



# Hawkesbury City Council

## Attachment 1 to item 133

Ham Common  
Draft Plan of Management  
and Master Plan

date of meeting: 14 July 2009  
location: council chambers  
time: 5:00 p.m.



# Ham Common

CLARENDON



## Draft Plan of Management

18 February 2009

prepared by

**LandArc Pty Limited**

Landscape, Environmental and Heritage Consultants

**CONTROLLED DOCUMENT**

Draft Issue B: 18 February 2009

This Plan of Management for  
**Ham Common, Clarendon**  
was prepared by

**LANDARC**



**Landscape, Environmental and Heritage Consultants**  
Suite 9, 55 Avalon Parade, Avalon NSW 2107  
T: 02 9973 1330 F: 02 9973 1791 E: [mail@landarc.com.au](mailto:mail@landarc.com.au)

## CONTENTS

	Page
<b>1.0 LAND DESCRIPTION AND PLANNING</b>	<b>6</b>
1.1 INTRODUCTION	
1.1.1 What is a plan of management?	6
1.1.2 Aims and objectives	6
1.1.3 List of abbreviations used in this study	8
1.2 STUDY AREA	8
1.2.1 Location and context	8
1.2.2 Background	10
1.3 LAND DESCRIPTION	10
1.3.1 Land tenure	10
1.3.2 Existing facilities and improvements	12
1.4 COMMUNITY LAND MANAGEMENT	15
1.5 COMMUNITY LAND CATEGORISATION	16
1.6 LEASES, LICENCES OR OTHER ESTATE	19
1.6.1 Prescribed purpose	19
1.6.2 Express authorisation	19
1.6.3 General terms and conditions	19
1.6.4 Natural areas	19
1.6.5 Current leases	19
1.7 OTHER RELEVANT LEGISLATION AND POLICIES	19
1.7.1 Overview	19
<b>2.0 COMMUNITY CONSULTATION</b>	<b>22</b>
2.1 INTRODUCTION	22
2.1.1 Preparing the draft plan of management	22
2.1.2 Public exhibition and review	22
2.2 COMMUNITY WORKSHOP	23
2.2.1 Proceedings	23
2.2.2 Further submissions	24
2.3 KEY ISSUES	24
2.3.1 Summary	24
<b>3.0 BASIS FOR MANAGEMENT</b>	<b>30</b>
3.1 OBJECTIVES	30
3.2 KEY VALUES AND SIGNIFICANCE	30
3.3 NATURAL AND CULTURAL SETTING	34
3.3.1 Cultural overlays	34
3.3.2 Establishing a 'sense of place'	34
3.3.3 Natural heritage values	34

	Page
3.4 CULTURAL HERITAGE	35
3.4.1 Indigenous cultural values	35
3.4.2 Local historic values	35
3.5 ENVIRONMENT AND BIODIVERSITY	37
3.5.1 Climate change	37
3.5.2 Geology and soil landscapes	37
3.5.3 Remnant native habitat	38
3.5.4 Future management of remnant population	41
3.5.5 Weed management	43
3.6 RECREATION, ACCESS AND SOCIAL VALUES	45
3.6.1 Overview	45
3.6.2 Visitors Centre, café & bicentennial park	45
3.6.3 Tennis Complex	45
3.6.4 Public access	46
3.6.5 Passive recreational facilities	49
3.6.6 Monuments	50
3.6.7 Botanists Way signage panels	50
3.6.8 Proposed George Caley Arboretum	50
3.6.9 Regional Children's Playground	50
3.6.10 Regulatory, advisory & directional signage	50
3.6.11 Proposed exercise stations	51
3.6.12 Proposed lighting	51
3.6.13 Proposed upgrading of skate park facility	51
3.6.14 Events management	53
3.6.15 Weddings and bookings	53
3.6.16 Companion animal issues	53
3.7 MANAGING RECREATION VALUES	54
3.8 VISION STATEMENT	55
 <b>4.0 MANAGEMENT STRATEGIES</b>	 <b>56</b>
4.1 OBJECTIVES	56
4.2 COMMUNITY LAND – CORE OBJECTIVES	56
4.3 ACTION PLAN	56
4.4 CAPITAL WORKS PROGRAM	58
4.5 LANDSCAPE MASTERPLAN	58
 BIBLIOGRAPHY	 69
 <b>LIST OF FIGURES:</b>	
1. STUDY AREA	9
2. LAND TENURE	11
3. COMMUNITY LAND CATEGORISATION	18
4. LANDSCAPE MASTERPLAN	68

**LIST OF TABLES:**

1.	LAND DESCRIPTION – EXISTING FACILITIES AND IMPROVEMENTS	13
2.	VALUES AND LEVEL OF SIGNIFICANCE	31
3.	NOXIOUS WEED SPECIES	44
4.	SCHEDULE OF CORE OBJECTIVES	59
5.	ACTION PLAN (SHEETS 1-7)	60
6.	CAPITAL WORKS PROGRAM	67

**APPENDICES:**

I.	COMMUNITY CONSULTATION – PRESENTATION MATERIAL AND SUBMISSIONS
II.	SCHEDULE OF EXISTING NATIVE PLANT SPECIES
III.	SCHEDULE OF EXISTING ORNAMENTAL & WEED SPECIES

## 1.0 LAND DESCRIPTION AND PLANNING

### 1.1 INTRODUCTION

#### 1.1.1 WHAT IS A PLAN OF MANAGEMENT?

Ham Common, located on Windsor Road between Richmond and Clarendon, is community land owned by Hawkesbury City Council. A community land plan of management provides the framework for managing community land.

A community land plan of management must be prepared in accordance with the *Local Government Act 1993* and other relevant legislation and policies. This plan of management has been prepared by LandArc Pty Limited for Hawkesbury City Council under the direction of Council's Land Management section. Hawkesbury City Council has identified a number of significant and/or priority parks and reserves which require the preparation of more detailed and specific management strategies. Ham Common is one of these significant areas and this plan of management supersedes the generic plan of management which included this reserve.

#### 1.1.2 AIMS AND OBJECTIVES

This plan of management aims to contribute towards Council achieving its strategic goals, vision and strategic outcomes as identified in the *Hawkesbury City Council Management Plan 2006-2007*. Sustainability is a key principle guiding this process. The plan of management aims to contribute to an ecologically sustainable city and region and add to the quality of life in the Hawkesbury City local government area (LGA).

Ham Common, located in close proximity to the town centres of Windsor and Richmond and along a major connecting road to the Blue Mountains, offers passive and active recreational and educational opportunities for the local community and regional visitors. Ham Common has a range of natural, cultural, social, commemorative and recreational values. It is important that the plan of management identifies these values and establishes how they should be protected, managed and enhanced for the existing community and



for future generations. Accordingly, the plan of management focuses on the longer term objectives of sustainable management and follows a values-based approach rather than being simply issues-driven.

The following steps have guided preparation of this plan of management:

### **1.0 LAND DESCRIPTION AND PLANNING**

- review existing zoning provisions under Hawkesbury City Council's Local Environmental Plan (LEP 1989 as amended);
- identify current uses and condition of the land, and any buildings or other improvements;
- establish community land categories in accordance with the *Local Government Act 1993* and *Local Government (General) Regulation 1999* and identify core objectives for each of these categories; and
- address future permitted uses and development (including intensity and scale), existing and future leases/ licences.

### **2.0 COMMUNITY CONSULTATION**

- identify and assess community and stakeholder issues affecting the community land; and
- determine community goals, values, needs and expectations for the future use and management of the reserve.

### **3.0 BASIS FOR MANAGEMENT**

- define the community land's role within the local area and broader regional context (including regional tourism);
- identify and assess key values associated with the community land including the cultural/ natural setting, cultural heritage, tourism, social and recreational values and remnant biodiversity;
- assess the impact of existing uses and management regimes or future development on identified key values; and
- establish the framework for sustainable management strategies.

### **4.0 MANAGEMENT STRATEGIES**

- specify the purposes for which the land, buildings or improvements, will be permitted to be used;
- specify the purposes for which any further development of the land will be permitted, whether under lease or license or otherwise;
- describe the scale and intensity of such permitted use or development;
- develop appropriate performance targets (management objectives), means of achieving these targets (management actions) and means of assessing Council's performance with respect to objectives;
- assign directions and priorities (spanning the next 5-years); and
- develop a master plan for implementation of the strategic plan.

### 1.1.3 LIST OF ABBREVIATIONS USED IN THIS STUDY

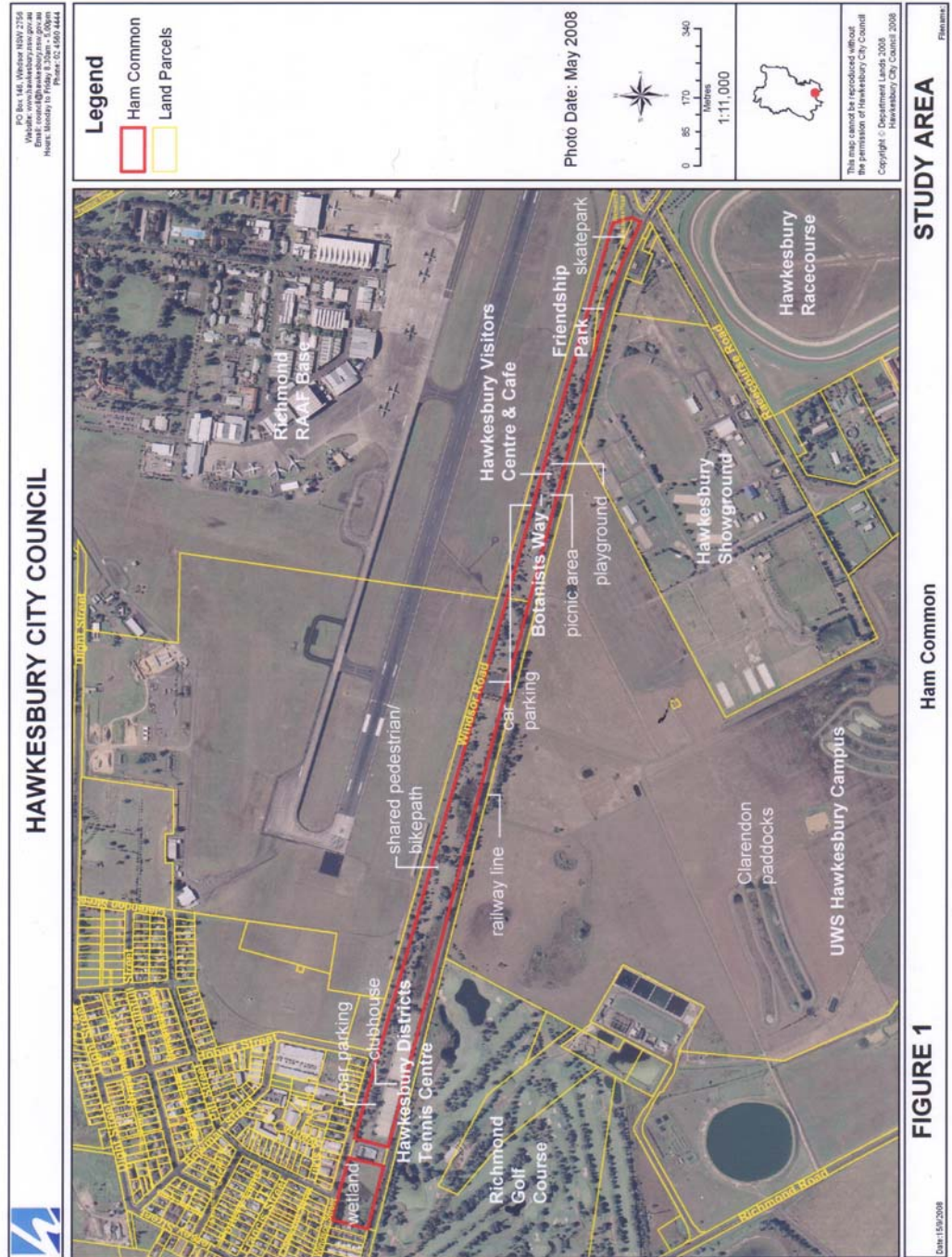
CPEECs	Cumberland Plain Endangered Ecological Communities
CPW	Cumberland Plain Woodland
DECC	NSW Department of Environment & Climate Change
EPBC Act	Environment Protection & Biodiversity Conservation Act 1999
HRCC	Hawkesbury River County Council
HRFC	Hawkesbury Rural Fire Service
LEP	Hawkesbury City Local Environmental Plan 1989
LGA	Local Government Area (Hawkesbury City Council)
NPWS	NSW National Parks & Wildlife Service
NSWRFS	New South Wales Rural Fire Services
RFEF	River-flat Eucalypt Forest
SREP	Sydney Regional Environmental Plan
TSC Act	Threatened Species Conservation Act 1995

## 1.2 STUDY AREA

### 1.2.1 LOCATION AND CONTEXT

This plan of management applies to Ham Common, a narrow, linear parcel of community land which extends along the southern side of Windsor Road from Richmond (opposite Pitt Street intersection) in the west to Racecourse Road intersection near Clarendon Railway Station in the east. Ham Common is approximately 2.5 kilometres in length and 85 metres at its widest point (western end). The Blacktown – Richmond railway line defines the southern boundary of the reserve. The Richmond RAAF base is located directly opposite the reserve. Ham Common is contiguous public open space except for a small parcel of land at the western end (refer to *Figure 1: Study Area*).

The study area is inclusive of areas known as Friendship Park, Bicentenary Park, Hawkesbury Visitors Centre and café, Hawkesbury Districts Tennis Centre, a regional playground, skate park and other public facilities and monuments. A shared pedestrian/ bikeway provides an important recreational link between Richmond and Clarendon. This pathway links all of the reserve's recreational, cultural, commemorative and educational facilities. It winds through an attractive landscape setting of established plantations of mixed planted exotics, native specimen trees and large old growth remnant native trees. Jogging/ fitness, relaxation, bike riding, walking the dog, picnics/ BBQs, family gatherings and watching activity on the adjacent RAAF Base Richmond are all popular passive recreational pursuits in this reserve.



### 1.2.2 BACKGROUND

Ham Common was established by Governor King in 1803. It was part of a larger network of 'commons' for livestock totaling approximately 14,000 hectares (Ha) in Pitt Town, Richmond, Wilberforce, St Albans, Baulkham Hills and Field of Mars. Ham Common originally consisted of almost 2000 hectares of higher ground on the floodplain stretching from the present Castlereagh Road to farms along South Creek.

In 1864 the Blacktown – Richmond railway line separated a large northern part of the Common. In response to growing needs in the district, large portions of the Common were developed for Hawkesbury Racecourse (1868) and Hawkesbury Agricultural College (1892). In 1923 most of the northern portion was set aside for an Air Force base.

The reserve has a rich cultural heritage. Ham Common was the cradle of aviation in Australia. It was the location of many pioneering flights during the early years of the twentieth century. Ham Common (RAAF Base Richmond) was the site selected for the first Air Force base in New South Wales and the second to be established within Australia ([www.airforce.gov.au](http://www.airforce.gov.au)). During the war years and particularly the post-war period the site saw rapid development of the Air Force base. These associations with RAAF Base Richmond and ex-servicemen since WW1 have been recognized in the monuments and memorial planting within the reserve.

## 1.3 LAND DESCRIPTION

### 1.3.1 LAND TENURE

Ham Common is located within the Parishes of Ham Common and St Matthew, County of Cumberland, City of Hawkesbury. Ham Common is classified as community land and owned in fee simple by Hawkesbury City Council. It is comprised of four separate parcels of community land:

- Lot 1 DP 1062683
- Lot 2 DP 1062683
- Lot 3 DP 1062683
- Lot 1 DP 746631

These parcels of land are contiguous except for a small western portion (refer to *Figure 2: Land Tenure*).



### 1.3.2 EXISTING FACILITIES AND IMPROVEMENTS

*Table 1: Land Description – Existing Facilities & Improvements* is divided into four separate columns with the following information provided for each land parcel:

- Lot/ DP number (column 1);
- proposed community land category (column 2);
- description of land parcel, facilities and improvements (column 3);
- condition of facilities and improvements (column 4).

#### **Lot/ DP number**

Lot and DP number provide land tenure information for the land parcel according to Hawkesbury City Council's property records.

#### **Community land category**

The proposed community land category is shown in this column.

#### **Land description, facilities and improvements**

This column provides a brief description of the land parcel, including facilities and improvements, landscape embellishment and the presence of remnant native vegetation and/ or exotic weeds. An indication of land management regimes (eg. mowing and general maintenance) is also provided.

