

# BASIS FOR MANAGEMENT

## 1.1 PURPOSE OF THE PLAN

This 'Natural Areas' Plan of Management specifies the manner in which the riparian open space areas in the Camden Local Government Area (LGA) will be used and managed, and the objectives for that use and management. The Plan may also be used to determine priorities for the use of resources and funds, and to guide the carrying out of works.

Even though the Plan applies only to areas under Council's care, control and management, the principles within the Plan are applicable to private landowners, and may be used as a guide to the management of privately held riparian lands.

**Riparian land** is any land that adjoins, directly influences, or is influenced by a body of water. This includes land immediately adjacent to small creeks and rivers, riverbanks, intermittent streams or gullies, and areas surrounding lakes and wetlands on river floodplains that interact with the river during floods. The width of riparian land is largely determined by management objectives, and may need to be defined in terms of distances from water bodies or by mapping.

## 1.2 CORE OBJECTIVES OF THE PLAN

This Plan has been prepared in accordance with the *Local Government Act 1993*. It is stated under the Act (s36(3)) that a plan of management for community land must identify:

- a) the category of the land;
- b) the objectives and performance targets of the plan with respect to the land;
- c) the means by which the council proposes to achieve the plan's objectives and performance targets, and
- d) the manner in which the council proposes to assess its performance with respect to the plans objectives and performance targets.

Under the *Local Government Act 1993*, for the purposes of use and management, community land is categorised into one or more categories and core objectives for the management of such lands are outlined. Community land is categorised as one or more of the following:

- natural area;
- sportsground;
- park;
- an area of cultural significance, and
- general community use.

The land covered by this Plan falls under the category of 'natural area'.

Core objectives for management of community land categorised as a natural area are:

- f) to conserve biodiversity and maintain ecosystem function;
- g) to maintain the land in its natural state and setting;
- h) to provide for the restoration or regeneration of the land;

- i) to provide for community use of and access to the land in such a way as will minimise and mitigate any disturbance caused by human intrusion, and
- j) to assist in and facilitate the implementation of any provisions restricting the use and management of the land that are set out in a recovery plan or threat abatement plan prepared under the *Threatened Species Conservation Act 1995* or the *Fisheries Management Act 1994*.

Under the provisions of the *Local Government Act 1993*, community land categorised as a 'natural area' must further be categorised into one or more specified subcategories (s36(5)) as follows:

- bushland;
- wetland;
- escarpment;
- watercourse;
- foreshore, and
- other prescribed category.

For this Plan, two sub-categories are addressed, being 'watercourse' and 'wetland'.

Core objectives for management of community land categorised as wetland are:

- a) to protect the biodiversity and ecological values of wetlands, with particular reference to their hydrological environment, flora, fauna and habitat values;
- b) to restore and regenerate degraded wetlands, and
- c) to facilitate community education in relation to wetlands, and the community use of wetlands without compromising the ecological values of the wetlands.

Core objectives for management of community land categorised as a watercourse are:

- a) to protect the biodiversity and ecological values of the instream environment;
- b) to protect the riparian environment;
- c) to restore degraded watercourses, and
- d) to promote community education, access and use of the watercourse, without compromising the other core objectives of this category.

### 1.3 STRUCTURE OF THE PLAN

#### 1.3.1 The 'Overarching' Camden Riparian Areas Plan

The structure of this Natural Areas Plan of Management follows the provisions set out in the *Local Government Act 1993*, as described above. The riparian zone has been divided into two major sections being 'wetlands' and 'watercourses'.

For the purposes of this plan a distinction is made between remnant natural ecosystems and recreated ecosystems which is outlined below:

- a 'remnant' area being one that is an essentially intact (although often severely degraded) ecological community, which has a primary conservation focus, and
- a 'constructed' area being one that is essentially a re-created natural environment closely associated with development (e.g. immediately adjacent to residential or industrial development), which has both a conservation and recreational focus.

**Figure 1. Riparian Planning Framework**

**The Camden Riparian Areas Plan of Management** establishes the broad management framework within the context of the Camden LGA as a whole.

### **1.3.2 Specific Area Plans of Management**

**The Specific Area Plans of Management** establish the site specific planning and operational management framework for individual riparian areas within the LGA, and comprise an extension of the **Camden Riparian Areas Plan of Management**.

An aim of the Camden Riparian Areas Plan is to address issues broadly applicable across all riparian areas (e.g. the undertaking of bush regeneration to all remnant riparian areas). Notwithstanding the nature of each of the many different sites within the LGA, many of the proposed actions from this Plan will be applicable to each specific area. Each area covered by this Plan will also require a Specific Area Plan of Management. Each Specific Area Plan of Management will therefore incorporate a broad range of issues as described in this Plan, plus those site specific issues not covered by this Plan.

For many of the areas covered by this Plan, more than one category will be needed when Specific Area Plans of Management are prepared. For example, the Lake Annan Specific Area Plan of Management categorises the Lake itself, the island and adjoining shoreline areas as a 'natural area – wetland', with the remaining areas of the site being categorised as a 'park'. Where this situation does occur, the boundaries between the various categories will need to be mapped within the Specific Area Plan of Management.

