



**ORDINARY MEETING OF COUNCIL
TO BE HELD ON TUESDAY, 9 NOVEMBER 2010 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

DECLARATIONS OF 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 19 October 2010

Minutes numbered 338 to 352

MINUTES FROM THE MAYOR

MM.1 **Proposed Reclassification of Council Land - 5 Ray Street, Turramurra**

1

File: S07624/2

The Ku-ring-gai Local Environmental Plan (Town Centres) 2010, came into effect on 25 May, 2010, with Council adopting the Ku-ring-gai Development Control Plan (Town Centres) 2010 on 8 June, 2010. The Ku-ring-gai Development Control Plan (DCP) provides details of the planning objectives for each of the town centres.

Council has resolved to reclassify 19 sites within the town centres from Community to Operational land, (including 12 William Street, Turramurra) to make possible the delivery of the planning objectives detailed in the DCP. The first step in the reclassification process is now underway with the Planning Proposal on exhibition by the Ku-ring-gai Planning Panel.

On 30 June 2010, Council hosted a community briefing on the Ray Street, Turramurra precinct. The purpose of the briefing was for Council to gain an appreciation of Coles' potential development options for the site. Adjacent to the Coles site are Council's library and car park facilities (located on two parcels of land including 5 Ray Street and 12 William Street, Turramurra) which are classified community land.

Following further consideration of the options presented to Council, and in an attempt to maximize the community benefits through the redevelopment of our site which has the potential to provide for a range of uses which could include community facilities, retail/commercial areas, and improvements to the public domain.

I am proposing that 5 Ray Street, Turramurra, also be included in the process to reclassify the site from community land to operational land status.

Proceeding with the reclassification has the potential to provide Council with the flexibility to deliver the key community infrastructure that is required to support the new development and population, and also improvements to our facilities, public domain areas and civic places.

PETITIONS

PT.1 **Handley Avenue, Turramurra - Petition to Review Priorities for Construction of Footpaths - (One Hundred and Seven [107] Signatures)**

3

Files: TM10/02, 88/05520/01

"We, the undersigned, request that Council review the approval process and bring forward the construction of the footpath in Handley Avenue, Turramurra. A pre-school has been located in this street for nearly 50 years, however the footpath is approved for building in the year 2020.

During wet weather, the roadside strip is not passable by foot, so the parents and children have little choice but to walk on the road. Being a cul-de-sac increases the danger, as traffic is passing in two directions as vehicles enter and leave the street. In addition, several building developments in the street increase the danger considerably. Parts of the roadside strip and the road itself are completely blocked off by building equipment and machines.

In these circumstances, we ask that Council consider our petition to prioritise the building of the footpaths in Handley Avenue. This would remove the risk to the children and parents who are currently forced to walk on the road during wet weather and construction.

The safety of our children is our overriding concern, and we hope you take this into consideration in reviewing our petition."

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 allowing for minor changes without debate.*

GB.1 Council Meeting Cycle for 2011

4

File: S02355

To consider the proposed Council Meeting Cycle for 2011 which takes account of school holidays, public holidays, the Local Government Association Conference and the Christmas Recess.

Recommendation:

That Council's Meeting Cycle for 2011 be adopted.

GB.2 National Trust of Australia - Corporate Membership

9

File: S02792

To advise Council of a request from the National Trust of Australia to renew Council's Gold Corporate Membership of the Trust for 2010-2011 for \$2,500.

Recommendation:

That Council consider renewal of Gold Corporate Membership of the National Trust of Australia for 2010-2011 for \$2,500.

GB.3 National Trust Heritage Festival 2011 - Sponsorship Proposal 17

.
File: S05650

To advise Council of a request from the National Trust of Australia for sponsorship for the National Trust Heritage Festival 2011, by placing a half page advertisement in the festival program.

Recommendation:

That Council consider the sponsorship proposal from the National Trust of Australia for \$3,200 to advertise in the 2011 National Trust Heritage Festival program.

GB.4 Ku-ring-gai Youth Development Service (KYDS) - Request for Funding Assistance 21

.
File: S05139

To report to Council on possible funding options for the Ku-ring-gai Youth Development Service (KYDS).

Recommendation:

That the report be received and noted and that the matter of providing additional funding for KYDS be considered as part of Council's 2011/2012 budget discussions.

GB.5 Council Sponsorship for the Ku-ring-gai Philharmonic Orchestra 70

.
File: S05650

To advise Council of a sponsorship proposal from the Ku-ring-gai Philharmonic Orchestra.

Recommendation:

That Council consider whether to sponsor the Ku-ring-gai Philharmonic Orchestra in 2011 for the requested amount of \$20,000.

- GB.6 **170 Tryon Road, East Lindfield - Alterations & Additions including Swimming Pool** 76
- .
- File: DA0572/10
- Ward: Roseville
Applicant: C plus C Design Construct Pty Ltd
Owner: Ms T Rath
- To determine application No.0572/10, which seeks consent for alterations and additions to the existing dwelling and a swimming pool located in the rear garden.
- Recommendation:**
- Approval.
- GB.7 **4 to 8 Railway Avenue, Wahroonga - Alterations & Additions to an Existing Commercial Building** 121
- .
- File: DA0595/10
- To determine development application No.0595/10, which proposes alterations and additions to an existing commercial building.
- Recommendation:**
- Refusal.
- GB.8 **Carlotta Depot Tenders** 185
- .
- File: S08283/2
- To report on the results of the public tender and to seek Council's approval to accept the preferred tender for these works.
- Recommendation:**
- That Council accepts the tender from Ross Mitchell & Associates for the Stage One remediation works at the Carlotta Avenue Depot.

GB.9 Climate Change Adaptation Strategy 188

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File: S06055

To present to Council for adoption an amended draft Climate Change Adaptation Strategy.

Recommendation:

That the amended draft Climate Change Adaptation Strategy be adopted.

GB.10 Response to Submissions on Draft Amendment 1 to the Ku-ring-gai Development Control Plan (Town Centres) 2010 270

.
File: CY00054/2

To enable Council to consider draft Amendment 1 to the Ku-ring-gai Development Control Plan (Town Centres) 2010 following the formal exhibition period.

Recommendation:

That Council amend the categories identified on the Greenweb map in the Ku-ring-gai Development Control Plan (Town Centres) 2010 as shown in Attachment 4.

GB.11 Public Exhibition of Conservation Agreements for Browns Forest & the Ku-ring-gai Flying Fox Reserve 298

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File: S02642

To inform Council of the exhibition of the Conservation Agreements for Browns Forest and the Ku-ring-gai Flying Fox Reserve and to provide a basis for submission to the Department of Environment Climate Change and Water (DECCW).

Recommendation:

That Council sends a letter in support to the Department of Environment Climate Change and Water on the draft Conservation Agreements.

GB.12 Unstructured Recreation Strategy reviewed after Public Exhibition 332

.
File: S06520

To seek Council's adoption of the amended draft Unstructured Recreation Strategy.

Recommendation:

That Council adopt the amended draft Unstructured Recreation Strategy and proceed with the implementation of the actions as part of its capital and operational works programs.

GB.13 Sustainability Reference Committee - Notes of Meetings held 6 & 27 September 2010 461

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File: S07619

To bring to the attention of Council the proceedings of the Sustainability Reference Committee Meetings held on 6 and 27 September 2010.

Recommendation:

That the notes of the Sustainability Reference Committee Meetings of 6 and 27 September 2010 be received and noted.

GB.14 Proposal to re-Establish Alcohol Free Zones 483

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File: S03151

To consider the re-establishment of Alcohol Free Zones in South Turrumurra Shopping Centre, South Turrumurra, Wade Lane car park, Gordon and St Ives Village Green, St Ives.

Recommendation:

That Council proceeds with the proposal to re-establish the Alcohol Free Zones in South Turrumurra Shopping Centre, South Turrumurra, Wade Lane car park, Gordon and St Ives Village Green, St Ives by notification and invitation for public comment in accordance with Section 644A of the Local Government Act 1993

EXTRA REPORTS CIRCULATED AT MEETING

MOTIONS OF WHICH DUE NOTICE HAS BEEN GIVEN

NM.1 Wild & Exotic Animals Performing 491

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File: S02447

Notice of Rescission from Councillors Steven Holland, Elise Keays and Tony Hall dated 22 September 2010

We, the undersigned, rescind the Motion of 10 August 2010 (Minute No 248) relating to the overturning of the Council's ban on wild and exotic animals performing in travelling circuses.

File: S02546

Notice of Motion from Councillor Tony Hall dated 6 October 2010

I fully support the call by Ku-ring-gai Mayor Cross to be prepared for the coming bushfire period but Councils too must share the responsibility for the safety of residents and their property, in such dangerous periods.

As a large Council area subject to bushfire threat every summer, Ku-ring-gai Council needs to identify, designate and maintain Neighbourhood Safer Places or NSPs in those areas subject of bushfire intrusion. I recall in the 1994 bushfires in St Ives as a Councillor then, I was asked to open Toolang Road Oval, St Ives for local residents' cars threatened by fire to their homes below the National Park along the bushfire rim, but the Council's staff refused to unlock the gates. Yet there are still no NSPs in North St Ives, along Warrimoo Avenue, for instance.

Since 2009 as a result of the tragic Victorian Bushfires, the NSW Rural Fire Service has implemented "places of last resort" or NSPs as described in the background information under separate cover, in many NSW Councils including Hornsby, Willoughby and Lane Cove Council areas. Ku-ring-gai has been added and a list of sites are included in the Councillors Additional Agenda Information but are not considered to be comprehensive enough.

Designated NSP areas must meet the NSW Rural Fire Service's radiant heat criteria especially in high risk areas on the outskirts of large metropolitan areas such as Sydney and I believe from past experience as already mentioned, Ku-ring-gai too should ensure all its affected bushfire prone areas have accessible NSPs.

I move:

"That Ku-ring-gai Council review its involvement with the NSW Rural Fire Service's 'Neighbourhood Safer Places' program for implementation in this 2010 Bushfire Season that commenced on 1 October to assess whether any further accessible sites may be nominated from those already designated and reported back to Council."

File: S02390

Notice of Motion from Councillor Cheryl Szatow dated 13 October 2010

I move:

1. That Council resolve to declare the Lindfield Library site an alcohol free zone. The area to be the external area of KOPWA, the Library, KYDS, the tennis courts and their surrounds and the Seniors Community Centre.

2. That Council resolve to declare the Queen Elizabeth Oval site in West Lindfield an alcohol free zone.
3. That the police be informed of Council's resolution and begin the process to bring these zones into effect.

NM.4 Formation of Budget Review Working Group

494

File: FY00260/4

Notice of Motion from Councillor R Duncombe dated 22 October 2010

I move:

- A. That a Budget Review Working Group be established.
- B. That the composition of the Budget Review Working Group be a chair person, one Councillor from each Ward, General Manager, Directors and Manager Finance.
- C. That Council elect a Chairperson of the Group.
- D. That the first meeting of the Budget Review Working Group be conducted prior to 18 November 2010.
- E. That a charter for the Budget Review Working Group be developed and presented to the first meeting of the Group for adoption.

NM.5 Council Policy on Sporting Projects requiring Council Funding

495

File: DA0727/10

Notice of Motion from Councillor Tony Hall dated 1 November 2010

Council is from time to time approached by organisations having specific interests in various sporting pursuits to provide new facilities and /or enhance the facilities currently in existence. While these facilities may be desirable, especially for the persons following that pursuit, the provision of scarce Council funds must be assessed vis a vis the competing demands of other interested groups, and Council obligations for the majority of its ratepayers, especially the aged who constitute a significant group with needs which are currently not met, but who are not as vocal and active in their request for funding.