#### **Condition**

This column refers to the general condition of facilities and improvements in accordance with the requirements of the *Local Government Act 1993*. The assessment of condition follows directly from the description of facilities and improvements (ie. same line) and provides a broad indicator of overall condition of these described items as follows:-

- |             |   |
|-------------|---|
| <b>good</b> | described items are in relatively good condition and repair under the current works and maintenance program.  |
| <b>fair</b> | described items are in only fair condition and in need of repair/ improvements or an increased level of maintenance.  |
| <b>poor</b> | described items are in poor condition requiring repair in some instances, improvements or an increased level of maintenance with some items requiring urgent attention. |

The condition assessment refers primarily to built facilities and improvements. For further issues in relation to facilities/ condition, refer to *2.0 Community Consultation*. Refer to *3.0 Basis for Management* for a description of the reserve's environmental condition, cultural heritage and recreational assets and *4.0 Management Strategies* for proposed capital works, maintenance and management with respect to all items.

**TABLE 1: LAND DESCRIPTION  
EXISTING FACILITIES AND IMPROVEMENTS**

Land Description	Community Land Category	Existing Facilities/ Improvements	Condition
Lot 1 DP 1062683	Natural area: wetland	western paddock/ wetland native wetland vegetation/ exotic weeds [dom.]	poor
	Park	grassed drainage channels/ swales culverts/ piped drainage channels compound w. metal shed/ conc. apron [unidentified] w. security chain-wire fencing/ gates and driveway conc. pedestrian pathway [1.2m width] mown grass/ cultivated trees chain-wire perimeter fencing [to railway]	poor good good good fair good
Lot 2 DP 1062683	Sportsground	<b>Hawkesbury Districts Tennis Centre:</b> Tennis clubhouse metal frame/ tiled roof conc. pathways/ ornamental gardens 14 No. all weather synthetic grass tennis courts w. chain-wire perimeter fencing 18 No. metal poles w. twin lighting fixtures [36No.] 5 No. double shelters & 2 No. single shelters/ [all timber frame/ metal roof w. timber picnic tables & seats on conc. base] 25 No. timber bleaches 7 No. metal litter bins/ 2 No. conc. litter bins weldmesh fencing	good good good good varies good fair good
	Park	<b>vehicular access road &amp; parking area:</b> sealed bitumen/ kerbed car parking area w. slow-points/ speed humps [72 No. car spaces] <b>passive open space:</b> picnic table/ seating on conc. pad lawn areas/ cultivated trees drained open grassed swales remnant native trees [incl. old growth specimens] shared 1.8m width conc. pedestrian/ bikeway timber signage/ [George Capper Cycleway] chain-wire perimeter fencing [to railway] <b>National Servicemen [1951-1972] monument:</b> 2 No. metal flagpoles/ conc. pathway & marble monument & plaque <b>car parking area [central/ bus turning area]:</b> asphalt car parking area [approx. 3000m2] metal signage [regulatory]	good fair good fair poor good fair good good good good fair good
Lot 3 DP 1062683	Park	<b>passive open space [western portion]:</b> lawn areas/ cultivated trees chain-wire perimeter fencing [to railway] shared 1.8m width conc. pedestrian/ bikeway mounded landscape feature w. rockwork/ water feature [non-functional] brick paving & ornamental garden 4 No. fibreglass conc. bench seats <b>Bicentennial Park [main picnic area]:</b> 5 No. picnic shelters [metal roof w. timber picnic tables & seats on conc. base] BBQ shelter [metal roof w. 2 No. gas-fuelled hot plates]	good good good poor fair poor good good



Table 1 [continued]

[illegible]



Table 1 [continued]

Land Description	Community Land Category	Existing Facilities/ Improvements	Condition
Lot 3 DP 1062683	Park [cont'd]	conc. culverts/ piped drainage channels 1 No. picnic shelter [metal roof/ frame] w. 3 No. timber slat/ metal frame picnic tables & seating <b>RAAF Base Richmond monument:</b> enclosed circular monument w. low brick wall/ 4 No. sandstone piers/ plane sculpture & plaques conc. patterned paving w. aggregate/ sandstone <b>Friendship Park [monument group]:</b> 3 No. metal flagpoles in aggregate low brick wall/ metal signage & brass plaques conc. pathway w. brick banding [split into two] 2 No. timber slat/ metal frame picnic tables & seating in brick paved area lawn areas/ cultivated trees chain-wire perimeter fencing [to railway] <b>skate park:</b> conc. hardstand w. various structures/ ramps jumps & metal rails conc. culvert/ drainage swale & grassed areas 2 No. timber slat/ metal frame bench seating 2 No. metal poles for banners noticeboard/ shelter structure Memorial Drive & other signage [regulatory] 1 No. metal litter bin/ 1 No. large capacity bin timber [log] vehicular barriers shared 1.8m width conc. pedestrian/ bikeway	good good  good good  good good good  fair good good  fair poor fair good good fair poor good good
Lot 1 DP 746631	Park	<b>passive open space:</b> [portion of Friendship Park] lawn area/ cultivated trees <b>car parking area [adjacent to skate park]:</b> unsealed access road [off Racecourse Road] unsealed car parking area [<10-15 car spaces] metal boom gate/ steel bollards timber bollards/ vehicular barriers chain-wire perimeter fencing [to railway]	good good  poor poor poor poor good

## 1.4 COMMUNITY LAND MANAGEMENT

Community land must be managed in accordance with the *Local Government Act 1993* and other relevant legislation and policies. The ways in which community land can be used and managed are strictly governed in accordance with an adopted plan of management and any law permitting the use of the land for a specified purpose or otherwise regulating its use. The nature and use of community land may not change without an adopted plan of management. Community land must not be sold, exchanged or otherwise

disposed of except in the instance of enabling the land to be added to Crown reserve or a protected area under the *National Parks and Wildlife Act 1974*. The use and management of community land must also be consistent with its designated categories and core objectives.

## 1.5 COMMUNITY LAND CATEGORISATION

In accordance with the *Local Government Act 1993* all community land must be categorised as either a natural area, a sportsground, a park, an area of cultural significance or for general community use, or a combination of these categories. A further requirement is that land categorised as a “natural area” must be given a sub-category of either bushland, wetland, escarpment, watercourse, foreshore or a category prescribed by the regulations. The *Local Government (General) Regulation 2005* provides guidelines for categorisation. This plan of management categorises the community land (ie. Ham Common) into the following (see *Figure 3: Community Land Categorisation*):

- Natural area – wetland;
- Park;
- Sportsground; and
- General community use.

The community land categorisation identified in this plan of management is in accordance with the guidelines of the *Local Government (General) Regulation 2005*. Although generally consistent with the *Draft Hawkesbury Generic Plans of Management 2003* and previous draft mapping, the categories identified in this plan of management supersede and replace any earlier categorisation.

### Natural Area

“Land should be categorised as a natural area under s.36(4) of the Act if the land, whether or not in an undisturbed state, possesses a significant geological feature, geomorphological feature, landform, representative system or other natural feature or attribute that would be sufficient to further categorise the land as bushland, wetland, escarpment, watercourse or foreshore under section 36(5) of the Act”.

*Section 102, Local Government (General) Regulation 2005*

### Natural Area – wetland

“Land that is categorised as a natural area should be further categorised as wetland under s.36(5) of the Act if the land includes marshes, mangroves, backwaters, billabongs, swamps, sedgelands, wet meadows or wet heathlands that form a waterbody that is inundated cyclically, intermittently or permanently with fresh, brackish or salt water, whether slow moving or stationary”.

*Section 108, Local Government (General) Regulation 2005*

The small western parcel of land (separated from the balance of the reserve) retains a highly modified freshwater wetland. This land has been cleared, drained, invaded by weeds and alienated by transportation links (road and railway) and surrounding urban development. The land is subject to future road works.

### **Park**

“Land should be categorised as a park under s.36(4) of the Act if the land is, or is proposed to be, improved by landscaping, gardens or the provision of non-sporting equipment and facilities, for use mainly for passive or active recreational, social, educational and cultural pursuits that do not unduly intrude on the peaceful enjoyment of the land by others”.

*Section 104, Local Government (General) Regulation 2005*

Most of Ham Common Park is categorised as “Park” in accordance with its landscaped character of open lawns, cultivated native and exotic trees and passive recreational uses. Bicentennial Park, Friendship Park, picnic areas and parking facilities, playground, skate park and monuments are included under this categorization.

### **Sportsground**

Land should be categorised as sportsground under s.36(4) of the Act if the land is used or proposed to be used primarily for active recreation involving organised sports or the playing of outdoor games.

*Section 103, Local Government (General) Regulation 2005*

The Hawkesbury Districts Tennis Centre is categorised as sportsground in accordance with existing sporting uses.

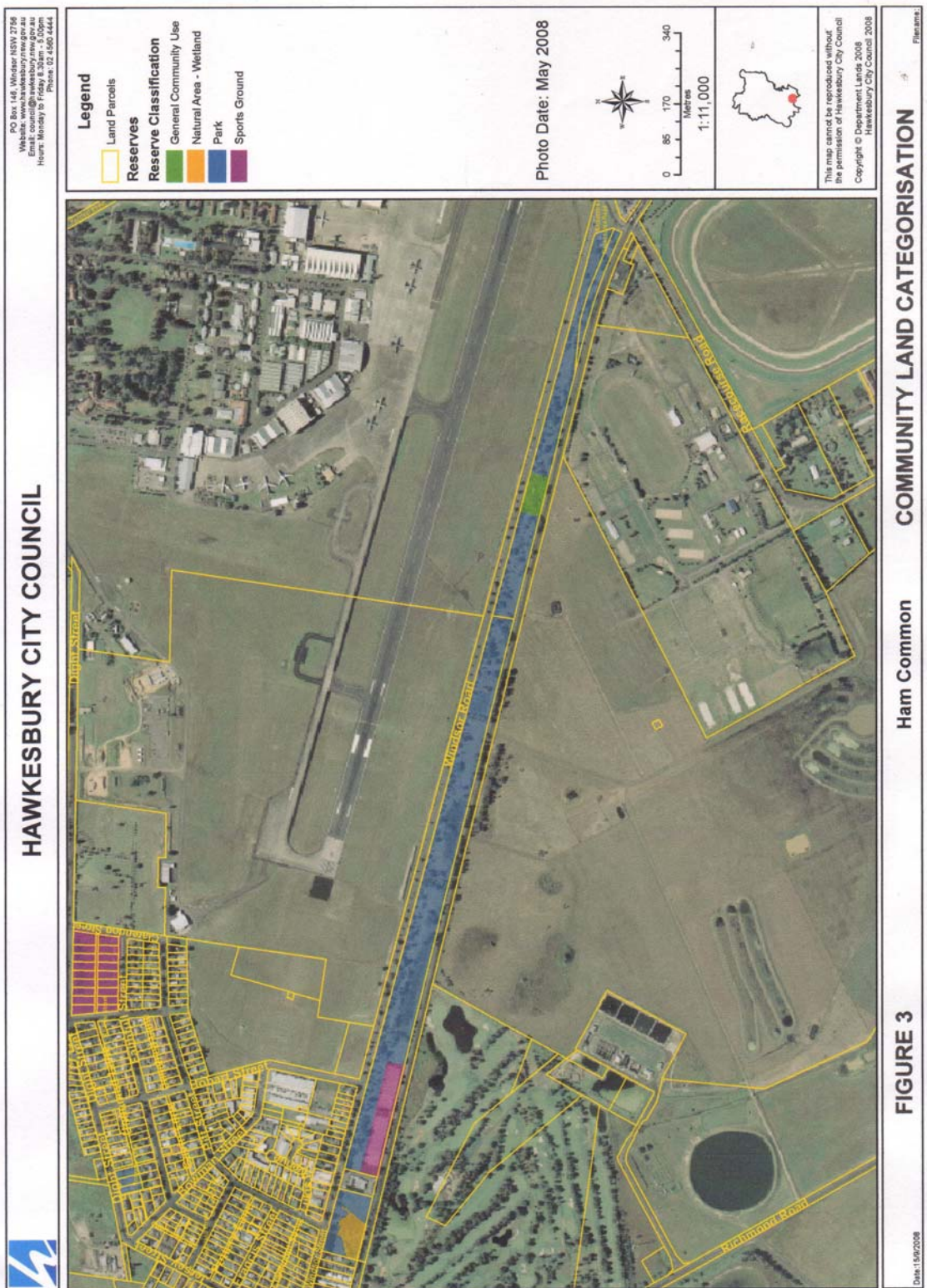
### **General Community Use**

Land should be categorised as general community use under s.36(4) of the Act if the land:

- (a) may be made available for use for any purpose for which community land may be used, whether by the public at large or by specific sections of the public, and
- (b) is not required to be categorised as a natural area under section 36A, 36B or 36C of the Act and does not satisfy the guidelines for categorisation as a natural area, a sportsground, a park or an area of cultural significance.

*Section 106, Local Government (General) Regulation 2005*

The Hawkesbury Visitors Centre, café and surrounding curtilage are categorised as general community use. There is a current proposal to extend and upgrade the Hawkesbury Visitors Centre.



## **1.6 LEASES, LICENCES OR OTHER ESTATE**

### **1.6.1 PRESCRIBED PURPOSE**

A lease, licence or other estate may be granted, in accordance with an express authorisation by this plan of management, providing the lease, licence or other estate is for a purpose prescribed in s.46 of the *Local Government Act 1993*. The purpose must be consistent with core objectives for the category of community land (refer to *4.0 Management Strategies - Table 4: Schedule of Core Objectives*).

### **1.6.2 EXPRESS AUTHORISATION**

For express authorisation of current and future permitted leases, licences or other estate refer to *Table 5: Action Plan -items A6-A8*.

### **1.6.3 GENERAL TERMS AND CONDITIONS**

Council must not grant a lease, licence or other estate for a period (including any period for which the lease could be renewed by the exercise of an option) exceeding 21 years. A lease, licence or other estate may be granted only by tender in accordance with s.46A of the *Local Government Act 1993* and cannot exceed a term of 5 years (including any period for which the lease could be renewed by the exercise of an option), unless it satisfies the requirements as scheduled in s.47, or is otherwise granted to a non-profit organisation (refer to *Leases, licences and other estate in respect of community land – s.46, 46A, 47 and 47A Local Government Act 1993*).

### **1.6.4 NATURAL AREAS**

Furthermore, leases, licences or other estate must not be granted in respect of land categorised as a natural area, unless it is for a purpose prescribed in s.47B of the *Local Government Act 1993*.

### **1.6.5 CURRENT LEASES**

There are currently two leases over this community land as follows:

- Hawkesbury Districts Tennis Centre; and
- Café [retail shop].

## **1.7 OTHER RELEVANT LEGISLATION & POLICIES**

### **1.7.1 OVERVIEW**

In addition to the requirements of the *Local Government Act 1993* this plan of management has been prepared in accordance with the provisions contained

in other relevant legislation and policy guidelines, including but not limited to the following:

- ☐ Native Title Act (Commonwealth) 1993
- ☐ Catchment Management Authorities Act 2003
- ☐ Environment Protection and Biodiversity Conservation Act 1999
- ☐ Threatened Species Conservation Act 1995
- ☐ Fisheries Management Act 1994
- ☐ National Parks and Wildlife Act 1974
- ☐ NSW Heritage Act 1977
- ☐ Noxious Weeds Act 1993
- ☐ Rural Fires Act 1997
- ☐ Environmental Planning and Assessment Act 1979
- ☐ Disability Discrimination Act 1992
- ☐ SEPP 19: Bushland in Urban Areas
- ☐ NSW Flood Policy 1984
  
- ☐ Hawkesbury City Council Management Plan 2006-2007
- ☐ Hawkesbury Local Environmental Plan 1989
- ☐ Section 94 Contributions Plan Review 2001
- ☐ Hawkesbury City Council Charter
- ☐ Hawkesbury Cultural Plan 2006-2011

***Native Title Act (Commonwealth) 1993***

This plan of management acknowledges the significance of the Hawkesbury River Valley as a traditional resource area for the Darug Aboriginal people. The consultative process has emphasised an open, transparent approach. Accordingly, this plan of management encourages broader involvement with traditional Aboriginal custodians in the future management of the reserve.

***Environmental Planning and Assessment Act 1979***

The *Environmental Planning and Assessment Act 1979* forms the basis of statutory planning in New South Wales, including the preparation of Local Environmental Plans (LEPs) which regulate land use and development. Hawkesbury City Council, as the consent authority under the *Local Environmental Plan 1989 (LEP 1989)* and the *Environmental Planning and Assessment Act 1979* controls development and the use of land on parks and reserves in the Hawkesbury City Council local government area.

