Plan of Management **Berrima River Reserve**

Additional Information August 2009











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Project Name Berrima River Reserve Plan of Management
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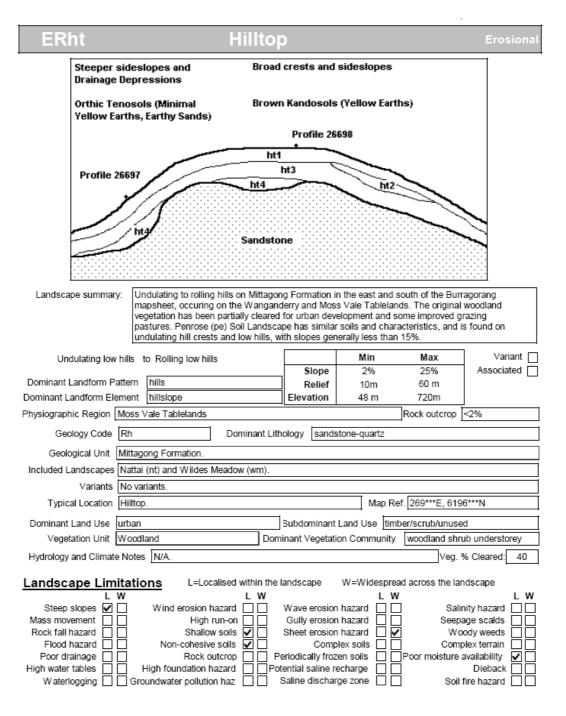
Document Version Additional Information 1.4



1.0 Soil Landscape

Sydney Catchment Authority (SCA)

The soil Landscape for Berrima Reserve is classified by the Sydney catchment authority as ERht Hilltop



Landscape described by Linda Henderson Burragorang 1:100 00 Soil Landscapes Printed: 08-Jul-04 10:06 AM



Hilltop _ ERht

Facets											
Narrow cre	ests, steeper	sideslopes and		Layer	Horizon	Depth	(m)	Texture	pН	Structure	Soil mate
drainage d	lepressions.	•		1	Α	0.15	Si	andy loam	4.5	weak pedalit	y ht1
				2	В	0.5	S	andy loam	5	massive	ht3
	Orthic Tenosols Earths, Earthy	s (Minimal Yellow Sands)		3	С	1	cl	ayey sand	5.5	massive	ht4
Percentage	of landscape:	30									
Тур	ical soil profile:	26697									
Sideslopes	s and broad	crests.		Layer	Horizon	Depth	(m)	Texture	pН	Structure	Soil mate
				1	A1	0.1	lo	amy sand	5.5	massive	ht1
				2	2A	0.23	lo	amy sand	5.5	massive	ht1
Soil type(s):	Brown Kandoso	ols (Yellow Earths)		3	B2	0.7	S	andy loam	5	massive	ht3
				4	В3	1.1	Si	andy loam	5	massive	ht4
Percentage	of landscape:	70									
_	ical soil profile:	26698									
Soil Mate		repellant loam (topso	il - Δ	1 horizo	n)						
SM fertility:		Sodicity/Dispersion	''' - A		w perme	vahility	П		Acidit	v 🔽	
PAWC:		Hardsetting surface	~		gh perme	-	~	St	tonines	′ =	
Erodibility:	Moderate	Water repellence	~		-swell po	-			/ hazard	\equiv	
ht2 Br	own gravelly cla	ayey sand (topsoil - A2	hori	zon).							
SM fertility:	Low	Sodicity/Dispersion		Lo	w perme	ability			Acidit	y 🗸	
PAWC:	Low	Hardsetting surface	~	Hi	gh perme	eability	~	St	tonines	s 🔽	
Erodibility:	Moderate	Water repellence	Ш	Shrink	-swell po	tential	Ш	Salinity	/ hazard	<u> </u>	
		own sandy clay loam	(subs	oil - B I	horizon).		_			_	
SM fertility:	Low	Sodicity/Dispersion	Ц	Lo	w perme	ability	닏		Acidit	_	
PAWC:	Moderate	Hardsetting surface			gh perme	-	\sqcup		tonines	_	
Erodibility:	Moderate	Water repellence	Ш		-swell po	tential	Ш	Salinity	/ hazard	<u> </u>	
	ellowish brown o	layey sand (subsoil -	B hor								
SM fertility:	Low	Sodicity/Dispersion	닏		w perme		Ц		Acidit		
PAWC:		Hardsetting surface			gh perme		~	-	tonines	_	
Erodibility:	High	Water repellence		Shrink	-swell po	tential	Ш	Salinity	/ hazaro	<u> </u>	

Printed: 08-Jul-04 10:06 AM



2.0 NSW Threatened Species Legislation

The NSW *Threatened Species Conservation Act 1995* identifies and protects native plants and animals in danger of becoming extinct. The Act also provides for species recovery and threat abatement programs. More than 80 species of native plants and animals have recently become extinct in NSW and around 1000 more are threatened with extinction.

The purpose of the Act is to:

- conserve biological diversity and promote ecologically sustainable development
- prevent the extinction and promote the recovery of threatened species, populations and ecological communities
- protect the critical habitat of those species, populations and ecological communities that are endangered
- eliminate or manage certain processes that threaten the survival or evolutionary development of threatened species, populations and ecological communities
- ensure that the impact of any action affecting threatened species, populations and ecological communities is properly assessed, and
- encourage the conservation of threatened species, populations and ecological communities through co-operative management.

The Act replaced earlier laws enacted in 1991, which provided for the designation of some animals as endangered and the regulation of activities affecting these animals and their habitat. The Act streamlined existing regulatory procedures under the *Environmental Planning and Assessment Act 1979* (EP&A Act) and the *National Parks and Wildlife Act 1974* (NP&W Act). This allowed for the integration of threatened species assessment into the State's planning system and removed the requirement to obtain a separate threatened species licence in addition to development consent under the EP&A Act.

Endangered, vulnerable or extinct?

Schedule 1 of the *Threatened Species Conservation Act 1995* lists threatened species, populations and ecological communities and species that are endangered or presumed extinct. Schedule 2 lists vulnerable species and Schedule 3 lists key threatening processes.

