



**ORDINARY MEETING OF COUNCIL
TO BE HELD ON TUESDAY, 29 JUNE 2004 AT 7.00PM
LEVEL 3, COUNCIL CHAMBERS**

A G E N D A

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NOTE: For Full Details, See Council's Website –
www.kmc.nsw.gov.au Under the Link to Business Papers

APOLOGIES

DECLARATION OF PECUNIARY INTEREST

CONFIRMATION OF REPORTS TO BE CONSIDERED IN CLOSED MEETING

ADDRESS THE COUNCIL

NOTE: Persons who address the Council should be aware that their address will be tape recorded.

DOCUMENTS CIRCULATED TO COUNCILLORS

CONFIRMATION OF MINUTES

Minutes of Ordinary Meeting of Council

File: S02131

Meeting held 22 June 2004

Minutes numbered 283 to 302

MINUTES FROM THE MAYOR

PETITIONS

REPORTS FROM COMMITTEES

Minutes of Inspections Committee

Meeting held 26 June 2004

Minutes to be circulated separately

GENERAL BUSINESS

- i. *The Mayor to invite Councillors to nominate any item(s) on the Agenda that they wish to have a site inspection.*
- ii. *The Mayor to invite Councillors to nominate any item(s) on the Agenda that they wish to adopt in accordance with the officer's recommendation and without debate.*

GB.1 7 Shelby Road, St Ives - Detached Dual Occupancy

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File: DA 1061/03

Ward: St Ives

Applicant: Helen Blaxland c/- Champion Home Sales P/L

Owner: Ms Helen Blaxland

To determine Development Application No.1061/03, which seeks consent for a detached dual occupancy.

Recommendation:

Approval

GB.2 Echo Point Park - Plan of Management

34

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File: S02396

To adopt the Plan of Management for Echo Point Park in accordance with the requirements of the Local Government Act 1993.

Recommendation:

That the Plan of Management for Echo Point Park be adopted and notification given in accordance with the requirements of the Local Government Act 1993.

GB.3 Selection Of Tenderer For Advertising And Non-Advertising Bus Shelters 116

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File: S03338

To report on the results of the public tenders for the design, supply, installation and maintenance of bus shelters, and seek approval to appoint a bus shelter provider for a 15 year period.

Recommendation:

That Council resolves to accept the Adshel Tender for the design, supply, installation and maintenance of advertising and non-advertising bus shelters, for a term of 15 years in accordance with the content of recommendations A to L as printed in this report.

GB.4 Riparian Policy 127

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File: S03491

To present a draft policy that seeks to improve the management of watercourses and riparian zones across Ku-ring-gai.

Recommendation:

That Council exhibit the draft policy and seek comment from key stakeholders and as necessary propose to amend relevant development control policies.

GB.5 Implementation Review - Sportsgrounds Generic Plan Of Management 207

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File: S02182

To review the implementation of the Sportsgrounds Generic Plan of Management.

Recommendation:

That Council receive and note the report and continue to review the implementation of the plan, including consultation with the Parks, Sport & Recreation Reference Group

GB.6 Draft Local Environmental Plan No 200 - Consideration Of Submissions And Need For Re-Exhibition 226

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File: S03209

To consider Draft Local Environmental Plan No 200 (DLEP200) and the need for its re-exhibition in a revised format to have regard for the gazettal of Local Environmental Plan No 194 (LEP194) on 28 May 2004.

Recommendation:

That Council resolve to adopt a revised format for Draft LEP200 and place the revised Plan on public exhibition.

GB.7 To Write Off Doubtful Debts Relating To Telstra Corporation And Optus Vision 265

File: S02413

To obtain Council's authority to write off doubtful debts for Telstra Corporation Limited and Optus Vision Pty Limited relating to Section 611 Charges raised under the Local Government Act 1993.

Recommendation:

That Council formally write off the debts for Telstra Corporation and Optus Vision.

EXTRA REPORTS CIRCULATED AT MEETING

MOTIONS OF WHICH DUE NOTICE HAS BEEN GIVEN

**BUSINESS WITHOUT NOTICE - SUBJECT TO CLAUSE 14 OF MEETING
REGULATION**

QUESTIONS WITHOUT NOTICE

INSPECTIONS COMMITTEE - SETTING OF TIME, DATE AND RENDEZVOUS

**CONFIDENTIAL BUSINESS TO BE DEALT WITH IN CLOSED MEETING - PRESS &
PUBLIC EXCLUDED**

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Environmental Planning & Assessment Act 1979 (as amended)

Section 79C

1. Matters for consideration - general

In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application:

a. The provisions of:

- i. any environmental planning instrument, and*
- ii. any draft environmental planning instrument that is or has been placed on public exhibition and details of which have been notified to the consent authority, and*
- iii. any development control plan, and*
- iv. any matters prescribed by the regulations,*

that apply to the land to which the development application relates,

- b. the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,*
- c. the suitability of the site for the development,*
- d. any submissions made in accordance with this Act or the regulations,*
- e. the public interest.*

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DEVELOPMENT APPLICATION

SUMMARY SHEET

REPORT TITLE:	7 SHELBY ROAD, ST IVES - DETACHED DUAL OCCUPANCY
WARD:	St Ives
DEVELOPMENT APPLICATION N^o:	1061/03
SUBJECT LAND:	7 Shelby Road, St Ives
APPLICANT:	Helen Blaxland c/- Champion Home Sales P/L
OWNER:	Ms Helen Blaxland
DESIGNER:	Champion Homes
PRESENT USE:	Residential
ZONING:	Residential 2C
HERITAGE:	No
PERMISSIBLE UNDER:	State Environmental Planning Policy No.53
COUNCIL'S POLICIES APPLICABLE:	Development Control Plan No.43 - Car Parking, Development Control Plan No.40 - Waste Management, Dual Occupancy Development Control Code
COMPLIANCE WITH CODES/POLICIES:	Yes
GOVERNMENT POLICIES APPLICABLE:	State Environmental Planning Policy No.53, State Environmental Planning Policy No.55, Sydney Regional Environmental Plan No.20
COMPLIANCE WITH GOVERNMENT POLICIES:	Yes
DATE LODGED:	26 August 2003
40 DAY PERIOD EXPIRED:	5 October 2003
PROPOSAL:	Detached Dual Occupancy
RECOMMENDATION:	Approval

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DEVELOPMENT APPLICATION N^o	1061/03
PREMISES:	7 SHELBY ROAD, ST IVES
PROPOSAL:	DETACHED DUAL OCCUPANCY
APPLICANT:	HELEN BLAXLAND C/- CHAMPION HOME SALES P/L
OWNER:	MS HELEN BLAXLAND
DESIGNER	CHAMPION HOMES

PURPOSE FOR REPORT

To determine Development Application No.1061/03, which seeks consent for a detached dual occupancy.

EXECUTIVE SUMMARY

Issues:	Visual bulk, open space provision
Submissions:	Six submissions received
Land & Environment Court Appeal:	Not Applicable
Recommendation:	Approval

HISTORY

Property History:

The site is used for residential purposes. There is no history of the site relevant to the subject development application.

Development Application History:

DA 1061/03

27/8/03	DA lodged with Council.
1/9/03 - 22/9/03	Notification period.
15/12/03	Letter sent to applicant raising concern with the application.
8/3/04	Revised plans lodged.
15/3/04 - 5/4/04	Notification period.

There is no other DA history relevant to the proposed development.

THE SITE & THE SURROUNDING AREA

The Site

Zoning:	Residential 2C
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Visual Character Study Category:	1945-1968
Lot Number:	25
DP Number:	223453
Area:	1144.43m ²
Heritage Affected:	No
Integrated Development:	No
Bush Fire Prone Land:	No
Endangered Species:	No
Urban Bushland:	No
Contaminated Land:	No

The site is known as 7 Shelby Street, St Ives Lot 25 DP 223453 and is located on the corner of Shelby Street and Collins Road. The site has an area of 1144.43 square metres. The site has a fall from west to east. Vehicular access to the existing dwelling is from Shelby Road. An easement runs along the southern boundary of the site.

The site currently supports a part single/part two storey brick residence with a tiled roof. The site is not of heritage significance.

Surrounding Development:

Surrounding development comprises a mixture of single and two storey development, with a variety of architectural styles.

THE PROPOSAL

The proposal is to erect a new two storey dwelling which, in conjunction with the existing dwelling, would form a detached dual occupancy development. Details of the proposed development are as follows:

Dwelling 1:

The existing dwelling contains 3 bedrooms, kitchen, living room, dining room, bathroom, a single garage at basement level and an external car space. The living areas are located at the eastern side of the dwelling, with access to the private open space through a door located on the southern side towards the centre of the dwelling.

Dwelling 2:

The new dwelling is two storey in height and contains a garage, kitchen, family room, dining room, laundry, lounge room and W/C room at ground floor level. At the first floor level, 3 bedrooms, a bathroom and a gallery are proposed.

Private open space is proposed to the north of the dwelling behind the building line to Collins Road.

Driveway access is off Collins Road and is located towards the southern end of the site.

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Notional Subdivision:

A 1.8 metres high timber fence is proposed between the two dwellings.

The likely subdivision effected by this fence creates two allotments having areas of 744.4m² (existing house) and 399.9m² (proposed new dwelling). With the existing house having a frontage of 24.4 metres to Shelby Road and 25 metres to Collins Road. The proposed new dwelling will have a frontage of 18.4 metres to Collins Road. This information has no relevance to the assessment of the dual occupancy development, as Council must consider the application as two dwellings on one allotment of land. However, this information is provided for clearer understanding of the likely future subdivision pattern of the site which would create two dwellings on individual allotments of land. At this stage, no application for the subdivision of the dual occupancy development has been lodged.

Revised plans

The revised plans (lodged 8 March 2004) include:

- (i) the alteration of the design to suit the slope of the site;
- (ii) the private open space of the proposed dwelling relocated to the north for improved solar access;
- (iii) the provision of an additional car space;
- (iv) the submission of a landscape concept plan;
- (v) the identification of the proposed boundary between the two dwellings;
- (vi) details of proposed fencing; and
- (vii) the location of the drainage detention tank beneath the driveway for the proposed dwelling.

CONSULTATION - COMMUNITY

In accordance with Council's Notifications Policy, owners of surrounding properties were given notice of the application. In response, one (1) submission was received:

Original Scheme

1. Thomas F Boles - 10 Shelby Road, St Ives

The submission raised the following issues:

Concern over the precedent that this development will set for the area.

The proposal is permissible under State Environmental Planning Policy No 53 (SEPP 53). There is no requirement within SEPP 53 that dual occupancy developments be in an area in which there are existing dual occupancies.

Out of character with the street and the local area.

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The implications of the two storey height in terms of overlooking, overshadowing and position on site have been addressed in the design, with suitable setbacks from the boundaries, articulated facades and wall lines being provided. Furthermore, perimeter areas will contain screen planting.

SEPP 53 allows increased residential densities, subject to the development satisfying prescribed design criteria and complying with specific development standards. The dwelling is not considered to be overly bulky as the proposal has a floor space ratio of 0.27:1 and is well within the SEPP 53 maximum of 0.5:1. The size of the new dwelling is not inappropriate in its context and a reduction in footprint is not considered to be warranted.

The landscaping that will be required as part of the development will further ensure that the development contributes to an attractive streetscape character.

Council's Urban Design Consultant supports the proposal.

Revised plans

The revised plans were also notified. Submissions from the following were received:

1. Adrian Smith - 101 Collins Road, St Ives
2. Mr Gary and Corey Eyre - 128 Collins Road, St Ives
3. Max Binnie - 122 Collins Road, St Ives
4. Frank and Lorna Solomon - 126 Collins Road, St Ives
5. Mr George and Mrs Maureen Abraham - 103 Collins Road, St Ives

The submissions raised the following issues:

Proximity of the building to the side boundary.

The new dwelling is proposed to be set back between 3.1 and 3.4 metres from the southern boundary. The proposed setback complies with the requirements of Council's Dual Occupancy Code. The setbacks will allow for sufficient landscaping between buildings which will soften the appearance of the development from the street and the neighbouring property.

Loss of trees/garden.

Whilst the rear garden of 7 Shelby Road will be replaced by a new dwelling, the soft landscaped area for the site is proposed at 64%. Council's Landscape Officer has recommended conditions requiring that screen planting be planted along the western, southern, eastern and northern boundaries and also that three trees be planted on the site that will attain a height of 13 metres.

Therefore, any loss of trees and gardens as a result of the proposed development will be replaced by appropriate new vegetation.

Impact of over shadowing on properties to the south.

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The north-south orientation of the site results in shadow effects being experienced by the property to the south of the site (No 128 Collins Road). The area on the northern side of 128 Collins Road is predominantly utilised for vehicle access and a garage. At 9.00am (mid winter) shadow cast by the new dwelling would fall upon the garage of No 128 Collins Road. This impact dissipates by 12.00 noon, at which time overshadowing falls entirely on the driveway to No 128 Collins Road. By 3.00pm, the additional shadow would fall upon the front, north-eastern, corner of the site. The shadow cast would not affect any habitable or private open space areas. The shadow cast would not impact upon the enjoyment of habitable and private open space areas of No 128 Collins Road.

Reduced property value.

An objection in regard to reduced property value cannot be sustained nor is this objection a valid reason for refusal as it is not a relevant planning matter under Section 79C of the Environmental Planning & Assessment Act 1979.

Increase in noise.

The proposed dwelling has been appropriately sited to have consideration for the acoustic privacy of neighbours. The development proposes setbacks varying from 3.084 metres to the rear boundary and 7.067 metres between the proposed dual occupancy. Furthermore, the new dwelling has been designed such that the primary recreational areas are located away from the adjoining dwelling at 128 Collins Road.

Increased traffic generation.

An additional dwelling will have minimal impact on the local traffic conditions. Traffic volumes within this section of Collins Road and Shelby Road are low.

Loss of privacy to 128 Collins Road (from M Binnie, 122 Collins Road).

The new dwelling has been provided with sufficient setbacks to the boundaries of the site so as to minimise the potential for overlooking of adjoining sites. Windows, particularly on the first floor, have been located so as to minimise the potential for overlooking into adjoining properties. Screen planting will be required along the northern, southern and western boundaries which will provide a further privacy screen. **(Refer to Condition 39).**

Bulk and size of the development will affect the line of sight for cars travelling up Collins Road.

The proposal will not affect the line of sight for car traveling up Collins Road. The development is proposed to be set back 7 metres from Collins Road. This setback, in addition to the road reserve, is ample to provide an adequate line of sight for cars travelling along Collins Road.

Out of character with the street and the local area.

The erection of a second house, two storeys in height and set back 7.0 metres from Collins Road, does not result in an adverse streetscape impact. The new dwelling is fully compliant in respect of

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all controls governing its external built form. Furthermore, Council's Urban Design Officer supports the development.

Concern over the precedent that this will set for the building line in Collins Road.

Council's Dual Occupancy Code allows for the rear second dwelling upon a corner allotment to be set back between 5.0 to 7.0 metres. This reduced setback compared to traditional front setbacks allows for a transitional setback to occur below the corner dwelling and the remainder of the street. It also allows for development to occur in accordance with SEPP 53. The proposed second dwelling is set back 7.0 metres from Collins Road and is therefore compliant with Council's controls. Therefore, it is unlikely that this development will set an undesirable precedent for the building line in Collins Road.

Object to the location of the driveway.

Council's Development Control Engineers have raised no concern over the proposed location of the vehicular crossing.

Concern over the precedent that this development will set for the area.

The proposal is permissible under State Environmental Planning Policy No 53 (SEPP 53). There is no requirement within SEPP 53 that dual occupancy developments be in an area in which there are existing dual occupancies.

Champion Homes are not a well regarded builder.

An objection in regard to the quality of builder cannot be sustained as part of the development assessment process nor is this objection a valid reason for refusal.

CONSULTATION - WITHIN COUNCIL

Heritage/Urban Design

Council's Heritage/Urban Design Officer has commented on the proposal as follows (in response to the original proposal):

Bulk, form & scale

Surrounding buildings are a mixture of single and two-storey homes of relatively recent date and no prevailing style. Most have horizontal proportions and there is a predominance of single storey buildings. The proposal has a tall front elevation due to the ground floor being raised to accommodate the slope towards the rear of the site. This gives the front elevation an unattractive appearance particularly with the garage door being set down in relation to the other openings.

Site planning

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The proposal has the main private open space on the south side of the house while living rooms open mainly to the north. I would prefer to see the new building positioned further towards the southern side of the site to leave the maximum amount of sunny garden to the north.

Conclusion

I do not support the application. More effort should be made to tailor the design to suit the slope of the site and to provide sunny outdoor spaces well related to living rooms.

Following the consideration of the revised plans Council Urban Design Consultant has advised as follows:

The proposal has been changed in response to my comments. The private open space is much improved and the front elevation is more attractive.

I raise no further concerns.

Landscaping

Council's Landscape and Tree Assessment Officer did not support the original proposal, but is supportive of the revised plans. Comments are as follows:

Amended plans have been submitted for comment (dwgs 1-9/9 Champion Homes, dated 26/02/04).

Other comments

Impact of moving proposed dwelling closer to the southern boundary results in required screen planting adding to reduction of solar access to No 128 Collins Road.

Proposed above ground OSD area incorporates extension to the existing low brick wall along Collins Road frontage. Proposed wall to be no higher than the existing low brick wall. Proposed excavation for basin will result in the removal of existing planting (Detention Basin 2, dwg 2003160 h1/3, ANA Civil and Structural Engineering P/L, dated 10/03/2004). To preserve streetscape, screen planting along southern boundary for the length of the detention basin shall be provided.

The proposal is supported with conditions.

Engineering

Council's Engineering Assessment Officer has commented on the proposal as follows:

This DA is recommended for approval, subject to the engineering conditions shown.

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The revised stormwater plan prepared by ANA Civil & Structural Engineers P/L, dated 10/03/04, Dwg no. 2003160-H1-Rev 3 is considered unsatisfactory, however drainage to the street appears to be feasible which can be handled by way of appropriate conditions. Driveway gradients are considered satisfactory.

Accordingly, no objections are raised from an engineering perspective.

STATUTORY PROVISIONS**State Environmental Planning Policy No 53**

COMPLIANCE TABLE		
Development standards	Proposed	Complies
Allotment size (cl.19(1)(a)) <ul style="list-style-type: none"> 600m² detached dual occ. (min) 	1144.43m ²	YES
Floor space ratio (cl.19(1)(b)) <ul style="list-style-type: none"> 0.5:1 (max) 	0.27:1 (289.44m ²)	YES
Car parking (cl.20) <ul style="list-style-type: none"> Dwelling 1: 2 car spaces (min) Dwelling 2: 2 car spaces (min) 	Dwelling 1: 2 car spaces Dwelling 2: 2 car spaces	YES YES

Site analysis (cl.31):

The documentation submitted with the application is considered satisfactory with respect to the requirements of Clause 31 and Schedule 5 of SEPP 53.

Streetscape (cl.32(a)):

Shelby Road and Collins Road are characterised by a mixture of single and two storey developments with varied setbacks from the street. The streetscape is undergoing transition from older, single storey, dwellings to newer, two storey, dwellings.

The proposal has been designed to be sympathetic to the existing streetscape character. The proposed building line setback and side setbacks comply with the requirements of Council's Dual Occupancy Code. The landscaping that will be required as part of the development will further ensure that the development contributes to an attractive streetscape character.

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Visual privacy (cl.32(b)):

The new dwelling has been designed with adequate consideration being given to the visual privacy of neighbours in the vicinity and residents. The new dwelling has been provided with sufficient setbacks to the boundaries of the site so as to minimise the potential for overlooking of adjoining sites. Windows, particularly on the first floor, have been located so as to minimise the potential for overlooking into adjoining properties. Screen planting will be required along the northern, southern and western boundaries which will provide a further privacy screen.

Acoustic privacy (cl.32(b)):

The new dwelling has been designed with adequate consideration being given to the acoustic privacy of neighbours in the vicinity and residents. The new dwelling has been provided with sufficient setbacks to the boundaries to provide separation between buildings for acoustic privacy. Furthermore, outdoor entertaining areas have been located away from the adjoining properties.

Solar access and design for climate (cl.32(c)):

Solar access to adjoining properties

The extent of likely overshadowing cast by the proposal is as follows:

9.00am (June 22):

The shadow will extend over part of the dwelling at 128 Collins Road. As the garage for this dwelling is located on the northern side of the dwelling, no living areas will be affected by overshadowing.

12.00 noon (June 22):

The shadow will have moved away from the dwelling at 128 Collins Road and will affect the front yard (primarily the area used for the driveway).

3.00pm (June 22):

The shadow will extend further into the front yard of 128 Collins Road and onto Collins Road.

Solar access to the proposed development

The proposed development would receive 3⁺ hours solar access to its internal living areas and private open space areas during the winter solstice.

Stormwater (cl.32(d)):

Council's Development Control Engineer has indicated that, whilst the concept stormwater plan is unsatisfactory, drainage to the street is feasible and appropriate conditions have been recommended. Separate on-site detention systems will be required for each dwelling (**Refer to Conditions Nos 31-30, 46-50, 57-61**).

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Crime prevention (cl.32(e)):

Pedestrian access to the new dwelling is available from Collins Road and pedestrian access to the existing dwelling is available from Shelby Road. Both dwellings allow for observation of the site and of persons approaching the dwellings.

Accessibility (cl.32(f)):

Vehicular access to the new dwelling is available from Collins Road and vehicular access to the existing dwelling is available from Shelby Road. Both dwellings contain garages and the driveway areas can accommodate visitor parking.

Waste management (cl.32(g)):

A condition has been imposed so as to achieve compliance with Council's standard waste management requirements (**refer to Condition No 51**).

Visual bulk (cl.32(h)):

The new dwelling is proposed to be two storeys in height and, given the setbacks from the side and rear boundary, the new dwelling would be compatible with the existing built character, that being, dwelling houses located within a landscape setting. The visual bulk of the development is not uncharacteristic of development within the surrounding area.

State Environmental Planning Policy No 55 - Remediation of Land

The provisions of SEPP 55 require Council to consider the potential for a site to be contaminated. The subject site has a history of residential use and as such it is unlikely to contain any contamination and further investigation is not warranted in this case.

Sydney Regional Environmental Plan No 20 - Hawkesbury-Nepean River

SREP 20 applies to the site and is aimed at protecting the environment of the Hawkesbury-Nepean River system by ensuring that the impacts of future lands uses are considered. SREP 20 requires consideration of matters including water quality, water quantity, flora and fauna, wetlands and heritage etc.

The proposed development meets the general matters for consideration of SREP 20. However, Clause 6 (4) sets out strategies for water quantity whereby the reuse of water is encouraged where possible. As the proposal is for a new development, it is recommended that rainwater tanks or similar be required to enable the reuse of stormwater for irrigation purposes. A condition to this effect is included in the recommendation (**Refer to Condition No 50**).

Ku-ring-gai Planning Scheme Ordinance (KPSO)

Aims and Objectives for Residential Zones

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The development: (i) provides satisfactory levels of solar access & privacy to surrounding properties; (ii) is of a bulk, scale and design, characteristic of the area; (iii) maintains adequate levels of soft landscaping; (iv) provides suitable egress/ingress for vehicles; and (v) maintains the landscape quality of the municipality. Consequently, the aims and objectives for residential development as outlined by Schedule 9 have been satisfied.

COMPLIANCE TABLE		
Development standard	Proposed	Complies
Building height 8m (max)	Dwelling 1: approximately 5.5 metres (existing) Dwelling 2: 6.2 m The following information is not a statutory control. This information is provided for the benefit of the Councillors: Height to roof ridge - Dwelling 1: approximately 6.7 metres (existing) Height to roof ridge - Dwelling 2: 7.2 m Height to eaves line – Dwelling 1: 5.5 metres (existing) Height to eaves line – Dwelling 2: 6.2 m	YES YES
Built-upon area 60% (max)	30.25 %	YES
Notional built-upon area	Dwelling 1: 26.7 % Dwelling 2: 36.7 %	YES YES

POLICY PROVISIONS

Development Control Plan 40 - Waste Management

The site is of a sufficient size to accommodate waste storage and recycling facilities associated with the proposed use in accordance with DCP 40. A Waste Management Plan has been submitted and is acceptable.

Development Control Plan No 43 - Car Parking

The proposal complies with DCP 43 which requires the provision of two parking spaces for each dwelling.

Council's Dual Occupancy Development Control Code

COMPLIANCE TABLE		
Development control	Proposed	Complies
4.2 Streetscape:		
Roof pitch		

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<ul style="list-style-type: none"> 5m roof height-1 storey (max) 3m roof height-2 storey (max) Roof pitch 35⁰ (max) 	<p>Dwelling 1: Existing</p> <p>Dwelling 2: 1.8 m</p> <p>Dwelling 1: Existing</p> <p>Dwelling 2: 22.5⁰</p>	<p>YES</p> <p>YES</p> <p>YES</p> <p>YES</p>
<p>Fences</p> <ul style="list-style-type: none"> Height:900mm (solid fence) (max) Height:1.2m (transparent fence) (max) 	<p>A front fence to Shelby Road is not proposed.</p> <p>1.8 metres high timber lapped and capped fences are proposed to separate the two dwellings and contain the private open space of dwelling one.</p> <p>Both fences are located behind the Shelby Road building line, however forward of the Collins Road frontage.</p>	<p>N/A</p> <p>NO</p>
4.3 Visual and acoustic privacy:		
<p>Visual privacy</p> <ul style="list-style-type: none"> Windows to habitable rooms set back 9m from neighbouring windows (min) 	<p>Dwelling 1 : Existing</p> <p>Dwelling 2 : Habitable windows 7.5 metres up to 8.6 metres</p>	<p>YES</p> <p>NO</p>
4.4 Solar access and design for climate:		
<p>Solar access</p> <ul style="list-style-type: none"> Dual occupancy receive 3+ hours of solar access between 9am and 3pm (min) Neighbouring properties receive 3+ hours of solar access between 9am and 3pm (min) 	<p>Dwelling 1: 6 hours solar access received</p> <p>Dwelling 2: 6 hours solar access received</p> <p>All neighbouring properties receive 3+ hours solar access</p>	<p>YES</p> <p>YES</p> <p>YES</p>
<p>Energy efficiency</p> <ul style="list-style-type: none"> 3.5 star NatHERS Rating (min) 	<p>Dwelling 1: Existing</p> <p>Dwelling 2: 4 stars</p>	<p>N/A</p> <p>YES</p>
4.7 Accessibility:		
<p>Vehicular access and car parking dimensions</p> <ul style="list-style-type: none"> Garage – 3.1m x 5.4m (min) 	<p>Dwelling 1: Existing</p> <p>Dwelling 2: 3.2 m x 5.5 m</p>	<p>N/A</p> <p>YES</p>

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4.9 Visual bulk:		
Building setbacks <ul style="list-style-type: none"> • Corner site street Frontage setback: 7m (min) with 50% of façade at 5m • Setbacks between buildings -7m or 5m (50% of building) (min) • Side setback: Ground floor: 3m (min) 1st floor: 3m (min) • Rear setback: 3m (min) 	<p>Dwelling 2 : 7 metres</p> <p>7.5 metres</p> <p>Dwelling 1: Existing Dwelling 1: Existing</p> <p>Dwelling 2: Ground Floor: 3.1m Dwelling 2: 1st Floor: 3.1m</p> <p>Dwelling 2: 3m</p>	<p>YES</p> <p>YES</p> <p>N/A N/A</p> <p>YES YES</p> <p>YES</p>
Building form <ul style="list-style-type: none"> • Unrelieved wall length: 8m (max) • Total building length: 24m (max) 	<p>Dwelling 1: Existing Dwelling 2: 7m</p> <p>Dwelling 1: Existing Dwelling 14.3m</p>	<p>N/A YES</p> <p>N/A YES</p>
Built-upon area <ul style="list-style-type: none"> • Total built upon area (max): 45% • Notional built-upon area 	<p>30.25%</p> <p>Dwelling 1: 26.7% Dwelling 2: 36.7%</p>	<p>YES</p> <p>YES YES</p>
Floor space ratio <ul style="list-style-type: none"> • FSR (max): 0.5:1 • 1st floor – 40% 	<p>0.26:1</p> <p>Dwelling 1: Existing Dwelling 2: 45%</p>	<p>YES</p> <p>N/A NO</p>
Height of buildings <ul style="list-style-type: none"> • Second dwelling on a corner allotment shall be determined on merit. 	<p>Dwelling 2: The height of dwelling 2 is not uncharacteristic of two storey dwellings in the St Ives area. Council is advised that its height is compliant with the provisions of the KPSO.</p>	<p>YES</p>

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<ul style="list-style-type: none"> Building envelope: 45° from horizontal at any point 3m above boundary 	<p>Dwelling 1 : Existing</p> <p>Dwelling 2</p> <p>North boundary: Complies</p> <p>South boundary: Complies</p> <p>East boundary: Complies</p> <p>West boundary: Complies</p>	<p>N/A</p> <p>YES</p> <p>YES</p> <p>YES</p> <p>YES</p>
<p>Cut and fill (building works)</p> <ul style="list-style-type: none"> Cut & fill: 900mm & Total 1800mm (max) 	<p>Dwelling 1: Existing</p> <p>Dwelling 2: 850mm (cut) & 300mm (fill)</p>	<p>N/A</p> <p>YES</p>
Section 5: Landscaping & Open Space		
<p>Total soft landscaping :</p> <p>45% (min)</p>	<p>69.75%</p>	<p>YES</p>
<p>Notional soft landscaping:</p>	<p>Dwelling 1: 73.24%</p> <p>Dwelling 1: 63.3%</p>	<p>YES</p> <p>YES</p>
<p>Tree retention and refurbishment</p> <ul style="list-style-type: none"> No. of Trees: 3 (min) 	<p>3 trees</p>	<p>YES</p>
<p>Cut & fill (landscaping)</p> <ul style="list-style-type: none"> Cut & Fill: 900mm & Total 1800mm 	<p>850mm (cut) located western end Dwelling 2</p> <p>300mm (fill) located north eastern corner Dwelling 2</p>	<p>YES</p> <p>YES</p>
<p>Open space provisions</p> <ul style="list-style-type: none"> Area: 100m² or 2 x 75m² areas (min) Min dimension 5m x 5m (min) Grade: 1 in 8 (max) 50% receives 3+ hours solar access (min) 	<p>Dwelling 1: 106m²</p> <p>Dwelling 2: 116m²</p> <p>Dwelling 1: 4.2 x 6.4m</p> <p>Dwelling 2: 3.084 x 11.7m</p> <p>Dwelling 1: 1 in 17</p> <p>Dwelling 2: 1 in 12.6</p> <p>Dwelling 1: Open space receives 3+ hours solar access</p> <p>Dwelling 2: Open space receives 6 hours solar access</p>	<p>YES</p> <p>YES</p> <p>NO</p> <p>NO</p> <p>YES</p> <p>YES</p> <p>YES</p> <p>YES</p>

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Visual Privacy:

Whilst the family and lounge rooms of Dwelling 2 would be located less than 9.0 metres from the existing dwelling, being 7.519 metres and 8.632 metres, respectively, they are located at natural ground level and will be separated from the existing dwelling by a 1.8 metre high lapped and capped fence and existing and proposed plant screening. The living areas of the existing dwelling are located on the northern side of the existing dwelling. Consequently, there will not be any adverse visual privacy impact.

Floor Space Ratio:

Despite the minor non-compliance with the FSR as it applies to 1st floor levels, the development will not dominate the street due to its stepped design. The bulk and scale of the new dwelling is consistent with the surrounding local context.

Open Space Provision:

Dwelling 1 and Dwelling 2 have respective private open space areas of 106 square metres and 116 square metres which satisfy Council's Code requirement of a minimum 100 square metres. Dwelling 1 has one portion of its open space 4.2 metres x 6.4 metres instead of the 5 metres x 5 metres minimum provision in Council's Code, and Dwelling 2 has its open space made up of areas consisting of 5.2 metres x 4.2 metres, 5.5 metres x 4.4 metres and 7 metres x 4.747 metres.

Whilst the minimum dimension 5 metres has not been satisfied, the proposed private open space is sufficient to meet the needs and requirements of future residents including suitable areas to accommodate both outdoor recreation needs as well as providing space for clothes drying and storage.

Fencing:

1.8 metres high lapped and capped timber paling fencing is proposed forward of the building line to Collins Road. This portion of fencing should be reduced to 1.0 metre in height and utilize screen planting to ensure privacy and separation (**refer to Condition 32A**).

Section 94 Plan

The development attracts a section 94 contribution of \$33,057.22, which is required to be paid by **Condition No.37**.

LIKELY IMPACTS

All likely impacts of the proposal have been assessed elsewhere in this report.

SUITABILITY OF THE SITE

The site is suitable for the proposed development.

ANY SUBMISSIONS

All submissions received have been considered in the assessment of this application.

PUBLIC INTEREST

The approval of the application is considered to be in the in the public interest.

ANY OTHER RELEVANT MATTERS CONSIDERATIONS NOT ALREADY ADDRESSED

There are no other matters for discussion.

CONCLUSION

Having regard to the provisions of section 79C of the Environmental Planning and Assessment Act 1979, the proposed development is considered to be satisfactory/unsatisfactory. Therefore, it is recommended that the application be approved.

RECOMMENDATION

THAT the Council, as the consent authority, grant development consent to DA 1061/03 for construction of a new dwelling to create a detached dual occupancy on land at 7 Shelby Road, St Ives, for a period of two (2) years from the date of the Notice of Determination, subject to the following conditions:

GENERAL CONDITIONS

1. The development to be in accordance with Development Application No 1061/03 and Development Application plans prepared by Champion Homes, reference number Sheet 1 of 9, 2 of 9, 3 of 9, 4 of 9, 6 of 9, 7 of 9, 8 of 9 and 9 of 9, dated 26 February 2004 and sheet 5 of 9 dated 10 May 2004 and lodged with Council on 2 April 2004.
2. All building works shall comply with the Building Code of Australia.
3. The submission of the approved plans to Sydney Water, before any work is commenced to ensure that the proposed structure meets that Authority's By-Laws. Failure to submit these plans before commencing work will render the owner liable to a penalty and may result in the demolition of work.
4. For the purpose of ensuring the compliance with the terms of the approval, an approved copy of the plan and this Consent and Construction Certificate shall be kept on site at all times.
5. For the purpose of safety and amenity of the area, no building materials, plant or the like are to be stored on the road or footpath without the written approval being obtained from the Council beforehand. The pathway shall be kept in a clean, tidy and safe condition during building operations. Council reserves the right, without notice, to rectify any such breach and to charge the cost against the applicant/owner/builder, as the case may be.

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6. HOURS OF WORK: For the purpose of residential amenity, noise generating work carried out in connection with building and construction operation, including deliveries of building materials and equipment, is restricted to the following hours: Mondays to Fridays inclusive: 7.00am to 5.30pm. Saturdays: 8.00am to 12.00 noon. Sundays and Public Holidays: Not Permitted. The use of the following items of plant on the site is also restricted to the abovementioned hours: compressors, bulldozers, power operated woodworking machines, excavators and loaders, jackhammers, Ramset guns, concrete mixers and concrete delivery wagons, hoists, winches, welding and riveting plant.

Whilst work on Saturdays may be performed until 5.30pm, such work or any associated activities shall not involve the use of any noise generating processes or equipment.

7. For the purpose of public safety, a sign shall be erected on the site prior to any work commencing which is clearly visible from a public place stating that unauthorised entry to the site is not permitted and showing the name of the builder or another person responsible for the site and a telephone number for contact outside working hours. The sign may only be removed on satisfactory completion of the works.
8. A sign shall be erected in a prominent position on the site which states the name and contact details of the Principal Certifying Authority.
9. For the purpose of maintaining visual amenity, no permanent electricity supply poles are to be erected forward of the building setback without the prior Consent of Council. It is the onus of the applicant to consult with the authorised statutory electricity provider prior to construction commencing to ensure that direct connection to the building is possible. Details of any proposed permanent pole must be submitted to and approved by Council prior to installation.
10. The applicant is advised that the Construction Certificate plans and specifications must comply with the provisions of the Building Code of Australia.
11. Toilet facilities are to be provided, within the work site on which work involved in the erection or demolition of a building is being carried out, at the rate of one toilet for every 20 persons or part of 20 persons employed at the site.
12. The fence and footings shall be constructed entirely within the boundaries of the property.
13. The demolition is to be carried out in accordance with the guidelines contained in Australian Standard 2601-1991: The Demolition of Structures.
14. A person taking down or demolishing or causing to be taken down or demolished any building or part thereof shall, upon identifying or suspecting that asbestos is present in the building, immediately notify the Workcover Authority. The Authority is the controlling body for the safe removal, handling and disposal of asbestos. The Authority supervises and monitors contractors engaged in asbestos removal.

The requirements and standards imposed by the Authority, its consultants or contractors shall be complied with.

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15. A Tree Preservation Order exists within the Ku-ring-gai Council area whereby the removal, lopping or destruction of any tree exceeding 5.0 metres in height or 4.0 metres in canopy spread (except where exempt as defined under Council's Tree Preservation Order) without prior written consent of Council is prohibited.

Release of the Construction Certificate gives automatic approval to the removal ONLY of those trees located on the subject property within the footprint of a proposed new building/structure or within 3.0 metres of a proposed new dwelling. Where this application is for a building/structure other than a dwelling then ONLY trees within the area to be occupied by this building/structure may be removed. Other trees SHALL NOT be REMOVED or DAMAGED without an application being made under Council's Tree Preservation Order.

16. Tree roots between 10mm and 50mm diameter, severed during excavation, shall be cut cleanly by hand and the tree subsequently treated with a root growth hormone and wetting agent, by an experienced Arborist/Horticulturist with a minimum qualification of the Horticulture Certificate or Tree Surgery Certificate.
17. The applicant shall ensure that at all times during the construction period no activities, storage or disposal of materials shall take place beneath the canopy of any tree protected under Council's Tree Preservation Order.
18. The following tree species shall be planted, at no cost to Council, in the nature strip fronting the property along Collins Street. The tree/s used shall be 25 litre container size specimen/s:

Tree Species

Eucalyptus haemastoma (Scribbly Gum)

19. On completion of the landscape works/tree planting or screen planting, a Landscape Architect or qualified Landscape Designer shall submit a report certifying correct installation, faithful to the landscape plan to the Principal Certifying Authority with a copy to Council, prior to issue of final Certificate of Compliance.
20. All builders' refuse, spoil and/or material unsuitable for use in landscape areas shall be removed from the site on completion of the building works.
21. Stormwater runoff from all hard surfaces, or landscaped areas which are not at natural ground level, shall be piped to the street drainage system. Drainage line connections to the kerb shall conform and comply with the detailed requirements contained within Council's Plan No82/024 ("Connections of Drainage Lines to Kerb and R.C. Pipe"). Drainage crossings of the footway area shall be a single 100mm diameter sewer grade uPVC pipe with kerb adaptor, where the total design flows from the property are within the capacity of such a pipe, otherwise suitably sized galvanised RHS shall be used. To ensure compliance with this condition, a Certificate from the installer is to be submitted to the Principal Certifying Authority prior to issue of the Final Compliance Certificate.

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22. To maintain capacity of the Public drainage system, an On-site Stormwater Detention System must be provided in accordance with Council's Stormwater Management Manual. Separate detention systems are to be provided for each residence. An overflow is to be incorporated that will direct any excess flow to the downstream drainage system and subsoil drainage is to be provided from the underside of the sediment control sump to the outlet line or other approved location.

The system is to be cleaned regularly and maintained to the satisfaction of Council.

NOTE 1: The on-site stormwater detention system and property drainage system is not to require excavation or fill underneath the canopy areas of any trees to be retained unless as approved by a qualified arborist's certification that such excavation will not affect the longevity of the subject tree(s).

NOTE 2: Earth mounding and/or timber retaining wall will not be accepted as the storage perimeter wall. Any perimeter walls must be in masonry on a reinforced concrete footing.

NOTE 3: If the applicant wishes to vary the prescribed storage and outflow volumes contained in Council's Stormwater Management Manual, a detailed analysis must be provided following the guidelines set out in Council's requirements for on-site detention with full computations accompanying the submission including a flood routing analysis.

NOTE 4: All roof, driveway and other hard-surface runoff water is to be intercepted and directed to the on-site stormwater detention system. If some areas of hard-surface are unable to be directed to the detention system an adjustment to the rate of discharge is to be made to attain the required site discharge.

NOTE 5: If a landscaped surface type detention system is used the storage volume required is to be increased by 20%.

NOTE 6: The standard Council On-site Stormwater Detention Calculation Sheet is to be completed and included on design drawings. This is available from Council upon request.

23. The relocation or adjustment of any utility service facilities must be carried out by the Applicant in accordance with the requirements of the utility authority at no cost to Council.
24. The public footways and roadways adjacent to the site are to be maintained in a safe condition, at all times, during the course of the works. A safe pedestrian circulation route a minimum of 1.5m wide and with a pavement free of trip hazards must be maintained at all times on or adjacent to the public footways fronting the construction site. Where the footpath is damaged, repair works must be carried when directed by Council officers and in accordance with the relevant clauses of the current edition of Council's Specification for Drainage and Road Works.

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Where circulation is diverted on to the roadway clear directional signage and protective barricades must be installed in accordance with Aust AS1742-3 1996 "*Traffic Control Devices for Work on Roads*".

If pedestrian circulation is not satisfactorily maintained, and action is not taken promptly to rectify the defects, Council may undertake proceedings to stop work.

25. The provision of temporary sediment and erosion control facilities and measures are to be installed, prior to the commencement of any works on the site to minimise and/or eliminate unnecessary erosion and loss of sediment. These facilities must be maintained in working order during construction works and up to the completion of the maintenance period. All sediment traps must be cleared on a regular basis and after each major storm, and/or as directed by the Principal Certifying Authority, with all silt being removed from the site, or to an approved location within the site.
26. Driveways and access ramps must be designed not to scrape the underside of cars. In all respects, the proposed vehicle access and accommodation arrangements must be designed and constructed to comply with Australian Standard AS 2890.1 – "Off-Street car parking".
27. For the purpose of any Council inspections, the appropriate fees set out in Councils adopted Schedule of Fees and Charges are payable to Council, prior to the release of the approved plans. A re-inspection fee per visit may be charged where remedial work is unprepared at the requested time of inspection or where remedial work is unsatisfactory and a further inspection is requested. Engineering fees must be paid prior to the final approval of the works.
28. The dual occupancy development approved under DA 1061/03 is to be completed and an occupation certificate is to be issued by the Principal Certifying Authority prior to a Subdivision Certificate being released by Council under any separate subdivision application.
29. A Section 73 Compliance Certificate under the Sydney Water Act 1994 must be obtained. Application must be made through an authorised Water Servicing Coordinator. Please refer to "Your Business" section of Sydney Water's web site at www.sydneywater.com.au then the "e-developer" icon or telephone 13 20 92. Following application a "Notice of Requirements" will detail water and sewer extensions to be built and charges to be paid. Please make early contact with the Coordinator, since building of water/sewer extensions can be time consuming and may impact on other services and building, driveway or landscape design.
30. To prevent surface stormwater from entering the building, the finished habitable ground floor level(s) of the building shall be a minimum of 150mm above adjacent finished ground level(s). The entire outside perimeter of the building must have overland flow escape routes which will protect all finished floor levels from flooding during times of complete subsurface drainage blockage.
31. Bathrooms and toilets must have installed maximum 6/3 litre dual flush cisterns and shower heads with reduced water flow devices to ensure water conservation.

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32. The proposed fence between the existing and new dwelling shall comply with the requirements of Development Control Plan No.46, Exempt and Complying Development.
- 32A. The 1.8 metre high lapped and capped fencing located forward of the Collins Road building line being reduced in height to 1.0 metre. Additional screen planting shall be located adjacent to the above fences to ensure privacy and separation.

CONDITIONS TO BE COMPLIED WITH PRIOR TO THE ISSUE OF A CONSTRUCTION CERTIFICATE

33. The Long Service Levy is to be paid to Council in accordance with the provisions of Section 34 of the Building and Construction Industry Payments Act 1986 prior to the issue of the Construction Certificate. Note: Required if cost of works exceed \$25,000.00.
34. It is a condition of consent that the applicant, builder or developer or person who does the work on this residential building project arrange the Builders Indemnity Insurance and submit the Certificate of Insurance in accordance with the requirements of Part 6 of the *Home Building Act 1989* to the Council or other Principal Certifying Authority for endorsement of the plans accompanying the Construction Certificate. It is the responsibility of the applicant, builder or developer to arrange the Builder's Indemnity Insurance for residential building work over the value of \$12,000 and to satisfy the Council or other Principal Certifying Authority by the presentation of the necessary Certificate of Insurance so as to comply with the applicable requirements of Part 6 of the *Home Building Act 1989*. The requirements for the Builder's Indemnity Insurance does not apply to commercial or industrial building work or for residential work less than \$12,000, nor to work undertaken by persons holding an Owner/Builder's Permit issued by the Department of Fair Trading (unless the owner/builder's property is sold within 7 years of the commencement of the work).
35. The Infrastructure Restorations Fee calculated in accordance with the Council's adopted schedule of Fees and Charges is to be paid to the Council prior to any earthworks or construction commencing. The applicant or builder/developer will be held responsible for and liable for the cost any damage caused to any Council property or for the removal of any waste bin, building materials, sediment, silt, or any other article as a consequence of doing or not doing anything to which this consent relates. "Council Property" includes footway, footpath paving, kerbing, guttering, crossings, street furniture, seats, litter bins, trees, shrubs, lawns mounds, bushland, and similar structures or features on road reserves or any adjacent public place. Council will undertake minor restoration work as a consequence of the work at this site in consideration of the "Infrastructure Restorations Fee" lodged with the Council prior to the release of the Construction Certificate. This undertaking by the Council does not absolve the applicant or Builder/developer of responsibility for ensuring that work or activity at this site does not jeopardise the safety or public using adjacent public areas or of making good or maintaining "Council property" (as defined) during the course of this project.
36. Prior to commencing any construction or subdivision work, the following provisions of the Environmental Planning & Assessment Act, 1979 (the 'Act') are to be complied with:

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- a. A Construction Certificate is to be obtained in accordance with Section 81A(2)(a) of the Act.
 - b. A Principal Certifying Authority is to be appointed and Council is to be notified of the appointment in accordance with Section 81A(2)(b) of the Act.
 - c. Council is to be notified in writing, at least two (2) days prior to the intention of commencing buildings works, in accordance with Section 81A(2)(c) of the Act.
 - d. Should the development be certified by a Principal Certifying Authority other than Council, a fee for each Part 4A Certificate is to be paid to Council on lodgement of those Certificates with Council.
37. A contribution is to be paid for the provision, extension or augmentation of community facilities, recreation facilities, open space and administration that will, or are likely to be, required as a consequence of development in the area.

TOTAL CONTRIBUTION FOR THIS DEVELOPMENT OF ONE (1) ADDITIONAL DWELLING IS CURRENTLY \$33,057.22. The amount of the payment shall be in accordance with the Section 94 charges as at the date of payment. The charges may vary at the time of payment in accordance with Council's Section 94 Contributions Plan to reflect changes in land values, construction costs and the consumer price index.

This contribution shall be paid to Council prior to the release of the Construction Certificate and the amount payable shall be in accordance with the Council's adopted Section 94 Contributions Plan for Residential Development, effective from 20 December 2000, calculated for additional person as follows:

1. Preparation of New Residents Kit	\$10.98
2. New Resident Survey	\$9.87
3. New child care centre (including land acquisition and construction of facility)	\$252.13
4. Additions/alterations to Acron Rd child care centre for additional 20 places	\$2.41
5. New Library bookstock	\$17.95
6. New Public Art	\$2.93
7. Acquisition of Open Space - St Ives	\$7,851.00
8. Koola Park upgrade and reconfiguration	\$143.09
9. North Turramurra Sportsfield development	\$986.80
10. Section 94 2000-2003 Study and Interim Plan preparation cost	\$49.34
11. Section 94 Officer for period of Plan 2000-2003	\$118.42

To obtain the total contribution figure the following table of occupancy rates is to be used:

OCCUPANCY RATES FOR DIFFERENT DWELLING SIZES

Small dwelling (under 75 sqm)	1.25 persons
Medium dwelling (75 - under 110 sqm)	1.75 persons
Large dwelling (110 – under 150sqm)	2.75 persons
Very Large dwelling (150sqm or more)	3.5 persons
New Lot	3.5 persons

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38. A plan and specification of the proposed landscape works for the site shall be prepared in accordance with Council's Development Control Plan No 38, by a Landscape Designer to enhance the amenity of the built environment and protect the Ku-ring-gai landscape character. The plan must be submitted to Council prior to the release of the Construction Certificate and be approved by Council's Landscape Development Officer prior to the commencement of works. A Landscape Assessment fee of \$120 will be payable on lodgement of the required landscape plan, in accordance with the following schedule.

Landscape Plan Certification Fees

Minor Landscaping Works	\$50.00
New Dwellings/Dual Occupancies	\$120.00
Multi-Unit Housing	\$100.00 plus \$30.00 per unit
Commercial	\$100.00 plus 10 cents per m ²

39. A plan detailing screen planting of the dwellings shall be submitted to Council prior to the release of the Construction Certificate and approved by Council's Landscape Development Officer, prior to completion of building works. The plan shall incorporate species capable of attaining a height of HEIGHT (NUMBER ONLY) metres.

To Dwelling along western boundary	5m
To Dwelling along southern boundary	5m
To Dwelling along northern boundary	3m

40. To preserve the natural landscape, retaining walls to be setback a minimum 2 metres from side boundaries. Amended plans to be submitted to the Principal Certifying Authority for approval prior to release of Construction Certificate.
41. To preserve streetscape, screen planting to 2 metre high along eastern boundary to length of detention basin to be provided. Amended plans to be submitted to the Principal Certifying Authority for approval prior to release of Construction Certificate.
42. To preserve neighbour amenity, existing screen planting along southern boundary is to be retained. Amended plans to be submitted to the Principal Certifying Authority for approval prior to release of Construction Certificate.
43. The property shall support a minimum number of 3 trees that will attain 13.0 metres in height on the site, to preserve the tree canopy of Ku-ring-gai, in accordance with Council's policy of Tree Retention/Replenishment on Residential Allotments adopted 26 April 1988. The existing tree/s, and additional tree/s to be planted, shall be shown on the Landscape Plan/Site Plan. The plan shall be submitted to Council prior to release of Construction Certificate and approved by Council's Landscape Development Officer, prior to commence of work.
44. The 3 trees to be planted shall be maintained in a healthy and vigorous condition until they attain a height of 5.0 metres whereby they will be protected by Council's Tree Preservation Order. Any of the trees found faulty, damaged, dying or dead shall be replaced with the same species.

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45. A CASH BOND/BANK GUARANTEE of \$1000 shall be lodged with Council as a Landscape Establishment Bond prior to the release of the Construction Certificate to ensure that the landscape works are installed and maintained in accordance with the approved landscape plan or other landscape conditions.

Fifty percent (50%) of this bond will be refunded upon issue of the final Certificate of Compliance, where landscape works as approved have been satisfactorily installed. The balance of the bond will be refunded 3 years after issue of the building certificate, where landscape works has been satisfactorily established and maintained.

It is the responsibility of the applicant to notify Council in relation to the refunding of the bond at the end of the 3 year period. Where a change of ownership occurs during this period it is the responsibility of the applicant to make all arrangements regarding transference of the bond and to notify Council of such.

46. DRIVEWAYS AND FOOTPATHS: Approval of this Development Application is for works wholly within the property and does not imply approval of footpath or driveway levels, materials or location within the road reserve regardless of whether this information is shown on the Application.

Footpath and driveway levels at the property boundary/road alignment are to be obtained from Council prior to release of the Construction Certificate. All footpaths and driveways are to be constructed strictly in accordance with Council's specifications "Construction of Gutter Crossings and Footpath Crossings". This is issued with alignment levels after completing the necessary application form at Customer Services and payment of the appropriate fee.

The grading of such footpaths or driveways outside the property are to comply with Council's standard requirements. The suitability of the grade of such paths or driveways inside the property is the sole responsibility of the applicant, and this may be affected by the alignment levels fixed by Council.

Note 1: The construction of footpaths and driveways outside the property, in materials other than those approved by Council, is not permitted and Council may require immediate removal of unauthorised installations.

Note 2: When completing the request for driveway levels application from Council, the applicant must attach a copy of the relevant Development Application drawing which indicates the position and proposed level (if applicable) of the proposed driveway at the boundary alignment. Failure to submit this information may delay processing.

47. The property drainage system (including but not limited to gutters, downpipes, pits, joints, flushing facilities and all ancillary plumbing) shall be designed and based upon a 235mm/hour rainfall intensity for a duration of five (5) minutes (1:50 year storm recurrence) for impervious surfaces. Design drawings and calculations are to be prepared by a suitably qualified and experienced civil/hydraulic engineer in accordance with Council's Stormwater Management Manual and the national Plumbing and Drainage Code. These must be submitted

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to and approved by the Principal Certifying Authority (PCA) prior to issue of the Construction Certificate.

NOTE 1: The property drainage system is not to require excavation or fill underneath the canopy areas of any trees to be retained unless as approved by a qualified arborist's certification that such excavation will not affect the longevity of the subject tree(s).

NOTE 2: If the proposed drainage system involves piping underneath or within the building then the designer is to certify that the design is in accordance with AS3500.3.2:1998 and the BCA.

NOTE 3: All enclosed floor areas, including habitable and garage floor levels, are to be safeguarded from outside stormwater runoff ingress by suitable differences in finished levels, gradings and provision of stormwater collection devices.

48. The stormwater plan prepared by ANA Civil & Structural Engineers P/L, dated 10/03/2004, dwg no. 2003160-H1-Rev 3 is to be amended, but not limited to the following:
- i. The maximum allowable depth of open storage shall not be greater than 300mm unless enclosed with pool fencing and childproof, self closing gates;
 - ii. The design of the proposed surface basin is to be compatible to any approved landscape plan and/or landscape conditions. The storage areas must not extend over the shrubs and/or groundcovers areas.
 - iii. The OSD tank shall be designed in accordance with Council's Stormwater Management Manual as follow:
 - The orifice plate shall be placed to the outlet pipe;
 - The deletion of weir wall. Provide an 150 ϕ overflow pipe connected to the outlet pipe;
 - iv. Provide sealed pit cover for first flush trenches;

Full design drawings of the proposed method of achieving the requirements for on-site stormwater detention including the above mentioned matters and all supporting calculations are to be prepared by a suitably qualified and experienced civil/hydraulic engineer in accordance with Council requirements. These must be submitted to and approved by the Principal Certifying Authority (PCA) prior to issue of the Construction Certificate.

49. For stormwater control, the provision of an interceptor drainage system to capture and convey all stormwater runoff arriving at the subject property from upslope areas to the Council or public drainage system and bypassing any on-site stormwater detention systems. The drainage system is to comprise suitable inlet pits, grated drains, pipes and channels and is to be designed in accordance with Council's Stormwater Management Manual. This drainage system is to be designed for storm events up to and including the 100-year ARI. Design drawings are to be prepared by a suitably qualified and experienced civil/hydraulic engineer and submitted for approval by the Principal Certifying Authority (PCA) prior to issue of the Construction Certificate.