Ham Common is zoned 6(a) OPEN SPACE (EXISTING RECREATION) under the *Hawkesbury City Council Local Environmental Plan (LEP 1989)*. The small western paddock is zoned (in part) as 9(b) RESERVATIONS (PROPOSED ROAD).

It is desirable that zoning is consistent with this plan of management. A large portion of the western paddock is categorized as Natural area – wetland. Current planning and management anomalies need to be addressed.

***Threatened species legislation***

The separate parcel of land at the western end of Ham Common retains a small, remnant freshwater wetland albeit highly modified and degraded. This area still retains unique ecological values as a freshwater wetland and has state significance listed as an endangered ecological community (Part 3, Schedule 1) of the *Threatened Species Conservation (TSC) Act 1995*.

Ham Common also retains remnant native trees, including a small number of magnificent old growth specimens. These trees are components of the former Alluvial Woodland community (now described as River-flat Eucalypt Forest). River-flat Eucalypt Forest is listed as an endangered ecological community (Part 3, Schedule 1) under the *Threatened Species Conservation (TSC) Act 1995*.

No part of this community land has been declared as “critical habitat” nor is it currently affected by a “recovery plan” or “threat abatement plan”. The National Parks and Wildlife Service (NPWS) is currently developing a Draft Recovery Plan for all of the Cumberland Plain Endangered Ecological Communities (CPEECs). For further details see *3.0 Basis for Management*.

## 2.0 COMMUNITY CONSULTATION

### 2.1 INTRODUCTION

#### 2.1.1 PREPARING THE DRAFT PLAN OF MANAGEMENT

Hawkesbury City Council has promoted an open, transparent approach to community consultation, providing opportunities for stakeholders and members of the community to contribute comments and submissions or to discuss specific issues.

A community workshop was held during preparation of the draft plan of management (refer to 2.2 *Community Workshop*). Further consultation continued through to release of the draft plan of management (ie. public exhibition), at which time the community was able to make final comments and submissions. This process highlights the importance of community involvement and ownership in the adopted plan of management.

#### 2.1.2 PUBLIC EXHIBITION AND REVIEW

In accordance with the *Local Government Act 1993* the draft plan of management must be placed on public exhibition for a period of at least 28 days (ie. four weeks). A further two weeks are provided for completion of written submissions. During the public exhibition period the draft plan of management will be available for viewing at the Hawkesbury City Council Administrative Offices, Hawkesbury Central Library (in the Deerubbin Centre), Windsor and on Council's web-site <http://www.hawkesbury.nsw.gov.au/>

All public submissions and any comments submitted by other government agencies will be reviewed by Hawkesbury City Council. The draft plan of management, as amended following public submissions and review, will be submitted to Council for adoption.



## 2.2 COMMUNITY WORKSHOP

### 2.2.1 PROCEEDINGS

The main purpose of the community workshop is to discuss the way the community values the reserve, to identify important issues affecting these values and to promote opportunities for future sustainable management. The workshop aims to provide a transparent and equitable forum for all user groups, stakeholders and individuals.

A community workshop was held at the Tebbutt Room, Deerubbin Centre, 300 George Street, Windsor at 6:30pm on Tuesday 7<sup>th</sup> October 2008. The workshop was advertised by Hawkesbury City Council in the local press and notices in Council's Administrative Offices and Hawkesbury Central Library. Council also contacted a large number of stakeholders.

Apart from Councillors, council staff and individual participants, the key stakeholder groups contacted for the workshop included the following (in alphabetical order):

- Darug Aboriginal Landcare Incorporated
- Darug Custodian Aboriginal Corporation
- Darug Tribal Aboriginal Corporation
- Dept. of Environment & Climate Change (DECC) – Richmond Office
- Hawkesbury Districts Tennis Centre (lessee)
- Hawkesbury District Rural Fire Service
- Hawkesbury Visitors Centre
- local childcare groups
- local community services clubs
- local tour operators
- RAAF Richmond Base
- retail shop/ café (lessee)
- Roads & Traffic Authority (RTA)
- University of Western Sydney (UWS Richmond Campus)

A total of only four (4) people attended the workshop (not including Council staff). The workshop proceeded with a description of the plan of management process and a short power-point presentation by Noel Ruting, a Director of LandArc Pty Limited (see *Appendix I: Community Consultation – presentation material and submissions*). This presentation was followed by a discussion of key issues by workshop participants.

A Community Issues Questionnaire (pro-forma – refer to *Appendix I*) was distributed to all stakeholders at the workshop and written responses were received from all attendees. The issues are summarised in the following section (2.3 *Key Issues*).

### 2.2.2 FURTHER SUBMISSIONS

One written submission was received from the Darug Custodian Aboriginal Corporation in reference to 'Future Management of Reserves in the Hawkesbury' and in particular, the preparation of plans of management for Ham Common and Streeton Lookout. This submission flagged the need to survey these two reserves, to investigate potential Aboriginal cultural heritage sites and to ensure appropriate protection, management and education including signage. The submission noted the potential for finding sites of Aboriginal cultural significance on Ham Common.

## 2.3 KEY ISSUES

### 2.3.1 SUMMARY

Hawkesbury City Council's brief for the plan of management and subsequent discussions with staff identified the following issues for investigation:

- suitability, or otherwise, of existing recreational facilities, amenities, other park infrastructure and future improvements;
- future extension of the Hawkesbury Visitors Centre/ tourism precinct including possible future development of the arboretum;
- park management and general maintenance;
- fund generating/ complimentary commercial opportunities;
- impact of central car parking area/ bus turning area (size, scale, public safety and disruption of cycleway linkages);
- skate park vandalism/ youth issues and opportunities; and
- ongoing requests for additional monuments.

The community workshop presentation by Noel Ruting, Director of LandArc Pty Limited, raised a number of issues observed during site investigations:

- cultural setting/ open grassed areas and tree planting;
- important associations with RAAF Base Richmond;
- cultural and commemorative significance of reserve;
- significance of remnant old growth specimen trees;
- public accessibility and circulation;
- varying condition of facilities, including car parking areas;

- varying level of maintenance (eg. skate park and playground);
- opportunities for improvements and upgrading of facilities and possible development of an arboretum; and
- opportunities for improved environmental protection.

Participants at the community workshop discussed a number of key values and issues in relation to the reserve. The discussion was supported with written comments (Community Issues Questionnaire) including the following:

- visitor access and safety;
- traffic management and parking;
- pedestrian/ bicycle circulation;
- provision and enhancement of recreational facilities;
- recognition of development of facilities by the local community;
- environmental protection and management;
- protection of potential Aboriginal cultural heritage;
- maintenance of facilities, monuments, tree planting and landscape features;
- improving quality of youth facilities (eg. skate park); and
- opportunities for special community events.

A summary of key issues has been compiled (for further detailed analysis and review see the relevant sections as indicated):

#### **1. Natural and cultural environment**

(refer to 3.0 Basis for Management – 3.3 Natural and cultural setting, 3.4 Cultural heritage & 3.5 Environment and biodiversity):

- ❖ significance of cultural setting, linear corridor of public open space adjacent to RAAF Base Richmond, major connecting road and railway line;
- ❖ significance and extent of cultural overlay on largely cleared and modified natural landscape to create existing park-like setting of open mown grassed areas with clustered and scattered trees (ie. memorial drive);
- ❖ community planting program using generic native and exotic/ ornamental trees and shrubs conceived and implemented by Ross Miller (1000 trees and shrubs were planted in one day);
- ❖ tree plantations define the linear reserve's 'sense of place' and commemorative context (memorial drive) through a broad palette of evergreen and deciduous ornamental exotics and generic native species/ no use of local native species and genotypes;
- ❖ long-term maintenance issues/ very high plantation losses due to heavy clay soils, lack of water (establishment and maintenance) and species selection/ suitability;

- ❖ future proposal to establish George Caley Arboretum as a second stage/ complimentary to the Botanists Way display focusing on the native plants of the Hawkesbury Valley and Blue Mountains World Heritage Area;
- ❖ opportunities to enhance reserve's role in the interpretation of Aboriginal, cultural and natural heritage values;
- ❖ importance of remnant native old growth trees in contributing to reserve's 'sense of place' and providing habitat for native species, genetic diversity, shade and amenity values;
- ❖ long-term decline of remnant native population of canopy trees (components of original woodland community) and continuing maintenance practices (eg. broad-scale mowing) impacting on ecological integrity, resilience, durability and opportunities for natural recruitment and regeneration;
- ❖ need to review causes of crown die-back and decline in ageing native tree population (eg. altered drainage/ water regime, soil compaction, arboricultural care, insect damage, disease, etc);
- ❖ need for a more integrated response to environmental restoration of woodland community and wetland areas as important components within this landscape;
- ❖ climate change and potential impacts on reserve management (increased periods of drought/ increased risk of bush fire hazard, water management, high maintenance planting schemes, impacts on biodiversity).

## **2. Public access, recreation and public safety issues**

(refer to *3.0 Basis for Management – 3.6 Recreation, access and social values*):

- ❖ significance of local community services involvement (Apex Club) in development of a rest area for passing motorists commenced in 1961 through to mid-1980s, including construction of recreational facilities (toilets, septic tank, tables/ seating, BBQs, water feature) and arboretum at no (capital) cost to Council;
- ❖ further enhancement and embellishment of facilities and planting during the 'Bicentennial Park' project in 1988 (including construction of Hawkesbury Visitors Centre and café (facilities now dated and described as 'just adequate');
- ❖ Botanists Way/ World Heritage Area signage panels added in 2006 (stage 1)/ implementation of the George Caley Arboretum (stage 2) would be subject to federal government funding;
- ❖ need to rationalize/ upgrade ageing passive recreational infrastructure which varies in quality and functional suitability (including picnic shelters/ shade structures, picnic tables/ seating, gas BBQ facilities, paving, signage and landscaping);

- ❖ need for improved security lighting along shared pedestrian/ cycleway and recreational facilities;
- ❖ central asphalt car parking/ bus turning area was developed as a supplementary parking area during the Bicentennial celebrations; expansive and obtrusive element in reserve/ no delineated parking spaces/ wide vehicular entry off Windsor Road (at 80kmh) raises public safety issues/ obscured vision and potential conflict with pedestrians/ cyclists (using shared footpath/ cycleway);
- ❖ need to provide larger parking/ turning bays for tourist buses and caravans (currently no provision for parking larger vehicles in main visitor car parking area);
- ❖ regional children's playground is a high quality and well-maintained facility (landscaped areas need attention);
- ❖ children's concrete plane/ interactive sculpture is well integrated in playground – important heritage item associated with RAAF base/ need for story acknowledgement of sculptor, date, etc;
- ❖ Hawkesbury Districts Tennis Centre picnic shelter facilities/ seating need repairs/ some vandalism;
- ❖ need to address proliferation of regulatory and information signage (of various forms), particularly car parking areas;
- ❖ ongoing requests for additional monuments/ memorials and embellishment have the potential to create an undesirable level of clutter within open spaces;
- ❖ Hawkesbury Visitor Centre and café could be improved/ upgraded to provide a more integrated visitor precinct (inc. arboretum);
- ❖ mounded water feature/ fountain and landscaping – expensive element constructed in mid-1980s with reticulated water system/ pump and audio devices; now non-functional/ an ageing curiosity with various paving/ flagging detail typical of this period; recent planting in old raised beds/ suggested refurbishment using solar pump, possible removal or adaptive re-use possibly as an elevated viewing area of RAAF base;
- ❖ opportunities for developing a fitness track (including markers) – a lot of people use the reserve for exercise and fitness;
- ❖ opportunities to promote special community events (eg. art and sculpture/ artist's displays along the shared pathway/ cycleway, music, food, etc.);
- ❖ overall condition of skate park and surrounds considered to be poor/ 'looks really bad for visitors', lack of general maintenance/ repairs, damaged barriers/ uncontrolled vehicular access, late-night use; extensive graffiti to structures/ signage and build-up of unsightly rubbish and broken glass (public safety issues);
- ❖ isolation/ alienation of skate park facilities (located well away from other visitor facilities with dense mass planting surrounds); space not considered to be 'family-friendly';

- ❖ adjoining car parking area has not been sealed/ lots of potholes, unkempt appearance and damaged/ vandalized car barriers;
- ❖ lack of community ownership/ control and need for greater youth involvement in maintaining this facility/ suggestion to erect signage regarding possible closure of facility in order to focus attention of user groups;
- ❖ need for creating broader opportunities for youth/ improvements to skate park facility and adjoining parking area including:
  - user groups and youth workers involvement in re-design and ongoing maintenance
  - enhanced skill-level facilities and/ or extension of facility
  - improved public interface to roadway/ higher visibility;
  - regular (weekly) maintenance by Council;
  - security lighting/ cameras
  - improved regulatory control/ policing and reporting of unauthorised activities.
- ❖ opportunities to enhance 'gateway point' for visitors at eastern end of reserve (adjacent to skate park) and to improve integration of recreational facilities for all user groups – children/ youth to elderly, people with disabilities, family groups, etc.



PHOTO 1:  
Western paddock and remnant wetland [right background]  
Richmond – avenue of Plane Trees [left] (03.09.2008).



PHOTO 2: Shared pedestrian pathway/ bikepath winds through parkland. Ornamental exotic *Prunus* sp. [foreground] (03.09.2008).



PHOTO 3: Natural/ cultural setting of open grassed areas and groves of trees. Children's playground [background] (15.09.2008).



PHOTO 4: Ham Common offers excellent vantage points for viewing aircraft movements on the RAAF Base Richmond (15.09.2008).

## 3.0 BASIS FOR MANAGEMENT

### 3.1 OBJECTIVES

This section of the plan of management has the following objectives:

- ❑ *to identify and assess key values associated with the community land;*
- ❑ *to define the community land's role within the local area and broader district context;*
- ❑ *to assess the impact of existing uses and management regimes or future development on identified key values;*
- ❑ *to establish the framework for sustainable management strategies consistent with community land objectives; and*
- ❑ *to provide a vision for the future of this community land.*

### 3.2 KEY VALUES AND SIGNIFICANCE

"Values" can be simply described as the things which make a place important. Management objectives must be based on a sound understanding of the resource base and associated values. The following key values have been developed through community consultation (refer to previous section) and further investigation, analysis and assessment. Key values are divided into four categories which form the basis for further discussion in this section as follows:

1. Natural and cultural setting
2. Indigenous and European cultural heritage
3. Environment and biodiversity
4. Recreational facilities, access and social values

*Table 2: Values and Level of Significance* assigns a significance ranking to values based on either a local/ district, regional or state level. Ham Common offers passive and active recreational facilities serving the local/ district levels



(ie. Hawkesbury Districts Tennis Centre, playground, skate park, shared pedestrian/ bikeway, parkland/ corridor and associated facilities).

Ham Common also provides passive recreational, cultural and interpretive facilities for a broader regional visitor catchment. These facilities include the Hawkesbury Visitors Centre, the Botanists' Way signage and associated parkland/ picnic and BBQ areas adjacent to the RAAF Richmond base. The memorial planting and various monuments located throughout the reserve also highlight the regional significance of the location and connections with Australia's aviation history.

Notably, the freshwater wetland (western end) and remnant native stands of River-flat Eucalypt Forest (Alluvial Woodland), including some magnificent old growth specimens, are scheduled as endangered ecological communities (TSC Act 1995) and therefore have regional and state significance.

**TABLE 2: VALUES AND LEVEL OF SIGNIFICANCE**

Key Values	Level of Significance		
	Local	Regional	State
<b>Natural and cultural setting</b>			
open space & scenic quality		regional	
natural & cultural landscape setting		regional	
<b>Indigenous &amp; European cultural heritage values</b>			
Darug cultural heritage values – traditional resource area	subject to further investigation		
European – aviation history, memorial plantation & monuments		regional	
<b>Environmental and biodiversity values</b>			
endangered ecological communities/ remnant native population			state
educational/ scientific values		regional	
wetland [modified] - opportunities	local	regional	
<b>Recreational facilities, visitor services, access and social values</b>			
tennis courts/ facilities	local		
public access, circulation & linkages [incl. shared pedestrian/ bike path]	local	regional	
youth facilities [incl. skate park] - opportunities	local	regional	
visitor information services [incl. Visitor Centre & Botanists Way]		regional	
passive recreation – picnic areas/ shelters, playground & landscaping		regional	

Notes: Regional opportunities exist for passive/ cultural and nature-based recreation subject to further promotion of heritage values, natural area/ wetland restoration and improvements to recreational linkages and infrastructure [eg. skate park, health/ fitness stations and arboretum].



PHOTO 5: Remnant native group of four old growth Broad-leaved Apples [foreground/ mid-ground]/ highly modified habitat (15.09.2008).