- The Act defines 'endangered' as a species, population or ecological community that is likely to become extinct or is in immediate danger of extinction.
- A species that is 'presumed extinct' has not been located in nature during the preceding fifty years despite the searching of known and likely habitats.
- A 'vulnerable' species is likely to become endangered unless the circumstances and factors threatening its survival or evolutionary development cease to operate.

The Scientific Committee (the listing process)

The Scientific Committee is an independent group of ten scientists who are responsible for the listing of threatened species, populations and ecological communities under the Act. The Scientific Committee considers all nominations for listing and makes a preliminary determination that is published for public comment. Any person may nominate to list or de-list a species, population or ecological community. Once submissions are reviewed the Scientific Committee makes a final determination to list, de-list or vary the status of the species, population or ecological community.



Recent changes to the threatened species legislation

While the existing legislation has brought significant increases in our knowledge and many important gains, more powerful tools are required to achieve conservation and recovery of our threatened biodiversity. The *Threatened Species Legislation Amendment Act 2004*, passed by Parliament in November 2004, signals the NSW Government's commitment to further integrating conservation with mainstream decision-making about how we use land and build our economy.

The new reforms are aimed at establishing better frameworks and processes so that landholders, developers, farmers, community groups and government agencies can more effectively contribute to protecting the State's biodiversity. They also aim to turn around negative perceptions about threatened species conservation that have arisen from the operation of the previous legislation.

The Amendment Act puts greater emphasis on land-use planning which focuses on the protection and restoration of native vegetation and threatened species habitat at the landscape scale and integrates with the Government's other reforms to natural resource management and planning.

The Amendment Act in brief

The Amendment Act builds on the earlier legislation's mechanisms for conserving threatened species, populations and ecological communities and their habitats. Parallel amendments have also been made to the *Fisheries Management Act 1994*. The key areas of reform are:

- in urban and coastal areas, integration of biodiversity values into better strategic land-use planning, changes to the development assessment process and accreditation of flora and fauna consultants
- in rural areas, threatened species conservation embedded within native vegetation protection to deliver a simpler and more supportive system of conservation incentives for landholders
- listing of threatened species maintained as a scientific process, with enhanced transparency
- transparent prioritisation of actions for recovery and threat abatement
- upgraded enforcement and compliance provisions, and
- expert advisory councils to advise the Minister for the Environment on social, economic and biodiversity implications.

Further information on the threatened species reforms can be found by reading the *Threatened Species Legislation Amendment Act 2004.*

Further threatened species information can be found by reading the *Fisheries Management Act* 1994.

Further legislation relevant to threatened species is the Commonwealth Environment Protection and Biodiversity Conservation Act 1999



3.0 DCP No 14 Historic Berrima

WINGECARRIBEE DEVELOPMENT CONTROL PLAN

LAND TO WHICH THE PLAN APPLIES

The Development Control Plan applies to the land defined as "Berrima Conservation Area" within Wingecarribee Local Environmental Plan 1989 and the area defined as the Berrima Visual Catchment Area shown on Maps 1 and 2 pages 74 & 75.

RELATIONSHIP TO LOCAL ENVIRONMENTAL PLAN

Wingecarribee Local Environmental Plan 1989 identifies Berrima as a "Conservation Area" and pursuant to Clause 31 of that Plan, all development within Berrima requires the prior consent of Council.

AIMS AND OBJECTIVES

The aims and objectives of the Development Control Plan are: -

- (I) To ensure that all new development within Berrima is compatible with the existing visual, built and landscape character and the environmental significance of the place by setting standards which will ensure this.
- (ii) To recognise tourism as an important factor in the economy of Berrima and to actively promote the environmental heritage and natural attributes of Berrima as a means of ensuring the continued contribution of the local economy- In doing this, however, Council must ensure that the integrity of the village is not undermined through tourism promotion and development.
- (iii) To retain the rural "bush" selling of Berrima by regulating the removal of trees within the entire Visual Catchment Area.
- (iv) To retain the open setting on both entrances to Berrima along the former Hume Highway (Great South Road).
- (v) To retain the identity and containment of the Village core area and the settlement as a whole, within the rural Visual Catchment Area.
- (vi) To encourage increased community awareness of Berrima's intrinsic heritage visual and environmental qualities and the need for conservation measures. In particular, the need to ensure that owners are aware of the responsibilities associated with the ownership and maintenance of properties within the village.
- (vii) To protect and conserve buildings, structures or sites of heritage and/or visual significance. Through both development control measures and public education.
- (viii) To ensure that land use and level of activity reflect the scale of the present village and are compatible with the essential heritage and visual qualities of Berrima whilst recognising the economic importance of both visitor and resident.
- (x) To manage the demand for housing within the village and to recognise the importance of maintaining Berrima as an active community.

HERITAGE CONSERVATION

The Berrima Conservation Study prepared for the Heritage Council of New South Wales in 1979 describes Berrima as art important historic town in New South Wales.

'Much of the original Georgian architecture is still evident- The scale of the town, the generous expanse of Market Place and surrounding low slung buildings, the subtle siting of the



Gaol and Court House on higher ground, together with the mature landscape, all help contribute to the sense of historic character and place that is not readily matched elsewhere in the State."

The study made a number of recommendations for conservation of both the built and natural environment of Berrima. These recommendations form the basis of this Development Control Plan.

00. DEVELOPMENT WITHIN THE VISUAL CATCHMENT AREA

The Visual Catchment Area, shown on Map No 1, page 4 and Map No 14, page 59, is important to Berrima's setting and character as it is heavily treed with little development visible from the Village itself.

To retain this significant landscape setting, removal and/or lopping of trees within the Visual Catchment Area is to require the prior consent of Council under the provisions of Council's Tree Preservation Order. In addition, no building is to be erected that in the opinion of Council, will be visually prominent when viewed from the Village of Berrima or its approaches. No development is to take place on the ridgelines that will, in the opinion of Council, have a detrimental impact on the rural bushland selling of Berrima.

00.1 Identified Heritage Items

There are a number of Identified Heritage Items which are not included in the Conservation Area and consequently not dealt with in the precincts. These buildings are of importance to the character of Berrima.