### **1.3.3 Rationale of Plan Structure**

It is recognised that many of the constructed ecosystems in Camden, in particular constructed wetlands, do not meet the strict definition of a 'natural area' and have primarily both a water quality and recreation/amenity function, e.g. Sedgewick Reserve, Lake Annan and Harrington Park Lake. However, these all form part of the riparian areas network and in order to achieve Camden Council's visions for

biodiversity conservation and water quality protection, all riparian areas comprise important links. Additionally, with any future development in the Camden LGA, the natural values of riparian areas need to be adequately protected so that they will meet the objectives of this Plan.

#### 1.4 LAND TO WHICH THE PLAN APPLIES (SCOPE)

The framework within which land is covered by this Plan is defined by the geomorphological feature of the LGA's drainage system, and has focussed on the developed /developing southern half of Camden LGA. Broadly, this comprises the area south of Cobbitty Road and Turner Road (refer Map 3). However, **this Plan applies across the whole of the Camden Local Government Area.**

The Plan applies to those areas of land under Council care and control, and categorised as 'natural area' and sub-categorised as a 'wetland' or 'watercourse'. This land is identified in Schedule 1 (Appendix 2) and shown in Map 3.

#### 1.5 MANAGEMENT AUTHORITY, TENURE & OWNERSHIP

For the purposes of this plan, the management authority is Camden Council. Details of tenure, known restrictions on the use of the land, ownership and occupation are provided in Schedule 1 (Appendix 2).

#### 1.6 PLANNING FRAMEWORK

There are a number of plans, policies and legislative documents at local, regional, state, national and international level that relate to the management and protection of water bodies and riparian lands. Such documents relevant to riparian land conservation and management in Camden are summarised in Appendix 4.

Two documents primarily guiding the objectives and strategies set out in this plan are:

- Camden 2025 Strategic Plan, and
- Sydney Regional Environmental Plan No. 20 – The Hawkesbury Nepean River.

##### 1.6.1 Camden 2025 Strategic Plan

The Camden 2025 Strategic Plan, provides a vision for how Council and the community wants Camden to be by the year 2025 and a framework for Council's management documents to achieve this vision. The strategy addresses five major areas, being:

- managing urban growth;
- accessibility;
- environmental systems;
- economic and community development, and
- governance.

With regard to the area of environmental systems, the outcome will be that:

*The riparian areas of the Camden LGA comprise an ecologically diverse, sustainable network of green corridors that stretch unbroken from the Nepean River to the catchment headwaters, and successfully integrate with the needs and desires of those who live and work in the surrounding urban and rural environment.*

### **Environmental Systems Objectives**

The envisioned outcome is to see that Camden's "unique natural systems have been protected and enhanced and are enjoyed and valued by the community".

It is stated that "streambank rehabilitation is critical" in Camden and that "opportunities for the retention and development of vegetation and wildlife corridors should be embraced".

Relevant objectives for the management of environmental systems in Camden are as follows:

- to protect and restore the water quality of the rivers and creeks (and groundwater) to ensure sustainable habitats and diverse recreational opportunities;
- to preserve the areas biological diversity, and
- to preserve and enhance the visual, cultural and scenic landscape qualities.

Water quality strategies are as follows:

- to implement a holistic strategic plan for the rivers and creeks;
- encourage innovative solutions for stormwater reuse;
- implement a sustainable stormwater management plan;
- protect and enhance the riparian zone;
- minimise the environmental impacts of salinity, and
- undertake a water quality testing program.

Biological diversity strategies also relate to riparian management and are to:

- develop and implement a natural corridors plan;
- implement a policy for the conservation of known threatened ecological communities, and
- support local Streamwatch programs.

Landscape strategies are an important consideration in riparian management and seek to:

- conserve important cultural and scenic landscapes that characterise the Camden area, and
- ensure that development controls are consistent with landscape preservation objectives.

### **1.6.2 Sydney Regional Environment Plan No. 20 – The Hawkesbury-Nepean River (SREP 20)**

This plan contains policies and strategies to protect the environment of the Hawkesbury-Nepean River System. Wetlands, watercourse and riparian lands are identified as environmentally sensitive areas in the Hawkesbury-Nepean catchment.

This plan applies to the whole of Camden and is an important planning tool for the protection and management of riparian areas within the LGA. Major provisions of the plan are outlined below.

#### **Environmentally sensitive areas**

The policy states that “the environmental quality of environmentally sensitive areas must be protected and enhanced through careful control of future land use changes and through management and remediation of existing uses”. Management strategies relating to these areas include:

- the minimisation of adverse impacts on water quality, aquatic habitats, riverine vegetation and bank stability, and
- to protect wetlands from future development and impacts of land use within the catchments.

#### **Water quality**

The policy for water quality management is to achieve goals for use of the river for primary contact recreation and aquatic ecosystem protection. The achievement of these goals must not be compromised by future development and current water quality must be maintained or improved in order to achieve these goals. Strategies are to:

- ensure no over-development of a site;
- that development occur in accordance with the land capacity of a site and without causing land degradation;
- minimisation of diffuse and point source pollution, and
- the need for a buffer of native vegetation along the banks of the river and tributaries, to protect the habitat of native aquatic plants.

