required to implement land management and planning measures that are consistent with the principles of the NSW Biodiversity Strategy (2006.) The strategy is embodied in the EP&A Act (NSW), TSC Act (NSW and at a national level the AP&BC Act (Commonwealth). As such all developments need to consider and apply Biodiversity Conservation Principles.

Biodiversity Conservation Principles that are to be used as a guide for implementation of the Master Plan include:

1. Biological diversity is best conserved in-situ.
2. Although all levels of government have clear responsibility, the cooperation of conservation groups, resource users, indigenous peoples, and the community in general is critical to the conservation of biological diversity.
3. Anticipate, prevent and attack at source the causes of significant reduction or loss of biological diversity.
4. Processes for and decisions about the allocation and use of Australia's resources should be efficient, equitable and transparent.
5. Lack of full knowledge should not be an excuse for postponing action to conserve biological diversity.
6. Central to the conservation of Australia's biological diversity is the establishment of a comprehensive, representative and adequate system of ecologically viable protected areas integrated with the sympathetic management of all other areas, including agricultural and other resource production systems.
7. The close, traditional association of Australia's indigenous peoples with components of biological diversity should be recognised, as should the desirability of sharing equitably benefits arising from the innovative use of traditional knowledge of biological diversity.

These principles are central tenets to the conservation of remnant vegetation, Threatened Species and Endangered Ecological Communities found on Carrington Centennial Care lands.

(vi) *Environmental Planning and Assessment Act (1979)*

This Act enables the proper assessment of all development proposals by the consideration of any impact upon environmental, economic and social values. The Act provides heads of consideration in Section 79C as primary consideration in the assessment process. This Act also causes primary consideration to Ecological Sustainable development.

(vii) *Camden Local Environmental Plan No 48*

The land subject of the Master Plan is zoned under Camden LEP No. 48. The Carrington site is listed as a heritage item under this LEP.

The existing and proposed use can be categorised as a retirement village. Although this use is not defined in the LEP or the EP&A Model Provisions (which it adopts), such a use is permissible in the 5(a) zone as the specific use indicated on the zoning map (in this case 'Retirement Village' is permitted in the zone with development consent.

(viii) *State Environmental Planning Policies (SEPP's)*

The following SEPP's are pertinent to this proposal and are to be taken into consideration in the preparation of all Development Control Planning documentation:

- ***State Environmental Planning Policy – Seniors Living (2004)***

This policy contains provisions for the planning, design and construction of housing for older and disabled persons. This policy refers to the ways in which a proposed development interacts with the surrounding urban infrastructure in relation to public transport, visual amenity and stormwater systems.

In Section 5 of this report, the issues related to SEPP (Seniors Living) are addressed. This development has been designed to integrate with local public transport provisions and the proposal has undergone many iterations to ensure that the built environment assimilates into the existing locality character.

- ***State Environmental Planning Policy No. 19 – Bushland in Urban Areas***

SEPP 19 protects and preserves bushland within certain urban areas, as part of the natural heritage or for recreational, educational and scientific purposes. The policy is designed to protect bushland in public open space zones and reservations, and to ensure that bush

preservation is given a high priority when local environmental plans for urban development are prepared.

- ***State Environmental Planning Policy No 55 – Remediation of Land***

Introduces state-wide planning controls for the remediation of contaminated land. The policy states that land must not be developed if it is unsuitable for a proposed use because it is contaminated. If the land is unsuitable, remediation must take place before the land is developed. The policy makes remediation permissible across the State, defines when consent is required, requires all remediation to comply with standards, ensures land is investigated if contamination is suspected, and requires councils to be notified of all remediation proposals (Planning NSW, 2006).

Given the historical use of the land it is unlikely that it would contain any contamination which would affect the provision of housing.

- ***State Environmental Planning Policy No 65 – Design Quality of Residential Flat Buildings***

This policy relates to buildings of three or more storeys that contain four or more self-contained dwellings. This policy requires that such developments adhere to various principles such as aesthetics, resource efficiency, built form, density, amenity, safety and security, context and scale, landscape and social dimensions.

The Building Design Guidelines contained in Section 5 indicate that future development will include buildings of 3 storeys. Any DA for such buildings will be required to have regard to SEPP 65.

(ix) Sydney Regional Environmental Plan No 20 Hawkesbury-Nepean River (No 2-1997)

The Sydney Regional Environmental Plan No.20 – Hawkesbury-Nepean River 1997 (SREP 20) applies to land within 15 local government areas in the Hawkesbury-Nepean River catchment, including Camden Shire. The aim of SREP 20 is “to protect the environment of the Hawkesbury-Nepean River system by ensuring that the impacts of future land uses are considered in a regional context”.

The proposal is considered to be consistent with the aims and general planning considerations detailed in this Plan.

(x) Camden Council Natural Assets Policy (May 2003)

Camden City Council has developed a Natural Assets Policy which aims to facilitate ecological sustainable development throughout the Camden LGA. This is achieved by the development of a trading scheme which provides a vegetation offsetting mechanism to provide flexibility to implement the policy. This offsetting will ensure that future impacts upon land uses are considered in the context of the total catchment rather than in isolated parcels of land. This strategy involves protection, conservation and restoration of native vegetation in parcels of a size, quality and configuration which will enable the existing plant and animal communities to survive in the long term. Camden Council has graded the existing vegetation in order of significance.

Conacher Travers has identified 3 offsetting options for the proposed development at Carrington Centennial Hospital which assumes a preferred order of priority for development opportunities. Future development will be designed having regard to the requirements of the Camden City Council's Natural Assets Policy (2003). Details of the 'offset' strategy proposed for the site are addressed within the Vegetation Management Plan (Conacher Travers, 2005) and the Offsetting Strategy Report (Conacher Travers, 2005).

(xii) Direction G20 - Planning for Bush Fire Protection

Objectives

- To protect life, property and the environment from bush fire hazards, by discouraging the establishment of incompatible land uses in bush fire prone areas.
- To encourage sound management of bush fire prone areas.

Where this direction applies

This direction will apply to the local government areas listed in Schedule 1, when preparing a local environmental plan for land that is identified as bush fire prone on a bush fire prone land map.

A **bush fire prone land map** is a map with the same meaning as in section 146 of the Act, or, until such a map has been certified by the Commissioner of the NSW Rural Fire Service, a map referred to in Schedule 6 of the Act.

What a council must do if this direction applies

A Council must, in the preparation of a local environmental plan:

- 1) consult with the Commissioner of the NSW Rural Fire Service under section 62 of the Act, and take into account any comments so made;
- 2) have regard to *Planning for Bushfire Protection 2001*; and
- 3) where development is proposed, comply with the following provisions, as appropriate:
 - (a) provide an Asset Protection Zone (APZ) incorporating at a minimum:
 1. an Inner Protection Area bounded by a perimeter road or reserve which circumscribes the hazard side of the land intended for development and has a building line consistent with the incorporation of an APZ, within the property, and
 - ii. an Outer Protection Area managed for hazard reduction and located on the bushland side of the perimeter road
 - (b) for infill development (that is development within an already subdivided area), where an appropriate APZ cannot be achieved, provide for an appropriate performance standard, in consultation with the NSW Rural Fire Service. If the provisions of the local environmental plan permit Special Fire Protection Purposes (as defined under section 100B of the Rural Fires Act 1997), the APZ provisions must be complied with.
 - (c) contain provisions for two-way access roads which links to perimeter roads and/or to fire trail networks.
 - (d) contain provisions for adequate water supply for fire fighting purposes.
 - (e) minimise the perimeter of the area of land interfacing the hazard which may be developed.
 - (f) introduce controls which avoid placing inappropriate developments in hazardous areas.

-
- (g) introduce controls on the placement of combustible materials in the Inner Protection Area.
 - (h) ensure that bushfire hazard reduction is not prohibited within the APZ.

If the Local Environment Plan does not comply with the provisions listed in paragraph 3, the Council must obtain written advice from the Commissioner of the NSW Rural Fire Service, to the effect that, notwithstanding the non-compliance, the NSW Rural Fire Service does not object to the progression of the local environmental plan.