PHOTO 6: RAAF monument – commemorates strong links between people of the Hawkesbury and RAAF Base Richmond (15.09.2008).



PHOTO 7: Memorial Drive – commemorative plantation creates a distinctive 'sense of place' beside Windsor Road (15.09.2008).

...



PHOTO 8: New monument commemorating national servicemen who served between 1951-1972 (15.09.2008).



PHOTO 9: Old children's plane integrated within new playground – reinforcing links with aviation and RAAF Base (15.09.2008).



PHOTO 10: Botanists Way signage panels in main visitor precinct – Hawkesbury & Blue Mountains World Heritage Area (15.09.2008).

### 3.3 NATURAL & CULTURAL SETTING

#### 3.3.1 CULTURAL OVERLAYS

This flat, linear corridor of open space is defined by a predominantly cultural landscape of mown open lawns interspersed with scattered groups and rows of cultivated trees and shrubs. The road-side commemorative plantation is known as the 'Memorial Drive' (refer to 3.4 *Indigenous and European cultural heritage*). This park-like setting evolved largely as a result of local community involvement (Apex Club) over a period of approximately 25 years. A rest area for passing motorists was established in 1961 and in subsequent years (up to mid-1980s) a range of recreational facilities and infrastructure were added under this community program. There is now a broad range of recreational, cultural and interpretive facilities in the reserve. The type and standard of recreational facilities reflect the various phases of park development and are typical of Hawkesbury's local parks and reserves (refer to 3.6 *Recreational facilities, access and social values*).

#### 3.3.2 ESTABLISHING A 'SENSE OF PLACE'

The community planting program using generic native and exotic/ ornamental trees and shrubs was conceived and implemented by Ross Miller (*public workshop, pers.com., 2008*). The tree plantations define the reserve's 'sense of place' and commemorative context (memorial drive) through a palette of evergreen and deciduous ornamental exotics and generic native species.

Cultivated native species include a range of Eucalypts (*Eucalyptus* and *Corymbia* spp.), *Melaleuca* spp., *Casuarina* spp. and *Callistemon* spp. sourced from various geographic regions. Exotics include Plane Trees (*Platanus X hybrida*), Pepper Trees (*Schinus areira*), Elms (*Ulmus* spp.), Monterey Pine (*Pinus radiata*), Cypress (*Cupressus* spp.), Purple Flowering Bauhinia (*Bauhinia purpurea*) and Jacaranda (*Jacaranda mimosifolia*). Refer to *Appendix III – Schedule of Existing Ornamental and Weed Species*. Although some of the original River-flat Eucalypt Forest (Alluvial Woodland), has been retained the overall approach has not included the use or integration of local native species and genotypes.

#### 3.3.3 NATURAL HERITAGE VALUES

Over the past two hundred years, the reserve's natural landscape of River-flat Eucalypt Forest (Alluvial Woodland), has been largely cleared and modified. The remnant native population, including significant old growth specimens, has outstanding natural heritage, biodiversity and amenity values. This population is considered vulnerable under current management practices. Furthermore, a highly degraded freshwater wetland occurs within a separate

parcel of land (western end of reserve) (refer to 3.5 *Environment and Biodiversity*).

### 3.4 CULTURAL HERITAGE

#### 3.4.1 INDIGENOUS CULTURAL VALUES

Ham Common is a traditional resource area of the Darug Aboriginal people. The Hawkesbury River floodplain, with its mosaic of riparian and wetland habitats, has always been a focus for human communities in terms of their natural resources, social and spiritual significance. The archaeological research conducted within the Hawkesbury – Nepean catchment area has revealed a rich archaeological context.

Ham Common has a long history of disturbance and modification spanning more than 200 years and there is currently no record of archaeological relics or deposits for this site (DECC). Nevertheless, research has confirmed that archaeological lithic assemblages (eg. whole or fragmentary stone artefacts) may be preserved in sub-surface layers even where there has been significant disturbance to the land surface (*McDonald, 2001*). This may have important implications for potential archaeological deposits in Ham Common.

A submission by the Darug Custodian Aboriginal Corporation (DCAC) noted the potential for finding sites of Aboriginal cultural significance on Ham Common. The submission also highlighted the need for investigation of potential archaeological deposits (PAD) and to involve traditional custodians in the protection, management and interpretation (including signage) (*Watson, L., DCAC, pers. comm. 2008*).

Under the *National Parks and Wildlife Act (1974)* and the *Heritage Act (1977)* all Aboriginal sites, whether recorded or not, are protected. This plan of management encourages a continuing consultative strategy with the traditional Aboriginal custodians (refer to 4.0 *Management Strategies, Table 5 – Action Plan: items B1 & B3*).

#### 3.4.2 LOCAL HISTORIC VALUES

##### **Early European history – establishment and break-up of Ham Common**

Established in 1803 by Governor King, Ham Common covered an area of over 5000 acres (almost 2000 Ha) of higher ground on the floodplain stretching from the present Castlereagh Road near Richmond to the farms bordering South Creek (not including South Windsor township). During the 19<sup>th</sup> century Ham Common was divided up and significantly reduced in area for various

purposes including formation of a Glebe, the Blacktown–Richmond railway line (1864), Hawkesbury Racecourse (1868) and Hawkesbury Agricultural College (1892). Much of the land selected for the college was in its natural state with dense stands of woodland growing on relatively poor soils and without access to permanent water (Bowd, D., p.177, 1986).

### **Early aviation history**

Ham Common (Clarendon – Richmond) has been described as the “cradle of aviation in Australia” (Bowd, D., p.160, 1986) with many pioneering flights taking place during the early years of the twentieth century. William Hart (1835-1943) was the first person to operate a flying machine from Ham Common, near Clarendon. He was a self-taught pilot who rebuilt his flying machine many times after flying accidents.

Charles Kingsford Smith (1897-1935), a decorated flying ace from WW1, established a base at Ham Common for his aircraft the *Southern Cross*. This was the departure point for many of his long distance flights including the trans-Tasman Sea crossing to New Zealand and overland route to north-western Australia (Bowd, D., pp.168-9, 1986). In 1928 Charles Kingsford Smith landed the *Southern Cross* at the Richmond base after his trans-Pacific flight ([www.airforce.gov.au](http://www.airforce.gov.au)). He was later knighted and in 1935 died in a long-distance flight over Myanmar (Burma) ([www.cultureandrecreation.gov.au](http://www.cultureandrecreation.gov.au)). In 1935 Jean Batten landed at the Richmond base after her solo flight from England.

### **RAAF Base Richmond**

From 1923-1936 the Air Force base was used as a supplementary airport for Sydney. In 1923 the Commonwealth Government bought most of the northern portion of Ham Common (approximately 69 Ha) including a hangar (Bowd, D., p.171, 1986). The site became the first Air Force base in New South Wales and the second to be established within Australia ([www.airforce.gov.au](http://www.airforce.gov.au)). Ham Common (RAAF Base Richmond) experienced rapid growth during the Inter-war Period. In 1925 the first Air Force squadron was formed. With the outbreak of WW2 in 1939 further squadrons were established and in following years the base developed into a major defence site. During the Post-war Period the base housed most of the Air Force's air transport fleet and is now the logistics hub for Australian Defence Forces ([www.airforce.gov.au](http://www.airforce.gov.au)).

These associations with the RAAF Base Richmond and ex-servicemen and women since WWI have been recognized in the monuments, parkland (eg. Friendship Park) and memorial planting within the reserve (eg. Memorial Drive). The road-side reserve offers excellent vantage points for viewing aircraft movements on the RAAF Base and attracts many visitors throughout the year. The new regional playground reflects these important links through conservation and integration of a children's plane (built reinforced concrete

sculpture) believed to have been originally designed and installed during the 1960s.

## 3.5 ENVIRONMENT & BIODIVERSITY

### 3.5.1 CLIMATE CHANGE

The Hawkesbury River Valley has a warm temperate climate (ie. summer and winter season). Rain may occur at any time throughout the year. The Bureau of Meteorology has been taking rainfall records at RAAF Base Richmond since 1993. Over this period the lowest and highest annual rainfall has varied between 490mm (2006) to 1051mm (2007).

Generally, the catchment has recorded significant changing rainfall patterns, oscillating between periods of high and low rainfall. Climate change is tending to exacerbate these weather extremes, further affecting flood and drought regimes. Human release of greenhouse gases into the atmosphere has caused, and will continue to cause, global warming for many decades (*IPCC Assessment Report, 2007*).

For New South Wales each decade since 1950 has recorded a 0.15°C increase in annual mean maximum temperature and a 14.3mm decrease in annual rainfall (*Water Information System for the Environment, DECC, 2007*). According to CSIRO modelling our climate will continue to change over coming decades producing a range of impacts including:

- increased risk of drought
- increased soil erosion and dry land salinity
- more hot days
- greater bushfire risk.

### 3.5.2 GEOLOGY & SOIL LANDSCAPES

Ham Common is a fluvial landscape described as Richmond (ri) in "*Soil Landscapes of the Penrith 1:100 000 Sheet*" (Bannerman and Hazelton, 1990). The Richmond (ri) soil landscape occurs on the higher Quaternary terraces. The soils are typically alluvium consisting of sand, silt and gravels derived from sandstone and shale deposited during periods of flood. The topsoil tends to be reddish brown loamy sand to brown sandy clay loam and varies from moderately acid (pH 5.5) to slightly acid (pH 6.5).

While topsoils are moderately erodible, subsoils tend to have a much higher erodibility due to very low organic matter and a high fine sand and silt content. Richmond (ri) soil landscapes are subject to minor localised flood hazard.

### 3.5.3 REMNANT NATIVE HABITAT

#### Endangered ecological communities

Although largely cleared and modified since the early nineteenth century, Ham Common still retains unique ecological values including two endangered ecological communities. These include freshwater wetlands (albeit highly degraded and modified) and a scattered remnant population of the former River-flat Eucalypt Forest (Alluvial Woodland). Both communities are listed in Part 3, Schedule 1 of the *Threatened Species Conservation Act 1995* and described in the Final Determination of the NSW Scientific Committee as follows:

- ❖ Freshwater Wetlands (FW) on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions; and
- ❖ River-flat Eucalypt Forest (RFEF) on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions.

#### Freshwater wetlands

This ecological community is typically associated with periodic or semi-permanent inundation by freshwater and occurs on silts, muds or humic loams in depressions, flats, drainage lines, back swamps and lagoons on the coastal floodplain. Freshwater wetlands are dominated by herbaceous plants consisting of sedgelands, reedlands and herbfields with few woody species. This community typically forms mosaics with other floodplain communities such as River-flat Eucalypt Forest. The structure and composition of the community varies both spatially and temporally according to the water regime.

The freshwater wetland in the western paddock (adjoining Richmond town centre) has a long history of disturbance. It is highly degraded, impacted and alienated by transportation links (road and railway), polluted run-off from surrounding urban development and infrastructure, altered drainage/ culverts and piping, dumping and land filling, nutrient enrichment and exotic weed invasion. The land is currently subject to future road works and much of it remains in a derelict state. The wetland is surrounded by mown exotic grasses. Nevertheless, this wetland still provides vital native habitat and opportunities for ecological reconstruction.

The wetland retains a limited suite of persistent native species including Broad-leaved Cumbungi (*Typha orientalis*), Knotty Club-rush (*Isolepis nodosa*), Common Rush (*Juncus usitatus*), Tall Sedge (*Carex appressa*), Lesser Joyweed (*Alternanthera denticulata*) and Scurvy Weed (*Commelina cyanea*). Sweet-scented Pittosporum (*Pittosporum undulatum*) has re-colonised drier parts. The number of native species present is likely to be larger. Refer to *Appendix II – Schedule of Existing Native Plant Species*.



This freshwater wetland should be restored providing opportunities for passive recreation and environmental education (ie. implementation of an appropriate weed management strategy/ restoration planting, construction of a shared boardwalk/ bikepath linking to the existing network and installation of interpretive signage).



PHOTO 11: Western paddock/ natural wetland is highly degraded – opportunities for ecological restoration (03.09.2008).

#### **River-flat Eucalypt Forest (Alluvial Woodland)**

Alluvial Woodland is now grouped under the broader definition of *River-flat Eucalypt Forest (RFEF) on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions* in accordance with the Final Determination of the NSW Scientific Committee (17.12.2004). The remnant native trees occurring in Ham Common are components of the former River-flat Eucalypt Forest (Alluvial Woodland). Although NPWS (DECC) mapping (1998) identifies a remnant fragmented canopy of Shale Plains Woodland (Cumberland Plain Woodland) in Ham Common, this community description is not consistent with the soil type and floristic composition in this location.

The remnant native trees within Ham Common are likely to be regrowth from early broad-scale clearing. These mature woodland trees have been retained under various park management regimes. It appears that there has been considerable changes to soil profiles, local drainage patterns, moisture levels and nutrient uptake over a long period of time. The trees now occur within a cultural landscape of mown lawns (exotic turf grasses) and mixed plantations of generic native and ornamental exotic species.

The community retained within the reserve has been reduced to a few isolated individual old growth specimens and scattered groups of Broad-leaved Apples (*Angophora subvelutina* X *A. floribunda*) and White Feather Honeymyrtle (*Melaleuca decora*). Many of the Broad-leaved Apples display intermediate

characteristics of *Angophora subvelutina* and *A. floribunda*. Some old growth specimens, particularly the White Feather Honeymyrtles, have achieved a remarkable size and scale. The massive old growth specimen White Feather Honeymyrtle (*Melaleuca decora*), located near the café and main picnic area, would be over 150 years old and possibly 200 years+ in age. Old growth trees have been carefully integrated within the new regional playground providing valuable shade and amenity value. All of these old growth trees provide an exceptional floral display in spring and early summer. They create a distinctive sense of place for the reserve. It is vital that these trees are protected and given opportunities for renewal and regeneration.

The largest groups of remnant woodland trees occur along the southern boundary (mainly within the adjoining railway corridor) and adjacent to the central bitumen car parking area. Notably, these linear stands retain some understorey and groundcover components (including *Acacia longifolia*, *Hardenbergia violacea* and *Glycine* sp.). They offer significant opportunities for natural recruitment and renewal within the reserve under appropriate conservation management practices. The trees also provide a valuable seed source for nursery propagation.



PHOTO 12: White Feather Honeymyrtle  
(*Melaleuca decora*) (15.09.2008).

New generic native and exotic plantations have been inter-mixed with groups of Broad-leaved Apples, reducing the visual integrity and significance of natural stands and blurring management boundaries. Local native trees such as Swamp Oak (*Casuarina glauca*), Prickly-leaved Paperbark (*Melaleuca styphelioides*) and *Melaleuca linariifolia* are likely to have been planted.

These remnant native trees, especially the Broad-leaved Apples (*Angophora subvelutina* X *A. floribunda*), are under serious threat from various impacts including lawn mowing and edging practices, ongoing nutrient enrichment, compaction of roots, insect attack and disease. Many of these trees are now in serious decline, displaying extensive crown die-back, dead branches, adventitious and epicormic growth. The declining rainfall pattern and prolonged drought appears to have further exacerbated these problems. In addition, mowing and edging extend to bases of all trees and these impacts

need urgent attention. There are no opportunities for ecological renewal and recruitment under the existing management regime. Furthermore, the loss of these trees would greatly diminish important values associated with the reserve – its natural heritage values, landscape character, habitat and biodiversity values, genetic integrity and aesthetics.



PHOTO 13: Massive old growth specimen (*Melaleuca decora*) near café – significant natural heritage values (15.09.2008).



PHOTO 14: Remnant woodland on adjoining railway corridor – park mowing regime restricts natural regeneration. An integrated conservation strategy is needed urgently (15.09.2008).

### 3.5.4 FUTURE MANAGEMENT OF REMNANT POPULATION

It is important to ensure the protection and conservation management of the remnant native population of old growth trees. The current mowing/ edging regime needs to be revised to better protect the trees and to minimize stress from physical damage and compaction. The under canopy areas should be clearly delineated as separate management zones using protective fencing and signage (public education). These changes will promote opportunities for



natural regeneration, including native understorey species, which may still be present in the soil seed bank. Exotic weeds will need to be managed under an integrated conservation strategy to enhance ecological resilience and long term durability. Initially, natural regeneration should be targeted as the priority action. Dependent upon the outcomes of this strategy, further restoration planting using appropriate species, may be an option over the longer term.