Any alterations or additions to these buildings or changes to any Item are to be sympathetic to the heritage significance of that Item and comply with sections dealing with Building Components, Colour Schemes, Alterations and Additions and Landscaping.

There are two Heritage Items of particular significance to Berrima Reserve due to their location and relationship with the Wingecarribee River and Berrima Reserve, they are:

Item 57 Lambie's Well, Wilshire Street

Item 58 German Dam, Wingecarribee River, Western end of Oxley Street

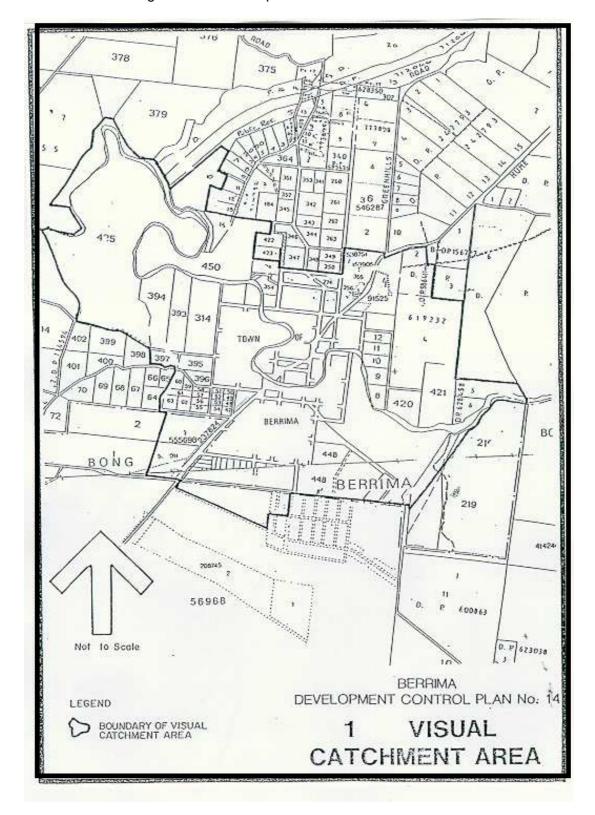
Copies of the Heritage Listings have been included with the kind permission of the New South Wales Heritage Office (See 4.0)

Other Topics covered by Wingecarribee Development Control Plan No 14 include;

- Heritage Impact Statements
- Building Components
 - Windows
 - Doors
 - Roofs
 - Fences... etc
- Colour Schemes
- Extensions and Additions
- Landscaping
- Civic spaces and improvements
- Development within the visual catchment area
- Parking
- Roadways
- Lighting
- Advertising signage
- Height

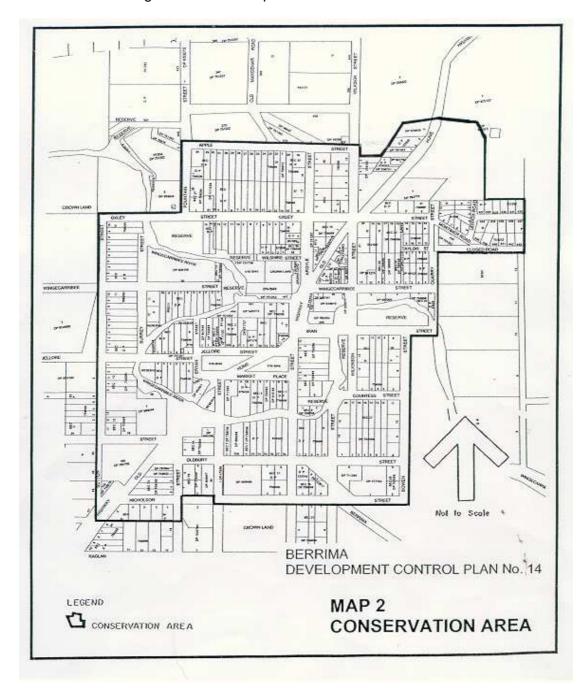


Wingecarribee Development Control Plan No 14





Wingecarribee Development Control Plan No 14





4.0 Heritage Listings

Working with the community to know, value and care for our heritage



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German Dam

Item

Name of Item:German DamType of Item:Complex / GroupLocation:Lat:0 Long:0

Primary Address: Berrima, NSW 2577
Local Govt. Area: Wingecarribee

Property Description:

Lot/Volume Code Lot/Volume Number Section Number Plan/Folio Code Plan/Folio Number

All Addresses

Street Address	Suburb/Town	LGA	Parish	County	Туре
	Berrima	Wingecarribee			Primary
Wingecarribee River, western end of Oxley Street	Berrima	Wingecarribee			Alternate

Statement of Significance

The German Dam is of historic significance as evidence of the activities of German internees in and around the town of Berrima during WWI.

Note: There are incomplete details for a number of items listed in NSW. The Heritage Branch intends to develop or upgrade statements of significance and other information for these items as resources become available.

Description

Physical Description: Constructed of large timber sections, today it is log jammed and in poor

condition.

Further Information: Part of Berrima Conservation Study, 1979.

Current Use: Vacant/Unused **Former Use:** Social/Recreational

History

Historical Notes: Berrima Conservation Study, 1979:

Constructed by German and Austrian World War I Internees of "Berrima Concentration Camp". Internees had daily parole from 9am to 4pm within a two mile radius of the Gaol and the dam provided access to bushland

and

recreation areas as well as creating water areas for "regattas" and their



holiday retreats along the Wingecarribee.

Historic Themes

Australian Theme (abbrev)	New South Wales Theme	Local Theme
the continent	Ethnic influences - Activities associated with common cultural traditions and peoples of shared descent, and with exchanges between such traditions and peoples.	

Assessment of Significance

SHR Criteria [Historical Significance]

a) This item is assessed as historically significant statewide.

SHR Criteria

f) This item is assessed as historically rare statewide.

[Rarity]

Assessment Criteria

Items are assessed against the State Heritage Register (SHR) Criteria to determine the level of significance. Refer to the Listings below for the level

of statutory protection.

Recommended Management Berrima Conservation Study, 1979: Recommend retention, upgrading and environmental improvement for historic and scenic value. Access to be improved and linked to heritage/nature trail system. Possible reconstruction of "Internee Summer House" type.