SECTION 2.0 - CONSERVATION MANAGEMENT PRINCIPLES



2.1 ENVIRONMENTAL MANAGEMENT PRINCIPLES

Camden Council is committed to the application of Ecologically Sustainable Development (ESD) principles to the full range of activities for which it is responsible. The basic elements of sustainability that have been adopted include:

- **Biodiversity and Ecological Integrity** as fundamental components of sustainability. Without maintenance of ecological integrity, which is the good functioning of material processes upon which all life depends, it is not possible to ensure long-term social, economic and environmental benefits for current and future generations.
- **Economic Vitality** acknowledges the need to build a healthy economy that creates meaningful jobs, reduces poverty, and provides the opportunity for a high quality of life both now and into the future.
- **Social Equity** embraces the principal that all people should have the opportunity to achieve economic, environmental and social well being.

It should be acknowledged that sustainability is a guiding concept rather than an end state in itself. In addition to applying ESD Principles to the development process it is also essential that they be applied to the protection, restoration and management of the 'Ecological Values' throughout the Carrington area. In particular the conservation of biodiversity and maintenance of ecological integrity should be major objectives for future use and management of the DCP area. Careful planning and management will be required to successfully achieve these objectives.

The ongoing protection and management of heritage values identified on the site has also been included as a consideration of the Conservation Land Use Management Strategy (Section 5).

2.2 BIODIVERSITY CONSERVATION

While extensive disturbance has occurred on various parts of the site over many decades, the ecological values have been maintained to a significant extent within large portions of remnant vegetation.

- The major outcomes of the review of the ecological site investigations has been the conservation of large portions of the Master Plan Area with development concentrating in the most disturbed areas. Of a total 71.44 hectares approximately 52% has been set aside as development excluded lands supporting habitat resources for the Large-footed Myotis (*Myotis adversus*), Grey-headed Flying-fox (*Pteropus poliocephalus*) and Cumberland Plain Land Snail (*Meridolum corneovirens*). The remaining 48% of the land contains marginal to poor quality threatened species habitat.

The biological diversity at Carrington has been conserved by implementing the following measures:-

- Excluding development from ecologically sensitive areas.
- Retention of habitat links.
- Retention of refugia and under storey vegetation within residential allotments.
- Retention of habitat trees and seasonal foraging resources.
- Conservation of indigenous native plants within conservation precincts minimising significant impacts on any one species, with preference given to key habitat and foraging resources.
- Restoration of degraded areas for habitat purposes using indigenous native species sourced from the local gene pool.
- Control and eradication of noxious and environmental weed species.
- Ensuring that bushfire protection measures do not extend into the planned conservation lands.
- Control and eradication of pests (feral cats, dogs, foxes, rabbits, goats) that compete with fauna and damage native vegetation.
- Domestic cat and dog ownership prohibited except 'companion dogs'.

2.2.1 Key Ecological Values

The key ecological values associated with the Carrington Master Plan area have been confirmed through a series of flora and fauna surveys carried out over a number of years. These values include:-

- Protection and restoration of the Endangered Ecological Community (EEC) Cumberland Plain Woodland.
- Provision of potential habitat for the threatened flora species *Pimelea spicata* within the Cumberland Plain Woodland.

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- Habitat for three (3) threatened fauna species including Large-footed Myotis (*Myotis adversus*), Grey-headed Flying-fox (*Pteropus poliocephalus*) and Cumberland Plain Land Snail (*Meridolum corneovirens*).
 - The proposal allows for the retention and long term protection of the majority of existing vegetation within the site.
 - Provision of a variety of remnant native vegetation providing seasonally different foraging resources.
 - Provision of a locally significant biodiversity resource for a wide range of native species.
 - The site contains a high proportion of hollow bearing trees within remnant vegetation providing a wide diversity of roosting, foraging habitats and on-ground refugia.
 - Ecological functioning of all the existing vegetation communities and habitats.
 - Protection of surface water resources and regulation of existing water tables.

2.2.2 Conservation Zones

Two conservation zones, the Carrington (Northern) and Smalls Road (Southern) Conservation Precincts, have been set aside within the Master Plan area (Figure 6).

The 'Carrington (Northern) Conservation Precinct' contains Mixed Species Woodland, Riparian Vegetation, Grassland with Scattered Trees, Parkland and Aquatic Herbfield vegetation communities. In accordance with the Vegetation Management Plan (*Conacher Travers, 2005*) and Offsetting Strategies Report (*Conacher Travers, 2005*), approximately 14.5ha of native vegetation within this Precinct has been identified for restoration works.

The 'Smalls Road (Southern) Conservation Precinct' contains Grey Box Woodland and Grassland with Scattered Trees vegetation communities.

The Carrington and Smalls Road Conservation Precincts conserve all of the vegetation communities in areas of good condition; providing critical habitat for all the threatened species and conservation of major portions of the sites flora and fauna habitats.

2.2.3 Threatened Species

Although this species was not found to be occurring on site, the Carrington and Smalls Road Conservation Precincts conserve threatened species habitat for *Pimelea spicata* within the retained Cumberland Plain Woodland vegetation communities (Vegetation Communities 1 and 2).

The surveys by *Conacher Travers* indicated that the Cumberland Plain Land Snail (*Meridolum corneovirens*) was recorded within the natural vegetation remnants of Vegetation Community 1 – Mixed Species Woodland (EEC) and 2 – Grey Box Woodland (EEC). The majority of these vegetation communities are being retained within the Conservation Precincts protecting what is considered to form a viable population of this species.

The habitat of the Grey-headed Flying-fox (*Pteropus poliocephalus*) and Large-footed Myotis (*Myotis adversus*) has been maintained in the Carrington and Smalls Road Conservation Precincts and by retaining habitat trees, and foraging resources within the development areas.

2.2.4 Connectivity

Due to previous clearing of the surrounding area for agricultural land use, regional habitat connectivity is considered to be limited to retained riparian vegetation. Within the Carrington site however, habitat connectivity is being maintained through the retention of vegetation within the Carrington and Smalls Road Conservation Precincts. In addition, the proposed restoration works will enrich the habitat connectivity to the Nepean River along riparian zones.

2.2.5 Riparian Zones

Riparian zones throughout the Master Plan area have been identified through aerial and topographic map interpretation. Designated waterways and their associated riparian vegetation have been retained within the Conservation Precincts. The proposed restoration works for these areas have been identified within the Vegetation Management Plan (*Conacher Travers*, 2005) and include

2.2.6 Habitat and Forage Trees

Potential habitat and forage trees for identified threatened species and other common fauna species should be identified and retained on-site as a matter of high priority. Development may require removal of some habitat trees, removal must be minimized by prioritizing the retention of habitat trees based on the quality of the trees roosting resources.

Foraging resources either within the canopy, intermediate or ground layers are a seasonally available food resource to be maintained within and outside of a development area. Conservation areas containing significant habitat and foraging resources should be set aside and the development area be managed to provide habitat and foraging resources within landscaped beds, canopy layer and within lot habitat links.

A key group of forage plants for Grey-headed Flying-foxes within the site are Myrtaceae plants which provide fruit and blossom forage for long periods of the year. Myrtaceae plants consisting predominantly of Eucalypt species need to be retained with high retention priority to conserve a wide range of the sites faunal diversity. Other important forage plants include Angophoras, Melaleuca, Acmena and Syzygium species. Native figs (*Ficus* spp.) also account for a large majority of the fruit eaten. These groups of plants may be used within all landscaping and restoration works to compensate for loss of under storey habitat and to maintain this key foraging resource.

The large-footed *Myotis* relies on the water bodies and streams within the Master plan area as a key foraging resource, providing a range of aquatic insects which make up the majority of their diet. The majority of these water bodies and streams are to be preserved within the Conservation Precincts.

The Cumberland Plain Land Snail inhabits remnant eucalypt woodland of the Cumberland Plain, generally in areas characterised by moist soils together with growths of various species of lichen. This species is known to shelter under logs, debris, clumps of grass, around the base of trees and burrowing into loose soil. The majority of the Cumberland Plain vegetation communities are being preserved within the Conservation Precincts.

2.2.7 Habitat Linkages

Habitat linkages will be provided by the conservation precincts, public parks and landscaped beds between and within lots. In addition the proposed riparian restoration works will provide additional habitat linkages throughout the site along sensitive watercourses and water bodies. Locally occurring indigenous native species are to be utilised in all the habitat linkages to provide foraging resources or on ground refugia.

2.2.8 Noxious and Environmental Weed Control

Rural & residential environments provide many opportunities for exotic species to establish and grow. The main source of weed species arises from garden refuse green waste being dumped into native bushland.