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50. For stormwater retention, provision of a 2000 litre rainwater tank within the subject property designed to capture and retain runoff from at least one roof downpipe after which runoff bypasses the tank and reverts to the main drainage system. Design drawings are to be prepared by a suitably qualified and experienced civil/hydraulic engineer and submitted for approval by the Principal Certifying Authority (PCA) prior to issue of the Construction Certificate.

NOTE 1: The tank is to be located at or above existing natural ground level.

NOTE 2: If abutting a wall of the dwelling, the tank must be below the eaves line.

NOTE 3: The tank must not be located on the front façade of a dwelling.

NOTE 4: If the tank is to be attached to a structure then a structural engineer is to certify the adequacy of the design of the structure to carry the tank.

NOTE 5: Maximum height of the tank is 1.8 metres above natural ground level where installed along the side boundary setback of a dwelling.

NOTE 6: The tank is to be a commercially manufactured tank designed for the use of water supply and to be installed in accordance with manufacturers specifications.

NOTE 7: The tank is to be located above an available landscaped area so that the tank may be readily used for watering purposes.

NOTE 8: The tank is to be fitted with a standard garden tap or similar which is to be clearly marked as not to be used for drinking purposes.

NOTE 9: The tank is to be fitted with measures to prevent mosquito breeding.

NOTE 10: Upon completion, certification from a suitably qualified person is to be submitted to the Principal Certifying Authority with respect to this condition being satisfied

NOTE 11: This requirement does not apply where the Applicant considers installation to be impractical.

51. The Construction Certificate shall not be released until a Site Management Plan is submitted to the Principal Certifying Authority and approved by a suitably qualified professional.

The plan shall indicate the planned phases of the construction work, erosion and drainage management, tree protection measures, areas nominated for storing materials, site access and where vehicle parking is proposed, during construction.

CONDITIONS TO BE COMPLIED WITH PRIOR TO WORK COMMENCING

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52. Prior to the commencement of any work, the Principal Certifying Authority shall be notified in writing of the name and contractor licence number of the owner/builder who intends to carry out the approved works.
53. External finishes and colours are to be sympathetic to the surrounding environment. Samples of materials and finishes are to be submitted to and approved by Council prior to the commencement of work.

CONDITIONS TO BE COMPLIED WITH PRIOR TO OCCUPATION

54. The landscape works shall be completed prior to release of the Certificate of Occupation and maintained in a satisfactory condition at all times.
55. The screen planting shall be completed prior to release of the Certificate of Occupation and be maintained in a satisfactory condition at all times.
56. Tree planting to satisfy tree retention/replenishment requirements shall be completed prior to the release of the Occupation Certificate.
57. Prior to occupation, or the issue of an Occupation Certificate or the issue of a Subdivision Certificate, all disused driveway crossings, pipe crossing and/or kerb laybacks are to be reinstated as footway and kerb and/or gutter to the satisfaction of Council's Development Engineer. Reinstatement works to generally match surrounding infrastructure. Any infrastructure within the road reserve along the frontage of the subject site or within close proximity which has been damaged as a result of construction works on the subject site is to be repaired to the satisfaction of Council's Development Engineer, at the Applicants cost.
58. The creation of a Positive Covenant and Restriction on the Use of Land under Section 88B of the Conveyancing Act 1919, burdening the property with the requirement to maintain the on-site stormwater detention facilities on the property. These must be created prior to occupation, or the issue of an Occupation Certificate, or the issue of a Subdivision Certificate. The terms of the instruments are to be generally in accordance with the Council's "draft terms of Section 88B instrument for protection of on-site detention facilities" (available from Council on request) and to the satisfaction of Council.

For existing Titles, the Positive Covenant and the Restriction on the use of Land is to be created through an application to the Land Titles Office in the form of a request using forms 13PC and 13RPA. The relative location of the On-Site Detention facility, in relation to the building footprint, must be shown on a scale sketch, attached as an annexure to the request forms.

59. In order to maintain Council's database of as-constructed on-site stormwater detention systems, if the Principal Certifying Authority is not Council then a copy of the approved stormwater detention design, the works-as-executed drawings and the Engineer's certification of the as-constructed system is to be provided to Council, attention Development Engineer, prior to occupation, or the issue of an Occupation Certificate or the issue of a Subdivision Certificate.

Item 1

60. Construction of the property stormwater drainage works is to be supervised and upon completion certified by a suitably qualified and experienced civil/hydraulic engineer, prior to occupation, or the issue of an Occupation Certificate, or the issue of a Subdivision Certificate, that:
- The works were carried out and completed in accordance with the approved plans.
 - All enclosed floor areas, including habitable and garage floor levels, are safeguarded from outside stormwater runoff ingress by suitable differences in finished levels, gradings and provision of stormwater collection devices.

A Works-as-Executed drawing of the property stormwater drainage system is also to be furnished by the Certifier Prior to issue of the Final Compliance Certificate.

61. Construction of the On-site Stormwater Detention System is to be supervised and upon completion a Certificate and Works-as-Executed (WAE) plan is to be submitted to the Principal Certifying Authority for approval, prior to occupation, or the issue of an Occupation Certificate, or the issue of a Subdivision Certificate. Certification is to be provided by a suitably qualified civil/hydraulic engineer and the WAE plan is to be prepared by a registered surveyor. The certifying engineer must also complete and submit Council's standard On-site Stormwater Detention Certification sheet.

The Certificate is to be with respect to compliance with:

- Compatibility of the drainage system with the approved plans
- The soundness of the structure.
- The adequacy of the outlet control mechanism to achieve the discharge as specified.
- The capacity of the detention storage as specified.
- The size of the orifice or pipe control fitted.
- The maximum depth of storage over the outlet control.
- The adequate provision of a debris screen.
- The inclusion of weepholes in the base of the outlet control pit.
- The provision of an emergency overflow path.
- All enclosed floor areas, including habitable and garage floor levels, being safeguarded from outside stormwater runoff ingress by suitable differences in finished levels, gradings and provision of stormwater collection devices.

The Works-as-Executed drawing(s) are to include all relevant levels including:

- invert levels
- surface or pavement levels
- floor levels including adjacent property floor levels
- maximum water surface level to be achieved in the storage zone
- dimensions of basin(s), tank(s), pit(s), etc.
- location(s) of basin(s), tank(s) and distances from buildings, boundaries, and easements, etc.

Item 1

- storage volume(s) provided and supporting calculations
- size of orifice(s)

BUILDING CONDITIONS

62. The following are required details and must be submitted to the Principal Certifying Authority *prior to issue of the Construction Certificate*. Any matter listed below must have a Certificate attached from a suitably qualified person to the effect that the design or matter complies with the relevant design Standard or Code which the Certificate must identify.
- Details prepared by a practicing structural engineer for all or any reinforced concrete, structural steel or timber framing.
 - Upper floor joist details, engineered or complying with AS 1684-1992 National Timber Framing Code.
 - Retaining walls and associated drainage.
 - Wet area waterproofing details complying with the Building Code of Australia.
 - Mechanical ventilation details complying with Australian Standard 1668-1993 Mechanical Ventilation & Airconditioning.
 - Glazing details complying with AS 1288-1989 Glass in Buildings and Installation Code.
63. The building works are to be inspected during construction by the Council, an accredited certifier or other suitably qualified person/s (as applicable) and a Compliance Certificate shall be issued prior to proceeding to the subsequent stages of construction, encompassing not less than the following stages:
- All sediment and erosion control and tree protection measures and installations in place on the site prior to the commencement of any earthworks, excavations or other work.
 - Any pier holes and/or foundation material.
 - Any steel reinforcement prior to placement of concrete. This includes all reinforcement of floors, slabs, trenches, columns, beams and stairs (if components of this structure).
 - Any structural components (i.e. timber framework, structural steelwork or the like) before fixing any lining or covering.
 - Any stormwater drainage works prior to covering.
 - The completed landscape works in accordance with the approved plans.
 - The completed structure prior to occupation.

The required inspection fees (which also covers the issue of the Compliance Certificate) are to be paid to the Council before the issue of a Construction Certificate for this development.

If inspections are to be carried out by Council, 24 hours notice is required by Council's Department of Environmental and Regulatory Services, by telephoning Customer Service on 9424 0888 during business hours (8.30am to 4.30pm) or by facsimile on 9418 1117.

Note: Inspections of work which is found to be defective or not ready will attract a reinspection fee. Please cancel bookings which will not be ready for inspection.

Item 1

64. All structural timber members subject to weather exposure shall have a durability class rating of 2 or better in accordance with Australian Standard 1684.2-1999 (National Timber Framing Code), or be preservative treated in accordance with Australian Standard 1604-1980 (Preservative Treatment for Sawn Timbers, Veneers and Plywood).
65. For the purpose of safety and convenience a balustrade of 1.0 metre minimum height shall be provided to any landing, verandah, balcony or stairway of a height exceeding 1.0 metre above finished ground level. The design may consist of vertical or horizontal bars but shall not have any opening exceeding 125mm. For floors more than 4.0 metres above the ground, any horizontal elements within the balustrade or other barrier between 150mm and 760mm above the floor must not facilitate climbing.
66. For the purpose of safe ingress and egress the stairs are to be constructed within the following dimensions:

Risers:	Maximum 190mm	Minimum 115mm
Going (Treads):	Maximum 355mm	Minimum 240mm

Note: Dimensions must also comply with limitations of two (2) Risers and one (1) going equalling a maximum 700mm or minimum 550mm. The Risers and Goings shall be uniform throughout the length of the stairway.

67. For fire safety an automatic fire detection and alarm system shall be installed throughout the dwelling in accordance with the following requirements:
- a. A smoke alarm system complying with Part 3.7.2 of the Building Code of Australia Housing Provisions; or
 - b. Smoke alarms which:
 - i. comply with Australian Standard 3786 or listed in the Scientific Services Laboratory Register of Accredited Products (all accredited products should have scribed on them the appropriate accreditation notation); and
 - ii. are connected to the mains and have a standby power supply; and
 - iii. are installed in suitable locations on or near the ceiling and as prescribed under Part 3.7.2 of the Building Code of Australia Housing Provisions.

To ensure compliance with this condition, a Compliance Certificate or documentary evidence from a suitably qualified person is to be submitted to the Principal Certifying Authority.

68. Termite protection which will provide whole of building protection in accordance with Australian Standard 3660 - *"Protection of Buildings from Subterranean Termites"* is to be provided.

Council has a non chemical policy for termite control but will consider proposals involving physical barriers in combination with approved chemical systems. Handspraying is prohibited.

Item 1

Where a monolithic slab is used as part of a termite barrier system, the slab shall be constructed in accordance with Australian Standard 2870.1 or as designed by a structural engineer but in either case shall be vibrated to achieve maximum compaction.

To ensure compliance with this condition, a Compliance Certificate or documentary evidence from a suitably qualified person is to be submitted to the Principal Certifying Authority prior to the issue of an Occupation Certificate.

G Bolton
**Team Leader, St Ives
Ward**

M Prendergast
**Manager
Development Assessment
Services**

M Miocic
**Director
Environment &
Regulatory Services**

Attachments: **Site Location Plan**
 Elevations
 Site Analysis Plan
 Landscape Plan
 Floor Plans
 Shadow Diagrams

ECHO POINT PARK - PLAN OF MANAGEMENT

EXECUTIVE SUMMARY

PURPOSE OF REPORT:	To adopt the Plan of Management for Echo Point Park in accordance with the requirements of the Local Government Act 1993.
BACKGROUND:	<p>On 3 September 1996 Council adopted a Plan of Management for Echo Point Park.</p> <p>However the Act was subsequently amended by the Local Government Amendment (Community Land Management) Act 1998 which came into force on 1 January 1999.</p> <p>A new plan has been prepared in line with the amended requirements of the Local Government Act.</p>
COMMENTS:	The Plan of Management has been exhibited with appropriate amendments made in response to submissions.
RECOMMENDATION:	That the Plan of Management for Echo Point Park be adopted and notification given in accordance with the requirements of the Local Government Act 1993.

PURPOSE OF REPORT

To adopt the Plan of Management for Echo Point Park in accordance with the requirements of the Local Government Act 1993.

BACKGROUND

Echo Point Park is located on the foreshores of Middle Harbour at Babbage Road, East Roseville. It is the only park in Ku-ring-gai that includes a combination of foreshore, beach, bushland, mangroves and developed open space (picnic areas, playground etc). Aside from its high scenic and recreation values, the park has significant indigenous and non-indigenous heritage values

There are seven recorded aboriginal sites within the park as well as being the site of one of the first farms on the shores of Middle Harbour (known as Echo Farm). The park is extremely well used, is highly valued by local residents and forms the entrance to one of the major walking tracks through Ku-ring-gai, the "Two Creeks Track".

On 3 September 1996 Council adopted a Plan of Management for Echo Point Park.

The Plan had been prepared and exhibited in accordance with the prevailing requirements of the Local Government Act 1993 in respect to Community Land.

However, the Act was subsequently amended by the Local Government Amendment (Community Land Management) Act 1998 which came into force on 1 January 1999.

A number of these amendments relate to the composition and preparation of Plans of Management for Community Land.

The amendments require that Plans for a specific area must now include the following additional information:

- Leases prohibited as well as authority to grant leases.
- Core objectives for the land as detailed in the changes to the Act.
- A description of the condition of the land and any buildings or improvements on the land.
- Use of the land at the time of adoption of Plan.
- Must specify permitted uses.
- Must specify purposes for which further development of the land will be permitted.
- Description of the scale and intensity of permitted uses.

A new Plan of Management has been prepared by Knox and Partners, Landscape Architects in line with the amended requirements of the Local Government Act.

In conjunction with preparation of the Plan of Management for Echo Point Park a Heritage Study of the Park has also been co-ordinated by Knox & Partners, Landscape Architects.

Item 2

S02396
22 June 2004

The Plan was exhibited from 25 February 2004 to 8 April 2004 with a Public Hearing held on 24 March 2004 at the East Roseville Community Hall.

COMMENTS

A total of 5 submissions were received in response to the exhibition of the Draft Plan. The submissions are summarized in Appendix B but the main points can be briefly summarised as follows:-

- Majority of submissions were supportive of Draft Plan.
- 2 submissions also raised “off park” issues as a priority including improved pedestrian access to the park for local residents and improved traffic management in Babbage Road.
- Concern regarding wood barbecues in a fire prone area and impacts from fishing activities.
- Concerns about potential inappropriate behaviour if access is improved to the bushland areas of the Park between Babbage Road and Normac Street.

The Public Hearing was held on Wednesday 24 March 2004 at the East Roseville Community Hall. The meeting was facilitated by Paul Knox of Knox & Partners and attended by 10 community members. Councillor Little attended the Public Hearing which was also attended by the Director Planning & Environment, Director Open Space and Manager Environmental Policy.

A copy of the Public Hearing report is **attached** as Appendix B.

The Draft Plan is considered ready for adoption in accordance with the Act’s requirements.

It follows approximately the same format as other Plans prepared for various areas of Community Land in Ku-ring-gai, but due to the specific issues relating to management of this Park and its mix of European and Aboriginal heritage values it is more detailed than other Plans of Management.

The Draft Plan of Management comprises of 10 sections being:

- Introduction.
- History of the Site
- Land covered under this Plan of Management
- Land Ownership and Classification.
- Categorisation of the Land
- Management of the Land
- Use and Condition of the Land and Structures on Adoption of the Plan
- Future Use and Development of the Land
- Leases, Licences and other Estates
- Approvals for Activities on the Land.

The Draft Plan is a practical document which provides measurable strategies flowing from the Performance Targets that will provide for long term focused management of Echo Point Park.

Item 2

S02396
22 June 2004

As with other Plans of Management, this Draft provides Council with the legal ability to enter into lease, licence or other estate agreements in relation to Echo Point Park. This does not necessarily mean Council will enter into any such agreements but it is legally able to do so should the need arise.

Section 40 of the Local Government Act 1993 provides that a Council may, after considering all submissions, decide to adopt or amend a Draft Plan of Management.

Section 40 (2) of the Act requires that if a Council amends a Draft Plan it must exhibit the amended Draft Plan unless “it is of the opinion that the amendments are not substantial”.

Section 40 (2A) also provides that if a Council amends and adopts a Draft Plan without further exhibition it must give public notice of the adoption and of the terms of the amended plan of Management as soon as practicable after the adoption.

Council must decide if the amendments to the Draft Plan are “substantial” and must be of the opinion the amendments are not substantial if it decides to proceed to amend and adopt the Draft Plan without further exhibition.

“Substantial” is not defined in the Act.

However, it is considered the Community would not view the changes made to the Draft Plan in response to feedback from the Public Hearing as “substantial” changes to the Draft Plan.

CONSULTATION

Extensive consultation was carried out during preparation of the draft Plan with local residents, the Metropolitan Local Aboriginal Land Council, Willoughby and Warringah Councils and the NSW Waterways Authority.

During exhibition of the draft Plan the consultation included:

- Advertisement in the North Shore Times.
- Letter to local residents (approx 74 properties) advising of the exhibition, inviting them to the Public Hearing and including a copy of the Draft Plan’s recommendations.
- Letter to Warringah and Willoughby Councils, NSW Waterways Authority and Metropolitan Local Aboriginal Land Council inviting comment.
- Posters placed in the Libraries with copies of the Draft Plan.
- Details on Council’s website.
- Poster placed at the park to inform park users of the exhibition and invite attendance at the Public Hearing.
- Public Hearing held on 24 March 2004.

FINANCIAL CONSIDERATIONS

Item 2

S02396
22 June 2004

Adoption of the Draft Plan will result in direct costs associated with advertising, printing etc. and indirect costs of staff time.

This Plan includes 69 Performance Targets and associated actions (Means of Achievement) to guide conservation/protection and future management of Echo Point Park. Whilst this is a significant number of targets and actions for a single park it is indicative of the Park's extensive conservation values, heritage values (indigenous and non-indigenous), and range of recreation opportunities.

The targets in many cases do not require the expenditure of specific funds and will/are already being addressed as part of cyclical maintenance and day to day management of the park. The majority of the remaining targets (and associated actions) can be achieved within existing park expenditure through redirection of existing resources rather than allocation of additional resources. Those actions that require specific allocation of funds will be listed and considered through Council's Capital Works program or through specific recommendations to Council (including funding issues). Grant funding from 2002 Metropolitan Greenspace Program and 2003 Sydney Harbour Foreshore Access Program have been secured for the site to carry out stage 1 works as recommended in the Plan.

Staff are also working closely with Roseville Rotary toward the construction of a substantial picnic shelter to be constructed near the site of the old baths that will attempt to interpret the former pavilion located near the baths.

The following table lists the number of actions which are either being addressed within existing resources or through re-direction of existing resources in addition to the number which would require specific consideration through Council's Capital works process.

Area	Number Performance Targets	No. which can be achieved within existing resources	No. which will need to be considered through Capital Works process.
Bushland	21	18	3
Foreshore	7	6	1
Park	23	21	2
Cultural (Indigenous)	7	6	1
Cultural Non-Indigenous	11	8	3
Total	69	59	10

CONSULTATION WITH OTHER COUNCIL DEPARTMENTS

Extensive Consultation has occurred during preparation and exhibition of the Draft Plan between Council's Planning and Environment and Open Space Departments.

SUMMARY

Item 2

S02396
22 June 2004

On 3 September 1996, Council adopted a Plan of Management for Echo Point Park. The Plan had been prepared and exhibited in accordance with the prevailing requirements of the Local Government Act 1993 in respect to Community Land.

However, the Act was subsequently amended by the Local Government Amendment (Community Land Management) Act 1998 which came into force on 1 January 1999.

A new Draft Plan of Management has been prepared and exhibited in line with the amended requirements of the Local Government Act. The Draft Plan has been amended in response to the feedback received during exhibition and is considered ready for adoption. The amendments are not considered substantial and accordingly it is not necessary to re-exhibit the draft plan.

RECOMMENDATION

- A. That the Draft Plan of Management for Echo Point Park be adopted.
- B. That the following persons be advised of the adoption of the Draft Plan:
 - Persons who provided a submission or attended the Public Hearing;
 - Warringah and Willoughby Councils;
 - NSW Waterways Authority Metropolitan Local Aboriginal Land Council.
- C. That notification of adoption of the Plan be provided in terms of Section 40 (2A) of the Local Government Act 1993.

Guy Paroissien
Manager
Environmental Policy

Steven Head
Director
Open Space

Leta Webb
Director
Planning & Environment

Attachments:

- A. Summary of Submissions**
- B. Public Hearing Report**
- C. Amended Draft Plan of Management**

ECHO POINT PARK DRAFT PLAN OF MANAGEMENT**SUMMARY OF SUBMISSIONS**

PERSON / ORGANISATION	SUMMARY OF SUBMISSION	COMMENTS / CHANGES TO DRAFT PLAN OF MANAGEMENT
Resident, Turramurra	Supports Draft Plan of Management including the suggested changes such as trackworks, protection of middens, long term relocation of toilet block and jetty proposed.	Supports Draft Plan – no changes required.
Letter signed by 6 residents of Roseville / Roseville Chase	<p>Appreciate opportunity to comment on “the constructive proposals to upgrade the park”. Suggest additional works relating to footpath provision, traffic and vegetation management in the vicinity of the Park.</p> <p>Support entrance upgrade and improved rubbish facilities. Concerned about proposed pedestrian bridge in bushland due to potential impacts on flora and fauna, increased fire risk (smokers) and attraction of undesirables (drugs etc.).</p>	<p>Additional matters relating to footpath provision, traffic and vegetation management in the vicinity of the Park have been referred to Technical Services and Open Space for separate investigation and response.</p> <p>Any proposal for a pedestrian bridge in the bushland section of the Park will be carefully considered in regard to environmental and social aspects. Plan amended to ensure local residents consulted before decisions are made on implementing this part of the plan.</p> <p>Draft Plan amended to ensure residents have the opportunity to comment on the proposed bridge before any final decision is made on a specific proposal (eg. DA).</p>
NSW Roads & Traffic Authority	Thank you for opportunity to comment. No objections to Draft Plan.	No amendment required.

APPENDIX A

2 Residents, Allard Avenue, Roseville Chase	Need to improve footpath access to the park for pedestrians. Focus seems to be on users who access the park via car – need to meet the needs of local users by providing safe, pedestrian access (especially from Allard Avenue).	Request for additional footpaths referred to Technical Services for consideration.
Resident, Roseville Chase	<p>Concerned by existing and continued provision of woodfired barbecues in a bushfire prone area. Would like barbecues replaced by gas barbecues.</p> <p>Inappropriate activities - late night bonfires or barbecues on beach.</p> <p>Would like to see fishing banned – waste left by anglers and impact on fish stocks.</p>	<p>Late night inappropriate behaviour referred to Chatswood Police Station for assistance.</p> <p>Draft Plan amended to include consideration of gas/electric BBQ in future as BBQ are replaced.</p> <p>Litter issue referred to Regulatory Officers for monitoring and attention as required. Plan includes provision of Fisheries signage be provided regarding minimum size and bag limits for fish species.</p>
Resident, Allard Avenue, Roseville Chase	Fully supports draft plan as presented. Believes Council should proceed as quickly as possible to implement.	No amendment required – supports draft Plan.

**ECHO POINT PARK
EAST ROSEVILLE**

**Record of Public Hearing
25 March 2004**

Knox & Partners Landscape Architects

Level 5, 645 Harris Street

Ultimo NSW 2007

Telephone: 9281 7999

Fax: 9212 7031

Email: desk@knoxlandarch.com.au

DRAFT PLAN OF MANAGEMENT

INTRODUCTION

On 25 March 2004 at 6.00 pm at the Roseville Chase Community Centre, I conducted a Public Hearing as an independent person who has not been an employee of Council or a Councillor at any time within the five years prior to conducting the hearing. The hearing was in accordance with Section 40 A of the Local Government Act 1993 as amended 1999.

The Draft Plan of Management has the following objectives –

- to meet Council's legal obligations for community land management
- to provide clear management guidelines for protecting and interpreting the Park's natural and cultural heritage values
- to provide the community with a range of recreational opportunities in a safe environment within a framework which recognises the Park's opportunities and constraints and caters for special needs as far as possible

The hearing was conducted in a workshop setting and participants were invited to contribute and to ask questions at any time.

Guy Paroissien (Ku-ring-gai Council) was asked to give an opening address focussing on Council's general objectives and obligations under the Local Government Act 1993 (amended 1999).

I, Paul Knox (Knox & Partners Landscape Architects – authors of the Draft Plan) then addressed the meeting giving a brief overview of the Plan. Following this, attendees were asked to ask questions and contribute ideas and opinions.

The meeting was attended by several local residents and a number of Council officers. See appendix for attendance list.

ISSUES RAISED

Uses of the Park

It was suggested that Council should re-contact those people invited to attend the meeting, asking about their opinions on the park and its uses, as a first stage in updating the visitor survey (last done in 1992).

A concern was expressed that making greater use of the valley parallel to Normac Street would invite undesirable visitors and uses. This view was held by more than one participant, and some discussion ensued. I suggested that opening access to the area would enhance natural surveillance and, as a consequence safety.

The pontoon proposal was generally not favoured, being considered impractical.

It was confirmed – to the general assent of the meeting – that the Draft Plan contained no proposal for a kiosk.

It was confirmed, also to general assent, that the existing dog use rules were not proposed to be changed by the Draft Plan.

Access to, around and through the Park

It was suggested that accessible paths (as per Australian Standard 1428, Access and Mobility) to the foreshore would be desirable. It was discussed that the Draft Plan increased accessibility, but not as far as the foreshore.

Steps and paths should be designed to suit use by children.

There was discussion on the proposed reduction in number, and the location of, tracks to the foreshore. It was explained that the objective in limiting informal access to the beach was to reduce erosion.

The proposal to install a footpath on Babbage Road was supported. It was suggested that it extend to Warringah Road. Attention was also drawn to issues attendant on this path, including unstable trees overhanging and the need for traffic calming devices to enhance the safety of pedestrians, and of people entering and leaving private properties.

It was suggested that the proposed improved pedestrian access to the foreshore at the western end of Babbage Road should be designed so that it could also provide access for canoes.

The proposed connection to the two Creeks Track was supported. The connection needs, however, to acknowledge the second, higher access route, which is currently degraded and using privately owned land.

Implementation

It was asked whether there was an implementation time-frame or budget. The meeting was informed that no operational plan would be produced until after adoption of the Plan of Management. Resourcing would also be determined following adoption.

The meeting was told that, notwithstanding the need for a subsequent operational plan, the current Bushcare activities will continue.

Heritage Aspects

Concern was expressed that future developments should not lead to an erosion of the dry stone wall character of the park.

The use of interpretive signage in explaining aspects of the park's heritage was supported.

Fire

It was pointed out that the park is located in a Council-designated fire-prone area. The proposed timber bridge was thought to be inconsistent with this. I suggested that the bridge could be built in other materials. This could be considered at detail design stage.

It was also asked whether work in the park would lead to reduced fuel loads. The response was that hazard reduction was not a priority in the Draft Plan.

General

There were comments made by attendees to the effect that they favoured the proposals as a whole and would like to see prompt action on them.

It was asked with regard to the term "identified view corridors" in Table 5 of the Draft Plan, whether these had been previously identified. My response that this identification was yet to occur.

The hearing concluded at approximately 9 pm.

Paul Knox
Knox & Partners Landscape Architects Pty Ltd

**ATTENDANCE LIST
ECHO POINT PARK PUBLIC HEARING
HELD 24 MARCH 2004**

Staff

Steven Head -- Director Open Space
Leta Webb -- Director Planning and Environment
Guy Paroissien -- Manager Environmental Policy

Residents

Mr R Galet Lalande
Mr G Colman
Ms S Warren
Mr H Anderson
Mr G Fisk
Ms J Krieger
Mr P Jacob
Mr J Gross
Ms S Greening
Mr S Kimatrai



Echo Point Park

Draft Plan of Management

February 2004

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1. INTRODUCTION

1.1 Echo Point Park - Significance

Echo Point Park is located at Babbage Road, East Roseville, within the Ku-ring-gai Council area, in the northern region of metropolitan Sydney, on the foreshore of middle harbour.

While natural foreshore areas exist in Garigal, Lane Cove and Ku-ring-gai Chase National Parks, Echo Point Park is Ku-ring-gai Council's only park with water frontage, a beach, remnant bushland, mangroves and saltmarsh. In addition to its natural and scenic values, its cultural significance includes seven Aboriginal sites, the site of one of Middle Harbour's first farms, limited remains of Roseville Baths and the old Roseville Bridge, and extensive stone walking tracks, steps, walls and terraced gardens constructed through unemployment relief schemes during the 1930s Depression.

The Park has been popular since the 1920s for passive recreational activities such as picnics and barbecues, walking, exercising dogs, children's play, fishing, paddling and bocce. It is well, though not heavily, used and highly valued by local residents for its beauty and cultural history, its naturalness and informality, and its 'secret place' quality conferred by its discrete location. The entire Park is considered an area of Aboriginal cultural significance by the Metropolitan Aboriginal Land Council, and Ku-ring-gai Council considers it to be an important and culturally significant open space area.

Over the last 30+ years there has been limited maintenance resulting in a general decline in condition of bushland and infrastructure. A Plan of Management was adopted in 1996, but subsequent amendments to the *Local Government Act 1993* have necessitated an upgraded specific plan in line with Council's opinion of the site as an area of natural, cultural and high recreation significance to the community.

1.2 Plan of Management 2003

This Plan of Management for Echo Point Park has been prepared by Ku-ring-gai Council to comply with the 1998 amendments to the *Local Government Act 1993*. As the Park is considered by Council to be 'an area of cultural significance', this Plan is specific to Echo Point Park and updates the site's previous Plan of Management of September 1996.

It fulfils the following objectives:

- to meet Council's legal obligations for community land management
- to provide clear management guidelines for protecting and interpreting the Park's natural and cultural heritage values
- to provide the community with a range of recreational opportunities in a safe environment within a framework which recognises the Park's opportunities and constraints and caters for special needs as far as possible

Other Council Plans of Management relevant to this Plan include:

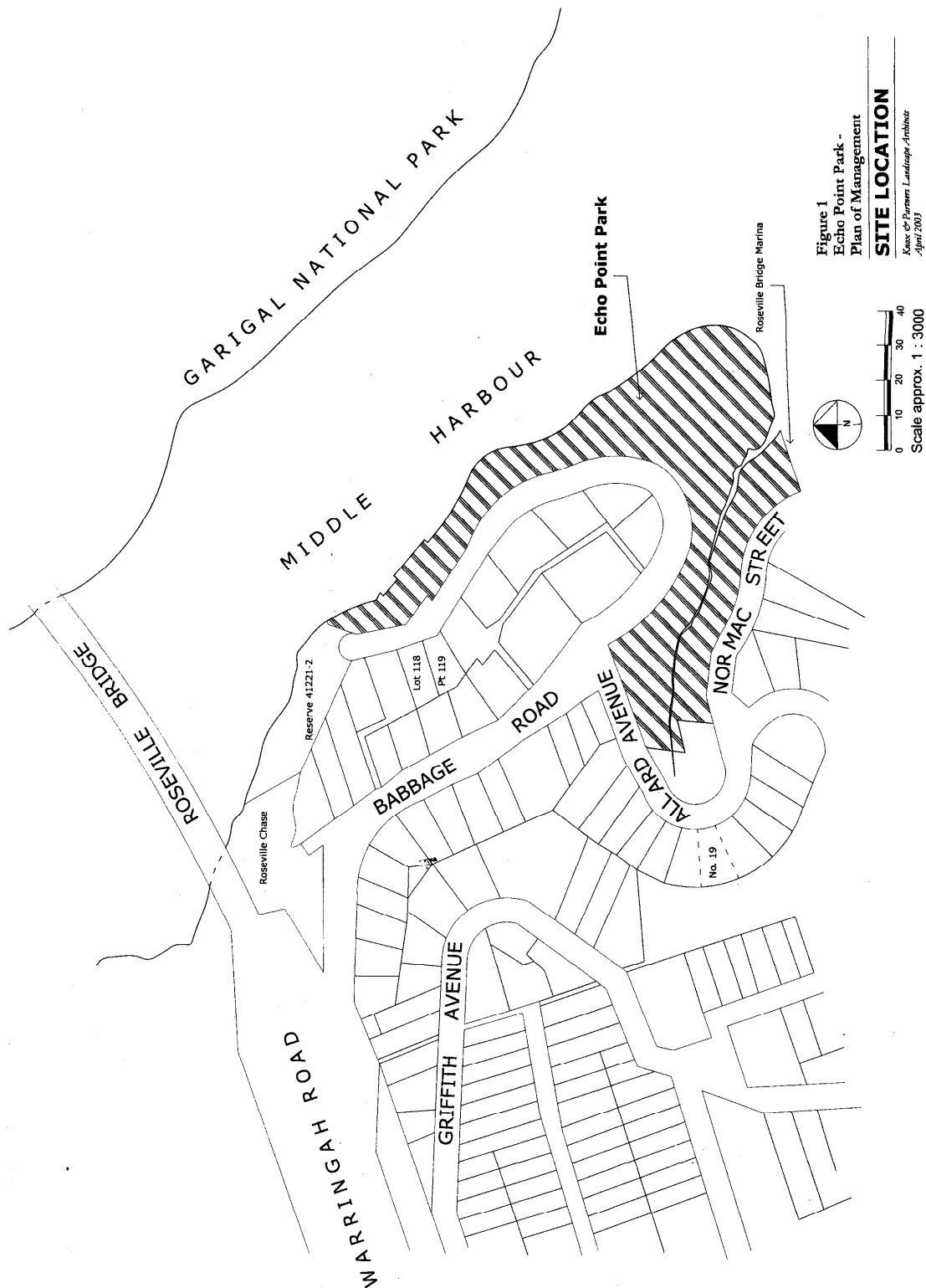
- Generic Plan of Management - Bushland
- Generic Plan of Management - Urban Parks

Other Council policies and State legislation relevant to this Plan include:

- *Crown Lands Act 1989*
- *Environmental Planning and Assessment Act 1979*
- *National Parks and Wildlife Act 1974*
- *Sydney Regional Environment Plan No. 23 - Sydney and Middle Harbours*
- *State Environmental Planning Policy No. 19 - Bushland in Urban Areas*
- *Middle Harbour Catchment Stormwater Management Plan 1999*
- Ku-ring-gai Planning Scheme Ordinance
- Ku-ring-gai Council Access Policy

As no known threatened species or plant communities occur on site, the *Threatened Species Conservation Act 1995* and the *Fisheries Management Act 1994* are not applicable to this Plan.

This Plan of Management should be read in conjunction with Ku-ring-gai Council's *Echo Point Park - Heritage Assessment Report* (2002) which details the site's natural and cultural significance, assesses its constraints and opportunities and outlines a staged program of works, particularly related to heritage conservation issues.



2. HISTORY OF THE SITE

The Indigenous and Non-indigenous history of Echo Point Park is detailed in the *Heritage Assessment Report* (2002). The following chronology is from that report and is repeated here for ease of reference.

Table 1 - Echo Point Park Chronology

Pre 1825	Aboriginal occupation of the site
1825	Samuel Bate and family returned from London to Sydney with numerous trees, plants and seeds.
1829	Richard Bate, 18, explored Middle Harbour by boat and found two men making salt at Echo Point. In January he applied through the Colonial Secretary for a 20 acre land grant in order to grow fruit trees. He received no response, but his initiative inspired further family applications for a land grant.
1829	Samuel Bate and his sons further explored the headwaters of Middle Harbour by boat and occupied Echo Point.
1830	April. Samuel Bate applied to Governor Darling through the Colonial Secretary to rent land at Echo Point but failed to follow it up.
1831	The <i>Sydney Morning Herald</i> referred to Echo Point as Mr Bate's Farm.
1831	S S Sophia Jane, first steamship in Australian waters, visited Echo Point on a pleasure cruise up Middle Harbour.
1833	Henry J Bate's heavily laden boat sunk off Vaucluse returning to Circular Quay.
1834	Reverend Ralph Mansfield applied to Governor Bourke on the Bate's behalf for a land grant at Echo Point.
1835	An 1835 Lands Department map of Middle Harbour showed a hut on Echo Point (Bate 1987 p 98). Surveyor Larmer described Bate at Echo Point as a squatter only, but said he 'had improved it considerably' (Bate 1995).
1839	Governor George Gipps officially granted Samuel Bate 20 acres of land at Echo Point. Two storey timber farm house constructed.
1840	Gordon Parish map showed Bate's 20 acres. John Bate married Julia Phillips of Eliza Cottage, Surry Hills, and brought her to live at Echo Point (Bate 1995).
1841	Census reported 6 people living at Echo Point: John and Julia Bate, baby Sarah, a junior girl and two assigned servants employed as gardeners (Bate 1987 p 120).
1840s	Bate family hit hard by economic depression. Several members lost jobs and left Sydney in search of work and cheaper living.

1847	John Bate informed Surveyor General about illegal Malay and Manila seamen occupying Crown Lands in upper Middle Harbour and removing timber without licences, but no action was taken (Bate 1987, 1995).
1849	Deaths of both Samuel and Richard Bate.
Early 1850s	John Bate's family returned to Echo Point.
1856	Artist Conrad Martens visited Echo Point Farm and did a pencil sketch now housed in the State Library of NSW.
1860	The Bate family offered Echo Point Farm for auction.
1861	The <i>Sydney Morning Herald</i> reported John Bate's experiments with silk production at Echo Point Farm (17.1.1861).
1862	The Bate family sold Echo Point Farm to Henry Milford, a Supreme Court Judge.
1863	The Farm was sold to John Bate's brother-in-law John Baptist.
1886	Echo Point was conveyed to Thomas Moore, a Darlinghurst coach builder who used the farmhouse as a summer residence.
1888	Samuel Bate's original land grant was re-surveyed to dedicate a 100 feet wide strip of land along the foreshore as a Road Reserve (Gordon Parade) for access to the Gordon Subdivision.
1892	Thomas Moore leased the Farm to Courtney Smith as a home for recovering alcoholic men. It was known as 'Resthaven' or the 'Inebriates Home at Middle Harbour'. A weatherboard cottage was built immediately west of the farmhouse in about 1892-93 and was still standing in 1928, although only a few verandah paving stones remained of the farmhouse (Bate 1995).
1898	Henry Lawson undertook treatment at 'Resthaven' for a few months from November, this experience inspiring his short story <i>The Boozers' Home</i> .
c1900	Resthaven closed.
1906	Gordon Parade revoked in favour of a Reserve for Public Recreation. (Shown as 'notified 3.1.1907' on later plans).
1908?	'Plan of Portion, County of Cumberland, Parish of Gordon' map (the updated 1888 survey) showed the 100 foot wide Road Reserve dedication revoked and gazetted as Reserve for Public Recreation on 10.10.1906.
1914	All traces of the Bate's farm had disappeared, except for one decaying mulberry tree and two others under threat of encroachment by bush (Bate 1987). The farmhouse was demolished between 1906 and 1914. Norman Chapman's survey of Echo Farm lands for proposed Roseville Harbour Estate subdivision.
1915	Formation of first bushwalking club in NSW.

1920	Informal baths were established in the location that became the Roseville Baths, as shown in photographs held by Ku-ring-gai History Library. The area was by this time popular for boating, bushwalking and swimming, and readily accessed by ferry from Echo Point across Middle Harbour.
1922	Oscar Ramsay drew proposed Roseville Harbour Estate subdivision of Echo Point land which now belonged to Sir Austin Chapman.
1923	Ku-ring-gai Council first proposed purchase of three lots in Sir Austin Chapman's subdivision for addition to council parklands.
1922 - 1924	Old Roseville Bridge constructed to promote Babbage Road's function as a main link from the lower North Shore to the northern beaches and suburbs. The Bridge was opened in 1924. The ferry service ceased
1925	Ku-ring-gai Council approved a new Roseville Harbour Estate subdivision drawn by Norman Chapman. Lot 139 (DP 13450) was a Reserve by this time.
1926	Department of Lands survey showed 80 feet wide Manly Road to form part access to Roseville Bridge.
1928	Frank Bate visited Echo Point and reported that 'only a few broken down mulberries and quince trees remained', and that there was a long weatherboard building (later than the farm buildings) almost hidden by encroaching scrub at the junction of Allard Avenue and Babbage Road (<i>North Shore Times</i> 9.2.1996).
1928	CJ and CM Highfield acquired Lot 94 (DP 13450).
1929	Elsie Maud Carter acquired Lot 97 (DP 13450).
1930	Lot 97 transferred to Ku-ring-gai Council.
c1932	Most of Echo Point Park's stone walls, steps, footpaths and terracing were constructed as Depression Relief Labour. Picnic shelter shown in current position on 1932 survey of Lot 97 (DP 13450).
c1933	Roseville Baths were modernised, seawall constructed and foreshore extended by filling.
1933	Lot 98 (DP 13450) transferred to Ku-ring-gai Council.
c1935	Caretakers Cottage and additions to Roseville Baths dressing sheds constructed between 1934 and 1938
1948	Ena Dorothy Paine acquired Lots 95 and 96 (DP 13450).
1956	Lot 94 (DP 13450) transferred to Cumberland County Council.
1957	2 Allard Avenue and 21 Normac Street (Lots B and C, or 53 and 52 DP 361885) were transferred to Ku-ring-gai Council.
1961	Lot 94 transferred to Ku-ring-gai Council.
1962	Notice of Resumption transferred Lots 95 and 96 to Cumberland County Council. They were transferred again to Ku-ring-gai Council in 1964.

1964	Reconstruction of Roseville Baths Septic Tank Installation (Roseville Baths File 1947-1966).
1966	Old Roseville Bridge demolished.
1968	Gordon Parade (Public Road Reservation) dedication closed in favour of Reserve for Public Recreation and Public Baths. Ku-ring-gai Council appointed Reserve trustee.
1972	After many years of repairs, Roseville Baths were demolished due to water pollution in Middle Harbour.
1974	Plans to provide a boat rigging and launching site in the Roseville Baths area were abandoned, and the area was upgraded and incorporated in Echo Point Park (<i>Advocate Courier</i> 22.5.74).
1980s	Sandstone work to upper grass terrace constructed by Council worker.
1982	December. The 740 m ² fill area at the Baths site was declared Crown Land and reserved for Public Recreation and Public Baths by Government Gazette.
1987	<i>The Municipality of Ku-ring-gai Heritage Study</i> identified Echo Point Park as a 'site of potential archaeological significance' requiring further research, protection and interpretation; and as a heritage item requiring a conservation / management plan.
1988	Draft Plan of Management for Echo Point Park prepared for Council by Cameron McNamara Consultants to provide framework for bushland management consistent with the requirements of <i>SEPP 19 – Bushland in Urban Areas</i> .
1990	SREP 23 listed the site of Echo Point Farm and the remains of Roseville Baths and old Roseville Bridge as heritage items, the only three items in Ku-ring-gai to be listed.
1991	Ku-ring-gai Council demolished the kiosk and removed for sale the caretaker's cottage.
1995	November. Hornsby-Ku-ring-gai Community College LEAP participants undertook wall and trackwork repairs, step construction, drain installation, gully stabilisation, fauna observation and bush regeneration activities
1996	June. Hornsby-Ku-ring-gai Community College LEAP participants undertook wall and trackwork repairs, erosion control, flora and fauna audit and bush regeneration activities.
1996	Ku-ring-gai Council prepared its generic <i>Bushland Plan of Management</i> .
1996	September. Adoption of <i>Echo Point Park Plan of Management</i> prepared by Mather and Associates Landscape Architects.
2002	Echo Point Park Heritage Assessment Report and program of works prepared for Ku-ring-gai Council by Knox and Partners Landscape Architects, along with an updated Plan of Management to comply with 1999 amendments to the <i>Local Government Act 1993</i> .

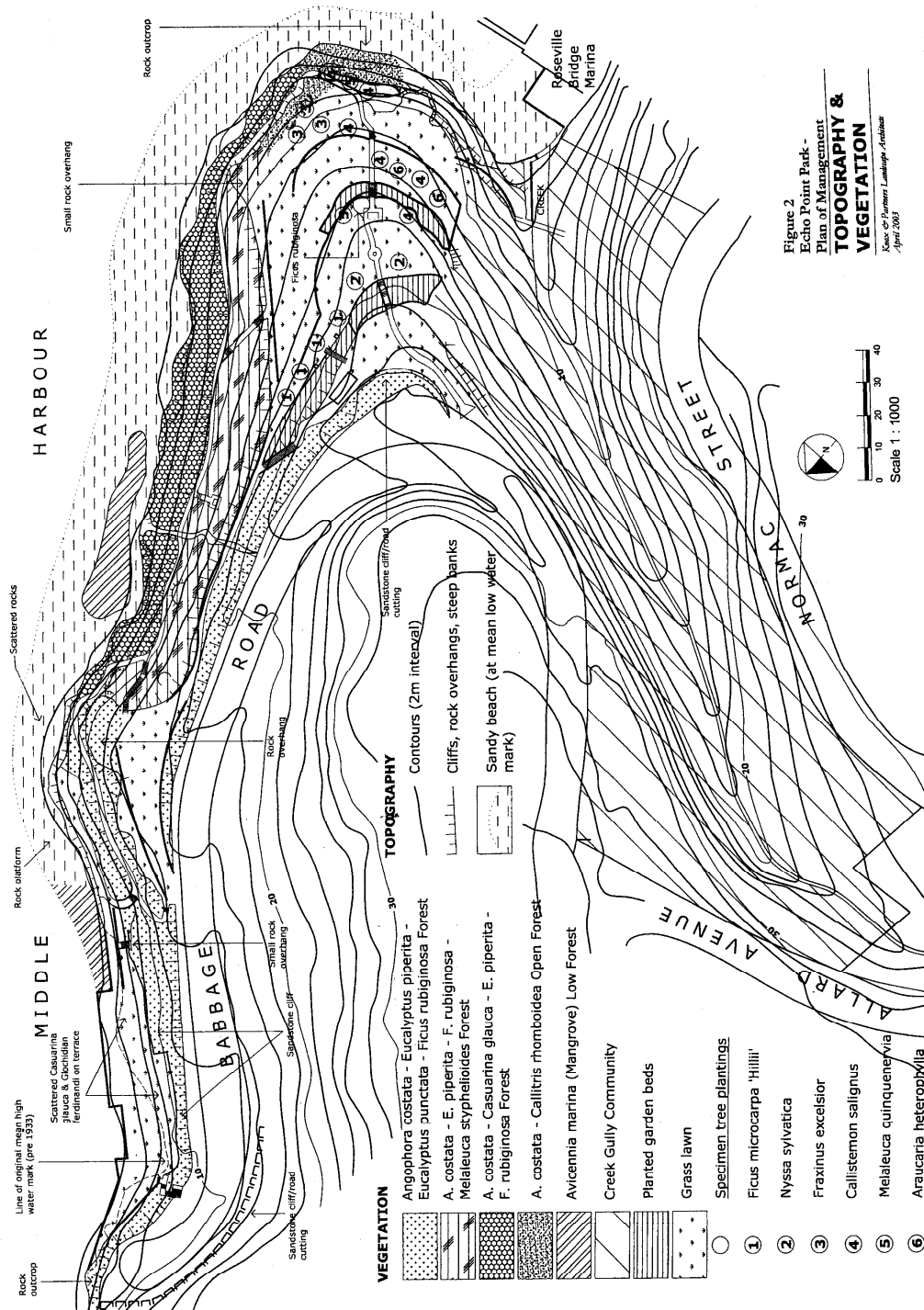


Figure 2
Topography and Vegetation

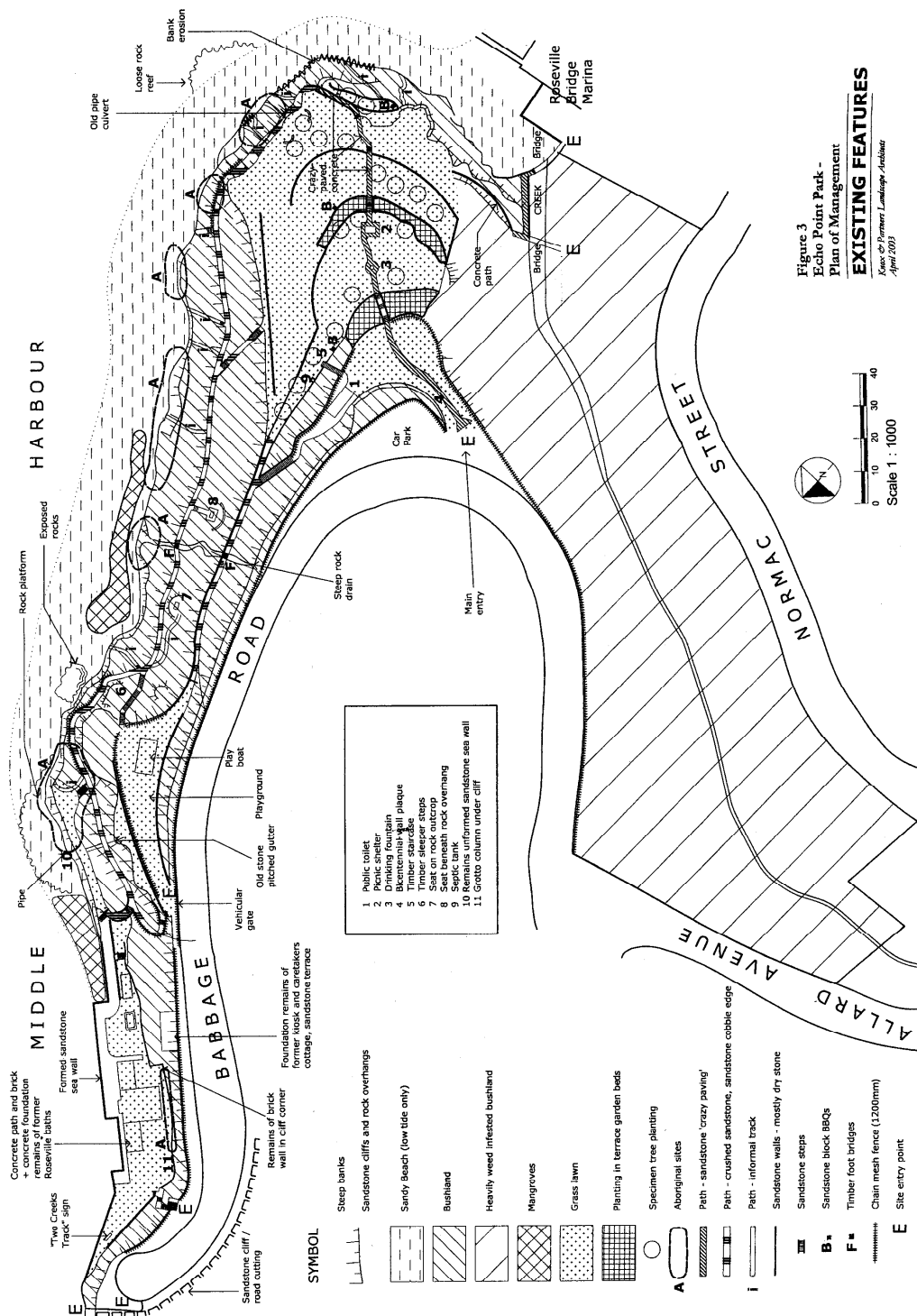


Figure 3
Existing Features



Photo 1. First Roseville Baths from rock overhang above, looking north across Middle Harbour, about 1925. (Ku-ring-gai Library Photo 914: Rex Chad Collection)



Photo 3. First Roseville Baths 1924. Note simple enclosure of timber posts & netting, natural shoreline & men's dressing shed at south-eastern end of pool. (Ku-ring-gai Library Photo 1335: Cazneaux Collection)



Photo 5. Second Roseville Baths, post 1933, looking north across MH. Timber deck surround not evident. (Ku-ring-gai Library Photo 1038: Michael Kartzoff Collection).

Photo 2. First Roseville Baths 1924, looking east across Middle Harbour. (Ku-ring-gai Library Photo 1498: Ron Edenborough Collection)



Photo 4. The kiosk (Baths entry point) which serviced both the first and second Roseville Baths was constructed by 1929 and demolished in 1991. (Source: Carpenter et al, undated).

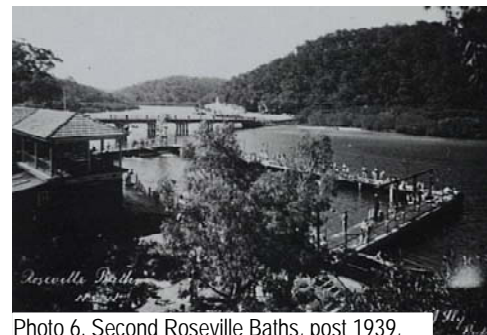


Photo 6. Second Roseville Baths, post 1939, looking north west to old Roseville Bridge. (Ku-ring-gai Library Photo 1039: Michael Kartzoff Collection).

Site Photographs

3. LAND COVERED UNDER THIS PLAN OF MANAGEMENT

This Plan applies to Echo Point Park which is located in East Roseville, east of Roseville Bridge and close to the boundaries of Warringah and Willoughby Shires. It is bounded on the north and north-west by Babbage Road, on the west by Allard Avenue, on the south and south-east by Normac Street and Roseville Bridge Marina, and on the east and north-east by the mean high water mark of Middle Harbour. (Refer Figure 1).

The Park to date has comprised Lots 96, 97 and 98 (DP13450), Crown Reserve R 86886, some unallocated Crown Land and part Babbage Road. This Plan of Management (2002) also includes the adjoining Council-owned Lots 94, 95 and 139 (DP 13450), and Numbers 2 Allard Avenue and 21 Normac Street (Lots B and C - 53 and 52 - DP 361885), all of which were excluded from the previous Plan (1996).

Table 2 - Echo Point Park: Land Description

Location (Refer Figure 1)	East Roseville, bounded by Babbage Road and Middle Harbour (mean high water mark)
Area	Approx 3.4 hectares (excluding beach below mean high water mark)
<u>Title Information</u> <ul style="list-style-type: none"> • Lots 94 - 98, 139 (DP 13450) • Lots B & C (53 & 52) (DP 361885) (2 Allard Ave and 21 Normac St) • Part Babbage Road • R 86886 • Unallocated Crown Land (Refer Figure 2) 	<u>Land Ownership</u> <ul style="list-style-type: none"> • Ku-ring-gai Council • Ku-ring-gai Council • NSW Crown land (under care, control and management of Ku-ring-gai Council) • NSW Crown Reserve (Trust Manager: Ku-ring-gai Council) • NSW Crown land (administered by Dept. Land & Water Conservation) – formerly vested in Maritime Services Board
<u>Land Classification</u> <ul style="list-style-type: none"> • Lots 94 - 98, 139 (DP 13450) • Lots B & C (53 & 52) (DP 361885) • Part Babbage Road • R 86886 • Unallocated Crown Land 	<ul style="list-style-type: none"> • Community Land • Community Land • Crown Land • Crown Reserve for Public Recreation and Baths • Crown Land
Zoning	6 (a) Open Space - Recreation
<u>Land Categorisation</u> (Refer Figure 3)	<ul style="list-style-type: none"> • Natural Area <ul style="list-style-type: none"> - Bushland - Foreshore • Park • Area of Cultural Significance <ul style="list-style-type: none"> - Indigenous - Non-indigenous

4. LAND OWNERSHIP AND CLASSIFICATION

4.1 Ownership of Land

About half of the Park is owned by Ku-ring-gai Council. The other half is NSW Crown land administered by the ~~Department of Land and Water Conservation~~ **Department of Infrastructure Planning and Natural Resources**, managed by Council as Trust Manager or under the care, control and management of Council. (Refer Table 2 and Figure 3).