Listings

Heritage Listing	Listing Title	Listing Number	Gazette Date	Gazette Number	Gazette Page			
Local Environmental Plan			12 Jan 90	007	00288			
Heritage study								

Study Details

Title	Year	Number	Author	Inspected by	Guidelines Used
Wingecarribee Heritage Study	1990	WI0179	JRC Planning Services		Yes

References, Internet links & Images

None

Note: Internet links may be to web pages, documents or images.

Data Source

The information for this entry comes from the following source:

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Database Number: 2680179

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Lambies Well

Item

Name of Item:

Type of Item:

Lambies Well

Complex / Group

Lat:0 Long:0

Primary Address: Wilshire Street, Berrima, NSW 2577

Local Govt. Area: Wingecarribee

Property Description:

Lot/Volume Code Lot/Volume Number Section Number Plan/Folio Code Plan/Folio Number

All Addresses

Street Address	Suburb/Town	LGA	Parish	County	Туре
Wilshire Street	Berrima	Wingecarribee			Primary
Down path along river	Berrima	Wingecarribee			Alternate

Statement of Significance

Berrima Conservation Study, 1979

Local interest and landscape/scenic qualities.

Note: There are incomplete details for a number of items listed in NSW. The Heritage Branch intends to develop or upgrade statements of significance and other information for these items as resources become available.

Description

Physical Description: Berrima Conservation Study, 1979:

Water filters to a well from rocks on the banks of the river. Ferns and lush

vegetation.

Further Information: Part of Berrima Conservation Study, 1979.

History

Historical Notes: Berrima Conservation Study, 1979:

Reputedly the first water supply for Berrima and named after a local Surveyor, although Miss A.Harper refers to a "Mr Lambe, well known

Magistrate of Berrima District".

Path was maintained by inmates of Training Centre but this practice has

currently been curtailed.

"On (one) side of the township is a beautifully picturesque walk which runs along at the base of a precipice nearly twenty feet in height...to a well of delicious water supplied by filtering from a rock made by surveyor

Lambie".

The well is still extant, below the gaol. (The newspaper referred to the east side, but this is misleading) Ref: Wingecarribee - a brief history of



the Berrima District.

Assessment Criteria Items are assessed against the State Heritage Register (SHR) Criteria

to determine the level of significance. Refer to the Listings below for the level

of statutory protection.

Recommended Management Berrima Conservation Study, 1979: Recommend re-establishing and improving access to the well from Wilshire and Wingecarribee Streets and link with river path to German Dam/recreation area.

Listings

Heritage Listing	Listing Title	Listing Number	Gazette Date	Gazette Number	Gazette Page
Local Environmental Plan			12 Jan 90	007	291
Heritage study					

Study Details

Title	Year	Number	Author	Inspected by	Guidelines Used
Wingecarribee Heritage Study	1990	WI0234	JRC Planning Services		Yes

References, Internet links & Images

None

Note: Internet links may be to web pages, documents or images.

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5.0 DCP No 34 Managing Our Flood Risk

What is the Plan?

This document is to be known as the Wingecarribee Flood Risk Management Development Control Plan" (DCP). This Policy has been adopted by Council at its meeting of 13 February, 2002 in accordance with Section 72 of the Environmental Planning and Assessment Act, 1979 (Development Control Plans).

Why is This Plan Required?

In 1984, the State Government introduced the current flood prone land policy applicable to New South Wales. The first Floodplain Development Manual (FDM) was published in 1986, providing guidelines for the implementation of the government's flood prone land policy and the merit approach which underpins its application.

Revised guidelines were released in 2001 and are now embodied in the Floodplain Management Manual (FMM). The FMM continues to support the NSW Government's Flood Prone Land Policy. The primary objective of the policy is:

"to reduce the impact of flooding and flood liability on individual owners and occupiers of flood prone property, and to reduce private and public losses resulting from floods, utilising ecologically positive methods wherever possible."

To achieve this objective the FMM acknowledges a broad risk management hierarchy of;

- avoidance of flood risk;
- minimisation of flood risk using appropriate planning controls; and
- flood risk mitigation.

Flood risk mitigation is the least preferred option, being costly and most likely to adversely affect the natural environment. Avoidance and minimisation of flood risk are the options most likely to be acceptable and are primarily reliant on land use planning and development control for implementation.

Local Government is the primary authority responsible for both flood risk management and land use planning in New South Wales. The State Government's flood policy provides for a flexible merits-based approach to be followed by local government when dealing with planning, development and building matters on flood prone land, in order to facilitate development wherever practicable. For Council to fully carry out its responsibilities for management of flood prone land, it is necessary to prepare a local "Floodplain Risk Management Plan" (FRMP).

To Which Applications Does the Plan Apply?

Council will take into consideration this Plan when determining development applications, received in accordance with the Environmental Planning and Assessment Act, 1979.

This Plan does not propose to exempt any applications from the necessity to obtain a particular approval of the Council or other government agencies, where such a requirement would otherwise exist.

Where Does the Plan Apply?

The Plan applies to whole of the Local Government area, as depicted upon the DCP Map. There are a number of floodplains within the LGA, and this DCP will provide general provisions relating to all the floodplains and specific provisions relating to individual floodplains.



Objectives

- (a) To ensure the proponents of development and the community in general are fully aware of the potential flood hazard and consequent risk associated with the use and development of land within the floodplain.
- (c) Allowing development with a lower sensitivity to the flood hazard within the floodplain, subject to appropriate design and siting controls, provided that the potential consequences that could still arise from flooding remain acceptable having regard to the State Government's Flood Policy and the likely expectations of the community in general.

Performance Criteria

- (a) The proposed development should not result in any increased risk to human life.
- (b) The additional economic and social costs which may arise from damage to property from flooding should not be greater than that which can reasonably be managed by the property owner and general community.
- (c) The proposal should only be permitted where effective warning time and reliable access is available for the evacuation of an area potentially affected by floods. Evacuation should be consistent with any relevant DISPLAN (disaster plan) or flood evacuation strategy where in existence.
- (d) Development should not detrimentally increase the potential flood affectation on other development or properties.
- (e) Development should not result in significant impacts upon the amenity of an area by way of unacceptable overshadowing of adjoining properties, privacy impacts (eg. by unsympathetic house-raising) or by being incompatible with the streetscape or character of the locality.
- (f) Proposed development must be consistent with ESD principles.