The main areas susceptible to weed invasion are riparian zones, drainage lines and adjacent to lot boundaries where exotic plants have been planted within garden beds. Many woody weed species are introduced via bird droppings and need to be targeted on a regular basis to maintain the condition of remnant vegetation.

The dominant weeds in shrub / subcanopy layer is African Olive (*Olea europaea* ssp. *Africana*), representing up to 90% canopy coverage in some areas. Dominant weeds in groundlayer are *Bromus hordaceus*, *Cirsium vulgare*, *Chamaesyce supina*, *Dactylis glomerata*, *Eragrostis curvula*,

Hypochaeris sp., *Lolium perezii*, *Modiola caroliniana*, *Paspalum dilatatum*, *Plantago lanceolata*, *Stenotaphrum secundatum* and *Vulpia myuros*, representing groundlayer coverage of approximately 90 - 100% in many areas.

These weeds need to be targeted for removal within the Conservation Precincts. The Vegetation Management Plan (Conacher Travers, 2005) specifically addresses bushland management issues, one of which includes noxious and environmental weed control.

Use of native landscaping within a development area is an ideal opportunity to minimise introduction of weed species and to compensate for loss of under-storey habitat that may have been removed for any works. Landscaping should predominantly use locally occurring indigenous species, garden weeds are to be minimized and managed as part of the landscape maintenance works.

2.2.9 Pest Management

A rabbit, fox and cat control program must be implemented as part of the Vegetation Management Plan (Conacher Travers, 2005). In combination with restrictions of cat and dog ownership, the existing fauna should be protected from predation providing a fauna friendly environment.

2.2.10 Mitigating Impacts of Bushfire Protection works

The Fuel Management Plan must stipulate a burning and hazard reduction program that minimizes impacts on native flora and fauna. This is to be achieved by defining the boundary of asset protection works, retaining or regenerating clumps of under storey vegetation in strategic locations and defining a hazard management regime that avoids a gradual loss of flora or fauna species.

The asset protection zones established around development areas may form all or part of the buffer zone between the development areas and conservation areas to manage the edge effects of urban development on remnant vegetation and their habitats.

2.3 HERITAGE MANAGEMENT PRINCIPLES

The objective of the Master Plan is to manage future development at Carrington Centennial Home so that the heritage significance of the place is identified, protected and conserved for future generations. In keeping with best practice principles, the Master Plan for the site was developed following the preparation of a Conservation Management Plan for the Carrington Convalescent Hospital, and the following heritage principles:

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- Management will be guided by the best available knowledge, skills and standards for heritage places, and will be in keeping with the principles contained in the Burra Charter.
 - Heritage planning and management will be overseen by a single entity within the organisational structure of the Carrington Centennial Trust.
 - Provide informed supervision of both major and minor works to the place.
 - Indigenous people will be consulted as the primary source of information on the value of their heritage. Their active participation will be sought in identification, assessment and management of Indigenous heritage to assist in the effective protection of Indigenous heritage values.
 - Heritage management of the place will include the assessment of potential impact of works on the heritage significance of Carrington and its setting prior to works being undertaken by the Carrington Centennial Trust.

2.4 HERITAGE CONSERVATION

2.4.1 Priority Heritage Values

Carrington Convalescent Hospital and its setting demonstrate historical, associative, and aesthetic values of heritage significance at state level.

Carrington Nursing Home demonstrates a high level of historic significance at a State level, being purpose-built in 1890 as the first major convalescent hospital in NSW. The heritage precinct, including the main hospital, the morgue, the Masonic Cottage Hospital and the Gardeners Cottage, together with the garden demonstrate the principles of late nineteenth hospital design, and the importance of garden setting in the convalescence process.

The establishment of Carrington Nursing Home at Camden was a direct result of the late nineteenth century philanthropic activities of William Henry Paling a businessman and distinguished citizen, and the development of welfare activities undertaken by Freemasonry in NSW. The building has strong historical associations, at State level, with its founding benefactor, William Henry Paling, and then Governor and patron, Lord Carrington, and architect Harry Chambers Kent.

The setting of the buildings is enhanced by the spacious gardens, notable for their general late Victorian layout. This includes the carriage loop drive with central lawn, extensive surrounding lawn, and mature trees, including Bunya and Hoop pines. The site also conserves surrounding stands of indigenous eucalypt woodland, providing a striking contrast and buffer to the historic buildings and cultural landscape.

The Hospital building incorporates advanced building science concepts, including the use of cavity walls and the 'Latoban' ventilation system, to ameliorate internal temperature conditions. Contemporary descriptions of the building indicate the system of jack-arches used in the construction of ceilings throughout the building was "...we believe, the first of its kind used in the construction of any building in the colony, with the exception, perhaps of the new goal at Bathurst.

The original main building is largely intact which includes the exterior and interior spaces, many still serving their original functions. They provide a valuable insight into the changing technology and practice of institutionalised health and aged care over a period of over 100 years. The design of the building influenced the improvement of ventilation techniques in hospitals in NSW.

The relationship of the Hospital with the associated historic buildings and garden setting, demonstrate the importance of the garden setting in the recuperative process and the importance of the garden both in providing employment for recuperating patients and in producing food for consumption by patients. Furthermore, the Hospital building incorporates advanced architectural science concepts to control temperature and ventilation throughout the building.

Grasmere Villa, although altered, demonstrates the design and construction of late Victorian domestic-scale architecture, and its siting in relation to the man-made lake demonstrate the principles of the picturesque movement in landscape design.

2.4.2 Building Restoration

The following heritage buildings located on the site are to be retained and conserved:

Carrington Convalescent Hospital:

- Prepare a Conservation Management Plan for the Main Hospital Building to guide the acceptable adaptation of internal spaces, the removal of intrusive elements and future maintenance. Retain, repair and adapt the Carrington Convalescent Hospital in keeping with the recommendations of the Conservation Management Plan.

Masonic Cottage Hospital

- Prepare a Conservation Management Strategy for the Masonic Cottage Hospital building to guide acceptable adaptation of internal spaces, the removal of intrusive elements and future maintenance.

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- Carry out urgency repairs to slate roof to make the building weatherproof and to protect original significant fabric from further deterioration.

The Former Morgue:

- Identify original fabric, and repair and conserve where necessary. Retain and conserve original building fabric.

Grasmere Villa:

- Retain and adapt the building. Prepare a Conservation Management Strategy for Grasmere Villa building to guide acceptable adaptation of internal spaces, the removal of intrusive elements and future maintenance.

River Cottage:

- Retain and adapt the building. Prepare a Conservation Management Strategy for River Cottage to guide acceptable adaptation of internal spaces, the removal of intrusive elements and future maintenance.
- Adapt the historic buildings to meet current Building Code of Australia requirements.
- Ensure compatible uses for existing heritage buildings and spaces.
- Interpret significant periods of development within the site, demonstrating historic themes outlined in the Conservation Management Plan prepared for the Carrington Convalescent Hospital.

2.4.3 Aboriginal Site Protection

- Retain and protect those Indigenous heritage sites identified in the report *Aboriginal Heritage Assessment: Camden, NSW* (Archaeological & Heritage Management Solutions Pty Ltd 2004).
- Undertake the recommendations contained in the report in relation to preserving, stabilising and interpreting Indigenous heritage within the boundary of Carrington Centennial Homes.
- Ensure Indigenous heritage sites are adequately protected during any future building works.

2.4.4 Maintenance

- Generally, undertake immediate repairs to significant heritage fabric to prevent further deterioration of heritage buildings until staged major conservation works are undertaken.

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- Prepare a Facilities Asset Management Report for the Carrington Convalescent Hospital and the Masonic Cottage Hospital, to assist the Carrington Centennial Trust in future planning, adaptation of the buildings and prioritising works.

2.5 SCENIC CONSERVATION

Whilst part of the scenic value of the site relates to its heritage (as discussed above), it also has scenic qualities that contribute to the rural character of the area. Therefore the determination of the 'precincts' for the site and the control of development within these precincts has had regard to the aim of maintaining scenic quality and rural character.

The scenic character of the site is largely defined by the native vegetation of the site. The surrounding vegetation remnants provide a visual backdrop for all of the existing buildings creating a visual bowl enclosing the retirement village within a 'rural landscape'.

The Ironbark Woodland is of significant visual and conservation value in that the dark furrowed bark provides a strong contrast against the existing buildings. The dark bark also contrasts against the open space and bushland areas that change in colour from season to season.