As a consequence, all sporting projects requests for funding should meet commercial evaluation criteria, which are Return on Investment (ROI) AND Payback Period. This would mean that any sporting project proposed must demonstrate in its proposal a Business Plan which accurately estimates the Total Capital Cost in Present Value terms, Capital Cost per period (if extended payment is involved), Expected Council Funding required, Expected Gross Revenue per period, Expected Expenditures per period, and Surplus per period – with a consolidated evaluation of the recovery of all Capital Costs over a nominated period, which should not be greater than 15 years. The provision of non-cost Council land should

be valued at current market prices for comparable surrounding land and/or its alternative use. Any deficit in the evaluation in both the Capital Cost and/or the Annual Surplus must be met by the proposing organisation.

As a concerned Councillor I seek to apply this policy proposal to the current Expressions of Interest (EOI) tender for the West Pymble Aquatic Centre construction, which closes on 9 November 2010, see attachments under separate cover.

I move:

"All proposals for Sporting Facilities and/or enhancements must be assessed under Commercial Criteria as to Rate of Return and Payback Period of Capital provided by Council. If a proposal does not meet the required criteria, the proposers will be asked to provide the deficiency in Capital and/or running costs so as to provide the Council's criteria of Rate of Return and Payback Period. If this is not provided then the proposal may be rejected."

BUSINESS WITHOUT NOTICE - SUBJECT TO CLAUSE 241 OF GENERAL REGULATIONS

QUESTIONS WITHOUT NOTICE

INSPECTIONS COMMITTEE - SETTING OF TIME, DATE AND RENDEZVOUS

**** ** * ** ** ***

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.*

MAYORAL MINUTE

PROPOSED RECLASSIFICATION OF COUNCIL LAND - 5 RAY STREET, TURRAMURRA

The Ku-ring-gai Local Environmental Plan (Town Centres) 2010, came into effect on 25 May, 2010, with Council adopting the Ku-ring-gai Development Control Plan (Town Centres) 2010 on 8 June, 2010. The Ku-ring-gai Development Control Plan (DCP) provides details of the planning objectives for each of the town centres.

Council has resolved to reclassify 19 sites within the town centres from Community to Operational land, (including 12 William Street, Turramurra) to make possible the delivery of the planning objectives detailed in the DCP. The first step in the reclassification process is now underway with the Planning Proposal on exhibition by the Ku-ring-gai Planning Panel.

On 30 June 2010, Council hosted a community briefing on the Ray Street, Turramurra precinct. The purpose of the briefing was for Council to gain an appreciation of Coles' potential development options for the site. Adjacent to the Coles site are Council's library and car park facilities (located on two parcels of land including 5 Ray Street and 12 William Street, Turramurra) which are classified community land.

Following further consideration of the options presented to Council, and in an attempt to maximize the community benefits through the redevelopment of our site which has the potential to provide for a range of uses which could include community facilities, retail/commercial areas, and improvements to the public domain.

I am proposing that 5 Ray Street, Turramurra, also be included in the process to reclassify the site from community land to operational land status.

Proceeding with the reclassification has the potential to provide Council with the flexibility to deliver the key community infrastructure that is required to support the new development and population, and also improvements to our facilities, public domain areas and civic places.

RECOMMENDATION

- A. That Council adopt the following site for the purpose of reclassification to operational land status in a new Local Environmental Plan:

5 Ray Street, Turramurra being Lot 2 DP 221290

- B. That Council request the Ku-ring-gai Planning Panel to prepare a new draft Local Environmental Plan as an amending instrument to Ku-ring-gai Local Environmental Plan (Town Centres) 2010, to list 5 Ray Street, Turramurra to have operational land status.

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S07624/2
11 October 2010

- C. That Council request that the Ku-ring-gai Planning Panel exhibition process be in accordance with the NSW Department of Planning's LEP Practice Note (PN09-003) 12 June 2009.
- D. That Council undertake a public hearing into the proposed reclassification of the site listed in A above.
- E. That the public hearing to be held at an appropriate time, after the public exhibition of the draft Local Environmental Plan prepared by the Ku-ring-gai Planning Panel.
- F. That when received, the Chairperson's report on the public hearing be the subject of a further report for Council's consideration.

Cr Ian Cross
Mayor

**Attachments: Background Information under separate cover:
5 Ray Street, Turramurra - 2010/193074**

Background to Mayoral Minute– 5 Ray Street, Turramurra

On 24 November, 2009, Council resolved to reclassify 19 sites within the town centres from Community to Operational land, (including 12 William Street, Turramurra). The first step in the reclassification process is now underway with the Planning Proposal on exhibition by the Ku-ring-gai Planning Panel.

The Ku-ring-gai Local Environmental Plan (Town Centres) 2010, came into effect on 25 May, 2010, with Council adopting the Ku-ring-gai Development Control Plan (Town Centres) 2010 on 8 June, 2010. The Ku-ring-gai Development Control Plan provides details of the planning objectives for each of the town centres.

On 30 June 2010, Council hosted a community briefing on the Ray Street, Turramurra precinct. The purpose of the briefing was for Council to gain an appreciation of Coles' potential development options for the site. Adjacent to the Coles site are Council's library and car park facilities (located on two parcels of land including 5 Ray Street and 12 William Street, Turramurra) which are classified community land.

There remains concerns in some areas of the community regarding the reclassification of Council land, but I should take this opportunity to remind you that reclassification is only an enabling step, and even when a site is reclassified, it is still ultimately Council's decision to sell, subdivide or enter into a long term lease for the site.

Any decisions on these matters will be made accordance with the relevant policies, and an appropriate level of stakeholder consultation will be made by a formal resolution of Council.

If Council resolves to proceed with the reclassification of 5 Ray Street, Turramurra, there will be further opportunities for community consultation during an exhibition period and formal public hearing process, which would be chaired by an independent consultant, along with further reporting back to Council.

I also note there is some concern about proceeding with reclassification, whilst there is a pending legal challenge to the validity of the Ku-ring-gai Local Environmental Plan (Town Centres) 2010. Regardless of the outcome of the court challenge it is imperative for Council to operate in accordance with the Local Government Charter, which requires that we effectively plan and manage our assets, including key land holdings such as those in our town centres.

Proceeding with the reclassification has the potential to provide Council with the flexibility to deliver the key community infrastructure that is required to support the new development and population, and also improvements to our facilities, public domain areas and civic places.

On this basis, and following further consideration of the options presented to Council, and in an attempt to maximize the community benefits through the redevelopment of our site which has the potential to provide for a range of uses which could include community facilities, retail/commercial areas, and improvements to the public domain.

I am proposing that 5 Ray Street, Turramurra, also be included in the process to reclassify the site from community land to operational land status.

In the event Council does not pursue reclassification of this site the community could be left in a situation where a less than desirable development outcome may occur. Whereby Council's land is left isolated and the opportunity to provide timely and necessary community infrastructure and services will not align with the adjoining Coles development.

PETITION

HANDLEY AVENUE, TURRAMURRA - PETITION TO REVIEW PRIORITIES FOR CONSTRUCTION OF FOOTPATHS - (ONE HUNDRED AND SEVEN [107] SIGNATURES)

"We, the undersigned, request that Council review the approval process and bring forward the construction of the footpath in Handley Avenue, Turramurra. A pre-school has been located in this street for nearly 50 years, however the footpath is approved for building in the year 2020.

During wet weather, the roadside strip is not passable by foot, so the parents and children have little choice but to walk on the road. Being a cul-de-sac increases the danger, as traffic is passing in two directions as vehicles enter and leave the street. In addition, several building developments in the street increase the danger considerably. Parts of the roadside strip and the road itself are completely blocked off by building equipment and machines.

In these circumstances, we ask that Council consider our petition to prioritise the building of the footpaths in Handley Avenue. This would remove the risk to the children and parents who are currently forced to walk on the road during wet weather and construction.

The safety of our children is our overriding concern, and we hope you take this into consideration in reviewing our petition."

RECOMMENDATION

That the Petition be received and referred to the appropriate officer of Council for attention.

PETITION

PETITION TO RESOLVE MULTIPLE OWNERSHIP OF CARCOOLA ROAD RESERVE - (EIGHTY-NINE [89] SIGNATURES)

The following Petition was presented by Councillor Tony Hall

"We, the undersigned, would like to commence discussions with Council to resolve the multiple ownership of Carcoola Reserve by State and Local Government so that the Reserve can be permanently zoned as 6A Open Parkland."

RECOMMENDATION

That the Petition be received and referred to the appropriate officer of Council for attention.

COUNCIL MEETING CYCLE FOR 2011

EXECUTIVE SUMMARY

PURPOSE OF REPORT:

To consider the proposed Council Meeting Cycle for 2011 which takes account of school holidays, public holidays, the Local Government Association Conference and the Christmas Recess.

BACKGROUND:

Council has in the past resolved to amend its meeting cycle to take into account the school holiday breaks, the Local Government Association Conference and the Christmas Recess.

COMMENTS:

Options for Council's consideration.

RECOMMENDATION:

That Council's Meeting Cycle for 2011 be adopted.

PURPOSE OF REPORT

To consider the proposed Council Meeting Cycle for 2011 which takes account of school holidays, public holidays, the Local Government Association Conference and the Christmas Recess.

BACKGROUND

The scheduled meeting cycle for 2011 would be:

| | | |
|------------|-------------------|-----------------------------|
| February: | 1 February 2011 | Ordinary Meeting of Council |
| | 22 February 2011 | Ordinary Meeting of Council |
| March: | 8 March 2011 | Ordinary Meeting of Council |
| | 22 March 2011 | Ordinary Meeting of Council |
| April: | 12 April 2011 | Ordinary Meeting of Council |
| | 26 April 2011 | Ordinary Meeting of Council |
| May: | 10 May 2011 | Ordinary Meeting of Council |
| | 24 May 2011 | Ordinary Meeting of Council |
| June: | 14 June 2011 | Ordinary Meeting of Council |
| | 28 June 2011 | Ordinary Meeting of Council |
| July: | 12 July 2011 | Ordinary Meeting of Council |
| | 26 July 2011 | Ordinary Meeting of Council |
| August: | 9 August 2011 | Ordinary Meeting of Council |
| | 23 August 2011 | Ordinary Meeting of Council |
| September: | 13 September 2011 | Ordinary Meeting of Council |
| | 27 September 2011 | Ordinary Meeting of Council |
| October: | 11 October 2011 | Ordinary Meeting of Council |
| | 25 October 2011 | Ordinary Meeting of Council |
| November: | 8 November 2011 | Ordinary Meeting of Council |
| | 22 November 2011 | Ordinary Meeting of Council |
| December: | 6 December 2011 | Ordinary Meeting of Council |
| | 20 December 2011 | Ordinary Meeting of Council |

COMMENTS

The school holiday periods for 2011 are:

| | |
|---------|--|
| Autumn: | Monday, 11 April 2011 to Tuesday, 26 April 2011 (including Easter) |
| Winter: | Monday, 4 July 2011 to Friday, 15 July 2011 |
| Spring: | Monday, 26 September 2011 to Friday, 7 October 2011 |
| Summer: | Wednesday, 21 December 2011 to Thursday, 26 January 2012 |

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1 November 2010

There are scheduled Council Meetings that fall within some of these periods. Council has in the past resolved to re-schedule meetings during school holidays.