4.2 Classification of Land

The land owned by Council in the Park is Public land and is classified as community land under the *Local Government Act 1993*. As Crown Land is not public land, it is not classifiable under the Act and therefore not subject to its community land requirements. However, to facilitate Park management this Plan considers all lands within Echo Point Park as community land.

The whole of the Park is zoned 6(a) Open Space - Recreation under the Ku-ring-gai Planning Scheme.

4.3 Recommended Changes to Land Ownership and Classification

Crown Reserve R 86886 and the small portion of unallocated Crown land should be legally added to Echo Point Park and classified as community land. This requires a formal application from Ku-ring-gai Council to the Department of Land and Water Conservation.

That part of the Crown-owned Road, east of the Babbage Road carriageway, which overlaps the Park is recommended in this Plan of Management to be legally added to Echo Point Park. This requires formal application from Ku-ring-gai Council to the Department of Land and Water Conservation to close that portion of Road and vesting of the land to Council so that Council can rezone it 'Open Space' and set it aside as a public reserve. This would improve environmental protection and enable some of the design and management recommendations outlined by this Plan of Management. (Refer Figure 2 for locations of Crown Reserve R 86886, the unallocated Crown Land and the portion of Crown-owned Road that overlaps the Park).

Crown Reserve 41221-2, which adjoins Echo Point Park to the north-west, was part of the original Gordon Parade Road Reservation rededicated as a Reserve for Public Recreation in 1906 or 1907. While this would be another logical addition to the Park, Ku-ring-gai Council opted for its exclusion and management under Council's Bushland Management Plan. This land is currently unzoned and requires acquisition by Council, appropriate zoning for environmental protection and classification as community land. (Refer Figure 1).

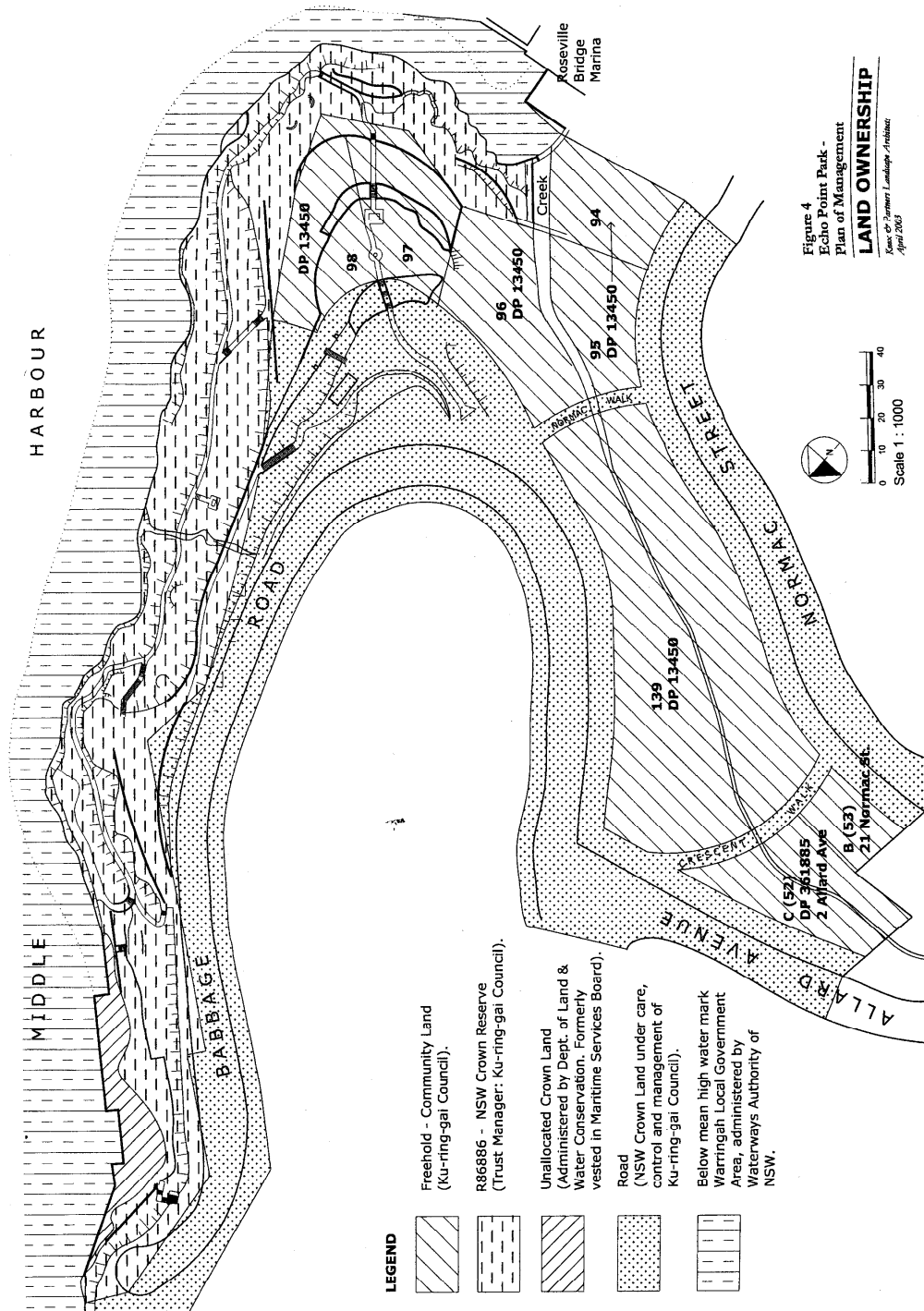


Figure 4
Land Ownership

5. CATEGORISATION OF THE LAND

The *Local Government Act 1993* (s 36 (4) and (5)) requires Plans of Management for community land to categorise land in order to affirm land use and/or physical landscape characteristics and so to determine core management objectives, performance targets and practical means of their achievement and assessment.

Under the *Local Government Act*, plans of management apply to Community land. Echo Point Park, in addition to Council-owned land, also includes Crown land. This Plan of Management has been written to conform with the Act's provisions to cover the park in its entirety in order to facilitate Park interpretation and management.

It does, however, also provide for management, use and development of the Crown land and Reserve consistent with the principles of Crown land management in the *Crown Lands Act 1989* (s 11) which are:

- a) that environmental protection principles be observed in relation to the management and administration of Crown land
- b) that the natural resources of Crown land (including water, soil, flora, fauna and scenic quality) be conserved wherever possible
- c) that public use and enjoyment of appropriate Crown land be encouraged
- d) that, where appropriate, multiple use of Crown land be encouraged
- e) that, where appropriate, Crown land should be used and managed in such a way that both the land and its resources are sustained in perpetuity and
- f) that Crown land be occupied, used, sold, leased, licensed or otherwise dealt with in the best interests of the State consistent with the above principles.

This Plan of Management categorises Echo Point Park as:

- Natural Area (Bushland)
- Natural Area (Foreshore)
- Park

Given the Indigenous and Non-Indigenous cultural significance of the land this plan also includes the core objectives for the land as if it were categorised as an Area of Cultural Significance.

Categories overlap in practice but to simplify management are as shown on Figure 5 and discussed in detail in Tables 3 to 7.

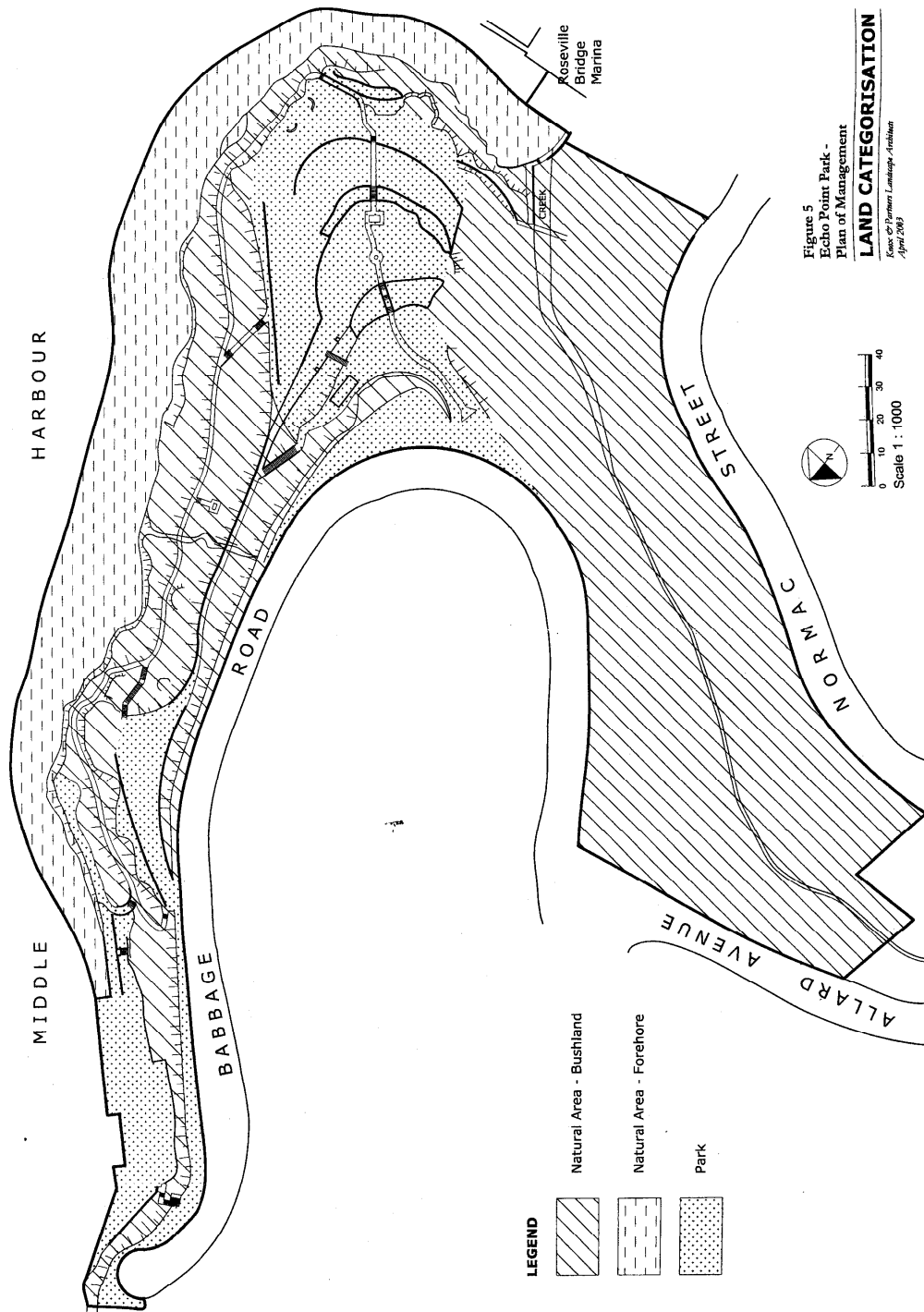


Figure 5
Land Categorisation

6. MANAGEMENT OF THE LAND

6.1 Community Consultation

Under the *Local Government Act 1993*, Councils must provide for community consultation when preparing plans of management for community land. This is both a community right and an opportunity to improve the formulation of effective land management strategies.

Ku-ring-gai Council has fulfilled its requirements under the Act by consulting with the Aboriginal community and with local residents and other interested parties.

6.1.1 Consultation with Aboriginal Community

Echo Point Park's importance as an area of cultural significance was recognised by Council when it adopted the Park's first Plan of Management in 1996. Ku-ring-gai Council has complied with Clause 20 of the Local Government (General Regulation) through:

- placement of a notice at Echo Point Park (27.09.01-31.10.01)
- two advertisements in the Koori Mail (3.10.01 and 17.10.01) (Refer Appendix 11.1)
- written notice to the Metropolitan Local Aboriginal Land Council (MLALC), which represents the traditional Aboriginal owners associated with the Community land

In addition, three representatives from the MLALC visited the Park in October 2001 and February 2002 to determine a position on the site's Aboriginal cultural significance and to assist with the archaeological investigation and assessment for the *Echo Point Park – Heritage Assessment Report*. (Refer Appendix 11.2 for MLALC letter supporting that Report's recommendations for managing Aboriginal sites at Echo Point Park).

6.1.2 Consultation with Local Residents

In summer 1991 Ku-ring-gai Council undertook a Visitor Use Monitoring Survey to determine park use, frequency and capacity. (Refer Appendix 11.3 for survey data). Although no formal analysis was made of the data, it served to illustrate that:

- a) between 30 000 and 60 000 people visited the park annually
- b) the park was used on weekends up to 7 times more than on week days
- c) the most popular time to be in the park on weekends was from 2.00-6.00pm
- d) the majority of park users were adults and children engaged in passive recreation activities
- e) the most popular area of use on weekends was the grass terraces
- f) the most popular activity in this area on weekends was picnicking
- g) the second most popular activity was fishing, on the beach and at the former Baths site, particularly between 6am to 12pm and 6pm to 8pm

A second and more qualitative visitor use survey was conducted in August 1992 by Harding, Hage and Morton to assess user preferences in relation to park use. The majority of visitors were from local suburbs in the Ku-ring-gai, Willoughby and Warringah areas. Most were family picnic groups, while many used the park for walking or exercising dogs. A large percentage of people were first-time visitors, and most enjoyed the park for its natural appearance and scenic values, its quiet and accessibility. Minor complaints related to lack of facilities and poor pedestrian access, particularly for the aged and disabled. (Refer Appendix 11.4 for survey data).

When preparing each plan of management for Echo Point Park (1996 and 2002), Council wrote to local residents to explain the need for an updated plan and seek their input. (Refer Appendix 11.5). Their values and concerns about the Park are summarised in Appendix 11.6 and addressed specifically in the management Tables in Section 6.2.

6.1.3 Consultation with Other Parties

Council has also consulted with:

- The neighbouring Warringah Shire Council and Willoughby City Council
- Waterways Authority of NSW
- NSW National Parks and Wildlife Service
- Relevant Council staff

6.2 Objectives for Land Management

The *Local Government Act 1993* (s 36) requires each land category to be managed according to prescribed core objectives. Individual plans of management may add other desired objectives and define their own performance targets and means of achievement and assessment. Broadly, these are as follows:

- Objectives - broad goal statements
- Performance Targets - strategy frameworks for physical works
- Means of Achievement - actions to be undertaken
- Means of Assessment - how to measure whether the actions taken have achieved stated objectives

This Draft Plan of Management for Echo Point Park details its objectives, targets and means for each land category in tabular form, with the exception of 'Natural Area', below, which is further divided into 'Bushland' and 'Foreshore' and discussed in the Tables. (Refer Tables 3 to 7). See Section 6.3 for a summary of management recommendations, and Figure 5 for their locations.

As stated in Section 5, this Plan will also manage the lands in accordance with the core objectives for land categorized as an Area of Cultural Significance.

Natural Area

The core objectives for management of community land categorized as a natural area are:

- 1) 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
- 2) To maintain the land, or that feature or habitat, in its natural state and setting
- 3) To provide for the restoration and regeneration of the land
- 4) 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
- 5) 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*.

TABLE 3 – MANAGEMENT OF NATURAL AREA (BUSHLAND)

Objectives	Performance Targets	Means of Achievement	Means of Assessment
The core objectives for management of community land categorised as bushland are:			
a) To ensure the ongoing ecological viability of the land by protecting the ecological biodiversity and habitat values of the land, the flora and fauna (including invertebrates, fungi and micro-organisms) of the land and other ecological values of the land	• Manage landscape processes to favour locally indigenous flora and fauna	• Manage site bushland in accordance with KC's adopted <i>Bushland Plan of Management (1996)</i> – Relevant legislation – Relevant Council policies.	<ul style="list-style-type: none"> • Undertake survey to establish extent and scope of flora and fauna presence • Ongoing annual monitoring to confirm status quo or existing standard to measure variance. Look for: <ul style="list-style-type: none"> – increased native flora and fauna presence – decreased maintenance levels – landscape features in good condition
	• Exclude human access from some areas in order to protect habitat	• Install selective fencing and defined access routes as required	
	• Maximise fauna habitat – especially for small birds and ground-dwelling fauna	<ul style="list-style-type: none"> • Refer (d) below • Retain decaying/senescing plants as habitat and organic matter • Letter box drop neighbours with cat information 	
b) To protect the aesthetic, heritage, recreational, educational and scientific values of the land	<ul style="list-style-type: none"> • Protect existing aesthetic character • Enhance aesthetic experience • Remove elements which obscure or distort understanding of site's natural history, and reveal those elements which enhance it 	<ul style="list-style-type: none"> • Develop further lookouts, prominences, rich ascent and descent experiences • Demolish exposed and redundant piping • Remove weeds and overgrowth from cliff faces and rock outcrops • Remove weeds in creek area to reveal geological structure of creek • Improve visual quality of creek water. Refer Table 4 (Foreshore) and (e) below. • Remove painted graffiti from rock outcrops • Re-establish physical connections between historical sites (eg rock ledges, middens and creek; road and jetty site) 	<ul style="list-style-type: none"> • Assessment by open space management staff • Visitor survey to assess aesthetic response
	• Maintain existing water views	• Plant no species taller than 1.2m in identified view corridors. Refer Table 5 (Park).	

	<ul style="list-style-type: none"> Maximise educational potential of bushland 	<ul style="list-style-type: none"> Develop appropriate interpretation materials Promote use of site to local schools 	<ul style="list-style-type: none"> NPWS approval MLALC approval School participation
c) To promote the management of the land in a manner that protects and enhances the values and quality of the land and facilitates public enjoyment of the land, and to implement measures directed to minimising or mitigating any disturbance caused by human intrusion	<ul style="list-style-type: none"> Contain pedestrian movement in bushland areas to safe and formal (controlled access) paths 	<ul style="list-style-type: none"> Emphasise and encourage use of existing formal (controlled access) paths Remove and discourage informal (uncontrolled access) paths. Replant informal tracks. Install formal (along-contour) public walking and bushland maintenance track(s) through Lot 139 	<ul style="list-style-type: none"> Regular monitoring to confirm: <ul style="list-style-type: none"> disuse of existing informal paths no further informal paths
	<ul style="list-style-type: none"> Establish stronger links between Echo Point Park and the Community 	<ul style="list-style-type: none"> Encourage volunteer Bushcare Group Incorporate Echo Point Park in Middle Harbour Foreshore Track 	<ul style="list-style-type: none"> KC Assessment of Bushcare Group success activities Usage levels of MHF Track
	<ul style="list-style-type: none"> Promote visitor health and safety at contact points with polluted water 	<ul style="list-style-type: none"> Install relevant signs as appropriate 	<ul style="list-style-type: none"> Annual report/summary to consider reported health incidents concerning polluted water, sharks etc
d) To restore degraded bushland	<ul style="list-style-type: none"> Include Lot 139, Number 2 Allard Avenue and 21 Normac Street in Echo Point Park to increase area of managed bushland 	<ul style="list-style-type: none"> KC (land owner) to include Lots in Park and its Bushland Plan of Management 	<ul style="list-style-type: none"> Land covered in Plan of Management
	<ul style="list-style-type: none"> Restore bushland areas of the Park towards original vegetation communities 	<ul style="list-style-type: none"> Implement Bush Regeneration Bushland Management Programs consistent with Bushland POM 	<ul style="list-style-type: none"> Ongoing monitoring to confirm improved bushland quality (reduced weed growth, increased numbers of locally indigenous plant species and more diverse vegetation strata in close approximation to desired vegetation communities)

	<ul style="list-style-type: none"> Remove weeds from bushland 	<ul style="list-style-type: none"> Implement weeding controls as part of Bush Regeneration Program Implement phased removal of African Olives (<i>Olea africana</i>). Determine whether or not they were used by Bates family as rootstock for fruiting European Olives and have any cultural significance. If so, several mature specimens could be retained for their historic and interpretive value, but should have fruits removed before ripening. If not, all specimens should be removed and gradually replaced with locally indigenous species of similar size. Implement phased removal of woody weeds from Lots 94, 95 and 139, and 2 Allard Avenue and 21 Normac Street. Gradually replace with locally indigenous wet sclerophyll species through bush regeneration land management programs. 	<ul style="list-style-type: none"> Implementation of weeding program <u>Condition of natural areas in Echo Point Park</u> Site inspections to verify ongoing removal of African Olives and other woody weeds
	<ul style="list-style-type: none"> Minimise exotic plant invasion, especially from nearby residential gardens and KC-owned lands adjacent to Echo Point Park 	<ul style="list-style-type: none"> Improve environmental quality of Number 19 Allard Road <u>through Bushland Plan of Management</u>. Include them in Echo Point Park's bush regeneration activities. Enlist cooperation of adjoining landowners to minimise unauthorised dumping of garden refuse into bushland Evaluate development/landscape proposals for adjoining properties and, where appropriate, impose conditions to prohibit or remove invasive plants 	<ul style="list-style-type: none"> Level of support from adjoining residents to reduce impacts on bushland adjoining this property Regular inspection of adjoining properties to confirm compliance Conditions imposed on Development Proposals
e) To protect existing landforms such as natural drainage lines, watercourses and foreshores	<ul style="list-style-type: none"> Prevent / minimise soil erosion 	<ul style="list-style-type: none"> Reduce bank gradients where appropriate: may require low wall construction on downhill side Stabilise banks of gradient 1:3 or steeper with erosion control netting and / or planting. <u>Manage stormwater flows to minimise sources of erosion.</u> Install more <u>Encourage</u> diverse and vigorous understorey and groundcover planting 	<ul style="list-style-type: none"> Regular monitoring to confirm reduced siltation, improved water quality, and landscape features not defaced or degraded
	<ul style="list-style-type: none"> Minimise siltation at creek junction with Middle Harbour 	<ul style="list-style-type: none"> Investigate outcome of stormwater quality improvement device in creek 	<ul style="list-style-type: none"> Device investigated and installed if appropriate Regular monitoring to confirm satisfactory function

	<ul style="list-style-type: none"> • Improve water quality in lower reaches of creek 	<ul style="list-style-type: none"> • Investigate outcome of Gross Pollutant Trap at junction of creeks at Allard Road 	<ul style="list-style-type: none"> • Device investigated and installed if appropriate • Regular monitoring to confirm satisfactory function
	<ul style="list-style-type: none"> • Protect all rock overhangs and outcrops 	<ul style="list-style-type: none"> • Organise visitor movement to avoid damage to rocks. 	
f) To retain bushland in parcels of a size and configuration that will enable the existing plant and animal communities to survive in the long term	<ul style="list-style-type: none"> • Expand Echo Point Park's bushland component and manage the Park in context, recognising that it is too small to be ecologically viable in itself, but that its potential can be maximised and protected as a component link in a chain of discontinuous but compatible reserves 	<ul style="list-style-type: none"> • Rationalise adjacent KC landholdings. Include Lots 94, 95 and 139, and Number 2 Allard Avenue and 21 Normac Street in Echo Point Park Plan of Management (as above) • Consider reducing width of Babbage Road and replanting part with bush buffer • Develop collaborative contacts with management of other compatible reserves within geographical area 	<ul style="list-style-type: none"> • Additional lands covered by Plan of Management and managed in accordance with Plan's requirements
g) To protect bushland as a natural stabiliser of the soil surface	<ul style="list-style-type: none"> • See (e) above re prevention/minimisation of soil erosion 	<ul style="list-style-type: none"> • See (e) above for means to prevent or minimise soil erosion 	<ul style="list-style-type: none"> • See (e) above

TABLE 4 – MANAGEMENT OF NATURAL AREA (FORESHORE)

Objectives	Performance Targets	Means of Achievement	Means of Assessment
The core objectives for management of community land categorised as foreshore are:			
a) To maintain the foreshore as a transition area between the aquatic and the terrestrial environment, and to protect and enhance all functions associated with the foreshore's role as a transition area	<ul style="list-style-type: none"> Minimise/prevent foreshore erosion from seaward side 	<ul style="list-style-type: none"> Encourage Waterways Authority signage and enforcement of reduced water speed limits between Roseville Bridge Marina and Roseville Bridge Maximise locally indigenous foreshore vegetation in soil profiles just above mean high water mark <ul style="list-style-type: none"> Investigate means of stabilising foreshore 	<ul style="list-style-type: none"> Regular monitoring to confirm: <ul style="list-style-type: none"> no further erosion just above mean high water mark beach width variation within acceptable range Liaison with Waterways Authority of NSW and Warringah Shire Council
	<ul style="list-style-type: none"> Minimise/prevent foreshore erosion from landward side 	<ul style="list-style-type: none"> Rationalise access to beach: <ul style="list-style-type: none"> restrict informal access paths formalise limited entry points Dissipate stormwater flow at discharge points Stabilise slopes with appropriate methods <u>Manage stormwater flows to minimise sources of erosion</u> 	<ul style="list-style-type: none"> Regularly check to ensure no new informal paths or reuse of old ones Monitor post-rainfall stormwater flow from pipe outlets Slopes stabilised
	<ul style="list-style-type: none"> Maintain/enhance diversity and health of locally indigenous foreshore vegetation 	<ul style="list-style-type: none"> Manage foreshore in accordance with Council's Bushland Plan of Management 	<ul style="list-style-type: none"> Regular monitoring to confirm: <ul style="list-style-type: none"> ongoing presence and diversity of locally typical intertidal species
b) To facilitate the ecologically sustainable use of the foreshore, and to mitigate impact on the foreshore	<ul style="list-style-type: none"> Protect marine and intertidal fauna 	<ul style="list-style-type: none"> Approved NSW Fisheries Department to introduce signage to advise legal consequences of undersize fishing, taking of shellfish and maximum bag catches in accordance with legislation 	<ul style="list-style-type: none"> Seek assistance from NSW Fisheries in regard to <ul style="list-style-type: none"> anglers compliance ongoing satisfactory shellfish numbers
	<ul style="list-style-type: none"> Control domestic animals on beach 	<ul style="list-style-type: none"> Monitor use of beach by domestic animals and respond to complaints 	<ul style="list-style-type: none"> Regular monitoring to check level of compliance
	<ul style="list-style-type: none"> Minimise littering 	<ul style="list-style-type: none"> Install litter bins at Park entry points Remove non-organic debris from mangrove areas 	<ul style="list-style-type: none"> Regular KC servicing of bins

• Protect rock platform	• Refer (a) above (Rationalise access to beach) • Formalise a single path and stairway entry to platform	• Monitor rock platform for damage
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TABLE 5 – MANAGEMENT OF PARK

Objectives	Performance Targets	Means of Achievement	Means of Assessment
The core objectives for management of community land categorised as a park are:			
a) To encourage, promote and facilitate recreational, cultural, social and educational pastimes and activities	<ul style="list-style-type: none"> • Manage Park to enhance its value as a regional recreational resource, within its user capacity • Ensure Park Management is compatible with the management objectives of an Area of Cultural Significance • Install signage at appropriate locations in Park to direct, interpret and prescribe to Park users in a simple, unobtrusive and appropriate manner • Ensure that Park signage acknowledges pre-European site settlement and history • Retain all existing formal (controlled access) paths and steps. Remove existing and future informal (uncontrolled access) paths except where otherwise indicated on plan 	<ul style="list-style-type: none"> • Monitor recreational use to identify major uses and maximum capacities. Develop management mechanisms to ensure resources do not degenerate. • Refer Tables 6 and 7 • Analyse existing signage and identify deficiencies • Develop and implement a program of signage upgrade • Install orientation ('You are here') signage at main entrance, southern end Babbage Road • Install directional signage at other entries, at major path intersections and at junctions with Two Creeks and Middle Harbour Foreshore Tracks • Install site interpretation sign at main entrance (brief outlines of Aboriginal occupation, non-indigenous site history, flora and fauna, and request for visitor protection of environmental values) • Install prescriptive signage re legal responsibilities of damaging Aboriginal sites. • Replace Bicentennial wall plaque on cliff / road cutting at main entrance, as it refers to first site settlement as European • Refer Table 3(c) (Bushland) for recommendations concerning removal of informal paths 	<ul style="list-style-type: none"> • Ongoing monitoring by KC to assess balance between Park use and capacity • Ongoing monitoring by KC to ensure Park use and management protect rather than damage items and areas of cultural significance • Sign installation • Monitor signage effectiveness and modify as necessary • Bicentennial wall plaque replaced • Regular site inspections to monitor upgraded path network and maintain to design standards

<ul style="list-style-type: none"> • Ensure all paths, walls and steps are safe and in good repair 	<ul style="list-style-type: none"> • Refer Table 7 (Area of Cultural Significance – Non-indigenous) for recommendations concerning repairs to paths, walls and steps • Replace rotting timber sleepers on steps at Playground • Replace rotting or broken timbers on footbridges • Provide handrails to steep steps if necessary • Address drains and pipes which cause bogginess in some path sections • Demolish redundant exposed steel piping 	
<ul style="list-style-type: none"> • Maintain existing historic and visual character of circulation system 	<ul style="list-style-type: none"> • Any repairs or new construction are to employ materials and methods equal to existing or in accordance with Icomos guidelines. 	<ul style="list-style-type: none"> • Materials used are appropriate
<ul style="list-style-type: none"> • Provide equitable access as far as possible, acknowledging that site is steep and not accessible to all visitors in accordance with Council's DCP No. 31 'Access' 	<ul style="list-style-type: none"> • Ensure that circulation system is consistent where possible with KC's Access Policy • Provide disabled access to playground • Facilitate disabled access from playground to second grass terrace • <u>Investigate possibility of access to all to Waterfront.</u> 	<ul style="list-style-type: none"> • Survey users to determine level of satisfaction with access to and within the Park
<ul style="list-style-type: none"> • Provide hierarchy of site entrances 	<ul style="list-style-type: none"> • Visually enhance major entrances (especially main entrance at southern end Babbage Road and playground entrance) • Maximise access at these two entrances within site constraints • Refer signage recommendations (below) 	<ul style="list-style-type: none"> • Condition of entrances
<ul style="list-style-type: none"> • Provide clear links between site paths and the Two Creeks and Middle Harbour Foreshore Tracks 	<ul style="list-style-type: none"> • Install signage to indicate path junctions • Investigate options for linking southern end of Park (near Roseville Bridge Marina) to Middle Harbour Foreshore Track 	<ul style="list-style-type: none"> • Liaison with Willoughby Council • Signage installed
<ul style="list-style-type: none"> • Provide a range of structures, furniture and facilities that adequately meets user requirements and adds a valuable amenity to the Park, while maintaining existing informal and aesthetic quality 	<ul style="list-style-type: none"> • Analyse existing structures, furniture and facilities in terms of user requirements and appropriateness of use value, style and design • Develop and implement prioritised plan for rationalising, refurbishing, replacing, relocating or removing existing facilities or installing new one. • <u>Investigate feasibility of providing access to the southern part of the Park for small boats.</u> 	<ul style="list-style-type: none"> • Monitor facility use to ensure objective is being fulfilled
<ul style="list-style-type: none"> • Ensure all structures, furniture, facilities and signage are visually pleasing, thematically consistent, sympathetically located and compatible with Park's heritage values and informal character 	<ul style="list-style-type: none"> • Continue to develop appropriate colours, forms and materials for park structures, furniture and facilities 	<ul style="list-style-type: none"> • Visitor survey to assess aesthetic response

b) To provide for passive recreational activities or pastimes and for the casual playing of games and to improve the land in such a way as to promote and facilitate its use to achieve the other core objectives for its management	<ul style="list-style-type: none"> Playground should be attractive, varied, interesting and with soft-fall ground surface 	<ul style="list-style-type: none"> Play equipment to relevant standards and in response to identified need 	<ul style="list-style-type: none"> Playground is consistent with Council's Playground Compliance Plan
	<ul style="list-style-type: none"> Provide secure fencing 	<ul style="list-style-type: none"> Install fencing in locations identified and prioritised in risk assessment of Park 	<ul style="list-style-type: none"> Appropriate fencing has been installed Appropriate facilities provided Use levels and user satisfaction
	<ul style="list-style-type: none"> Ensure adequate seating in playground 	<ul style="list-style-type: none"> Review adequacy of existing seating and provide extra if necessary 	
	<ul style="list-style-type: none"> Increase summer shade to playground 	<ul style="list-style-type: none"> Plant locally indigenous shade trees near play equipment and seating. 	
	<ul style="list-style-type: none"> Improve access from Babbage Road to playground, especially for prams and disabled persons 	<ul style="list-style-type: none"> Ensure level access adjacent to existing double gate at playground, or modify gate driveway 	<ul style="list-style-type: none"> Playground accessibility
	<ul style="list-style-type: none"> Retain extensive lawn areas for passive recreational activities (eg informal games, kite flying, bocce, casual play) 	<ul style="list-style-type: none"> Maintain existing open character of terraces and former-Baths site 	<ul style="list-style-type: none"> Use levels and user satisfaction
	<ul style="list-style-type: none"> Ensure ongoing opportunity for fishing from rocks and seawall at former-Baths site 	<ul style="list-style-type: none"> Maintain status quo 	
	<ul style="list-style-type: none"> Ensure variety of quiet seating areas 	<ul style="list-style-type: none"> Ensure seat placement in variety of locations – open / enclosed, sunny / shady / views etc 	
	<ul style="list-style-type: none"> To provide sufficient parking to meet the needs of Park users and the local community 	<ul style="list-style-type: none"> Monitor car parking usage levels to confirm provision is meeting demand 	<ul style="list-style-type: none"> Monitor levels of car parking in Babbage Road associated with Park usage
	<ul style="list-style-type: none"> Enhance aesthetic experience of Park 	<ul style="list-style-type: none"> Identify major viewing points, views and view corridors in the Park Maximise water views by ensuring no planting higher than 1.2m in identified view corridors Supplement ornamental planting in terraced garden beds, and in formal garden beds near former-Baths site Plant shade trees on former-Baths site, taking care to avoid historic building footings and allowing for informal games (including bocce) Investigate relocation of power pole at top of sandstone steps near main entrance to improve view from entrance 	<ul style="list-style-type: none"> Site inspection and report to verify development and installations; and removal of light pole Periodic assessment by open space staff Visitor survey to assess aesthetic response
	<ul style="list-style-type: none"> Manage Park vegetation in a manner consistent with protection of site's 'Bushland' and 'Foreshore' vegetation 	<ul style="list-style-type: none"> Develop Park planting and maintenance program Exotic mature trees which are non-invasive may be retained Mature native (but not locally indigenous) trees which are non-invasive may be retained 	<ul style="list-style-type: none"> Monitor and control spread of exotic and native (but not locally indigenous) plants

TABLE 6 – MANAGEMENT OF AREA OF CULTURAL SIGNIFICANCE (INDIGENOUS)

Objectives	Performance Targets	Means of Achievement	Means of Assessment
<p>The core objectives for management of community land categorised as an area of cultural significance are to retain and enhance the cultural significance of the area (namely its Aboriginal, aesthetic, archaeological, historical, technical or research or social significance) for past, present or future generations by the active use of conservation methods.</p> <p>Those conservation methods may include any or all of the following methods:</p>			
<p>a) The continuous protective care and maintenance of the physical material of the land or of the context and setting of the area of cultural significance</p>	<ul style="list-style-type: none"> Determine number, nature and extent of sites (if any) in Lots 52 and 53 (C and B), 94, 95 and 139 (bushland area bounded by Normac Street, Allard Avenue and Babbage Road) 	<ul style="list-style-type: none"> Conduct survey when bush regeneration in these Lots improves accessibility. Undertake discreet test excavations after consultation with NPWS and MLALC. Report any newly identified sites to the NPWS Director-General for assessment and documentation 	<ul style="list-style-type: none"> Findings of a survey reported to NPWS following consultation with MLALC
	<ul style="list-style-type: none"> Prevent damage to Aboriginal sites 	<ul style="list-style-type: none"> Establish a baseline recording of the condition of the sites for comparison during ongoing monitoring Prepare and implement program for regular monitoring of the condition of sites with priority given to those most threatened with human impact or natural deterioration Formulate and implement strategies for stabilising and conserving sites in line with Koettig's policies (1988,1994) and with <i>Echo Point Park: Heritage Assessment Report</i> (2002) 	<ul style="list-style-type: none"> As long as the status quo is maintained, monitoring by an archaeologist and an Aboriginal community representative should be required only once every five years. In the event of adverse impacts being noted, however, professional and Aboriginal community advice should be sought immediately.

	<ul style="list-style-type: none"> Minimise erosion of middens 	Options include <ul style="list-style-type: none"> Stabilising midden edges Minimising pedestrian activity in middens Formalise a single path and stairway access to rock platform and other selected locations Refer to Table 4 (Foreshore) for prevention of foreshore erosion 	<ul style="list-style-type: none"> Regular monitoring to confirm sites intact and strategy implemented NPWS and MLALC approval Inspection report to confirm removals and construction
	<ul style="list-style-type: none"> Protect bushland and foreshore as contextual landscape settings for items of cultural significance and as areas of cultural significance in their own right 	<ul style="list-style-type: none"> Refer Tables 3 and 4 (Natural Area - Bushland and Foreshore) 	<ul style="list-style-type: none"> Refer Tables 3 and 4 (Natural Area – Bushland and Foreshore)
b) The restoration of the land, that is, the returning of the existing physical material of the land to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material	<ul style="list-style-type: none"> N.A. 	<ul style="list-style-type: none"> N.A. 	<ul style="list-style-type: none"> N.A.
e) The reconstruction of the land, that is, the returning of the land as nearly as possible to a known earlier state	<ul style="list-style-type: none"> N.A. 	<ul style="list-style-type: none"> N.A. 	<ul style="list-style-type: none"> N.A.
f) The adaptive reuse of the land, that is, the enhancement or reinforcement of the cultural significance of the land by the introduction of sympathetic alterations or additions to allow compatible uses (that is, uses that involve no changes to the cultural significance of the physical material of the area, or uses that involve changes that are substantially reversible or changes that require minimum impact)	<ul style="list-style-type: none"> Interpret Aboriginal sites to Park visitors in a manner which is culturally sensitive and consistent with their conservation 	<ul style="list-style-type: none"> In consultation with NPWS and MLALC, determine desired level of public information and access to sites and then formulate strategies 	<ul style="list-style-type: none"> NPWS approval MLALC consultation Assess implementation of agreed action
	<ul style="list-style-type: none"> Ensure that any significance assessment, conservation planning, protection, interpretation and promotion of Echo Point Park's Aboriginal heritage is culturally acceptable to the Aboriginal community and consistent with NPWS requirements 	<ul style="list-style-type: none"> Ongoing liaison between NPWS and MLALC 	<ul style="list-style-type: none"> NPWS and MLALC are consulted as part of process

<p>g) The preservation of the land, that is, the maintenance of the physical material of the land in its existing state and the retardation of deterioration of the land.</p> <p>A reference to land includes a reference to any buildings erected on the land.</p>	<ul style="list-style-type: none"> • Protect bushland and foreshore 	<ul style="list-style-type: none"> • Refer Tables 3 and 4 (Natural Area – Bushland and Foreshore) 	<ul style="list-style-type: none"> • Refer Tables 3 and 4 (Natural Area – Bushland and Foreshore)
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TABLE 7 – MANAGEMENT OF AREA OF CULTURAL SIGNIFICANCE (NON-INDIGENOUS)

Objectives	Performance Targets	Means of Achievement	Means of Assessment
<p>The core objectives for management of community land categorised as an area of cultural significance are to retain and enhance the cultural significance of the area (namely its aesthetic, archaeological, historical, technical or research or social significance) for past, present or future generations by the active use of conservation methods.</p> <p>Those conservation methods may include any or all of the following methods:</p>			
<p>a) The continuous protective care and maintenance of the physical material of the land or of the context and setting of the area of cultural significance</p>	<ul style="list-style-type: none"> Protect the existing landscape as contextual setting of non-indigenous items and area of cultural significance 	<ul style="list-style-type: none"> Refer to Tables 3, 4 and 5(c) (Bushland, Foreshore and Park) for landscape protection and management recommendations 	<ul style="list-style-type: none"> Refer to Tables 3, 4 and 5(c) (Bushland, Foreshore and Park) for means of assessment

<ul style="list-style-type: none"> • Protect remaining pre-1920 cultural items associated with the site's early farming history. These include: <ul style="list-style-type: none"> – boxed-out recesses in sandstone outcrop in position of former timber jetty – possible farm cottage foundations below grass level on second terrace – possible 'midden' of 19th century farm artefacts at southern end of lowest grass terrace – possible remnant orchard trees or stumps – creek as likely source of fresh water for farm 	<ul style="list-style-type: none"> • Keep recessed outcrop free of weeds and graffiti • Refer (d) below for suggested excavations • Undertake detailed vegetation survey to locate remnant farm trees or stumps (if any) which may have heritage value. Refer also to recommendations for African Olives in Table 3(d) (Bushland). • Refer Table 3(e) (Bushland) for creek protection measures 	<ul style="list-style-type: none"> • Inspection by Open Space staff
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<ul style="list-style-type: none"> • Protect remaining post-1920 cultural items, mostly examples of early 1930s Depression Relief Labour. These include: <ul style="list-style-type: none"> -- picnic shelter – circulation system of crushed sandstone paths and sandstone walls, steps and drains – terraced lawns – formed sandstone seawall – remains of stone abutments to old Roseville Bridge – foundation footprints of former Roseville Baths, dressing sheds, caretaker's cottage and kiosk – remains of grotto at former-Baths site 	<ul style="list-style-type: none"> • While most formal paths can be maintained in existing condition, identify and repair those sections requiring repairs • Identify and make good those sections of sandstone dry-stone walls requiring repair • Identify and make good those sandstone steps or staircases requiring repair. Secure any loose treads • Maintain stone drains in existing positions whether or not still functional as drains • Maintain terraced lawns in existing condition except for any walls and steps requiring repair • Identify and implement any repairs to seawall consistent with original materials and construction methods • Retain in situ the limited remains of bridge abutments • Retain brick and concrete foundations of buildings associated with former Roseville Baths. Refer (d) below for suggested excavations. Any new picnic tables and / or shelters are to be sited sympathetically and avoid damage to foundations • Retain grotto work remnants near cliff at former-Baths site. Undertake works as necessary to stabilise, consistent with original materials and construction. • Retain foundations and sandstone terrace to former kiosk and caretaker's cottage, stabilising edges if necessary 	<ul style="list-style-type: none"> • Post-repair survey of each works item to certify outcome • Periodic inspection and report by open space staff and/or conservation architect to assess structural integrity and safety
<ul style="list-style-type: none"> • Protect / maintain aesthetic and cultural character of existing paths, walls, steps and drains 	<ul style="list-style-type: none"> • Any repairs are to use materials and construction methods equal to existing • Refer (d) below for paths to be replaced 	<ul style="list-style-type: none"> • Approval of conservation architect, landscape architect and/or archaeologist • Periodic visual inspections
<ul style="list-style-type: none"> • Protect the remains of listed heritage items 	<ul style="list-style-type: none"> • Protect the remains of Roseville Baths, old Roseville Bridge and the site of Echo Point Farm in accordance with the provisions of relevant Plans and Policies • Prepare and implement program for regular monitoring of site condition with priority given to those most threatened with human impact or natural deterioration 	<ul style="list-style-type: none"> • Ongoing monitoring to ensure remains intact • Regular monitoring to ensure sites intact and undamaged

b) The restoration of the land, that is, the returning of the existing physical material of the land to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material	<ul style="list-style-type: none"> N.A. 	<ul style="list-style-type: none"> N.A. 	<ul style="list-style-type: none"> N.A.
c) The reconstruction of the land, that is, the returning of the land as nearly as possible to a known earlier state	<ul style="list-style-type: none"> N.A. 	<ul style="list-style-type: none"> N.A. 	<ul style="list-style-type: none"> N.A.
d) The adaptive reuse of the land, that is, the enhancement or reinforcement of the cultural significance of the land by the introduction of sympathetic alterations or additions to allow compatible uses (that is, uses that involve no changes to the cultural significance of the physical material of the area, or uses that involve changes that are substantially reversible or changes that require a minimum impact)	<ul style="list-style-type: none"> Allow for removal of selected items aesthetically incompatible with original construction materials and methods 	<ul style="list-style-type: none"> Remove concrete path and steps on terraces and replace with sandstone path to match existing on other paths Remove concrete path linking lowest terrace to sandstone path north-west of Roseville Bridge Marina, and replace with sandstone path to match others on site 	<ul style="list-style-type: none"> Works completed
	<ul style="list-style-type: none"> Allow for minor amendments to existing crushed sandstone paths to facilitate disabled access and to minimise damage to Aboriginal middens 	<ul style="list-style-type: none"> Undertake minor regrading and resurfacing of crushed sandstone path from playground to second grass terrace to facilitate disabled access Consider minor re-routing of crushed sandstone paths at select locations to avoid traversing and damaging middens 	<ul style="list-style-type: none"> Works completed
	<ul style="list-style-type: none"> Formalise access from northern end of former-Baths site to northern end of Babbage Road to protect landform and remains of bridge abutments 	<ul style="list-style-type: none"> Construct formal path and steps using materials and construction methods typical on site 	<ul style="list-style-type: none"> Works completed
	<ul style="list-style-type: none"> Determine nature and extent of sites to assist understanding of conservation values 	<ul style="list-style-type: none"> Conduct site survey of Park 	<ul style="list-style-type: none"> Involvement of relevant staff and expertise Survey completion and report to KMC on findings

	<ul style="list-style-type: none"> • Maximise the site's educational potential, acknowledging that (aside from the terraces and circulation system) there is limited physical evidence of the site's post-1920 cultural significance, and almost none of its early farming history 	<ul style="list-style-type: none"> • Develop means of interpreting to visitors the site's cultural significance in a manner consistent with its conservation. 	<ul style="list-style-type: none"> • Involvement of relevant staff and expertise in development and implementation of interpretation mechanisms and strategies. • Survey visitors to evaluate satisfaction and response.
<p>e) The preservation of the land, that is, the maintenance of the physical material of the land in its existing state and the retardation of deterioration of the land.</p> <p>A reference to land includes a reference to any buildings erected on the land.</p>	<ul style="list-style-type: none"> • Refer (a) above • Refer Tables 3, 4 and 5(c) (Bushland, Foreshore and Park) 	<ul style="list-style-type: none"> • Refer (a) above • Refer Tables 3, 4 and 5(c) (Bushland, Foreshore and Park) 	<ul style="list-style-type: none"> • Refer (a) above • Refer Tables 3, 4 and 5(c) (Bushland, Foreshore and Park)

6.3 Summary of Management Recommendations

Bushland

- Manage landscape processes to favour locally indigenous flora and fauna
- Exclude human access from some areas in order to protect habitat
- Maximise fauna habitat – especially for small birds and ground-dwelling fauna
- Protect existing aesthetic character
- Enhance aesthetic experience
- Remove elements which obscure or distort understanding of site's natural history, and reveal those elements which enhance it
- Maintain existing water views
- Maximise educational potential of bushland
- Contain pedestrian movement in bushland areas to safe and formal (controlled access) paths
- Establish stronger links between Echo Point Park and the Community
- Promote visitor health and safety at contact points with polluted water
- Include Lot 139, Number 2 Allard Avenue and 21 Normac Street in Echo Point Park to increase area of managed bushland
- Restore bushland areas of the Park towards original vegetation communities
- Remove weeds from bushland
- Minimise exotic plant invasion, especially from nearby residential gardens and KC-owned lands adjacent to Echo Point Park
- Prevent / minimise soil erosion
- Protect and enhance creek area as part of Echo Point Park
- Minimise siltation at creek junction with Middle Harbour
- Improve water quality in lower reaches of creek
- Protect all rock overhangs and outcrops
- Expand Echo Point Park's bushland component and manage the Park in context, recognising that it is too small to be ecologically viable in itself, but that its potential can be maximised and protected as a component link in a chain of discontinuous but compatible reserves (especially as part of a wildlife corridor for birds).

Foreshore

- Minimise/prevent foreshore erosion from seaward side
- Minimise/prevent foreshore erosion from landward side
- Maintain/enhance diversity and health of locally indigenous foreshore vegetation
- Protect marine and intertidal fauna
- Control domestic animals on beach
- Minimise littering
- Protect rock platform

Park

- Manage Park to enhance its value as a regional recreational resource, within its user capacity
- Ensure Park management is compatible with the management objectives of an Area of Cultural Significance.
- Install signage at appropriate locations in Park to direct, interpret and prescribe to Park users in a simple, unobtrusive and appropriate manner
- Ensure that Park signage acknowledges pre-European site settlement and history
- Ensure all paths, walls and steps are safe and in good repair
- Maintain existing historic and visual character of circulation system
- Provide equitable access as far as possible, acknowledging that site is steep and not accessible to all visitors
- Provide hierarchy of site entrances
- Provide clear and accessible links between site paths and the Two Creeks and Middle Harbour Foreshore Tracks
- Ensure circulation system respects management objectives of site's other land categories (Bushland, Foreshore, Area of Cultural Significance)
- Provide a range of structures, furniture and facilities that adequately meets user requirements and adds a valuable amenity to the Park, while maintaining existing informal and aesthetic quality
- Ensure all structures, furniture, facilities and signage are visually pleasing, thematically consistent, sympathetically located and compatible with Park's heritage values and informal character
- Play equipment in playground should be attractive, varied, interesting and with soft-fall ground surface
- Provide secure fencing as required
- Ensure adequate seating in playground
- Provide summer shade to playground
- Improve access from Babbage Road to playground, especially for prams and disabled persons
- Retain extensive lawn areas for passive recreational activities (eg informal games, kite flying, bocce, casual play)
- Ensure ongoing opportunity for fishing from rocks and seawall at former-Baths site
- Ensure variety of quiet seating areas
- Investigate acquisition from Dept. of Land and Water Conservation that part of Babbage Road at its 'elbow' near park entrance
- To provide sufficient car parking to meet the needs of Park users and local community
- Improve pedestrian circulation (especially for disabled access) between the top two grass terraces and Park entrances from Babbage Road
- Enhance aesthetic experience of Park
- Manage Park vegetation in a manner consistent with protection of site's 'Bushland' and 'Foreshore' vegetation

Cultural Significance (Indigenous)

- Determine number, nature and extent of sites (if any) in Lots 52 and 53 (C and B), 94, 95 and 139
- Prevent damage to Aboriginal sites
- Minimise erosion of middens
- Protect bushland and foreshore as contextual landscape settings for items of cultural significance and as areas of cultural significance in their own right
- Interpret Aboriginal sites to Park visitors in a manner which is culturally sensitive and consistent with their conservation
- Ensure that any significance assessment, conservation planning, protection, interpretation and promotion of Echo Point Park's Aboriginal heritage is culturally acceptable to the Aboriginal community and consistent with NPWS requirements
- Consider an Aboriginal name or dual nomenclature for Echo Point Park
- Protect bushland and foreshore

Cultural Significance (Non-Indigenous)

- Protect the existing landscape as contextual setting of non-indigenous items and area of cultural significance
- Protect remaining pre-1920 cultural items associated with the site's early farming history. These include:
 - boxed-out recesses in sandstone outcrop in position of former timber jetty
 - possible farm cottage foundations below grass level on second terrace
 - possible 'midden' of 19th century farm artefacts at southern end of lowest grass terrace
 - possible remnant orchard trees or stumps
 - creek as likely source of fresh water for farm
- Protect remaining post-1920 cultural items, mostly examples of early 1930s Depression Relief Labour. These include:
 - circulation system of crushed sandstone paths and sandstone walls, steps and drains
 - terraced lawns
 - picnic shelter
 - formed sandstone seawall
 - remains of stone abutments to old Roseville Bridge
 - foundation footprints of former Roseville Baths, dressing sheds, caretaker's cottage and kiosk
 - remains of grotto at former-Baths site
 - sandstone road cuttings to Babbage Road and Old Manly Road
 - metal road centre line plates along Babbage Road
- Protect / maintain aesthetic and cultural character of existing paths, walls, steps and drains
- Protect the remains of heritage items listed in *Sydney and Middle Harbours SREP No. 23 and Design Management Guidelines*
- Allow for removal of selected items aesthetically incompatible with original construction materials and methods
- Allow for minor amendments to existing crushed sandstone paths to facilitate disabled access and to minimise damage to Aboriginal middens
- Formalise access from northern end of former-Baths site to northern end of Babbage Road to protect landform and remains of bridge abutments

- Determine nature and extent of sites to assist understanding of conservation values
- Maximise the site's educational potential, acknowledging that (aside from the terraces and circulation system) there is limited physical evidence of the site's post-1920 cultural significance, and almost none of its early farming history

6.4 Implementation

This Plan includes 69 Performance Targets and associated actions (Means of Achievement) to guide conservation / protection and future management of Echo Point Park. Whilst this is a significant number of targets and actions for a single park it is indicative of the Park's extensive conservation values, heritage values (indigenous and non-indigenous), and range of recreation opportunities.

The targets in many cases do not require the expenditure of specific funds and will / are already being addressed as part of cyclical maintenance and day to day management of the park. The majority of the remaining targets (and associated actions) can be achieved within existing park expenditure through redirection of existing resources rather than allocation of additional resources. Those actions that require specific allocation of funds will be listed and considered through Council's Capital Works program.