The existing nursing home and other heritage buildings are typical of the era and as such provide architectural focal points throughout the retirement village.

The rural landscape, remnant vegetation backdrops, architectural feature and contrasting vegetation are important visual qualities of the site to be maintained and enhanced.

SECTION 3.0 - CONSERVATION AND LAND USE MANAGEMENT STRATEGY (Issues, Strategies, Principles and Validation Criteria)



This discussion of Conservation and Land Use Management:

- Provides an overview of the main issues for the site.
- Discusses the need for management strategies for certain issues.
- Provides planning principles upon which further strategies or assessment will be based.
- Explains how future development will be assessed against the management strategies, planning principles, validation criteria and the detailed guidelines of Section 6.

The main environmental management issues relevant to any development application have been categorized into the following generic headings:-

- Heritage Management
- Ecological Conservation Management
- Groundwater and Stormwater Management
- Bushfire Protection
- Management of Visual Values
- Soil Erosion and Sedimentation
- Urban Infrastructure
- Management of Odour
- Community Association Framework

3.1 HERITAGE MANAGEMENT

The objective of the Master Plan is to manage future development at Carrington Centennial Home so that the heritage significance of the place is identified, protected and conserved for future generations. In keeping with best practice principles, the Master Plan for the site was developed following the preparation of a Curtilage Assessment for the Carrington site. This document provides guidelines on how future development should relate to the buildings and landscapes of significance (See Section 6 for further details). This will be supplemented by a Heritage and Conservation Management Strategy. Where any redevelopment of heritage buildings is

proposed, a Conservation Management Plan must be prepared and lodged with any such application.

Issues to be considered by Council when assessing any development application include:

- Heritage planning within the Master Plan area is to be managed by a single management body with up to date knowledge of the standard required for the management of heritage places.
- All heritage works are to be supervised by a suitably experienced individual.
- Consultation is to be undertaken with the local Aboriginal land council in regard to the management and protection of areas of Aboriginal significance.
- A heritage impact assessment is to be undertaken.

Strategies

- Management will be guided by the best available knowledge, skills and standards for heritage places, and will be in keeping with the principles contained in the Burra Charter.
- Heritage planning and management will be overseen by a single entity within the organisational structure of the Carrington Centennial Trust.
- Provide informed supervision of both major and minor works to the place.
- Indigenous people will be consulted as the primary source of information on the value of their heritage. Their active participation will be sought in identification, assessment and management of Indigenous heritage to assist in the effective protection of Indigenous heritage values.
- Heritage management of the place will include the assessment of potential impact of works on the heritage significance of Carrington and its setting prior to works being undertaken by the Carrington Centennial Trust.

Environmental Validation Criteria

- Protection and maintenance of the sites heritage significance.

3.2 ECOLOGICAL CONSERVATION MANAGEMENT

Ecological Conservation management centres on protection of significant ecological, cultural or landscape features and maintaining the ecological functioning of habitats and drainage lines. Mitigating impacts on threatened species is a focal point but management extends into restoring riparian zones and remnant vegetation, mitigating impacts of weed incursions, controlling pest or feral animals and retention of ground refugia within and outside lots.

The impacts on threatened species vary depending on their preferred habitat. There is a need to address specific issues related to the ecology of the individual species, and to assess the issues concerning the management of individual threatened species.

Issues to be considered by Council when assessing any development application include:

- Conservation of endemic species throughout the development.
- Conservation of threatened or vulnerable flora and fauna species and their habitats.
- Habitat connectivity by the provision of dedicated wildlife corridors, riparian corridors and retention of refugia.
- Identification and conservation of foraging and roosting habitat for threatened species.
- Commitment to an integrated plan that balances ecological, cultural and heritage values with site sensitive development.
- Application of Ecologically Sustainable Development (ESD) principles.

Strategies

- Appropriate curtilage to be provided for identified places and objects of heritage significance.
- Natural features and identified vegetation to be protected to ensure that local character is predominantly maintained.
- Identified canopy trees and mature trees with floristic character to be retained where possible for visual screening purposes and conservation of the existing natural character in harmony with the proposed urbanization.
- Habitat trees within open space areas to provide links with adjoining fauna habitat areas.
- Conservation of flora and fauna through the provision of refugia within habitat corridors, watercourses and open space.
- Access network and services to permeate around natural site features including water features, visually and ecologically significant trees, generally in accordance with the landscape concepts.
- A Community Management Plan to be prepared to coordinate and fund the maintenance of vegetation, ecology, landscaping, bushfire protection, tree protection, archaeology and infrastructure.
- Integration of ecological, heritage and cultural management with future plans of management.

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- To establish ecological/fire buffer zones to protect significant ecological and Aboriginal cultural features.
 - Identify disturbed areas and restore areas to enhance the sites biological diversity and ecological functions.
 - Conservation of the full range of biodiversity of plant and animal species on the site.

Environmental Validation Criteria

- Integrity of buffer zones surrounding threatened flora, fauna or vegetation communities.
- Protection and maintenance of the sites heritage significance.
- Protection and restoration of sites vegetation communities including the Endangered Cumberland Plain Woodland communities.
- Protection of Grey-headed Flying-fox (*Pteropus poliocephalus*), Large-footed Myotis (*Myotis adversus*) and Cumberland Plain Land Snail (*Meridolum corneovirens*) habitat.
- Protection of habitat for *Pimelea spicata*.
- Protection of between lot habitat links and within lot refugia.
- Habitat connectivity between vegetation remnants.
- Ecological functioning of wildlife corridors including riparian zones.
- Conservation of all flora and fauna species.

3.3 GROUNDWATER AND STORMWATER MANAGEMENT

The management of stormwater in the catchment is directed at two principal management directives.

- To protect the health of the ecosystem and to maintain channel stability, and provide riparian habitat.
- The treatment of stormwater runoff to ensure that the loads and concentration of stormwater pollutants discharged into the sites waterways and downstream receiving waters do not adversely impact on ecological health.

Riparian land is any land that adjoins or directly influences a body of water. Riparian vegetation is important to the community for a variety of reasons.

The construction of earthworks, stormwater facilities and buildings will be the period of greatest potential for environmental impact with regard to soil erosion and drainage line sedimentation. Appropriate soil conservation measures need to be implemented to minimise the potential for soil erosion and off-site sedimentation.

Issues to be considered by Council when assessing any development application include:

- Impact of the proposed development on surface drainage, natural vegetation; and natural infrastructure and buildings due to flooding or changed drainage pattern.
- Impact of the proposed development on local water tables and the potential for salinisation.
- Minimisation of stormwater drainage from the Master Plan area.
- Protection of water from pollutants, sediments, nutrients, chemicals and weed invasion in accordance with ANZECC guidelines.
- Impact of impervious surfaces on local drainage.
- Biological diversity, wildlife corridor, protection of water from pollutants, sediments, nutrients, chemicals and weed.
- Pest competition and preying on native fauna
- Pest damage to landscaping and restoration works and
- Mobilization of animal diseases

Strategies

- Overland flow filtration and bioretention trenches to treat pollution from the developed area and from surrounding urban development.
- Installation of Gross Pollutant Traps (GPTs) as a primary sediment and pollution attenuation system.
- Minimise changes to surface drainage patterns.
- Collect excess stormwater runoff and retain on site, e.g. water tanks and stormwater basins.
- Manage water tables through a combination of groundwater extraction, drainage and irrigation.
- Implementation of pest control program targeting feral animals including foxes, rabbits, cats, dogs, goats and chickens.
- Prohibition of cat and dog ownership with exemptions for companion dogs.
- Protection of ecologically sensitive areas from grazing.
- Provision of buffer zones between the development area and ecologically sensitive areas.

Environmental Validation Criteria

- Maintenance of stream, bank and channel stability.
- Protection and restoration of Riparian Habitat.

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- Aquatic ecosystem health of down stream receiving waters.
 - Integrity of buffer zones adjacent to ecologically sensitive habitats.
 - Effective control of pest species.

3.4 BUSHFIRE PROTECTION

When preparing Local Environmental Plans (LEP's) for land identified as Bush Fire Prone Land, the Minister for Planning requests Councils, under Section 117 Direction, G20 – Planning for Bushfire Protection (Environmental Planning and Assessment Act), to consult the Commissioner of the NSW Rural Fire Service.