It is recommended to amend the Meeting Cycle for 2011, as follows:

School Holidays: 11 April to 26 April 2011

| | | |
|--------------|-----------------------------|---|
| 5 April 2011 | Ordinary Meeting of Council | (transferred from 12 April 2011) |
| 3 May 2011 | Ordinary Meeting of Council | (transferred from 26 April 2011 - Public Holiday) |
| 10 May 2011 | Ordinary Meeting of Council | (Cancelled) |

School Holidays: 4 July to 15 July 2011

| | | |
|--------------|-----------------------------|-------------------------------|
| 19 July 2011 | Ordinary Meeting of Council | (transferred to 12 July 2011) |
| 26 July 2011 | Ordinary Meeting of Council | |

School Holidays: 26 September to 7 October 2011

To avoid the school holiday period and spread the meetings more evenly, the cycle should be amended as follows:

| | | |
|-------------------|-----------------------------|--------------------------------------|
| 6 September 2011 | Ordinary Meeting of Council | (transferred from 13 September 2011) |
| 20 September 2011 | Ordinary Meeting of Council | (transferred from 27 September 2011) |

Local Government Association Conference

The Local Government Association Conference is to be held from 23 October 2011 to 26 October 2011. It is recommended to amend the cycle for October as follows:

| | | |
|-----------------|-----------------------------|------------------------------------|
| 11 October 2011 | Ordinary Meeting of Council | |
| 18 October 2011 | Ordinary Meeting of Council | (transferred from 25 October 2011) |

Christmas Recess 2011

Council has traditionally held the last Council meeting for the year on the second Tuesday in December and resumed meetings in February, the next year.

It is recommended that the second meeting be brought forward to the first Tuesday - 6 December 2011 with the last Ordinary Meeting of Council being held on Tuesday, 13 December 2011. Following the recess, it is further recommended that the first meeting for 2012 be held on Tuesday, 7 February 2012 with the normal meeting cycle to resume on 28 February 2012.

CONSULTATION

Not applicable.

FINANCIAL CONSIDERATIONS

Not applicable.

CONSULTATION WITH OTHER COUNCIL DEPARTMENTS

Not applicable.

SUMMARY

Not applicable.

RECOMMENDATION

A. That the Council meeting cycle for 2011 be as follows:

| | | |
|------------|-------------------|-----------------------------|
| February: | 1 February 2011 | Ordinary Meeting of Council |
| | 22 February 2011 | Ordinary Meeting of Council |
| March: | 8 March 2011 | Ordinary Meeting of Council |
| | 22 March 2011 | Ordinary Meeting of Council |
| April: | 5 April 2011 | Ordinary Meeting of Council |
| May: | 3 May 2011 | Ordinary Meeting of Council |
| | 24 May 2011 | Ordinary Meeting of Council |
| June: | 14 June 2011 | Ordinary Meeting of Council |
| | 28 June 2011 | Ordinary Meeting of Council |
| July: | 19 July 2011 | Ordinary Meeting of Council |
| | 26 July 2011 | Ordinary Meeting of Council |
| August: | 9 August 2011 | Ordinary Meeting of Council |
| | 23 August 2011 | Ordinary Meeting of Council |
| September: | 6 September 2011 | Ordinary Meeting of Council |
| | 20 September 2011 | Ordinary Meeting of Council |
| October: | 11 October 2011 | Ordinary Meeting of Council |
| | 18 October 2011 | Ordinary Meeting of Council |
| November: | 8 November 2011 | Ordinary Meeting of Council |
| | 22 November 2011 | Ordinary Meeting of Council |

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1 November 2010

| | | |
|-----------|------------------|-----------------------------|
| December: | 6 December 2011 | Ordinary Meeting of Council |
| | 13 December 2011 | Ordinary Meeting of Council |

- B. That the first meeting for 2012 be held on 7 February 2012 and the normal meeting cycle resume on 28 February 2012.

Geoff O'Rourke
Senior Governance Officer

John McKee
General Manager

NATIONAL TRUST OF AUSTRALIA - CORPORATE MEMBERSHIP

EXECUTIVE SUMMARY

PURPOSE OF REPORT:

To advise Council of a request from the National Trust of Australia to renew Council's Gold Corporate Membership of the Trust for 2010-2011 for \$2,500.

BACKGROUND:

Council became a Corporate Member of the National Trust of Australia in 2008 with Gold Membership. The National Trust is also requesting a \$3,200 sponsorship for the 2010 National Trust Heritage Festival.

COMMENTS:

Categories available for Corporate Membership of the National Trust of Australia are Diamond \$4,500, Platinum \$3,500, Gold \$2,500 and Silver \$1,500.

RECOMMENDATION:

That Council consider renewal of Gold Corporate Membership of the National Trust of Australia for 2010-2011 for \$2,500.

PURPOSE OF REPORT

To advise Council of a request from the National Trust of Australia to renew Council's Gold Corporate Membership of the Trust for 2010-2011 for \$2,500.

BACKGROUND

Council became a Corporate Member of the National Trust of Australia in 2008 with Gold Membership of \$2,500, which was renewed in 2009. Council is also considering a \$3,200 sponsorship of the 2011 National Trust Heritage Festival.

COMMENTS

The National Trust is an independent member based charity at the forefront of the conservation of built, cultural and natural environments.

Categories available for Corporate Membership of the National Trust of Australia are:

| | |
|----------|-----------|
| Diamond | - \$4,500 |
| Platinum | - \$3,500 |
| Gold | - \$2,500 |
| Silver | - \$1,500 |

[See Attachment for additional details]

Corporate Membership offers benefits to member organisations, including free admission to National Trust properties, subscription to the National Trust Magazine, acknowledgement on the National Trust website, and signage at National Trust corporate events.

CONSULTATION

Not applicable.

FINANCIAL CONSIDERATIONS

Council's sponsorship budget for 2010-2011 is \$40,900, of which \$16,200 has been committed, leaving a balance of \$24,700. There has been an additional request from The National Trust for festival sponsorship of \$3,200 and the Ku-ring-gai Philharmonic Orchestra (KPO) for \$20,000.

CONSULTATION WITH OTHER COUNCIL DEPARTMENTS

Strategy and Corporate departments have been consulted in the writing of the report.

SUMMARY

Council has received a request from the National Trust of Australia to renew Council's Gold Corporate Membership of the Trust for 2010-2011. Categories for membership are, Silver \$1,500,

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21 October 2010

Gold \$2,500, Platinum \$3,500 and Diamond for \$4,500. There is currently a balance of \$24,700 in the 2010-2011 sponsorship budget.

RECOMMENDATION

That Council consider renewal of the Gold Corporate Membership of the National Trust of Australia for 2010-2011 for \$2,500.

Tiffany Kellar
Manager Communications

Janice Bevan
Director Community

Attachments: **Letter from the National Trust of Australia dated 6 October 2010 with tax invoice, application form and Corporate Membership Program - 2010/206407**

2000/

THE NATIONAL TRUST of AUSTRALIA (NEW SOUTH WALES)
ABN 82 491 958 802



NATIONAL TRUST

WATSON ROAD
OBSERVATORY HILL
SYDNEY NSW 2000

GPO Box 518
SYDNEY NSW 2001

www.nationaltrust.com.au

T: 02 9258 0123

F: 02 9251 1110

Our Patron

Her Excellency Professor Marie Bashir AC, Governor of New South Wales

6th October, 2010

Mr John McKee
General Manager
Ku-ring-gai Council
Locked Bag 1056
PYMBLE, NSW 2073

Dear Mr McKee

Re: Gold National Trust Corporate Membership

I am writing to remind you that your annual National Trust Corporate Membership is now due for renewal. We greatly appreciate the support you have shown us over the past twelve months. Without the support of companies such as yours, we would find it increasingly difficult to continue our work.

The National Trust is an independent member based charity at the forefront of the conservation of our built, cultural and natural environments. We do this through:

- Advocating for the conservation of our built, cultural and natural heritage by engaging with the community and government,
- Conserving and protecting our built, cultural and natural heritage by example advice and support,
- Educating and engaging the community by telling our stories in ways that awaken a sense of place and belonging.

To maintain our voice in the community we need strong and tangible support. The Trust enjoys a very high level of respect from the community and corporations alike. The more members we have, the stronger our voice and the more influence we have in protecting our historical and cultural heritage.

You can be assured that as an independent charity which receives no on going government funding we undertake these activities as efficiently as possible within our limited means.



In return for your financial assistance, your **Gold Corporate Membership** offers many benefits. These include:

- Free admission to any National Trust property in Australia and overseas
- Free subscription to the National Trust Magazine
- 10 corporate nominee cards giving free access to National Trust properties throughout Australia and overseas
- Acknowledgment as a Gold Corporate Member on the National Trust website, in the National Trust Annual Report and magazine
- Networking opportunities through invitations to corporate events such as corporate lunches, the Corporate Breakfast Series, Exhibition Openings and the Heritage Lecture
- Signage at National Trust corporate events such as the Corporate Breakfast Series and Annual Heritage Lecture, including acknowledgement on tables or displays
- Certificate of Recognition for display, use of National Trust logo on website and promotional material

Your company's annual Gold Corporate Membership of \$2,500 (plus GST) is now due for renewal. See enclosed tax invoice. This membership will be valid for 12 months from your renewal date.

Please return your payment by the end of this month with confirmation of the 10 names to whom Corporate Membership cards may be mailed.

If you have any questions or feedback please contact Brian Scarsbrick on 9258 0109
Kind regards,

Brian Scarsbrick
Director, Natural Heritage

P.S Enclosed is a full list of benefits for Diamond, Platinum, Gold and Silver Memberships. Please contact us if you would like to consider a higher level of membership.

THE NATIONAL TRUST *of* AUSTRALIA (NEW SOUTH WALES)
ABN 82 491 958 802



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WATSON ROAD
OBSERVATORY HILL
SYDNEY NSW 2000

GPO Box 518
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www.nationaltrust.com.au

T: 02 9258 0123

F: 02 9251 1110

TAX INVOICE

Customer Mr John McKee
 General Manager
 Ku-ring-gai Council
 Locked Bag 1056
 PYMBLE, NSW 2073

| | |
|----------------------|----------|
| Account No: | QM 76303 |
| Invoice No: | CM0112 |
| Invoice Date: | 06/10/10 |

| Description of Supply | Unit Price | GST | TOTAL |
|---|------------|-------|---------|
| Gold Corporate Membership 31 st October 2010 – 31 st October 2011 | \$2,500 | \$250 | \$2,750 |

| | |
|------------------------------------|----------------|
| Total | \$2,500 |
| Total GST | \$250 |
| Total Payable including GST | \$2,750 |

REMITTANCE ADVICE

Corporate Member: Ku-ring-gai Council
Customer No: QM 76303
Invoice No: CM0112

Please return this portion with your remittance to: National Trust of Australia (NSW) GPO Box 518 Sydney NSW 2001

Invoice Total incl. GST: \$2,750

THIS ACCOUNT IS DUE 14 DAYS NET
Thank you



CORPORATE MEMBERSHIP APPLICATION FORM

Name of Organisation/Company: _____

Address: _____

Contact for membership: ☐ Mr ☐ Mrs ☐ Ms ☐ Miss

Name: _____

Daytime phone number: _____

E-Mail address: _____

Corporate Membership Annual Fee

- ☐ Diamond \$4,500 plus GST
- ☐ Platinum \$3,500 plus GST
- ☐ Gold \$2,500 plus GST
- ☐ Silver \$1,500 plus GST

Total: \$ _____

Payment Method

☐ We enclose a cheque/money order made payable to the National Trust of Australia (NSW) for \$ _____

or

Please debit our:

☐ MasterCard ☐ Visa ☐ Amex ☐ Diners Club

Card number:

□□□□ □□□□ □□□□ □□□□

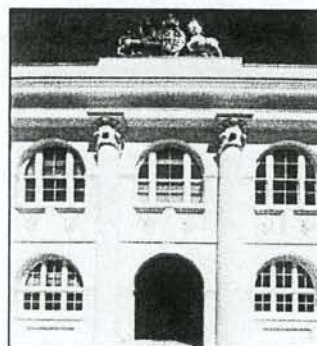
Expiry date: □□/□□

Name on Card: _____

Cardholder's signature: _____

Please fax this form to (02) 9252 1264 or mail to:
Membership, National Trust (NSW), GPO Box 518, Sydney 2001

JOIN THE NATIONAL TRUST NOW



Become a Corporate Member today.