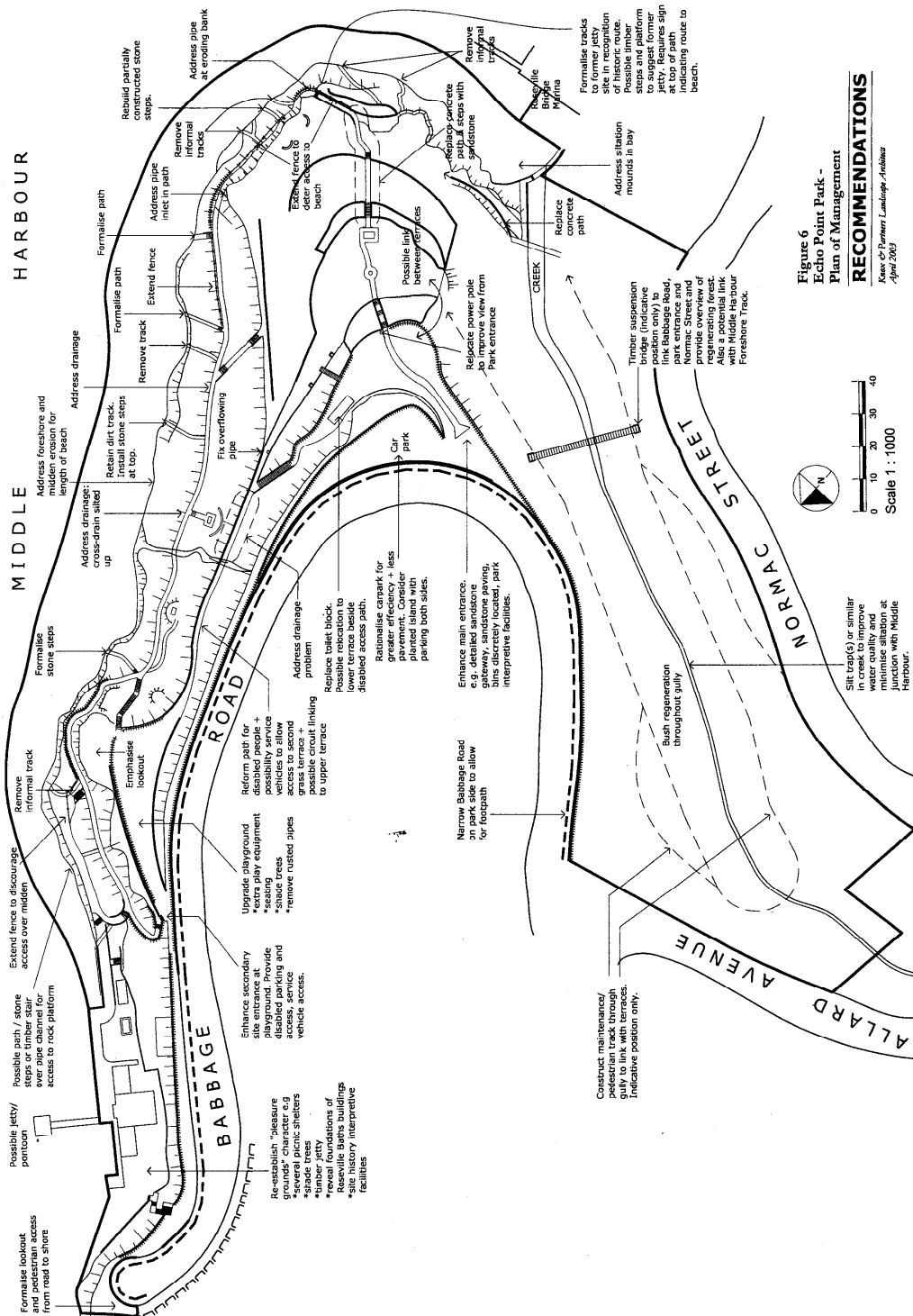


Figure 6
Recommendations

7. USE AND CONDITION OF THE LAND AND STRUCTURES ON ADOPTION OF THE PLAN

7.1 Use of the Land and Structures

Echo Point Park is an informal park currently used for the following activities:

- informal / passive recreation including:
 - walking
 - picnicking and barbecues
 - exercising dogs
 - children's play
 - fishing
 - paddling
 - bocce
- landscaping (including maintenance)
- bushland conservation
- car parking
- **events (such as weddings)**

7.2 Condition of the Land and Structures

This Section describes the condition of land and structures in each land category at the date of adoption of this Plan. (Refer to Figure 2).

7.2.1 Natural Area (Bushland)

Over 80% of Echo Point Park is covered in bushland which ranges in condition from fair to poor. The several plant communities (Forest of varying combinations of *Angophora costata*, *Casuarina glauca*, *Eucalyptus piperita*, *E. punctata*, *Ficus rubiginosa* and *Melaleuca styphelioides*; *A. costata* – *Callitris rhomboidea* Open Forest; and *Avicennia marina* (Mangrove) Low Forest) are not unusual or threatened, but important locally for their aesthetic, habitat and environmental values.

Bushland has been compromised by terrace and path construction, increased stormwater runoff, and more recently by soil erosion on steep banks, unauthorised tracks to the foreshore, insufficient maintenance and weed invasion (most heavily in Lots 52 and 53 (C and B), 94, 95 and 139) and tree dieback.

Creek water quality is poor – particularly after heavy rainfall events - owing to physical and chemical pollutants and to siltation.

7.2.2 Natural Area (Foreshore)

Echo Point Park's shoreline boundary is legally at the mean high water mark of Middle Harbour. However, for practical management purposes the beach to mean low water mark is included in Table 4.

The beach is in mostly good condition, with the exception of occasional broken glass, dog faeces, fishing tackle and litter (off site).

The foreshore at mean high water mark ranges from good to fair condition, the latter concerning areas of bank undercutting by wave action or erosion at stormwater pipe outlets and unauthorised paths.

7.2.3 Park

Most park areas are in good condition. Grass cover on the terraces, former Baths site and children's playground is generally very good. Play equipment is structurally sound and in good condition. Formal garden beds and planting are in good condition, as are most of the specimen trees – with the exception of the three Golden Ash (*Fraxinus excelsior*) which are poor.

Concrete paths and steps are in good condition but aesthetically inconsistent with older stonework. The two timber footbridges are mostly sound but require replacement of some rotting and broken planks. The timber sleeper steps below the playground are in deteriorating condition and require replacement.

Chainwire fencing is in good condition and appropriately sited, but may warrant replacement over time for aesthetic reasons and extension in the short term to protect eroding banks and middens. Handrails are in good condition and could be extended on steep steps.

The amenities block is structurally sound but aesthetically inappropriate, wheelchair inaccessible and of arguably suitable location. Toilet facilities are aging and in fair condition.

The picnic shelter is in very good condition, but is inappropriately sited and should be relocated intact. Picnic tables and park benches are in generally good condition but require supplement. Stone barbecues are in good condition and appropriately sited. The drinking fountain is in good condition but aesthetically inappropriate with park stonework. The limited park signage is in fair condition but requires upgrade. Water pipes are in poor condition (rusting and exposed) and are potentially hazardous.

7.2.4 Area of Cultural Significance (Indigenous)

While the whole of Echo Point Park is an area of Aboriginal cultural significance for demonstrating clear evidence of Aboriginal occupation in art and midden sites, individual sites have been partially to totally destroyed – mostly by walking track construction in the 1930s, by the unsympathetic location of drainage pipe outlets and to foreshore erosion by foot traffic and wave action. Overall condition is therefore poor.

7.2.5 Area of Cultural Significance (Non-Indigenous)

The whole of Echo Point Park is an area of European cultural significance for being the site of one of the first farms in the northern region of Sydney; for the network of sandstone paths, walls and steps installed as Depression Relief labour in the 1930s; for the remains of Old Roseville Baths and the Old Roseville Bridge; and for sandstone road cuttings indicating the early alignments of Babbage Road and Old Manly Road which were to link the North Shore to the Northern Beaches.

There is no remaining visible evidence of the farm except for two boxed out recesses in a foreshore sandstone outcrop indicating the position of the farm's former timber jetty, and a wide scatter of 19th century domestic artefacts on the lowest grass terrace which are probably associated with a farm dump.

Given their informal character, most paths are in good and appropriate condition. However, some path areas and stone drains are prone to siltation from eroding steep banks and therefore to impeded drainage and boggiess. Some stone cobble edges are dislodged or silting over. Most stone retaining walls are in good condition, but with some patches of collapse and/or crumbling.

There are limited remains of the Roseville Baths complex – mostly brick and/or concrete foundation strips, one sandstone paved terrace and one grotto column. The formed sandstone seawall is in good condition, but the low drystone seawall near the rock platform is crumbling and in poor repair.

The limited remains of Old Roseville Bridge include sandstone abutment fragments in poor condition. The sandstone road cuttings to Babbage Road and Old Manly Road are in good condition and appear as revegetating cliffs.



Photo 1. Eroded short-cut track.



Photo 2. Lower seawall and site of former baths.



Photo 3. View on entry at upper Babbage Road.



Photo 4. Central path and pavilion.



Photo 5. Stone stair to upper grass terrace.



Photo 6. Location of middens.

Photographic Summary of Existing Condition

8. FUTURE USE AND DEVELOPMENT OF THE LAND

8.1 Future Use of the Land

Echo Point Park will be used in future for general community passive recreation. This Plan of Management authorises all of the following uses for the Park:

- all of the activities listed in Section 7.1 of this Plan (subject to Council decision re off-leash and/or on-leash exercising of dogs); plus
- bush regeneration involving community volunteers
- school study groups

8.2 Future Development of the Land

This Plan of Management authorises the development at Echo Point Park, within the requirements of relevant legislation and Council policy, and consistent with the core objectives expressed in Section 6 of this Plan including, but not limited to:

- park furniture
- playground equipment
- fencing
- picnic shelters and BBQ's
- landscape works; and
- bushland regeneration.

Local residents within a 500 metre radius of Echo Point Park will be consulted prior to any decision being made regarding provision of any pontoon/wharf in the park or any pedestrian bridge/walkway in the bushland in the park between Babbage Road and Allard Avenue.

8.3 Scale and Intensity of Permitted Uses

Refer Table 8.

Table 8 - Scale and Intensity of Permitted Uses

Use	Scale	Intensity
Car parking	Limited to existing and proposed car parking on Babbage Road	24 hours 7 days a week
Informal / passive recreation	Limited to physical capacity of existing and proposed facilities within developed areas and confined to formal pathways in bushland areas	Unrestricted times, but in accordance with any displayed notices and with core objectives in Tables 3-7
Exercising dogs	Limited to developed areas and to formal pathways in bushland; and to foreshore only if controlled	Unrestricted times, but in accordance with Council policy re leashed and/or unleashed dog areas, and with core objectives in Tables 3-5
Fishing	Limited to foreshore	Unrestricted times, but in accordance with legal requirements re undersize fishing and maximum bag catches etc; and in accordance with core objectives in Table 4
Landscaping	Limited to existing areas	Unrestricted, but in accordance with core objectives in Table 5
Bushland conservation	Within existing bushland areas	No restriction
Bush regeneration involving community volunteers	Within existing bushland areas	Unrestricted, but in accordance with core objectives in Table 3
Booked study groups	In all areas, but confined to formal pathways in bushland areas	Limited to one group at a time.

9. LEASES, LICENCES AND OTHER ESTATES

The grant of a lease, licence or other estate in respect of so much of the land to which this Plan applies, as comprises Echo Point Park, is hereby expressly authorised:

- a. for any purpose for which the land was being used at the date this Plan was adopted (of for any purpose referred to in Section 7.1 of this Plan)
- b. for any other purpose prescribed by Section 46 of the *Local Government Act 1993* or the Regulation made thereunder (Refer Appendix 11.7)

The granting of leases, licences and other estates must be consistent with the core objectives of the land's categorisation by this Plan of Management as indicated in Section 6 of this Plan.

This Plan prohibits the granting of leases, licences or other estates for uses which are prohibited by the zoning of the land, or contrary to the core objectives of this Plan of Management.

10. APPROVALS FOR ACTIVITIES ON THE LAND

For a range of activities requiring Council approval refer to Appendix 11.8: Section 68 Requirements (Local Government Act 1993 No 30).

11. APPENDICES

- 11.1 Ku-ring-gai Council Advertisement in Koori Mail
- 11.2 Statement from Metropolitan Local Aboriginal Land Council
- 11.3 Echo Point Park: Visitor Use Monitoring Survey (1991)
- 11.4 Echo Point Park: Visitor Use and Opinion Survey (1992)
- 11.5 Letter from Ku-ring-gai Council to Local Residents
- 11.6 Community Values and Concerns
- 11.7 Section 46 Requirements
- 11.8 Section 68 Requirements

APPENDIX 11.1 - Council Advertisement in Koori Mail

KU-RING-GAI COUNCIL

PREPARATION OF DRAFT PLAN OF MANAGEMENT ECHO POINT PARK – EAST ROSEVILLE CONSIDERATION OF ABORIGINAL SIGNIFICANCE OF THE LAND

Council will soon commence preparation of a Draft Plan of Management for Echo Point Park at East Roseville.

The Park is located on the foreshore of Middle Harbour and comprises a mix of natural areas and developed parkland. The Park has remnants of both European and Aboriginal heritage and Council is considering categorising parts of the park as an area of cultural significance in the Draft Plan of Management.

Council is seeking submissions on the proposal to categorise parts of the park as an area of cultural significance. Submissions are particularly invited from any aboriginal person traditionally associated with the area and comments from any other person who has an interest or information regarding the Park would be appreciated.

Submissions will be received up to 2 November 2001 and will be taken into consideration when the Draft Plan of Management is prepared.

Submissions should be in writing and addressed to the General Manager, Ku-ring-gai Council, 818 Pacific Highway, Gordon NSW 2072

If you wish to discuss this issue please call Council's Manager Environmental Policy Guy Paroissien on (02) 9424 0946.

R Bignell

GENERAL MANAGER

NEWSPAPER OFFICE INSTRUCTIONS

NEWSPAPER	DATE	TYPE OF ADV	(CMS) DEPTH	COLUMN WIDTH
Koori Mail	3/10/01	Display		

Order No.
Advertisement No.
Job No. 302.606.235

Approved:
General Manager
Date

Ku-ring-gai Council
Echo Point Park - Plan of Management
Knox & Partners, April 2003

**APPENDIX 11.2 - Statement from Metropolitan Local Aboriginal Land
Council**



**METROPOLITAN LOCAL
ABORIGINAL LAND COUNCIL**

PO Box 1103 Strawberry Hills NSW 2012

Telephone: (02) 9267 3085 Fax: (02) 9267 8564

Email: metrolalc@acon.com.au

PH: 8394 9666
FAX* 8394 9733

Friday, March 08, 2002

Helen Brayshaw
Heritage Consultants Pty Ltd
51 Thompson Street
Drummoyne NSW 2047

**Re: Aboriginal Site Survey
Echo Point Park Babbage Road,
East Roseville NSW 2069**

Dear Helen,

An Aboriginal site Survey was carried out on Echo Point Park Babbage Road East Roseville NSW for the purposes of identifying any Aboriginal heritage constraints to the proposed development.

The Survey was undertaken by Helen Brayshaw Heritage Consultants Pty Ltd and Allen Madden Cultural & Educational Officer representing Metropolitan Local Aboriginal Land Council (MLALC).

This report outlines the findings of the MLALC and makes recommendations and any constraints that the Land Council feel will protect any identified sites.

Prior to work commenced for the compiling of this report the MLALC was notified and discussions took place with Helen Brayshaw about the proposal a register search was undertaken for any known sites in the area of the proposed development and subject to this, sites were identified that maybe impacted upon.

The Aboriginal site survey was carried out by foot. All known Aboriginal sites that have been recorded in the surveyed area were located and inspected for damage, all sites have been totally disturbed or destroyed. The surveyed area between Babbage, Allard Ave and Normac St is very thick with ground cover (weeds Lantana) which made the survey hard to do in this area, all exposed Sandstone were looked at and No Aboriginal engravings were found but there was still a lot of Sandstone that we could not get near because of the thickness of the shrubs.

LAWSON POINT BUILDING LAWSON SQUARE REDFERN NSW 2016
PHONE: 8394 9666 FAX: 8394 9733

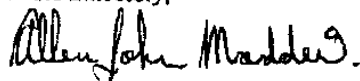
MLALC feel that this should be looked at again once clearing starts and a Monitoring Program is to be put in place.

MLALC have read Helen Brayshaw's Report and do confirm and agree with all recommendation that area within the report.

But if any other sites or relics are unearthed during any stages of development, then all work should cease and the Metropolitan LALC and NSW NPWS are to be notified as soon as possible.

If you require any further information please do not hesitate to call me on my mobile number 0411229217.

Yours Sincerely,



ALLEN MADDEN
CULTURAL & EDUCATION OFFICER

LAWSON POINT BUILDING LAWSON SQUARE REDFERN NSW 2016
PHONE: 8394 9666 FAX: 8394 9733

APPENDIX 11.3 - Visitor Use Monitoring Survey

ECHO POINT PARK - VISITOR USE MONITORING SURVEY SUNDAY 13 JANUARY 1991

Extrapolated count	Age Group % M F	Time period of day actual no.					Total Numbers
		1 (6 – 8 a)	2 (8 – 12 n)	3 (12 – 6p)	4 (2 – 6p)	5 (6 – 8p)	
Male Child	14	-	8	4	8	4	24
Female		-	4	-	-	4	8
Male Youth	4	-	-	-	-	-	-
Female		-	-	-	8	-	8
Male Adult	63	4	8	8	40	-	60
Female		8	4	36	20	12	80
Male Aged	19	8	-	12	-	12	32
Female		-	4	8	-	-	12
Total	100	20	28	68	76	30	224

Total Male % 52

Total Female % 48

Extrapolated Observation	Time period of day				
	1	2	3	4	5
Most used setting	Grassed Area (B)	Grassed Area (B)	Seats / Tables *	Seats / Tables *	Beach
Percentage of total users in setting	33	42	62	38	42
Activity with highest frequency	Fishing	Fishing	Picnicking	Picnicking	Fishing
Percentage of participants in activity	33	42	49	40	29

USE OF SETTING		%	ACTIVITY		%
1.	Grassed Area (A)	0.5	Walking		12.2
2.	Grassed Area (B)	11.1	Sitting		14.4
4.	Grassed Area (D)	11.1	Walking Dog		3.7
5.	Two Creeks Walking Track	5.3	Jogging		0.5
6.	Seats/ Tables/ Shelters	40.2*	Picnicking		33.5
8.	Beach	23.8	BBQ (portables)		19.7
9.	Bushland	6.9	Fishing		16.0
10.	Play Equipment	1.1			
TOTAL		100.0	TOTAL		100.0

* Grassed Area (D)

Vehicle Parking – Babbage Road Vehicles	Time period of day				
	1	2	3	4	5
Northern End	1	4	1	7	8
Southern End	3	-	27	28	4

Setting 3 = Grassed Area C, Setting 7 = BBQs
 Grassed Area A = adjacent cul-de-sac (northern end of Babbage Road)
 Grassed Area B = former Baths site
 Grassed Area C = lookout (playground)
 Grassed Area D = grass terraces

ECHO POINT PARK - VISITOR USE MONITORING WEDNESDAY 6 FEBRUARY 1991

Extrapolated count	Age Group % M F	Time period of day actual no.					Total Numbers
		1 (6 – 8 a)	2 (8 – 12 n)	3 (12 – 6p)	4 (2 – 6p)	5 (6 – 8p)	
Male Child	-	-	-	-	-	-	-
Female	-	-	-	-	-	-	-
Male Youth	-	-	-	-	-	-	-
Female	-	-	-	-	-	-	-
Male Adult	75	-	-	16	4	4	24
Female	-	-	-	-	-	-	-
Male Aged	25	-	4	-	-	-	4
Female	-	-	4	-	-	-	4
Total	100	-	8	16	4	4	32

Total Male % 88

Total Female % 12

Extrapolated Observation	Time period of day				
	1	2	3	4	5
Most used setting	-	Beach	Bushland	Beach	Walking Track
Percentage of total users in setting	-	100	50	75	100
Activity with highest frequency	-	Sitting	Sitting	Sitting	Fishing
Percentage of participants in activity	-	66	50	75	100

USE OF SETTING		%	ACTIVITY		%
2.	Grassed Area (B)	5.2	Walking		10.5
5.	Walking Track	31.6	Sitting		47.3
6.	Seats/ Tables/ Shelters	10.5*	Playing		5.2
8.	Beach	31.6	Fishing		37.0
9.	Bushland	21.1			
TOTAL		100.0	TOTAL		100.0

* Grassed Area (C)

Vehicle Parking – Babbage Road Vehicles	Time period of day				
	1	2	3	4	5
Northern End	-	-	2	1	3
Southern End	-	1	3	3	-

Survey undertaken by Ku-ring-gai Council and cited in *Echo Point Park Strategic Plan 1992* (Harding G, Hage R and Morton A. Student report prepared for Ku-ring-gai Council, Ryde School of Horticulture, Sydney).

APPENDIX 11.4 – Visitor Use and Opinion Survey

ECHO POINT PARK – VISITOR USE AND OPINION SURVEY 1992 (SUMMARY OF RESULTS)

Suburb travelled from

Roseville	19	Elanora	1
Lindfield	8	Five Dock	1
Chatswood	5	Frenchs Forest	1
Willoughby	5	Harbord	1
Castlecove	2	Killarney Heights	1
Forestville	2	Northbridge	1
Mosman	2	Northmead	1
NSW country	2	Parramatta	1
Artarmon	1	Penrith	1
Cammeray	1	Seaforth	1
Castlecrag	1	St Ives	1
Crows Nest	1	Waverton	1
Eastwood	1	Interstate	1

Method of travel

Car	44
Pedestrian	10
Bicycle	1

Age group of spokesperson

15 – 24	9
25 – 34	8
35 – 44	21
45 – 54	18
55 and over	4

Group composition

27 groups included children
6 groups included youths
48 groups included adults
7 groups included aged persons

Group totals

1 person visited Park on their own
22 groups contained 2 people
11 groups contained 3 people
14 groups contained 4 people
1 group contained 5 people
1 group contained 7 people
1 group contained 8 people
1 groups contained 9 people
1 group contained more than 10 people

Total (heads) count during survey

Child	54
Youth	7
Adult	104
Aged	13

Main reason for visit

Picnic	25	Show family old Baths area	2
Walking	12	Jogging	2
Walking dog	10	Sketching	1
Fishing	9	Quiet	1
Play equipment	3	Canoeing	1
Enjoy scenery	2	Outing	1
Cycling	2	Show overseas visitors	1

Frequency of visits

First visit	17	Once a month	12
Daily	1	Several times a year	14
Once a week	5	Once a year	9
Several times a week	3		

Most liked about the Park

Peaceful	14	Open and sunny	3
Quiet	13	Trees	2
Locality	10	Not commercialised	2
Natural	10	Sheltered	1
Water	10	Sentimental value	1
View	6	Tracks	1
Well kept	5	No entrance fee	1
Good for children	5	No parking problems	1
Walking dog	3		

Most disliked about the Park

Nothing	13	Shaded in the afternoon	1	
Weekend rubbish	3	Youths on cycles	1	
Dogs' mess	2	Appearance of shelter		1
Power boat noise	2	Too many people	1	
Steps	1	Weed overgrowth	1	
Toilets	1	Unsupervised beach	1	
Children	1			

Perceived problems with Park

Lack of toilets	3
No access for disabled persons	2
Parking facilities	2
Lack of access for aged persons	1
No pram access to lower terrace	1
Vandalism	1
People damaging trees for firewood	1
No firewood for barbeques	1
Appearance of pipes along walkways	1
Water pollution	1
Noise from opposite river bank	1
Trees across Two Creek Track	1

Suggested management improvements

Improve signage to Park	6
Supply firewood	5
Improve toilet facilities	4
Improve parking	4
Provide kiosk	3
Improve tracks	3
Re-introduce Baths	3
Don't do anything	2
Provide electric barbeques	2
Increase garbage facilities	2
Provide more seating	2
Play equipment	2
No tracks	1
Don't improve tracks	1
Provide stroller access to the beach	1
Improve access for aged persons	1
Install gas barbeques	1
Re-introduce hire of rowing boats	1
Provide more tables in terrace area	1
Walkways	1
Remove weeds	1

Source: survey undertaken by G Harding, R Hage and A Morton and cited in their *Echo Point Park Strategic Plan 1992*. (Student report prepared for Ku-ring-gai Council, Ryde School of Horticulture, Sydney).

APPENDIX 11.5 - Council Letter to Local Residents

Guy Paroissien

1/0835
Echo Point Park DPOM
2 October 2001

«NAME»
«ADDRESS1»
«ADDRESS2»
«ADDRESS3»

Dear Sir / Madam

ECHO POINT PARK - PREPARATION OF DRAFT PLAN OF MANAGEMENT

On 3 September 1996 Council adopted a Plan of Management for Echo Point Park which had been prepared in accordance with the requirements of the Local Government Act.

In 1999 amendments to the Act came into force which require changes to the Plan previously adopted by Council. A consultant has been appointed to prepare the updated Plan of Management.

Council has also received Department of Sport and Recreation Capital Assistance Grant funding to investigate and implement ways to preserve and protect the 1930s walking tracks and Aboriginal middens along the park foreshore. In addition, the consultant will investigate the cultural heritage at the park, being the site of Echo Point Farm from the 1830s.

The appointed consultant will integrate the findings of the heritage investigations into the updated Plan's overall direction and strategies.

Before preparing a new draft plan, Council is seeking your views on the values you hold for the park and any issues affecting its management that you would like to be addressed in the new Plan of Management. It would be appreciated if you could provide comments to Council by 2 November 2001 in writing or via email (guy@KC.nsw.gov.au).

Once prepared, Council will place the Draft Plan on exhibition and hold a Public Hearing to provide for community feedback on the Draft Plan.

If you wish to discuss any aspect of the Draft Plan of Management, please call Guy Paroissien on 9424 0946. If you wish to discuss the cultural heritage study of the Park please contact Alison Walker on 9424 0888.

A site location sketch is on the reverse of this letter showing the area concerned.

Yours sincerely

S

R Adams
DIRECTOR PLANNING & ENVIRONMENT

Ku-ring-gai Council
Echo Point Park - Plan of Management
Knox & Partners, April 2003

APPENDIX 11.6 - Community Values and Concerns

COMMUNITY USE, VALUES AND CONCERNS

Community Values and Concerns 1996

When preparing each Draft Plan of Management for Echo Point Park (1996 and 2002), Ku-ring-gai Municipal Council wrote to local residents seeking their values and concerns for incorporation in the Plans. Of approximately 60 residents contacted in 1996 most were of a mature age group, many having lived in the area for two or more decades, and valued their long term association with the Park. The *Echo Point Park Plan of Management (1996)* summarised community values and concerns in the following Tables.

Community Values 1996

Environmental <ul style="list-style-type: none"> natural surroundings flora and fauna habitat educational resource 	Location <ul style="list-style-type: none"> Ku-ring-gai Council's only foreshore park unique local park play environment
Heritage <ul style="list-style-type: none"> indigenous non-indigenous 	Recreation <ul style="list-style-type: none"> active – bocce, children's 'rough play' passive – walking, picnics, fishing
Landscape Character <ul style="list-style-type: none"> beach and vegetation communities enclosed urban bushland open grassed picnic areas & playground 	Visual Amenity <ul style="list-style-type: none"> internal views views of Middle Harbour views to Roseville Marina elevated views to Garigal National Park

Community Concerns 1996

Subject	Concerns
Landscape Zones <ul style="list-style-type: none"> grassed terraces Baths area playground bushland foreshore 	<ul style="list-style-type: none"> heritage, planting heritage, track linkage signage, disabled access heritage, urban bushland heritage, erosion, activities
Park Infrastructure <ul style="list-style-type: none"> park use and capacity car parking and road frontage park entries circulation signage furniture, facilities and structures 	<ul style="list-style-type: none"> carrying capacity, over use organisation, layout location, orientation, hierarchy hierarchy, disabled access quality, location, purpose style, location, deterioration

Park Management <ul style="list-style-type: none"> • maintenance • management 	<ul style="list-style-type: none"> • levels, types • resource allocation
--	--

Community Values and Concerns 2001

Of approximately 160 residents contacted in late 2001, most of the 10 respondents in were from Allard Avenue and had lived there for between 2 and 35 years. They expressed the same values for the Park as the 1996 respondents, but were much more specific, informed and vocal about their concerns which are summarised in the Table below. (See Appendix x for Council letter of 2.10.01).

Community Concerns 2001

Subject	Concerns
Landscape Zones <ul style="list-style-type: none"> • bushland • foreshore 	<ul style="list-style-type: none"> • weed infestation along Middle Harbour Foreshore Track • weed infestation in creek area (Lots 94, 95,139; 52 and 53 (2 Allard Avenue and 21 Normac street)) • weed infestation at KC's Lots 90-92 Babbage Road • tree dieback in creek area • need for organised bush regeneration program • need for bushfire mitigation for adjoining properties • poor water quality in creek (siltation, physical and chemical pollutants): need for litter traps and monitoring program • need for environmental education • foreshore and middens require protection
Park Infrastructure <ul style="list-style-type: none"> • park use and capacity • circulation • furniture, facilities and structures 	<ul style="list-style-type: none"> • avoid over-development • maintain current usage levels • maintain emphasis on informal, passive use • formal pathways require repair • unauthorised informal tracks near foreshore • need for further formal paths to discourage informal ones • creek area (Lot 139) unsafe for walking: need paths to link Normac Street and Babbage Road • insufficient picnic facilities • exposed rusty water pipes near paths

Park Management <ul style="list-style-type: none"> • maintenance • management 	<ul style="list-style-type: none"> • insufficient Park maintenance • cultural heritage requires protection • unleashed dogs require management • need to incorporate adjoining Council-owned lands in Park to improve bushland management • maintain Park's natural environmental functions
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The most consistently expressed values have been for the Park's unique and special qualities, its beauty, its cultural history and environmental functions and its passive recreational facility, all of which combine to make it a wonderful community asset.

The Park is not heavily used, partly on account of its steep topography and discrete location. However, this 'secret place' factor is one of its great endearments to local residents who want the existing character, naturalness and informality retained.

The most commonly expressed concerns in 2001 were for weed infestation and poor water quality in Council-owned lands adjoining the Park (particularly in the creek area, and requiring organised bush regeneration, water treatment and monitoring, and possible formal inclusion in Echo Point Park to improve land management); the need for pathway improvements - again particularly in the creek area; insufficient maintenance; and fears of over-development.

APPENDIX 11.7 - Section 46 Requirements

SECTION 46 REQUIREMENTS (Local Government Act 1993 No 30)

46 - Leases, licences and other estates in respect of community land - generally

(1) A lease, licence or other estate in respect of community land:

a? may be granted for the provision of public utilities and works associated with or ancillary to public utilities, or

b? may be granted, in accordance with an express authorisation in the plan of management and such provisions of the plan of management as apply to the granting of the lease, licence or other estate:

(i) for a purpose prescribed by subsection (4), or for a purpose prescribed by any of sections 36E to 36N as a core objective of the categorisation of the land concerned, or

(ii) for a purpose prescribed by the regulations, if the plan of management applies to several areas of community land, or

(iii) for a short-term, casual purpose prescribed by the regulations, or

(iv) for a residential purpose in relation to housing owned by the council, or

(v) for the purpose of providing 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,

but may not otherwise be granted.

(2) Despite subsection (1), a lease, licence or other estate in respect of community land may be granted for a purpose mentioned in subsection (1) (b) only if the purpose for which it is granted is consistent with the core objectives, as prescribed in this Part, of its categorisation.

(3) A council must not grant a lease or licence for a period (including any period for which the lease or licence could be renewed by the exercise of an option) exceeding 21 years.

(4) The following purposes are prescribed for the purposes of subsection (1) (b) (i):

(a) the provision of goods, services and facilities, and the carrying out of activities, appropriate to the current and future needs within the local community and of the wider public in relation to any of the following:

(i) public recreation,

(ii) the physical, cultural, social and intellectual welfare or development of persons,

(b) the provision of public roads.

(5) Purposes prescribed by subsection (4) in relation to the matters mentioned in subsection (4) (a) (ii) include, but are not limited to, maternity welfare centres, infant welfare centres, kindergartens, nurseries, child care centres, family day-care centres, surf life saving clubs, restaurants or refreshment kiosks.

(6) A plan of management is void to the extent that it purports to authorise the grant of a lease, licence or other estate in contravention of this section.

46A - Means of granting leases, licences and other estates

(1) A plan of management is to specify, in relation to the community land to which it applies, any purposes for which a lease, licence or other estate may be granted only by tender in accordance with Division 1 of Part 3.

(2) Nothing in this section precludes a council from applying a tender process in respect of the grant of any particular lease, licence or estate.

(3) A lease or licence for a term exceeding 5 years may be granted only by tender in accordance with Division 1 of Part 3, unless it is granted to a non-profit organisation.

Local Government (General Regulation 1999) S24

Division 3 Other matters

24 Leases, licences and other estates in respect of community land

(1) For the purposes of section 46 (1) (b) (iii) of the Act, the use or occupation of community land for the following events is prescribed as a purpose in respect of which a council may grant a licence in respect of community land on a short-term, casual basis:

- (a) the playing of a musical instrument, or singing, for fee or reward,
- (b) engaging in a trade or business,
- (c) the playing of a lawful game or sport,
- (d) delivering a public address,
- (e) commercial photographic sessions,
- (f) picnics and private celebrations such as weddings and family gatherings,
- (g) filming for cinema or television,
- (h) the agistment of stock.

(2) However, the use or occupation of community land for events listed in subclause (1) is prescribed only if the use or occupation does not involve the erection of any building or structure of a permanent nature.

(3) For the purposes of section 46 (1) (b) (iii) of the Act, the use of any existing road or fire trail on community land:

- (a) to transport building materials and equipment required in relation to building work that is to be, or is being, carried out on land adjoining the community land, or
 - (b) to remove waste that is consequential on such work,
- is prescribed as a short-term, casual purpose.

(4) In this clause:

existing road or fire trail means a road or a fire trail that was in existence on the date on which the *Local Government (General) Amendment (community Land) Regulation 2000* commenced.

APPENDIX 11.8 - Section 68 Requirements

SECTION 68 REQUIREMENTS (Local Government Act 1993 No 30)

68 - What activities generally require the approval of the council?

(1) A person may carry out an activity specified in the following Table only with the prior approval of the council, except in so far as this Act, the regulations or a local policy adopted under Part 3 allows the activity to be carried out without that approval.

(2) This section does not apply to the carrying out of an activity specified in Part B of the following Table on land to which any of the following Acts apply:

Hunter Water Board (Corporatisation) Act 1991
Water Board (Corporatisation) Act 1994

(3) This section does not apply to the carrying out of an activity specified in item 1, 2, 3, 4 or 6 of Part B of the following Table on land to which the *Water Supply Authorities Act 1987* applies.

Note: A person who fails to obtain an approval or who carries out an activity otherwise than in accordance with an approval is guilty of an offence - see secs 626 and 627.

Table Approvals

Part A - Structures or places of public entertainment

1. Install a manufactured home, moveable dwelling or associated structure on land
2. Install a temporary structure on land
3. Use a building or temporary structure as a place of public entertainment or permit its use as a place of public entertainment

Part B - Water supply, sewerage and stormwater drainage work

1. Carry out water supply work
2. Draw water from a council water supply or a standpipe or sell water so drawn
3. Install, alter, disconnect or remove a meter connected to a service pipe
4. Carry out sewerage work
5. Carry out stormwater drainage work
6. Connect a private drain or sewer with a public drain or sewer under the control of a council or with a drain or sewer which connects with such a public drain or sewer

Part C – Management of waste

1. For fee or reward, transport waste over or under a public place
2. Place waste in a public place
3. Place a waste storage container in a public place
4. Dispose of waste into a sewer of the council
5. Install, construct or alter a waste treatment device or a human waste storage facility or a drain connected to any such device or facility

Part D – Community land

1. Engage in a trade or business
2. Direct or procure a theatrical, musical or other entertainment for the public

3. Construct a temporary enclosure for the purpose of entertainment
4. For fee or reward, play a musical instrument or sing
5. Set up, operate or use a loud speaker or sound amplifying device
6. Deliver a public address or hold a religious service or public meeting

Part E – Public roads

1. Swing or hoist goods across or over any part of a public road by means of a lift, hoist or tackle projecting over the footway
2. Expose or allow to be exposed (whether for sale or otherwise) any article in or on or so as to overhang any part of the road or outside a shop window or doorway abutting the road, or hang an article beneath an awning over the road
3. (Repealed)

Part F – Other activities

1. Operate a public car park
2. Operate a caravan park or camping ground
3. Operate a manufactured home estate
4. Install a domestic oil or solid fuel heating appliance, other than a portable appliance
5. Install or operate amusement devices (within the meaning of the *Construction Safety Act 1912*)
6. Install or operate amusement devices prescribed by the regulations in premises
7. Use a standing vehicle or any article for the purpose of selling any article in a public place
8. Operate an undertaker's business
9. Operate a mortuary
10. Carry out an activity prescribed by the regulations or an activity of a class or description prescribed by the regulations

SELECTION OF TENDERER FOR ADVERTISING AND NON-ADVERTISING BUS SHELTERS

EXECUTIVE SUMMARY

PURPOSE OF REPORT:	To report on the results of the public tenders for the design, supply, installation and maintenance of bus shelters, and seek approval to appoint a bus shelter provider for a 15 year period.
BACKGROUND:	On 22 December 2003, Council approved to call for Open Tenders for the supply, installation and maintenance of advertising and non-advertising bus shelters. Tenders closed on 26 May 2004.
COMMENTS:	<p>A total of 2 conforming tenders were submitted, and have been assessed based upon the weighted and non-weighted criteria, required under the conditions of Tender. Two or more designs are offered with varying revenue returns, options for identification and display of Council information.</p> <p>An accelerated installation time of 9 and 12 months is proposed. Consideration is required for additional sites and changing developer contributed shelters.</p>
RECOMMENDATION:	That Council resolves to accept the Adshel Tender for the design, supply, installation and maintenance of advertising and non-advertising bus shelters, for a term of 15 years in accordance with the content of recommendations A to L as printed in this report.

PURPOSE OF REPORT

To report on the results of the public tenders for the design, supply, installation and maintenance of bus shelters, and seek approval to appoint a bus shelter provider for a 15 year period.

BACKGROUND

A listing of key periods and brief detail of the process and discussion involving the contracting for an external street furniture provider to install and maintain advertising and non-advertising bus shelters is provided below:

- In February 1999, an internal taskforce was established to assess the merits of Council contracting an external street furniture provider.
- In July 2002, two illuminated advertising bus shelters were installed as a trial. The Classic theme by Adshel and Heritage theme by JCDecaux
- Review of the installation was reported in December 2002 following a 3 month trial period. A total of 11 responses were received. Approval was sought to place on public exhibition further proposed locations. This was deferred to determine an objective rationale for their usage.
- Physical measurements and statistical information was collected for bus stops on main roads and reported in the usage survey in July 2003. Consideration was given to Niteride and commuter rail stops as well as requested sites to determine optimal locations. Selection of sites was further deferred to a Strategic Review Working Party (SRWP).
- Following the SRWP in October 2003 Council approved to place on public exhibition a total of 30 proposed sites for a period of two months. Comprehensive consultation was undertaken comprising displays in 4 libraries, administration building and internet site, advertisements in two local papers, with adjoining owners and residents notified by letters.
- A review of the exhibition was reported in December 2003. A total of 31 responses were received, 24 in support of bus shelters generally and 7 against. Resulting from some the submissions, a revised total of 29 sites were recommended, with a proposed phasing in over a 3 years. Of these shelters, 5 are intended as non-advertising with regard for visibility.

From this meeting on 22 December 2003, Council resolved:

- A. *That options of Tender Documents be prepared for calling Tenders based on a contract for either 10, 15 or 20 year term taking into account the locations detailed in Table 1.0, and that the General Manager be delegated authority to call for open tenders for the supply, installation and maintenance of advertising and non-advertising bus shelters, including the removal and disposal of existing shelters.*
- B. *That a further report be presented to Council for selection of Tenderers.*

Contract documents were prepared in accordance with Council's resolution, Part A.

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Tenders were called in April 2004 with advertised closing on 5 May 2004. During the invitation period, an extension of time was granted to enable submission of documentation to meet the criteria and allow tenderers to fully inform themselves as to the scope of the project. The closing time was amended to 26 May 2004. There is no disadvantage to Council by extending this period. Tenders were received from the following two companies only:

1. Adshel Pty Ltd
2. JCDecaux Pty Ltd

COMMENTS

The scope of works to be undertaken for this tender requires 29 shelters to be installed that comprise:

- 5 existing shelters to be replaced with double shelters with advertising.
- 6 existing shelters to be replaced with single shelters with advertising.
- 13 new shelters with advertising, which include two existing trial Shelters.
- 5 non-advertising shelters, requiring replacement of 3 existing shelters.

Locations of shelters are shown as Attachment 1.

The configuration of double shelters is flexible. Two alternatives available are two single shelters end on end, or continuous. In the latter case, advertising panels are placed at both ends.

Under the Conditions of Tender, the tenders were assessed based on the following criteria:

Weighted Criteria:

- (i) Revenue to Council (40%)
- (ii) Schedule of rates for variation (10%)
- (iii) Organisational capacity to fulfill the Contract (10%)
- (iv) Implementation Plan (20%)
- (v) Shelter Design (20%)

Non-Weighted Criteria:

- (vi) Declaration regarding collusive tendering
- (vii) Environmental Management information
- (viii) Draft preventative Maintenance program
- (ix) OH&S information

Non-weighted criteria are rated satisfactory or unsatisfactory

The Tender Evaluation Committee comprising staff from Technical Services and Finance has evaluated the Tenders. Tenders were required to submit documents to address the requirements listed below:

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- Tender Form and Checklist
- Appendix A: Schedule of Rates
- Appendix B: Declaration Relating to Collusive Tendering
- Appendix C: Organisational Capacity to Fulfill the Contract
- Appendix D: Implementation Plan
- Appendix E: Response to Preventative Maintenance Program
- Appendix F: Environmental Management Information.
- Appendix G: Response to Shelter Designs
- Appendix H: Occupational Health and Safety

Evaluation

Confidential Attachment 2 provides a summary for each weighted and non weighted criteria, a rating and overall score for each Tender together with the recommendation.

Both Tenders received comply with requirements in Tender forms, Conditions of Tender and Shelter Specification set out in the tender documents. Adshel have indicated drafting issues in the conditions of contract that can be mutually reviewed if selected as the preferred Tenderer.

In regard to capacity to fulfill the contract, both companies are considered suitable in regard to organisational stability and continuity given their provision of other shelters in the metropolitan area as well as nationally and internationally.

Each has offered two or more designs with associated revenue options. Requirements for solar energy in the Tender is provided for non-advertising shelters for lighting purposes.

Both Tenderers offer a comprehensive preventative and periodic maintenance program to ensure satisfactory handling of complaints and response times for emergencies.

The tender received from Adshel is the preferred tender based on the overall resulting total score from the weighted criteria.

Proposed installation was planned over a three year period. Both JCDecaux and Adshel have also provided alternatives for an accelerated installation of 9 and 12 months respectively. An accelerated rollout is considered advantageous for the community by providing needed facilities.

Additional items included by tenderers, include, allocation of community advertising space on rear panels, as well as provision for bus route time tables.

Both incorporate provision of council logo, while Adshel provides an additional illuminated bus stop naming and street identification panel that provides advantages in the evening period to passengers on buses approaching the stop.

Additional shelters

Provision is made in the Tender through the Schedule of Rates for installation of additional advertising and non-advertising shelters to accommodate requests. Several individual sites for

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shelters have been requested by residents, however they were not included in this Tender. Subject to approval of the Tender, Council may nominate to install additional shelters that could be funded by revenue from this contract. Individual sites will however need to be subject to review and resident consultation before installation is considered.

In particular, a previous shelter was located on Warrimoo Avenue near the corner of Milburn Place that was damaged then subsequently demolished and not replaced. It is therefore recommended that this shelter be replaced.

As inclusion of additional shelters will necessitate negotiation and resident consultation, it recommended that authority be delegated to the General Manager for any variations to the contract.

Developer contributed shelters

A report to council on the 14 October 2003 discussed recent approvals of medium density development requiring the installation of bus shelters. Council resolved that standard for shelters are to be the Classic by ASF, a division of Adshel.

Currently, a total of 5 shelters are installed with a further 3 proposed. While the capital cost of these shelters are fully funded by developers, upon installation they will be owned by Council and there will be a requirement for Council to continue to clean and maintain shelters. Consequently, over the service life of these shelters maintenance will cost council about \$1,100 per shelter per annum.

Adapting developer contributed shelters to advertising shelters where appropriate, would assist with the maintenance responsibility, enhance shelters and provide a revenue return to Council. Works involve retrofitting of illuminated advertising light box, provision of courtesy lighting. As most of these shelters are located on main roads, the addition of illuminated light boxes on these shelters would be consistent with Tender objectives. Costs for the supply, fitting and maintenance are to be at the contractor's expense.

If Council accepts a bus shelter provider, and Adshel are selected, these shelters could be incorporated into the complete program.

Adapting developer contributed shelters will necessitate negotiation and resident consultation for advertising panels accordingly, it also recommended that authority be delegated to the General Manager for any variations to the contract to consider the retrofitting of Council owned ASF Classic shelters.

CONSULTATION

Consultation was undertaken during and after the tender process with all Tenderers with regard to requests for information, provision of three addendums and requests for clarification.

FINANCIAL CONSIDERATIONS

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Financial revenue per year is dependant on contract durations requested in the Tender for 10, 15 or 20 years. Adshel have provided options for all durations and JCDecaux offer durations of 15 or 20 years. The financial differences between the 15 and 20 year duration are compared in Attachment 2. It shows the additional revenue for a 20 year duration is marginally greater than for a 15 year term of 3.7% by Adshel and 5.9% - 10.5% by JCDecaux. A 15 year term is considered optimal time as shelters will deteriorate past this period.

On the basis that any funds obtained from this contract are additional to council's existing revenue base, it is recommended that a Bus Shelter reserve be established to account for monies received. Any proposal to expend these monies would need to be considered by council via a subsequent report.

Council is required to contribute to the removal of one trial shelter that was a condition of the installation of the existing trial shelters as shelters were fully funded by Adshel and JCDecaux. The trial shelter owned by the unsuccessful tenderer is required to remove their shelter. Contribution by Council was advised as follows:

- As of April 2002, JCDecaux has advised the estimated cost of removal is \$5,500 for breakout of the shelter and footpath reinstatement, at full cost to Council.
- Split cost between Council and Adshel. Adshel have nominated two options as of July 2002. (1) Estimated costs of \$5,000 to remove shelter but retain footing or (2) \$9,000 to remove both shelter and footing. Council's contributions, would be \$2,500 and \$4,500 respectively.

Both companies have indicated that costs supplied are indicative only and are subject to works required on site.

Capital costs, installation and ongoing maintenance of illuminated advertising and non-advertising shelters under the Tender are provided at no net cost to council and are offset against revenue earned through advertising.

An accelerated program to install advertising shelters should bring forward the entitlements resulting in the full amount of all 3 phases being paid upon installation of the Advertising Shelters, rather than as the sum total of the first 3 year entitlements. If Adshel are selected, Council would need to negotiate for the upfront payment from the first 3 years, based on the installation within the first year of the contract.

CONSULTATION WITH OTHER COUNCIL DEPARTMENTS

Consultation has been carried out with Finance regarding funding, and Customer relations as well as Records for provision of Tender documents and management of files.

SUMMARY

A total of 2 conforming tenders were submitted, one each from Adshel and JCDecaux.

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A total of 29 shelters are required under the Tender to be installed and comprise:

- 5 existing shelters replaced with double shelters with advertising, being an equivalent of 10 single advertising shelters.
- 6 existing shelters replaced with single shelters with advertising.
- 13 new shelters with advertising, which include two existing trial Shelters.
- 5 non-advertising shelters, requiring replacement of 3 existing shelters.

An equivalent total of 29 single advertising shelters form the basis of the Tender offer for financial revenue. Tenders were assessed based on the weighted and non-weighted criteria (Confidential Attachment 2).

Whilst durations of 10, 15 or 20 years were requested, only the latter two are compared. The 15 year term is preferred, taking into account a 20 year term only offers marginal greater revenue than the 15 year, and appearance is optimal with shelters anticipated to deteriorate past 15 years.

The provision of additional non-advertising shelters is made in the Tender to accommodate requests, and Council may nominate to install these.

Individual sites will however need to be subject to review and resident consultation before installation is considered. In regard to developer contributed ASF classic shelters, council currently owns a total of 5 installed with a further 3 proposed, and this will increase in the future.

As Council is required to clean and maintain developer contributed shelters, changing these to advertising would alleviate council of the maintenance responsibility and provide additional revenue return. If Council accepts a street furniture provider, and Adshel are selected, these shelters could be incorporated into the complete program with Adshel, who have provided an interim proposal.

Both inclusion of additional shelters and changing of developer contributed shelters will necessitate negotiation and consultation with residents. It is recommended that authority be delegated to the General Manager for any variations to the contract.

RECOMMENDATION

- A. That the tender submitted by Adshel for the design, supply, installation and maintenance of advertising and non-advertising bus shelters for a term of 15 years, including the removal and disposal of existing shelters be accepted.
- B. That the Classic theme by Adshel be accepted as the preferred shelter style.
- C. That the unsuccessful tenderer be informed of Council's decision.
- D. That the Mayor and General Manager be delegated authority to sign the contract forms and affix the seal of Council.

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- E. That Council informs JCDecaux for the removal of the trial bus shelter, situated outside 1408 Pacific Highway, Turramurra, with this shelter to be replaced with an Adshel Shelter.
- F. That the installation of advertising and non-advertising bus shelters be undertaken with the first year of the contract.
- G. That a Bus Shelter reserve be established to account for monies received and that these funds be the subject of a further report to Council.
- H. That Council replaces the previous shelter on Warrimoo Avenue near the corner of Milburn Place with a non-advertising shelter and that the cost of the installation be negotiated with the contractor.
- I. That authority be delegated to the General Manager for any variations to the contract and negotiations for any revenue return to council.
- J. That authority be delegated to the General Manager for the upfront payment from the first 3 years, based on the installation within the first year of the contract.
- K. That Council endorses the modification of ASF non-advertising shelters funded by developers to advertising shelters where appropriate.
- L. That a further report be brought back to Council within the next 12 months on the potential locations of additional shelter sites.

Ian Taylor
MANAGER SUPPORT SERVICES

Greg Piconi
DIRECTOR TECHNICAL SERVICES

John McKee
DIRECTOR FINANCE & BUSINESS

Attachments: **ATTACHMENT 1 - Locations of shelters**
 ATTACHMENT 2 - Commercial-in-confidence, Tender Evaluation
 APPENDIX A - Photos of shelter styles by Adshel
 APPENDIX B - Photos of shelter styles by JCDecaux

Locations and proposed phasing schedule

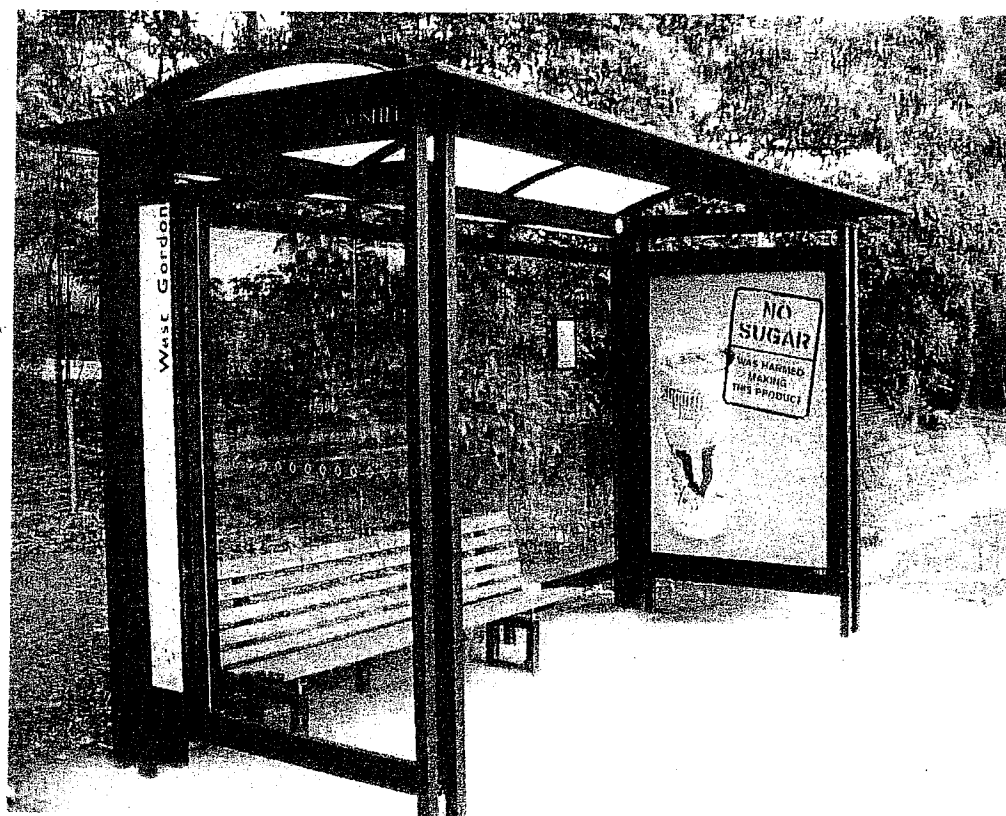
Phasing	Shelter No	Location	Type
1	1	Opp. 33C Eastern Arterial Rd, Nr Burraneer, St Ives	Advertising
	2	O/s 351 Mona Vale Rd, St Ives Plaza, St Ives	Advertising
	3	North of 295 Mona Vale Rd, Sth of Douglas, St Ives	Advertising
	4	O/s 263 Mona Vale Rd, o/s Catholic Church, St Ives	Advertising
	5	O/s 207 Mona Vale Rd, East of Rosedale, St Ives	Advertising
	6	O/s 204A Mona Vale Rd, Nth of Memorial, St Ives	Advertising
	7	O/s 111 Mona Vale Rd, opp Telegraph, St Ives	Advertising
	8	Nr 133 Ryde Rd, Sth of Shaddock, West Gordon	Non -Adv.
	*9	O/s Gordon West Public School, Ryde Rd.	Advertising
	*10	Pacific Hwy, Sth of Duff, Turramurra	Advertising
2	11	O/s 325 Mona Vale Rd; Brigidine College, St Ives	Advertising
	12	Nr 350 Mona Vale Rd, o/s Sydney Grammar, St Ives	Advertising
	13	Opp. 41 Horace St, o/s St Ives High School, St Ives	Advertising
	14	Opp. 59 Addison Ave, Nr Babbage, Roseville Chase	Advertising
	15	O/s 210 Ryde Rd, Nth of Wyuna, West Gordon	Advertising
	16	O/s 1502 Pacific Hwy, Sth of Marshall, Wahroonga	Advertising
	17	O/s 1670 Pacific Hwy, Wahroonga	Advertising
	18	O/s 1601 Pacific Hwy, Nth of Ada, Wahroonga	Advertising
	19	Opp 1596 Pacific Hwy, Sth of Woodville, Wahroonga	Advertising
	20	Opp. 1116 Pacific Hwy, Pymble	Advertising
3	21	Opp 372 Mona Vale Rd, Sth of Kitchener, St Ives	Advertising
	22	Nr 320 Mona Vale Rd, Nth of Woodbury, St Ives	Advertising
	23	Opp 6 Clive St, Sth of Malvern, Roseville Chase	Advertising
	24	Opp. 1486 Pacific Hwy, Nth of Eulbertie, Wahroonga	Non -Adv.
	25	O/s 1337 Pacific Hwy, Nth of Ray, Turramurra	Advertising
	26	Pacific Hwy, opp Bent, Lindfield	Advertising
	27	Lindfield Ave, opp. Tyron, Lindfield	Non –Adv
	28	Lindfield Ave, opp. Kochia,. Lindfield	Non –Adv
	29	Opp. 77 Werona Ave, o/s Rail Station, Gordon	Non –Adv.

* Existing trial shelter with advertising.