Prescriptive Controls

Schedule 3 outlines the controls relevant for the floodplain to which this Plan applies.

Are There Special Requirements for Fencing?

Objectives

- (a) To ensure that fencing does not result in the undesirable obstruction of the free flow of floodwaters.
- (b) To ensure that fencing does not become unsafe during floods and potentially become moving debris which threatens the integrity of structures or the safety of people.

Special Considerations

When assessing proposals for development or other activity within the area to which this Policy applies, Council will take into consideration the following specific matters.

- (a) The proposal does not have a significant detrimental impact on:
 - i) water quality;
 - ii) native bushland vegetation;
 - iii) riparian vegetation;
 - iv) estuaries, wetlands, lakes or other water bodies;
 - v) aquatic and terrestrial ecosystems;
 - vi) indigenous flora and fauna;
 - vii) fluvial geomorphology.
- (d) The proposal must not adversely impact upon the recreational, ecological, aesthetic or utilitarian use of the waterway corridors, and where possible, should provide for their enhancement, in accordance with ESD principles.



SCHEDULE 1 FLOOD COMPATIBLE MATERIALS DCP34

BUILDING COMPONENT	FLOOD COMPATIBLE MATERIAL	BUILDING COMPONENT	FLOOD COMPATIBLE MATERIAL
Flooring and Sub-floor Structure	" concrete slab-on- ground monolith construction " suspension reinforced concrete slab.	Doors	" solid panel with water proof adhesives " flush door with marine ply filled with closed cell foam " painted metal construction " aluminium or galvanised steel frame
Floor Covering	" clay tiles " concrete, precast or in situ " concrete tiles " epoxy, formed-in-place " mastic flooring, formed-in-place " rubber sheets or tiles with chemical-set adhesives " silicone floors formed-in-place " vinyl sheets or tiles with chemical-set adhesive " ceramic tiles, fixed with mortar or chemical-set adhesive " asphalt tiles, fixed with water resistant adhesive	Wall and Ceiling Linings	" fibro-cement board " brick, face or glazed " clay tile glazed in waterproof mortar " concrete " concrete block " steel with waterproof applications " stone, natural solid or veneer, waterproof grout " glass blocks " glass " plastic sheeting or wall with waterproof adhesive
Wall Structure	" solid brickwork, blockwork, reinforced, concrete or mass concrete	Insulation Windows	" foam (closed cell types) " aluminium frame with stainless steel rollers or similar corrosion and water resistant material.
Roofing Structure (for Situations Where the Relevant Flood Level is Above the Ceiling)	" reinforced concrete construction " galvanised metal construction	Nails, Bolts, Hinges and Fittings	" brass, nylon or stainless steel " removable pin hinges " hot dipped galvanised steer wire nails or similar



Electrical and Mechanical Equipment

For dwellings constructed on land to which this Policy applies, the electrical and mechanical materials, equipment and installation should conform to the following requirements.

Main power supply -

Subject to the approval of the relevant authority the incoming main commercial power service equipment, including all metering equipment, shall be located above the relevant flood level. Means shall be available to easily disconnect the dwelling from the main power supply.

Wiring -

All wiring, power outlets, switches, etc., should, to the maximum extent possible, be located above the relevant flood level. All electrical wiring installed below the relevant flood level should be suitable for continuous submergence in water and should contain no fibrous components. Earth core linkage systems (or safety switches) are to be installed. Only submersible-type splices should be used below the relevant flood level. All conduits located below the relevant designated flood level should be so installed that they will be self-draining if subjected to flooding.

Equipment -

All equipment installed below or partially below the relevant flood level should be capable of disconnection by a single plug and socket assembly.

Reconnection -

Should any electrical device and/or part of the wiring be flooded it should be thoroughly cleaned or replaced and checked by an approved electrical contractor before reconnection.

Heating and Air Conditioning Systems

Heating and air conditioning systems should, to the maximum extent possible, be installed in areas and spaces of the house above the relevant flood level. When this is not feasible every precaution should be taken to minimise the damage caused by submersion according to the following guidelines.

Fuel -

Heating systems using gas or oil as a fuel should have a manually operated valve located in the fuel supply line to enable fuel cut-off.

Installation -

The heating equipment and fuel storage tanks should be mounted on and securely anchored to a foundation pad of sufficient mass to overcome buoyancy and prevent movement that could damage the fuel supply line. All storage tanks should be vented to an elevation of 600 millimetres above the relevant flood level.

Ducting -

All ductwork located below the relevant flood level should be provided with openings for drainage and cleaning. Self draining may be achieved by constructing the ductwork on a suitable grade. Where ductwork must pass through a water-tight wall or floor below the relevant flood level, the ductwork should be protected by a closure assembly operated from above relevant flood level.



Schedule 3 BERRIMA FLOODPLAIN DCP34

Schedule 3

Berrima Floodplain

Planning & Development Controls

									FI	000	Ris	k Pı	reci	ncts	(FI	(P's								
		Low Flood Risk Medium Flood Risk								High Flood Risk														
Planning Consideration	Essential Community Facilities	Critical Utilities	Subdivision	Residential	Commercial & Industrial	Tourist Related Development	Recreation & Non-Urban	Minor Development	Essential Community Faclities	Critical Utilities	Subdivision	Residential	Commercial & Industrial	Tourist Related Development	Recreation & Non-Urban	Minor Development	Essential Community Facilities	Critical Utilities	Subdivision	Residential	Commercial & Industrial	Tourist Related Development	Recreation & Non-Urban	Minor Development
Floor Level		3	F	2	2	2			4		8133	2	2or5	2	1	2,4				13.50			1	2,4
Building Components		2		1	1	1		7	estantestato		8.12	1	1	1	1	1						-	1	1
Structural Soundness		3							*********			2	2	2	2	2	11.						1	1
Flood Affectation		2	2		2	2			\$.		1	2	2	2	2	2	-						1	1
Evacuation		2,3	7								1,3	1,3	1,3	1,3	1,3	1,3	gynetimeneti		-				1,3	1,3
Management & Design		4,5			100	100				1.2	1	100	2,3,5	2,3,5	2,3,5	2,3,5		Monrosamova					************	2,3,5
Not Relevant		Uns	uitab	le La	nd U	se																		