"Our heritage is a vital part of what makes up our national identity and protecting it ensures it is there for us and future generations to enjoy - and to learn from. EnergyAustralia is delighted to be a partner of the National Trust."

- Paul Broad, Managing Director, EnergyAustralia

Complete the Membership Application form and post to:

Membership
National Trust of Australia (NSW)
GPO Box 518
Sydney NSW 2001

or fax: (02) 9252 1264

or phone: (02) 9258 0123 / (02) 0258 0156
(during business hours)

or visit
www.nationaltrust.com.au



National Trust of Australia (NSW)

National Trust

Corporate Membership





NATIONAL TRUST CORPORATE MEMBERSHIP PROGRAM



ABOUT THE NATIONAL TRUST

National Trust of Australia (NSW) is a non-government, not-for-profit charity that was established in 1945. Since this time, the Trust has worked with the community to protect and care for our built, cultural and natural heritage so that it may be enjoyed and appreciated now, and by future generations.

Through its management and promotion of historical properties, bush regeneration, galleries and conservation works, the Trust aims to raise awareness and appreciation of our unique heritage.

Help conserve Australia's heritage and enjoy many special benefits when you become a Corporate Member of the National Trust.

The Trust enjoys working with its Corporate Members to develop programs and events which help companies reach their objectives while promoting the Trust's conservation mission.



BENEFITS

- Association with Australia's largest conservation charity
- Exposure in the quarterly National Trust Magazine, mailed to 22,000 members in NSW
- Co-branding, to demonstrate your alignment with the National Trust and commitment to Australia's heritage
- Special rates and access to National Trust properties to entertain your clients and staff
- Knowing that you are making a real contribution to protecting Australia's heritage now and for the future.

There are four levels of Corporate Membership:

SILVER CORPORATE MEMBERSHIP* \$1,500

This includes:

- 5 corporate nominee cards** for your organisation for use by your directors or staff
- Acknowledgement on the Trust website, in the Annual Report and in the National Trust Magazine
- Networking opportunities through invitations to corporate events such as Conservation Workshops, the Corporate Breakfast Series, Exhibition Openings and Heritage Lectures
- Acknowledgement as Corporate Member on tables or displays at events
- Certificate of Recognition for display
- Access to the Trust archives at a 25% discount rate.

GOLD CORPORATE MEMBERSHIP* \$2,500

This includes all the benefits a *Silver Membership* provides, with:

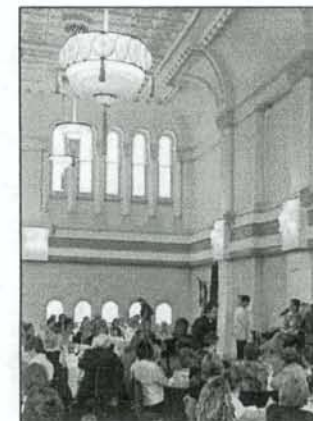
- A total of 10 corporate nominee cards**
- Use of National Trust logo on website and promotional material
- Access to expert advice on conservation and related issues
- 25% discount on the hire of selected Trust properties for 2 functions each year (subject to availability)
- Corporate Member pricing (10% discount) for function on-site catering where available.



PLATINUM CORPORATE MEMBERSHIP* \$3,500

This includes all the benefits a *Gold Membership* provides with:

- A total of 15 corporate nominee cards**
- Signage at National Trust Corporate events
- Free guest invitation to each Corporate Breakfast
- 50% discount on the hire of selected Trust properties for 2 functions each year (subject to availability)
- Offers to staff for team building activities e.g. bush regeneration, restoration.



DIAMOND CORPORATE MEMBERSHIP* \$4,500

This includes all the benefits a *Platinum Membership* provides, with:

- A total of 20 corporate nominee cards**
- Signage at National Trust Corporate events
- Free guest invitation to each Corporate Breakfast
- 75% discount on the hire of selected Trust properties for 2 functions each year (subject to availability)
- Offers to staff for team building activities e.g. bush regeneration, restoration.

* Corporate Membership entitles the organisation to the rights specified above but *not* the rights to vote at general meetings or in ballots of the Trust, or to be elected or nominate another member for election as a Director of the Trust.

** Corporate Members Nominee Card Holders are not members and have no membership rights but are entitled to the same benefits as Ordinary Members e.g. visitation rights to Trust properties.

NATIONAL TRUST HERITAGE FESTIVAL 2011 - SPONSORSHIP PROPOSAL

EXECUTIVE SUMMARY

PURPOSE OF REPORT:

To advise Council of a request from the National Trust of Australia for sponsorship for the National Trust Heritage Festival 2011, by placing a half page advertisement in the festival program.

BACKGROUND:

In 2007 and 2008 Council purchased advertising in the festival program valued at \$2,500 per year. In 2009 Council purchased advertising for \$3,000 for the 2010 Heritage Festival. Additionally, Council purchased Gold Corporate Membership of the National Trust in 2008 and 2009 for \$2,500 per year.

COMMENTS:

The cost for a half page advertisement in the 2011 National Trust Heritage brochure is \$3,200.

RECOMMENDATION:

That Council consider the sponsorship proposal from the National Trust of Australia for \$3,200 to advertise in the 2011 National Trust Heritage Festival program.

PURPOSE OF REPORT

To advise Council of a request from the National Trust of Australia for sponsorship for the National Trust Heritage Festival 2011, by placing a half page advertisement in the festival program.

BACKGROUND

In 2007 and 2008 Council purchased advertising in the festival program valued at \$2,500 per year. In 2009 Council purchased advertising for \$3,000 for the 2010 Heritage Festival. Additionally, Council purchased Gold Corporate Membership of the National Trust in 2008 and 2009 for \$2,500 per year.

COMMENTS

The theme for the 2011 National Trust Heritage Festival is *"Amazing Stories"*. The festival will run from 2 to 17 April 2011.

The festival aims to build support and awareness for heritage conservation through facilitating the staging of over 350 events listed in the festival program. The festival program is distributed to 22,000 National Trust members, participating event organisers, RTA branches, Tourism Visitor Information Centres, Councils, libraries and other supporters throughout NSW. A total of 35,000 copies of the brochure are printed.

For more details on the half page advertisement in the 2011 Festival Program see correspondence from the National Trust. (See **Attachment**)

CONSULTATION

Not applicable.

FINANCIAL CONSIDERATIONS

Council's sponsorship budget for 2010-2011 is \$40,900, of which \$16,200 has been committed leaving a balance of \$24,700. There has also been an addition request from The National Trust for Corporate Membership of \$2,500 and the Ku-ring-gai Philharmonic Orchestra (KPO) for \$20,000.

CONSULTATION WITH OTHER COUNCIL DEPARTMENTS

Not applicable.

SUMMARY

The National Trust of Australia has approached Council requesting sponsorship for the 2011 Heritage Festival. Sponsorship comes in the form of a half page advertisement in the Heritage Festival program for \$3,200.

RECOMMENDATION

..

That Council consider the sponsorship proposal from the National Trust of Australia for \$3,200 to advertise in the 2011 National Trust Heritage Festival program.

Tiffany Kellar
Manager Communications

Janice Bevan
Director Community

Attachments: Letter from National Trust regarding advertising costs - 2010/191675



8 October 2010

Janice Bevan
Director Community
Ku-ring-gai Council
Locked Bag 1056
Pymble NSW 2073

Dear Janice

The National Trust of Australia (New South Wales) is currently seeking expressions of interest from potential sponsors for the 2011 National Trust Heritage Festival and its key events. The Heritage Festival was a fantastic success this year with a great variety of over 310 events showcasing our heritage under the theme of '*The Making of Our Nation*'. In 2011, the theme of, '*Amazing Stories*' has been chosen for the Heritage Festival and will take place from 2 – 17 April.

As per the 2010 Heritage Festival, I am writing to offer Ku-ring-gai Council the opportunity to sponsor the Heritage Festival by placing an advertisement in our Heritage Festival Program (with 35,000 copies printed) which is distributed across NSW.

The cost of this for 2011 is \$3,200 ex GST for a half page advertisement, logo placement on our sponsor's page of the program, poster and National Trust website as well as mentioned in our National Trust quarterly magazine.

I look forward to hearing from you Janice in regards to whether you think you will be able to put this opportunity forward at the next Council meeting.

As a non government not-for-profit charity, the National Trust could not stage this annual community initiative without the help of sponsors and look forward to having you on board for the 2011 National Trust Heritage Festival.

Kind Regards

Natalie Gross
Events Manager
Ph: 9258 0181
E: ngross@nationaltrust.com.au

KU-RING-GAI YOUTH DEVELOPMENT SERVICE (KYDS) - REQUEST FOR FUNDING ASSISTANCE

EXECUTIVE SUMMARY

| | |
|---------------------------|--|
| PURPOSE OF REPORT: | To report to Council on possible funding options for the Ku-ring-gai Youth Development Service (KYDS). |
| BACKGROUND: | Representatives from KYDS addressed a public forum in conjunction with Council's Draft Delivery Program and Operational Plan 2010-2014, and submitted a request for financial assistance from Council. This report is a response to KYDS request for additional funding. |
| COMMENTS: | There are a range of funding possibilities that may be appropriate for KYDS - this report outlines some of those funding opportunities. |
| RECOMMENDATION: | That the report be received and noted and that the matter of providing additional funding for KYDS be considered as part of Council's 2011/2012 budget discussions. |

PURPOSE OF REPORT

To report to Council on possible funding options for the Ku-ring-gai Youth Development Service (KYDS).

BACKGROUND

Representatives from KYDS addressed a public forum in conjunction with Council's Draft Delivery Program and Operational Plan 2010-2014.

KYDS made a submission to Council (Attachment 1) for funding assistance from Council totalling \$140,879.67. This includes \$35,000 capital expenditure and \$105,879.67 to cover ongoing expenses for the 2010-2011 financial year. The capital expenditure included the following items:

- Upgrade of computer facilities (\$10,000)
- Installation of a new client database system (\$10,000)
- New furniture for the facility (\$5,000)
- New photocopier (\$10,000)

The KYDS submission also identifies 5 year goals for the organisation along with statistical performance data for the period 2005-2010.