**Adshel Bus
Shelter Designs**

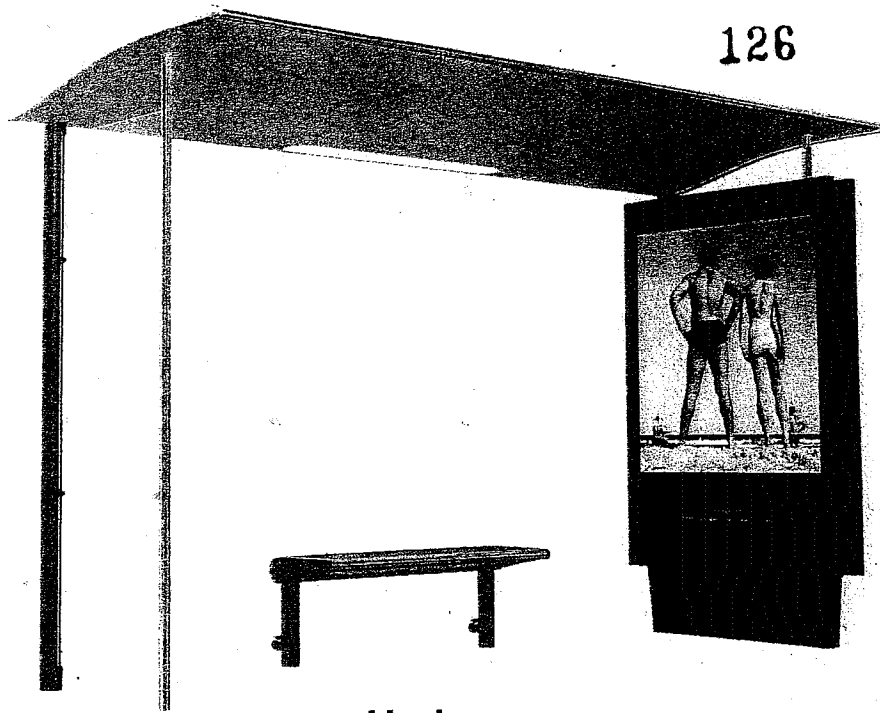


Colonial

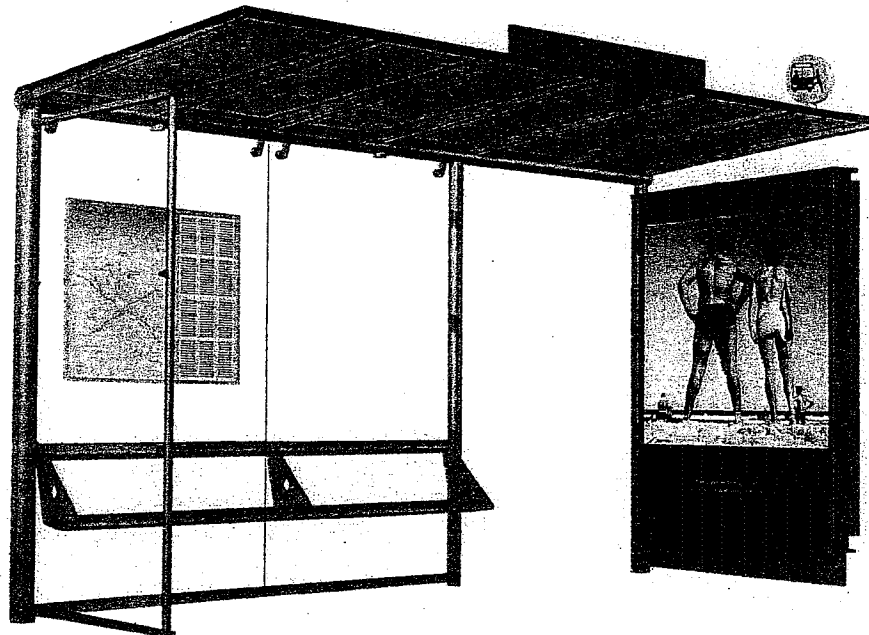


Classic

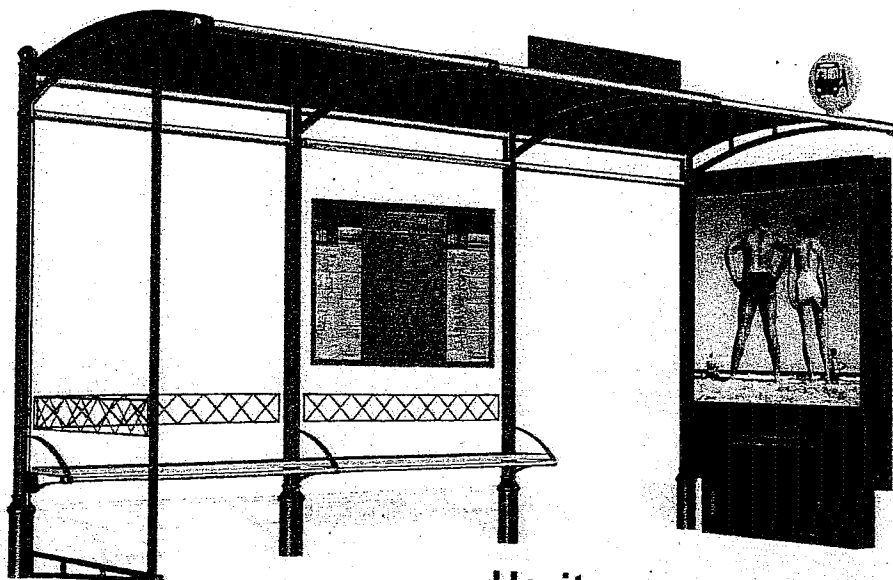
JCDecaux Bus
Shelter Design



Hydra



Norman Foster



Heritage

RIPARIAN POLICY

EXECUTIVE SUMMARY

PURPOSE OF REPORT:	To present a draft policy that seeks to improve the management of watercourses and riparian zones across Ku-ring-gai.
BACKGROUND:	Urban development is impacting on the health of our natural environment. Within Ku-ring-gai, this is evident through the degradation in the quality of the natural systems including creeks, native vegetation and bushland fauna. In recognition of this the 2003/04 Management Plan requires the development of a riparian policy to address these pressures.
COMMENTS:	Three categories of riparian zones are proposed that seek to establish minimum buffer widths from water courses. These relate to the objectives desired for the particular water body. The impact of these buffers will affect public and private land, however the implementation of the policy must seek to balance economic, social and environmental values.
RECOMMENDATION:	That Council exhibit the draft policy and seek comment from key stakeholders and as necessary propose to amend relevant development control policies.

PURPOSE OF REPORT

To present a draft policy that seeks to improve the management of watercourses and riparian zones across Ku-ring-gai.

BACKGROUND

Urban development is impacting on the health of our natural environment. Within Ku-ring-gai, this is evident through the degradation in the quality of the natural systems including creeks, bushland fauna and our native vegetation.

Creeks, aquatic habitats and the associated riparian environments are under threat and require protection to help maintain water quality, habitat values and functions, connectivity for maintaining biodiversity and a sense of naturalness for the community. This is particularly the case in urban areas where changes to the catchment through development has resulted in less and poorer quality creeks through an increase in constructed drainage and water systems.

The impacts of these changes have led to accelerated erosion, increased localised flooding, significant sediment deposits into the major waterways, increased pollution, weed proliferation and loss of habitat and biodiversity. This has in turn altered the way the community uses and values the waterways as many creeks are now unfit for swimming or other forms of recreation. Within Ku-ring-gai these changes are apparent within the streams and riparian systems that still exist (usually confined to the steeper bushland sections) as well as the receiving water bodies such as Sydney Harbour, the Hawkesbury River and local coastal and harbour beaches.

To respond to this, Council and other land managers must develop integrated strategies that address both causes and symptoms. This policy (attachment 1) is targeted towards the management of riparian systems that incorporate waterways and adjoining vegetation (the riparian buffer).

The 2003/04 Management Plan includes an action to restore natural processes and flows to degraded urban streams to develop and implement planning policies to prevent channelisation and degradation of watercourses. This draft policy seeks to address this need while providing reference to broader economic, environmental and community values.

Complementing this draft policy, a riparian assessment methodology has been developed for Ku-ring-gai (as a requirement in the 2003/04 Management Plan). This methodology has been developed to enable comparisons of different sites, creeks and sub-catchments and to assist in the allocation of resources to address areas of need (Attachment 2). To date all creeks in the Lane Cove Valley have been mapped. Creeks in the Middle Harbour Creek and Cowan Creek are currently being assessed and will be mapped by December, 2004. Information from this process will enable, for the first time, an assessment of geomorphology and riparian process to be considered in the preparation of local catchment plans.

COMMENTS

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The process and rationale for the development of this draft policy has been modeled on the investigations and approach developed by the NSW Department of Infrastructure, Planning and Natural Resources (DIPNR) for the long term planning of the Wollongong local government area and the north west and south west land release areas in Sydney. This has followed from various reports by the then NSW Healthy Rivers Commission and the Commissions of Inquiry into the “Long Term Planning and Management of the Illawarra Escarpment” (1999) and “Certain Land at Sandon Point”. The recommendation and findings of these bodies have reinforced the need for the inclusion of riparian functions to form an integral part of planning, land use and development decisions.

A key element of the draft policy is the Map of Riparian Systems in the Ku-ring-gai local government area (Attachment 1 Appendix 4). This map has been developed by Council and DIPNR. It has identified all riparian systems across the council area and assigned appropriate buffer widths according to the desired objectives of the urban stream (refer to table below).

Riparian categories and objectives for watercourses in Ku-ring-gai

Category	Objective	Minimum buffer either side from top of bank (m)
1	Provide robust biological links between key environmental assets. The core riparian zone extends at least 40 metres either side from the top of the bank.	40
2	Provide the basic habitat requirements for terrestrial and aquatic systems within the riparian zone. The core riparian zone extends at least 20 metres either side from the top of the bank.	20
3	Providing basic bank stability and protection and enhance the quality of water. The core riparian zone extends at least 10 metres either side from the top of the bank.	10

The proposed buffer widths will have an impact on current planning, development, infrastructure and environmental management and activities. However the degree of the effect must reflect pragmatic outcomes and concerns to ensure economic, social and environmental objectives can be met concurrently. In this regard existing use rights must be protected on private and public land, although where opportunities present themselves in the future the promotion and protection of watercourses and riparian zones these should be pursued.

From a development control perspective, the draft policy will need to be integrated in the first instance to the following Development Control Plans: 38 Residential Development, 48 Water Management, and 55 Multi Unit Housing. In the medium to long term opportunities should be investigated to incorporate the intent and outcomes within an overarching Local Environment Plan.

A further outcome of this draft policy would be to replace the current Water Management Policy as adopted by Council in 1999 (attachment 3). This will ensure contemporary management principles

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are applied to land and water management affecting our riparian systems in conjunction with DCP 47 Water Management.

CONSULTATION

This policy and accompanying attachments has been developed cooperatively with the NSW Department of Infrastructure Planning and Natural Resources. In addition considerable assistance has been provided by the School of Physical Geography at Macquarie University and Newcastle City Council. Support for this process has also been expressed by the NSW Department of Environment and Conservation and through a local government working group that is currently developing tools and policies for riparian and water course management.

As part of the consultation process recommended for the exhibition period of the draft policy, formal comment will be sought from key stakeholders including DIPNR and other state government agencies. The draft policy will also be referred to the Bushland, Catchments & Natural Areas Reference Group for comment, when established.

FINANCIAL CONSIDERATIONS

Should council adopt this policy as a draft there will be no immediate direct costs. In the long term there will be a need to review how Council plans for and manages its watercourses and riparian zones that would reflect a greater degree of stewardship to these natural and modified systems. Long term funding of Natural Areas will need to address both planned and opportunistic implementation of the objectives of this policy.

CONSULTATION WITH OTHER COUNCIL DEPARTMENTS

Environment Planning and Technical Services have provided input into the development of this draft policy.

SUMMARY

The aim of this policy is to ensure the long term viability and sustainability of our creeks and riparian zones. However the implementation through development control, ongoing management and maintenance must be cognisant of future development pressures and existing use rights. In this respect, management principles have been described that seek to direct outcomes towards achieving a balance between planning, development, conservation and restoration needs.

RECOMMENDATION

1. That Council exhibit this draft policy to seek public and government comment.

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2. That Development Control Plans 47 Water Management, 38 Residential Development and 55 Multi unit housing be reviewed upon adoption of the final policy and incorporated into these planning documents.
3. That the draft riparian policy, be resubmitted to Council for final adoption following a review of comments arising during the public exhibition process.
4. That the draft policy replace the draft Water Management Policy as considered by Council in 1999.
5. That a report be prepared for the consideration of Council on opportunities to find the implementation of the draft policy prior to December 2004.

Peter Davies
Catchments & Sustainability Manager

Steven Head
Director Open Space

- Attachments:**
- 1. Managing water courses and riparian zones in the Ku-ring-gai local government area.**
 - 2. Development of a Rapid Riparian Assessment method for Ku-ring-gai Council**
 - 3. Draft Water Management Policy, 1999**

Draft Riparian Policy

June 2004



Managing watercourses and riparian zones in the Ku-ring-gai local government area

Our urban creeks connect people to waterways that define the natural character of Sydney.

Our vision for Ku-ring-gai is to ensure our creeks support riparian ecosystems, reflect community values and sustain economic activity.

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Summary

This strategy has been prepared in response to a direction by Council in the 2003/04 Management Plan to prepare a policy for the protection and remediation of urban streams.

As part of the policy a map of the Ku-ring-gai local government area has been prepared that defines the location and extent of the core riparian and buffer zones. In addition management principles have been set for the ongoing planning, operation and restoration of urban waterways and riparian systems. It is intended that these will simplify and strengthen planning and development assessment processes through the integration with development control plan 47 water management and enable management outcomes to more fully balance the needs of the environment with social and economic interests.

Ku-ring-gai's urban streams and their riparian environments have been classified into three categories and riparian objectives have been set for each. The highest category is the 'environmental corridor' whose purpose is to provide robust biological links between key environmental assets. The second category seeks to provide the basic habitat requirements for terrestrial and aquatic systems within the riparian zone. The final category is primarily concerned with providing basic bank stability and protection and enhance the quality of water. For each of the three categories minimum buffer widths have been set that are intended to achieve the desired environmental functions.

While the aim of this process is to ensure the long term viability and sustainability of our creeks and riparian zones, its implementation must consider future development pressures and existing use rights. In this respect, management principles in this policy seek to direct pragmatic outcomes to ensure multiple objectives can be achieved without compromising planning, development, conservation and restoration needs.

The process and rationale has been modelled on the investigations and approach developed by the NSW Department of Infrastructure, Planning and Natural Resources for the long term planning of the Wollongong local government area and the north west and south west land release areas in Sydney.

Acknowledgements

This project would not have been possible without the support and assistance of Chris Page, Janine Percy, Paul Bourne, Tony Towers and Mohammed Ismail from the Department of Infrastructure, Planning and Natural Resources, Dr Mark Taylor, Sophia Findlay and Amylia Fletcher from Macquarie University and Dr Louise Ormerod from Newcastle City Council.

Introduction

Urban development is impacting on the health of our natural environment. Within Ku-ring-gai, this is evident through the degradation in the quality of the natural systems including creeks, bushland fauna. To respond to this, Council and other land managers must develop integrated strategies that address both causes and symptoms. This policy is targeted towards riparian systems that incorporate waterways and adjoining vegetation.

The 2003/04 Management plan includes an action to restore natural processes and flows to degraded urban streams and develop and implement planning policies to prevent channelisation and degradation of watercourses. This policy seeks to address this need while providing reference to broader economic, environmental and community values.

Purpose

The purpose of this policy is:

- To determine how riparian systems in the Ku-ring-gai local government area will be managed, valued and how they will function in the future, and
- To provide practical direction for achieving the vision in day to day planning, assessment and management of activities and developments that affect watercourses and riparian areas.

Aims

To fulfil the purpose of this policy, a number of goals have been identified including:

-
- Conservation, enhancement and protection of existing riparian corridors, giving priority to those that are most intact,
- Rehabilitation and restoration of degraded, fragmented and highly modified riparian corridors that provide some of the functions of an intact system
- Restoration of the bio-link value of riparian corridors by creating greater lateral and longitudinal connections between isolated or narrow riparian zones..
- Prevention of further piping and channelising of watercourses and where possible reinstate existing piped or channelised watercourses to their natural form.

Policy outcomes

In accordance with the aims, this policy seeks to guide riparian management in Ku-ring-gai towards the following outcome areas: environmental, management, community and planning.

Environmental

- Environmental function of urban creeks and riparian zones are enhanced
- The potential for bed and bank erosion is reduced
- The management of increased stormwater flows resulting from urbanisation is improved
- The enlargement of watercourses to concentrate flood flows within the channel does not occur

- The water quality is of a standard that supports native aquatic and terrestrial ecosystems
- The viability of riparian vegetation and habitats is enhanced and maintained
- Riparian systems are continuous and connected
- Edge effects at the riparian/urban interface are appropriately managed
- Natural features, functions and biodiversity within watercourses are protected
- Natural watercourses and floodplain processes are maintained
- Reinstatement of the channel form of streams that have been piped or turned into channelised drains where appropriate and feasible
- Flows better reflect natural or predevelopment conditions

Management objectives

- The proportion of pervious surfaces across all catchments are increased
- Works programs are prioritised based on current watercourse condition and needs, connectivity potential and scope to reduce future impacts
- Watercourse and riparian zone management is integrated with flooding, risk management, stormwater quality and the sustainable use of water
- Watercourse and riparian areas are identified and mapped
- The condition of riparian systems is assessed and rated.

Community objectives

- The community is involved in effective and participatory partnerships and initiatives
- Awareness, knowledge, understanding and skills of the community in relation to watercourse and riparian systems through education and interactive participatory approaches.
- The Ku-ring-gai community report a 'sense of place' and identity to watercourses and riparian zones
- Aboriginal custom and spirituality relating to riparian systems generally and for specific sites are respected.

Planning objectives

- Planning and development control processes based on the outcomes of the stream mapping project are simplified and strengthened
- Complement current and future local environment plan and development control planning instruments.

Background

Ku-ring-gai Council area is part of the Hornsby Plateau that has been eroded to form a series of major and minor catchments. The geomorphology of this area consists largely of three long connected flat-topped ridges(roughly defined by the Pacific Highway and Mona Vale Road) falling into a system of deeply incised gullies that drain into the three major stormwater catchments of Middle Harbour, Lane Cove River and Cowan Creek. Urban development has occurred mainly along the higher reaches where the land is flatter, the reverse to most other developed areas where development usually occurs on the flood plain.

The minor creeks and other watercourses move water from the ridge-tops to the major waterways including Middle Harbour Creek, Lane Cove River or Cowan Creek. The smaller tributaries (lower order streams) have naturally eroded down to bedrock depositing their sediments into the major waterways.

Creeks and aquatic habitats and the associated riparian environments are under threat from development particularly where there is a significant increase in the proportion of connected impervious surfaces through the construction of engineered drainage and waste water systems. The impact of these systems and associated pressures have lead to accelerated erosion, increased localised flooding, significant sediment deposits into the major waterways, increased pollution, weed proliferation and loss of habitat and biodiversity. This in turn has altered the way the community uses and values the waterways as many creeks are now unfit for swimming or other forms of recreation.

Within Ku-ring-gai these changes are apparent within the streams and riparian systems that still exist (usually confined to the steeper bushland sections) as well as the receiving water bodies such as Sydney Harbour, the Hawkesbury River and local coastal beaches. Protection is required to help maintain water quality, habitat values and functions, connectivity for maintaining biodiversity and a sense of naturalness for the community.

Urban watercourses and riparian systems

From a development control perspective it is important to be able to define and identify what and where are the watercourses and riparian zones (refer to Appendices 1 and 2 and the Glossary). This is to enable development to be designed and assessed with due consideration to its environmental impact.

Riparian zones include areas of land where the interaction between aquatic and terrestrial environments occur. There is no single definable distance for a riparian system as its extent is dependant upon a range of site-specific variables, such as flow variability, valley setting and sediment type. Many legal terms in regard to rivers and riparian zones are generally aimed at describing systems in rural or natural areas and do not necessarily transfer to modified urban environments.

The following definitions provide a basic understanding of terms used in this policy .Generally the terms provide a broader definition than otherwise afforded by legislation The terms rivers, creeks and streams can be considered interchangeable unless otherwise specified.

Function of Riparian Zones

A riparian zone is very important because it contains both fluvial and terrestrial systems and the transitional systems between them. Riparian zones provide a range of functions and services, including:

- habitat, foraging areas and bio-linkages for local and migratory species
- refuges for wildlife and biodiversity including common and threatened species
- a supply of food and habitat for aquatic life – maintaining healthy food webs
- assistance in maintaining local fisheries by providing fish passage and habitat
- repositories for seeds / propagules of plants for re-colonisation or revegetation of nearby remnants or parks etc.
- filtration and exchange of inputs such as air, water and nutrients
- soil, bank and channel stability
- flood mitigation and property protection
- an aesthetic visual buffer within highly developed urban areas
- a reduction in heat pollution of streams by shading waterways
- a buffer against pollutants
- visual buffers in developed areas
- areas for passive recreation
- areas for scientific research and educational activities

In many cases remnant riparian systems are often the only corridors connecting isolated natural areas such as national parks and other reserves in highly developed landscapes. They may also be the only remnants of natural ecosystems providing critical refugia for plant communities and local flora and fauna.

The riparian corridors within the Ku-ring-gai area contribute significantly to the green, leafy character adding to the natural aesthetics by providing stands of remnant vegetation that are extensively used for passive recreation. They can also have a favourable effect on property values within the area. Many of our bushland reserves are little more than riparian zones providing important refugia for local wildlife and green corridors connecting to the three adjoining national parks and forming a visual break between the developed urban areas, and therefore have high local and catchment significance ecologically.

Riparian Zone Categories and Definitions

Riparian zones in Ku-ring-gai have been divided into three categories. These define the core functions and current and predicted environmental significance: environmental corridors; terrestrial and aquatic habitats; and bed and bank stability and water quality. These classifications follow from a study undertaken by the Department of Infrastructure, Planning and Natural Resources (DIPNR) for the Wollongong and parts of the Shellharbour local government areas (DIPNR 2004) and are used to define the current and foreseeable condition of the riparian environments.

For each of the areas the recommended minimum widths of the riparian zones are set to support the functionality identified by the objectives, as summarised in Table 1. Full details of the categorisation and definitions is provided in section Management of Riparian Lands.

Asset protection zones (also known as APZs or fire protection zones) have in part been allowed for in category 1 and 2 riparian zones as reflected by the addition of 10 metres to the buffer. This buffer can serve to both counter the edge effects of urban development and also contribute to any required asset protection zone that may affect properties classified as a high or medium fire risk (pursuant to the bushfire prone land map for the Ku-ring-gai local government area pursuant to section 146(2) of the *Environment Planning and Assessment Act 1979*). If an APZ wider than 10 metres is required, or fire control access tracks are needed, the additional width or any fire control access tracks are not to be taken from a core riparian zone.

The methodology for determining the categories and classifications within Ku-ring-gai is included in Appendix 3.

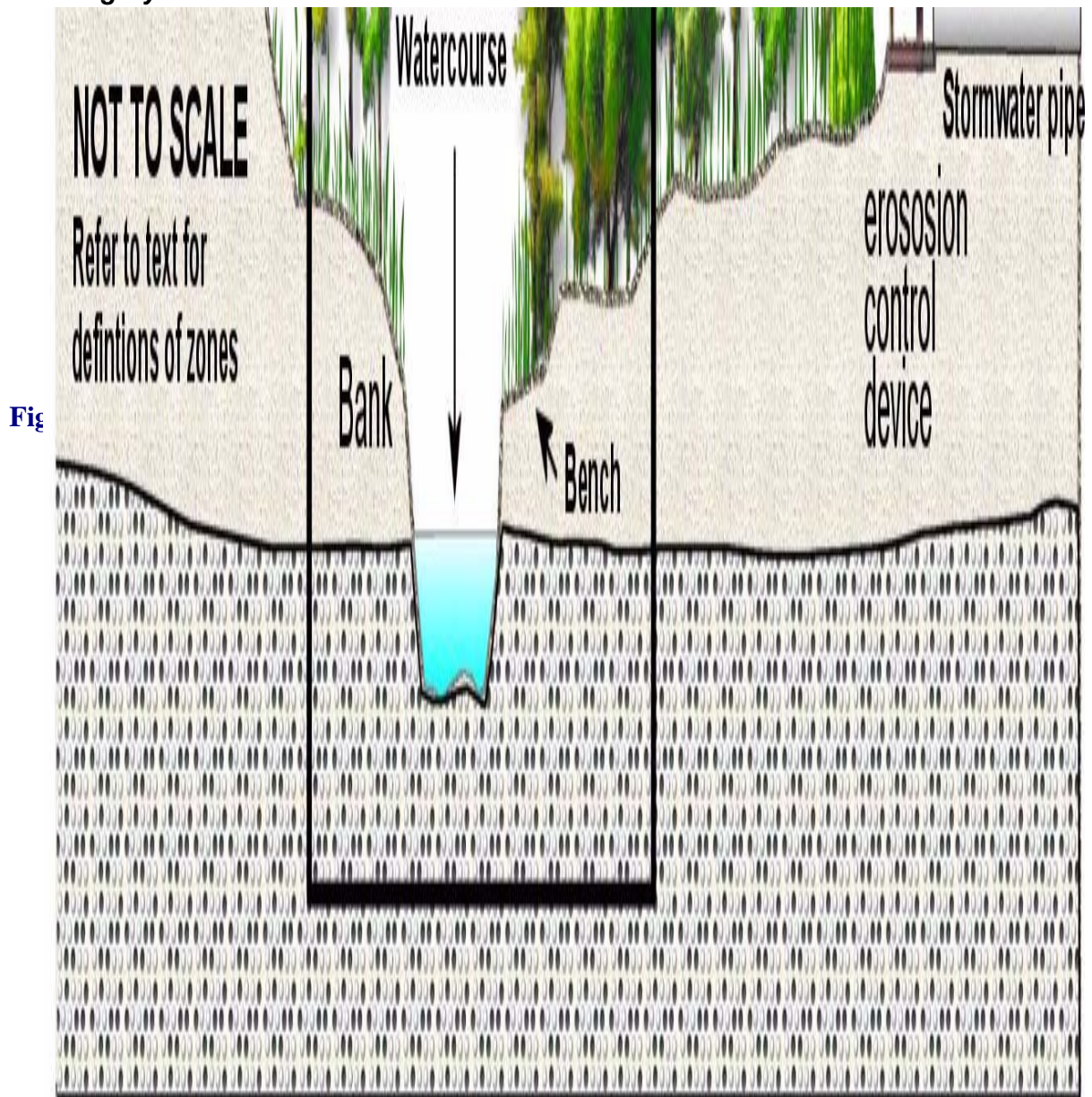
Table 1: Summary of riparian management objectives

Minimum environmental objectives for riparian zones	Category 1 Environmental corridor	Category 2 Terrestrial and aquatic habitat	Category 3 Bank stability and water quality
Identify whether or not there is a 'watercourse' present	Not applicable	yes	yes
Delineate riparian zone on a map and zone appropriately for environmental protection	yes	yes	not required
Provide a core riparian zone width greater than (not to be considered as part of the fire protection zones)	40 m from top of bank	20 m from top of bank	10m
Provide additional width to counter edge effects on the urban interface (can be part of the fire protection zone)	10 m	10 m	generally not required
Provide continuity for movement of terrestrial and aquatic habitat	yes (including piered crossings and elevated pathways)	yes (piered crossings preferred and elevated pathways)	where appropriate
Rehabilitate/re-establish local provenance native vegetation	yes	yes	where appropriate
Locate services outside the core riparian zone wherever possible (sewer, water, electricity, gas, communication, transport etc...)	yes	yes	

Locate playing fields and recreational activities outside core riparian zone	yes	yes	
Treat stormwater runoff before discharge into riparian zone or the watercourse	yes	yes	yes
Detain stormwater runoff before discharge into CRZ or watercourse	yes	yes	yes

(source: modified from DIPNR 2004 p20)

Category 1 Environmental corridor



Category 2 *Terrestrial and aquatic habitat*

Riparian zones in this category would contain useful basic habitat and preserve the natural features of a watercourse.

The size and condition of these riparian zones and buffers is less than category I but fluvial geomorphic processes can still occur, they have good habitat quality (but lesser wildlife movement value) and will be useful for water quality maintenance. This is illustrated in Figure 3.

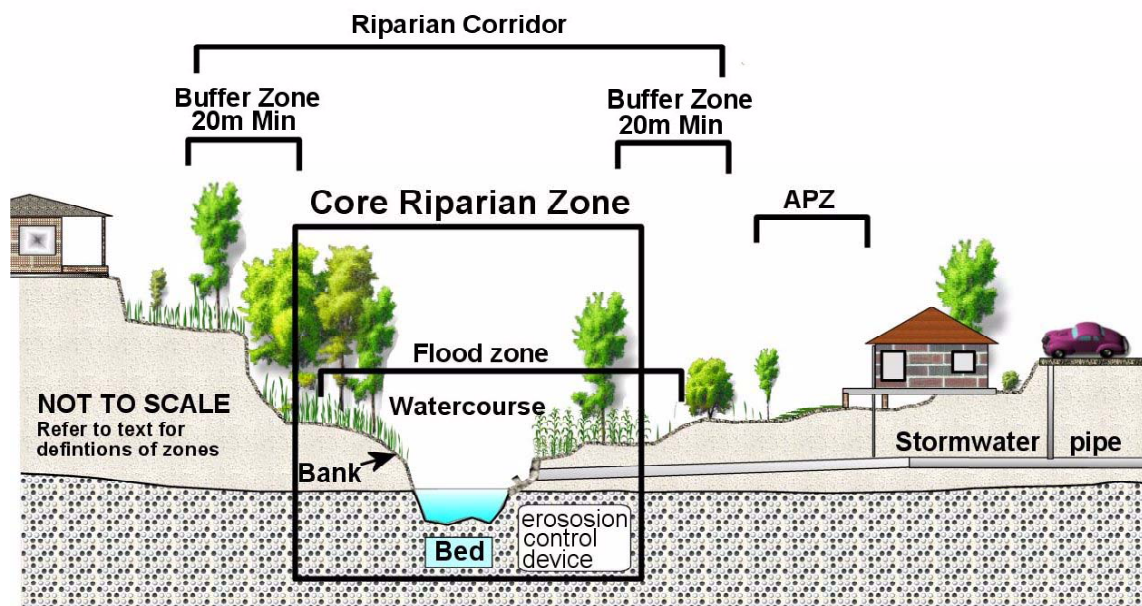


Figure 3 Terrestrial and aquatic habitat corridor

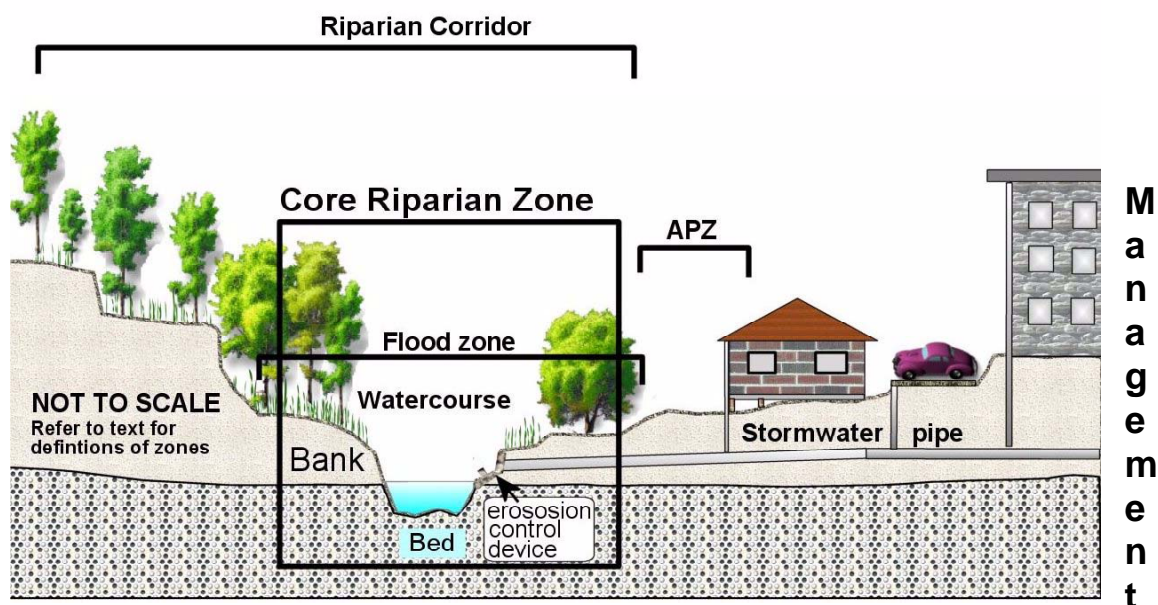
Category 3 *Bed and bank stability/water quality*

Riparian zones in this category would provide limited or no habitat value but contribute to the overall health of the catchment.

Typically these would be narrow zones along highly modified streams that would be difficult if at all possible to rehabilitate to a natural state and may have no remnants of indigenous vegetation (refer to Figure 4). However, these areas will still contribute to water quality maintenance, and if piped or lined with concrete, would cause increased flooding and erosion potential.

Many of the riparian environments that fall into this category are on private property with the streams forming part of the landscape character of the garden. As a consequence the longer term management of these systems will rely on strong partnerships with private property owners and the community.

Figure 4 Bed and bank stability and water quality riparian corridor



of riparian lands

The management of riparian areas must reflect on multiple objectives, values and expectations of the community, environment and resources needed to undertake and sustain programs in the long term. In this respect there is a need to consider not only many stakeholders but the professions and interests they represent. The management principles described below are designed to guide integrated decision making that recognises that prescriptive rules do not always apply to environmental and ecosystem management.

Planning

- Adequate setbacks between riparian land and new development are to be provided
- Subdivisions (via perimeter roads) and new developments should front onto riparian land and not back onto it
- Services should be located on the outer edges of the riparian zone
- Limit crossings of the riparian corridor to maximise connectivity and where necessary use non-destructive techniques such as direct drilling for piped and piered crossing for roadways

Access

- Access to the watercourse should be located at strategic locations where the ecological integrity of the existing riparian vegetation and stream bed and bank stability is not compromised
- Walking and bike tracks should not compromise the integrity of the riparian corridor
- Opportunities for the community to connect with and explore creeks should be provided where appropriate

Fire

- The bushfire buffer zone is to be located within the defined limits for the development site and not located in the core riparian zone

Flooding

- Reduce the impact of flooding and flood liability
- Rehabilitation must be integrated into flood management studies
- Locate stormwater infrastructure outside CRZ (and treat before discharge)
- No further piping, straightening or channelising open stream channels

Restoration and rehabilitation

- Stream bank stabilisation works should be where possible of a ‘soft engineering’ design or vegetation
- Locally native vegetation assemblages should be used that is capable of supporting the long term ecological function of the site
- Water quality treatment should occur prior to contaminated runoff entering the riparian zone
- Water quality and quantity treatments should not compromise the core riparian objectives
- Channel forming flows should be managed to mimic the pre-development water cycle
- Retain and regenerate revegetation at key locations (such as confluences and 20 metres from top of bank)
- Prioritise works to improve connectivity and continuity of riparian vegetation

Category 1 - Environmental Corridor

The objective of this category is to maximise the protection of terrestrial and aquatic habitat by:

- providing a continuous corridor for the movement of flora and fauna species through the catchment and beyond the catchment
- providing extensive habitat (and connectivity between habitat nodes) for terrestrial and aquatic fauna
- maintaining the viability of native riparian vegetation
- protecting in-stream aquatic vegetation
- providing watercourse bed and bank stability
- avoiding problems from contamination, salinity or acid sulphate soils
- protecting water quality generally
- facilitating the dispersal of genetic material and hence maintenance of biodiversity
- managing edge effects at the riparian/urban interface.

This is achieved by providing a continuous riparian corridor that:

- provides linkages to stands of remnant vegetation where applicable
- provides a “core riparian zone” (CRZ) wider than 40 metres from the top of the bank
- provides sufficient (additional) riparian corridor width based on geomorphological and ecological considerations
- provides a suitable environmental protection zoning for riparian land that recognises its environmental significance
- restores and rehabilitates the riparian zone with local provenance native vegetation
- ensures vegetation in the CRZ is at a density, species richness and of community characteristics that would occur naturally
- manages the edge effects at the riparian/urban interface
- locates services (power, water, sewerage, and water quality treatment ponds) outside of the CRZ (encroachment into the non core riparian area may be possible if its integrity

- is maintained and the impact on riparian functions is minimal)
- provides a suitable interface between the riparian area and urban development (roads, playing fields, open space) to minimise edge effects
- minimises the number of road crossings
- maintains riparian connectivity by using pierced crossings and not pipes or culverts
- minimises the impact of walkways, cycleways and general access points by using ecologically informed design principles
- locates flood compatible activities (playing fields) outside of the CRZ (encroachment into the non core riparian area may be possible if its integrity is maintained and the impact on riparian functions is minimal)
- manages urban development to avoid increasing the impact of salinity on the landscape and watercourse
- provides lateral connectivity for in-stream function.
- ensuring channel stability
- protects the natural values within the channel
- ensures all stormwater discharge is treated outside of before it enters the CRZ
- ensures that the requirements of any Contamination Management Plan, Salinity Management Plan or Acid Sulphate Soils Management Plan are strictly adhered to.

Category 2 - Terrestrial and Aquatic Habitat

The objective of this category is to maintain and restore the natural functions of a stream and its aquatic and terrestrial values by:

- preserving the viability of native riparian vegetation
- providing suitable habitat for terrestrial and aquatic fauna
- managing the impacts from saline affectation
- providing bank and bed stability
- protecting water quality
- protecting in-stream aquatic vegetation.

This is achieved by

- providing a 'core riparian zone' (CRZ) with a width greater than 20 m from the top of the bank
- providing, wherever possible, sufficient (additional) riparian corridor width based on geomorphological and environmental considerations
- restoring/rehabilitating the riparian area with local provenance native vegetation
- ensuring vegetation in the CRZ is at a density that would occur naturally
- providing, whenever possible, appropriate zoning that recognises the environmental significance of the riparian land
- minimising the number of road crossings
- ensure road crossings are designed to maintain riparian connectivity
- providing a suitable interface between the riparian area and urban development (roads, playing fields, open space) to minimise edge affects
- minimising the extent of open parkland adjacent to a stream
- locating services (power, water, and sewerage water quality treatment ponds) outside of the CRZ. Encroachment into the riparian area may be possible if the impact on riparian functions is minimised
- managing urban development to avoid increasing the impact of salinity on the landscape and watercourse.
- providing lateral connectivity for in-stream function.

- ensuring channel stability
- protecting the natural values within the channel
- ensuring all stormwater discharge is treated before it enters the stream.

Category 3 -Bank Stability and Water Quality

The objectives of this category is to maintain and restore as much as possible the natural functions of a stream though:

- providing bank and bed stability
- protecting water quality
- protecting native vegetation
- protecting in-stream aquatic vegetation.

This is achieved by:

- emulating wherever possible a naturally functioning stream
- ensuring channel stability
- protecting the natural values within the channel
- providing lateral connectivity for in-stream function
- using pipes or other engineering devices as a last resort
- ensuring all stormwater discharge is treated before it enters the stream.

Policy and planning

The three categories of riparian areas and their associated widths across the local government area include: environmental corridor; terrestrial and aquatic habitat, and bank stability and water quality.

The location of these areas is shown in Appendix 4, Map of Riparian Systems in the Ku-ring-gai Local Government Area

Under planning legislation, it is intended that the Map of Riparian Systems and this policy will be referenced in the following planning instruments:

Ku-ring-gai Planning Scheme Ordinance

Development Control Plans

- 38 Residential Development
- 47 Water Management
- 55 Ku-ring-gai Multi Unit Housing

From a development control perspective, the defining of the riparian zones as shown in the Map of Riparian Systems in the Ku-ring-gai Local Government Area, assessment of development within these areas would be considered as Integrated Development, pursuant to the *Environmental Planning and Assessment Act 1979*. This would entail concurrent approval from the appropriate consent authority, in this case the Department of Infrastructure, Planning and Natural Resources. This would enable an expansion of the existing riparian systems as recognised and defined under the *Water Management Act, 2000* and the *Rivers and Foreshores Improvement Act 1947* and their associated Regulations.

Glossary

Catchment¹ is the land area that drains into a stream; an area of land that contributes water runoff to one specific delivery point.

Channelise², Channelised - refers to the deliberate modification of natural watercourses typically widening and deepening the stream. In this process streams may be modified by changing the direction or straightening the channel's course and are often paved with concrete or other hard surfaces.

Edge effects - in this case refers to the processes that occur at or near the interface between urban areas and natural reserves, such as bushland. Edge effects caused by urban areas generally have negative impacts upon natural systems resulting in a degraded zone between the urban area and the core of the reserve. The processes and factors that impact upon natural systems include; pollution such as fertilisers and pesticides, invasion by introduced plants, predation by domestic animals, changes to natural water flows, accelerated erosion and human encroachment. Edge effects can reduce the effective size and habitat value of natural areas.

Floodplain³ - A flat tract of land that regularly floods bordering a river, mainly in its lower reaches, and consisting of alluvium (sediment) deposited by the river." (Whitten & Brooks, 1986)

Fluvial - The processes and artefacts of waterbodies such as rivers or pertaining to creeks streams or rivers or flowing water, Or of or pertaining to streams; produced by stream action.

Geomorphology² - The study of physical landscapes (landforms) and the processes that create and mould them.

Instream - refers to features or processes that occur within a stream, IE between its banks.

Remnant vegetation - is patches of naturally occurring plant communities that have survived clearing.

Riparian vegetation – plants and plant communities associated with riparian zones.

Riparian zone is the area of land that forms the banks of a waterbody and the adjacent land it directly affects, including the vegetation.

Watercourse (including a **river, stream or creek**) is any natural drainage line that flows constantly or occasionally within a definable channel or system of discontinuous channels (eg "chain-of-ponds") or watercourse/wetland systems, or any watercourse that was once natural and has been modified or diverted.

Waterbody is a natural lake, pond, wetland, swamp, saltmarsh, watercourse (as defined above), river, stream, creek, lagoon or estuary that may be modified by human activities.

¹ From United States Geological Survey website glossary

² *From United States Environmental Protection Agency, Watershed Academy website glossary*

<http://www.epa.gov/owow/watershed/wacademy/wam/glossary.html>

³ *Whitten, D.G.A and Brooks, J.R.V (1986) The Penquin Dictionary of Geology*

Appendices

Appendix 1 Discussion of Key Terms

Given the difficulty in applying the definitions of the key terms affecting the management of riparian systems, this section seeks to provide further discussion to enable some clarity as to when and where the key terms apply in the modified landscape. As with the terms creeks, rivers or streams, riparian zones, riparian lands, riparian systems and riparian corridors are to be treated as interchangeable unless otherwise stated.

The starting point for a discussion on managing water needs to clearly establish what physical processes determine if the flow of water is behaving as a river and secondly when are these processes sufficient evident to give a stream legal status.

From a geomorphological perspective a river must have a well-defined bed and banks and lay down water-deposited material (Erskine 2001). Within and adjacent to this will be a riparian zone that will have a number of geomorphic and ecological features and functions such as a refugia for flora and fauna communities, provide stable stream banks, and facilitate exchanges of materials between the stream and floodplain during floods.

The flow of water within a river can also be used to assist the classification. Typically flow is defined in the geomorphological literature as perennial, intermittent or ephemeral. These flow types incorporate the following features.

Perennial streams flow throughout the year. For most of the time the flow would be in the form of base flow or delayed flow except for quick flows following rain storms.

Intermittent streams flow seasonally or when the water table is at a maximum level. The flow may occur for several months each year but will seldom occur when the water table is lowered during the dry season.

Ephemeral streams are transitory and flow for only a short time during and immediately after a rainstorm.. Ephemeral streams generally make up the largest proportion of the length of natural stream networks and perform unique functions that are essential to the ecological health of downstream reaches and waterbodies.

These subtle but clear differences are needed in order to determine whether the stream in question has legal or other status.

Schedule 3 of the Environmental Planning and Assessment Regulation (2000) defines a **river** or **stream** to be a water body 'whether permanent or intermittent, flowing in a natural channel with an established bed or in a natural channel artificially modifying the course of a stream'. This is consistent with *section 77A of the Environmental Planning and Assessment Act 1979* that makes reference to only permanent or intermittent streams in respect to whether the development is designated and therefore relevant environmental planning instruments or regulations.

The *Water Management Act 2000* defines a river to include:

- any watercourse, whether perennial or intermittent and whether comprising a natural channel or a natural channel artificially improved, and
- any tributary, branch or other watercourse into or from which a watercourse referred to in paragraph (a) flows, and

- anything declared by the regulations to be a river,
- whether or not it also forms part of a lake or estuary, but does not include anything declared by the regulation not to be a river.

The obvious gap between legislation and science is the lack of recognition of ephemeral streams. While this stream type may exhibit one or many of the prerequisite geomorphological features it nevertheless forgoes many of the legal protections that are otherwise afforded to perennial and intermittent streams.

In an urban context, many of these lower order streams have been substantially modified if not entirely replaced by engineered drainage systems. With this has been the consequent loss of the riparian zone. Coupled to this modification in the urban landscape, the natural flow regime has been substantially altered such that peak flows are much greater and base flows can be all but non-existent. This can effectively shift many streams from intermittent to ephemeral in classification thereby losing not only their ecological and geomorphological functions but also some degree of legal recognition.

Riparian Zones

Lovett and Price (1999) defined a **riparian zone** as ‘any land which adjoins, directly influences, or is influenced by a body of water.’ Expanding on this Tubman and Price (1999) defined riparian zones as land which adjoins or directly influences a body of water, including:

land immediately alongside creeks and rivers including the banks;
ephemeral gullies and depressions
areas surrounding lakes; and
wetlands on river floodplains which interact with the river in times of flood

Other researchers have included a broader environmental definition to include other biological and physical factors whereby it encapsulates a ‘three-dimensional ephemeral of interactions that include terrestrial and aquatic ecosystems extending into groundwater, above the canopy and across the floodplain’ (Very and Palik 2000).

A **riparian corridor** in this context is considered to be the core riparian zone plus any associated buffer zone. While the **buffer zone** is the area adjacent to the riparian zone that is required to protect the riparian zone to ensure its long-term viability.

Within modified environments, the width of the buffer zone can relate to the objectives that are sought for the stream be they environmental, social, economic or combinations thereof. The process of setting corridor widths in this document relate primarily to protect, restore or enhance the environmental values, that also gives consideration to economic viability (that may be expressed as developable land value) and social values (that may express the intrinsic value of the landscape sought by the community).

The definition of the **stream bank** or **highest bank** (being the commencement point for the riparian zone) is also poorly defined in legislation and is complicated in modified environments. The highest bank is often associated to the bank full flow that corresponds to discharges with a recurrence interval of approximately 1 to 2 years or the flows that do most of the ‘geomorphic work’ (sediment transportation, erosion and deposition) (Knighton 1998). However in urban environments the peak flows resulting from the 1 to 2 year recurrent storms are much greater than in natural systems, development in the flood plain that has modified natural benches and the engineering of stream banks all contribute to a blurring of where the bank was, is or should be. For the purpose of this policy the stream bank or highest bank is shall be determined as intersection of the bank full condition with the floodplain.

Appendix 2 Setting riparian zones and buffer widths¹

This has been sourced from DIPNR (2004).

The management recommendations for Washington USA riparian habitats developed by the Washington Department of Fish and Wildlife (Knutson and Naef, 1997) represents one of the most comprehensive reviews available of riparian corridor dimensions required to maintain a range of ecological processes. Over 1500 references dealing with riparian corridors and buffer zones were reviewed in the process of developing these recommendations. While some of the riparian buffer requirements for wildlife are specific to North American species, suggested widths for processes such as temperature regulation, generation of large woody debris, sediment and pollution filtration transcend national boundaries. Table 1 provides a summary of the buffer widths from the top of bank required on each side of the stream channel for maintenance of a range of riparian zone functions.

Table 1 Range and average widths from top of bank required to maintain a range of riparian zone functions

Riparian Habitat Function	Range of reported widths in metres	Average of reported widths in metres
Temperature control	11 – 46	27
Large woody debris	30 – 61	45
Sediment filtration	8 – 91	42
Pollution filtration	4 – 183	24
Erosion control	30 – 38	34
Microclimate maintenance	61 – 160	126
Wildlife habitat	8 – 300	188

(source Knutson and Naef, 1997)

Table 2 is a comparison of suggested riparian widths from a range of sources from the US and Australia. The data for North America was compiled by Ward *et al*, 2002 and the following should be noted:

Key points for US data include:

- The riparian widths for northern America are subject to snow and ice, and large mammals (bear and deer) amongst the wildlife.
- The widths adopted by Washington State are designed first to retain riparian function to maintain in-stream habitat for fish and aquatic wildlife and secondly to provide sufficient riparian habitat for terrestrial species.
- The adopted widths are measured from the top of each bank. Where the 100 year floodplain exceeds these widths, the riparian width extends to the outer edge of the 100 year floodplain.
- Larger widths may be required where priority species occur.
- Add 30 m to the outer edge on the windward side of riparian areas with high blowdown potential.

¹ DIPNR (2004) Riparian Corridor Management Study : Covering all of the Wollongong Local Government Area and Calderwood Valley in the Shellharbour Local Government Area. Prepared for Wollongong City Council by Department of Infrastructure Planning and Natural Resources, March 2004. pp 11-14

- Extend widths at least to the outer edge of unstable slopes along waters in soils of high mass wasting potential.

Key points for Australian data include:

- The DIPNR minimum riparian width consists of a core riparian zone (either 20 m or 40 m depending on objective), measured from the top of each bank, plus a 10 m vegetated buffer zone. Larger widths may be required depending on local geomorphology or ecology.
- A (bushfire) asset protection zone is not included in these widths.
- The wildlife corridor of 150 m is from a discussion paper only, prepared for Wollondilly Shire Council.
- What is noteworthy from Table 1 is that the DIPNR study (2003) has adopted possibly the absolute minimum width to cater for the effective functioning required to achieve the objectives.

Table 2: Recommended riparian widths from a variety of sources in the US and Australia

Function	Study	Details	Width (m)	Average	DIPNR RCMS
Riparian Habitat Area	Washington State (2001)	Based on nearly 1500 reviews	46 – 76 or 100 yr floodplain	61	50
	Wollondilly Shire Council (1998)	Maintenance of ecological values	50 - 100	75	
	DIPNR (2003)	Environmental corridor Category 1 stream	40 plus 10 vegetated buffer		
Wildlife Protection	Rabeni (1991)	Fish, amphibians, birds	8 – 61		50
	Cross (1985)	Small mammals	9 - 18	62	
	Brown et al (1990)	Provision of food, water, cover	91 – 183		
	Wollondilly Shire Council (1998)	Wildlife corridor	100 - 200	150	
	DIPNR (2003)	Environmental corridor Category 1 stream	40 plus 10 vegetated buffer		
Water Quality	Ahola (1990)	General improvements	49		10
	Pinay & Decamp (1988)	As above	1 – 2	33	
	Correll & Weller (1989)	Nitrate control	18		
	DIPNR (2003)	Nutrient control Category 3 stream	10 no buffer		
	NSW Native Vegetation Reform	Major rivers	50 – 100	75	
	Implementation	Creeks	20 – 50	35	
	Group (Wentworth Group) (2003)	Streams	10 - 20	15	
Sediment control	Peterjohn & Correll (1984)	Nutrient control	18		

	DIPNR (2003)	Category 3 stream	10		10
Bank Stabilization	Ontario Ministry Agriculture (1998)	Agricultural ditch bank stabilization	3		
	DIPNR (2003)	Category 3 stream	10		10
Urban stream buffer	Schueler (1995)	Survey of 36 buffer programs	6 – 61	33	30
	DUAP (1999)	Vegetated buffer from urban development	100 existing bushland 40 elsewhere	40	
	Illawarra Commission of Inquiry (1999)	Vegetated buffer from urban development	40		
	Wollongong City Council (2000)	DCP No 99/7 vegetated buffer from urban development	40		
	DIPNR	Terrestrial habitat	20 plus 10		
		Category 2 stream	vegetated buffer		
Native Vegetation Conservation	Benson & Howell (1993)	Conservation of native riparian vegetation	50		

Appendix 3 Methodology

This section provides an outline of the process and techniques employed to map and categorise the streams in Ku-ring-gai LGA using the categories set out above.

Categorisation process

Stage 1

There was recognition of the need to have clear definitions and management guidelines for the protection of creeks and riparian zones. Preliminary mapping of creeks had been carried out previously for other purposes including the Ku-ring-gai Council Environmentally Sensitive Areas (ESA) study.

Stage 2

This entailed a preliminary desktop study and workshop involving Council's Open Space and Technical Services staff, DIPNR and Macquarie University. Streams and their riparian corridors were classified into the three categories based on:

- the connectivity and continuity of riparian corridors and natural bushland (for example linking Council bushland reserves and adjoining National Parks)
- the continuity of open / natural stream channels,
- relative length and location sequence of piped sections,
- current and likely future housing and other development
- potential for riparian corridor maintenance, re-instatement or restoration
- land uses zoning
- aquatic ecosystem condition
- native vegetation condition, as reflected by the presence and density of weeds
- habitat value
- presence of threatened species, populations or plant communities.

When assigning categories, consideration was given to potential for establishing environmental corridors in particular to maintain and if possible re-create bio-links between bushland remnants including Lane Cove, Garrigal and Ku-ring-gai Chase National Parks and other key bushland areas such as Sheldon Forest and Dalrymple Hay Nature within the urban area.

Data used in the determination included aerial photographs; maps of streams, 10m contours, pipes, local flooding, easements, threatened communities and species and their habitat. Classifications were then transferred to Council's GIS.

Stage 3

Field investigations were undertaken to verify the information from the desktop mapping process. This stage was also used to confirm or change the category of several streams and riparian zones that could not be confidently assessed in the desktop study. All changes identified were then mapped as a new layer on the GIS system for comparison and documentation of the whole process.

Stage 4

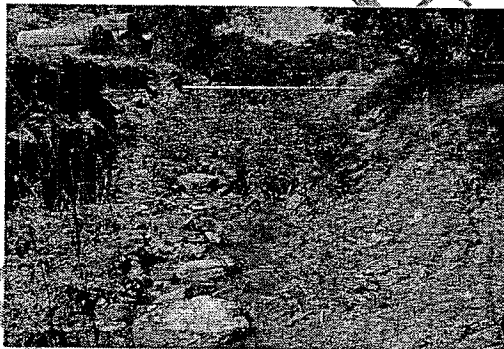
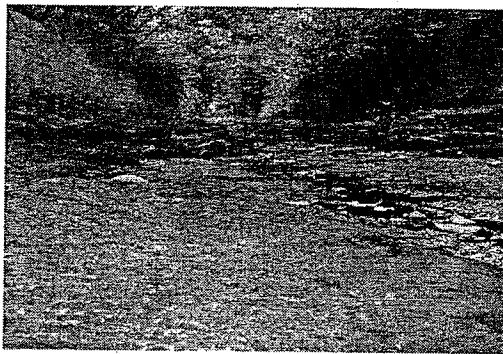
This involved an analysis of the drainage network including flooding data that was further verified by field inspections. Known piped sections that have no potential for riparian reinstatement were removed. Sections of pipes that have a reasonable potential for re-instatement to a semi-natural open channel were also identified and added to the third GIS layer as dotted blue lines.

Appendix 4 Map of Riparian Systems in the Ku-ring-gai local government area

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KU-RING-GAI COUNCIL



Development of a Rapid Riparian Assessment method for Ku-ring-gai Council

April 2004

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EXECUTIVE SUMMARY

Due to increasing urban pressures such as land clearing, development, increased impervious surfaces, introduction of exotic plants, channel modifications and increased nutrient and pollutant supply most urban streams are in a sub-optimal degraded condition.