River-flat Eucalypt Forest has no particular tree species occurring frequently across all sample sites. The only remaining canopy and sub-canopy trees on Ham Common are Broad-leaved Apples (*Angophora subvelutina* X *A. floribunda*) and White Feather Honeymyrtle (*Melaleuca decora*). Other typical species may have included Forest Red Gum (*Eucalyptus tereticornis*) and Cabbage Gum (*Eucalyptus amplifolia* subsp. *amplifolia*). There is no current evidence however to support a mixed canopy. Other similar sites on the floodplain should be investigated to establish an appropriate palette.



PHOTO 15: Many remnant Broad-leaved Apples (*Angophora subvelutina* X *A. floribunda*) are in serious decline – displaying extensive crown die-back, dead wood and epicormic growth. It is important to ensure their long term survival and ecological sustainability through conservation strategies (15.09.2008).

The small tree and shrub stratum has been cleared but may have included species such as *Acacia parramattensis*, *Melaleuca styphelioides*, *Melaleuca linarifolia*, *Tristaniopsis laurina*, *Callistemon salignus*, *Hymenanthera dentata*, *Ozothamnus diosmifolium*, *Trema aspera*, *Backhousia myrtifolia* and *Bursaria spinosa*. The ground stratum may have included *Microlaena stipoides* var. *stipoides*, *Lomandra longifolia*, *Pteridium esculentum*, *Pratia purpurascens*, *Desmodium varians*, *Entolasia marginata* and *E. stricta*, *Oplismenus aemulus*, *Themeda australis*, *Austrostipa ramosissima*, *Einadia hastata* and *E. trigonis*, *Cayratia clematidea*, *Adiantum aethiopicum*, *Doodia aspera* and vines such as *Eustrephus latifolius*, *Geitonoplesium cymosum* and *Clematis aristata*.

### 3.5.5 WEED MANAGEMENT

Ham Common is primarily a cultural landscape of mown lawns and plantations of trees and shrubs (refer to 3.3.2 *Establishing a 'sense of place'*). These ornamental species have been used to embellish the cultural landscape setting. Generally, the parkland is a well-maintained show-piece in keeping with its regional status and high profile on this busy road. The level of maintenance however tends to be reduced away from the central visitor facilities and nodal activity points. The skate park (near Clarendon) and wetland area (near Richmond) display a much lower level of maintenance input. Weed species are generally controlled except for some clumps of Creeping Bamboo (*Phyllostachys aurea*) and Giant Reed (*Arundo donax*). The latter species is currently being maintained as an ornamental clump with mature seed heads and this program should be reviewed.

Weeds tend to be fast-growing colonizing species with highly aggressive reproductive strategies. The level of weed invasion has a close correlation with past clearing of native vegetation, soil disturbance and the current management regime (ie. highly disturbed/ modified areas with minimal maintenance tend to have high levels of weeds). Exotic weeds, particularly in natural areas, create significant management problems for local councils as they draw scarce resources away from other areas of management.

The freshwater wetlands (western paddock) are particularly impacted by a broad range of weeds. The major woody weeds include Weeping Willow (*Salix babylonica*) and possibly Crack Willow (*Salix fragilis*) or a similar hybrid, Camphor Laurel (*Cinnamomum camphora*), Large-leaved and Small-leaved Privets (*Ligustrum lucidum* and *L. sinense*), Wild Olive (*Olea europaea* subsp. *africana*), Box Elder (*Acer negundo*), Green Cestrum (*Cestrum parqui*) and Blackberry (*Rubus fruticosus* agg. spp). Other colonising exotics and naturalised garden escapes include Plane Tree (*Platanus X hybrida*), Pepper Tree (*Schinus areira*), Jacaranda (*Jacaranda mimosifolia*), Mulberry (*Morus alba*), Cottonwood Poplar (*Populus deltoides*) and Canary Island Date Palm (*Phoenix canariensis*). Moth Vine (*Araujia sericiflora*) and Madeira Vine (*Anredera cordifolia*) are the major vine weed species. Persistent perennials include Paddy's Lucerne (*Sida rhombifolia*), Paspalum (*Paspalum dilatatum*) Fennel (*Foeniculum vulgare*) and Kikuyu Grass (*Pennisetum clandestinum*).

Some of these weed species have been declared as noxious under the *Noxious Weeds Act 1993* for the control area of Hawkesbury River County Council (refer to *Table 3: Noxious Weed Species – Ham Common*). All declared noxious weed species are to be managed in accordance with the legal requirements for each category. All treatments should be carefully targeted to avoid harm to standing native plants and natural regeneration. Indiscriminate broad-scale chemical applications should be avoided. For a full list of noxious weed declarations for Hawkesbury River County Council (HRCC) refer to: <http://www.dpi.nsw.gov.au/agriculture/noxweed/noxious-app>

**TABLE 3:**  
**Noxious Weed Species – Ham Common**

Weed Description	Class	Legal Requirements
Green Cestrum ( <i>Cestrum parqui</i> )	3	continuously suppressed
Blackberry ( <i>Rubus fruticosus</i> agg. spp. )	4	control growth & spread
Privet (Broad-leaf) ( <i>Ligustrum lucidum</i> )	4	control growth & spread
Privet (Narrow-leaf) ( <i>Ligustrum sinensis</i> )	4	control growth & spread
Willows ( <i>Salix nigra</i> / <i>S. fragilis</i> agg. spp.)	5	notifiable weed

The proposed weed management/ wetland restoration strategy aims to:

- develop local community (volunteer) involvement;
- seek funding assistance/ grants; and
- supplement program with contract bush regenerators.

This plan of management supports the establishment of a community-based volunteer group to assist in the rehabilitation of the reserve's freshwater wetland in Richmond. This approach would help to establish a greater sense of community ownership and broader use of this area as well as improving management, monitoring and regulation of waste dumping, littering and anti-social behaviour. A Bushcare program would fit within this volunteer structure. It would need to be coordinated through Council staff. Volunteers are provided with direction and technical advice including training, tools, signage for work sites, rubbish removal, newsletters and use of a community nursery to propagate local native plants. The program is an integral part of managing Hawkesbury City's bushland.

NSW government youth training initiatives and natural heritage grant funding provide further opportunities. Funds should be allocated for contract bush regenerators to develop the program and provide further expertise in weed management and rehabilitation strategies.

The strategy should be structured in accordance with specific site conditions, level of disturbance and weed invasion, relative resilience and integrity of the reserve's ecological communities. It is envisaged that the program of work would initially focus on targeted weed species (including noxious species) using a combination of bush regeneration and restoration strategies. This program should be integrated with proposed improvements to passive recreational infrastructure (ie. boardwalk linkages/ signage and facilities). For areas requiring restoration and enhancement it is important that genetic integrity is maintained with the use of only locally-sourced indigenous species.

## 3.6 RECREATION, ACCESS & SOCIAL VALUES

### 3.6.1 OVERVIEW

Ham Common is a valuable community and regional asset offering a range of passive and active recreational, social and educational opportunities. There are also significant constraints on its land capability and future uses which need to be considered. Inappropriate types of development and uses pose potential threats to existing values. *Sustainability*, a key principle of Hawkesbury City Council's Management Plan, can only be achieved through a balanced and sensitive approach to resource management. Accordingly, future development and management of this community land must ensure careful integration of economic, social and environmental factors.

Recreational values are closely linked with environmental quality and the opportunities provided by the setting. For a detailed description of recreational facilities, improvements and their condition, see *Table 1: Land Description – Existing Facilities & Improvements*. Community consultation highlighted these recreational values, future opportunities and the key issues. These are summarized for discussion as follows:

### 3.6.2 VISITORS CENTRE, CAFÉ & BICENTENNIAL PARK

Following the initial development phase by local community services (Apex Club), the Hawkesbury Visitors Centre, Café and Bicentennial Park were opened in 1988. These facilities created a regional visitor focus within the reserve and provided opportunities for development of other passive recreational facilities (eg. car parking areas and picnic shelters). The Visitors Centre offers a range of tourism information covering the Hawkesbury Valley and beyond. The café has an outdoor dining area with easy ramped access.

The Hawkesbury Visitors Centre and café are in need of refurbishment and upgrading. The future development of the visitor precinct and enhancement of tourist facilities as a major 'visitor attractor' has been the subject of various government reports and funding applications. In 2006 the Botanists Way/ World Heritage Area (Stage 1) signage panels for the Hawkesbury and Blue Mountains regions were installed as an important visitor initiative (see 3.6.7 *Botanists Way Signage*).

### 3.6.3 TENNIS COMPLEX

The Hawkesbury Districts Tennis Centre (Richmond Tennis Complex), located at the western end of the reserve, is a major recreational facility. It has fourteen all-weather synthetic surface tennis courts, night lighting for all courts, a clubhouse, picnic shelters and easy off-street car parking with 72 car

spaces. The picnic shelters, picnic tables/ seating, outdoor lighting and litter bins are generally well-maintained and in good condition. Some seating however has been vandalised and is in need of repairs.

### 3.6.4 PUBLIC ACCESS

#### **Shared Pedestrian Pathway/ Cycleway**

A shared concrete pedestrian pathway/ cycleway provides recreational opportunities for the local community and regional visitors. It extends along the entire length of the reserve from the Racecourse Road intersection (Clarendon) to Richmond town centre. It is set back within the reserve and runs parallel with Windsor Road linking all recreational facilities, car parking areas and points of interest. This shared pedestrian pathway/ cycleway is interrupted in only one location – the central car parking/ bus turning area (refer to following discussion in *Car Parking Areas*).

This plan of management proposes upgrading the shared pedestrian pathway/ cycleway to incorporate exercise stations located at strategic locations (refer to 3.6.11 *Proposed Exercise Stations*). Opportunities exist for dispersal of these activities away from areas of concentrated use (eg. Visitors Centre & Bicentennial Park).

#### **Car Parking Areas**

Vehicular access to off-street (reserve) parking along Windsor Road is provided at a series of strategic points. These car parking areas service specific facilities and points of interest. The major car parking areas include:

1. Hawkesbury Districts Tennis Centre (Richmond – western end);
2. Hawkesbury Visitors Centre/ café and main picnic area;
3. central car parking/ bus turning area (rectangular un-delineated);

A small car parking area is located at:

4. skate park (Clarendon)

The condition of car parking areas varies across the reserve. Car parking areas servicing the Hawkesbury Districts Tennis Centre (72 car spaces) and Hawkesbury Visitors Centre (37 car spaces) are constructed in sealed bitumen with line marking for car spaces. Slow-points have been constructed to reduce speed. A row of Mature Plane Trees (*Platanus X hybrida*) and other ornamental trees line the visitor centre car parking area providing valuable shade and amenity. Vehicular entry/ exit points are provided (one way traffic flow). The visitor centre, café, main picnic area/ shelters, Botanists Way display, regional playground and public amenities are easily accessible from this car park.





PHOTO 16: Hawkesbury Visitors Centre, Café & Bicentennial Park (opened in 1988) – main visitor precinct (15.09.2008).



PHOTO 17: Hawkesbury Districts Tennis Centre is a major tennis complex – 14 all-weather courts and range of facilities (15.09.2008).



PHOTO 18: Car parking area adjacent to Hawkesbury Visitors Centre, café & main picnic area (15.09.2008).

Participants at the public workshop identified the need to provide parking and a turning area for tourist buses and vehicles towing caravans. The main visitor car parking area currently has no provision for parking larger vehicles and tour buses. These visitors tend to either park illegally causing safety concerns and congestion or drive in and out again without stopping.

The central rectangular car parking/ bus turning area was installed as a supplementary (overflow) parking area during the 1988 Bicentennial celebrations. Tour buses and over-sized vehicles use this area for turning. This car park is an expansive area, visually obtrusive and a 'heat-island' in summer. The finish is in rough asphalt and car spaces have not been delineated. The car parking area is not directly linked to any park facilities or amenities. It effectively divides the reserve and impacts upon visitor enjoyment and safety, particularly those people using the shared pedestrian pathway/ cycleway.

Heavy vehicles, including large trucks and buses are able to exit Windsor Road via a broad asphalt entry/ exit point at speed (80kmh) creating a potential hazard for park users. Vehicles currently have right-of-way. Pedestrians and cyclists are advised to stop and give-way to vehicles entering the car parking area. Dense shrubs further obstruct sight distances and exacerbate the problem. This plan of management proposes a re-design of the car parking area, improved pedestrian/ cycleway linkages and landscaping to address these issues.

The skate park (Clarendon – eastern end) currently has a small unsealed car parking area accessed via Racecourse Road (near the Windsor Road intersection). This car parking area and skate park facility need to be upgraded and integrated within the reserve as a key youth facility (refer to 3.6.13 Skate Park).



PHOTO 19: Expansive central car parking/ bus turning area impacts upon safe flow of pedestrians/ cyclists in reserve (15.09.2008).

### 3.6.5 PASSIVE RECREATIONAL FACILITIES

#### **Provision of facilities and rationalization**

At various stages, dependent upon funding, facilities have been added to the reserve. This process however has encouraged a typically ad hoc approach to selection and installation of facilities, often 'filling up' open spaces with a wide range of types and varying quality of outdoor furniture and finishes (ie. picnic shelters/ shade structures, picnic tables/ seating, gas BBQ facilities, litter bins, signage, monuments, paving and landscaping).

Whilst it is important to upgrade ageing passive recreational infrastructure care needs to be taken in integrating these facilities to enhance the overall landscape character and setting. Some ageing infrastructure such as tables/ seating, bench seating, litter bins, bollards, fencing and landscape features should be removed. Opportunities exist for further rationalization of facilities including combined picnic shelters with tables/ seating and gas BBQs.

#### **Accessibility**

The needs of people with disabilities and parents with young children also need to be addressed. Although many visitors will drive or walk to the reserve, accessibility may involve the use of strollers, prams, walking frames and/ or wheelchairs. The reserve's main picnic area, with its level car parking area, all-weather picnic shelters and public amenities, is a popular destination for elderly people and groups of people with disabilities. It is important to maintain safe, easy access to existing facilities and amenities.

#### **Mounded water feature**

Embellishments such as the mounded water feature, fountain and associated landscaping near the main picnic area raise issues over the cost of continuing maintenance, refurbishment or removal. The water feature was constructed in the mid-1980s and included a small pond, reticulated water system/ pump and audio devices which are no longer functional. The water feature is an ageing curiosity with various paving/ flagging detail typical of this period. The raised garden beds have been recently renovated with new planting.

Participants at the public workshop suggested various options including refurbishment using a solar pump, possible removal or adaptive re-use possibly as an elevated viewing area opposite the RAAF Base Richmond. Sustainability, water conservation issues and allocation of valuable resources need to be considered. It remains doubtful whether the cost of constructing a new 'folly' (ie. lookout/ observation deck) in order to utilize the low mounded area can be justified when excellent views of the RAAF Base are already available throughout the reserve.

### **3.6.6 MONUMENTS**

Concerns have been raised over ongoing requests for additional monuments/ memorials and similar embellishment of the reserve. Whilst the location is significant in terms of its cultural heritage values, these installations have the potential to create an undesirable level of clutter within the reserve's open spaces and further additions should be restricted.

### **3.6.7 BOTANISTS WAY SIGNAGE PANELS**

In 2006 federal funding was made available for installation of Stage 1 – Botanists Way/ World Heritage Area signage panels for the Hawkesbury and Blue Mountains regions. The Botanists Way signage is an important visitor initiative which highlights the Hawkesbury Valley as the gateway to the region's World Heritage Area, particularly its Indigenous and cultural heritage and botanic diversity. This display offers broadly accessible graphic and detailed information for visitors to plan their journey.

### **3.6.8 PROPOSED GEORGE CALEY ARBORETUM**

Implementation of Stage 2 – George Caley Arboretum is subject to further federal government funding. The arboretum is proposed as a complimentary element (supporting the Botanists Way display) focusing on the native plants of the Hawkesbury Valley and Blue Mountains World Heritage Area.

### **3.6.9 REGIONAL CHILDREN'S PLAYGROUND**

The new regional children's playground is a high quality and popular facility with local families. It provides an integrated play experience targeting the 0-5 year (pre-school) age group. A range of play equipment, soft fall areas, picnic shelters/ seating and shade trees are provided within a fenced area. The playground is directly linked to the shared pedestrian pathway/ bikepath, main car parking area, public amenities and other park facilities.

The children's concrete plane, an interactive sculpture is well integrated in the playground. The plane is an important heritage item reinforcing the close associations with the RAAF Base Richmond (adjacent). It is believed that a Council worker may have designed and built the original structure in the 1960s. A story-book plaque with acknowledgement of the sculptor, date and brief history should be added.

The playground has a generally high level of maintenance and presentation however soft landscaped areas need attention and possible rationalization, particularly with respect to plant selection and protection in high traffic areas.