Where direction under Section 117(2) number G20 direction applies a Council must, in the preparation of a local environmental plan:

- 1) Consult with the Commissioner of the NSW Rural Fire Service under Section 62 of the Act, and take into account any comments so made.
- 2) Have regard to Planning for Bushfire Protection 2001.
- 3) Where development is proposed, comply with the following provisions, as appropriate:
 - (a) Provide an Asset Protection Zone (APZ) incorporating at a minimum:
 - i. An Inner Protection Area bounded by a perimeter road or reserve which circumscribes the hazard side of the land intended for development and has a building line consistent with the incorporation of an APZ, within the property; and
 - ii. An Outer Protection Area managed for hazard reduction and located on the bushland side of the perimeter road.
 - (b) Contain provisions for two-way access roads which links to perimeter roads and / or fire trail networks.
 - (c) Contain provisions for adequate water supply for fire fighting purposes.
 - (d) Minimise the perimeter of the area of land interfacing the hazard which may be developed.
 - (e) Introduce controls which avoid placing inappropriate developments in hazardous areas.
 - (f) Introduce controls on the placement of combustible materials in the Inner Protection Area.
 - (g) Ensure that bushfire hazard reduction is not prohibited within the APZ.

Planning for Bushfire Protection – 2001 (NSW Rural Fire Service / Planning NSW) provides guidance on the planning and development control processes for bushfire planning in relation to protection measures for subdivision and residential developments in NSW bushfire prone areas.

It also provides concepts for Class 1, 2 & 3 buildings in bushfire prone areas and guidance on planning and development control processes in relation to bushfire protection measures. In addition Planning for Bushfire Protection - 2001 provides a methodology for determining setback distances (Asset Protection Zones) and Bushfire Attack/Construction Standards required for habitable buildings in development for residential purposes that are designated as bushfire-prone.

Issues to be considered

- Identification and management of bushfire threats to create a safe development.
- Clear delineation of APZ's and other measures and management requirements of ecologically sensitive areas within or adjacent to Asset Protection Zone's.
- Identification of Construction Standards for buildings requiring additional protection measures.
- Coordinate fuel load management with adjacent fuel management zones managed by adjacent landholders.
- Minimise impacts on the site's biodiversity due to bushfire hazard reduction measures.

Strategies

- Minimise the bushfire threat to residents, visitors and property.
- Identify opportunities to reduce bushfire hazard through the design of buildings and therefore minimise the extent of vegetation clearance required.
- Manage the bushfire hazard to minimise impacts on ecological values.
- Provide adequate access for fire fighting vehicles.
- Create bushfire buffer zones along the boundaries.
- Provide for perimeter roads and reserves.
- Prepare a bushfire contingency plan to define bushfire planning requirements.

Environmental Validation Criteria

- Building in a bush fire prone environment.
- Managing bushfire hazard.
- Providing bushfire suppression measures.
- Providing fire suppression services.
- Contingency planning for bushfires.
- Providing adequate access, egress and evacuation capability.
- Monitoring of fire protection measures.

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- Protection from neighbouring land use.
 - Managing hazard without compromising ecological and scenic values.
 - Fuel management responsibility.
 - Developing and maintaining community awareness.
 - Maintaining liaison with the NSW Rural Fire Service.
 - Special protection developments.

3.5 MANAGEMENT OF VISUAL VALUES

The development proposal area contains land which has been substantially modified and degraded as a result of agricultural land use since the mid 1800's, in particular clearing and intensive agricultural uses, such as vegetable growing, piggeries and stables.

The development proposal proposes to restore vegetation areas within the Ecological Conservation Precincts with locally occurring native species which will enrich the remnant vegetation and landscape.

The sites main visual focus will be surrounding the dam located within the Carrington (Northern) Conservation Precinct. This dam will be retained as a visual focus for the development with building design, landscaping and restoration works considering the retention and creation of filtered views from the development to this landscape.

Retention and restoration of the existing vegetation is also considered important in minimising the visual impact of the development from surrounding vantage points. The existing trees also form a major part of the site's visual characteristics providing filtered views and green backdrops to the proposed development.

The restoration and revegetation works proposed for the Conservation Precincts have been primarily focussed on the re-establishment of habitat for native flora and fauna.

Pedestrian circulation throughout the Master Plan area, including the Ecological Conservation Precincts will be provided, directing residents through an integrated system of paths and board walks. These informal paths and board walks will be provided to create various spatial experiences for pedestrians, linking the corridor with the adjacent residential development.

Circulation throughout the 'Carrington' site will allow a varied circular route for exploration by residents, providing open vistas to the lake, heritage buildings and strategic landscape features. A number of picnic shelters and park benches will be placed along the pathway to provide a location for social gatherings, opportunities to rest and observe.

Issues to be considered

- Creation of visual buffers (macro scale and street scale).
- Retention of contrasting vegetation (Ironbark Woodland)
- Impact of the development on the areas natural features.
- Impact of the development on the sites heritage structures
- Aboriginal cultural sites and significant landscape feature.
- Character of post development landscape.
- Bulk and scale of buildings and relationship to heritage buildings and public areas.

Strategies

- Protection of riparian, significant and contrasting vegetation characteristics.
- Planting of ironbark throughout the development areas and along perimeter roadways.
- Retention of ironbark Woodland to create a visual backdrop to the existing heritage buildings.
- Protection of heritage and Aboriginal cultural sites through use of buffers surrounding them.
- Built form controls to utilise a varied material palette.
- Street scape plantings to filter and soften hard edges and surfaces of buildings.
- Dedication and restoration of the Conservation Precincts.

Environmental Validation Criteria

- Visual absorption capacity and enrichment of sites visual significance.

3.6 SOIL EROSION AND SEDIMENTATION

Construction works associated with the proposed development will result in the disturbance of soils. Erosion and sedimentation of soils from the proposed development into the adjoining vegetation remnants is an undesirable result from earthworks and should be mitigated to reduce impacts.

Cut and filling of the landscape to raise or lower the ground level for construction or access has implications for the retention of trees, ecological functioning of habitats and drainage patterns. Restoration works will also be needed to restore the vegetation community and ecological functions of the affected areas.

Issues to be considered

- Loss of top soil.
- The eventual sedimentation of natural waterways and/or drainage lines.
- Promotion of exotic species migration, habitat and germination success.
- Soil disturbance during construction works.
- Stabilizing newly formed soil surfaces.
- Impacts on sensitive environments.
- Impacts of cut and fill works on habitat, drainage patterns and vegetation.

Strategies

- Protection of ecologically sensitive habitats from erosion and sedimentation.
- Restoration of degraded or affected habitats.

Environmental Validation Criteria

- Protection of environmentally sensitive areas such as aquatic habitat and remnant vegetation.
- Functioning of riparian zones and habitat areas.

3.7 URBAN INFRASTRUCTURE

The provision of urban infrastructure for the proposed development has implications for the conservation of ecological, cultural and landscape features of the Carrington Master Plan area. Not only does the required infrastructure need to meet expected urban demands in the future, but must also be integrated within the existing environment. The following principles have been adopted to guide the integration of urban infrastructure within the Carrington Master Plan area.

Issues to be considered

- Integration with existing urban infrastructure.
- Provision of safe, convenient access between the development and surrounding landscape features and activity roads.
- Impacts on local traffic.
- Access to public transport facilities.
- Passive access facilities – walking and cycling.
- Integration of stormwater management systems within the landscape.
- Disturbance and rehabilitation of natural areas.
- Impacts on the environment due to cut and fill work.
- Impacts on wildlife movement.

Strategies

- Adequacy of urban infrastructure in local, ecological, social and economic context.
- Maximise use of existing infrastructure and integrate with urban design.
- Adopt environmentally sensitive engineering design solutions that minimise potential impacts while meeting functional requirements of the infrastructure.
- Provide safe, convenient and accessible access for vehicles, pedestrians and cyclists.
- Minimise single new access points to the Werombi Road.
- Creation of pathways to provide walking links throughout the development.
- Provision of flexible road widths and alignments, both vertical and horizontal, to minimise cut and fill and to retain the maximum number of trees possible.
- Development of stormwater drainage links that aim to minimise changes to natural flow regimes.
- Integration of stormwater drainage design into natural streetscape and landscape design.
- The need to minimise, as much as possible, disturbance to natural areas in providing sewage, roads, electricity and other elements of physical infrastructure to the defined development areas.