However, before any management or priority programs can be put in place, the condition of the riparian zone and its associated catchment must be known. In this study, a variety of assessment techniques generated by other organisations within the greater Sydney region were tested for their utility. This revealed the need for locally specific criteria with respect to the Ku-ring-gai Council to produce accurate and representative river condition data. Stream geomorphology along with vegetation cover and type were used as indicators of stream health. The data were collated to produce a Rapid Riparian Assessment (RRA) which provides a baseline study on the overall condition of streams within the Ku-ring-gai Council local government area.

The RRA method is applied to homogenous reaches of stream channel and then scores specific instream and riparian site characteristics. The sum total of the scores allows individual reaches to be placed into one of six categories of condition that range from excellent to severely degraded. The RRA method is an effective tool for rehabilitation prioritisation programs because it allows comparisons between different sites, creeks and sub-catchments. It also has the advantage in that it is repeatable over time allowing evaluation and adaptation of river rehabilitation programs and the continued impacts of development.

INTRODUCTION

Urbanisation and the increasing pressures that are placed on urban creeks have led to a gradual decline in condition over the last century. However, the importance of urban creek lines as a community resource has been steadily increasing and as such, a requirement for appropriate and effective creek management encompassing environmental requirements rather than simply operating as storm flow engineering structures has emerged. In order to manage streams effectively, it is necessary to know how the system is working, hence the "Know Your Catchment" principle that is imperative to the River Styles Framework (Brierley and Fryirs 2001) is important. A part of knowing this principle is having an understanding of the condition of the streams and the catchment to be managed.

The Ku-ring-gai Rapid Riparian Assessment (RRA) of stream condition has been developed as a baseline study, collecting and tallying data for each stream in the area. Analysis of this data will be used to identify which catchments are in good, moderate or poor condition. This will enable a more carefully directed allocation of resources to specifically target areas with the most need (Taylor 2003).

The RRA is a point-in-time based survey that focuses on riparian vegetation and geomorphology as the most important indicators of stream condition and ranks creeks according to a scoring system developed specifically for this task. Along with riparian and geomorphic condition, other factors that are particularly important in urban situations, such as the presence of sewer lines and litter are also scored to ensure that the overall condition of the stream is taken into account. These factors are most likely to remain relatively constant in time, unlike water quality which is very dynamic, even over short periods.

The assessment and the accompanying manual have been developed with the aim of providing a rapid and uncomplicated method, so that it can be applied by non-specialist bushcare volunteers and others with an interest in their local waterways.

Location

Ku-ring-gai local government area is situated roughly sixteen kilometres from Sydney at a latitude of $33^{\circ}45'20''$ south and a longitude of $151^{\circ}9''$ east and covers approximately 84 square kilometres (Figure 1). The residential area is bounded by Garigal National Park in the east, Lane Cove National Park in the west and Ku-ring-gai Chase National Park in the north. The area is part of the eastern rim of the Cumberland Basin and consists of Hawkesbury Sandstone and Wianamatta Group Geologies. The deeply incised stream beds are a result of the extensive erosion that these materials have undergone (Ku-ring-gai council 2004).

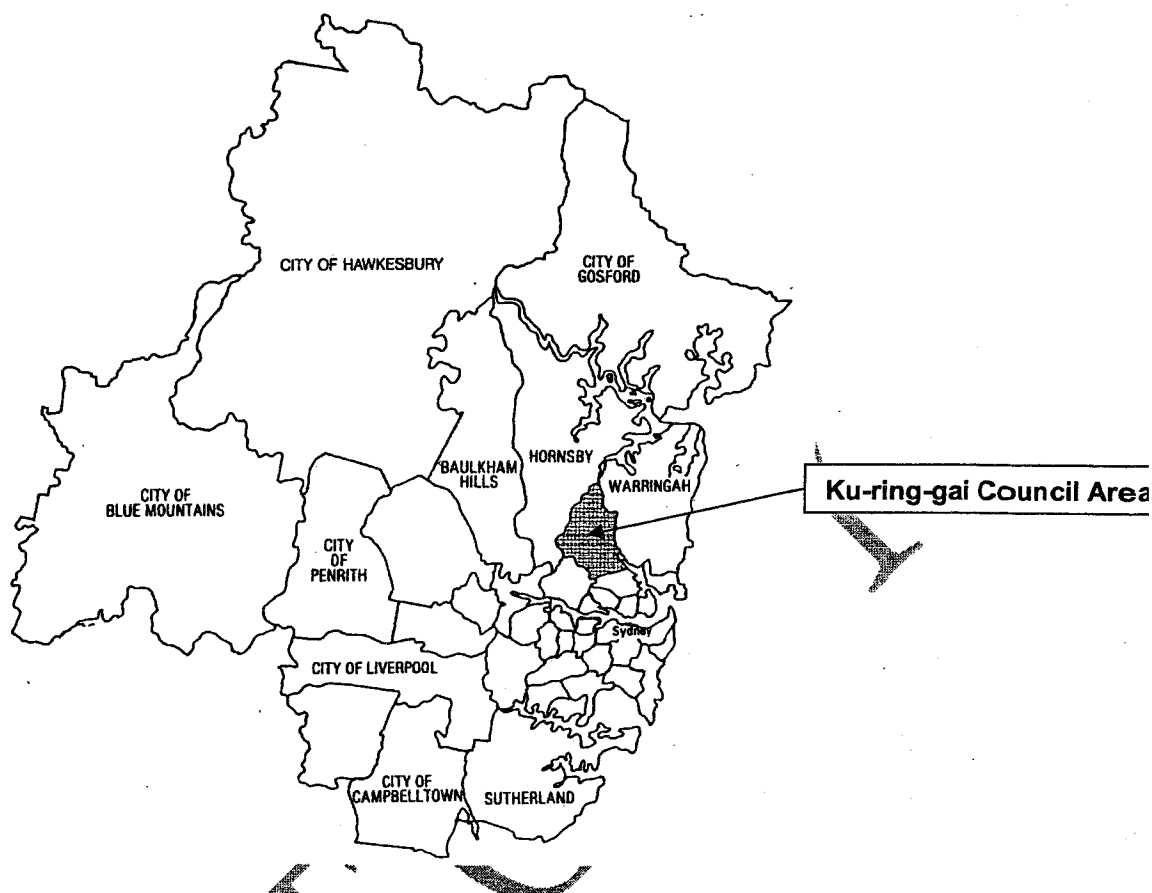


Figure 1. Map of Ku-ring-gai Council Area

The majority of the development occurs along the top of the ridgelines where the main one falls away into smooth, steep slopes in the northern section and abrupt, rocky slopes and gullies in the east and west (Ku-ring-gai council 2004). This has resulted in the upper parts of the catchments being highly urbanised, which decreases as you move further down into the steeper sections of the valleys.

Natural vegetation varies from Sydney Blue Gums and Blackbutt in the West Forest area of south-west Wahroonga and Turramurra to Stringy Bark, Grey Iron Bark and Bloodwood types in the Dry Forest areas (Ku-ring-gai council 2004).

Runoff drains into three major catchments, Lane Cove River catchment to the West, Middle Harbour catchment to the East and Cowan Creek catchment to the North. All of these catchments contain varying degrees or both urban development and bushland.

URBAN CREEK ISSUES

With European settlement and subsequent development of the Australian landscape, many direct and indirect changes to Australian streams have occurred. Direct changes include physical intervention such as dams, diversions, re-alignment, re-sectioning and water and sediment extraction. Indirect changes occur as a consequence of changes within the catchment that have resulted in changes to the stream itself such as increased runoff and sedimentation.

The urban landscape has experienced profound changes relative to pre development including changes to the vegetation cover, soil profiles, hydrology and ecology. Prior to urban development, rotting vegetation, animal droppings and sediments stayed roughly where they fell. However, the extensive removal of vegetation and increase in impervious surfaces, along with the high degree of connectivity between stormwater and stream systems has led to increases in runoff, a reduction in the lag-time between peak precipitation and peak discharge and an increase in system throughput of matter. Changes in the pattern of flood flows can result in increases in stream power enhancing the potential for erosion and channel change. This has led to permanent changes to stream ecology and geomorphic processes, in many cases leading to widespread weed invasion and erosion. Sedimentation and oxygenation problems, as a result of increased nutrients derived from run-off and exfiltration of sewers located adjacent to many streams can be attributed to poor maintenance of riparian zones and the impacts from modifications in the wider catchment area (Environment Australia, 2002).

Riparian Systems

One aspect of streams that has undergone extensive change is the riparian zone. Riparian zones occur at the interface between terrestrial and aquatic ecosystems. They are usually high in biodiversity and many communities depend on their existence for survival (Davidson 2003). The importance of a healthy riparian zone, particularly in an urban situation should not be underestimated. The riparian zone performs numerous biophysical functions all of which have a large bearing on the health and condition of natural systems (Table 1).

Feature	Function
Riparian Vegetation	Trap and filter pollution, sediments and nutrients Stabilise banks, reduce erosion
Overhanging Vegetation	Reduces water temperature
Riparian Ecosystems	High levels of productivity, varied habitats
Riparian Zone	Enables a migration corridor for aquatic and terrestrial organisms
Riparian Floodplains	Effective tool for conveyance of flood flows
Natural Riparian Areas	Recreation and aesthetic values, add to community values and 'connection to place'

Table 1. Typical features of riparian systems

The Water and Rivers Commission (2000) revealed that riparian zones are an effective way of trapping pollution, sediments and nutrients. Vegetation in the riparian zone can trap sediments along with their associated nutrients before they reach the stream channel, the greater the thickness of the vegetated zone or "buffer" the more effective the filtration process is. In-stream vegetation and in channel sediment is also beneficial as it can act as a natural filter, improving the water quality by filtering excess nutrients.

Shading of the stream system by riparian vegetation has many benefits for the aquatic biota and the water quality. Overhanging vegetation reduces the water temperature, ensuring that dissolved oxygen levels remain high. Native vegetation provides additional benefits through the production of tannins, which gives the water an amber colour thus reducing light penetration through the water column. This results in reduced water temperatures and increased dissolved oxygen levels (Paul and Meyer, 2001). When overhanging vegetation is absent increased sunlight causes water temperatures to rise, dissolved oxygen to fall and weeds to invade sensitive riparian areas. These factors lead to decreased water and habitat quality.

Extensive agricultural and urban development of the landscape has led to large-scale fragmentation of natural areas of bushland and other ecosystems. Large distances between remnant natural areas limit the migration potential for many species of plants and animals (Water and Rivers Commission, 2000). Riparian zones also serve to connect areas of bushland, enabling plants and animals to move around. These biophysical highways are particularly important in developed catchments as they provide remnant seed banks, habitats and food. In addition to their ecological benefits, riparian zones in urban

areas can be used as an effective tool for the conveyance of flood flows. However, care must be taken that they are not treated like engineering structures, which had been the dominant trend in past years (Hader, 1998).

The recreation and aesthetic values of riparian systems are also extremely important and have a large impact on the lifestyle of the people living in an area (Water and Rivers Commission, 2000).

Community values, pride and 'connection to place' are often strongly associated with the health and viability of natural areas. In addition, research by Bennett (2002) has demonstrated that while healthy rivers have obvious aesthetic value to the community they also have an economic value which can be calculated according to the amount visitors or users are prepared to pay for an improved resource.

The health of riparian areas can be measured in many different ways, the intact nature of vegetation versus the extent of weed invasion, the size of riparian buffers and the type, structure and maturity of vegetation cover. However, vegetation quality on its own is not enough to indicate the health condition of a stream. The geomorphic processes and associated sedimentation and erosion controls operating within the stream system not only influence the condition of the stream itself, but are inevitably connected to the riparian system as a whole.

Effects of Urbanisation

Urbanisation has caused an increase in the amount of runoff and material such as sediment being delivered to the stream system (Higgins 1998). These factors have caused dramatic changes in the equilibrium in which streams currently exist. As such, many of them have undergone extensive geomorphic change in order to adapt to the new conditions and many streams have become unstable. The resultant erosion and depositional problems, along with the increased nutrients found in urban runoff can all have detrimental effects on the native riparian zones e.g. the proliferation of exotic versus native plants. These issues need to be managed differently for each individual stream system in order to ensure that any rehabilitation efforts are viable and effective for the specific set of boundary conditions that are present.

Solutions

These issues have created a basis for action that stems from concerns about stream stability and deterioration. The action should also be aimed at assessing the recovery potential of the stream in question to ensure that the environmental, social and economic significance is accounted for.

There are three major ways that deteriorating stream conditions can be combated: restoration, rehabilitation and remediation (Rutherford *et al.* 2000). Stream restoration involves returning a stream to a condition that is considered to be original. Although restoration is an exciting ideal, it must be realised that the connections between the catchment and the stream itself play a role in whether this will be possible or not. Therefore, this would not only involve returning the stream itself to some natural or pre-European condition but the whole catchment, which is almost always unachievable. As such rehabilitation is a more realistic goal. This involves improving degraded zones, so that you create a stream that resembles the original condition. In many urban situations, this process may not be possible because the original condition of the stream is no longer suited to the current catchment conditions. In these cases, remediation may be undertaken, whereby the ecological condition of the stream is improved, but the end point is not necessarily representative of the pre-disturbance condition. Due to the extensive changes that occur in urban catchments, these streams are commonly so degraded or changed that remediation is the only effective strategy (Rutherford *et al.* 2000a).

In order to determine the best way to deal with the issues that many urban streams face and to implement solutions, a strategy for assessing the extent of degradation and how the streams are being degraded is required. The Ku-ring-gai Council Rapid Riparian Assessment (RRA) is designed to classify local streams on the basis of their vegetation and geomorphic characteristics because it is recognised the importance of these for the overall health of the riparian system.

The RRA method involves allocating certain stream features a score for each reach so that a condition rating of excellent, good, fair, poor, very poor or severely degraded can be derived. From this the best strategy (most likely rehabilitation or remediation), for improving the stream condition can be determined. The assessments also record information about the processes that are operating within certain reaches, which is useful when developing solutions, ensuring the problems associated with each reach are individually taken into account. This process highlights the point made by Gregory and Chin (2002) that approaches to river management need to consider the

“alternatives for each channel section and the way in which they integrate together in the catchment”.

The RRA method is able to show these relationships and how they affect different areas of the down the long profile of the stream.

Limitations

A number of limitations result from the rapid nature of this assessment strategy. This has resulted in some factors being excluded from the final assessment with other characteristics being used as indicators. However such factors should not be totally ignored.

Water quality assessment was not included as chemical and nutrient concentrations can fluctuate dramatically over short periods of time. Variations occur depending on the contaminant source, its frequency of use and the flow stage of the stream, thus making it an unreliable measure of overall stream health. These constant fluctuations result in a need for frequent testing of water courses in order to get a reliable indication of stream condition. However, this process is expensive and requires management of an extensive data base for all the different conditions and pollution events.

To ensure the RRA could be completed in short periods of time (approximately 15 minutes per site), it was not feasible to incorporate any ecological monitoring with this initial study, though in the future this possibly could be integrated.

LITERATURE REVIEW

Prior to the development of a specific analysis for Ku-ring-gai, a variety of urban waterway assessments were researched and trialled. Each had a specific focus and was designed for varying purposes, making them unsuitable to replicate in the Ku-ring-gai area. Cross-comparison of data between regions would have been of interest, however the topography of Ku-ring-gai and the aims and constraints of the project did not allow for this.

Blacktown City Council

Students from the University of Western Sydney developed two separate assessment protocols in conjunction with Blacktown City Council. The Riparian Analysis Protocol (RAP) and the Catchment Analysis Protocol (CAP) were designed to produce a total condition assessment for streams and to assess and prioritise management actions from a catchment wide perspective. The RAP scores geomorphic features, riparian vegetation and social factors and was designed to be transferable across local government boundaries.

However, due to the distinctive differences in topography, geology and associated vegetation between Ku-ring-gai and Blacktown this system could not be effectively applied. For instance, the RAP applies

positive scores for floodplain features, which in the Lane Cove's deeply incised shale and Hawkesbury sandstone landscape (Martyn, 1994), are not common or always appropriate characteristics. When this method was trialled on Blackbutt Creek sub-catchment, the results allocated each reach into the same overall score category, despite the obvious physical changes between the upstream urbanised section, downstream bushland section and reaches that ran directly through a golf course.

Parramatta City Council

This riparian health assessment system was developed to assess the condition of a variety of stream attributes and to determine the overall health of streams in the Parramatta Region. Parameters were given a score of 1, 2, 3 or 4 depending on the condition of the variables at each site. The parameters in best condition were assigned the highest number and the system included a mix of riparian, geomorphic and anthropological factors for assessment. In this system, reaches are determined by overlaying a soil map on the study area and separating reaches where a change in soil type occurs (Jeffers *pers comm* 2004). This method was not thought to be suitable for Ku-ring-gai given the interest in comparing streams in bushland settings to those in concentrated residential areas and parklands/sporting fields. The linear scoring system was also seen as unsuitable as it does not take into account the non-linear relationships within and between parameters that occur in natural systems, i.e. the increase of impacts from minor to major erosion within the system.

Newcastle City Council

An asset management framework forms the basis for the Newcastle Creek Assessment Program. Assessment of channel and floodplain features and vegetation structure along with risk management, assets and infrastructure identification provides a particularly thorough survey. This system was robust enough to be implemented in different regions, however Ku-ring-gai required a more rapid technique directed towards rehabilitation prioritisation. It also had to be suitable for non-geomorphologists/botanists to complete with limited training. The final RRA draws heavily from the Newcastle program with respect to vegetation and geomorphic analysis, but has been condensed and modified to such a degree that cross-comparison of data is not possible.

RiverStyles™

The RiverStyles™ framework uses fluvial geomorphology to assess river character and behaviour in a catchment (Brierley and Fryirs, 2001). Although used predominantly in rural catchments a pilot study has been applied to an urban setting at Cedar Creek catchment, Brisbane. However, highly modified

creeks correspond to a low priority conservation (Earthtech et al, 2003), making the River Styles™ system inappropriate to apply (without many modifications) to urban areas such as Ku-ring-gai.

The limited success and applicability of the above methods prompted the development of a new, abridged riparian assessment scheme designed specifically for Ku-ring-gai conditions and requirements. The RRA provides a robust, rapid method that includes geomorphic features and riparian condition as indicators of river health.

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METHOD

Determining Reach and Sample Points

Three features were identified as important in determining reaches for urban rivers.

1. Division of longitudinal continuity, natural or modified

The individual reaches were identified as beginning at a confluence or termination of the stream (including entry and exit from pipes).

2. Landuse

Any changes in landuse between bushland, urban areas and sporting fields/parks were divided into separate reaches as the degree of impervious surfaces greatly impacts the quality and quantity of stormwater and thus affects stream condition (Higgins, 1998).

3. Buffer width

For bushland and parkland, the reaches were further divided by buffer width (10m/20m/40m+). A wide vegetated zone provides an effective filtration system by trapping sediments and nutrients before they reach the stream channel (DIPNR, 2004),

Once the above was determined, sample points were marked according to length of reach. This ensures the most precise reading of stream condition possible, within time constraints.

Reaches < 600m 1 sample point at approximately the centre of each reach.

Reaches 600m to 2500m 2 sample points at approximately equal distances within the reach.

Reaches > 2500m 3 sample points at approximately equal distances within the reach

Riparian Assessment Sheets

The datasheets (refer to appendix 1) were developed to ensure each site can be assessed within approximately 15 minutes, whilst still providing enough detail to adequately describe the state of the catchment. To provide in-field information, stylised drawings accompany many of the questions to allow ease of identification. Both electronic and paper form sheets exist, making this assessment method very flexible. Users can enter data either directly whilst at sites (via palm pilot/tough book), or in hardcopy format to be processed following fieldwork. Entering the data on-site reduces data transfer error and makes the process truly rapid.

The datasheets are organised into sections such as channel features, riparian vegetation etc, so that each section can be sub-totalled to give an indication of where possible conditions issues exist. This helps to identify the links between riparian zone degradation and channel instability.

Each parameter has been included in the assessment for a specific reason as described below.

Site Features

1. Landuse: Landuse was targeted as a particularly important feature affecting associated riparian and channel function. Percentages of Bushland, Sporting field/Park, Residential, Commercial, Industrial and Roads were calculated within 50x50m areas on either bank. This ensured the score reflected the immediate impacts that differing land use could impose on riparian systems.
2. Extraction: Commercial or private extraction of water and sediment directly from the stream zone rarely provides environmental benefits, and in the case of sand and gravel extraction, often leads to destabilisation of the bed and banks (Rutherford et al, 2000).
3. Excavation: Excavation sites, associated with construction of roads and buildings, regularly contribute sediment loads to waterways. Although sediment is a natural component of waterways, excessive amounts can be damaging when entering the stream.
4. Litter: Litter can release toxins when it breaks down and also contributes to lowered aesthetic values. Decaying garden clippings is considered under this category as they cause the reduction of dissolved oxygen in the water. Both litter and garden waste affect the ecological condition and viability of the riparian zone.

5. **Sewerline:** In the Ku-ring-gai region, most of the sewers are gravity operated and consequently laid adjacent to many rivers within their riparian zones. In 2000/2001, Sydney Water Corporation received a total of 15,736 dry-weather overflow reports and 499 wet-weather overflow reports (Sydney Water, 2001). Therefore the presence of sewer lines indicates the possibility of increased nutrient supply to the stream which leads to increases in weed proliferation and decreases in water quality.
6. **Odours:** Odours emitted from in or around a stream, are a sign that a toxin or pollutant has entered the system, and are often the only indication that pollution has occurred (although not all toxicants can be detected from smells). Sewer vent pipes may account for some odours, though for the purpose of the RRA this has not been factored.
7. **Turbidity:** Turbid water indicates the presence of fine sediment, or other contaminant such as paint. During high flows this can scour and smother aquatic organisms (Rutherford et al, 2000) decreasing the amount of light penetrating through the water column, whilst at low flows sedimentation reduces hydraulic diversity of the channel.

Channel Features

1. Shape:

Natural – Channels are complex because they possess hydraulic diversity and variety of habitats, this structure is far more desirable than a simple channel. Channels showing signs of disequilibrium, ie widening, infilling or incising, indicate poor stream health.

Modified – Altered channels do not respond to natural fluxes of sediment or water in the same way as natural channels, and their stability and function depends on the structure remaining intact.

Habitat value is frequently impacted due to a reduction in hydraulic diversity (including straightening, channelisation, rock wall and concrete lining) making them they are more difficult and costly to rehabilitate.

2. **Pool and Riffle Sequences** – The presence of shallow and deep sequences indicates equilibrium between erosion and deposition. These features can be removed in urban streams by bed erosion or infilling sediment or their spacing decreased from 5-7 to 3-5 times channel width (Gregory et al., 1994).

3. Meanders – In an unconfined valley setting, regular bends will form when there is a balance between erosion and deposition. Low sinuosity channels are formed by excessive erosion or channel modification. The exception is where the stream is confined, either laterally by steep geology or basally by a bedrock stream bed.
4. Large Woody Debris – Channel debris and logjams are important for lateral and vertical channel stability, hydraulic diversity and habitat creation for instream organisms (Riley, 1998). Larger logs (>10cm in diameter) provide more permanent structures.
5. Overhanging branches are an important source of organic material and woody debris, as well as moderating water temperatures and thus providing suitable instream habitats.

Depositional Features

1. Benches - In-channel, depositional features, distinguished by their flattened top and longitudinal form. When they are not constricting the passage of water through the channel, they represent a natural storage zone. However, if they cause flow restriction and the channel is incising as a result, they indicate an oversupply of sediment.
2. Islands - Provide hydraulic variability and habitat diversity. The vegetation traps sediment and enables it to remain in the system.
3. Channel Bars – these are un-vegetated, unstable accumulations of sediment (Summerfield 1991). They are a useful indicator of the erosional and depositional characteristics of a stream. Large accumulations of sediment in bars that restrict flow within the channel are an indication of an oversupply of sediment and a stream in physical disequilibrium. In this instance there is either excessive erosion in an upstream area, from channel banks or there is an unnatural amount of sediment entering the system due to some form of disturbance. This extra sediment can decrease the habitat value of a stream and where a point bar is the restricting force, cause erosion of unstable banks.

Erosional Features

1. **Bedrock Exposure** – Natural bedrock exposure in the upper reaches of a catchment is a natural feature, however its absence does not necessarily indicate that a stream is in poor condition. For this reason only bedrock exposed by incision is given a negative score as although it does stop the incision from occurring, the displacement of energy encourages erosion of the banks and widening of the channel.
2. **Undercutting** – Undercutting of the stream bank occurs where the lower portions of the soil profile are more susceptible to erosion than the upper layers. This happens where there is an abrupt change in soil texture or there are tree roots holding the top layers of soil together. This feature indicates that erosion of the stream bank is occurring and although it can provide a diversity of habitat it is an indication of an unstable stream system.
3. **Bank slumps** – A mass movement process whereby a section of the bank falls into the stream. These are often caused by excessive erosion and their presence is also indication of a stream in an unstable condition.
4. **Knickpoints** are a discontinuity in the longitudinal profile of a stream. They represent a fall in base level that can lead to increased erosion within alluvial channels. Unsupported knickpoints (those migrating along a sedimentary stream bed) are scored negatively whilst bedrock or boulder supported knickpoints are stable, natural features beneficial as they help to oxygenate the water. Knickpoints supported by roots, logs or concrete are temporarily stable and easily undermined.
5. **Gully/Rill erosion** – The occurrence of rills or gullies on, or in, close proximity to the banks of a stream indicate a degree of instability within the system and are a source of excess sediment entering the stream.

Riparian Vegetation

The buffer width of riparian vegetation is very important. It influences the amount of available habitat, biofiltration and protection that the vegetation can provide for the stream (Water and Rivers Commission, 2000). The appropriate width of the corridor depends on what purposes it is managed for, but in urban areas a buffer width of 40m+ per side of the channel is seen as the minimum core riparian zone to provide an effective environmental corridor (DSNR, 2003). The right hand bank and the left hand bank (always determined when facing the downstream direction) are scored separately.

Vegetation Structure Assessment

There are two main parts for the vegetation structure assessment. Firstly, the vegetation structure types are assessed and given a score. If there are multiple structure types within the study area, then the percentage score of each type is calculated and combined for an overall score. This is done separately for the left bank and the right bank in order to ensure that any differences are taken into account.

The other aspect assessed in this section is the percent of weed infestation. All levels of the vegetation are considered when calculating the percentage of infestation that occurs and therefore the categories remain rather broad. This is also done separately for the left and right banks.

Each of the above parameters has a large influence on the condition of the stream and its potential for successful management. Collectively they provide the most accurate indication of riparian health in an urban context.

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SCORES

The RRA assesses a series of factors that are important to stream health. These include increased impervious surfaces, sedimentation and erosion, pool riffle sequencing and riparian vegetation (Paul and Meyer, 2001). Each factor can receive either a positive or negative score, the amplitude of which is dependent on the impact it potentially is having on the stream.

The scoring scheme ranges from a lowest possible score of -10 (severely detrimental) to a highest possible score of 10 (substantially positive). A zero score relates to those features that have a negligible effect on the condition of the stream, i.e. where extraction is absent from the stream there are not positive benefits *gained* in terms of stream health, rather the values are not reduced. For each different parameter the score pertaining to a selection indicates how positive, negative or neutral the attribute is to the overall health of the stream. Not all of the scores are linear, this is to try and account for the non-linear influence that many features have on stream condition and the trend with which most natural systems work. For example, once the buffer width is reduced below 40m, each further reduction causes cumulative negative impacts on riparian systems. The numbers attributed to variables were based on Ormerod, 2003) and are in effect nominal scores rather than absolute to allow quantification and a cross comparison of variables.

Other methods, such as river styles, do not place numerical values on the different variables used to assess river condition. Instead it relies on descriptive terms to provide a qualitative analysis on river condition. Herein lies the advantage of the RRA scheme in that it allows a relative measure of river condition between and within reaches and catchments so that environmental resources can be applied appropriately to river system management.

A tally of percentage scores is used for *adjacent land use* and *vegetation structure* assessment. This ensures all of the possible parameters are assessed according to the amount of impact that they are likely to have on the study reach. Each different parameter has a score in its own right. The percentage area that it occupies within the sample zone is visually estimated and then these two variables are combined to give the total score for that parameter. For example: a sample area that contains 50% residential, 30% sporting field and 20% Bushland would get an *adjacent land use* score of

(Area of residential x score for residential land use) + (Area of sporting field x score for sporting field)
+ (Area of bushland x score for bushland) = Total score for adjacent land use

or

$$(0.5 \times -3) + (0.3 \times -5) + (0.2 \times 10) = -2.5 \text{ (Refer to appendix 1)}$$

Once the assessment has been completed, the scores for each parameter are added together to give the overall score for the site. Six categories have been developed and are shown in Table 2.

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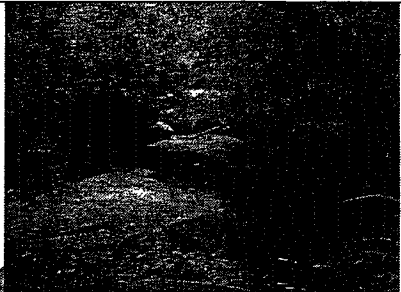


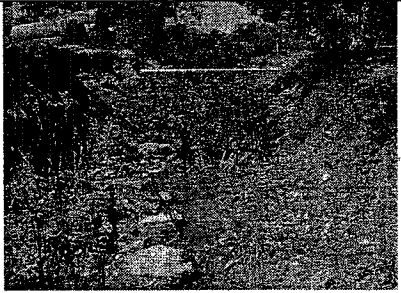
CATEGORY	SCORE RANGE	REACH COLOUR ON MAP OUTPUT	PHOTOGRAPH
Excellent	Greater than 60	Light Blue	
Good	27 to 59.99	Green	
Fair	-6 to 26.99	Yellow	
Poor	-39 to -6.99	Orange	
Very poor	-72 to -39.99	Red	N/A
Severely Degraded	-73.99 or less	Purple	N/A

Table 2 - Score Table

DISCUSSION

Frequency of assessment

Given that there are three fairly large catchments in the Ku-ring-gai area the assessments would need to be undertaken on a rotational basis. For instance, one catchment could be done per year, resulting in the total area being done once every three years. To supplement this, sample reaches in particularly sensitive areas, as determined from bank stability and vegetation condition, or areas that represent the characteristics of the wider catchment, can be assessed every year to ensure that changes on a smaller time scale are not missed. However it must be understood that any rehabilitation initiatives along a stream may take many years to be reflected in an improved score. This is dependent on the connectivity of the system in question and the way that different catchments in the area are likely to respond. In this case, the first few assessments after rehabilitation works have begun should be analysed to ensure that no further or new degradation is taking place.

It is worth noting that rehabilitation goals defined by reference reaches are not always rapidly achieved because the system that is being restored has undergone a disturbance regime entirely different to neighbouring reference reaches (Lake, 2001). Rehabilitation goals may also need to be flexible because stream systems are dynamic and they evolve due to natural changes in environmental process such as drought and flood cycles.

Connectivity

Failure to develop appropriate within system connectivity when rehabilitating stream and riparian systems will limit the self-sustaining capacity of any rehabilitation works. Connectivity in a stream systems is three dimensional – vertical (channel-ground water); lateral (channel-floodplain) and longitudinal (upstream-downstream) (Lake, 2001). Each of these connections enhances the transfer of nutrients, sediment, water and energy fluxes and human influences in a catchment may disrupt the characteristics of these linkages.

Disruption to systems connectivity may be caused by engineering structures such as a dam or culvert, or altered base and peak flood flows or simply due to inappropriate water quality levels (temperature, turbidity, conductivity, contaminants). While physical and ecological parameters can be considered separately, they are in effect inter-related. For example, systems may have appropriate water flow but without the necessary riparian vegetation the stream may have excessive amounts of sediments infilling aquatic habitat or if the release of water from a local storage dam is either too acidic or too cold (from

the base of the dam) these too can adversely affect aquatic organisms by interfering with spawning patterns or by killing insects upon which fish feed. Perhaps one of the most important factors to bear in mind with regard to rehabilitation is to create an appropriate biophysical structure so that overtime, this template can provide the basis for viable habitat for both flora and fauna. A catchment based approach (Brierley and Fryirs, 2001) is the key to initiating longer-term 'total catchment' health with appropriate biophysical structures. In contrast, piecemeal or a 'patch work quilt' set of rehabilitation programs within a catchment are unlikely to be self-sustaining in the long term both from physical and ecological perspective and are likely to require continued and expensive management intervention. What the RRA system can offer in terms of determining connectivity between reaches and catchment of different condition

EXAMPLE OF THE RAPID RIPARIAN ASSESSMENT - BLACKBUTT CATCHMENT PRELIMINARY RESULTS

A pilot study of the Blackbutt Creek sub-catchment in the Lane Cove River catchment was used to determine the effectiveness of the RRA. Thirteen of the fourteen sites within the catchment were sampled using the RRA and each received a score depending on the site attributes at the time that the survey was taken.

The overall results from the pilot study appeared to be in line with observations and inferences of the stream condition. Reaches with wide areas of bushland as a buffer, free of weeds and displaying stable geomorphic functioning, predominantly achieved scores in the *excellent* category. Reaches that were visibly in a poorer condition, evidenced for example by a small/degraded vegetation buffer, incised channels and excessive sediment received scores that placed them in the *fair* or *poor* categories.

Generally, the more urbanised creeks in the golf courses scored the lowest. A reach running through the highly urbanised park on Dumaresq Street also scored within the *fair* range.

Overall the catchment is healthy, with the general trend being that the better condition reaches are in areas with the widest buffer zones. There are no concreted reaches in this sub-catchment and there are not any areas that could be considered as very poor or severely degraded, in either a geomorphic or a vegetative sense, and this has been illustrated nicely by the results from the RRA.

The use of the RRA in this area was compared with the other rapid assessments such as the Blacktown, Newcastle and Parramatta models because the results displayed a greater variety of stream types, which is more closely related to the visual impression that this catchment displays. This extra level of

differentiation between the condition of stream reaches is seen as beneficial as it provides managers with more robust information on stream condition.

By using a map output such as the one in Figure 3, along with the information on particular attributes gained from the assessment itself, the results can be used to allocate resources in an efficient way.

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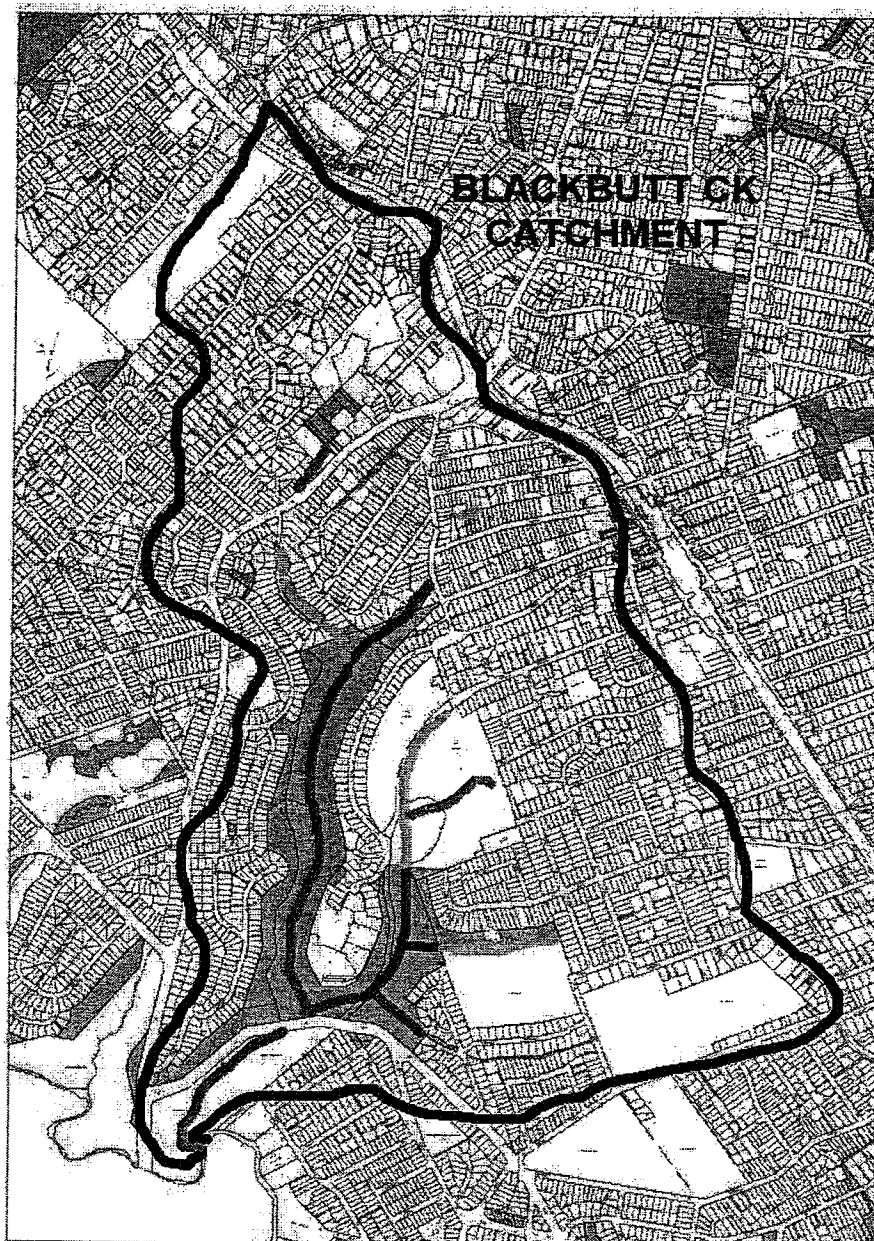


Figure 3 - Pilot Study results - Blackbutt Ck. Catchment.

KEY	
Excellent	greater than 60
Good	27 to 59.99
Fair	-6 to 26.99
Poor	-39 to -6.99
	-72 to -39.99
	-73.99 or less

SUMMARY

Although this assessment scheme has been designed specifically for the catchment characteristics of the Ku-ring-gai area it could be applied in areas that exhibit similar attributes such as topography, geology and vegetation. However, in its current format the RRA method is not suitable for areas where the catchment characteristics contrast greatly as features such as floodplains and swamps have not been considered. Wider applicability is to be addressed in the next stage of development, currently being completed as part of a Masters (Honours) project by Sophia Findlay.

From the pilot study on Blackbutt Creek sub-catchment, it can be seen that the Rapid Riparian Assessment, discriminates the differences in stream condition for reaches that are clearly in different physical and ecological conditions. The relative ease and simplicity with which it can be carried out does not compromise the systems' integrity. The development process included an extensive literature review and discussion with authors of other urban assessment schemes. In-field testing involved an initial trial of urban stream methodologies from both Blacktown Council and Newcastle City Council, cross-checking the final RRA at control sites evaluated with other methods and multi-user repeats. The Blackbutt Creek pilot study has shown that quality, accurate datasets are produced despite its rapid application.

Prior to the development of the RRA method several other methods that were currently in use on urban stream systems were examined and trialed to ascertain their applicability. These included the River Styles method developed at Macquarie University, Newcastle City Council's Asset Management Framework, the Riparian Analysis Protocol (RAP) and the Catchment Analysis Protocol (CAP) developed by Blacktown City Council and a stream attribute and condition assessment tool devised by Parramatta City Council. In each case these were deemed to be inadequate for assessing specific aspects of river condition and so a hybrid tool, the RRA, was developed which took advantage of the knowledge accrued in the aforementioned methods.

When used together with the riparian corridor management plan currently being implemented by the Department of Infrastructure, Planning and Natural Resources (DIPNR, 2004) and a prioritisation framework, more successful management aims and decisions can be made and more effective rehabilitation works carried out.

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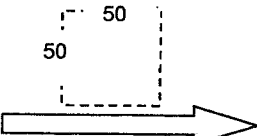
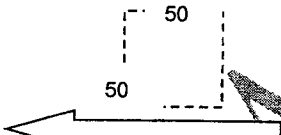
APPENDIX 1

Riparian Assessment Sheets – Ku-ring-gai council

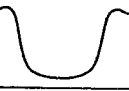
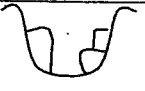



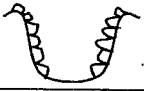

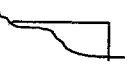
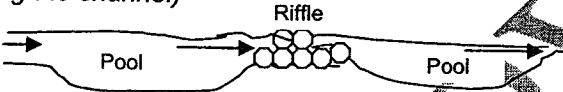
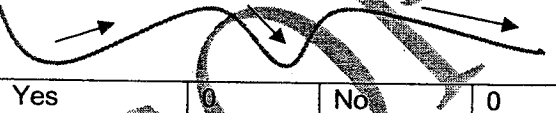
Group and Area Information

Date		Time	
Surveyors (scribe first)		Creek Name	
Photo Numbers		Location Code	
Weather Conditions			
GPS Location	Latitude:	Longitude:	
Type of reach eg; permanent/ephemeral			
Flow Stage eg; high flow, no flow			
Noxious Weeds (please identify)			



Site Features

1. Left Bank (looking downstream)				%	Score		
Adjacent land use (as many as appropriate within a 50mx50m area)							
		Bushland			10		
		Sporting field/Park			-5		
		Residential			-3		
		Commercial			-4		
		Industrial			-6		
		Road			-3		
2. Right Bank (looking downstream)				%	Score		
Adjacent land use (as many as appropriate within a 50mx50m area)							
		Bushland			10		
		Sporting field/Park			-5		
		Residential			-3		
		Commercial			-4		
		Industrial			-6		
		Road			-3		
3. Extraction							
Water		-3	Sediments	-4	Absent	0	
4. Excavation (within 50m)							
Present		-4	Absent		0		
5. Litter (number of pieces)							
High (>20)	-3	Medium (6-20)	-2	Low (1-5)	-1	Absent	2
6. Sewerline							
Present		-3	Absent		3		
7. Odours							
Sewage		-3	Petroleum/Chemical	-6	Normal/None	3	
8. Turbidity (suspended solids)							
High	-2	Medium	-1	Low	1	Not applicable (no water)	0

Channel Features

1. Shape (<i>circle the dominant condition only</i>)					
Natural	Simple 	0	Complex 	2	
	Widened/ Infilled 	-2	Deepened 	-2	
OR					
Modified	Grass lined 	-2	Rock lined (rip rap/gabion) 	0	
	Concrete/ brick lined 	-4	Dams and Diversions 	-6	
2. Pool and Riffle Sequences (<i>Along the channel</i>)					
					
Yes	2	No	0		
3. Meanders (<i>of channel at bankfull</i>)					
					
Confined (by bedrock or colluvium)	Yes	0	No	0	
OR					
Unconfined	Yes	3	No	-3	
4. Large Woody Debris (>10cm diameter)					
High (> 10)	3	Moderate (4-10)	2		
Low (1-3)	1	Absent	-2		
5. Overhanging Vegetation (<i>NB; wide reaches refer to degree of bank shading</i>)					
High ($\geq 70\%$)	3	Moderate (30-70%)	2		
Low (<30%)	1	Absent	-3		

Depositional Features

1. Benches					
					
Present without causing channel restriction	1	Minor restriction	-1		
Severe restriction	-2	Absent	0		
2. Islands (<i>vegetated sediment deposits with flow either side</i>)					
Present	1	Absent	0		
3. Channel Bars					
					
Present without causing constriction	1	Present, causing severe restriction covering > 70% bed	-2	Absent	0

Erosional Features

1. Bedrock exposure (<i>within channel</i>)				
Natural exposure	0	Exposure due to incision	-2	Absent
2. Undercutting				
Minor <10% banks	-1	Moderate 10-30% banks	-2	
Severe >30% banks	-3	Absent		0
3. Bank slumps (ledges)				
Minor <10% banks	-1	Moderate 10-30% banks	-2	
Severe >30% banks	-3	Absent		0
4. Knickpoints (vertical drop of >15cm, covering more than 30% of the channel)				
Bedrock/boulder supported	1	Supported by roots/logs/concrete		0
Unsupported	-3	Absent		0
5. Gully/Rill Erosion				
Gully/Rill	-3	Headcut	-1	Absent

Riparian Vegetation

1. Buffer Depth <i>Left Bank</i>									
Absent	-10	0-10m	-6	11-20m	0	21-40m	6	40m+	10
2. Buffer Depth <i>Right Bank</i>									
Absent	-10	0-10m	-6	11-20m	0	21-40m	6	40m+	10

Vegetation Structure Assessment

[illegible]

TABLE 1 - Type	Score
Closed forest (trees > 30m, canopy > 70%, dense understorey)	10
Open forest (trees > 25m, canopy 30-70%)	9
Woodlands (trees ~ 20m, canopy 10-30%, dense understorey)	7
Open woodlands (trees ~ 20m, canopy < 10%, understorey sparse)	4
Shrublands (shrubs ~ 2m, dense)	5
Open shrubland (shrubs ~ 2m, sparse)	2
Native grasslands/ sown pasture (densely seeded)	3
Open grassland /open herbfield (occasional clumps)	1
Littoral complex (mangroves etc)	6
Urban yards (within fences or property boundaries)	2
Absent (concrete, bare earth)	-10

Overall Impressions (optional)

The groups opinion about the condition of the reach and any notable problems/features

DRAFT COPY

Water Management Policy

Ku-ring-gai Municipal Council

Adopted

IMPLEMENTATION REVIEW - SPORTSGROUNDS GENERIC PLAN OF MANAGEMENT

EXECUTIVE SUMMARY

PURPOSE OF REPORT:	To review the implementation of the Sportsgrounds Generic Plan of Management.
BACKGROUND:	At its meeting of 24 June 2003 Council adopted the Generic Plan of Management for Sportsgrounds. The current Management Plan requires a review and report on implementation of the Plan in the fourth quarter of 2003/04.
COMMENTS:	The Sportsgrounds Plan of Management has 36 Performance Targets in response to issues affecting day to day and long term management of Sportsgrounds in Ku-ring-gai. There are 57 strategies in the Plan to assist in achievement of the Plan's Performance Targets. This report and attachment reviews current and completed actions and identifies future actions in the plan's implementation.
RECOMMENDATION:	That Council receive and note the report and continue to review the implementation of the plan, including consultation with the Parks, Sport & Recreation Reference Group

PURPOSE OF REPORT

To review the implementation of the Sportsgrounds Generic Plan of Management.

BACKGROUND

At its meeting of 24 June 2003 Council adopted the Generic Plan of Management for Sportsgrounds as follows:

- A. *That Council adopt the amended draft Plan for sportsgrounds.*
- B. *That all community members who have participated in the production and exhibition of the Sportsgrounds Draft Plan of Management be notified that the draft Plan has been adopted by Council.*
- C. *That a purchase price in accordance with Council's Fees and Charges apply to sale of copies of the Sportsgrounds Plan of Management.*
- D. *That the issue of not matches at sportsgrounds be the subject of a separate, detailed investigation and further report to Council.*

The current Management Plan requires a review and report to Council on implementation of the Sportsgrounds Generic Plan of Management (Sportsgrounds POM).

A review of implementation of strategies has been undertaken with Open Space staff responsible for implementing the Sportsgrounds POM.

The Sportsgrounds Plan of Management has 36 Performance Targets in response to key management issues identified during consultation for and exhibition of the Plan.

To achieve these Performance Targets the Sportsgrounds Plan of Management included 57 Strategies (the 'actions' section of the plan).

Strategies in the plan are allocated a priority of High, Medium, Low and/or Ongoing. The following timing is allocated to each of these priorities:

High:	within 12 months
Medium:	within 3 years
Low:	within 5 years
Ongoing:	throughout the life of the Plan of Management.

Attachment 1 provides a table that outlines the issues, targets and identified strategies to achieve those targets. The table contains details of complete or current actions against those strategies and also highlights future actions including those identified in the 2004-08 Management Plan.

Item 5

S02182
16 June 2004

Preparation, exhibition, adoption and implementation of the Sportsgrounds Plan of Management involved extensive consultation with sportsground users, local residents, sports clubs and the Kuring-gai Sports Advisory Committee.

Further consultation with these groups will be undertaken in reviewing the success of initiatives in implementing this plan. It is intended that this work will involve the Parks, Sport & Recreation Reference Group, planned Sports Forums and through other communications such as email, surveys and newsletters.

COMMENTS

Considerable pressures exist on the management of Council's sportsgrounds. An analysis of required actions demonstrates that progress has been made against all of the high priority actions and against a substantial number of medium priorities and actions. Low priority actions will be further reviewed in the coming twelve months to identify opportunities for work against these targets.

The table below provides a numerical summary of implementation of the plan to date. Appendix A provides a more detailed analysis of complete, current and future actions. A component of the analysis must be measuring the success of actions against the targets. It is too early to determine whether a number of measures undertaken are yet of benefit. A review of complete or current actions and development of future actions to address issues in the Plan of Management will form an important focus of work of the Parks, Sport & Recreation Reference Group. Enhanced communication with users and stakeholders in planned Sports Forums and newsletter/formal communication should also elicit further feedback as to the success of Council's initiatives.

The following table summarises implementation of the plan to date:

Strategy Priority	Total Number (and ongoing)		Current and Completed Actions to date	Work not Commenced	Future Actions identified
High	22	(9)	21	1	21
Medium	14	(1)	12	2	14
Low	6	(0)	3	3	6
Ongoing	16		16		12
TOTAL	58		52	6	53

CONSULTATION

Significant consultation was undertaken with sportsground users and the community generally in the preparation of the Sportsground Plan of Management. Further consultation with these groups will be undertaken in reviewing the success of initiatives in implementing this plan. It is intended that this work will involve the Parks, Sport & Recreation Reference Group, planned Sports Forums and through other communication such as email, surveys and newsletters.

FINANCIAL CONSIDERATIONS

Actions identified from the Plan of Management are identified as either specific projects listed as a performance target in the Management Plan or are undertaken as a component of ongoing operational management of Council's sportsgrounds. Projects for implementation that require additional resources will be reported as such in subsequent Management Plans.

CONSULTATION WITH OTHER COUNCIL DEPARTMENTS

Consultation between Open Space and Planning & Environment was undertaken in reviewing implementation of the Plan and preparing this report.

SUMMARY

The Sportsground's Plan of Management has identified 36 performance targets to assist in managing 19 identified issues. A review of the implementation of various strategies outlines that work on all high priority actions has been undertaken. It is considered too early in the implementation of the plan to critically assess the impact of those initiatives. Review of this plan should be ongoing and assisted by the Parks, Sport & Recreation Reference Group and other consultative processes with users and major stakeholders.

RECOMMENDATION

- A. That Council receive and note this report
- B. That review of the plan be ongoing and reported through the Parks, Sport & Recreation Reference Group.

Guy Paroissien
Manager Environmental Policy

Leta Webb
Director Planning & Environment

Amanda Colbey
A/Manager Parks, Sport & Recreation

Steven Head
Director Open Space

Attachments: Sportsground Plan of Management - Action Plan

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Vision Statement

The waterways within Ku-ring-gai are managed responsibly within an ecologically sustainable framework, where residents, businesses and Council consider the total water cycle, while acknowledging that urban waterways will never be restored to their natural, pre-development state.

Introduction

This policy replaces the Stormwater Management Policy which was adopted by Council on 14 December 1993, with integration of the concept of total water cycle management. This policy will be supplemented with a Water Management Development Control Plan (DCP), which encourages Best Practices and allows innovation. The DCP will replace the existing Stormwater Management Manual, which will remain in force until the new DCP is adopted.

The need to manage the Total Water Cycle in Ku-ring-gai has been identified due to:

◆ **The high level of water consumption in Ku-ring-gai** (Reference: Ku-ring-gai Municipal Council, State of the Environment Report. 1996/97); Due to the dry nature of the Australian climate, water must be regarded as a precious resource. Many water saving practices and devices are now known and available. For example: fitting low flow water outlets, turning off taps, capturing rainwater from the roof, in a tank and recycling water from the house for use in the garden.

◆ **The degraded state of our creeks** (Reference: Ku-ring-gai Municipal Council, Water Quality Monitoring Report. October 1997); The water quality of the creeks in Ku-ring-gai is degraded. Council undertook a year long water quality monitoring program between October 1995 and September 1996. The testing showed that throughout the three catchments which form Ku-ring-gai (Lane Cove River, Middle Harbour and Cowan Creek) there were extremely high phosphorus and faecal coliform levels.

There are no industrial land uses within Ku-ring-gai, so the problems found in our waterways can be attributed to commercial operations, roadways, residential homes and Sydney Water sewer overflows .

◆ **The need for commitment to clean water by Ku-ring-gai residents;** It is well known that the real damage to waterways is caused by the tyranny of small decisions, meaning that many, varied and seemingly unconnected sources of pollution all contribute to the depletion of the quality of the water. The actions of each person living and working in Ku-ring-gai affect water quality. The major mechanism for pollutants reaching the waterways is transportation

via stormwater (referring to the run-off from rain events). This policy considers both the quality and quantity of stormwater.

◆ **New State government regulations and guidelines for on-site wastewater treatment,**

Local Government in Sydney and, therefore, Ku-ring-gai Municipal Council are only responsible for sewage which is stored and /or treated on site. This includes septic tanks, composting toilets and greywater recycling. Properties which are connected to Sydney Water's sewerage system need to ensure that they have no stormwater pipes connected into the sewerage system, or visa-versa. Management of the sewerage network is the responsibility of Sydney Water, and all enquiries should be forwarded to them. (For further information the Sydney Water General Enquiries Phone Number is: 13 20 92.)