### **3.6.10 REGULATORY, ADVISORY & DIRECTIONAL SIGNAGE**

The number of different types of regulatory, advisory and directional signs around entry points and car parking areas creates a confusing array of information and visual pollution in the main visitor precinct. These signs are

highly intrusive and have a negative visual impact upon the passive recreational setting. Reserve signage needs to be reviewed. It should aim to present a more consistent integrated approach.

### **3.6.11 PROPOSED EXERCISE STATIONS**

A large number of people use the reserve for exercise and fitness purposes including walking, jogging, cycling and walking the dog. The community workshop identified the recreational need for developing a series of exercise stations. The flat, linear nature of the reserve lends itself to this purpose. This fitness equipment should be installed along the shared pedestrian pathway/ cycleway (off-set out of the flow) and integrated at strategic points to enhance the visitor experience. The proposed exercise stations provide opportunities for dispersal of concentrated visitor loadings and enhancement of sections of parkland with limited nodal activities and facilities.

### **3.6.12 PROPOSED LIGHTING**

The community workshop identified the need for improved security and ambient lighting along the shared pedestrian/ cycleway, particularly within major nodal areas with recreational facilities.

Any future upgrading of the skate park facility should also consider the use of sports field type lighting with banks of metal halide fixtures on large vandal-resistant poles. This would create a high level of visual surveillance and security in this location, better opportunities for passing police surveillance and may help to reduce the level of vandalism and anti-social behaviour.

### **3.6.13 PROPOSED UPGRADING OF SKATE PARK FACILITY**

Participants at the public workshop described the skate park and surrounds as looking very poor and in a state of neglect. Concerns were raised over the lack of community ownership and control and the message being delivered to visitors. The space is not considered to be 'family-friendly'. This skate park, located at the eastern end of Ham Common near Clarendon Station (Racecourse Road), is effectively the gateway to Richmond along Windsor Road. The location is used for community banners and events information.

The facility is relatively small and offers only a limited range of opportunities and skill level. It suffers from isolation and alienation from other park activities and recreational facilities. The surrounding dense mass planting (eg. Swamp Oaks) tends to hide and further isolate the area from public view. The ramps/ jumps and platforms have a large amount of graffiti. Signage, bins, bollards and fencing have been vandalized. The adjoining car parking area has not been sealed like other car parks in the reserve. There are lots of potholes. It has an unkempt appearance and vehicular barriers have been vandalized allowing uncontrolled vehicular movement into the reserve.



PHOTO 20: New picnic shelter near playground. Opportunities exist for further upgrading including gas BBQs (15.09.2008).



PHOTO 21: The enclosed children's playground offers a range of play equipment, soft fall areas and tables/ seating (15.09.2008).



PHOTO 22: The skate park facility needs better integration with other facilities and an improved range of opportunities (15.09.2008).



The workshop was mainly concerned with the lack of maintenance and repairs, late-night use/ anti-social behaviour, extensive graffiti to structures and signage, build-up of unsightly rubbish, large amounts of broken glass and potential for accidents. These issues however need further discussion within a broader community forum, particularly involving local schools and youth. Local youth did not attend the workshop.

Negative attitudes towards youth and their needs for recreational spaces tend to foster negative youth behaviour. The problems are exacerbated in places which are allowed to become marginalized or isolated from other community activities. These user groups have a need for places to meet and to practice and improve skill levels in a range of activities. This plan of management supports broader opportunities for youth including the following:

- user groups and youth workers involvement in re-design of skate park facility and ongoing maintenance;
- seeking government grant assistance for upgrading facility;
- upgrading/ or extension of facility (incl. areas for specialized skill levels and multi-use areas);
- improved public interface to roadway/ higher visibility;
- regular (weekly) maintenance by Council;
- security lighting/ cameras; and
- improved regulatory control/ policing and reporting of unauthorised activities;
- opportunities to enhance this important 'gateway point' for visitors.

#### **3.6.14 EVENTS MANAGEMENT**

The reserve also offers opportunities for promotion of special community events (eg. art and sculpture/ artist's displays, music, food and market days) which could be set up along the shared pedestrian pathway/ bikepath.

#### **3.6.15 WEDDINGS AND BOOKINGS**

Bookings for weddings may offer a potential source of funding for future park upgrades. The proposal for the George Caley Arboretum (Stage 2) could provide an outstanding landscape setting which would be suitable for weddings and other functions. The cost of ongoing garden maintenance would need to be considered.

#### **3.6.16 COMPANION ANIMAL ISSUES**

Walking dogs in the reserve is one of the more popular local pastimes. Dogs need to be kept on leash at all times. The installation of dog waste bins (including possible sponsored supply of dog faeces bags) should be considered.

### 3.7 MANAGING RECREATIONAL VALUES

While upgrading facilities would be desirable as part of a broader program of maintenance and replacement, it is important to ensure that existing identified values are retained and protected. The upgrading of recreational facilities may increase potential negative impacts such as greater visitor numbers, increased traffic volumes, parking and congestion issues, perceived crowding in picnic areas and dissatisfaction with the overall experience.

The potential also exists for increased natural resource impacts through increased visitor loadings (eg. need for additional picnic shelters and BBQs, more car parking areas and paved areas, less open space, loss of old growth trees, etc.). Over time these creeping or incremental changes may gradually lead to natural resource degradation, loss of cultural and scenic values and reduce experiential qualities for park visitors. An understanding of this process has important implications for future management.

It is essential that all environmental and social impacts are managed on a sustainable basis. This section of the plan of management has defined Ham Common's key values and established objective limits on the types and amounts of change that are either desirable or acceptable. Accordingly, visitor and site management strategies should focus on the following objectives:-

- ❖ maintain and promote long term sustainability of the parkland as a limited and finite resource;
- ❖ promote dispersal of visitor loadings within the most durable locations and protect sensitive ecological areas;
- ❖ protect and manage the reserve's natural, Indigenous and cultural heritage values;
- ❖ promote opportunities for further investigation of Indigenous heritage and involvement of traditional custodians;
- ❖ provide enhanced protection and restoration of sensitive ecological areas (ie. endangered ecological communities) and remnant old growth trees;
- ❖ continue to enhance visitor experience and opportunities for education and interpretation of the region's heritage values;
- ❖ promote safe, easy access to the parkland and its recreational facilities and address traffic management issues;
- ❖ continue to enhance and upgrade existing recreational facilities and linkages having regard for public safety and security;
- ❖ promote opportunities and broader integration of youth facilities.

In establishing limits of desirable or acceptable change, this plan of management provides a framework for the reserve's future management.



### 3.8 VISION STATEMENT

The following statement provides a vision for Ham Common which forms the basis for the following management strategies:-

*“To ensure appropriate protection, sustainable management and enhancement of the reserve’s natural and cultural setting, its rich heritage, environmental and recreational values in accordance with the objectives of community land management for the benefit of the broader community and for future generations”.*

...

## 4.0 MANAGEMENT STRATEGIES

### 4.1 OBJECTIVES

This section of the plan of management addresses the following objectives:

- ❑ *to establish core objectives for each of the community land categories;*
- ❑ *to develop an action plan for implementation of core objectives and management strategies (ie. desired outcomes);*
- ❑ *to develop performance targets to assess and monitor strategies;*
- ❑ *to assign directions and priorities (spanning the next 5-years);*
- ❑ *to address future leases and licences; and*
- ❑ *to develop a master plan for implementation of the strategic plan.*

### 4.2 COMMUNITY LAND - CORE OBJECTIVES

In accordance with the *Local Government Act 1993*, each category and sub-category are provided with a set of core objectives. Refer to *Table 4: Schedule of Core Objectives*.

### 4.3 ACTION PLAN

The following Action Plan (refer to *Table 5: Action Plan – Sheets 1-7*) is divided into four separate sections based on desired outcomes and core objectives for this community land (see column 1). Each section includes the following:

- *performance targets or management objectives* (column 2);
- *item or reference number* (column 3);
- *means of achievement or management actions* (column 4);
- *means of assessment* of the actions (column 5);
- *priority ranking* for each management action (column 6).

**Desired Outcomes** (column 1)

The sections are divided into the following headings in accordance with the desired outcomes and core objectives as shown:-

**1. Community land management – development, land uses, activities, leases, licences and other estate**

*To establish an appropriate management framework and guidelines for assessing development, land uses, activities, leases, licences and other estate in compliance with requirements for community land categorised as natural area – wetland, park, sportsground and general community use.*

**2. Indigenous and cultural heritage**

*To protect, manage and promote understanding and interpretation of Aboriginal and Non-Aboriginal cultural heritage values.*

**3. Environment/ biodiversity**

*To protect, manage and enhance environmental quality, scenic character and biodiversity values.*

**4. Recreation, facilities and access**

*To maintain and enhance existing sporting and community facilities and to improve public access, linkages and opportunities for passive recreation.*

**Performance targets** (column 2)

The desired outcomes and core objectives (refer to 1.5 Community Land Categorisation and 4.2 Community land – Core objectives) have guided the development of performance targets in the Action Plan.

**Management actions/ item no.** (columns 3 and 4)

The performance targets or management objectives provide the framework for developing specific management actions or the means of achievement. Each action is assigned an item number based on the relevant section (eg. Sec. 1: A1 to A9, followed by Sec. 2: B1 to B4, etc.).

**Performance measures** (column 5)

The Action Plan establishes a system of checks and balances to assess actions in relation to performance (ie. means of assessment).

**Priorities**

Priorities for each management action are assigned according to relative importance – very high, high, medium and low. It is envisaged that actions will be addressed on a priority basis, by the Policy and Services Unit responsible, and in accordance with the means of assessment as follows:

VERY HIGH	= 1 year
HIGH	= 1-2 years
MEDIUM	= 3-4 years
LOW	= up to 5 years

#### **4.4 CAPITAL WORKS PROGRAM**

Priorities and cost estimates are further developed in the 5-year capital works program (refer to *Table 6: Capital Works Program*). The Opinion of Probable Landscape Construction Costs is based on the Landscape Masterplan and is indicative only.

#### **4.5 LANDSCAPE MASTERPLAN**

The Landscape Masterplan (refer to *Figure 4: Landscape Masterplan*) identifies key management actions to be implemented throughout the 5-year capital works program, subject to available funding.

...

TABLE 4  
SCHEDULE OF CORE OBJECTIVES

community land management		core objectives
Management strategies must be consistent with community land categories and their respective core objectives as identified in this plan of management.		
	<b>Core Objectives: Management of community land categorised as a Natural Area (36E)</b>	<p>"The core objectives for management of community land categorised as a natural area are:</p> <ul style="list-style-type: none"> <li>a) to conserve biodiversity and maintain ecosystem function in respect of the land, or the feature or habitat in respect of which the land is categorised as a natural area, and;</li> <li>b) to maintain the land, or that feature or habitat, in its natural state and setting, and;</li> <li>c) to provide for the restoration and regeneration of the land, and;</li> <li>d) to provide for community use of and access to the land in such a manner as will minimise and mitigate any disturbance caused by human intrusion, and;</li> <li>e) 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." </li></ul>
	<b>Core Objectives: Management of community land categorised as a Natural Area: Wetland (36K)</b>	<p>"The core objectives for management of community land categorised as wetland are:</p> <ul style="list-style-type: none"> <li>a) to protect the biodiversity and ecological values of wetlands, with particular reference to their hydrological environment (including water quality and water flow), and to the flora, fauna and habitat values of the wetlands, and</li> <li>b) to restore and regenerate degraded wetlands, and;</li> <li>c) to facilitate community education in relation to wetlands, and the community use of wetlands, without compromising the ecological values of wetlands." </li></ul>
	<b>Core Objectives: Management of community land categorised as a Park (36G)</b>	<p>"The core objectives for management of community land categorised as a park are:</p> <ul style="list-style-type: none"> <li>a) to encourage, promote and facilitate recreational, cultural, social and educational pastimes and activities, and;</li> <li>b) to provide for passive recreational activities or pastimes and for the casual playing of games, and;</li> <li>c) to improve the land in such a way as to promote and facilitate its use to achieve the other core objectives for its management." </li></ul>
	<b>Core Objectives: Management of community land categorised as a Sportsground (36F)</b>	<p>"The core objectives for management of community land categorised as a sportsground are:</p> <ul style="list-style-type: none"> <li>a) to encourage, promote and facilitate recreational pursuits in the community involving organised and informal sporting activities and games, and;</li> <li>b) to ensure that such activities are managed having regard to any adverse impact on nearby residences." </li></ul>
	<b>Core Objectives: Management of community land categorised as General Community Use (36I)</b>	<p>"The core objectives for management of community land categorised as general community use are to promote, encourage and provide for the use of the land, and to provide facilities on the land, to meet the current and future needs of the local community and of the wider public:</p> <ul style="list-style-type: none"> <li>a) in relation to public recreation and the physical, cultural, social and intellectual welfare or development of individual members of the public, and</li> <li>b) in relation to purposes for which a lease, licence or other estate may be granted in respect of the land (other than the provision of public utilities and works associated with or ancillary to public utilities).</li> </ul>

1 of 1

TABLE 5  
ACTION PLAN

Performance Target (Management objectives)	Item	Means of Achievement (Management Actions)	Means of Assessment (of the actions)	Priority
community land management				
Desired Outcome: To establish an appropriate management framework and guidelines for assessing development, land uses, activities, leases, licences and other estate. Core Objectives: Management of community land categorised as natural area: wetland (36K), park (36G), sportsground (36F) and general community use (36L).				
<b>Guiding legislation:</b> To ensure the reserve's planning and management are in accordance with relevant legislation and policy. <b>Future development, land uses and activities:</b> To ensure consistency with community land categories and core objectives for natural area - wetland, park, sportsground & general community use. To protect the reserve's natural/ cultural setting and all identified values from inappropriate uses, activities and development. To provide a balanced and appropriate level of active and passive recreational infrastructure. To implement actions which will prevent incremental impacts and address threatening processes. To promote the park's role as a broadly accessible and equitable community and regional asset. To address public safety and security issues. To improve visitor education and interpretation. To ensure that development proposals will have a net positive impact in relation to identified values. To ensure protection and conservation of threatened species and populations.	A1 A2	Implement actions identified in this Plan of Management in accordance with Local Government Act 1993 and all other relevant legislation and policy. Development proposals, land uses, activities, leases, licences and management practices must be consistent with the following requirements: - demonstrate consistency with community land core objectives - protect and enhance natural/ cultural setting, scenic quality, biodiversity, Aboriginal, and cultural heritage values and promote environmental sustainability; - address flood planning, public safety and risk management issues; - protect and restore remnant habitat/ old growth trees and bio-linkages; - promote balanced, sustainable management of recreational infrastructure; - continue to maintain and upgrade community, sporting and youth facilities; - restrict inappropriate uses and activities, particularly high impact activities; - contribute to diversity and quality of recreational and community uses; - adequately provide for public access, equity and broad community use; - promote a safe environment for pedestrians and cyclists; - improve traffic management, circulation and parking; - facilitate programs in community education and interpretation of identified values; Development proposals which may directly or indirectly threaten the natural/ cultural setting, scenic, heritage and/ or biodiversity values are not permissible. Proposed development activities and uses must be consistent with threatened species legislation - Threatened Species Conservation Act 1995 and Environment Protection and Biodiversity Conservation Act 1999.	Adoption of plan of management. Level of implementation over 5 years. Number and % of proposed developments that address and adhere to development guidelines. Measure trends over time.	high ongoing
To permit the use of the land for sustainable development of appropriate recreational and community facilities.	A3 A4	This Plan of Management expressly authorises the development of existing and proposed community and recreational facilities (see Figure 4: Landscape Masterplan) subject to compliance with core objectives for the community land category and development guidelines (see items A2-A4 and D1-D18). This Plan of Management expressly authorises the granting of leases, licences or other estate over the community land for the purposes of providing goods, services and facilities, and the carrying out of activities, appropriate to current and future needs within the local community and of the wider public in relation to any of the following: - public recreation, social and educational activities; - the physical, cultural, social and intellectual welfare or development of persons; and - only if the purpose for which it is granted is consistent with the core objectives of its categorisation.	as above Number and % of proposed developments that address and adhere to development guidelines. Proposed staged development/ capital works items completed subject to available funding and priorities.	ongoing ongoing
<b>Leases, licences and other estate:</b> To provide express authorisation for appropriate leases, licences or other estate over community land. To ensure consistency with relevant legislation affecting the uses and activities on community land. To permit the granting of leases, licences or other estate which are consistent with community needs and the community land core objectives.	A5 A6	This Plan of Management expressly authorises the development of existing and proposed community and recreational facilities (see Figure 4: Landscape Masterplan) subject to compliance with core objectives for the community land category and development guidelines (see items A2-A4 and D1-D18). This Plan of Management expressly authorises the granting of leases, licences or other estate over the community land for the purposes of providing goods, services and facilities, and the carrying out of activities, appropriate to current and future needs within the local community and of the wider public in relation to any of the following: - public recreation, social and educational activities; - the physical, cultural, social and intellectual welfare or development of persons; and - only if the purpose for which it is granted is consistent with the core objectives of its categorisation.	Leases/ licences granted in accordance with Local Government Act 1993 and this Plan of Management. Assess against Council policies, principles and permitted uses consistent with community land categories and core objectives.	ongoing