Since its establishment, KYDS has been involved in a range of partnership projects with Council. Working in collaboration has enhanced the quality and capacity of such projects to meet the needs of young people and their families. For example, six Ku-ring-gai Parent Forums are coordinated annually with professional guest speakers covering a range of important youth issues. The KYDS staff and Board members utilise their professional networks to secure high profile speakers who are able to provide the latest information in their areas of expertise. Council has also worked together with KYDS on a range of school seminars and youth mentoring programs that have had significant outcomes for participants. Council values such partnerships and expects the relationship with KYDS to grow into the future.

Council has contributed to KYDS (both financially and in-kind) during both the establishment and operation stages since 2005. This support has included the following:

- Financial contribution of \$5,200 (November 2008) from Council's unspent Bland Shire Council Drought Relief funds.
- Waiving of fees for DA preparation and submission in 2004.
- Contribution to KYDS fundraising dinners in 2009 and 2010 – total \$5,400.
- Cleaning services for KYDS Lindfield premises at an estimated cost of \$2,000 per annum.
- 90% rental rebate subsidy for Lindfield premises with an estimated value of \$15,939 per annum.
- Council staff support towards organisational Strategic Plan development.
- Representation on the KYDS Board by Ku-ring-gai Councillors.
- Room hire subsidy for a range of programs.
- Capital Works projects relating to the preparation of the KYDS Lindfield premises. This included 50% of the cost of building a pathway to the office doorway.
- Assets including a 50% contribution towards the purchase of two air conditioning units.

Item 4

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27 October 2010

- Preparation of letters of support by Council staff to assist KYDS with funding submissions.
- Preparation of a successful \$5,000 funding submission for a Harmony Grant through the Commonwealth Department of Immigration and Citizenship in 2010.
- Graphic design for KYDS promotional flyers completed by Council's Communications staff.
- Actively advocated on behalf of KYDS with the Novus Foundation for grant allocations both now and into the future from their fundraising activities.

COMMENTS

There are a number of possible funding options open for KYDS which include:

Financial Assistance Program

Council's Financial Assistance to Community Groups Program was established to provide grants to local community groups for the purpose of supporting their work in the Ku-ring-gai area. There is approximately \$85,000 available annually under a number of categories, including equipment, arts/cultural and community development. Each year, applications are assessed on their merit and not every applicant is successful. Requests for ongoing operational costs are not considered. KYDS has been a successful grant recipient of this program in the following funding rounds:

- \$6,160.00 in 2009
- \$6,426.20 in 2008
- \$5,500.00 in 2006

KYDS did not receive funding under this program in 2007 and 2010 as no grant application was submitted. KYDS are able to access future funding rounds through this program but will have to abide by the relevant application processes.

Alternatively, Council could move to allocate the entire \$85,000 to KYDS in lieu of distributing the funds between other community groups.

Potential Regional Service Delivery Model for KYDS

In recent strategic planning exercises, the KYDS Board have identified a potential to expand the scope of their services to include a larger area of northern Sydney. This approach has merit as government departments rarely fund services on an LGA basis. Servicing a larger geographical area may lead to new funding opportunities including the Community Development Expenditure and Support program (CDSE) as well as various financial assistance schemes operated by other Councils.

Potential Introduction of Fee for Service

To ensure financial sustainability, KYDS may need to review their pricing policy relating to the provision of 'free' counselling and group work programs. A flexible client charge could be introduced that is means tested and there may also be scope for the sale of KYDS program resources to other community organisations.

Potential Council Sponsorship of KYDS

Council has supported worthwhile private or public sector activities through sponsorship in the past including the 'Ku-ring-gai Philharmonic Orchestra' and 'Carols in the Park'. Such sponsorship must bring benefits to Council such as increased staff morale, enhanced reputation and alignment

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27 October 2010**

with organisational goals. With this said, there are limited funds currently available for the purposes of sponsorship (\$40,000) and Council may need to increase this budget for 2011-2012.

Northern Sydney Regional Organisation of Councils (NSROC)

Utilising the Northern Sydney Regional Organisation of Councils (NSROC) the KYDS project could be placed on the agenda for consideration at a future Community Services Managers Committee meeting. The aim would be to use the KYDS service model and its potential for expansion to other local government areas as a case study. This exercise will gauge the level of demand for this type of service in other local government areas as well as their interest to support such a project on a regional basis.

The NOVUS Foundation

A possible source of financial assistance for KYDS may also be available through the Novus Foundation. The Foundation was established in 2006 as a cooperative arrangement between Phil McCarroll Automotive and the Rotary Club of Wahroonga Inc. The Foundation supports projects directed at the welfare of young people in Hornsby and Ku-ring-gai. The Novus Foundation has raised over \$515,000 since 2006 in support of community projects that are investing in young people. At the time of writing this report the Novus Foundation were anticipating a funding application from KYDS for 2011.

State and Federal Government Grants

Council would be available to support KYDS (through letters of support or representations to relevant government officers) in funding applications that they submit to State and Commonwealth government departments. For example, in July 2010 Council supplied KYDS with a letter of support that was utilised in a grant application to the Department of Education, Employment and Workplace Relations. With this said, the recent Community Services Grants Program reform carried out by the Department of Human Services will not offer funding opportunities to services that are not current grant recipients (such as KYDS).

Current Adolescent Counselling and Support Services in Ku-ring-gai

There are a range of services (apart from KYDS) available in the Ku-ring-gai region that provide counselling to young people and their families (Attachment 2). These include organisations such as:

- Clifton Adolescent and Family Solutions (Mission Australia)- A service for young people (12-24 years) and their families that aims to strengthen family relationships and minimise youth homelessness. This is achieved through the provision of counselling, group work, information, referrals and practical assistance.
- Ku-ring-gai Family Support Program- A service that offers practical assistance and emotional support to families experiencing crisis or stress. They particularly cater to families in the Ku-ring-gai LGA with children or young people under the age of 18 living at home.
- Streetwork- A service that works with young people at risk of homelessness, violence and substance dependency. They are active in Ku-ring-gai through their Kickstart program which involves one-on-one mentoring.
- Child and Adolescent Mental Health Service- This NSW Department of Health funded service provides free health services for children and adolescents and their families living

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in the Northern Sydney area. Assessment and treatment services are provided for anxiety and depression, behavioural and parenting issues, relationship problems and family conflict, eating disorders and trauma.

- Child and Adolescent Anxiety Clinic- This NSW Department of Health funded service provides assessment and treatment for anxiety disorders in young people aged between 7 and 15 years. Treatment involves the young person with the parents in a small group setting over a ten week period.
- Local High Schools- ACE ('Adolescents Coping with Emotions') is a school-based, early intervention program that teaches adolescents a range of effective problem solving and coping strategies to deal with mental health issues. Apart from ACE, schools also have counsellors and welfare teams that focus on the well-being of students.

It is important that all financial assistance offered to community organisations is carried out in a way that is equitable, transparent and consistent with Council's planning processes and resource allocation.

Council's Role as Capacity Builder

It is within the scope of Council to play a role in building the capacity of the community sector as it impacts on the Ku-ring-gai LGA. This can take a variety of forms including:

- Interagency relationship building
- Submission writing
- Identification of suitable funding opportunities
- Advocacy and lobbying
- Accommodation
- Access to meeting spaces
- Seeding grants
- Training
- Management Committee support

Council currently assists organisations such as KYDS through initiatives that build their capacity and in the future may be able to expand such assistance.

CONSULTATION

Clifton Adolescent and Family Solutions (Mission Australia) and Ku-ring-gai Family Support Program have been consulted to determine their level of activity in the Ku-ring-gai Local Government Area.

FINANCIAL CONSIDERATIONS

Any financial assistance offered to KYDS will need to be considered through appropriate planning processes such as the Delivery Program and Operational Plan timetable 2011/12. Funding decisions also need to be taken in light of the long term financial plan of Council.

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27 October 2010

Council's operational budget

There are currently no unallocated funds in Council's 2010-2011 operational budget. Budgets for this period are already adopted and any savings gained during the period will be added to Council's working capital as part of the long term financial plan.

Any bid from KYDS for an allocation in Council's 2011-2012 operational budget would be considered through appropriate planning processes such as the Delivery Program and Operational Plan timetable 2011/12. It is through this process that projects are prioritized and submitted to Council for approval.

Financial Sustainability of KYDS

The original business plan presented to Council in 2003 (Attachment 3) indicates a range of likely sources of funding such as Rotary Clubs, RSL Clubs, local councils, private sector, government departments and members of the community. Council was not identified as a central funder, but one of a range of contributors towards the financial sustainability of the service.

The recent submission to Council from KYDS requested an amount of \$105,879.67 in ongoing annual expenses, which if approved, may have repercussions for Council after the 2011-2012 budget period. A financial contribution by Council towards recurrent operational expenses will not assist organisations such as KYDS to become financially sustainable as the same shortfall may be likely to appear in the following financial year.

CONSULTATION WITH OTHER COUNCIL DEPARTMENTS

Finance Department has been consulted in the writing of the report.

SUMMARY

Ku-ring-gai Youth Development Service provides an important service to young people and their families in the Ku-ring-gai Local Government Area. There is a range of ways that Council can continue to support this organisation as they attempt to grow and become financially sustainable. With this said, it is important that any support approach initiated by Council is offered on an equitable basis or through the appropriate processes. Funding KYDS for annual operational expenses may create a precedent for other local organisations that are also experiencing difficulties in locating core funding. It is for this reason that Council's current approach attempts to fund community groups on an equitable basis through the Financial Assistance to Community Groups Program.

It is important for community organisations to match their service planning with their existing resources. There are risk implications involved when financial assistance is supplied by Council to community organisations for annual operational expenses. Such interventions do not provide a suitable solution to the issue of long-term financial sustainability for such organisations.

RECOMMENDATION

That the report be received and noted and that the matter of providing additional funding for KYDS be considered as part of Council's 2011/2012 budget discussions

Janice Bevan
Director Community

Attachments:

- 1. KYDS submission to Council Draft Delivery Program and Operational Plan 2010-2014 - 2010/206450**
- 2. Organisational material for Streetwork, Northern Sydney Health Service, Ku-ring-gai Youth Development Service, Ku-ring-gai Family Support Program and Clifton Adolescent and Family Solutions - 2010/206455**
- 3. Ku-ring-gai Youth Development Service Business Plan - Version 1.42 - 332543**



Ku-ring-gai Youth Development Service Inc
ABN: 11 563 715 017

Patron:
Her Excellency
Governor of New South Wales

Mr John McKee
General Manager
Ku-ring-gai Council
Locked Bag 1056
Pymble NSW 2073

28th May 2010

Dear Mr McKee,

I would like to thank the council for the opportunity for us to address the public forum on the 18th May 2010 on the Draft Delivery Program and Operational Plan 2010 – 2014. Please find attached our submission.

Yours Sincerely,

Manager
Ku-ring-gai Youth Development Service

SUPPORTING THE YOUTH OF KU-RING-GAI

KYDS is providing counselling, education, harm minimization and early intervention programs to thousands of young people in Ku-ring-gai.

KYDS positively contributes to Council's charter and service functions under the Local Government Act to provide public health services and facilities, particularly in relation to providing and planning for the needs of children and providing community health, education and information services.

KYDS' counsellors work closely with Ku-ring-gai local schools, taking individual referrals from school counsellors, running school education and therapeutic group programs.