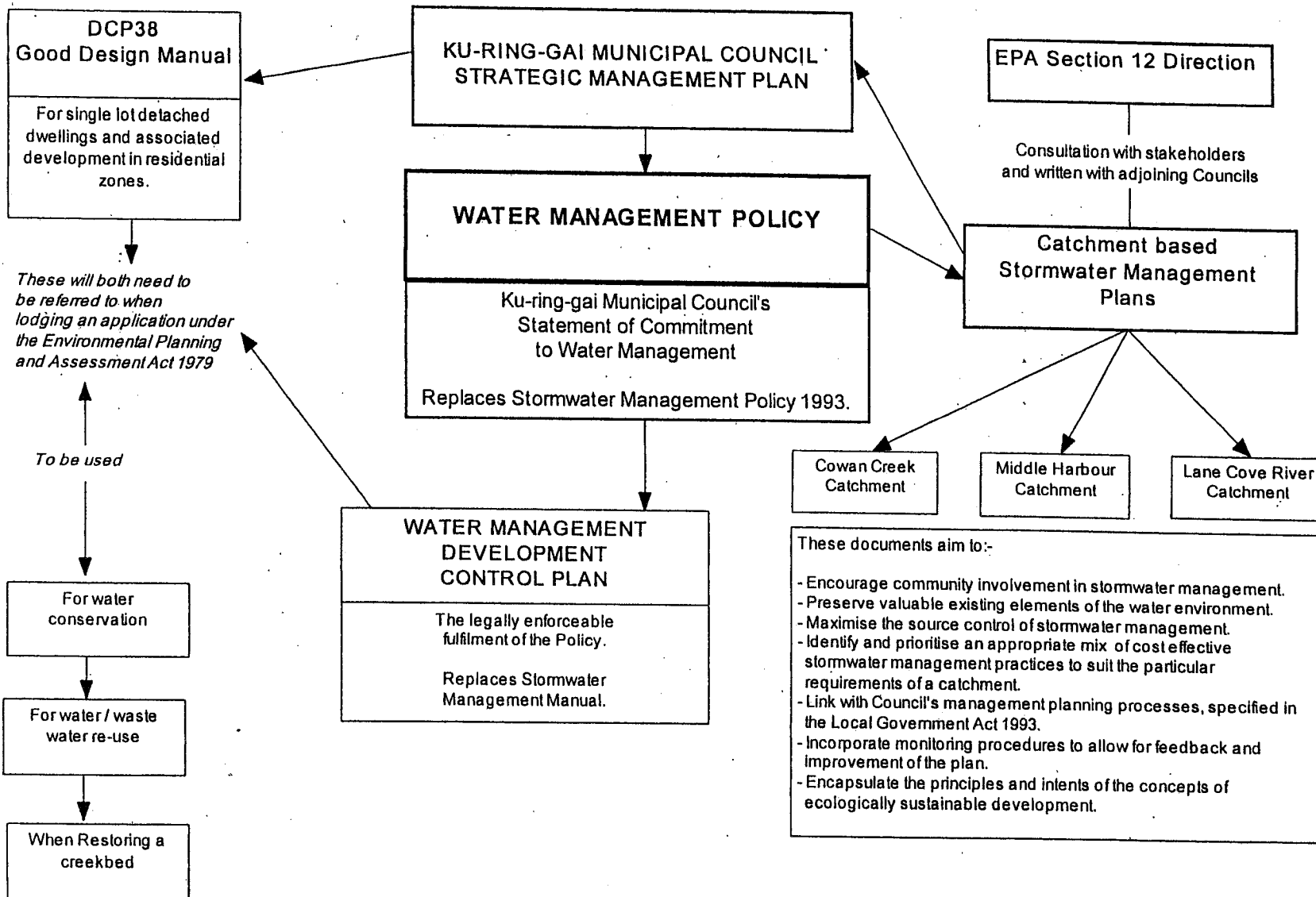
◆ **the high value (eg. Blue Gum High Forest) and high usage (eg. Lane Cove National Park) of the bushland and National Parks within the area.**

Due to the high value of the bushland within Ku-ring-gai protective works and actions need to be undertaken to ensure the areas are preserved for the next generations (link to philosophy of ecologically sustainable development). This includes managing and minimising the impact stormwater has on bushland. Stormwater carries with it nutrients and rubbish, these impact the bushland by encouraging exotic plant growth and decreasing the aesthetic value.

There is a strong link between built upon area and water management, as landscaped areas (gardens and lawns) provide more absorption of rainwater, reducing run-off while slowing the velocity of the water. The amount of water entering creeks in Ku-ring-gai has increased due to urbanisation. This is because urbanisation leads to an increase in impervious surfaces and a decrease in the land available for the infiltration of water into the ground.

Under the Protection of the Environment Operations Act, 1997 council officers are authorised to issue fines for negligent disposal of waste or negligently causing a substance to escape in a manner which harms or is likely to harm the environment. These officers are also able to fine people for littering and enforce silt and sediment controls on building sites. Please report any suspected breaches to the Council; ph: 9424-0888.

Following is Figure 1 which represents where this Policy and the impending DCP fit into Council's strategic plan. It also demonstrates the relationship between these documents and the catchment-based Stormwater Management Plans which Council is obliged to write through a Section 12 Directive from the EPA.



Council requires and / or encourages more responsible use and disposal of water. This policy and subsequent DCP are underpinned by the concepts of:

- ◆ **Total Catchment Management (TCM).** Ku-ring-gai Council is a member of 3 Catchment Management Committees which fall into the local government area (Middle Harbour, Lane Cove River and Cowan Creek) and has an internal committee to co-ordinate these. These committees are striving to manage water and the environment on a catchment wide basis.
- ◆ **Ecologically Sustainable Development (ESD).** This Policy and the DCP encapsulate and further demonstrate the commitment to ESD made by Council on 12 July, 1994. The basic principles of ESD are: *intergenerational equity, conservation of biodiversity and ecological integrity, sustainable income, anticipatory and precautionary principle approach, global perspective and community involvement*. Brief explanations of these concepts are contained in the 'Definitions' section of this document.
- ◆ **Total Water Cycle Management.** This approach involves consideration of all the natural and managed components of the water cycle in decision making. This includes consideration of flooding, water reuse, water conservation and stormwater detention and retention (see Definitions).
- ◆ **Protection of Public Health.** Water management has its roots in the protection of public health, both in water for consumption and in the separation of waste water and stormwater. Water is a precious resource and is in high demand, so the future trend is towards greater wastewater use and reuse. However, it is essential water use and reuse is practised and managed wisely, with a view toward maintaining public health standards expected by the community. Thorough, well-designed and rigorous management practices will help minimise potential health risks.

The policy is divided into chapters, which are the same as those in the DCP. The headings are as follows:

- 1 **Integrated Management.** This chapter gives an overview of the framework for the effective management of water on all lands in Ku-ring-gai.
- 2 **Stormwater.** This section aims to maximise public safety and convenience through the provision and maintenance of an integrated stormwater network throughout Ku-ring-gai. The chapter also looks at the management of stormwater so as to minimise its pollutant load and its impact on any adjoining landuse. Source control of pollutants is encouraged, and maintenance of any stormwater control devices and systems is emphasised.
- 3 **Water Conservation and Re-use.** This chapter outlines both the requirements and the opportunities for Water Saving, Water Interception, Water Storage and Wastewater Re-use and Treatment on-site.
- 4 **Restoring and Protecting Natural Components of the Stormwater System.** This chapter outlines the preservation and, where practicable, restoration of the natural drainage system and the biological, physical and chemical integrity of the water.
- 5 **Community Involvement.** Ku-ring-gai aims to increase community involvement in, and awareness of, water management, and encourage 'ownership' of water management practices.
- 6 **User Pays.** This chapter applies a user pays principle to the management of water within the area.
- 7 **Interallotment Drainage Schemes.** This chapter aims to encourage and facilitate the process of interallotment drainage schemes on private properties.

POLICY

1. INTEGRATED MANAGEMENT

- 1.1. Council shall develop a **Stormwater Management Plan** for each major catchment within the Council area, in partnership with other Councils and stakeholders within each catchment. These plans are to be written in accordance with the Section 12 Direction issued by the NSW Environmental Protection Authority to all Councils across NSW.
- 1.2. A **Water Management Development Control Plan** is to be prepared to deal with water management issues within Ku-ring-gai and act as a guide for private and public water management, with particular construction requirements for stormwater and water conservation devices and systems. The aim of the plan is to clarify and fulfil the objectives of this policy. The plan will replace the existing Stormwater Management Manual.
- 1.3. Water management will be consistent with both the **Stormwater Management Plans** and the **Water Management Development Control Plan** as it relates to each catchment.
- 1.4. All proposed development within Ku-ring-gai Municipal Council area will be considered within the context of ecologically sustainable development and total catchment management.

2. STORMWATER

- 2.1. The aim of this Policy is to control the rate and volume of stormwater.
- 2.2. Council will only approve developments which fully comply with the required outcomes set out in Council's **Water Management Development Control Plan** for quantity and quality control of stormwater.
- 2.3. Development within the 1:100 year floodplain will only be approved in the situations set out in Council's **Water Management Development Control Plan**.
- 2.4. On-site stormwater detention, or equivalent measures which reduce the peak flow, shall be required for:
 - ◆ all new subdivisions,
 - ◆ new single or dual occupancy domestic buildings,

- ◆ alterations or additions to domestic buildings where the impervious footprint (including tennis courts, swimming pools and driveways) changes by over 50m² in flood prone areas or 100m² elsewhere; and
- ◆ new commercial, institutional and multiple occupancy residential developments.

This will apply on both public and private land as appropriate.

- 2.5. Council will require the installation, management and maintenance of stormwater quality management measures, in cases set out in the **Water Management Development Control Plan**.
- 2.6. Council will encourage and lead the development of stormwater quality devices and systems throughout Ku-ring-gai in conjunction with the **Water Management Development Control Plan** and **Stormwater Management Plans**.
- 2.7. Council shall require the removal of all unapproved works constructed in, or obstructions placed within, the Council's drainage system except for minor works set out in the **Water Management Development Control Plan**.
- 2.8. Council will require modification, halt activities, or carry out action to eliminate and prevent the creation of stormwater pollution sources which reduce the quality of or which do not appropriately manage the flow of stormwater.
- 2.9. Maintenance requirements for each stormwater device and system must be developed for each property by, or on behalf of, the property owner. These requirements should be presented to new owners if the property changes hands. Council will record the installation of these devices.
- 2.10. Council requires silt and sediment controls to be installed and managed on any site where soil, sand, etc. is exposed to erosive elements, for example: wind, traffic, water.
- 2.11. Soil types should be considered when planning the installation of water retention or detention devices.

3. WATER CONSERVATION AND REUSE

- 3.1. Water conservation devices and practices shall be actively encouraged by Council.
- 3.2. Council will continue to encourage water interception by upholding: 60% as the maximum permissible built upon area on a residential site; and upholding landscaping requirements.
- 3.3. Council shall support the installation and management of devices and systems that maximise retention (storage) and reuse of water on-site.
- 3.4. Any storage or reuse of water on a property, which would usually be discharged via the sewer must:
 - ◆ be registered at Council,
 - ◆ be regularly inspected by an authorised person, and
 - ◆ comply with the requirements of "Environment & Health Protection Guidelines. On-site Sewage Management for Single Households" issued by the Department of Local Government, EPA NSW, NSW Health, Department of Land and Water Conservation and the Department of Urban Affairs and Planning.
- 3.5. Council will work co-operatively with, and support initiatives and actions taken by, Sydney Water to keep sewage out of creeks, creek beds and the stormwater network.

4. RESTORING AND PROTECTING NATURAL COMPONENTS OF THE STORMWATER SYSTEM

BUSHLAND RESERVES

- 4.1. To minimise adverse impacts on bushland, stormwater quality and quantity will be treated as much as possible before entering bushland reserves, using devices and techniques such as those described in Council's **Water Management Development Control Plan**.
- 4.2. Channelled, piped or consolidated stormwater flows into and through bushland must discharge into an existing watercourse, using methods described in Council's **Water Management Development Control Plan**.
- 4.3. Natural watercourses within bushland reserves will be managed with the aim of maintaining aquatic ecosystems.

- 4.4. Only indigenous native plant species shall be used for erosion protection works and the rehabilitation of riparian vegetation.

PRIVATE LANDS AND PUBLIC OPEN SPACE (OTHER THAN BUSHLAND)

- 4.5. Council will not approve the piping, covering or alteration of a natural watercourse, except in limited cases set out in Council's **Water Management Development Control Plan**.
- 4.6. Degraded, piped or channelled watercourses should be rehabilitated, where appropriate, to a natural state.
- 4.7. Existing natural watercourses will be retained, as much as possible, along with any existing native riparian vegetation.
- 4.8. Indigenous native plant species shall be used, as appropriate, in erosion protection works and riparian vegetation rehabilitation adjacent to bushland. In other areas, locally native species will be encouraged, taking into consideration the surrounding landscape and land use.

5. COMMUNITY INVOLVEMENT

- 5.1. Council will undertake programmes to consult with, and educate, residents and the community at large about water management, to meet the objectives of the policy.
- 5.2. Council will encourage the community's role in water quantity and quality monitoring.

6. USER PAYS

- 6.1. A user pays strategy shall be adopted in the management of the total water cycle wherever possible.
- a) It is intended that the cost of any stormwater device (quality or quantity) installed and maintained on public lands, is absorbed by the moneys recovered from use of the land.
 - b) It is intended that the costs of installation, operation and maintenance of stormwater quality and quantity devices and systems and water conservation devices and systems installed on privately owned land, will be borne by the owner of the property.

c) Council may assist with, or co-operatively purchase and/or maintain devices or systems to be used for the management (quality or quantity) of stormwater, where benefits to the broader community can be shown.

6.2. Erosion and sedimentation controls are to be installed wherever construction works are being carried out, by the developer at their cost.

6.3. When lodging an application, requesting services or other activities not funded by the community rates levy, appropriate fees shall be paid to Council.

7. INTERALLOTMENT DRAINAGE SCHEMES

7.1. Council may assist property owners in the facilitation of interallotment drainage schemes according to the procedure set out in Council's **Water Management Development Control Plan**.

LEGISLATION

Below is a list of the Acts and their primary role relevant to water management:

- ◆ The Protection of the Environment Operations Bill - controlling water pollution and licensing pollution discharges and approving pollution controls.
- ◆ Environmental Planning and Assessment Act - land use planning, environmental impact assessment, and development and subdivision approvals.
- ◆ Local Government Act - building and other activity approvals, orders, and water, sewage and drainage works.
- ◆ Soil Conservation Act - soil conservation and erosion.
- ◆ Water Act - riparian water usage.
- ◆ Rivers and Foreshore Improvement Act - works adjacent to watercourses.
- ◆ Catchment Management Act - establishing Catchment Management Committees and Trusts.
- ◆ Fisheries Management Act - management of aquatic fauna habitats.

Council Codes and Policies should be considered when using this document.

For example:

- Ku-ring-gai Planning Scheme Ordinance
- Development Control Plan 38 - The Good Design Manual
- Local Environmental Plan
- Landscape Management Policy
- Weed Management Policy

IMPLEMENTATION

This policy will be used throughout all Council departments. It will directly affect the work of Development Control, Urban Environment, Open Space and Infrastructure.

This policy document is to be reviewed every five (5) years, or before that time if necessary. Reviews of the policy should be undertaken by an inter-departmental team to ensure staff with relevant expertise are consulted. The community is to be consulted as part of the review process.

DEFINITIONS

Catchment: an area of land from which all run-off water flows to a low point (river, creek, harbour, etc.).

Conservation: Use, management and protection of resources so that they are not degraded, depleted or wasted and are available on a sustainable basis for present and future generations.

Consolidated Stormwater Flows: Where several sources of stormwater flow are funnelled into the same path, and the volume and flow rate is increased.

Consultation: This is a process where dialogue is established between residents, stakeholders and the Council. This process involves: advertisement, stakeholder identification, public participation opportunities, inclusion of outcomes and comments, feedback on the outcomes provided to stakeholders.

Council's drainage system: This refers to the system of pipes and channels which drain water runoff (stormwater), not including those on private property. The system is designed to discharge the water into the nearest waterway.

Developer: Any person or organisation who carry out development of land.

Development: includes the erection of any building, the subdivision of the land and the carrying out of any work, and the use of the land or building or work thereon for a purpose which is different from the purpose for which the land or building or work was last being used.

Ecologically Sustainable Development (ESD): development that uses, conserves and enhances the community's resources so that ecological processes, on which life depends, are maintained and the total quality of life now and in the future can be increased (Source: National Strategy for Ecologically Sustainable Development, 1992). ESD is essentially about creating a system which is self sustaining in the long term. It is more a process than a product. It incorporates conservation principles and practices into the development process, so that a sustainable balance between environmental and economic objectives can be achieved. The principles behind this theory are outlined below.

- ♦ **Anticipatory and Precautionary Principle:** policies and decisions should err on the side of caution, placing the burden of proof on technological and industrial developments to demonstrate that they are ecologically sustainable.

- ♦ **Community Involvement:** strong community motivation, participation and involvement in change is intrinsic to the achievement of a truly ecologically sustainable society.
- ♦ **Conservation of Biodiversity and Ecological Integrity:** conservation of Ku-ring-gai's unique biological diversity and ecological integrity should be a constraint on development.
- ♦ **Intergenerational Equity:** the present generation ensuring the next generation is left with an environment which is at least as healthy, diverse and productive as the one enjoy.
- ♦ **Sustainable Income:** natural capital (eg. biological diversity, healthy environments, fresh water supplies, productive soils) must be maintained or enhanced from one generation to the next. Only income which can be sustained indefinitely should be taken.
- ♦ **Social Equity:** equality within our society must be a key principle when developing economic and social policies as part of ecologically sustainable development.

Erosion Protection Works: structures, actions or works which protect earth from deterioration or wearing away by forces such as wind, water, etc.

Floodplain: relatively level part of a river valley, adjacent to a river channel, formed from sediments deposited by the river during periods of flooding.

Impervious Footprint: the outline of the developed area on a land parcel.

Interallotment Drainage: common stormwater drainage system that serves a number of property owners. Normally this system does not carry public stormwater.

Nutrients: Compounds required for growth by plants and other organisms present in the soil. Major plant nutrients are phosphorus and nitrogen.

Sewage: The waste water from homes, offices, shops, factories and other premises discharged to the sewer. About 99% of sewage is water.

Sewerage system: The network of pipes, pumping stations and treatment plants used to collect, transport, treat and discharge sewage.

Stormwater: Rain water which runs off land, frequently carrying various forms of pollution, such as rubbish, animal droppings and dissolved chemicals. This untreated water is carried in stormwater channels and discharged directly into creeks, rivers, the harbour and the ocean.

Stormwater Detention: Temporary storage of stormwater, with a controlled release into the drainage system.

Stormwater Quality Control Structures: devices designed to improve the quality of the stormwater which passes through it.

Stormwater Retention: Retaining and storing water for later use on-site.

Stormwater system: The system of pipes, creeks, canals and other channels used to carry stormwater to bodies of water, such as rivers or oceans.

Total Catchment Management: The co-ordinated and sustainable use of land, water, vegetation and other natural resources on a water catchment basis so as to balance resource utilisation and conservation.

Trunk drainage: the stormwater drainage system that links property, interallotment and street drainage with the receiving waters.

Water Re-use: The use of water more than once, following treatment of waste water to an appropriate quality standard and delivery to the point of use.

Sportsground Plan of Management - Action Plan

Issue	Performance Target	Strategy	Priority	Current & Completed Actions	Future Actions
Safety/risk management	A safe environment for users of, and visitors to, Council's Sports Grounds.	Formulate and Implement a monthly risk management sports ground inspection program to identify and minimise risks on sports grounds & amenities (excluding clubhouses).	High/ Ongoing	Site inspection sheets completed on all sites following scheduled visits by operational maintenance teams. Customer request system lists, maintenance requests and tracks actions taken to address issues.	Develop proactive user risk management forms and feedback to prioritise and proactively manage risk issues.
	Minimal impacts of Sports Grounds on neighbouring residents' amenity.	Ensure all users are provided with and understand the Open Space Conditions of Hire.	High/ Ongoing	All users are provided and required to comply with 'Open Space Conditions of Hire'. Licence agreements all reinforce these responsibilities.	Increase communication of conditions through forums and newsletter (e-news) proposed in the Management Plan.
Income & Tenure	An equitable pricing structure for all users of Sportsgrounds	Annual Review of fees & charges for seasonal & casual hire of sportsgrounds as per Council's annual Budget, Management Plan	High/Ongoing	Fees have been reviewed & identified in Council's Management Plan. All user groups have received formal notification of Council's proposed fees & invited to comment.	Need for more substantial review of fees may become an issue for user groups as a result of Sports in Ku-ring-gai strategy.
	Leases & licences & other estates over both community & Crown Lands to be in the best interests of the community as a whole, & ensure that such agreements enable, wherever possible, shared use of community land & facilities	Commercial & non-commercial uses must be ancillary to & supportive of use of the ground & must be consistent with the aims & objectives of the Plan	Ongoing	Achieved to date with all licence proposals since adoption of Plan.	Continue to implement consistent with plan.
		Leases, licenses & other estates are only permissible in land categorised as sportsground	Ongoing	Achieved to date	Seek opportunities for shared use where appropriate.
		Review of pricing policy for sportsgrounds fees & charges, specifically to consider opportunities to enhance long term asset management of the sportsgrounds.	Medium	Changes incorporated into 2004-2008 Management Plan reduce disincentive for half day bookings allowed more shared use of sportsgrounds.	Review policy with regard to fees as a future project with Parks, Sport & Recreation Reference Group.
Capital funding	Capital funding sourced from a range of organisations.	Identify all funding opportunities from State and Federal Agencies, Including Section 94 contributions, and pursue grants wherever possible.	High	Capital funding since the adoption of the plan has occurred from Council, user groups pre 1993, Section 94 plan and Department of Tourism, Sport and Recreation Grants. The proposed s94 plan includes capital funding for both new facilities (North Turramurra Recreation Area, 2.5m) embellishment of existing facilities (\$4million).	Explore Regional facility grants, Sports Foundation Funding, improved use of user fees and partnerships. Involvement of Reference Groups in this project would be desirable,
	Capital funding allocated annually to implement key priorities in accordance with the Open Space Capital Works Prioritisation Capital funding allocated annually to implement key priorities in accordance with the Open Space Capital Works Prioritisation Process.	Seek funding in Council's annual capital works program to implement the capital improvements program for Sports Grounds in accordance with the Open Space Capital Works Prioritisation Process.	High & Ongoing	Council currently allocates \$320,000 per annum to Sportsfield Capital Works. The IG year financial model incorporates this funding through the life of the model. The Section 94 Plan has Identified funding for works to satisfy demands of new populations.	Seek new forms of funding.
		Seek innovative arrangements in partnership with user groups	Medium		A suggested future project involving the Reference Group

Issue	Performance Target	Strategy	Priority	Current & Completed Actions	Future Actions
Maintenance	Sports Grounds, including playing surfaces, maintained to a satisfactory and safe playing standard and providing "best value" to Council.	Prepare and identify satisfactory standards for each sports ground location and review maintenance programs for each site annually.	High	Generic maintenance standards for all hierarchies of field have been developed. Programs regularly reviewed.	New finance and asset management systems will improve understanding of costs and benefits of existing and proposed maintenance strategies including resource implications.
		Identify long term maintenance management strategies for all sites.	Medium	Long term maintenance management strategies for each site have been commenced.	
	Basic assets, safe and suitable to provide playing surfaces that meets the needs of users within the limitations of Council's current sportsgrounds and allocated recurrent budget programs.	Audit Sports Grounds monthly to monitor implementation of maintenance plans.	Ongoing	Currently undertaken by maintenance teams on scheduled visits and through site visits by technical staff	Scheduled audit and review programs. Involvement of user groups.
		Review operational and administrative procedures and methods of service provision annually.	Ongoing	Work is ongoing in the review of operational processes and methods of service provision	Information from new financial and asset management systems will be utilised to more effectively evaluate service delivery
		Monitor implementation of the reporting system to provide immediate response for emergency repairs	Ongoing	The Customer Request System is regularly reviewed to ensure that appropriate responses are undertaken in relation to emergency repairs.	
		Promote community and sports club involvement in the maintenance of Sports Grounds (eg. line marking and goal post erection).	Ongoing	Some aspects albeit in a limited form are in place. OH&S and public risk issues prevent some initiatives being undertaken. Discussions are continuing with sporting groups.	Consideration of the Bushcare volunteer Model being utilised for park care and sportsgrounds.
Amenities/ facilities/ storage	Suitable amenities and facilities for all users of Sports Grounds, maintained to agreed standards	Identify the desired amenities (eg. toilets) and facilities required at each Sports Ground location.	High	Being progressively implemented through the capital works program.	Undertaken as a component of master planning sites.
		Develop, prioritise and progressively implement (according to funding) a program to provide identified amenities and facilities.	Medium & ongoing	Staff have assisted St Ives Rugby Club in preparation of DA to improve amenity at Hassell Park. Draft Section 94 Plan addresses existing amenities at a range of sportsfields. To some extent also being addressed through the Buildings Replacement Program.	A future project that can be undertaken by Infrastructure committee and Parks, Sport and Recreation Reference Group.
	Provision of storage facilities that meet the needs of regular users of Sports Grounds without impacting on the values of the Ground and the overall aesthetics of the facility/ground on a holistic basis.	Identify the current and projected future storage needs of regular users, considering all constraints and opportunities and their relative priorities.	Medium	Not yet undertaken.	Will form part of consultation with user groups in development of forward planning and master plans.
		Progressively increase storage facilities according to priority and funding.	Low	Not yet undertaken.	Implement as a component of either building replacement programs or other relevant capital works programs.
	Enjoyment for spectators maximised through provision of facilities appropriate to the site and level of usage taking into account potential impacts on adjoining residents.	Audit all Sports Grounds and identify constraints and opportunities in relation to providing facilities for spectators (in conjunction with users).	Low	Necessary works are being analysed as a component of each project in the capital works program. Works have been completed at Bannockburn Oval.	Undertake a complete audit of sportsgrounds to identify necessary works. Should be undertaken in conjunction with Reference Group.
		Develop and implement prioritised spectator facilities improvement program.	Low	Some limited works are being undertaken within each project of the Sportsground Capital Works program.	Investigate inclusion of identified works from audit into holistic Sportsground Improvement Program.

Issue	Performance Target	Strategy	Priority	Current & Completed Actions	Future Actions
Access – vehicle/pedestrian /emergency/ disabled	The management of service and access routes to sports grounds and associated amenities must take into account the needs for clear access for emergency vehicles and, where possible, their dual use for pedestrians and the disabled.	Provide appropriate barrier systems to regulate vehicular access to Sports Grounds.	High	All locations have effective barriers in place. - Capital Works projects all consider access needs in terms of: *emergency vehicles *less-abled people *service vehicles	Future access audit will highlight access issues allowing for a better structured approach to management and improvement of access to and with Sportsgrounds.
	Provision of emergency access to all sports grounds.	Provide and maintain regulatory signage to ensure unimpeded access to all sports grounds for emergency vehicles.	Medium	Asset audits are determining gaps in provision and maintenance of signs	Asset Management programs to include scheduled inspection and maintenance of signs
	Maximum pedestrian and disabled access to, and circulation within, Sports Ground areas and associated amenities.	Identify constraints and opportunities to maximising access and circulation and develop a program of pathway installation.	Low	Work not yet undertaken	Identify within Master planning of appropriate sites. Overall access audit of Councils sportsgrounds to be undertaken.
		Progressively implement pathway installation program in accordance with budgetary constraints and Council's Access Policy.	Low	Work not yet undertaken	Implementation consistent with landscape Master plans and funding allocated to Capital Works programs
		Provide and maintain regulatory signage to prevent unauthorised parking in disabled car spaces.	Medium	Signs provided where need is established.	Integrate signage needs into overall path enhancement and management actions
Promotion of Access - disabled/ non traditional/ minority	Promotion of access for all groups in the community.	Council to produce a multi-lingual/large print information (fact sheets and signage) outlining location of, and facilities within, sports grounds in Ku-ring-gai for people of non-English-speaking-background.	Medium	Currently reviewing web based information. Off lease areas signs have involved consultation with Advisory Committees.	Issues to be considered in the development of a signs strategy for Park and Recreation facilities. Cross committee project of Parks, Sport and Recreation and Access Committee.
	The allocation, leasing and licencing policy to address and support where possible all emerging, non traditional and minority organised activities, sports and games.	Adoption and implementation of the allocation leasing and licencing policy.	High	Ground allocations reviewed seasonally in line with expressed demand. A working draft leasing and licensing policy is being developed.	Ground Allocation is a likely priority project for the Reference group.
Traffic & Parking	Provision of off street parking opportunities at Council's Sports Grounds without compromising the landscape or recreational values of lands adjoining Sports Grounds unless such compromise is in the public interest.	Investigate constraints to and opportunities for provision of increased off-street parking at Sports Grounds.	Medium	Limited discussions with some user groups have been undertaken.	Planning of future improvements should address opportunities and funding for provision of off street parking.
	Minimum impact of sports events upon traffic flows and nearby residents.	Investigate traffic conditions at all Sports Grounds and develop options to minimise the impact of traffic flows upon users and residents.	Medium	Work has been undertaken with clubs undertaking trial fortnight time fixtures and at venues most heavily impacted by traffic.	Planning will need to be cognisant of and seek to resolve possible traffic issues relating to the use of sportsgrounds.

Issue	Performance Target	Strategy	Priority	Current & Completed Actions	Future Actions
Lighting	All floodlighting to meet the relevant standard (AS 2560 - Guide to Sportslighting and AS 4282 - Guide to Obtrusive Lighting).	Audit Sports Grounds to ensure standard is met Audit Sports Grounds currently with lighting to establish which meet AS2560 and AS4282.	High	All sportsgrounds with lighting have been audited and concept plans developed to enable lighting standards to be met at these grounds.	Complete
		Determine a plan of action to ensure standards are met at all grounds as soon as possible.	Ongoing	At adoption of plan 1 ground met the lighting standard. 6 currently meet the standard and 2 more sites have development applications pending. All grounds are assessed for lighting upgrades as a component of capital works programs . Council also provides technical support and facilitates user and grant funding upgrades.	
	Floodlighting on sports grounds that ensures acceptable impacts on amenity on neighbouring residents.	Audit all Sports Grounds currently without lighting to determine which are suitable for further consideration. Prioritise those sports grounds considered suitable for floodlighting and, as funds permit.	Medium	All grounds without lighting are assessed for suitability to provide lighting and included in the prioritisation matrix.	An overall lighting Improvement plan to be developed to ensure lighting needs are adequately addressed within capital works program and available funding/
	A long term plan for lighting of sportsgrounds that provides for better utilisation of the existing sports ground asset base.		Medium	New Section 94 plan identifies specific projects to achieve this goal.	Lighting needs integration into future masterplans.
Drainage & irrigation	Progressively implement a long term quality irrigation program at all sports grounds.	Prioritise the drainage and irrigation requirements for Council's Sports Grounds.	High	This is being considered as a component of all capital works programs. Water restrictions increase the importance of sourcing water more sustainable methods, e.g. stormwater and /or grey/black water reuse. A task has been identified in the 2004-08 Management Plan for identifying suitable locations for stormwater retention and reuse for irrigation of Council Sportsfields.	Continue to Implement as a component of Capital Works programs.
	Implementation of surface drainage at all sports grounds.	Progressively install drainage and irrigation to Council's Sports Grounds according to funding and identified priorities.	Ongoing	Occurs as a component of capital works program.	
Waste Management	Provision of appropriate recycling facilities at Sports Grounds.	Identify Grounds where it is appropriate to have recycling facilities.	Low	Trials at 2 locations to investigate Community reaction and to determine if concept is successful.	Depending on results of trial, expand the program in conjunction with Technical Services.
		Provide recycling facilities at appropriate Council Sports Grounds and promote their use through the Sports Advisory Committee network and the general community.	Ongoing	As above.	Use forums, news, letters and publicity and Reference Group to increase awareness.

Issue	Performance Target	Strategy	Priority	Current & Completed Actions	Future Actions
	Sports Grounds with minimal littering problems.	Provide adequate litter bins.	High	Bins are available at all locations.	Undertake a detailed survey and monitoring program to check effectiveness of bin provision.
		Develop a routine inspection program to identify and deal with litter problems at Sports Grounds	Ongoing	Currently built into scheduled maintenance programs of Operational team to inspect, clean and report.	Establish reporting process back to user groups at problem sites to determine key issues.
	Sporting organisations to take a positive role in waste management.	Permanent hirers to promote and educate appropriate use of recycling facilities where applicable.	Ongoing	Achieved to date — being trialled at 2 locations.	Intended to introduce this concept through Reference Group
		Ongoing monitoring to ensure litter is appropriately disposed of following sporting activities and general littering issues.	High/Ongoing	Relies on reporting from teams and resident notification to Council.	New financial system will recognise time spent by staff on litter cleaning to help identify problem areas that can be further investigated.
Impact on residents	Adverse impacts on nearby residents managed to an acceptable level.	Ensure all users understand and adhere to Open Space Conditions of Hire.	Ongoing	Open Space Conditions of Hire which form part of agreements with users include sign off specifically on these issues. License agreements reinforce sign off with these. Night time trial has provided a good example of neighbours and sporting groups working together.	Expand the concept of local communities and sporting groups taking ownership of issues and jointly working towards resolution through some specific working parties and park care model.
Booking Guidelines	Compliance with Councils Booking Guidelines, Conditions of Hire and Major Events Guidelines for all permanent and casual organised users.	Ensure all users understand and adhere to Open Space Conditions of Hire.	Ongoing	Documentation signed by clubs clearly spells out all responsibilities and conditions of hire.	Continue existing focus.
Effects of multiple use	Flexible, compatible and equitable multiple use of sports grounds.	Identify those users which are compatible and where possible promote multiple use of the facilities for sporting and other recreational/leisure activities (but not adversely impacting on another Code).	Medium	A number of codes are sharing facilities.	Field allocation and sharing of facilities is a likely priority project for Reference Group.
Over & Under utilisation of specific sites	Allocation of grounds to minimise imbalance of utilisation where feasible.	Implementation of allocation of Leasing and Licensing Policy.	High	Assessments of over and under utilisation are progressing.	Expected to become a high priority project for the Reference Group.
Vandalism	Vandalism and inappropriate use minimised.	Develop and implement a system to provide for immediate response to reported damage or vandalism in parks.	High & Ongoing	Processes are in place for immediate response to vandalism, particularly where safety is compromised or graffiti is offensive.	Community ownership of issue through Park Care, rapid response and consultation.
		Ensure new facilities in sports grounds are of appropriate design and construction and are well maintained to reduce motivation factors for vandalism.	Ongoing	Issues of vandalism are considered in design of all capital upgrades or maintenance.	Broad consultation and involvement of experts in initial design of facilities ensuring other strategies such as effective lighting and casual surveillance of facilities can be achieved.

Issue	Performance Target	Strategy	Priority	Current & Completed Actions	Future Actions
	Investigation into a joint approach between the community, law enforcement agencies and council staff to workshop issues and future management.	Develop and initiate a "sports ground watch" or "sports ground care" program to promote greater community involvement in the management of vandalism issues.	High	Pilot program for "parkcare" identified as a task in the 2004-08 Management Plan	Monitor pilot program, determine resource needs to fully implement.
Dogs on playing fields	Identify the potential for shared usage on sports grounds.	Investigate the controlled usage of sports grounds as off leash areas in consultation with the Ku-ring-gai Sports Advisory Committee, the Companion Animals Advisory Committee, and the Ku-ring-gai Urban Parks Advisory Committee.	High	Council has reviewed its off leash areas.	Continue to implement program and review outcomes.
	Progressively improve the suitability of identified sports grounds in accordance with the Off Leash Area Suitability Rating and funding allocation for the development of such off leash areas.	Prioritise identified sites using the Off Leash Area Suitability Rating.	High	A prioritised program has been identified and one adopted site per year is allocated funds for improvement from the parks development program.	Continue implementation of leash free area improvement program.
Operating Hours for organised activities, sports and games	Ensure appropriate regulatory signage allows control of unauthorised organised use to minimise impact on amenity for surrounding residents.	Ensure all users understand and adhere to the Open Space Conditions of Hire.	High	Users required to sign off specifically on hours of operation and other conditions as part of agreement to hire.	Seek to increase awareness of all users of conditions of hire and scale of approved uses identified in this plan.
		Regulatory patrols to investigate breaches of the Open Space Conditions of Hire.	Medium	Regulatory patrols respond to requests to investigate.	Work with Regulatory Services to Identify an audit process and problem areas.
Impacts on natural areas	Minimum impact of Sports Grounds on natural areas.	Soil test sports grounds to ensure effective and efficient fertiliser application.	High/ Ongoing	Undertaken as a component of regular maintenance programs.	Investigate alternative sustainable management strategies for nutrient management of sportsgrounds.
		Replacement planting with locally indigenous species.	High/ Ongoing	Achieved to date. A number of Sportsgrounds have received planting through the canopy replacement capital works program. Relative planting programs have been developed for a number of sportsgrounds consistent with identified bio-corridors.	Integration of planting opportunities into the biodiversity strategy.
		Actively manage the sports ground bushland interface.	High/ Ongoing	ATD – active programs in evidence at Killara Park, Acron Oval, Bannockburn Oval & Glade Oval	An integrated program to be developed that incorporates Improvements and management of environmental issues on the bushland Interface at all affected sportsground sites.
		Where appropriate, preference will be given to the use of fertilisers that are low in phosphorus non residual and of low impact.	Ongoing	Achieved to date .	Investigation of alternative management practises to minimise environmental impacts of sportsgrounds on catchments and bushland areas.
		Reuse of site water where appropriate.	Ongoing	Investigations and planning for reuse of site water currently being undertaken at Barra Brui Oval. A task has been identified in the 2004-05 Management Plan to identify a list of sites for retention and reuse of stormwater for irrigation.	Incorporate list of sites into future capital works programs, seek funding and implement.

DRAFT LOCAL ENVIRONMENTAL PLAN NO 200 - CONSIDERATION OF SUBMISSIONS AND NEED FOR RE-EXHIBITION

EXECUTIVE SUMMARY

PURPOSE OF REPORT:	To consider Draft Local Environmental Plan No 200 (DLEP200) and the need for its re-exhibition in a revised format to have regard for the gazettal of Local Environmental Plan No 194 (LEP194) on 28 May 2004.
BACKGROUND:	Council resolved to prepare Draft LEP200 at its meeting of 25 November 2003 as a supplement to its adopted Draft LEP194. DLEP200 has been prepared and publicly exhibited on a basis consistent within the format of Council's adopted DLEP194. The Minister's gazettal of LEP194 however has been in a different form to that sought by Council. As a consequence many of the assumptions upon which DLEP200 relied have not been carried through in the gazetted form of LEP194 such that Draft LEP200 is not able to be made in its exhibited format. Redrafting of the Plan is required.
COMMENTS:	In accordance with Council resolutions DLEP200 introduces a number of additional sites for medium density residential development and detached dual occupancy. It also proposes to allow increased yield potential in the 2(d2) zones under Council's adopted DLEP194 (subject to additional development controls) and to permit "hospitals" as a permissible use within Special Area "A" and "A1" zones.
RECOMMENDATION:	That Council resolve to adopt a revised format for Draft LEP200 and place the revised Plan on public exhibition.

PURPOSE OF REPORT

To consider Draft Local Environmental Plan No 200 (DLEP200) and the need for its re-exhibition in a revised format to have regard for the gazettal of Local Environmental Plan No 194 (LEP194) on 28 May 2004.

BACKGROUND

Draft LEP200

1. Council, on 25 November 2003, considered public submissions received in response to the exhibition of Draft LEP194. Council resolved to adopt the DLEP194 with certain amendments. Council resolved to exclude some sites from DLEP194 and resolved to include a second medium density zone (2(d1)) which provided for a maximum 3 levels of development at certain interface locations, between single residential development and the then proposed new medium density 2(d2) zone (which has a potential of up to 5 storeys) and on certain other sites.

Council recognized that the 2(d1) zone effectively “down zones” some of the original residential 2(d2) areas of Draft LEP194. To compensate for the yield loss, Council resolved that a new Draft LEP (DLEP200) be prepared to introduce additional medium density zones as a supplement to Draft LEP194. These sites were as follows:

- 3 – 15 Bundarra Avenue South, Wahroonga – rezone from 2(c2) to 2(d2).
- 1405 Pacific Highway, Warrawee – rezone from 2(c2) to 2(d1).
- 161 – 163 Mona Vale Road, St Ives – currently zoned Residential 2(c) under the Kuring-gai Planning Scheme Ordinance (KPSO). It is proposed to be rezoned from 2(c) to 2(d1).
- 116 – 118 Rosedale Road, St Ives – this site was to have been “down zoned” to 2(d1) (from 2(d2)). This was overlooked in Council’s resolution of 25 November 2003. Council subsequently resolved on 16 December 2003 to correct this and incorporate the amendment in DLEP 200.
- 132 – 138 Killeaton Street, St Ives – currently zoned Special Uses 5(a) “Seminary” under KPSO. It is proposed to rezone the site to 2(d2).
- 1 – 11 Mt William Street, Gordon – rezone from 2(c2) to 2(d2).
- 6a and 8 Buckingham Road, Killara – rezone from 2(c2) to 2(d2).

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- 2 – 4 Wallaroo Close, Killara – rezone from 2(c2) to 2(d2).
 - 9 – 31 Victoria Street, Roseville – rezone from 2(c2) to 2(d1).
2. Council secondly resolved that the new Plan propose some further detached dual occupancy sites. This came about because of an anomaly in the exhibition of DLEP194. The exhibited Map 3 identified properties in the 2(c2) zones which would permit detached dual occupancy development. Unfortunately the map (which was prepared well in advance of the finalization of the 2(c2) zones) identified some sites outside the footprint of the 2(c2) zone. Council resolved to consider the inclusion of these sites for the purpose of dual occupancy development. This necessitates that they be zoned to the new 2(c2) zone. As a consequence Draft LEP200 proposed zoning 17 sites to 2(c2). The properties concerned are:
- 1 Sutherland Avenue, Wahroonga.
 - 112 Coonanbarra Road, Wahroonga.
 - 1548 Pacific Highway, Warrawee.
 - 149 Mona Vale Road, St Ives.
 - 161 Rosedale Road, St Ives.
 - 39 Shinfield Avenue, St Ives.
 - 2 Collins Road, St Ives.
 - 1 College Crescent, St Ives.
 - 238 - 240 Mona Vale Road, St Ives (part of).
 - 124 Killeaton Street, St Ives.
 - 265 Mona Vale Road, St Ives.
 - 1 Ravenswood Avenue, Gordon.
 - 2 Henry Street, Gordon.
 - 31 Karranga Avenue, Killara.
 - 21 Provincial Road, Lindfield.
 - 460 Pacific Highway, Lindfield.
 - 476 Pacific Highway, Lindfield.
3. Thirdly, Council sought to provide an increased development potential within all 2(d2) zones by resolving to increase the maximum permissible floor space ratio available by 10% by increasing it from 1:1 to 1.1:1. This aimed to provide an incentive for developers to restrict the height of their development to 4 rather than 5 storeys. This increase was subject to a number of development standards including limiting the maximum building height, requiring

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a minimum site area of 2,700m² and amending the maximum site cover to 35% (up from 30%) to accommodate the lower built form of development.

4. Council fourthly resolved to extend the flexibility of the Special Uses zones so that “hospitals” could be accommodated in all Special Use “A” and “A1” zones. Thus sites with nominated Special Uses such as “convents”, “seminary”, “church” etc, would be permitted to also accommodate hospital development. The purpose of this amendment is to assist Council in gaining exemption from the provisions of State Environmental Planning Policy No.5 and the recent Senior Living SEPP.

Draft LEP200 has been prepared and exhibited embodying all the above inclusions.

Implication of Gazettal of LEP194

The gazettal of LEP194 has taken place since the preparation and exhibition of Draft LEP200. As a consequence of this the format of Draft LEP200 is now inappropriate for achieving all the outcomes Council resolved for the Plan to address. A revision of Draft LEP 200 is necessary.

COMMENTS

PREPARATION OF DRAFT LEP200

Draft LEP200 was drafted to conform with Draft LEP194 with which it was to be linked to provide additional sites and some further planning measures. As such the Draft Plan was prepared anticipating the introduction of a 2(d1) and 2(d2) zone by LEP194. This has not happened due to the incorporation of both these zones into the new 2(d3) zoning.

There is now a need for Draft LEP200 to be redrafted to introduce the 2(d1) and 2(d2) zones into the KPSO so that the new medium density sites to be introduced by the Plan can be zoned in the manner sought by Council’s resolution.

The new additional measures that Draft LEP200 should now address include:-

- The introduction of the 2(d1) and 2(d2) zones together with the development standards applicable to them which includes height and floor space ratio provisions.
- Modification of the KPSO so that general references to provisions applying to medium density housing in the 2(d3) medium density zone are extended to include the proposed 2(d1) and 2(d2) zones.
- The deletion of Nos 116-118 Rosedale Road, St Ives. These lands were zoned 2(d3) under LEP194.
- The proposed rezoning of 9-31 Victoria Street, Roseville and 2-4 Wallaroo Close, Killara and 1 – 11 Mt William Street, Gordon as 2(d3) , to be consistent with the 2(d3) zoning of the adjoining land.

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A revised Draft LEP200 has been prepared embodying these additional matters and is appended to this report for Council's consideration. The Plan will maintain the existing minimum subdivision standards applying to the lands for dwelling-houses.

APPRAISAL OF DRAFT LEP200 AS EXHIBITED

For Council's information an appraisal of Draft LEP200 as prepared and exhibited to date follows for the information of Councillors.

Public Exhibition

The Draft LEP was exhibited in accordance with statutory requirements. Council has received 158 public submissions and a petition of objection (to the rezoning of 9 – 31 Victoria Street, Roseville to allow medium density residential development) with 1327 signatures. These are discussed in the Consultation segment of this report.

Council's Heritage Conservation Planner

Council's Heritage Conservation Planner has made the following comments:

I have noted the letter about draft LEP 200 submitted by the National Trust. Their concern appears to be potential impact on their classified Urban Conservation Area which is characterized by low density residential areas, as the plan proposes higher densities in three of their precincts. They appear to be particularly concerned with the potential rezoning of 3-15 Bundarra Avenue South, Wahroonga and 161-163 Mona Vale Road, St Ives.

I have concerns about some of the sites as follows. I wish to state that these comments are only preliminary and intended to assist in preparation of a report to Council on draft LEP 200 and I have not otherwise been involved in draft LEP 200.

St Ives, Camellia Grove site, Mona Vale Road

Council has resolved to undertake a heritage assessment of this site to determine whether it has heritage values sufficient to consider including it as a heritage item. We have commissioned a consultant to undertake an assessment; however his report is not complete. I would suggest that this site be deferred until Council has considered the consultant's report and made a decision on its heritage value and potential listing. Rezoning of this site prior to the report being available would not result in good heritage management.

Killeaton Road, St Ives – Passionist Site

This site is not a heritage item and was subject to SEPP 5 development. The site contains an important archaeological deposit and part of a very early slab shed. The SEPP 5 development proposed retaining these items. The main building has heritage significance and its retention is considered necessary. The existing SEPP 5 application proposed retention of most of the early building. I understand that the Land & Environment Court approved the application, although work has not proceeded on the site. I would be concerned at rezoning of this site due to the heritage significance of the existing buildings and the archaeological relics.

161-163 Mona Vale Road, St Ives

The existing post war houses have no heritage significance and are located in a commercial locality. No heritage reasons against potential rezoning.

1-11 Mt William Street, Gordon

Council prepared draft (Heritage Conservation) LEP 25 in March 2001 to include the National Trust UCA No 13, however it has not been exhibited as a LEP. In 2001, the consultants, Godden Mackay Logan (GML) undertook a detailed study of the National Trust UCA No 13. They suggested that an additional area including Mt William Street be included in the UCA as it was historically part of an early land subdivision and graded the subject properties as contributory to the UCA.

The GML report was placed on public exhibition and Council resolved on 21 May 2002 to adopt the report and recommendations. However, Mt William Street is not part of the National Trust UCA and is not part of the area contained in draft LEP 25.

I acknowledge that there is a potential conflict in including this area in LEP 200 as Council has adopted the recommendations of the report prepared by GML in 2002. Allowing 2(d2) would presume that demolition is acceptable, which is contrary to the intent of Council's resolution of 21 May 2002.

It is my view that although the subject properties are of some heritage value, Mt William Street is of a different character than other streets in UCA 13 and that the heritage precinct would be better defined if Mt William Street, Burgoyne Street, Carlotta Avenue and Pearson Avenue were removed.

7 Ravenswood Avenue, Gordon

Council recently allowed demolition of 2 significant buildings on this site as the Ravenswood School wanted more open space for the school and the land has been landscaped as part of the school. Why is this site now being considered for medium density? However there are no heritage issues.

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Although this group of houses are not individual heritage items, they are important contributory items in UCA 3 – Roseville Conservation Area. Several of the houses were identified by GML in 2000 as potential heritage items. Individual listing was not pursued at the time, because the overall policy has been to focus on identifying Conservation Areas, rather than individual properties so that whole areas could be effectively managed.

The potential Roseville Conservation Area – UCA 3, is probably the most intact conservation area in Ku-ring-gai with very good examples of Federation and Interwar houses. Its heritage value is identified in the report on UCA 3 (Stage 2 & 2a) prepared by GML in 2002. Although UCA 3 contains many properties, rezoning of the properties in Victoria Street would further erode the overall value of UCA 3 and may set a precedent for further areas to be removed before Council has the ability to exhibit the UCAs as draft LEPs or DCPs. I strongly recommend that it be removed from any rezoning proposals.

3-15 Bundarra Street South, Wahroonga

This is a group of very intact Interwar houses, built c1925 by one builder. Similar groups in Ku-ring-gai are identified for similar values, particularly Frances Street, Lindfield, Lightcliff Street, Lindfield, Pockley Street, Roseville and Newark Crescent, Lindfield. There may be more similar groups in Ku-ring-gai that are not yet identified.

Although the history has not been fully investigated by Council and no detailed assessment of the individual houses been undertaken, it is obvious that the house are highly intact and worthy of some form of heritage listing, possibly a group LEP heritage listing, small Conservation Area or a Special Character area listing.

I acknowledge that much of the surrounding area has been rezoned or is in the process of rezoning. If a heritage group, conservation area or special character area were developed by Council, the integrity of the group may be compromised by future nearby development which would see changes in its setting. However, there would be additional controls “within the vicinity” of a heritage item or conservation area to ensure that future nearby development would respect its heritage value, which in theory should result in an acceptable new development which respects the heritage character. Certainly there are many cases in Draft LEP 194 where rezoning around individual heritage items is proposed and it is proposed that the interface zones could be dealt with at DA stage.

1548 Pacific Highway, Wahroonga

This is an existing heritage item. Apparently the owners were not aware that it is a heritage item and recently nominated their house for heritage listing!

Provided that only dual occupancy could occur, I do not believe that its heritage significance is high enough to stop potential dual occupancy development, provided it was done in a

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complimentary matter and did not involve demolition. However, under the existing heritage provisions, dual occupancy could be achieved without rezoning.

As the overall policy of Council was to exclude existing heritage items, I believe this site should be excluded from LEP 200 on similar grounds. It may also send the wrong message to DIPNR if we are including a heritage item and claiming that heritage is a problem in the rail/highway corridor.

Comments on Heritage Conservation Planner's Comments

The Heritage Planner's comments are noted. They generally accord with the Planning Department's views as set out in the Planning comments later in this report where the properties are considered on a site by site basis. Three sites however warrant particular comment as follows:

- 7 Ravenswood Avenue, Gordon
This site is not being considered for medium density development as suggested. It is only in the context of dual occupancy that it is under review. As elsewhere stated it is not recommended for a change in zoning having regard for the nature of its past / current school usage.
- 9-31 Victoria Street, Roseville
The Urban Conservation Area values of the site are noted. It is considered that this value is mitigated by being at the edge of the UCA which is also fragmented in this location. This is a result of medium density zoning / development at the north western end of Victoria Street, the adjacent Roseville Girls College development, and adjoining Recreation Avenue tennis courts / Roseville Arts Centre car park. The 2(d3) rezoning of adjoining properties in Boundary Street to permit medium density development in LEP194 is also significant.

On balance it is not considered that retention of the status-quo is appropriate as suggested by the Heritage Conservation Planner in this instance.

- 3-15 Bundarra Street South, Wahroonga
The Heritage Conservation Planner's comments have acknowledged this group of inter-war houses as being good examples similar to other groups identified in Ku-ring-gai. Whilst the Heritage Conservation Planner suggests that the sites may be worthy of a heritage listing (notwithstanding being surrounded by medium density zonings) this view is not shared. On balance it is considered that the precinct will be out of step and isolated by medium density development adjacent. It is therefore considered acceptable that it be zoned for medium density development as are its surrounds.

Department of Technical Services

Having regard for potential traffic implications of development of sites in Bundarra Avenue South, Wahroonga and Victoria Street, Roseville (and traffic concerns expressed by respondents concerning these localities) traffic related issues were investigated. Council's Traffic and Transport division looked in detail at the two sites and prepared a report concerning the implications of medium density development for the sites and their surrounds.

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The report concludes that both sites will not significantly impact on traffic movements in each area. Neither site is dismissed as unsuited to medium density development on traffic related grounds. The conclusions of the report as related to each of the 2 sites is set out hereunder for information. The full report is available on Council's file.

3-15 Bundarra Avenue South, Wahroonga

- *The proposal is not considered to have significant additional impact to traffic volumes in Bundarra Avenue South and Everett Way, however the proposal may have some minor additional impacts to congestion in the Wahroonga shopping centre.*
- *The proposal is not considered to impact significantly on vehicular access from Bundarra Avenue South into Pacific Highway.*
- *The cumulative effects of the nearby site exhibited in draft LEP 194 are not considered to have significant additional impact to traffic volumes in Bundarra Avenue South and Everett Way, and are not considered to impact significantly on vehicular access from Bundarra Avenue South into Pacific Highway.*
- *There could be benefits to traffic conditions in Everett Way resulting from the proposed set-down / pick up facility for Abbotsleigh Junior School.*
- *Footpath and lighting improvements along the routes to Wahroonga railway station / shops should be considered to encourage public transport use and pedestrian movements.*

9-31 Victoria Street, Roseville

- *The proposal is not considered to have significant additional impact to traffic volumes in Victoria Street.*
- *Although there may be some congestion in Hill Street at Boundary Street, it is not considered that additional traffic movements expected during the peak hour as a result of the proposal would have significant additional impacts to the operation of this intersection.*
- *There is concern about the Level of Service of major intersections along Boundary Street in the vicinity of the site and that delays may be experienced by residents accessing the site from these intersections.*
- *The cumulative effects of the nearby medium density site exhibited in draft LEP 194 are not considered to have significant additional impact to traffic volumes in Victoria Street.*
- *Despite traffic conditions in the vicinity of the site, and the minor additional traffic generation from the rezoning proposal, it is considered that medium density development at this site would be appropriate due to its proximity to public transport (present and future) and core services.*

CONSULTATION

Consultation with Authorities

1. In accordance with the provisions of Section 62 of the Environmental Planning and Assessment Act 1979 Council consulted with 18 statutory authorities, 4 adjoining local Councils, 5 local chambers of commerce and the respective members of Ku-ring-gai and Bradfield before undertaking public exhibition of the Draft Plan.
2. Council has received responses from Hornsby and Warringah Councils neither of whom raised objection.
3. **Sydney Water** responded and stated its requirements for development that needed to be met by Council/developers. This included Section 73 compliance certificate, mains diameter/supply requirements including augmentation if necessary, sewerage services amplification if necessary, water conservation etc. No objection was specifically raised to the Draft Plan.
4. **The National Trust** has responded seeking certain clarifications concerning the Plan. These have been given. The Trust expressed objection to the Plan as it related to rezoning 2 – 4 Wallaroo Close, Killara, 161 – 163 Mona Vale Road, St Ives and 3 – 15 Bundarra Avenue South, Wahroonga. Each of these sites was recognized by the Trust as falling within 3 of the Trusts classified Urban Conservation Areas. These were respectively the Greengate Road Precinct, Pentecost Avenue Precinct and Mahratta Warrawee Precinct. The Trust considered the rezoning of these sites to allow for medium density housing would be inappropriate in terms of scale and detrimental to the character of the urban conservation area if permitted.
5. **The NSW Fire Brigades** has commented, however discussion related to the provisions of Draft LEP 194. Comments are directed at ensuring access for the Brigades plant and the undertaking of development in accordance with “Planning for Bushfire Protection” provisions. No objection was raised to the Draft Plan.
6. **Energy Australia** responded as an owner of land affected by the Plan. It commented that its future applications will be lodged as Crown Applications under Part 5A of the Environmental Planning and Assessment Act 1979. Energy Australia makes reference to a Section 117 (2) direction which requires that draft LEPs as far as possible adopt model provisions which are relevant to the aims, objectives, policies and strategies of that plan. In this regard it requests Council adopt Clause 35 of the Model Provisions such as not to restrict or prohibit Energy Australia from carrying out development which it is required to undertake in order to fulfill its proper functions.