1 of 7



TABLE 5 [cont'd]  
ACTION PLAN

Performance Target (Management Objectives)	Item	Means of Achievement (Management Actions)	Means of Assessment (of the actions)	Priority
<b>community land management</b>				
<b>Desired Outcome:</b> To establish an appropriate management framework and guidelines for assessing development, land uses, activities, leases, licences and other community use (36f). <b>Core Objectives:</b> Management of community land categorised as natural area: wetland (36K), park (36O), sportsground (36F) and general community use (36f).				
<b>Leases and licences [cont'd]:</b> To permit the granting of leases, licences or other estate which are consistent with community needs and the community land core objectives.	A7	This Plan of Management expressly authorises the granting of a lease or licence over community land categorised as sportsground (1) and general community use (2) for the following uses and activities subject to compliance with core objectives and development guidelines: (1) Hawkesbury Districts Tennis Centre (Richmond Tennis Complex), and (2) café/kiosk (attached to Visitors Centre) incl. use of designated outdoor area. In accordance with Pt 4, Div 3 Cl 117 of the Local Government (General) Regulation 2005, leases, licences and other estates granted for the following purposes are exempt from the provisions of s.47A of the Local Government Act 1993:- (1) the provision of pipes, conduits or other connections under the surface of the ground for the connection of premises adjoining the community land to a facility of the council or other public utility provider that is situated on the community land; (2) use and occupation of the community land for events such as: - a public performance (ie. a theatrical, musical or other entertainment for amusement of the public); - the playing of a musical instrument, or singing for a fee or reward; - engaging in a trade or business; - playing of any lawful game or sport; - delivering a public address; - conducting a commercial photographic session; - picnics and private celebrations such as weddings and family gatherings; - filming. The use or occupation of community land for such short term or casual events listed is exempt only if the use or occupation does not involve the erection of any building or structure of a permanent nature.	Leases and/or licences granted in accordance with relevant legislation and this Plan of Management.	ongoing
To permit the granting of short-term and casual licences consistent with the relevant legislation.	A8		Short-term and casual licences granted in accordance with relevant legislation and this Plan of Management. Measure trends over time.	ongoing
<b>Easements:</b> To permit the granting of easements which are consistent with the Local Government Act 1993.	A9	This Plan of Management expressly authorises the granting of easements over the community land for the purpose of providing pipes, conduit or other connections under the surface of the ground. This is limited to easements that connect land adjoining community land to an existing water, sewer, drainage or electrical facility of council or other public utility provider that is situated on community land. The granting of easements on community land must be consistent with community land categories, their core objectives and the development guidelines in this Plan of Management.	Easements granted in accordance with relevant legislation and this Plan of Management.	ongoing

2 of 7

TABLE 5 [cont'd]  
ACTION PLAN

heritage	Performance Target (Management objectives)	Item	Means of Achievement (Management Actions)	Means of Assessment (of the actions)	Priority
	<b>Desired Outcome:</b> To protect, manage and promote understanding and interpretation of Aboriginal and Non-Aboriginal cultural heritage values. <b>Core Objectives:</b> Management of community land categorised as natural area: wetland (36K), park (36G), sportsground (36F) and general community use (36I).				
	To promote further research, investigation and interpretation of archaeological sites and relics within the reserve and to ensure appropriate protection and management.	B1	In consultation with traditional Aboriginal custodians, conduct investigations and research of potential Aboriginal and archaeological heritage within the reserve. Archaeological sites and relics and potential archaeological deposits (PAD) are to be properly protected and managed in accordance with relevant legislation.	Investigations undertaken and recommendations implemented for protection and management of archaeological sites and relics prior to commencement of any site works.	very high
	To promote research and interpretation of the site's cultural heritage and social values associated with early aviation.	B2	Continue to research and expand upon the community's understanding of the reserve's local history (ie. associations with early European settlement in the area, pioneering aviation history, development of the RAAF Base Richmond and service during wars).	Research undertaken and recommendations implemented.	high
	To enhance integration of existing educational/interpretive signage, monuments and memorials.	B3	Ensure that any additional educational and interpretive signage identifies the Aboriginal and cultural heritage associated with this site. Integrate the Botanists Way signage panels and proposed George Caley Arboretum (ie. regional facilities) with the site's local history (ie. early aviation, monuments, memorial plantations and children's plane).	Local Aboriginal and cultural heritage integrated with existing and proposed regional facilities. Interpretive signage developed and installed.	high
	To improve visitor interpretation and understanding of the local precinct and regional heritage values.	B4	Restrict the continued expansion of monuments into open space. Focus on the consolidation of existing monuments and enhancement of landscape setting.	Number of additional monuments/ memorials. Measure trends over time.	ongoing
	<b>Desired Outcome:</b> To protect, manage and enhance environmental quality, scenic character and biodiversity values. <b>Core Objectives:</b> Management of community land categorised as natural area: wetland (36K), park (36G), sportsground (36F) and general community use (36I).				
	<b>Natural resource management:</b> To promote strategies which improve water quality and natural floodplain/ wetland hydrology. To assist in and facilitate the implementation of any adjoining land owners to address environmental and conservation issues affecting the floodplain/ wetlands.	C1	Continue to implement Stormwater Management Strategy on catchment priorities basis incl. determination of pollutant sources, risk assessment, control of gross pollutants, monitoring and maintenance. Restore/ maintain existing drainage channel/ flow path through wetland.	Works implemented in accordance with Strategy. Measure trends over time.	high ongoing
		C2	Liaise with DECC, DNR and adjoining land owners (State Rail, UWS) to address environmental issues. Establish opportunities/ partnerships for enhancing conservation values (ie. improving water quality and wetland holding capacity, conservation of remnant native vegetation, weed management, creation of buffers/ bio-linkages, conservation agreements and incentives).	Number and type of programs/ agreements initiated. Measure trends over time.	medium ongoing
	<b>Weed management and restoration:</b> To ensure the implementation of best-practice standards for the protection and management of natural areas and remnant native populations.	C3	Ensure that the reserve's remnant wetlands (categorised as natural area: wetland) and its remnant native population of old growth trees (ie. remnant River-flat Eucalypt Forest) are managed in accordance with prescribed best-practice standards as follows: - Draft Recovery Plan for the Cumberland Plain Endangered Ecological Communities (CPECs); - Draft Best Practice Guidelines for Bush Regeneration on the Cumberland Plain [DLWC and the Australian Association of Bush Regenerators, 2003]; - Management Principles to Guide the Restoration and Rehabilitation of Indigenous Vegetation [Greening Australia]; and - Florabank Guidelines for native seed collection, production, handling & storage.	Compliance in all respects with the national goal of the BushCare National Vegetation Initiative - ie. to halt any further losses and to achieve a positive net gain. Number of incidences/ area affected by non-compliance with threatened species legislation and policy. Measure trends over time.	high ongoing
	To address the long term objectives of building ecosystem resilience and durability.	C4	Implement an integrated and targeted restoration strategy which focuses on the recovery, recruitment, long term durability, expansion and consolidation of fragmented natural habitat, native populations and species.	Level of funding per annum linked to positive net gains. Area/ % of park under restoration [over 5 years]. Measure trends over time.	high ongoing

3 of 7



TABLE 5 [cont'd]  
ACTION PLAN

Performance Target (Management objectives)	Item	Means of Achievement (Management Actions)	Means of Assessment (of the actions)	Priority
<b>environment and biodiversity</b>				
<b>Desired Outcome:</b> To protect, manage and enhance environmental quality, scenic character and biodiversity values. <b>Core Objectives:</b> Management of community land categorised as natural area: wetland (36K), park (36G), sportsground (36F) and general community use (36I).				
<b>Weed management/ restoration [cont'd]:</b> To address key threatening processes. To secure and consolidate habitat values, bio-linkages and buffers. To address current issues affecting the integrity, resilience and durability of native vegetation. To target noxious and environmental aquatic and semi-aquatic weed species in the wetland. To protect existing native wetland species.	C5	Continue to identify, monitor and restrict the impact of key threatening processes [ie. exotic weed invasion, clearing/ mowing [around remnant old growth trees]. Selectively target and control noxious and environmental weeds in conjunction with staged restoration and enhancement strategies in the following priority target areas: 1. remnant wetland [western paddock near Richmond town centre], and 2. remnant native population [incl. stands of old growth trees]. Monitor and control noxious aquatic and semi-aquatic weeds in accordance with the Noxious Weeds Act 1993. Eradicate Crack Willows ( <i>Salix nigra</i> / <i>S. fragilis</i> agg spp.) within the wetland. Continue to monitor and target all open water aquatic weeds. Avoid the use of non-selective spraying applications of herbicides [over-spray] and broad-scale removal/ slashing and mowing of wetland species. Clearly delineate management zones [ie. wetland and remnant stands of native woodland under regeneration/ restoration strategy]. Install protective fencing and signage to identify and protect fragile natural areas from inappropriate maintenance/ mowing regimes, trampling and compaction. Establish opportunities for natural recruitment/ regeneration. Use a minimal disturbance bush regeneration approach where positive net gains are achievable [ie. relatively high level of resilience]. Monitor and review outcomes. Ensure dependent and threatened species habitat is protected and enhanced. Establish restoration, enhancement and reinstatement strategies for areas which display a high level of soil disturbance, modification and/ or a low level of natural regeneration. Use local native, provenance-sourced species in the program [ie. local genotypes]. Ensure that existing site soils are not amended and that soils or mulches are not imported for use in these strategies, including translocation or use of ex situ soil profiles and seed banks.	No. of targeted/ funded programs and results. Measure trends over time. Level of funding per annum linked to positive net gains. Area/ % of wetland under restoration [over 5 years].	very high ongoing high ongoing
To clearly identify and provide protective measures for fragile natural areas under bush regeneration/ restoration.	C6			
To establish viable natural areas and to promote long-term sustainability.	C7		Noxious aquatic and semi-aquatic weeds controlled in accordance with legislation. Measure trends over time.	high ongoing
To secure genetic integrity as a key component of the restoration and enhancement strategy.	C8		Area under bush regeneration/ restoration per annum. Measure trends over time.	very high ongoing
To establish a representative level of species and structural diversity.	C9		as above Measure trends over time.	very high ongoing
To promote partnerships with state government agencies, industry and local land holders to secure sustainable environmental outcomes.	C10		Area under restoration/ enhancement strategy per annum. Measure trends over time.	very high ongoing
To ensure a high level of expertise in implementing the strategy.	C11	Seek grant funding for the weed management and restoration strategy from various State and Federal government sources [eg. Natural Heritage Fund, Hawkesbury Nepean CMA, HRCC, Metropolitan Greenspace, etc]. Establish a program using skilled contract labour [ie. qualified and experienced contract bush regenerators] to implement the wetland restoration strategy.	Level of funding per annum linked to positive net gains. Measure trends over time.	very high ongoing
To involve local volunteers in weed management and stewardship in restoring the wetland.	C12	Seek to establish a volunteer BushCare group as a key strategy of the program to assist in weed management/ restoration, rubbish removal, monitoring unauthorised activities and community education in appropriate visitor behaviour.	Level of funding for contract bush regeneration per annum. Annual/ quarterly progress reports. Numbers of volunteers/ groups actively involved in the environmental program. Measure trends over time.	high ongoing
To provide appropriate assistance and support for community volunteers.	C13	Provide assistance and support in grant applications by volunteer groups. Ensure that volunteers are adequately supported and monitored [eg. leadership/ education, supply of materials, staging, removal of stockpiled weeds, etc].	Number of applications per annum. Measure success rate. Annual/ quarterly progress reports.	high ongoing

4 of 7

TABLE 5 [cont'd]  
ACTION PLAN

Performance Target (Management objectives)	Item	Means of Achievement (Management Actions)	Means of Assessment (of the actions)	Priority
<b>environment and biodiversity</b>				
<b>Desired Outcome:</b> To protect, manage and enhance environmental quality, scenic character and biodiversity values. <b>Core Objectives:</b> Management of community land categorised as natural area: wetland (36K), park (36G), sportsground (36F) and general community use (36I).				
<b>Protect natural/ cultural setting:</b> To protect and manage existing natural/ cultural setting and to ensure that additional planting is consistent with restoration strategy.	C15	Ensure that future landscaping (incl. additional native planting) is consistent with weed management/ restoration strategy (see items C3-C14). Additional planting should reinforce the existing natural/ cultural setting and provide shade, enhanced visual quality, habitat and bio-linkages as well as supporting passive recreational opportunities. Reduce the dependence on generic native species (ie. use of non-local genotypes). Provide a maintenance regime which affords a high level of passive surveillance and security for visitors and protects important sight-lines (ie. near car parking areas, vehicular entry/ exit points, shared pedestrian/ bikepath, picnic areas/ amenities and children's playground). Under-prune or remove dense shrub planting in these locations. Investigate options for restoration and management of open low-lying grassed swales (ie. 'dry' wetland areas) in section of reserve west of central parking area (see item D7). Ensure that flood planning, management and provision of public access and recreational infrastructure are consistent with relevant strategies and plans.	Works implemented in accordance with this Plan. Number and species of trees/ groundcovers planted and survive after 5 years.	ongoing
To maintain a quality landscape setting. To address security and public safety issues.	C16		Works implemented in accordance with this Plan. Visitor safety and security issues addressed.	ongoing
To investigate options for restoring biodiversity within the reserve.	C17		Investigation completed and recommendations implemented subject to available funding.	medium
<b>Public safety/ emergency services:</b> To address flood planning, public safety and risk management.	C18		Planning and procedures implemented in accordance with relevant plans.	ongoing
<b>Desired Outcome:</b> To maintain and enhance existing sporting and community facilities and to improve public access, linkages and opportunities for passive recreation.				
<b>Core Objectives:</b> Management of community land categorised as natural area: wetland (36K), park (36G), sportsground (36F) and general community use (36I).				
<b>Visitors Centre/ Cafe &amp; Bicentennial Park</b> To upgrade existing visitor centre, cafe & associated facilities and amenities. To address need for regional visitor facilities.				
	D1	Continue to seek government grant funding for a future upgrade of this building and associated facilities as a regional 'visitor attractor' including building extension and refurbishment of tourist information area, cafe/ kiosk, outdoor courtyard/ landscaping. Integrate these facilities with adjoining picnic area, car parking area, playground, public amenities, Botanists Way signage and proposed George Carey Arboretum. Continue to maintain and upgrade tennis complex (incl. 14 No. all-weather synthetic surface courts, lighting to all courts, clubhouse, picnic shelters, picnic tables/ seating, benches and litter bins). Ensure that all facilities and equipment are maintained in accordance with relevant building and safety standards. Maintain mown lawn areas and gardens around facilities.	Works implemented in accordance with this Plan of Management and subject to available funding.	high
<b>Hawkesbury Districts Tennis Centre:</b> To maintain and upgrade tennis complex, clubhouse and passive recreational facilities. To promote the tennis complex as a broadly accessible community asset.	D2		Facilities maintained in accordance with regular monitoring procedures, building and safety standards. Maintenance in accordance with service standards.	high ongoing
<b>Shared pedestrian pathway/ bikepath:</b> To enhance regional opportunities for public access and connectivity. To enhance multi-use linkages and access to a range of facilities within the reserve. To improve visitor safety and to address traffic management issues. To provide opportunities for access to sensitive wetland areas and to enhance recreational experience.	D3	Continue to maintain and upgrade existing shared concrete pedestrian pathway/ bikepath which extends along the entire length of the reserve. Ensure linkages are provided with upgrading of all recreational facilities. The following areas need to be addressed (in order of priority): (1) Central car parking/ turning area: re-align pathway/ bikepath to avoid conflict point with vehicular traffic. Remove shrubs blocking sight lines (see item D7). (2) Proposed 'gateway' and skate park facility upgrade: connection and integration with proposed regional facility and upgraded car parking area; (3) Proposed wetland boardwalk (following restoration of western paddock/ wetland): installation of a timber or metal grille boardwalk (including interpretive signage).	Maintenance in accordance with service standards.  Works implemented in accordance with this Plan of Management and subject to available funding. as above  as above	high ongoing  very high high medium