KYDS has pioneered a program called "PATS" (Paying Attention To Self), which is the first program of its kind to be run in NSW. It educates young people who live with a parent who suffers from mental illness. There are one million children who are in this predicament in Australia.

KYDS works closely with Youth Liaison Officers at the Police, Hornsby Hospital and Ku-ring-gai Council Youth Services in our intake and assessment work.

We have also had more than 500 parents participating in our parent information programs, which we run out of Ku-ring-gai Council Chambers, in conjunction with the Youth Services Team.

KYDS has school programs in drug and alcohol, sexual health, safe partying, conflict resolution, bullying, body image and HSC stress.



OUR MISSION

At KYDS we aim to improve the health and well being of young people in Ku-ring-gai.

We do this by :

- providing free individual counselling for young people who live in Ku-ring-gai.
- providing free counselling for parents and families who live in Ku-ring-gai.
- running educational group programs to young people and parents living or attending school in Ku-ring-gai.
- and running therapeutic group programs to young people living or attending school in Ku-ring-gai.

SUBMISSION IN RELATION TO DRAFT DELIVERY PROGRAM AND OPERATIONAL PLAN 2010 – 2014 (FY00382)

BACKGROUND

WE SEE CHILDREN AS YOUNG AS 12, MANY OF WHOM ARE IN NEED OF SUPPORT, BECAUSE OF FAMILY BREAKDOWN, MENTAL HEALTH PROBLEMS OR DRUG AND ALCOHOL ABUSE.

Almost 40% of KYDS' individual clients are drug and alcohol or mental health referrals, which means we are responsible for reducing the incidence of crime in the Ku-ring-gai LGA.

We are currently staffed by a full time Manager, who is also an Adolescent Counsellor, a full time Psychologist and a part time Counsellor.

KYDS has Public, Professional and Association Liability Insurance for all our staff and Board Members in all aspects of our work and Workers Compensation Insurance.

The KYDS' Board is made up of 11 people from the local community, including councillor representation from the council, representatives from the accounting, business, banking and legal sector and the field of education. KYDS' funds are carefully monitored through our treasurer Andrew Price, who is a senior partner at Ernst and Young.

KYDS is very fortunate to have Professor David Bennett (Head NSW Centre for The Advancement of Adolescent Health), Professor Garry Walter (Head Child and Adolescent Mental Health Northern Sydney), Harry Smith and Pam McGaw supervising our clinical staff.

CHAIR KYDS BOARD OF MANAGMENT



Clinical Support Committee



MANAGER



Our goals over the next 5 years :

- Expansion of our school programs into the primary schools of Ku-ring-gai.
- To maintain our fundraising and grant application program to assist with financing.
- Maintain our service as a free counselling service for the Ku-ring-gai community.
- Maintain a "no waiting-list" policy for young people needing counselling.
- To reduce the incidence of mental health problems in the youth of Ku-ring-gai (Currently 1 in every 4 adolescents in Australia will develop mental health problems).
- To reduce the incidence of drug and alcohol abuse and crime in the Ku-ring-gai LGA.
- We are currently housed in the back of the Lindfield Library but will require larger facilities due to the lack of counselling rooms for clients

KYDS FUNDING REQUIREMENTS

= \$140,879.67

CAPITAL : \$35,000

Upgrading Computer facilities to cope with our client demand and staffing. (Currently we are using a server that was built in 2003) = \$10,000.

Installing a client data base system to be able to monitor client statistical data and to train the staff in the use of the system = \$10,000.

New furniture for the facility – (currently we are using couches that were donated to the service in 2005 by members of the public) = \$5,000.

New photo-copier – so staff can take copies of programs to schools. (Currently we are using a 1999 photocopier, which was donated to the service and is in disrepair) = \$10,000.

ONGOING ANNUAL EXPENSES : \$105,879.67

Annual funding of our existing part time Adolescent and Family Counsellor to be paid under the SACS AWARD (Community Services Worker Grade 5 level 1) = \$32,106.00 per annum plus super and workers compensation insurance = \$36,995.54.

Annual professional development for Staff (this includes training staff in the latest research in adolescent development) = \$5,000.00.

Annual funding of our existing full time Psychologist – to be paid under the SACS AWARD (Community Services Worker Grade 5 level 2) = \$55,857.00 per annum plus superannuation and workers compensation insurance = \$63,884.13.

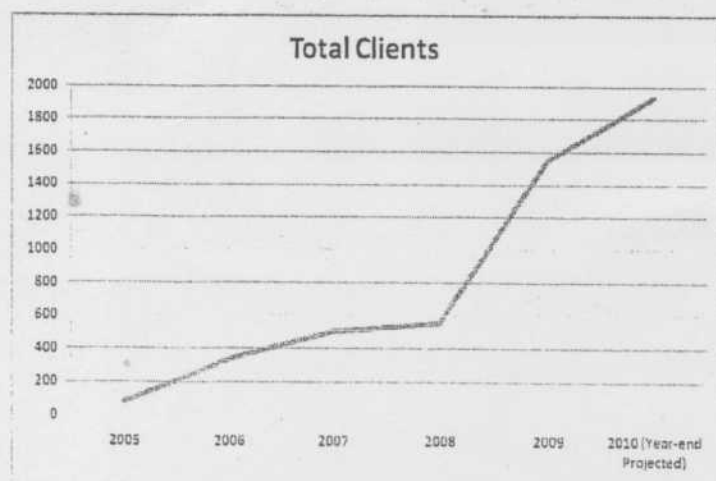
KYDS STATISTICS OVER THE LAST 5 YEARS

Table 1 Trends in clients seen March 2005 - December 2009

| | 2005 | 2006 | 2007 | 2008 | 2009 |
|----------------------|-----------|------------|------------|------------|--------------|
| Individual clients | 60 | 38 | 77 | 100 | 120 |
| Group clients | 23 | 302 | 430 | 455 | 1,429 |
| Total clients | 83 | 340 | 507 | 555 | 1,549 |
| Clients per month | 9.2 | 28.3 | 42.2 | 46.25 | 129 |

GROWTH TRENDS IN CLIENTS (per year) 2005 to 2010 (Year end projection)

www.kyds.org.au



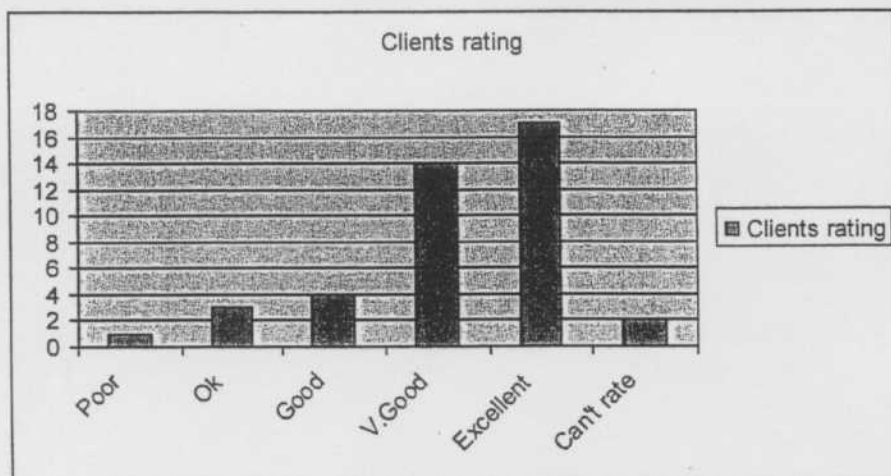
Between 2008 and 2009 the client numbers grew by 179 %

SUBMISSION IN RELATION TO DRAFT DELIVERY PROGRAM AND
OPERATIONAL PLAN 2010 – 2014 (FY00382).

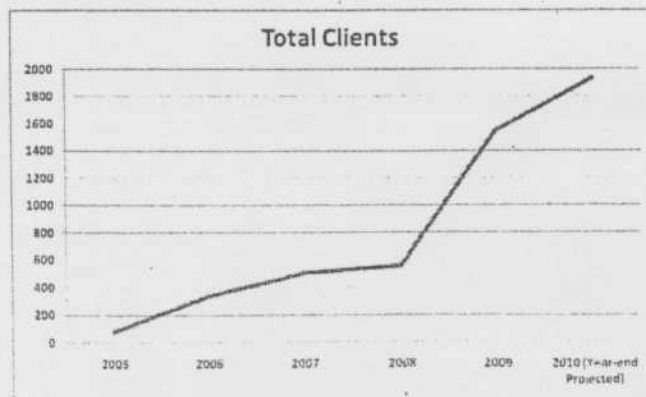
CLINICAL STATISTICS FOR KYDS 31/03/05 TO 31/05/10

KYDS CONDUCTS ONGOING OUTCOMES RESEARCH TO SEE THAT OUR COUNSELLING AND
SCHOOL PROGRAMS ARE HAVING A GOOD EFFECT ON THE KU-ING-GAI COMMUNITY.

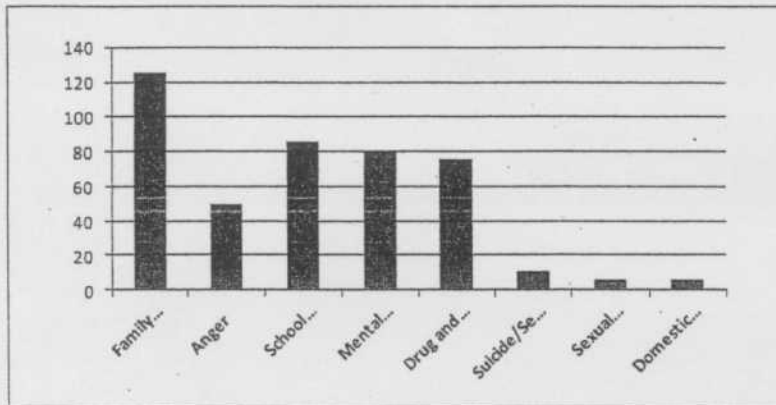
BELOW IS A RECENT CLIENT SATISFACTION SURVEY FOR INDIVIDUAL CLIENTS



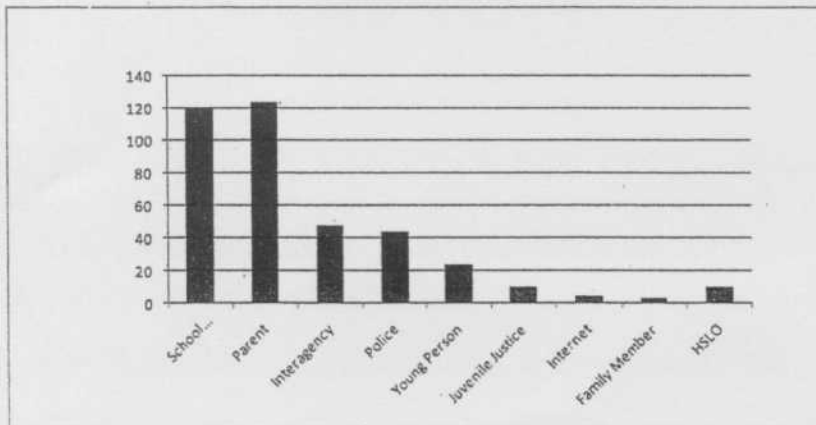
**Between 2008 and 2009 KYDS' clients
grew by 179%.**