Floor Level

- 1 All Floor Levels to be equal to or greater than the 20 year ARI flood plus 0.5m (freeboard) unless justified by site specific assessment
- 2 Habitable floor levels to be equal to or greater than the 100 year ARI flood plus 0.5m (freeboard)
- 3 All Floor Levels to be equal to or greater than the extreme flood flood plus 0.5m (freeboard)
- Floor levels to be as close to the design floor level as practical & no lower than the existing floor level when undertaking alterations or additions
- Floor levels of shops to be as close to the design floor level as practical. Where below the design floor level, more than 30% of the floor area to be above the design floor level or premises to be flood proofed below the design floor level

Building Components & Method

- All structures to have flood compatible building components below or at the 100 year ARI flood level plus 0.5m (freeboard)
- 2 All structures to have flood compatible building components below or at the extreme flood level plus 0.5m (freeboard)

Structural Soundness

- Engineers report to certify that any structure can withstand the forces of floodwater, debris & bouyancy up to & including a 100 year ARI flood plus 0.5m (freeboard)
- 2 Applicant to demonstrate that any structure can withstand the forces of floodwater, debris & bouyancy up to & including a 100 year ARI flood plus 0.5m (freeboard)
- Applicant to demonstrate that any structure can withstand the forces of floodwater, debris & bouyancy up to & including an extreme flood plus 0.5m (freeboard)

Flood Affectation

- 1 Engineers report required to certify that the development will not increase flood affectation elsewhere
- The impact of the development on flooding elsewhere to be consisdered

Evacuation

- Reliable access for pedestrians required during a 100 year ARI flood
 - 2 Reliable access for pedestrians and vehicles required during an extreme flood
- The development is to be consistent with any relevant DISPLAN or flood evacuation strategy

Management and Design

- Applicant to demonstrate that potential development as a consequence of a subdivision proposal can be undertaken in accordance with this Plan
- 2 Site Emergency Response Flood plan required (except for single dwelling-houses) where floor levels are below the design floor level
- 3 Applicant to demonstrate that area is available to store goods above the 100 year ARI flood plus freeboard
- Applicant to demonstrate that area is available to store goods above the extreme flood plus freeboard
- 5 No external storage of materials below the design floor level which may cause pollution or be potentially hazardous during any flood

Berrima_Pianning Matrix_ Sch3 App D.xls

2/22/02

Don Fox Planning



6.0 Floodplain Risk Management Study and Plan

Wingecarribee Shire Council, February 2002. Prepared by Bewsher Consulting Pty Ltd.

Catchment Description

Berrima is located on the banks of the Wingecarribee River. The catchment area above Berrima is approximately 200 km2. The catchment begins near Robertson, on the edge of the Illawarra escarpment, approximately 30km east of Berrima.

The upper part of the catchment (totalling 41km is controlled by the Wingecarribee Reservoir. The reservoir was built in 1974 as part of the water supply system for the Sydney metropolitan area.

Within the study area the Wingecarribee River floodplain is deeply incised and the river itself is heavily vegetated, although some extensive clearing has commenced during the progress of the study. The river has a predominant "V" shape over much of the study area and as a consequence, there are few overbank areas when compared with the majority of NSW Rivers. As a result, there is a wide range in flood levels between frequent events, which are relatively low, and larger floods, which can be considerably higher. Flood levels are also sensitive to changes in flood discharges and the vegetative state of the riverine corridor.

Much of the township of Berrima is located on high ground. However a significant percentage of properties are located in lower flood prone areas of the town.

HISTORY OF FLOODING

Historical flooding in Berrima has been recorded for floods occurring in 1893, 1897/98, 1964, 1975, 1978 and a number of times in the last 10 years or so, including April 1998 and August 1998.

The severity of floods is strongly influenced by the condition of the riverine corridor, particularly the recent infestation of willow. Floods that have occurred in the past, when the condition of the river was less obstructed, may be somewhat higher if they occurred again today, under the current river regime.

SOCIAL ISSUES

An understanding of existing land use and population characteristics is an important consideration of floodplain risk management studies. The population, characteristics and development trends of the study area provide an understanding of the values that the community has in regard to the utilisation of the floodplain, as opposed to sterilising its use to minimise the risks of flooding.

The relevance of the statistics for Berrima, apart from providing an understanding of the nature of the population subject to potential flood risk, can be summarised as follows:

- 1. Low population and dwelling growth rates reflect the consequent low demand for additional housing and associated development in the Berrima Township. Therefore, the need and consequent benefits of development in the floodplain would unlikely be outweighed by the risk to property and persons. Higher standards and restrictions on development in the floodplain could be considered than would otherwise apply to an expanding urban area with a shortage of available land.
- 2. The older and aging population of the Berrima Township would likely be less mobile and physically capable to cope with the trauma of floods. Further, households with the main income earner in the older age group are likely to be in a life cycle stage where the ability to financially recover from flood damages and losses would be more difficult.



VEGETATION ISSUES

An analysis of the vegetation within the study area is of importance for three main reasons:

- to provide an understanding of the ecological characteristics and values within the study area in order that floodplain management decisions are sympathetic
- and, where appropriate, take advantage of the opportunities provided by existing vegetation to form open space areas and linkages;
- to ensure that any flood mitigation measures, in particular structural measures, are not fundamentally unacceptable due to their potential impact upon important vegetation areas; and
- to provide a basis for the removal of exotic vegetation or weed species from the riverine corridor, to improve the river hydraulics and provide other ecological benefits which may reduce flood levels or prevent the redirection of floodwaters.

DRAFT FLOODPLAIN RISK MANAGEMENT PLAN

RECOMMENDED MEASURES

A draft floodplain risk management plan showing preferred floodplain management measures for Berrima is presented in this Chapter. The preferred measures have been determined from the range of available measures after an assessment of the impacts on flooding, as well as environmental, social, and economic considerations.