Environmental Validation Criteria

- Integration of urban infrastructure within local social, ecological and economic context.
- Environmental impacts of proposed urban infrastructure.
- Environmental Impacts of cut and fill operations.
- Public access to community resources and public lands.

3.8 MANAGEMENT OF ODOUR

There is potential for odour to arise due to the close proximity of the development to the Camden Tertiary Sewerage Treatment Plant (TSTP) in the south-east.

Prevailing winds across the development vary between the seasons and time of day, but are predominantly north-westerly and south-easterly throughout the majority of the year. North-westerly winds occur across the site throughout autumn, winter and spring during the first half of the day which will result in the potential for odour from the TSTP to be blown across the proposed development.

The proposed revegetation and restoration of vegetation within the Carrington (Northern) Conservation Precinct will form an odour buffer zone between the TSTP and the proposed development.

Issues to be considered by Council when assessing any development application include:-

- Generation of odour from TSTP.
- Effective odour buffer zones.

Strategies

- Exclude all dwellings from the odour buffer area.
- Maintenance of vegetation within the odour buffer zone (Carrington (Northern) Conservation Precinct) to increase the absorption capacity of this buffer.

Environmental Validation Criteria

- Adequacy of odour buffer zones and other odour abatement measures.
- Location and impact of sewer overflows and breathers.

3.9 CARRINGTON CENTENNIAL TRUST MANAGEMENT FRAMEWORK

The vision for this site is the creation of an environmentally sensitive aged persons development that provides a wide range of housing and recreational options. The development aims to produce outcomes that reflect the shared responsibility of inter-generational equity holders by providing for economic opportunity, employment and public access to areas of natural amenity.

3.9.1 Trust Management Structure

Carrington Centennial Care Ltd, was established in 2004 to operate on behalf of Carrington Centennial Trust which was established in 1890. In accordance with the Trust Deed the assets and property of Carrington vest in Four Trustees who are supported in the management of the organisation by elected Board Members.

The Board is responsible for overseeing of policy, performance, quality of care and strategies to be implemented by management. The operational management of Carrington is vested in a management team headed by the Chief Executive Officer responsible for the day to day management and strategic direction of Carrington and the implementation of board policies.

3.9.2 Carrington Centennial Trust Management

The proposed development is to be administered under the provisions of a trust arrangement. This approach allows for ongoing regulation of activities, including maintenance within the entire development area, within individual

allotments, within bushfire protection areas, conservation areas and within common community association areas. This approach also provides substantial benefits in terms of regulating the impact of the development upon the natural environment.

Carrington Centennial care Ltd was established in 2004 to operate on behalf of Carrington Centennial trust which was established in 1890. In accordance with the Trust Deed the assets and property of Carrington vest in four Trustees who are supported in the management of the organisation by elected Board Members.

The Board is responsible for overseeing of policy, performance, quality of care and strategies to be implemented by management. The operational management of Carrington is vested in a management team headed by the Chief Executive Officer responsible for the day to day management and strategic direction of Carrington and the implementation of board policies.

Land retained in shared ownership by the members of the Trust is known as Trust Property. It is commonly called a Community Lot and will be identified as Lot 1 on the registered Plan of Subdivision.

It is envisaged that a number of subsidiary schemes will be established under the control of the Trust. The Trust and any subsidiary schemes are required to comply with the Conservation Land Use Management Plan in the preparation of any development applications proposed to be undertaken on Trust lands.

The Trust Management Statement binds the Trust with any subsidiary schemes and each owner/occupier, mortgagee in possession and/or lessee of a Lot.

The Trust may, on its behalf or on behalf of each subsidiary scheme contract with third parties to:

- (a) Provide management, operational, maintenance and other services in connection with Community Property.
- (b) Provide transport services inside and outside the community scheme (to the owners or occupiers of lots).
- (c) Provide a letting service to owners of Lots.
- (d) Provide other services or amenities to community Property, Common Property and/or the owners and occupiers of Lots.

SECTION 4.0 - LAND USE ASSESSMENT AND DEVELOPMENT REQUIREMENTS



4.1 LAND SUITABILITY AND CAPABILITY ASSESSMENT

The concept Master Plan is a broad based planning solution. To ensure development considers overall site planning and design requirements the site has been divided into precincts which group the various types of development on site precincts. These precincts are identified on the Conservation and Land Use Plan (Figure 6).

The land suitability and capability analysis has determined those parts of the site that are to be environmental conservation areas and those that are suited for development. Within the developable area, there are areas which have specific features or are intended to accommodate certain forms of development.

4.1.1 Development Types

The Carrington Master Plan site has been divided into ten (10) precincts consisting of five (5) development types:

- High Care Accommodation (Precinct 1)
 - accommodation for residents requiring a high level of care including an additional 220 rooms (450 rooms in total)
 - heritage buildings
 - offices space and supporting facilities
 - building height constrained to 3 storeys
 - construction of the northern entrance
- Independent Living Accommodation (Precincts 2, 3 & 7)
 - accommodation for between 210 and 410 dwellings subject to detailed Precinct design
 - generally 1-2 storeys high with a maximum of 3 storeys subject to land form
 - constrained partly by APZ and partly by flood zone
 - Includes parkland areas with BBQ facilities, paths, seats and playgrounds with asset protection zones and flood zones.

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- Community Facilities (Precinct 4 & 8)
 - community facilities including meeting rooms, BBQ areas, spa, bowling green, children's playground, internet café, hairdresser and general store subject to detailed Precincts design
 - Active Recreation (Precincts 5 & 9)
 - active recreational facilities including tennis courts, cycle track, walking trails and golf course
 - access for defensive fire control operations and fuel reduction works
 - Bushland Conservation (Precincts 6 & 10)
 - provides community with a natural bushland setting
 - protection and restoration of endangered ecological communities (CPW)
 - walking trails and passive recreational activities
 - access for maintenance and defensive fire control

The character, building design, visual, conservation and landscaping characteristics of each precinct within these development types is provided in Section 4.4 as guidelines for preparation of development application.

Development of a precinct will consider the following matters:

- Building types, configuration, density, style, connectivity and interaction
- Pedestrian access, connection, route, shading design and landscape considerations
- Road location, type, configuration, parking, edge treatment, and shading
- Landscape and open space design
- Services infrastructure

Consideration will be given to all functions within a zone as well as review the impact on adjacent zones.

4.2 DEVELOPMENT OBJECTIVES

All development will consider the following objectives:

- Wide range of housing types that are environmentally sensitive and ecologically sustainable, providing choice beyond standard detached housing.
- Incorporating extensive and diverse parkland areas that create a strong sense of place, community focus and allow for a range of leisure and recreational opportunities.

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- Creating a clear, comprehensive street and people movement system which allows for a choice of routes. The design will also ensure safety and security within passive surveillance following a 'safety by design' approach.
 - Conserving biodiversity, protecting threatened species and remnant Cumberland Plain Woodland within the context of creating an urban centre. Ensuring extensive shading to open areas including roads and footways.
 - Establishing a series of public places combining functionality, meaning and connections to the past history and current use of site.
 - Develop the water sensitive creeks and storage areas on site as urban design features.
 - Use the sites topography to generate valley views to open green areas.
 - Providing landscaping using visually significant native and exotic trees that providing shading to open areas, roads and footways.

4.3 PRECINCT GUIDELINES

The character, building design, visual, conservation and landscaping characteristics of each precinct is provided below as guidelines for preparation of development applications.

4.3.1 High Care Accommodation – Precinct 1

A high care accommodation precinct will be established containing key heritage items. Where other heritage items have been isolated from the main precinct by the construction of new buildings, a heritage curtilage zone will be established to protect their immediate setting and the heritage significance of those individual heritage items.

The reduced heritage curtilage will contain the Carrington Convalescent Hospital, the Masonic Cottage Hospital, the former Mortuary, remnant driveway and garden setting.

This precinct has been guided by the following principles:

- Preserve the heritage significance of the buildings and setting in keeping with the principles contained in the Burra Charter.
 - Preserve landscape elements with identified heritage significance.
 - Allow the heritage significance of the site to be interpreted.
 - Provide areas for new high care accommodation.
 - Allow expansion and or refurbishment of existing facilities subject to heritage assessment.
 - Provide separation from bushfire threats.
 - Enrich the natural character by retaining and planting Ironbark Woodland as a dominant tree canopy.
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Guidelines

(a) Character

The architectural character of this development type is set by the Carrington Convalescent Hospital and the Masonic Cottage Hospital dating from 1890. These buildings consist of a number of substantial brick buildings with pitched roofs, situated around a formal garden.