5 of 7



TABLE 5 [cont'd]  
ACTION PLAN

recreation, access and facilities	Performance Target (Management objectives)	Item	Means of Achievement (Management Actions)	Means of Assessment (of the actions)	Priority
	<b>Desired Outcome:</b> To maintain and enhance existing sporting and community facilities and to improve public access, linkages and opportunities for passive recreation. <b>Core Objectives:</b> Management of community land categorised as natural area: wetland (36K), park (36G), sportsground (36F) and general community use (36I).				
	<b>Proposed exercise stations:</b> To enhance opportunities for exercise/ fitness. To promote dispersal of visitor loadings within the most durable locations.	D4	Install a series of exercise stations along the shared pedestrian pathway/ bikepath [i.e. durable and functional fitness equipment] located at strategic points between the tennis complex and central car parking/ turning area [i.e. away from main picnic facilities/ visitor information].	Works implemented in accordance with this Plan of Management and subject to available funding.	very high
	<b>Vehicular access &amp; car parking areas:</b> To maintain existing parking facilities. To provide a safe pedestrian environment. To manage traffic flows/ peak concentrations. To improve visitor access and parking for larger vehicles.	D5	Continue to maintain existing sealed bitumen car parking areas [incl. line marking of bays/ car spaces, slow-point treatments, speed limits and traffic flows]: (1) Hawkesbury Districts Tennis Centre [Richmond - western end]; and (2) Hawkesbury Visitors Centre/ Café, Botanists Way & main picnic area.	Maintenance in accordance with service standards.	ongoing
	To enhance opportunities for dispersal of visitor concentrations in reserve. To address issues of isolation, alienation and anti-social behaviour. To enhance environmental values and promote natural recruitment. To investigate options for broader restoration and integration of wetlands.	D6	Investigate options to provide lay-by parking [short stay] for four buses and cars towing caravans in main car parking area [Visitors Centre] to provide improved access to visitor information and public amenities.	Investigation completed and recommendations implemented subject to available funding.	high
	To address temporary parking facilities and associated traffic management, public safety and visual quality. To facilitate opportunities for larger vehicles/ tour bus movements and parking.	D7	Modify existing layout and reduce scale of central overflow car parking/ bus turning area installed during Bicentennial celebrations: - reduce size of asphalt hardstand [ensure provision for large vehicle/ bus turning]; - narrow entry/ exit point and separate traffic flows to reduce speed; - provide a finished bitumen seal to smaller car parking area; - delineate car spaces [line marking], install slow-point treatments/ speed limit, timber vehicular barriers/ bollards and security lighting; - provide longer stay lay-by parking for four buses and/ or vehicles towing caravans; - relocate shared pedestrian pathway/ bikepath away from vehicular entry/ exit point [i.e. provide safe alternate route]; - remove dense shrub planting near car park entry/ exit point and establish clustered native tree planting within car parking bays and along pathway [see items C15-16]; - establish management zones for protection and recruitment of remnant native tree population along southern edge of car park [River-flat Eucalypt Forest - see item C8]; - investigate options for enhancement of adjoining open low-lying grassed swales [incl. wetland restoration and management options].	Works implemented in accordance with this Plan of Management and subject to available funding.	high
	To improve existing facilities and enhance recreational opportunities. To provide opportunities for dispersal of concentrated recreational loadings.	D8	Upgrade existing unsealed car parking area adjacent to skate park facility: - formalised entry/ exit point off Racecourse Road, expansion for larger number of vehicles, sealed bitumen finish, marked car spaces, timber vehicular barriers/ bollards, security lighting and landscaping; - integrate car parking area with proposed regional skate park facility [see item D10].	Works implemented in accordance with this Plan of Management and subject to available funding.	high
	<b>Passive recreational facilities:</b> To maintain and enhance existing passive recreational open space and facilities. To address public safety issues and to replace ageing, non-functional or damaged infrastructure.	D9	Continue to maintain and enhance existing passive open spaces and facilities [incl. picnic shelters/ tables and seating, BBQs, public amenities, playground, bollards/ barriers, car parking areas, litter bins, pathways, monuments, signage and landscaping]; - subject to upgrading of central car parking area [see item D7] install new picnic/ BBQ shelter [incl. 2 X gas hot-plates] in western grassed area adjacent to pathway.	Maintenance in accordance with service standards.  Proposed staged development/ capital works items completed subject to appropriate funding.	ongoing  medium

6 of 7

**TABLE 5 [cont'd]**  
**ACTION PLAN**

[illegible]

TABLE 6: CAPITAL WORKS PROGRAM							
ITEM	ACTION	CAPITAL COST (\$)	IMPLEMENTATION				
			2009	2010	2011	2012	2013
<b>A1-A9</b>	<b>Community land management</b>						
A1	see following items for details	see below					
A2-A4	no capital works component	not costed					
A5	see following items for details	see below					
A6-A9	no capital works component	not costed					
<b>B1-B4</b>	<b>Heritage</b>						
B1	conduct investigations/ consultation with Aboriginal custodians	not costed					
B2	continue investigations/ consultation with representative groups	not costed					
B3	develop and install signage/ consultation [Aboriginal and cultural heritage]	\$10,000.00					
B4	consolidation of monuments and landscape features	see below					
<b>C1-C18</b>	<b>Environment and biodiversity</b>						
C1	continue implementation of stormwater strategy on catchment priorities basis	not costed					
C2	liaise with stakeholders/ establish partnerships & modify management regimes	not costed					
C3-C7	implement integrated & targeted weed management/ restoration strategy	\$60,000.00					
C8	delineate management zones/ temporary fencing and signage	\$30,000.00					
C9-C14	as above [see C3-C7]	see above					
C15-C16	implement appropriate management/ maintenance strategies	not costed					
C17	investigate options for restoration of wetlands in low-lying grassed swales	see above					
C18	cooperative planning/ liaison - flood planning/ management	not costed					
<b>D1-D15</b>	<b>Recreation, access and facilities</b>						
D1	continue to seek federal funding for Visitor Centre/ precinct upgrade	not costed					
D2	maintain/ upgrade tennis complex and passive recreational facilities	not costed					
D3	maintain/ upgrade shared pedestrian pathway/ cycleway [items 1-3]	see below					
D4	install exercise stations/ fitness equipment	\$60,000.00					
D5	maintain/ upgrade main car parking areas	not costed					
D6	investigate/ construct [short stay] lay-by parking for buses/ caravans	\$25,000.00					
D7	Amended as per Council Resolution						
D8	upgrade car parking area adjacent to skate park	\$45,000.00					
D9	maintain/ upgrade passive recreational facilities [incl. new picnic shelter/ BBQ]	\$120,000.00					
D10	upgrade skate park facility/ gateway initiative	\$150,000.00					
D11	install additional park lighting targeting nodal areas of activity	\$80,000.00					
D12-D14	install identification signage/ rationalize existing signage	\$30,000.00					
D15	maintain companion animal policy/ investigate options	not costed					
	<b>TOTALS</b>	<b>\$610,000.00</b>					
Note: Opinion of probable landscape constructions costs is based on Fig 6: Landscape Masterplan. All figures shown are indicative only.							
<b>SUMMARY OF ANNUAL BUDGETS</b>		<b>CAPITAL COST (\$)</b>					
2009		\$87,000.00					
2010		\$102,000.00					
2011		\$142,000.00					
2012		\$152,000.00					
2013		\$127,000.00					
<b>TOTALS</b>		<b>\$610,000.00</b>					

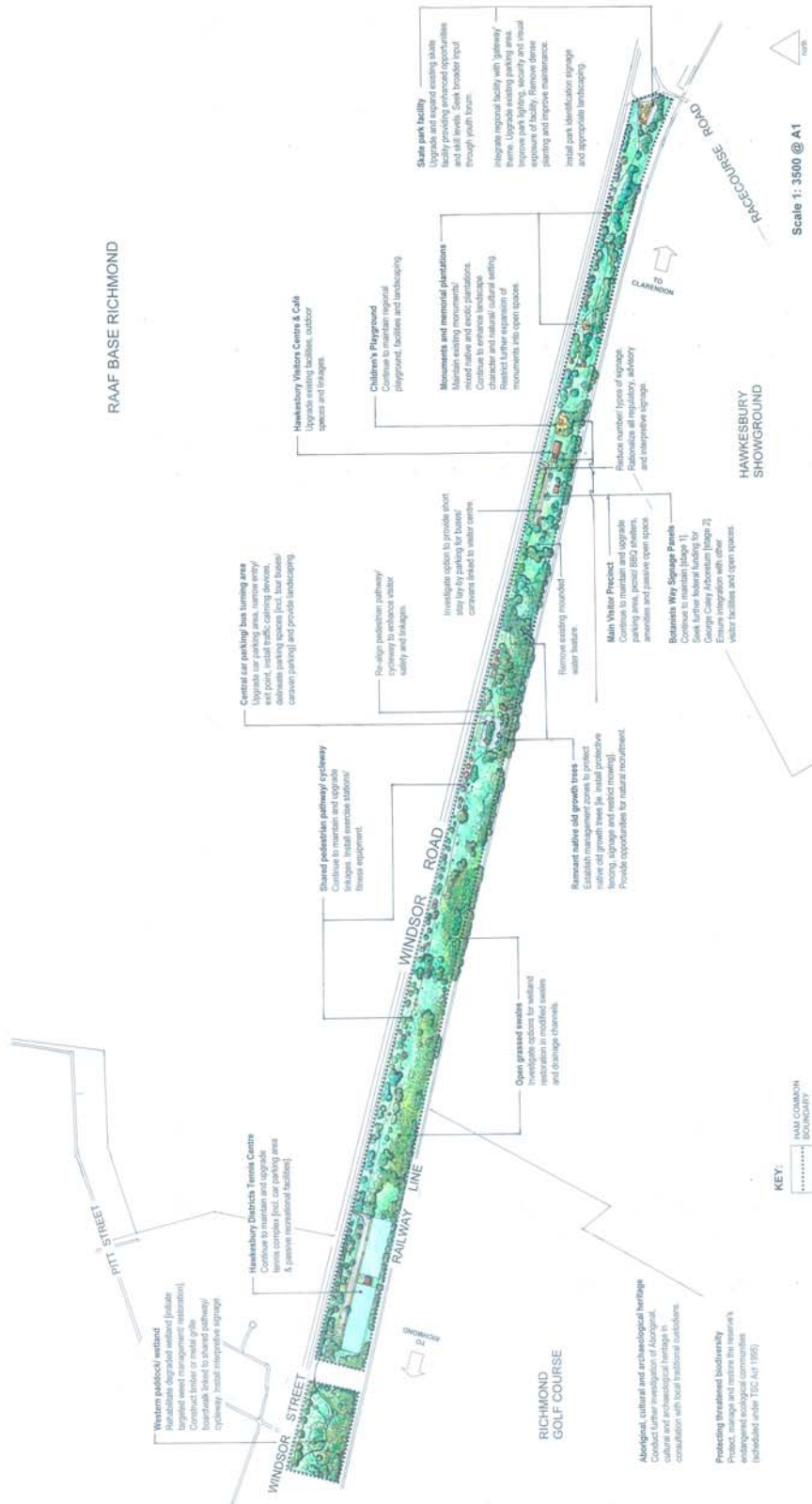


FIGURE 4  
**LANDSCAPE MASTERPLAN**  
HAM COMMON

## BIBLIOGRAPHY

### Publications and Policy Documents

Bannerman, S.M. & Hazelton, P.A. (1990) Soil Landscapes of the Penrith 1:100 000 Sheet.

Beadle, N.C.W., Evans, O.D. and Carolin, R.C. (1986) Flora of the Sydney Region. Reed Books.

Benson, D. & Howell, J. (1990) Taken for Granted: The Bushland of Sydney and its Suburbs. Kangaroo Press, Sydney.

Benson, D. & McDougall, L. (1991) Rare Bushland Plants of Western Sydney. Royal Botanic Gardens, Sydney.

Biodiversity: Draft NSW Biodiversity Strategy. (1997) New South Wales National Parks & Wildlife Service.

Bowd, D.G. (1982) Macquarie Country – A History of the Hawkesbury. Library of Australian History.

Bowd, D.G. (1986) Hawkesbury Journey. Star Printing Pty Ltd.

Buchanan, R. (1989) Bush Regeneration – Recovering Australian Landscapes. TAFE NSW.

Cripps, E., Binning, C. & Young, M. (1999) Opportunity Denied: Review of the Legislative Ability of Local Government to Conserve Native Vegetation. National Program on Rehabilitation, Management and Conservation of Remnant Vegetation, Research Report 2/99, Environment Australia, Canberra.

Disappearing Acts – A Guide to Australia's Threatened Species Law. (2000) National Environmental Defenders Office Network, Sydney.

Draft Guidelines for Monitoring a Bushcare Project – A Component of the Trust's Manual: "Aspects of Catchment Health". (2000) Hawkesbury Nepean Catchment Management Trust.

Fairley, A & Moore, P (1989) Native Plants of the Sydney District: An Identification Guide, 1995 Reprint, Kangaroo Press in association with The Society for Growing Plants - NSW Ltd.

Faulding, M., Kelly, A.H.H., Bateson, P., & Donovan, I. (2001) Biodiversity Planning Guide for NSW Local Government. NSW National Parks and Wildlife Service, Sydney.

Geology of the Sydney 1:100 000 Sheet 9130, Geological Survey of New South Wales. (1985) New South Wales Department of Mineral Resources (1985)

Graefe, A., Kuss, F.R. and Vaske, J. (1990) Visitor Impact Management: The Planning Framework, Vol. 2. National Parks and Conservation Association, Washington DC.

Graefe, A., Kuss, F.R. & Vaske, J. (1990) Visitor Impact Management: A Review of Research, Vol.1. National Parks and Conservation Association, Washington DC.

Guidelines and Application Form for Clearing Vegetation under the Native Vegetation Conservation Act – adding Value to the Natural Assets of New South Wales. (1997) Department of Land and Water Conservation, New South Wales.

Hawkesbury City Council Charter. Hawkesbury City Council.

Hawkesbury City Council Section 94 Contributions Plan Review 2001. Hawkesbury City Council.

Hawkesbury Cultural Plan 2006-2011. Hawkesbury City Council.

Hawkesbury Local Environmental Plan 1989. Hawkesbury City Council.

Hawkesbury City Council Management Plan 2006-2007. Hawkesbury City Council.

Interpretation Guidelines for the Native Vegetation Maps of the Cumberland Plain, Western Sydney. (2000) New South Wales National Parks and Wildlife Service.

The New South Wales Wetlands Management Policy. (1996) Department of Land and Water Conservation, New South Wales.

Newton, S. (ed.) (2001) Bushland or Buildings? - The Dilemma for Biodiversity Conservation in Urban Areas, Conference Proceedings. Nature Conservation Council of NSW.



On the Brink: Your Bush, Their Habitat, Our Act. Is the Threatened Species Conservation Act Working? Proceedings of the Conference held at the University of Sydney, Camperdown. (1997) Nature Conservation Council of NSW.

Practice Note No.1 – Revised: Public Land Management. (2000) Department of Local Government

Protecting Wetlands in Sydney's Coastal Councils: Background Information and Literature Review Report. (2000) Sydney Coastal Councils Group Inc.

Robinson, L. (2003) Field Guide to the Native Plants of Sydney (revised 3<sup>rd</sup> edition) Kangaroo Press, Sydney.

Succeeding with Plans of Management: A Guide to the Local Government Act and Crown Lands Act. (1996) New South Wales Department of Land & Water Conservation

Threatened Species Conservation Act 1995, Schedules 1,2 and 3. (2007) New South Wales Scientific Committee

### **Journal Articles**

Benson, D. & McDougall, L. (1998) Ecology of Sydney plant species Part 6: Dicotyledon family Myrtaceae. Cunninghamia. 5(4): 808-983 National Herbarium of New South Wales, Royal Botanic Gardens, Sydney.

Burden, R.F & Randerson, P.F (1991) Quantitative Studies of the Effects of Human Trampling on Vegetation as an Aid to the Management of Semi-Natural Areas.

Cole, D.N. and Bayfield, N.G (1993) Recreational Trampling of Vegetation: Standard Experimental Procedures. Biological Conservation. 63: 209-215.

Kelly, J.R & Harwell, M.A (1990) Indicators of Ecosystem Recovery. Environmental Management. 14: 527- 545.

Kuss, F.R & Graefe, A.F (1995) Effects of Recreation Trampling on Natural Area Vegetation. National Recreation and Park Association. 17: 715-727.

Prosser, G (1986) The Limits of Acceptable Change: An Introduction to a Framework for Natural Area Planning. Australian Parks and Recreation. 22: 2: 5-10.

...