HIGH PRIORITY MEASURES

Improved Emergency Management Plans

It is recommended that the SES Local Flood Plan for Berrima be updated by inclusion of additional flood maps and flood data prepared during the floodplain risk management study. Further updating of the local flood plan will be required as improvements to the flood warning system are undertaken. It is recommended that the Berrima Floodplain Risk Management Committee provide assistance in the continued development of the local flood plan.

This measure can be implemented now for minimal cost.

Improved Public Awareness

Flood damages can be reduced if the public know what the flood risk is, and what action may be able t be taken to reduce these risks. The community was also strongly in favour (69%) of more information on the potential risks of flooding being made available to all residents and business owners. Improved public awareness is also an invaluable supplement to an improved flood warning system for Berrima.

An improved public awareness program is recommended for Berrima. The program would consist of: -

- updating Council's GIS with current flood information contained in the flood damages database that has been developed as part of this study:
- the issue of flood certificates.(Figure 8.1) to all occupiers of the floodplain on a regular basis; and
- construction of flood markers in one or more central locations to act as a reminder to past floods and to provide reference levels for future flood warnings.

All the measures listed above can be implemented at a low cost. Some maintenance will be required to keep the flood database up to date and for on-going issue of certificates. This could be incorporated in the duties of one or more of Council's officers.



7.0 Bushfire Prone Land





8.0 Camping Management Strategy

This camping management strategy has been developed to address issues relating to uncontrolled camping, resident complaints and equitable use of the Reserve. This strategy provides a clear management framework for recreational camping on Berrima River Reserve.

The use and management of Berrima River Reserve is subject to a statutory Plan of Management to be approved and adopted by the Minister for Lands pursuant to Section 114 of the *Crown Lands Act 1989*. This Plan of Management seeks approval to formally endorse the availability of limited recreational camping on Berrima River Reserve, subject to the management principles and requirements of this document.

As part of consent from the Minister for Lands this plan seeks to have Berrima River Reserve's public purpose notified as Public Recreation to align the use, development and management with this Plan of Management and public purpose. A key requirement of the Plan of Management is that camping is subject to this Camping Management Strategy (CMS).

Upon implementation of the camping strategy and approval of the Plan of Management, Council as Trust Manager will seek approval of the proposed campsite as a "Primitive Campground". The *Local Government Act 1993* allows Wingecarribee Shire Council to control certain activities through an approval process under *Section 68*.

The operation and management of a Primitive Camp Ground is subject to an operational approval issued under the Act in accordance with the Local Government (Manufactured Home Estates, Caravan Parks, Camping Grounds & Moveable Dwellings) Regulation 2005. Other statutory acts and regulations that apply to the approval and management of the Reserve and have been listed under statutory framework.

"Primitive camping" or "primitive camping ground" is not specifically defined in the Regulation however Clause 132 sets out the conditions that apply to a primitive camping ground. The following are relevant to camping on Berrima River Reserve:

- 1) Where the approval designates one or more camp sites within that ground, then the maximum number of designated camp sites is not to exceed a mean average of 2 per hectare of the camping ground (where that figure is the average calculated over the total area of the primitive camping ground).
- 2) The following conditions apply:
 - a. where the approval to operate designates one or more camp sites camping is not permitted other than on those designated camp sites,
 - b. a caravan, annexe or campervan must not be installed closer than 6 metres to any other caravan, annexe, campervan or tent,
 - c. a tent must not be installed closer than 6 metres to any caravan, annexe or campervan or closer than 3 metres to any other tent,
 - d. the camping ground must be provided with a water supply, toilet and refuse disposal facilities
 - e. unoccupied caravans, campervans and tents are not to remain in the camping ground for more than 24 hours.
 - f. where a fee is charged, a register of occupiers must be kept that contains entries concerning the following;
 - i. the persons name and address
 - ii. the dates of arrival and departure
 - iii. identification of the site occupied
 - iv. the registration number of the caravan or campervan
 - v. the size of the group (if any) with whom the person listed in the register camped,



g. such fire fighting facilities as may be specified in the approval are to be provided at the camping ground.

Exemptions to the Local Government Act and Regulation

Within the approval framework under the Local Government Act certain exemptions apply to Crown reserves under the Regulation. Thus in the absence of a primitive camping area approval, the Reserve Trust may still authorise camping on a limited or casual basis by way of temporary licences issued under the *Crown Lands Act*. Under Section 108 of the Act a Reserve Trust may grant temporary licences for a range of purposes prescribed under the *Crown Lands Regulation 2000*. These include "camping using a tent, caravan or otherwise".

Camping Administration

Camping administration must be given careful consideration before implementation. Points to consider are:

- Ability to take booking.
- Suitability of opening hours
- Ability to handle complaints
- Ability to handle fees
- Ability to record information required under licence (registration and code of conduct)

Camping on Berrima River Reserve

Only 2 night's continuous camping and only one stay in a 4 week period is permitted under this plan.

Camping area

The proposed designated camping area defined by this Plan of Management is shown in Appendix 8.1 Site Map. The final location is to be confirmed on site prior to construction. Camping on the Reserve is to be limited to the designated area and sites.

Camp Sites

The current proposal is for 4 sites to be delineated within the camping area. (Provision for a possible expansion to 6 sites if the issues have been found to be satisfactorily addressed). The corners of each site are to be identified by numbered site markers at ground level. A preliminary indication of site locations has been included on the Site Map Appendix 8.1

It is recommended the specified camp sites be identified by symbols (or labelled) Platypus, Wombat, Rosella, Cockatoo colour coded (Blue, Green, Red and Yellow) with windscreen/tent display. These animals are frequently seen around the Reserve. This provides a further connection for campers to the Reserves wildlife.

Due to the small size of the campground a map is not required to be displayed on site. However other relevant public information relating to camping on the Reserve will be clearly displayed near the entrance to the campground. To reduce the amount of required signage it is also proposed that campers be given an information sheet at the time of registration.

Campsites are delineated on the basis that they will be occupied by either;

- up to two small tents (i.e. two person tents), or
- one four person (or larger) tent, or
- one caravan, or



• one motor home or campervan.

One single car space is to be provided for each site.

The maximum number of persons is to be set at 8 per site, subject to camper code of conduct.

Additional vehicles or visitors are to be parked in the normal Reserve parking areas.