(b) Building Elements, Form & Visual Constraints

New infill development can be located in those parts of the precinct, which are either outside heritage curtilage or within less sensitive parts provided it takes into account the scale, massing, materials, form and details of the original buildings and landscape. The appearance of new buildings should be appropriate to the time of development; mere replication of buildings is not encouraged.

Carrington Convalescent Hospital building is to remain as the visually dominant element in the precinct. New buildings are to be no higher than the existing main eaves line of the Carrington Convalescent Hospital, and no new element is to be visible above the profile of the Hospital building as seen from its northern side within the site.

The surviving visual connection between the Carrington Convalescent Hospital, the Masonic Cottage Hospital and the formal garden, immediately to their north, should be retained to demonstrate and reinforce the original design intent of the architect, Harry Kent, and the prevailing hospital design philosophy of the late nineteenth century.

The landscaped area located immediately to the northeast of Carrington Convalescent Hospital and the Masonic Cottage Hospital is to be retained and enhanced, through the use of appropriate plantings and detailing. Visually intrusive elements such as power and telephone lines, dilapidated structures and excessive plantings are to be progressively removed from the precinct.

The heritage buildings will be conserved and adapted in keeping with the Conservation Management Plan and Conservation Management Strategies prepared for each building and the principles contained in the Burra Charter

(c) Landscaping

Landscaping is to achieve the following outcomes:

- Protect the original garden setting to the north east of Carrington Convalescent Hospital by removing intrusive structures and vegetation.

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- Reinforce the character of the landscape by establishing new plantings of Ironbark Woodland, repair of original retaining walls, garden beds garden edges and kerbs. New plantings in the historic precinct should be in keeping with the original landscape design.
 - Replace exiting garden furniture with new family of furniture.
 - Upgrade croquet lawn.
 - Provide new planting where appropriate to screen visually intrusive structures and elements on the site.
 - Enhance the Ironbark canopy to create it as the dominant tree species.
 - Retain the formal garden area adjacent to the Carrington Convalescent Hospital as a pedestrian precinct.
 - Screen parking areas from important vistas from Carrington Convalescent Hospital.
 - Relocate existing carports from existing heritage precinct.
 - Assess archaeological impact prior to works being undertaken, particularly where excavation is to occur.
 - Protect natural woodlands and riparian vegetation identified on the Master Plan within the boundary of the site.
 - Retain and protect trees in the 'Camden Significant Tree and Vegetation Landscape Study'.

(d) Conservation

The conservation of the site and buildings will be carried out in keeping with the principles contained in the Burra Charter, and will involve '...all the processes of looking after a place so as to retain its cultural significance', including maintenance, preservation, restoration, reconstruction and adaptation.

4.3.2 Independent Living Accommodation – Precincts 2, 3 and 7

Precincts 2, 3 and 7 are to be been designed in accordance with the development objectives to provide a range of housing types.

This area does not have any significant constraints to development apart from matters which must normally be considered such as the provision of an appropriate bushfire APZ, riparian zones and some minor heritage issues.

The development scenario within this zone has been guided by the following planning objectives:

- provision of a range of dwelling types to suit a variety of households.

-
- to provide landscaping which clearly delineates the private domain of individual living units and the public domain of the common areas.
 - preservation of views towards the hospital building.
 - provision of views of the Nepean River and other district views and the waterways and natural areas on the site.
 - ensuring easy access to the community precincts and other common areas on the site.
 - creation of a hierarchical roads system of main distributor and feed roads.
 - create a pedestrian safe environment.

Guidelines

(a) Character

The built environment is to be an integration of both public and private spaces. A Hierarchy of access and privacy will be considered in site analysis. All public access will be heavily landscaped to provide pedestrian shade.

(b) Building Design

Development in the independent living precincts will have regard to the provisions of Part 3 of the State Environmental Planning Policy (Seniors Living) 2004 – Design requirements.

Building heights will vary from 1-3 storeys depending on the topography of the land, access to views, proximity to heritage items, visibility from public domain and the overall densities envisaged.

Setbacks will respond to streetscape issues, buildings heights, heritage buildings, privacy and provision of open space.

All buildings will be designed having regard to the principles of Ecologically Sustainable Development.

Building materials, colour and detail will have regard to the rural character of the area and any nearby heritage buildings.

(c) Landscaping

Street and open space landscaping is to compliment the surrounding natural vegetation enhancing the rural character of the site. Opportunities are to be provided within private open space areas to allow residents to create their own garden beds.

(d) *Conservation*

Any landscaped areas adjacent to native vegetation or rehabilitated riparian zones are to be dominated by locally occurring native plants to provide a buffer against weed invasion and pedestrian damage.

4.3.3 Community Facilities – Precincts 4 and 8

The provision of community facilities is considered an important component of the development objectives of the Carrington site. The provision of these facilities promotes a sense of community and encourages social interaction between residents.

The precinct will accommodate buildings and facilities which provide a community focal point including limited shopping and services such as internet café, pharmacy, newsagent and hairdresser; recreation and leisure facilities such as heated pool, bowling greens, BBQ facilities, children's playground and club facilities.

Precinct Guidelines

(a) *Character*

The built environment will create a vibrant commercial and retail focus for the community. In addition to shops and offices, open sheltered external gathering spaces will be provided to encourage social interaction.

The areas are to be functionally easy to access and be visually contemporary, inviting and secure for all access.

(b) *Building design, elements, form and visual constraints*

Development within this Precinct will reflect its community and commercial focus with high quality buildings and hardy landscaping. Building materials, colour and detail will have regard to the rural character of the area and any nearby heritage buildings.

(c) *Landscaping*

Landscaping will include "signature floristic species" typical of the heritage areas and shows native species. In addition planting of Ironbark canopy trees will be encouraged within open space areas.

(d) *Conservation*

This Precinct will contain hardy landscapes creating areas for group gatherings, café settings and public play areas for visitors. Plant species

will vary between native and exotic canopy, shrub, and ground layer species that have proven toughness for a commercial facility. Paving, planted retainers and hard landscaping will be designed to provide public access and nesting areas.

4.3.4 Active Recreation – Precincts 5 and 9

Active recreation is considered a highly important component of many peoples lifestyle. The provision of areas for active recreation within the Master Plan area provides residents with the convenience needed for ongoing motivation to maintain a healthy lifestyle. It provides means of establishing social interaction.

Objectives

These are parts of the site that are primarily open space areas used for recreational purposes. Recreation facilities may include BBQ areas, tennis courts and a system of walkways/cycle ways which meander throughout the development including the conservation precincts. These precincts may also include fire fighting facilities.

Guidelines

(a) Character

The character of the active recreation precinct reflects its functions as an open space area to maintain a rural setting, providing asset protection and act as an ecological buffer to sensitive vegetation remnants and water bodies. This area provides a significant recreational resource to the residual grading into natural bushland setting and visually dominating aquatic environment of the lake

(b) Building Design

Development within this precinct will include ancillary recreational facilities. All hard structures are to be kept to a minimum and where necessary of small scale. Landscaping will be compensated with the recreational activities and purpose.

(c) Visual Impact

Visual impact will be minimal due to the lack of development proposed within this development type. Retained native vegetation and landscaped beds will enhance the character of these landscapes whilst providing usable open space for recreational activities.

(d) *Landscaping*

Landscaping is to be kept to a minimum to allow efficient use of the open space areas. Species selection should consist of native species able to withstand potential damage from various recreational activities.

(e) *Conservation*

The recreational precincts may also form part of the asset protection zones that provide a buffer to the conservation precincts. Any landscaping and activities will need to minimise degradation of the conservation boundaries.

4.3.5 Bushland Conservation – Precincts 6 and 10

The conservation of native vegetation is becoming the forefront in development design and site planning. The community is becoming more environmentally aware and has now begun to recognise the need for retention and protection of these critical areas. Residents of the Master Plan area will also appreciate the opportunity to interact with native flora and fauna within their own backyards.

Objectives

These Precincts comprise the majority of the existing Cumberland Plain Woodland in the northern and southern parts of the site as well as significant areas set aside for restoration. The conservation management within this zone has been guided by the following planning principles:

- To conserve and protect representative samples of vegetation and habitats of the site in sustainable and secure conservation areas,
- To maintain habitat connectivity with surrounding vegetation remnants and,
- To manage bushfire risks adjacent to residential precincts.