It is considered that the aims and objectives of this Plan are not such as to be relevant to the matter raised and are not limiting to Energy Australia operations. Draft LEP 200 merely supplements Draft LEP 194 by introducing further sites into the Plan. No objection is raised by Energy Australia to DLEP 200.

Public Exhibition

The Draft LEP was exhibited in accordance with statutory requirements. The Plan was advertised in the local press and exhibited at Council's Chambers and the Council libraries from 25 February 2004 to 31 March 2004. Council wrote to all property owners/occupies of the lands which were to be subject to proposed zoning change. In addition adjoining and adjacent owners/occupiers were also notified by letter of the Draft LEP. Approximately 1400 letters were forwarded in total.

In response to the notification/exhibition process Council has received submissions in a number of forms being:

- i.) 70 individual letter/e-mail submissions.
- ii.) A total of 91 standard form letters of objection to the rezoning of 3 – 15 Bundarra Avenue South, Wahroonga.
- iii.) A petition of objection to the rezoning of 9 – 31 Victoria Street, Roseville to permit medium density development (and rezoning of Boundary Street, Roseville to accommodate 5 storey development) bearing 1327 signatures.
- iv.) A petition of objection bearing 15 signatures from Victoria Street, Roseville residents objecting to rezoning of 9 – 31 Victoria Street, Roseville to permit medium density development (and rezoning of Boundary Street, Roseville to accommodate 5 storey development).

Comments on Submissions

- i) The first grouping of 70 individual submissions relate to the majority of the sites proposed for rezoning under Draft LEP 200. These are discussed in relation to each of the sites to which they relate in the following Section.
- ii) The second group of submissions are 91 "form" letters expressing objection to the rezoning of 3–15 Bundarra Avenue South, Wahroonga. The objections are based on the grounds of traffic and access, collective heritage values of the dwellings at Nos 3 – 15 and physical implications of up to 5 storey development within the street. The objectors are residents of the adjacent streets being Neringah Avenue, Warwilla Avenue, Woonona Avenue, Everett Way, Bundarra Avenue South and Pacific Highway. The issues raised by these letters are considered in the following section.
- iii) The third group of submissions takes the form of a petition of objection. This petition was taken up on Saturday 27 March 2004 at the Roseville Chase Community Centre and Roseville Scout Hall. The petitioners express opposition to the rezoning of 9–31 Victoria Street, for medium density development purposes. The petition also expresses objection to the rezoning of Boundary Street to allow for 5 storey development. In this respect the rezoning of Boundary Street was the subject of Draft LEP 194 and is not addressed by DLEP 200. Five storey development was not proposed under council Draft LEP 194. Council's adopted

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version of DLEP 194 provided for a 2(d1) zone which had a maximum 3 storey provision only for Boundary Street.

Note: Draft LEP194 was required to be exhibited by the Minister for 5 storey development on Boundary Street. It was the recommendation of staff and Council's consultants that 9-31 Victoria Street should also be the subject of rezoning to allow for 5 storey development consistent with that proposed for Boundary Street. Now that the Minister has gazetted LEP194 as a 5 storey (2(d3) zone) it is considered appropriate that 9-31 Victoria Street be the subject of re-exhibition also proposing 2(d3) zone. This will allow for a total block approach to future development to allow Victoria Street properties to be consolidated with Boundary Street properties and permit logical site amalgamations. This would allow Victoria Street access, allotments with good dimensions and remove interface issues between differing Victoria Street / Boundary Street zones.

- iv) The fourth grouping is the same as the third grouping previously discussed being a petition with the same objections. The petition is signed by 15 residents of Victoria Street, Roseville.
- v) It is to be noted that no submissions made comment or raised objection to the Draft Plan concerning its proposal to vary maximum floor space ratio provisions (from 1:1 to 1.1:1) or to allow for the provision of "hospital" development in existing Special Uses "A" or "A1" zones.

Note: Council in deciding to proceed with the increased FSR of 1.1:1 (on sites over 2700m²) should be reminded that this will necessitate a bigger building footprint to accommodate the greater floor space and reduced height. Thus other things being equal there will be lesser setbacks and reduced landscape potential. Draft LEP200 recognises the need for increased site coverage (over the then existing DLEP194 provisions) by increasing site cover for residential flat buildings to 35%. This however has now been provided by the gazetted format of LEP194. Thus this measure need not now be provided within DLEP200.

It is considered also that the 2700m² threshold for a higher FSR provision and 5 storey development should be reduced to 2400m² to be consistent with the gazetted form of LEP194.

Consideration of Submissions on a Site by Site basis**Proposed 2(c2) Zones**

Site Identification	Submissions	Planning Comment
1 Sutherland Avenue, Wahroonga	No submissions have been received in respect of this property which is a large site of 3004m ² having a substantial dwelling erected thereon and a tennis court. The site lies within the National Trust Urban Conservation Area No 27. The site is adjacent to the existing 2(c2) zone of DLEP 194 which lies to the south and west on the opposite side of the street.	The sites identified as 2(c2) in this Draft Plan are proposed because they have been considered for their <u>detached</u> dual occupancy potential because of their frontage to 2 streets. This site has frontage to 2 streets however one is effectively only a pedestrian pathway which is a narrow extension of Chiltern Parade known as Warrawee Walk. It does not constitute a road for the purposes of vehicular access. The site however is extensive and is considered reasonably able to accommodate dual occupancy development in attached or detached format. Its inclusion in Draft LEP200 as a 2(c2) zone as exhibited can be supported.
112 Coonanbarra Road, Wahroonga	An objection has been received to the overall issue of urban consolidation. The objector states it to be inappropriate to rezone the site particularly given the existing style of the dwelling.	The site 1220m ² has a substantial dwelling erected thereon. It is a corner site on the northern side of Bareena Avenue. The 2(c2) zone extends to the south side of Bareena Avenue. The existing dwelling is considered capable of adaptation as an attached dual occupancy. It is not however seen to be appropriate for dual occupancy in a detached form given the limited availability of site area. Inclusion of the site as a 2(c2) zone can be supported but it should not be rezoned for detached dual occupancy purposes.
1548 Pacific Highway, Wahroonga	No submissions have been received in respect of this property which is a heritage item on a 1846m ² site. Heritage items have been specifically excluded from lands covered by the Residential Development Strategy.	On the basis of its heritage listing the site should be excluded from DLEP 200 to be consistent with Residential Development Strategy provisions. It is to be noted that there are conservation incentive provisions available to all heritage items under clause 61H of the

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Site Identification	Submissions	Planning Comment
		KPSO. These are available to allow for consideration of alternative development options by Council on a basis of merit.
149 Mona Vale Road, St Ives	No submissions have been received in respect of this site. The land is 1348m ² in area located on the corner of Pentecost Avenue.	The site is of large size and capable of adaptation to dual occupancy development in attached or detached form. Inclusion of the site in a 2(c2) zone could be supported to permit attached or detached dual occupancy development.
161 Rosedale Road, St Ives	A submission has been received from the adjoining land owner requesting that No 163 be considered in the future for a 2(c2) zone. It is currently bounded by a 2(d3) zone under DLEP 194 to the north and the subject proposed 2(c2) site (No 161) to the south. The request is noted for future considerations as appropriate.	The site is developed by a very large dwelling capable of adaption for dual occupancy development. There would appear to be little opportunity or site area for detached dual occupancy development. Inclusion of the site in a 2(c2) zone to permit attached dual occupancy can be supported.
39 Shinfield Avenue, St Ives	Three submissions of objection have been received from adjacent owners to rezoning to 2(c2). Concern is expressed at potential tree loss, development access being affected by existing speed humps, loss of amenity, privacy concerns, potential drainage issues, location and narrow and busy roads.	The matters raised in objection are noted. For this site it is generally considered that there are issues associated with a detached dual occupancy development. It is considered that an appropriate adaptation of the dwelling as an attached dual occupancy could reasonably address these issues. Inclusion of the site as a 2(c2) zone can be supported but it should not be rezoned for detached dual occupancy purposes.
1 College Crescent, St Ives	This site has not been the subject of any submissions. It is positioned on the corner with Yarrabung Road.	The existing dwelling is considered capable of adaptation as an attached dual occupancy. It is not however seen to be appropriate for dual occupancy in a detached form given the limited availability of site area. Inclusion of the site as a 2(c2) zone can be supported but it

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Site Identification	Submissions	Planning Comment
		should not be rezoned for detached dual occupancy purposes.
238 – 240 Mona Vale Road, St Ives	One submission has been received from Ingham Planning on behalf of the site owners (Camellia Grove Nursery). The site is made up of several allotments. Only 2 exceed 1200m ² area and it is these 2 which are proposed as 2(c2). The consultants argue that the combined site including all allotments could be included. The submission further argues that the site by its size, location and proximity to proposed medium density zones would be suited to medium density zoning. It is requested that it be so considered as a 2(d2) zone.	The site is currently the subject of a heritage assessment for which Council has engaged an independent consultant. It would be premature to rezone the site for any purpose before the report can be considered. (It is not possible to consider any zoning upgrading to 2(d2) as requested under this Draft LEP). The site should be further investigated in the future study of the St Ives Centre and considered as a strategic site in this review. The site should be excluded from DLEP200.
265 Mona Vale Road, St Ives	One objection on the proposed inconsistency of the rezoning has been received for this site of 1543m ² on the corner of Killeaton Street. The site accommodates Chabad House (synagogue).	It is unlikely that any change in use of the synagogue site will occur in the short term. Dual occupancy (as proposed in Clause 25F of DLEP194) can only be undertaken on those qualifying sites which were occupied by a dwelling-house at 28 March 2000 and also at the date of application. The synagogue site does not meet this criteria having been in place before 2000. In these circumstances it is not appropriate that it be rezoned 2(c2).
124 Killeaton Street, St Ives	One submission on the proposed inconsistency of the rezoning has been received for this site of 1524m ² . It is developed with a dwelling house and is located on the corner of Mona Vale Road opposite the Chabad House site previously discussed.	This is an irregular shaped allotment with some significant trees in its undeveloped areas. The existing level of development, trees and irregular site render it unsuited to detached dual occupancy development. However, the site could be suited to the adaption of the existing dwelling for attached dual occupancy. A 2(c2) zone for attached dual occupancy could be supported.

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Site Identification	Submissions	Planning Comment
7 Ravenswood Avenue, Gordon	No submissions have been received in respect of this site which forms part of Ravenswood Girls School. The allotment of 1637m ² is currently zoned Residential 2(b) under the KPSO and is contiguous with the school site and used as playground space.	This site has operated as part of the Ravenswood Girls School for a considerable period. It does not qualify as a dwelling-house for the purpose of Clause 25F of DLEP194 to permit dual occupancy development (if rezoned to 2(c2)). For these reasons and recognizing its ongoing school use the site should be excluded from DLEP200.
2 Henry Street, Gordon	No submissions have been received for this site which is contiguous with the south eastern corner of Ravenswood School at the corner of Henry Street and Cecil Street, Gordon. The site is of 1265m ² area and is owned by the Uniting Church in Australia (on behalf of Ravenswood School). It is currently used as a dwelling house and has not been used for school purposes.	It is understood that in the future Ravenswood intends to develop the site as part of the school. Notwithstanding this in the event that the site were to be sold by the School as a residence there would be no objection to its adaptation as a dual occupancy in an attached or detached form. A rezoning to 2(c2) could be supported on this basis.
31 Karranga Avenue, Killara	One submission was submitted which did not object to the rezoning but referred to the dangers of the 3 leg intersection of Powell Street, Wattle Street and Karranga Avenue at the vicinity of this site. The site of 1248m ² is developed with an extensive dwelling in combination with the adjoining property 1A Wattle Street which accommodates a tennis court and is used as part of the site.	The size of the dwelling is such that it could be adapted as a dual occupancy. However it is not suited to the erection of a second detached dwelling. The site is adjacent to proposed 2(c2) zones on the opposite side of Wattle Street and Karranga Avenue. The rezoning of No 31 to 2(c2) could be supported so as to permit attached dual occupancy. The size of existing parking arrangements could meet dual occupancy requirements without the need for additional vehicle access.
21 Provincial Road, Lindfield	No submissions have been received for this site located on the corner of Wattle Street (1511m ²). The treed site contains a dwelling house and pool. The 2(c2) zone as proposed	This large site is developed at its northern end. The southern half is landscaped. There is potential for adapting the existing dwelling as an attached dual occupancy or by

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	under DLEP194 is located on the opposite side of Grassmere Road and Provincial Road.	sympathetic siting providing a detached dual occupancy. The inclusion of the site in Draft LEP200 as a 2(c2) zone as exhibited can be supported.
460 Pacific Highway, Lindfield	No submissions have been received for this site. The land is already zoned for medium density development (zoned 2(d) under KPSO) and is developed with a 3 storey block of units.	Rezoning to the lower 2(c2) zoning is inappropriate and can not be supported.
476 Pacific Highway, Lindfield	No submissions have been received for this site. The land is already zoned for medium density development (zoned 2(d) under KPSO) and is developed with a block of 9 units.	Rezoning to the lower 2(c2) zoning is inappropriate and can not be supported.

Proposed Medium Density 2(d1) and 2(d2) Zones

Site Identification	Submissions	Planning Comment
1405 Pacific Highway, Warrawee (Proposed 2(d1) zone)	No submissions were received in respect of this property. It is proposed as a 2(d2) zone (being currently 2(c2) in DLEP 194). The site is the only property on the Pacific Highway (east side) between Heydon Avenue and Cherry Street which is not proposed for medium density by DLEP 194 (excluding the heritage item at 1379). The site area of 1587m ² will permit development of 3 storeys.	The site is abutted by a 2(d3) zoning to the north and south. A 2(c2) zone abuts to the rear (2B Winton Street). The proposed 2(d1) scale of development is an appropriate interface zoning with the 2(c2) zone. The provision of the site as a 2(d1) zone is supported.
3 – 15 Bundarra Avenue South, Wahroonga (Proposed 2(d2))	Council has received 101 letters of objection (including 91 “form” letters) from Abbotsleigh School and residents in the streets adjacent to 3 – 15 Bundarra Avenue. The main points of objection relate to: <ul style="list-style-type: none"> • Loss of streetscape • Rarity of housing lost 	Nos 3-15 Bundarra Avenue South are well located to access services and transport. The comments of Council’s Heritage Planner are noted for the site. However, it is to be recognised that all lands surrounding the subject 7 allotments are either currently

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Site Identification	Submissions	Planning Comment
	<p>(potential heritage value of Nos 3 – 15)</p> <ul style="list-style-type: none"> Increased traffic and access/egress difficulty from Bundarra Avenue. Conflict with Abbotsleigh Junior School traffic and traffic management issues. Limitations of one-way traffic (east to west) in Everett Way. National Trust stated opposition to rezoning recognizing the area to be within the Mahratta Warrawee Precinct (UCA 26). <p>A letter of support for rezoning Nos 3 – 15 was received stating that this would potentially facilitate the better development of 10 Woonona Avenue (proposed as 2(d2) in DLEP 194) permitting possible consolidation with Bundarra Avenue properties.</p> <p>Two further letters of support from residents in 3 – 15 (including an elderly resident opposed any potential heritage listing of Nos 3 – 15) supported DLEP 200 from an economic perspective. (Note: Of the subject properties Nos 3 – 15 the owners of one property raised objection).</p>	<p>developed, or zoned, to permit medium density development. The site in this context can be seen to be out of character. The traffic engineer advises that traffic grounds are not a major determining factor for development with this being satisfactory. On balance these lands are supported for inclusion in Draft LEP200 as a 2(d2) zone.</p>
<p>132 – 138 Killeaton Street, St Ives</p> <p>Proposed 2(d2) zone)</p>	<p>This site has been the subject of 10 submissions from adjoining and adjacent residents objecting to medium density rezoning. A further submission in support (on behalf of the owners) has been received. Points of objection raised included:</p> <ul style="list-style-type: none"> Potential overlooking/loss of amenity to College Crescent 	<p>The site is almost 23,000m² in area and its potential for development has been recognized by Council. Council's Heritage Conservation Planners comments in terms of retaining building with heritage significance on the site are noted. It is considered that the size of the site enables appropriate interface provisions to be incorporated in any</p>

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Site Identification	Submissions	Planning Comment
	<p>properties backing onto the site.</p> <ul style="list-style-type: none"> • Proposal inconsistent with the area and rezoning should apply to properties opposite the site and towards Mona Vale road (or the whole block). • Traffic impact. • 5 storey development out of character. • Creates noise nuisance and loss of security (Masada College/Schools). • Inappropriate site. • Reduced pedestrian safety (school children). <p>The submission supporting the proposal argued that suitability of the site on grounds of:</p> <ul style="list-style-type: none"> • Proximity to main road access and St Ives commercial centre/shops/community facilities. • Bus access on Mona Vale Road to railway stations. • Capacity of Killeaton Street to accept additional traffic. 	<p>development to satisfactorily ameliorate residential impacts and to enable retention of the significant heritage elements within the design. It is not considered that the residential development will contribute to additional noise nuisance or loss of security locally.</p> <p>The site abuts Special Use zones to the south and west (school/church) and is only a short distance from Mona Vale Road via a wide residential street. As a potential medium density 2(d2) site it is considered appropriate particularly if Council is seeking to provide additional yields for the Residential Development Strategy.</p> <p>Inclusion as a 2(d2) zone could be supported.</p>
<p>161 – 163 Mona Vale Road, St Ives</p> <p>(Proposed 2(d1) zone)</p>	<p>No public submissions were received in respect of this site, however, it is noted that the National Trust have raised objection as the site lies within the Pentecost Avenue Precinct (UCA 16). The composite site comprises 2 dwelling houses (one with pool) with a total site area of 1800m². The site fronts Mona Vale Road and has a service station abutting to the south and a 3 unit SEPP 5 development adjoining to the north. The site area limits the development potential of the site. It is an interfacing site backing onto a</p>	<p>The proposed 2(d1) scale of development is appropriate to interface locations such as this. The site backs onto an existing 2(c) zone with detached dwelling-houses. It is considered that the development will relate satisfactorily to development to the north and south neither of which are single residential dwellings. Its main road location and siting between a service station and SEPP 5 development are such that its contribution to the Character of UCA 16 is considered minimal.</p>

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Site Identification	Submissions	Planning Comment
	Residential 2(c) zone with single dwellings.	Council's Heritage Conservation Planner is in agreement. As a 2(d1) interface site it can be supported.
116 – 118 Rosedale Road, St Ives (Proposed 2(d1) zone)	No submissions were received in respect of this site. The 2649m ² composite site contains 2 dwelling houses, one with pool. The site is currently zoned as 2(d3) in LEP 194. Council had intended to down zone the land to 2(d1) as it did in Draft LEP194 for 12A – 22 Shinfield Avenue which adjoins having regard for interface considerations. By oversight this was omitted by Council which subsequently resolved to include the down zoning in DLEP 200.	The site has been zoned 2(d3) since the initial preparation of Draft LEP200. It is unrealistic to expect that the Minister would now agree to the down zoning of the 2(d3) zone to 2(d1). The deletion of the site from Draft LEP200 is recommended. It should be excluded from the re-exhibited Plan.
1 – 11 Mt William Street, Gordon. (Proposed 2(d2) zone)	Two submissions of objection to the rezoning of this composite site have been received from residents residing opposite the site in Mt William Street. The site currently contains 6 dwellings zoned 2(c2). With an area of 5417m ² it backs onto Council's depot site which is now zoned 2(d3). Grounds of objection raised included: <ul style="list-style-type: none"> • Increased traffic/access issues. • Loss of amenity by overshadowing by 5 storey development situated at higher levels. • Need for adequate parking. • Creek floods in heavy rain (Mt William Street / Ashley Grove). 	There is a logic to include 1 – 11 Mt William Street into a zone to allow development potential up to 5 storeys similar to that permitted by the 2(d3) zone of Council's depot site. This will remove potential interface issues between the depot site and Nos 1 – 11 and establish the one zoning in the street block. It is considered that the Mt William Street roadway will provide a distinct physical separation of the site from the objectors properties opposite. A stepping back approach to design would seem logical especially with the large site area available if consolidated with the depot site. The subject site is generally south-west of the objectors sites and therefore unlikely to overshadow them. The Heritage Conservation Planner's comments are noted concerning draft (Heritage Conservation) LEP 25 and that Mt William Street is not

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		<p>contained in it. There is therefore no heritage objection to the inclusion of 1-11 Mt William Street in Draft LEP200. The existing streets accommodate heavy vehicle movements from the depot. This will be removed with future residential development. The site has immediate access to Mona Vale Road. Rezoning the site to 2(d3) which is 5 storeys similar to that of Council's depot could be supported. Re-exhibition on a 2(d3) basis for the site can be supported.</p>
<p>2-4 Wallaroo Close, Killara (Proposed 2(d2) zone)</p>	<p>Two submissions objecting to the proposed rezoning of these sites have been received. The National Trust has also not supported the rezoning which lies within the Greengate Road Precinct (UCA 12). No 2 currently contains a dwelling-house whilst No 4 contains a tennis court used in conjunction with the dwelling on No 6. No's 2-4 are 2(c2) under LEP 194 and have a combined area of 1668m². It was proposed to rezone them to 2(d2) to be consistent with the remainder of the block lying east of Wallaroo Close as proposed under Council's 2(d2) zoning in DLEP194. The 2(d2) zoning is now gazetted as 2(d3). The expressed grounds of objection include:</p> <ul style="list-style-type: none"> • Impact of 4-5 storey development on Powell Street streetscape; • More logical to rezone to 2(d1). 	<p>It is considered logical that these small sites be zoned 2(d3) to permit 5 storeys and be consistent with the remainder of the precinct south of Powell Street and east of Wallaroo Close. If these 2 sites are not developed in combination with other 2(d3) areas their development potential will be limited to 3 storeys. The sites do not abut with any single dwelling zones 2(c1) or 2(c2).</p> <p>Higher yields are only possible when combined with further lands. In this event there would be greater flexibility in the positioning of building development within a larger site. Rezoning to 2(d3) could be supported in this instance.</p> <p>The re-exhibition of Draft LEP 200 on a 2(d3) basis for this site is supported.</p>
<p>6A & 8 Buckingham Road, Killara (Proposed 2(d2) zone)</p>	<p>Council has received 11 submissions of objection to the rezoning of this combined site of 3787m². (One objection comes from the owners of No 8 which is</p>	<p>This site has been the subject of past deliberations for inclusion as a medium density 2(d1) site by Council's consultants. It is at an interface location between 2(d3)</p>

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Site Identification	Submissions	Planning Comment
	<p>proposed to be rezoned by the Plan. A 12th submission, which supports the Plan, comes from the owners of No 6a which is also subject to the Plan). The lands are developed with 2 dwelling houses, tennis court and pool. The site adjoins the proposed 2(d3) site at 2-6 Buckingham Road with Nos 1-9 opposite also proposed as 2(d3). Objections raised include the grounds of:</p> <ul style="list-style-type: none"> • Narrow street and hilly topography; • Proximity to heritage items of Nos 10 & 11; • Overdevelopment / out of character; • Site has been previously considered and dismissed; • Traffic / pedestrian dangers; • Overshadowing by development. 	<p>and 2(c2) zones. The landform places the site in part at higher levels than the 2(c2) adjoining area. It is separated by a driveway width from the heritage item at No 10 Buckingham Road. These facts lead to the consideration that site development should be limited to respect adjacent 2(c2) development. The site is considered appropriate for medium density development but recognizing its interface location a 2(d1) zone basis is considered the most appropriate. When the final format of DLEP 200 is considered by Council after its re-exhibition this will need to be addressed.</p>
<p>9-31 Victoria Street, Roseville (Proposed 2(d1) zone)</p>	<p>Council has received 14 letters of objection to the proposed 2(d1) rezoning with 9 submissions being from owners / residents whose lands are proposed for rezoning. A petition of objection bearing the signatures of 15 Victoria Street Residents and petition bearing 1327 signatures have also been received. Grounds for objection include:</p> <ul style="list-style-type: none"> • Residential 2(d1) zone is inappropriate. <u>Both</u> Victoria Street and Boundary Road should be 2(d1); • Object to rezoning Victoria Street for medium density and rezoning of Boundary Street for 5 storeys; • Heritage values of Victoria Street; • Increased traffic • Proposed affects on Urban Conservation Area 3; 	<p>The impact on the interface between the rear of Boundary Street properties (existing 2(c1) zone or proposed 2(d1) in DLEP200) and the subject Victoria Street properties is significant as a result of the Minister's zoning of Boundary Street to 2(d3) with a 5 storey potential. As a consequence there is a significant case for medium density zoning for 9-33 Victoria Street. A 2(d3) zone could be considered for Victoria Street to allow an integrated approach to the development of the block. The lack of the depth of the Boundary Street allotments reduces the potential for effective separation of development from the rear of Victoria Street properties. This lack of depth is further reduced by the need to provide for future road widening on Boundary Street. The northern aspect of the rear of Boundary</p>

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Site Identification	Submissions	Planning Comment
	<ul style="list-style-type: none"> • Outcome of Ministers deliberations for rezoning of 5-33 Boundary Street are first required; • Loss of community atmosphere; • Traffic issues particularly acknowledging Roseville College and narrow street; • Support proposed rezoning of Victoria Street to match Boundary Road; • Economic loss 	<p>Street properties makes this a logical orientation for any unit development with potential overlooking / amenity impacts on Victoria Street properties. Thus the 2(d1) zone proposed by DLEP200 would have been acceptable should Boundary Street have been zoned 2(d1) as proposed under DLEP194. However, with the 2(d3) zoning by the Minister the application of the same 2(d3) zone to 9-31 Victoria Street should now be considered. The heritage issues associated with the potential Roseville Conservation Area – UCA3 are recognised. UCA3 is already fragmented in the Victoria Street area by Roseville Girls College and medium density zones at its western end. It is considered that with Boundary Street rezoned both it and Victoria Street lie together at the southern extremity of the UCA and any erosion of the UCA is mitigated. The majority of the UCA will be left intact. It is also to be recognised that the Minister has excluded half of the former Special Area 1 from medium density zoning provisions. The rezoning of Boundary Street and Victoria Street contribute towards the yield loss for Roseville that this has caused. There are no other proposed medium density sites in Roseville provided under the Residential Development Strategy.</p> <p>On the Traffic Engineers advice medium density development is able to be satisfactorily catered for without significant impact at peak traffic times associated with existing school activities.</p>

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Site Identification	Submissions	Planning Comment
		A re-exhibition of DLEP200 is recommended with 9-31 Victoria Street as a proposed 2(d3) zone.

It is to be noted that 3 submissions were received which are unrelated to the contents of Draft LEP 200. One submission concerned itself with Cherry Street, Turramurra and matters related to Draft LEP 194. The other two concerned the lands within the strip of land fronting the Pacific Highway between Beechworth Road, Pymble and Warragal Road, Turramurra and 1A Turramurra Avenue, Turramurra requesting their inclusion in Draft LEP 200 as a 2(d2) zone. This would need to be the subject of separate consideration by Council.

Population Yields

Draft LEP200 was resolved to be prepared as a supplement to the then Draft LEP194. The new medium density zones proposed by the Plan will contribute additional population yields to that of LEP194. The additional populations attributed to these sites have been calculated and are tabulated hereunder for information. The yield figure assumes the site being developed to its maximum potential under its proposed zoning. The figures reflect the Plan as exhibited but with the down zoning of 6A and 8 Buckingham Road from 2(d2) to 2(d1).

Site	Potential Additional Population Yield
9-31 Victoria Street, Roseville	102
2-4 Wallaroo Close, Killara	23
6A and 8 Buckingham Road, Killara (2(d1) basis)	44
1-11 Mt William Street, Gordon	75
132-138 Killeaton Street, St Ives	390
161-163 Mona Vale Road, St Ives	18
1405 Pacific Highway, Warrawee	24
3-15 Bundarra Avenue South, Wahroonga	<u>62</u>
Total	738

FINANCIAL CONSIDERATIONS

Financial considerations specific to the preparation and exhibition of Draft LEP 200 relate to staff time and advertising costs associated with newspaper advertisements and postage.

CONSULTATION WITH OTHER COUNCIL DEPARTMENTS

Consultation was undertaken with the Department of Technical Services on traffic related issues of the Draft Plan.

SUMMARY

The exhibition of Draft LEP 200 has led to the receipt of public submissions which have been discussed within this report. Submissions have addressed the zoning changes proposed by the Plan and the sites to which the changes relate.

No submissions were made in respect of the proposed increase in floor space ratio provisions (to 1.1:1) for the 2(d2) zone nor the introduction of “hospitals” as a permissible use in the existing Special Use “A” and “A1” zones.

Public submissions have been dealt with in the site by site considerations tabled in this report. The Planning comment related to each assessment presents a preliminary recommendation for each site in the Plan.

It is not considered appropriate for all medium density sites in DLEP200 to be zoned 2(d3) to match the LEP194 medium density zone. It is the Planning Department’s considered view that the 2(d1) and 2(d2) zoning approach (with height and FSR provisions) is an appropriate zoning approach so that there can be certainty and a scale of development appropriate to Ku-ring-gai, particularly at interface locations with single dwellings where 5 storey development is not appropriate. The Minister’s decision to exclude interface zoning provisions is not one that is supported as being a sound planning approach. It is considered appropriate that alternate medium density zones be included at appropriate interface locations in Ku-ring-gai.

The exception to this is at 9-31 Victoria Street, Roseville where Council sought that this be a 2(d1) zone consistent with what was then proposed for Boundary Street. With the gazettal of Boundary Street as 2(d3) it is considered appropriate that the adjoining Victoria Street properties be zoned the same. The same principle applies to 2 and 4 Wallaroo Close, Killara and 1 – 11 Mt William Street, Gordon.

It is recommended that Draft LEP200 be re-exhibited in the necessary amended format. It is not suggested that any sites be deleted from the Plan for the purposes of the re-exhibition (other than 116-118 Rosedale Road which was rezoned 2(d3) by LEP194). This should be appropriately addressed at the end of the exhibition process when Council gives final consideration to the format of the Draft Plan for submission to the Minister.

RECOMMENDATION

- A. That Council re-exhibit Draft Local Environmental Plan No 200 in the redrafted format as contained in the Appendix to this report.
- B. That the re-exhibition include redrafted versions of the “Detached Dual Occupancies Map”, “Dwelling-house Subdivisions Map” and zoning map entitled “Land in the vicinity of Pacific Highway / Rail Corridor and St Ives Centre”, necessary to incorporate the Draft LEP200 instrument as discussed in this report.

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- C. That the redrafted zoning map provide for the inclusion of 9-31 Victoria Street, Roseville and 2-4 Wallaroo Close, Killara and 1 – 11 Mt William Street, Gordon as 2(d3) zones and deletion of 116-118 Rosedale Road from the Plan.

Rod Starr
Strategic Planner

Leta Webb
Director Planning & Environment

Attachments:

- 1. Draft Local Environmental Plan No 200 (re-drafted)**
- 2. Draft Local Environmental Plan No 200 (as exhibited).**

Ku-ring-gai Draft Local Environmental Plan No 200

1 Name of plan

This plan is Ku-ring-gai Local Environmental Plan No 200.

2 Aims of plan

- (a) To provide additional opportunities for the provision of medium density residential development in the Ku-ring-gai Local Government Area.
- (b) To provide additional lands for medium density residential development in Ku-ring-gai with appropriate development controls including provisions to limit development height and provide floor space ratio controls.
- (c) To enable the wider provision of medical facilities by allowing hospitals as a permissible use within Special Use “A” and Special Use “A1” zones.
- (d) To provide further opportunities for establishment of attached and detached dual occupancies on certain residential land.

3 Land to which plan applies

The plan applies to:

- 1. Land in the Ku-ring-gai Council Local Government Area zoned Special Uses “A” and Special Uses “A1”, and
- 2. Land in the vicinity of the Railway / Pacific Highway corridor and the St Ives Centre being land edged heavy red on the sheets of the Map marked Ku-ring-gai Local Environmental Plan No 200.

4 Relationship to other environmental planning instruments

This Plan amends:

- (a) the “*Ku-ring-gai Planning Scheme Ordinance*” as set out in Schedule 1, and
- (b) “*State Environmental Planning Policy No 53 – Metropolitan Residential Development*” by inserting in clause 4(2) after the words “Ku-ring-gai Local Environmental Plan No 194 – Zoning Map” the words “or Ku-ring-gai Local Environmental Plan No 200 – Zoning Map”.

Schedule 1 Amendments

(1) Definitions

Insert in appropriate order in the definition of “Scheme map” in clause 4(1):

Ku-ring-gai Local Environmental Plan No 200

(2) Clause 23

- (a) In the table to clause 23, where, in column 1 the words “(a) Special Uses “A” Yellow” and “(ii) Special Uses “A1” Yellow with red edging” appear, add, in both cases, the word “Hospitals” in column 3 of the same two rows.

(b) Clause 23, Development Control Table

Insert after the matter relating to Zone No 2 (d) in the table to the clause:

(d1)	Residential “D1” Light scarlet with dark red edging and lettered 2 (d1)	Exempt development referred to in clause 24 of this Ordinance and Schedule 1 to DCP 46.	Demolition of a building or work (being demolition that is not exempt development). Development (other than exempt development) for the purpose of: attached dual occupancies; boarding-houses; detached dual occupancies; drainage; dwelling-houses; educational establishments; family flats; home occupations; hospitals; open space; places of public worship; professional consulting rooms; residential flat buildings; roads; townhouses; utility installations (other than generating works or gas holders); villas.	Any development other than that permitted by Column 2 or 3.
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			Subdivision of land.	
(d2)	Residential “D2” Light scarlet with dark red edging and lettered 2 (d2)	Exempt development referred to in clause 24 of this Ordinance and Schedule 1 to DCP 46.	Demolition of a building or work (being demolition that is not exempt development). Development (other than exempt development) for the purpose of: attached dual occupancies; boarding-houses; detached dual occupancies; drainage; dwelling- houses; educational establishments; family flats; home occupations; hospitals; open space; places of public worship; professional consulting rooms; residential flat buildings; roads; townhouses; utility installations (other than generating works or gas holders); villas. Subdivision of land.	Any development other than that permitted by Column 2 or 3.

(3) **25A Land to which this Part applies**

In clause 25A substitute the word “maps” for “map” where first occurring and insert after the words “Ku-ring-gai Local Environmental Plan No 194 – Zoning Map” the words “and Ku-ring-gai Local Environmental Plan No 200 – Zoning Map”.

(4) **25B Definitions**

- (a) Replace the first sentence under clause “25B Definitions” which immediately precedes the words “access handle” with:

In this Part and the matter relating to Zones Nos 2 (c1), 2 (c2), 2 (d1), 2 (d2) and 2 (d3) in the Table to clause 23:

- (b) Replace in the definition of “Detached Dual Occupancies Map” the number “194” with the number “200”.

- (c) Replace in the definition of “Dwelling-house Subdivisions Map” the number “194” with the number “200”.

(5) **25C Aims and Objectives of Part 3A**

Replace in subclause 2(e) the words “Zone No 2 (d3) has” with the words “Zone Nos 2 (d1), 2 (d2) and 2 (d3) have”

(6) **25D Consideration of residential zone objectives and impact on heritage**

In subclause 1(b) replace the words “Zone No 2 (d3)” with the words “Zone Nos 2 (d1), 2 (d2) or 2 (d3)”.

(7) **25I Site requirements and development standards for multi-unit housing**

- (a) In subclause (4) replace the words “Zone No 2 (d3)” with the words “Zone Nos 2 (d1), 2 (d2) or 2 (d3)”.
- (b) In subclause (5) replace the words “to which this part applies” with the words “within Zone No 2(d3)”.
- (c) In subclause (6) replace the words “Zone No 2 (d3)” with the words “Zone Nos 2 (d1), 2 (d2) or 2 (d3)”.
- (d) In subclause (7) replace the words “Zone No 2 (d3)” with the words “Zone Nos 2 (d1), 2 (d2) or 2 (d3)”.
- (e) In the Table to subclause (8) the reference to “2 (c1) and 2 (c2)” is to be deleted and replaced with “2 (c1), 2 (c2) and 2 (d1)” whilst the reference to “2 (d3)” is to be deleted and replaced with “2 (d2) and 2 (d3)”.
- (f) Insert a new subclause (9) as follows:
- (9) Maximum floor space ratio provisions for 2 (d1) and 2 (d2) zones.

Zone	Site Area Within zone (m²)	Maximum floor space ratio
2d1	1200 or more but less than 1800	0.75:1
	1800 or more	0.85:1
2d2	1200 or more but less than 1800	0.75:1
	1800 or more but less than 2400	0.85:1
	2400 or more	1:1
	On sites 2400 or more if developed to a maximum height of 4 storeys	1.1:1

(g) Renumber subclauses 9 and 10, as 10 and 11 respectively.

(8) **25L Zone Interface**

In subclause (2) the words “Zone No 2 (d3)” where twice occurring are to be replaced with the words “Zone Nos 2 (d1), 2 (d2) or 2 (d3)”.

(9) **25M Non-discretionary development standards for residential flat buildings in Zone No 2 (d3)**

The words “Zone No 2 (d3)” where occurring in the clause and its interpretive heading are to each be replaced by the words “Zone Nos 2 (d1), 2 (d2) or 2 (d3)”.

(10) **25N Zone Interface**

In both subclauses (2) and (3) replace the words “Zone Nos 2 (d3)” with the words “Zone Nos 2 (d1), 2 (d2) or 2 (d3)”.

(11) Map 2 entitled “Detached Dual Occupancy” is to be deleted and replaced with a new Map 2 entitled “Detached Dual Occupancy”.

(12) Map 3 entitled “Dwelling House Subdivisions Map” is to be deleted and replaced with a new Map 3 entitled “Dwelling House Subdivisions Map”.

Ku-ring-gai Draft Local Environmental Plan No 200

1 Name of plan

This plan is Ku-ring-gai Local Environmental Plan No 200.

2 Aims of plan

- (a) To provide additional opportunities for the provision of medium density residential development in the Ku-ring-gai Local Government Area.
- (b) To increase the development potential for medium density residential development in 2D2 zoned lands in combination with appropriate development controls including provisions to limit development height.
- (c) To enable the wider provision of medical facilities by allowing hospitals as a permissible use within Special Use "A" and Special Use "A1" zones.
- (d) To provide further opportunities for establishment of attached and detached dual occupancies on certain residential land.

3 Land to which plan applies

The plan applies to:

- 1. Land in the Ku-ring-gai Council Local Government Area zoned Special Uses "A" and Special Uses "A1", and
- 2. Land in the vicinity of the Railway / Pacific Highway corridor and the St Ives Centre being land edged heavy red on the sheets of the Map marked Ku-ring-gai Local Environmental Plan No 200.

4 Amendment of Ku-ring-gai Planning Scheme Ordinance

Ku-ring-gai Planning Scheme Ordinance is amended as set out in Schedule 1.

Schedule 1 Amendments

(1) Definitions

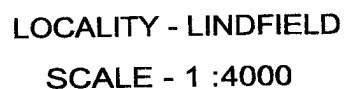
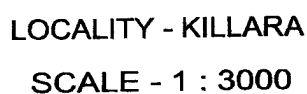
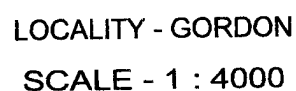
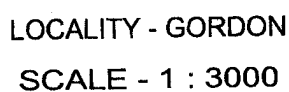
Insert in appropriate order in the definition of "Scheme map" in clause 4(1):

Ku-ring-gai Local Environmental Plan No 200

- (2) In the table to clause 23, where, in column 1 the words “(a) Special Uses “A” Yellow” and “(ii) Special Uses “A1” Yellow with red edging” appear, add, in both cases, the word “Hospitals” in column 3 of the same two rows.
- (3) The table to clause 25I(4)(a) applying to the 2D2 zone be extended by adding at the end a further row for an additional 2D2 zoning category as follows:

Zone	Site Area (m ²) within the 2D2 zone	Maximum Number of Storeys	Maximum Site Coverage	Maximum Floor Space Ratio
2D2	2700 or more	4	35% for residential flat buildings, 40% for townhouses, 50% for villas or a combination of townhouses and villas.	1.1:1

- (4) Map 3 entitled “Detached Dual Occupancy” is to be deleted and replaced with a new Map 3 entitled “Detached Dual Occupancy”.

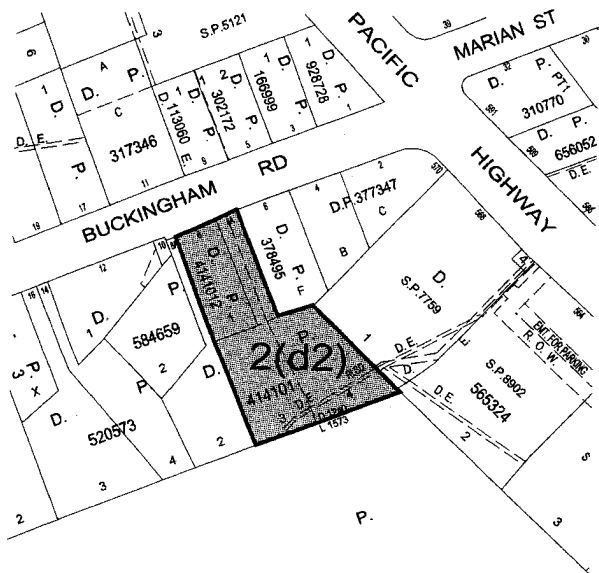


RESIDENTIAL 2(c2)

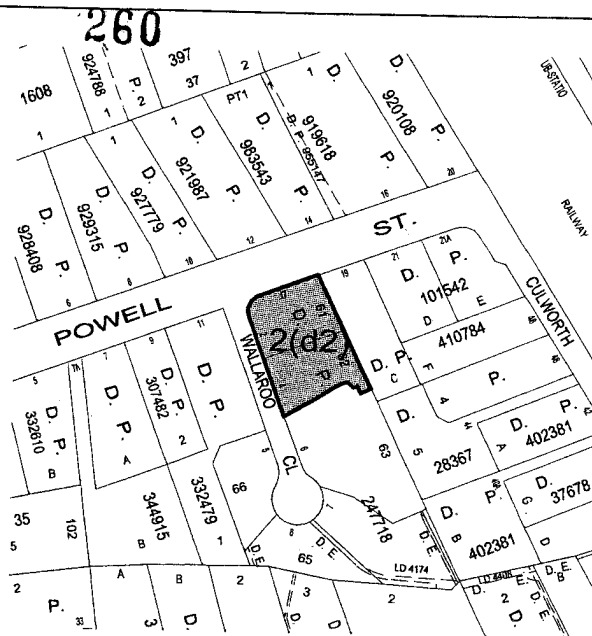
RESIDENT*

GOVT. GAZETTE NO. DATE

DRAFT LOCAL ENVIRONM



LOCALITY - KILLARA
SCALE - 1 : 3000



LOCALITY - KILLARA
SCALE - 1 : 3000



LOCALITY - ROSEVILLE
SCALE - 1 : 5000

2(d1) RESIDENTIAL 2(d1)

2(d2) RESIDENTIAL 2(d2)

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979

CIL

TAL PLAN NO.200

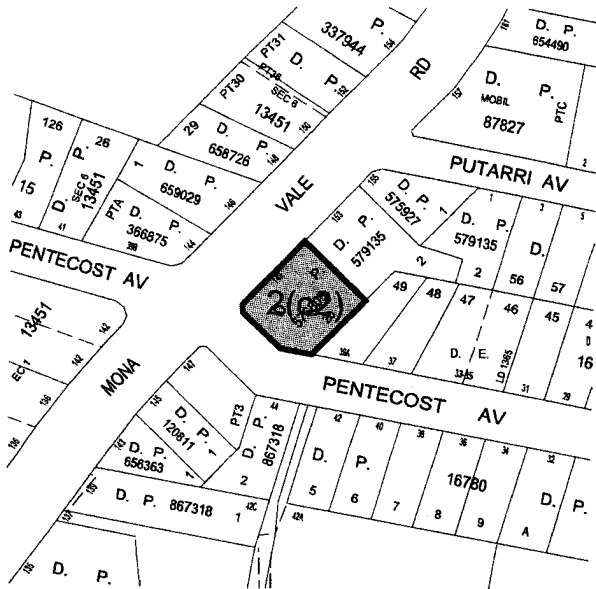
SHEET 1 OF 5

STATEMENT OF RELATIONSHIP WITH OTHER PLANS
AMENDS THE KU-RING-GAI PLANNING SCHEME

CERTIFIED IN ACCORDANCE WITH THE ENVIRONMENTAL
PLANNING & ASSESSMENT ACT 1979, AND REGULATIONS.

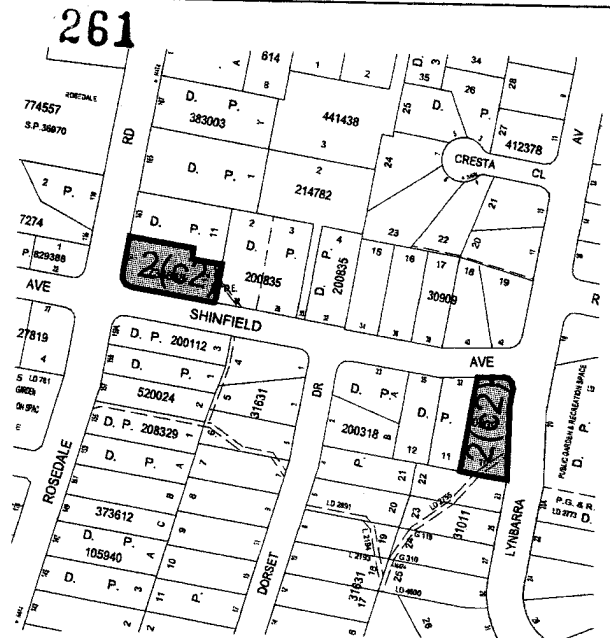
GENERAL MANAGER

DATE



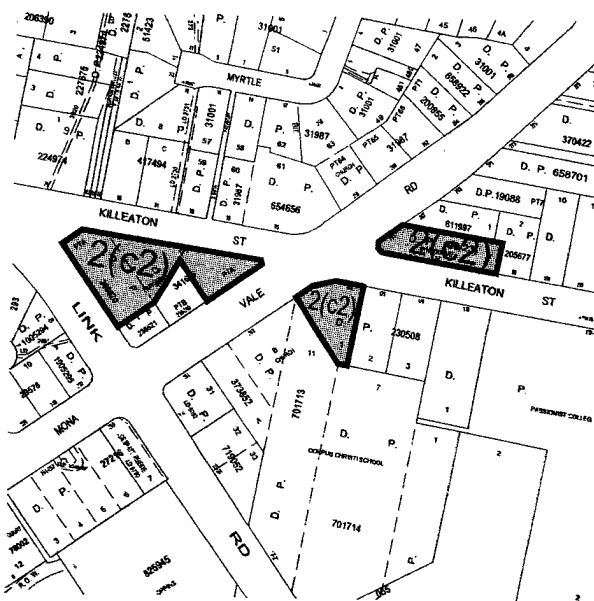
LOCALITY - ST IVES

SCALE - 1 : 3000



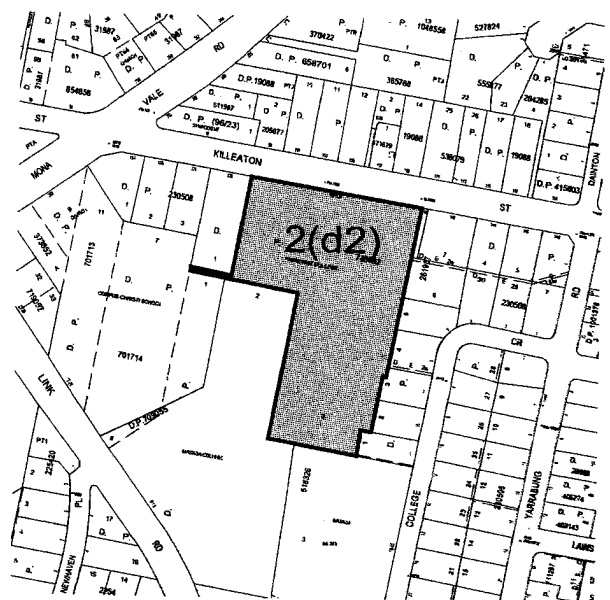
LOCALITY - ST IVES

SCALE - 1 : 4000



LOCALITY - ST IVES

SCALE - 1 : 5000



LOCALITY - ST IVES

SCALE - 1 : 6000

NORTH



RESIDENTIAL 2(c2)

DRAWN BY: COUNCIL'S CORPORATE MAPPING SYSTEM

PLANNING OFFICER : LETA WEBB

COUNCIL FILE NO.

DEPT. FILE NO.

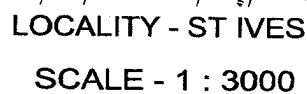
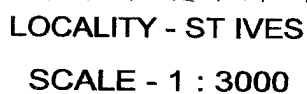
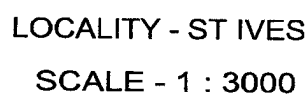
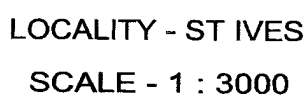
CERTIFICATE ISSUED
UNDER SEC.65 E.P.A.ACT

DATE

GOVT. GAZETTE NO.

DATE

ENVIRONMENTAL PLANNING & ASS
KU-RING-GAI COUN
DRAFT LOCAL ENVIRONMEN



2(d2) RESIDENTIAL 2(d2)

STATEMENT OF RELATIONSHIP WITH OTHER PLANS
AMENDS THE KU-RING-GAI PLANNING SCHEME

**CERTIFIED IN ACCORDANCE WITH THE ENVIRONMENTAL
PLANNING & ASSESSMENT ACT 1979, AND REGULATIONS.**

SHEET 2 OF 5

GENERAL MANAGER DATE

264



LOCALITY - WAHROONGA

SCALE - 1 : 3000

(d1) RESIDENTIAL 2(d1) 2(d2) RESIDENTIAL 2(d2)

ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979

LOCALITY

LOCALITY PLAN NO.200

SHEET 3 OF 5

STATEMENT OF RELATIONSHIP WITH OTHER PLANS
AMENDS THE KU-RING-GAI PLANNING SCHEME

CERTIFIED IN ACCORDANCE WITH THE ENVIRONMENTAL
PLANNING & ASSESSMENT ACT 1979, AND REGULATIONS.

GENERAL MANAGER DATE

TO WRITE OFF DOUBTFUL DEBTS RELATING TO TELSTRA CORPORATION AND OPTUS VISION

EXECUTIVE SUMMARY

PURPOSE OF REPORT:

To obtain Council's authority to write off doubtful debts for Telstra Corporation Limited and Optus Vision Pty Limited relating to Section 611 Charges raised under the Local Government Act 1993.

BACKGROUND:

Council has raised an annual charge under 611 of the Local Government Act on Telstra Corporation Limited and Optus Vision Pty Limited for installing and maintaining cables for pay television high speed internet access since 1997. Telstra and Optus have challenged Councils right to raise such a charge in various courts culminating in the Full Bench of the High Court of Australia.

In accordance with Australian Accounting Standards, Council has been raising an annual provision for doubtful debt for this charge since 1997. This has been sanctioned by Councils external auditors.

COMMENTS:

There is no impact on Council's financial operations as a provision for doubtful debts for the full amounts exists.

RECOMMENDATION:

That Council formally write off the debts for Telstra Corporation and Optus Vision.

PURPOSE OF REPORT

To obtain Council's authority to write off doubtful debts for Telstra Corporation Limited and Optus Vision Pty Limited relating to Section 611 Charges raised under the Local Government Act 1993.

BACKGROUND

A Council may make an annual charge on a person or company being in possession, occupation or enjoyment of a rail, pipe, wire, pole, cable, tunnel or structure laid, erected, suspended, constructed or placed on, under or over a public place.

Council has raised an annual charge under 611 of the Local Government Act on Telstra Corporation Limited and Optus Vision Pty Limited for installing and maintaining cables for pay television high speed internet access since 1997. Telstra and Optus have challenged Councils right to raise such a charge in various courts culminating in the Full Bench of the High Court of Australia.

In accordance with the Australian Accounting Standards, Council has been raising an annual provision for doubtful debt for this charge since 1997. This has been sanctioned by Councils external auditors.

Council's have been the subject of legal appeals and litigation both in NSW and Victoria over a number of years. On the 28th of April 2004 the High Court held that NSW and Victorian Laws allowing Councils to collect rates and charges from Telstra and Optus for installing and maintaining Councils for pay television and high speed internet access, were contrary to Federal Legislation preventing discrimination against telecommunication carriers and were therefore invalid.

The amount of doubtful debts that need to be formally written off are summarised in the following table:

Year	Telstra			Optus			Total Invoiced		
	Amount	GST	Total	Amount	GST	Total	Amount	GST	Total
2003	819,950	81,995	901,945	655,960	65,596	721,556	1,475,910	147,591	1,623,501
2002	780,850	78,085	858,935	624,680	62,468	687,148	1,405,530	140,553	1,546,083
2001	734,850	73,485	808,335	587,880	58,788	646,668	1,322,730	132,273	1,455,003
2001	112,585		112,585	90,068		90,068	202,653		202,653
2000	632,500		632,500	506,000		506,000	1,138,500		1,138,500
1999	632,500		632,500	506,000		506,000	1,138,500		1,138,500
1998	632,500		632,500	506,000		506,000	1,138,500		1,138,500
	4,345,735	233,565	4,579,300	3,476,588	186,852	3,663,440	7,822,323	420,417	8,242,740

COMMENTS

There is no impact on Council's financial operations as a provision for doubtful debts for the full amounts exists. A formal resolution is now required to write off these debts prior to 30 June 2004.

As previously stated Council's financial position is not effected by the writing off of these debts as provision has been made over the years to ensure that Council is not adversely effected. It was always considered that the collection of these charges was doubtful and the decision made by the High Court was the likely outcome.

The administration of the appeals in the High Court was conducted by the Local Government and Shires Association (LGSA). It is expected that the LGSA will request a contribution towards legal costs which is the normal practice. If the LGSA requests a contribution for legal costs, a separate report will be brought forward to Council to consider the payment of any costs awarded against council's or the LGSA.

CONSULTATION

Councils Solicitors Abbot Tout and Deacons were consulted on the legal issues in relation to this matter.

Council's external auditors Spencer Steer have advised that it is prudent to write off the entire amounts raised via formal report to Council.

FINANCIAL CONSIDERATIONS

Not Applicable

CONSULTATION WITH OTHER COUNCIL DEPARTMENTS

Not Applicable

SUMMARY

Not Applicable

RECOMMENDATION

- A. That Council formally write off debts for Telstra Corporation Limited of \$4,579,300.
- B. That Council formally write off debts for Optus Vision Limited of \$3,663,440.
- C. That the Council minute form part of the financial notes to Council.

John McKee
Director Finance and Business

David Lethbridge
Manager Revenue Accounting