#### **Water quantity**

The policy states that “aquatic ecosystems must not be adversely affected by development which changes the flow characteristics of surface water or groundwater in the catchment”. Strategies for the management of water quantity would ensure that:

- stormwater run-off amounts and rates of flow do not significantly increase as a result of development;
- that on-site stormwater retention, infiltration and reuse be encouraged, and
- impacts of development on the level and quality of the water table should also be considered.

#### **1.6.3 Other relevant Documents**

Two other planning documents of particular relevance to this Plan are the Statement of Joint Intent for the Hawkesbury Nepean River System (EPA, *et. al*, 2001), and the Hawkesbury Lower Nepean Catchment Blueprint (DLWC and Local Government Advisory Group, 2002), which are briefly summarised in Appendix 4.

**Flora and fauna**

Strategies for the management of flora and fauna in order to conserve and enhance the species and genetic diversity within the catchment include:

- conservation and (where appropriate) enhancement of flora and fauna communities, in particular threatened species, populations and ecological communities, rare flora and fauna, aquatic habitats, wetland and riverine flora, habitat for migratory species of fauna, and existing or potential fauna corridors;
- minimisation of adverse environmental impacts by use of best management practices and the need to provide and manage buffers and control access to significant flora and fauna habitat areas, and
- maintaining corridors for fish passage and the protection of spawning grounds and gravel beds.

**Wetlands**

Strategies for the management of wetlands include:

- maintaining the ability of wetlands to function in water quality control, to stabilise soils, reduce bank erosion and reduce the impact of downstream flooding through retention of floodwaters;
- Maintaining a variety of wetland flora and fauna species;
- appropriate management of wetlands which includes monitoring and weed control;
- protection of wetlands of local significance;
- providing recreation, education and scientific research opportunities without compromising conservation objectives, and
- protecting or actively managing constructed wetlands with significant conservation values or which make significant contributions to water quality improvements.

**Riverine scenic quality**

Strategies to protect the scenic quality of the riverine corridor include:

- maintaining areas of extensive, prominent or significant vegetation to protect the river character;
- the need for buffers between new development and the riverine corridor and new planting of locally indigenous trees and shrubs, and
- the development of controls for proposed development to protect scenic areas.

**Residential development**

All potential adverse environmental impacts (particularly on the water cycle, flora and fauna) of urban and rural residential development must be assessed and controlled.

The *Action Plan for the Hawkesbury-Nepean Environmental Planning Strategy* (DUAP, 1997) contains actions necessary to implement the policies and strategies set out in SREP 20 to improve existing environmental conditions within the Hawkesbury-Nepean River Catchment. It is divided into two sections, Part A contains actions that relate directly to the use of the SREP 20 as a statutory instrument and Part B contains all actions relating to catchment management. Actions include those to protect environmentally sensitive areas such as riparian land and wetlands.



## 1.7 BACKGROUND INFORMATION

A review of relevant literature, reports and plans, was carried out as part of this study process. Information pertinent to the protection and enhancement of riparian lands in Camden has been summarised from these documents and these summaries are contained in Appendix 4.

### 1.7.1 Aboriginal History

A number of Aboriginal tribes lived in the area prior to European settlement (Camden Council, 1998). Campsites were concentrated along the river and its tributary creeks, which provided an abundance and diversity of food, both plants and animals. Wetlands on the river flats were also an abundant food source (Benson & Howell, 1990). Large slabs of bark cut from River Oaks (*Casuarina cunninghamiana*) along the banks of the Nepean River were used to make canoes and one remaining tree used for this purpose survives today near Thurns Weir (Camden Council, 1998).

### 1.7.2 European History

The Camden area has been subject to agricultural activity since the early stages of European settlement. In the 1790's cattle that had escaped from Sydney were discovered running wild here and Camden's rural development was spurred from this. Large land grants were made in the early 1800's to free settlers to encourage agricultural development in the area (Camden Council, 1998). Large areas of land were cleared for grazing. As a result, much of the River-flat Forests had already been cleared by 1805 (Benson & Howell, 1990).

Early settlers were attracted by the fertile floodplain soils and gentle topography of the area. A variety of different agricultural activities were established in the area including, wheat cropping, wine making, orchards and grazing of beef and dairy cattle.

Villages were established on elevated areas of land generally above the floodplain and this reflects Camden's long history of flooding associated with the Nepean River. The presence of some naturalised exotic species has resulted from early horticultural activities whereby many exotic plants were introduced to gardens and paddocks in the area. Exotic species such as the African Olive (*Olea europaea ssp. africana*), Honey Locust (*Gleditsia triacanthos*), Nettleberry (*Celtis occidentalis*) and Broad-leafed Privet (*Ligustrum lucidum*), were introduced as hedge plants and have subsequently become weeds along the river and tributary creeks (Benson & Howell, 1990).

Camden is now undergoing rapid and expansive urban development and landuse in the southern half of the LGA is rapidly changing from predominantly rural to urban residential.