Guidelines

(a) *Character*

The character of the precinct is a very natural bushland setting with minimal disturbance and retention of existing vegetation. Its character is based on the main vegetation communities that depend on high ground water table levels, occasional flooding and / or good drainage.

(b) Building Design

No construction works are proposed except low impact fire and walking trails for maintenance and pedestrian access and egress.

(c) Visual Impact

This area maintains a natural backdrop to the northern portions of the development area protecting the most sensitive habitat areas. It also shields the development from adjacent residential development.

(d) Landscaping

Bush Regeneration and enrichment planting activities only. It is proposed that various trees and palms removed from the development area will be translocated to the regeneration areas to minimise the loss of these plants.

(e) Conservation

Carrington (Northern) Conservation Precinct (P06)

The management of the Carrington (Northern) Conservation Precinct will need to accommodate the requirements of any Recovery Plans for Cumberland Plain Woodland. Threats to this zone include weed invasion, pedestrian damage, increased burn frequency and significant changes in the water table level.

The management of the remnant bushland will involve a range of vegetation maintenance and hazard reduction activities. These include:-

- Noxious and environmental weed control using bush regeneration principles and techniques.
- Maintenance of fire trails including control of weeds growing along the trail, repairing damaged vegetation and repairing any damage or erosion to the trail.
- Weed control runs prior to commencement of hazard reduction burns.
- Hazard reduction burns.
- Enrichment planting within damaged vegetation remnants.
- Monitoring and auditing of the bushland management works.

The Smalls Road (Southern) Conservation Precinct (P10)

Management within the Smalls Road (Southern) Conservation Precinct is very similar to the Carrington (Northern) Conservation Precinct. Threats to this zone include weed invasion, pedestrian damage, increased burn frequency and significant changes in the water table level. However the existing vegetation is in very good condition requiring little additional management intervention. The main management requirements focus on hazard reduction with the conservation zone and the maintenance of fire trails.

SECTION 5.0 – CONSIDERATIONS FOR VALIDATION OF THE DEVELOPMENT



The Conservation and Land Use Management Plan has reviewed the proposed land use at Carrington and made recommendations in respect of matters that require consideration prior to any decision that is to be made by Camden Council with respect to a development application.

Any development application submitted will include an Environmental Validation Statement which will allow Camden Council the ability to directly compare the adequacy of any development application with the requirements of the Conservation and Land Use Management Plan. The following sections identify validation considerations against which development applications are assessed. For convenience the considerations have been grouped into:

1. Environmental Considerations
2. Heritage Considerations
3. Bushfire Considerations

5.1 Environmental Considerations

- Hydro-geological functioning of the landscape.
- Protection of ecological values.
- Ecological functioning of Mixed Species Woodland (EEC), Grey Box Woodland (EEC), Riparian Vegetation, Grassland with Scattered Trees, Parkland and Aquatic Herbfield Vegetation Communities.
- Ecological integrity of buffer zones.
- Protection and maintenance of the sites heritage significance.
- Protection of habitat for Grey-headed Flying-fox (*Pteropus poliocephalus*), Large-footed Myotis (*Myotis adversus*), Cumberland Plain Land Snail (*Meridolum corneovirens*) and *Pimelea spicata*.
- Protection of habitat links and within lot refugia.
- Effective control of pest species.
- Visual absorption capacity and enrichment of sites visual significance.

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- Integration of urban infrastructure within local social, ecological and economic context.
 - Environmental impacts of urban infrastructure.
 - Environmental impacts of cut and fill operations.
 - Integrity of odour buffer zones adjacent to ecologically sensitive habitats.
 - Performance of stormwater management systems.

5.2 Heritage Considerations

- Protection and maintenance regimes for heritage buildings including Carrington Convalescent Hospital, Masonic Cottage Hospital, The Former Morgue, Grasmere Villa and River Cottage.
- Short, medium and long views to and from heritage buildings.
- Maintenance of heritage curtilages to conserve the “character” and setting of the buildings.
- Protection and maintenance of Aboriginal sites.

5.3 Bushfire Considerations

- Implementation of impact reduction measures
- Dwelling Construction Standards.
- Settlement design and form.
- Managing bushfire hazard.
- Providing fire suppression measures.
- Development of a bushfire contingency plan.
- Providing adequate access, egress and evacuation capability.
- Monitoring of fire protection measures.
- Protection from neighbouring land use.
- Managing hazard without compromising ecological and scenic values.
- Fuel management responsibility.
- Conservation of biodiversity values subject to hazard reduction burns.
- Protection of cultural heritage resources.
- Developing and maintaining community awareness.
- Maintaining liaison with the NSW rural fire service.
- Asset protection for Special Protection facilities.

SECTION 6 - CONCLUSIONS AND RECOMMENDATIONS



In summary the Conservation and Land Use Management Plan has identified the following ecological, heritage and bushfire management commitments. The integrated management approach of the Masterplan and CLUMP provide a framework for achieving these commitment.

The Masterplan, CLUMP and supporting management plans have identified the following ecological, heritage and bushfire commitments to be implemented as part of the site's conservation and landuse strategy.

Ecological Conservation Commitments

- Provide adequate protection and restoration of remnant Cumberland Plain Woodland habitat inclusive of weed control, fencing, planting and the provision of walking trails.
- Provide adequate protection of threatened species habitat including habitat for the Cumberland Plain Land Snail (*Meridolum corneovirens*), Grey-headed Flying-fox (*Pteropus poliocephalus*) Large-footed Myotis (*Myotis adversus*) and *Pimelea spicata*.
- Habitat connectivity by the provision of dedicated wildlife corridors, riparian corridors and retention of refugia.
- Commitment to an integrated plan that balances ecological, cultural and heritage values with site sensitive development.
- Application of Ecologically Sustainable Development (ESD) principles

Heritage Conservation Commitments

- Establish ecological/fire buffer zones to protect significant ecological and Aboriginal cultural features.
- Protect and re-use the existing heritage buildings, gardens and landscape.
- Establish a core historic precinct containing key heritage items.
- Ensure the former Carrington Convalescent Hospital continues to be the visual focus of development within the historic precinct.
- Retain significant internal views within the site.

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- Protect and restore significant bushland and other natural features including the riparian landscapes and the landscape corridor formed by the Nepean River.
 - Ensure new development is sympathetic to the scale and character of existing buildings on the site.
 - Following initial discussions, liaison with TLALC and CBNTC should be maintained regarding the management of Aboriginal cultural heritage sites within the site.
 - The Tharawal Local Aboriginal Land Council (TLALC) and the Cubbitch Barta Native Title Claimant Aboriginal Organisation (CBNTC) be invited to participate in any archaeological investigations, including sub-surface testing and/or monitoring (if required).

Bushfire Protection Commitments

- Ensure that bushfire protection measures do not extend into the planned conservation precincts.
- Stipulate a burning and hazard reduction program that minimizes impacts on native flora and fauna.
- The asset protection zones established around development areas may form all or part of the buffer zone between the development areas and conservation areas to manage the edge effects of urban development on remnant vegetation and their habitats.
- Provide adequate access for fire fighting vehicles through the use of access gates, perimeter roads and reserves with multiple locations for hydrants and sources of water supply.
- Identify opportunities to reduce bushfire risks through the establishment of appropriate asset protection zones, the design of buildings and minimise the extent of vegetation clearance required.

Recommendations

In order to achieve the above commitments *Conacher Travers* recommends the following actions.

1. Preparation and submission of a Cumberland Plain Snail relocation plan.
2. Identification of a Habitat Restoration Assessment Method to gauge the achievement of performance targets for the restoration of Cumberland Plain Woodland and threatened species habitat. The assessment method is to include vegetation condition assessment, abundance and density monitoring for native and exotic species.
3. Preparation of a Tree Management Plan for each successive stage of development with the aim of protecting habitat and forage trees or providing replacement trees in appropriate locations.

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4. Preparation of a Landscape Plan identifying landscaping elements and the linkages between residential, recreation and conservation precincts.

Subject to the complexity of issues for each Development Application, An Environmental Validation Report is to be submitted addressing the consideration of the CLUMP and the achievement of the above ecological, heritage and bushfire commitments.

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FIGURES