A tent may not be located closer than 3 metres to any other tent (Clause 132 - Reg)
A campervan or caravan may not be closer than 6 metres to any other caravan, annexe, campervan or tent. (Clause 132 - Reg)

A clear buffer is to be maintained between a camp sites and any adjoining vegetation at all times. Guy ropes and pegs may be located within the buffer area but should not encroach into vegetated areas. No guy ropes or other camping equipment may be tied to vegetation, fencing or other Reserve infrastructure.

Availability, Bookings, Registration and Fees

- Camping will be made available pending approval, 7 days a week 365 days a year at the discretion of the Trust Manager.
- Availability is to be on a first come first served basis.
- Bookings and up to date information can be made by contacting the appointed camp administrator
- Sites are to be paid in full at time of booking.
- Fees are to be determined by the Trust (Wingecarribee Shire Council) and are to be reviewed annually to reflect an economic return.

Only 2 night's continuous camping and only one stay in a 4 week period is permitted under this plan.

Other camping available in the area includes;

- Moss Vale Village Caravan Park
- Mittagong Caravan Park
- Morton National Park

-handled by Fitzroy Falls Visitor Centre for the National Parks and Wildlife Service managed by the Department of Environment & Climate Change (DEEC)

Amenities on the Reserve for all Reserve users include:

- Male and Female toilets
- Cold water showers
- Washing up water dump point
- Waste bins
- Electric Barbeque
- Picnic tables
- Picnic Shelter
- Drinking water tap

These facilities are available for campers and other Reserve users alike.

Note: Campers are prohibited from setting up camp in the picnic shelter.



SITE FEES

Site fees based on other camping areas, public feed back and level of facilities are recommended to be (subject to review);

One person - \$10 per night for site More than one person - \$ 15 per night for site A \$50 dollar refundable key deposit is required.

These fees are to be reviewed as part of the review of camping on the Reserve in 2 years, and can be changed at the discretion of the Trust.

REFUNDS

No refunds apply for cancellation under 14 Days, inclement weather or other unforseen circumstances.

ENFORCEMENT

The Trust will monitor Reserve usage and adherence to the Camper's Code of Conduct. Wingecarribee Shire Council Ranger's have the authority to enforce the Code of Conduct, correct usage of the Reserve and view permits, among other duties.

INFORMATION

An Information sheet summarising this strategy and the code of conduct will be made available on council's web site, available from customer service and handed to campers at time of registration.

CONDUCT

All camping on the Reserve is to be conducted in accordance with the Campers Code of Conduct for Berrima Reserve of which a copy must be signed at time of registration.

All campers are requested to ensure that their activities do not unreasonably impact on the amenity of local residents and the quiet use and enjoyment of the Reserve by other visitors.



9.0 Camper Code of Conduct (draft)

Note: This form will be formatted to a single double sided page upon implementation

The availability of camping on beautiful Berrima Reserve and its continuation is largely dependant on the compliance to the code of conduct.

All campers are requested to respect the Reserve, its neighbours and the peaceful amenity to allow the Reserves values to be enjoyed now and into the future by the local community and visitors alike.

CAMP SITES

- Camping within designated sites only.
- Only two nights continuous per stay
- One stay in every 4 week period permitted
- Vacation of site by 12 noon and uptake of site thereafter.

ACCESS

- Please stay on provided access road or tracks to camping sites.
- Do not enter or pass through private property without permission.

RUBBISH

- Tread lightly when camping. If you bring it with you you can take it away.
- All self-contained vehicles must retain black and grey water on board
- Try to minimise waste by limiting disposable packaging.
- Where necessary please use bin provided to dispose of rubbish.
- Recyclable materials; aluminium cans, glass jars & bottles, cardboard, paper and any
 plastics may be separated for recycling and taken with you. Recycling will be accepted
 free of charge at the Wingecarribee Shire Council, Resource Recovery Centre (RRC)
 (including plastics 1 through 5). The RRC is located on Berrima road between Moss Vale
 and Berrima.

FIRES & GAS BURNERS

- NO OPEN FIRES are allowed within the Reserve.
- Use of camping gas stoves or installed gas barbeques is permissible for cooking purposes.



- Carefully select a cooking site away from vegetation and other combustible materials and camping equipment.
- Gas burners for cooking purposes may **NOT** be used during a total fire ban.

TOILETS

- Please use toilets provided.
- Please use Waste Point provided near amenities for washing up water.
- DO NOT throw rubbish, nappies or sanitary products down toilet.
- Please do not discharge waste tanks into toilets their is a Dump point Located at the Moss Vale Caravan Park Moss Vale

FLORA & FAUNA

- Please use formed tracks provided. Do not use or start informal tracks. This may damage native vegetation, disturb wildlife and cause erosion.
- Do not feed native birds and animals
- Do not damage vegetation or attach equipment to trees.
- Please minimise disturbance to native wildlife and habitat.

RIPARIAN ZONE

- Please exercise special care within the fragile riparian zone along the Wingecarribee River which forms part of Sydney's water catchment.
- Do Not contaminate water with any substances that may pollute such as soap, dishwater, food scraps and rubbish.
- The Wingecarribee River is to be respected, please adopt appropriate safety measures.

POWER

- There is no power to camping sites.
- Strictly no portable electric generators to be used by campers
- Other portable power sources, such as battery or solar power, may be used provided that all equipment (leads, wires, etc) is contained within the camp site.



PARKING

- Strictly no parking within the camping area unless the vehicle is contained within a campsite. Additional cars may be parked in the identified roadside parking area.
- Please do not obstruct access to the Reserve or hinder legal access along adjoining roads or to local residences.

DOMESTIC ANIMALS

• Dogs must be on a lead at all times and waste collected.

NOISE

- Campers are requested to respect the peace and amenity of all Reserve users and local residents.
- Please keep noisy activities, including the use of radios or loud music, to a minimum particularly after 10.00 pm.

UNATTENDED CAMPING

• All camp sites must be attended with absences to not exceed 24 hours.

I have read and agree to abide by the provisions in this Code of Conduct, and Reserve Notices (sign posted on the reserve). Penalties apply for failure to comply pursuant to Local Government Act 1993.

Name:	Vehicle Registration	:		
Signed:	Date:	Site:	Wombat □ Rosella □	Platypus ☐ Cockatoo ☐