KYDS Reason For Referral 31/03/05-31/05/10

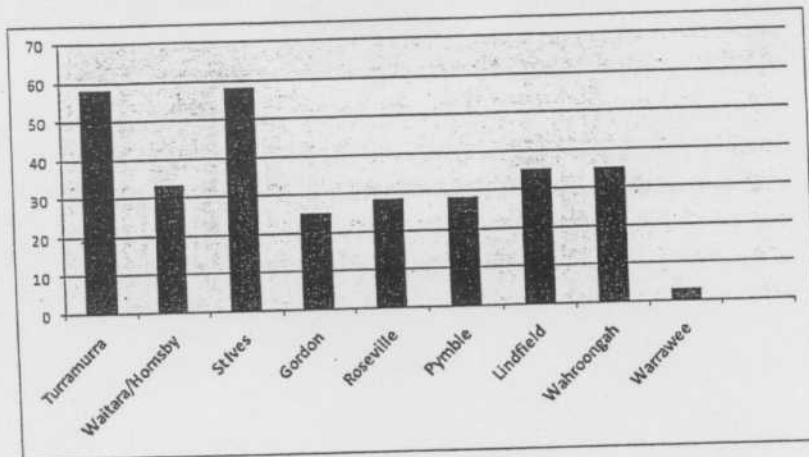


KYDS Source of Referral 31/03/05-31/05/10

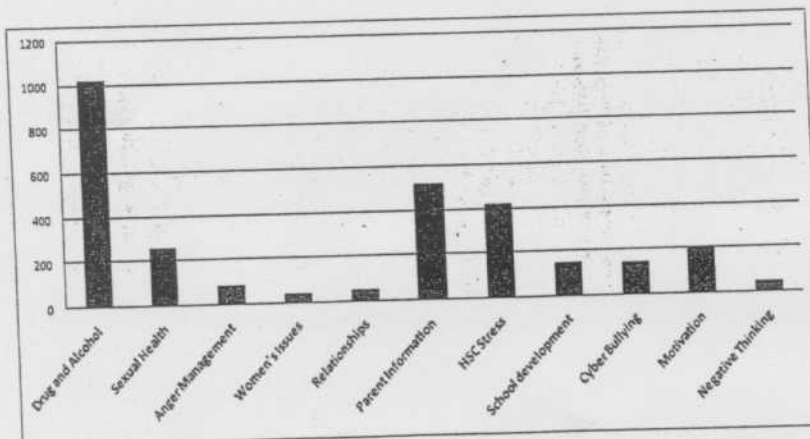


KYDS Individual Client 31/03/05 - 31/05/10

(KYDS clients residing or attending school in Ku-ring-gai LGA = 76% of individual clients)



KYDS Group Numbers 31/03/05 to 31/05/10





StreetWork donation form
Please mail to: StreetWork Inc
PO Box 5601, Chatswood West, 2057

Name: _____

Address: _____

Postcode _____

☐ I would like to be placed on the mailing list

Payment Details:

enclose a cheque for \$ _____ to support StreetWork

Please debit \$ _____ from my:

☐ Bankcard ☐ Visa ☐ Mastercard

Credit Card Details:

Card no.

| | | | | | | | | | | | | | | | | | | | |
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Expiry Date: _____ / _____

Name on card: _____

Signature: _____

All donations to StreetWork greater than \$2 are tax deductible.

Contact Details:

Phone: North Shore 9419 7559

Northern Beaches 9972 0652

Email: chatswood@streetwork.org.au

www.streetwork.org.au

"Our community must take responsibility for the increasing numbers of young people who find themselves on our streets. StreetWork is doing fantastic work behind the scenes in Chatswood where young people hang out and are crying out for help."

Pat Reilly, Mayor of Willoughby

"StreetWork has assisted in the rehabilitation of many young offenders, keeping them in the community and away from full-time custody."

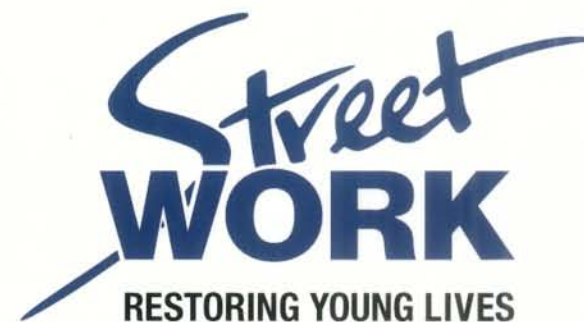
Ian Stayt, Officer, NSW Department of Juvenile Justice

"Fatherlessness is an epidemic in our nation - thousands of young people grow up without a Dad. Our nation lacks father-figures, role-models and mentors. I am truly grateful that I was able to find my mentor in Garth from StreetWork."

Young person



Attachment 2a



StreetWork is actively working on the streets of Sydney's North Shore and Northern Beaches with young people at risk of homelessness, violence, abuse and substance dependency to help restore their lives.



25 years of StreetWork

StreetWork has been helping young people aged between 10 and 30 on Sydney's North Shore for 25 years. StreetWork's founder, Peter Hobbs, was awarded an Order of Australia to mark his great contribution in establishing the organisation.

A non-denominational Christian organisation, StreetWork has a trained team of outreach workers and volunteers who walk the streets of Chatswood, Dee Why and their surrounding suburbs, identifying young people at risk of violence, homelessness, criminal activity and substance dependency.

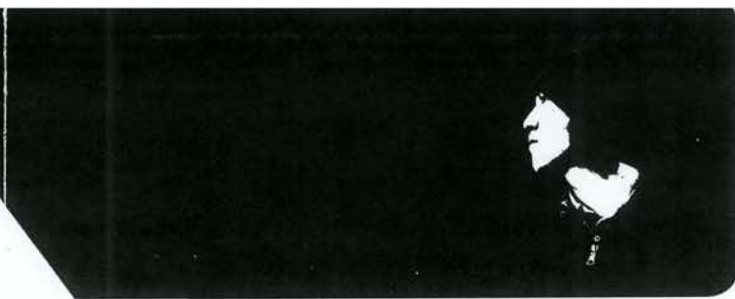
StreetWork receives referrals from local schools, police, government agencies and the NSW Department of Juvenile Justice, and seeks to boost the self-esteem of young people by changing their outlook and helping them to get back in touch with mainstream society, thereby maximising their own full potential.

hundreds helped by StreetWork

The StreetWork team comes into contact with hundreds of young people every week. More than 630 people received direct assistance from the StreetWork team in 2005, while hundreds more enjoyed the friendly presence and guidance of the team in places where youth hang out.

By going to the schools, streets, malls and alleyways where young people congregate, the StreetWork team build relationships of trust and respect with young people. In time, this places them in a position to assist our youth to address their problems and break the cycle of destructive behaviour.

"When I screwed up, you put me back on the right path. You mean a lot to me. You more than just helped – you were my friend." Kat



StreetWork services

- Regular presence in schools, streets, malls and alleys where young people hang out
- Emergency food packages and assistance
- Emergency accommodation
- Police advocacy service
- Court support service
- Recreation, peer support and self-esteem programmes
- Anger management and drug and alcohol courses
- An innovative street-based application of the Duke of Edinburgh's Award Scheme
- Life and job-seeking skill courses
- Community service opportunities for young people
- Camps for time away from negative influences
- *Kickstart* – a one-on-one mentoring program providing regular meetings, encouraging positive choices, setting healthy goals and celebrating achievements.



why help?

Our community spends many millions on the high cost of youth problems. This cost is seen in the Police and Juvenile Justice systems, DOCS, Centrelink, and NSW Health. Sadly very little is spent on the cause of problems experienced by many young people – the very problems that StreetWork seeks to address.

As one young man said after receiving assistance from StreetWork:

"The people at StreetWork weren't afraid to go to the dark places in order to retrieve the lost. They realized that some people labelled as "A Menace to Society" are actually in desperate need of saving."

Unlike most agencies, StreetWork does not place limits on the time or assistance it gives young people. It establishes long-term relationships with young people, the overwhelming majority of which come from broken homes. Many also come from non-English speaking backgrounds.

StreetWork provides whatever assistance is required. This includes accommodation, food, legal assistance, or just someone to talk to. It does not judge nor discriminate, and offers its services freely to all young people.

StreetWork receives financial help from 40 local churches, Willoughby City Council, the St George Foundation, Rotary local clubs and community groups. However, it needs the direct support of the community if it is to continue this vital service to our youth.

By cutting off the attached donation form, you can help the StreetWork team to reach young people on the North Shore and Northern Beaches when and where our youth need it most*.

*StreetWork is a Deductible Gift Recipient (donations over \$2 tax deductible), a Public Benevolent Institution, a Registered Charity and GST registered.

Northern Sydney Health Service

Child and Adolescent Mental Health Service

Provide free health services for children and adolescents aged up to 18 and their families living in the Northern Sydney area.

Assessment and treatment services are provided for emotional and behavioural problems such as anxiety and depression, behavioural and parenting issues, relationship problems and family conflict, eating disorders and trauma. Services include individual and family therapy, group treatment programs, parenting courses and information lectures and consultations to schools, preschools and local doctors. **Child and Adolescent Mental Health** staff include psychologists, clinical psychologists, social workers, nurses and child and adolescent psychiatrists. All services are confidential, however, if you consent, your counsellor may talk to your school, local doctor or other professionals involved. Services in local community clinics are usually open from 8.30am - 5.00pm.

After hours appointments and evening group programs may be available by arrangement. Appointments can be made by parents and young people directly, or by other professionals with the consent of the family. A GP referral is not needed, Services are usually provide for people within their local government area

ACE PROGRAM

Adolescence is a time of many changes for teenagers, which can often lead to emotional ups and downs. Schools are becoming increasingly aware of the need to help young people develop a range of skills to cope with difficult and stressful situations. One of the ways that schools in NSW are addressing these issues is to establish effective mental health programs as part of the curriculum.

ACE ("Adolescents Coping with Emotions") is a program that has been developed as a collaboration of the Department of Education and Training, Northern Sydney Health, and Macquarie University, Sydney. It is an early intervention, preventative program, part of a comprehensive mental health program in schools. ACE aims to teach adolescents a range of effective problem-solving and coping strategies, and increase their resilience to problems and difficulties.

ACE is run in small groups of approximately 8 students. The program runs for 8 weekly 90 minute sessions held during normal school hours. Groups are run by 2 Group Leaders: the School Counsellor, and an Adolescent Counsellor from the Community Health Service. The ACE program targets 13-15 year olds. Students are selected by questionnaires, and/or referrals from year advisors or school counsellor. Selection is based on who may benefit most from learning the strategies introduced in the program.

[More about ACE](#)

[ACE PROGRAM: MANUALS & WORKBOOKS ORDER FORM](#)

CAMHS Author John Boitano Phone 9887 5742

Email jboitano@doh.health.nsw.gov.au

Created 3 September 2004

Authorised by J Rey Director Child and Adolescent Mental Health

School-Link

SchoolLink is a joint initiative of the **NSW Health** and the **Department of Education and Training** to improve the mental health of young people. The initial focus of the program is on the early identification and collaborative treatment of depression and related disorders in adolescents. SchoolLink is one of a number of initiatives of the Centre for Mental Health, NSW Health under National Mental Health Reform Incentive Funding.

School-Link has three main areas of focus:

Assisting in strengthening formal and informal links at local and area level between **TAFE**, all schools and school counsellors, youth services and local **Child and Adolescent Mental Health services**.

Training programs for mental health workers and school counsellors to enhance skills in the recognition, intervention planning, treatment and support of depression and related disorders in adolescence.

Supporting the implementation of school based programs for early intervention in depression such as **ACE** or increasing mental health skills in schools eg Mind Matters.

Royal North Shore Hospital

Child and Adolescent Anxiety Clinic

Provides assessment and treatment for anxiety disorders in young people aged between 7 and 15 years.

Assessment involves an interview with parents and child. Treatment also involves both the child and the parents and is usually conducted in small groups (around 5 families) over a 10 week period. The aim of treatment is to teach children and their parents practical skills to help control anxiety.

For an assessment contact **Child and Adolescent Services** on **9926 8905**.

For further information about anxiety visit the Health Section on the www.youthsource.org website.

CAMHS Author John Boitano Phone 9887 5742

Email jboitano@doh.health.nsw.gov.au

Created 3 September 2004

Authorised by J Rey Director Child and Adolescent Mental Health

[NSCCH Home](#)

Parenting in Northern Sydney

Northern Sydney provides a range of Parenting Groups including Triple P and TIPS. They are run in a variety of locations across Northern Sydney at a small cost to participants and can include some evening groups.

For further information about Parenting Groups in Northern Sydney contact

Area Parenting Project Officer 9887 5830

Other sites which may be of interest

www.copmi.net.au

www.parenting.nsw.gov.au

www.relationship.com.au

www.brokenbay.catholic.org.au

CAMHS Author John Boitano Phone 9887 5742

Email jboitano@doh.health.nsw.gov.au

Created 3 September 2004

Authorised by J Rey Director Child and Adolescent Mental Health



To help Kids please donate to KYDS:

☐ I wish to make a monthly gift of:

☐ \$10 ☐ \$20 ☐ \$50

(credit card only)

OR

☐ I wish to make a single donation:

☐ \$20 ☐ \$50 ☐ \$100 ☐ Other.....

☐ I enclose a cheque/money order for this amount
payable to KYDS

☐ Please charge my ☐ Visa ☐ MasterCard

Card no

Expiry date

Cardholder name.....

Signature.....

Name

Organisation

Address.....

Suburb/Postcode

Email

Donations of \$2 or more are tax deductible

Thank You



Contact Us:

Ku-ring-gai Youth Development Service Inc.

ABN 11 563 715017

Rear 265 Pacific Highway, Lindfield NSW 2070

PO Box 556, Lindfield NSW 2070

T 9416 9824 **F** 9416 9825

E kyds@bigpond.com

www.kyds.org.au

All programs are conducted by professional Clinicians.



Ku-ring-gai Youth Development Service Inc.

**FREE COUNSELLING
AND SUPPORT FOR YOUTH
AND THEIR FAMILIES ON
SYDNEY'S NORTH SHORE**

What is KYDS and who do we help?

Ku-ring-gai Youth Development Service Inc is a not-for-profit and non Government organization. KYDS provides free and confidential counselling on an individual basis for 12 to 18 years old young people living on Sydney's North Shore. We also provide free counselling and support for parents as well as family counselling, where the young person and their counsellor feel this to be appropriate.



Our Vision

To improve the health and well being of young people on Sydney's North Shore.

Our Mission

KYDS objective is to provide free counselling using clinical frameworks and evidence based research to promote measurable change for young people and their families. In addition to providing confidential individual and family counselling, KYDS runs a dynamic educational and therapeutic groupwork program and uses Solution Focused and Cognitive Behavioural approaches to ensure positive outcomes for our clients.

KYDS help children with issues of:

- Self Harm
- Body Image
- HSC Stress
- Family Crisis
- Parental Suicide
- Bullying
- Anger Management
- Drug or other substance abuse
- and more.....



Just in time

Gary (*not his real name*) was just 14 when his parents separated. He was attending a local high school and had been experiencing problems associated with his parents' separation. When his father, who lived locally, committed suicide, Gary was distraught. After several one-on-one sessions with a highly-qualified KYDS counsellor, Gary was able to stay in school and learned techniques to help him deal with the complex issues he was facing.

Another success

Trudy (*not her real name*), 12, was hurting herself soon after starting at a local private college. After several sessions with a KYDS counsellor, it was found that bullying was one of the issues with which Trudy was dealing. Through KYDS working with Trudy's family and the school, Trudy was able to develop healthier coping strategies and the school-based bullying was addressed.

Children just like yours

Young people face stresses today that we can only imagine – drink spiking, drugs at local shopping malls and transport hubs, cyber-bullying, date rape and family breakdown are just a few.

These are children 12 to 18 years old. They may live in your suburb or street. They don't necessarily look like they're in trouble. They can come from "good" families.

(Pictures posed by models)

KYDS is a community-based counselling service supported by private donations

Teenagers

Young people today need our help and understanding. Through one-on-one counselling or targeted information KYDS counsellors can help children to stay in school, work through family problems or deal with other crises. Our counsellors work with churches, schools, hospitals and police to help young people.

Helping KYDS to help kids is an investment in the future of our community...

How you can help KYDS

Donations of \$2 or more are tax deductible. For the price of a cup of coffee each week (\$100/year), you could be funding:

1. Individual confidential counselling

For 12-18 year olds.

2. In school programs for teenagers

Such as Alcohol, Drugs, Conflict resolution, Bullying and Body image

3. Parent information/education evenings

Covering relevant topics regarding teenagers.

www.kyds.org.au

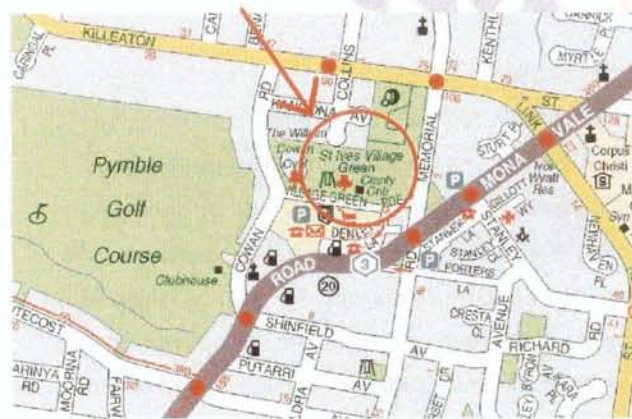
LOCAL SERVICES

| | |
|---|--------------|
| Police Emergency | 000 |
| Hornsby Ku-ring-gai Hospital & Community Health Services: | 9477 9123 |
| Dental Clinic: | 9477 9518 |
| Drug & Alcohol Service: | 9477 9567 |
| Parentline: | 132 055 |
| Kids Helpline: | 1800 55 1800 |
| D.V. Support Line: | 1800 656 463 |
| Rape Crisis Centre: | 9819 6565 |
| Women's Legal Resource Centre: | 9749 7700 |
| Lifeline: | 13 11 14 |
| Mercy Family: | 9487 3022 |
| Child & Family Health: | 9476 4787 |
| Department of Community Services: | 1800 066 777 |
| Centrelink: | 136 150 |
| Hillview Community Health & Information Centre: | 9449 9144 |
| Salvation Army: | 9477 1412 |
| St Vincents De Paul: | 9477 5022 |
| Child Adolescent & Family Service: | 9477 9190 |

HOW TO CONTACT US:

St Ives
 Phone: 9988 4966
 Fax: 9988 0355
 Email: admin@rydefss.ngo.org.au
 Time: Monday to Friday
 9:00am - 4:30pm
 Postal Address: PO Box 107
 St Ives NSW 2075

Location:
 Ku-ring-gai Neighbourhood Centre
 St Ives Shopping Village
 Mona Vale Road
 St Ives NSW 2075



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Ryde Family Support Service:

Phone: 9334 0111
 Fax: 9808 6322

KU-RING-GAI FAMILY SUPPORT PROGRAM

Provided by
 Ryde Family Support Service



Ku-ring-gai Neighbourhood Centre
 St Ives Shopping Village
 Mona Vale Road
 St Ives NSW 2075
 Ph: 9988 4966 Fax: 9988 0355

Our Mission Statement

In an environment of trust and respect, working with family strengths, Ku-Ring-Gai Family Support Program aims to provide a service that offers practical assistance and emotional support to families experiencing crisis or stress.

We work with families in the Ku-Ring-Gai Local Government Area who have children and young people under eighteen years of age, living at home.

The work of the Service aims to enhance families' capacity to support the growth and development of all family members - adults, young people, and children.

This service is free and confidential

We are funded by the Department of
Community Services

HOW TO REFER

If you live in the Ku-ring-gai Local Government Areas, and you have children or young people under 18 years of age living with you, then:

- you can contact us and discuss your situation
- OR
- a Community Organisation, Government Department, School, or Doctor in the area can ring on your behalf.

We aim to see people promptly.

WHAT DO WE DO?

At Ku-ring-gai Family Support Program, we are able to see families in their own home or at the Centre. Families work towards their own goals to make a difference in their lives about issues of concern to them. Sometimes this means linking them up with resources in the community. Often, it also means having a chance to talk with one of our experienced family workers to gain the support they need and to build on the strengths they have.

If you require our service,
please drop in or phone to
speak to an experienced Family
Worker on 9988 4966.

SERVICES INCLUDE:

- Parenting
- Family Issues
- Stress Management
- Counselling
- Practical & Emotional Support
- Unemployment Issues
- Self Esteem
- Grief & Loss
- Domestic Violence
- Information & Referral
- Advocacy
- Outreach & Centre Based Services

For more information:

If you want to ask questions about our services please call CAFS during business hours on:

Phone: (02) 9482 1366

If no one is available at the time you call please leave a message and we will return your call as soon as possible.

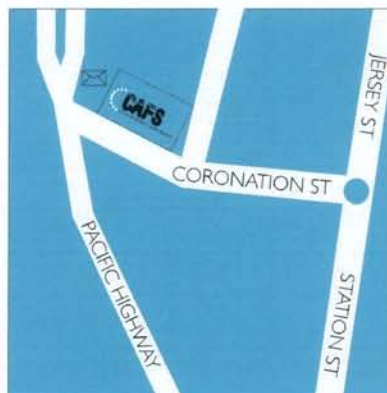
If you have any ideas about what CAFS could provide please let us know.

CAFS is a free service.

About Mission Australia:

Mission Australia provides more than 300 services and programs nationwide in both metropolitan and rural areas. Our vision is to empower individuals and help them to maintain their independence and dignity, which in turn helps to strengthen and enrich entire communities. As our social environment changes and many communities face new sets of problems, we are constantly researching and evaluating our services. We are also continually developing new programs and services to help address these issues in an integrated approach.

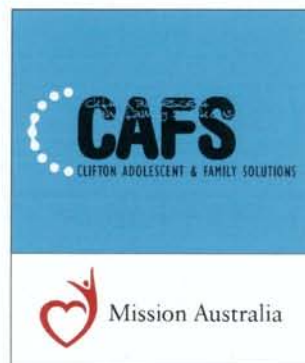
Where to find us



Mission Australia's Clifton Adolescent and Family Solutions
Address: 1 Coronation Street Hornsby NSW 2077
Postal Address: PO Box 971 Hornsby NSW 2077

Phone: (02) 9482 1366 Fax: (02) 9482 1722

Funded by the New South Wales Department of
Community Services Supported Accommodation
Assistance Program



Clifton Adolescent and Family Solutions
1 Coronation Street Hornsby NSW 2077
www.missionaustralia.com.au

everyone has strengths
we aim to work together
the person is not the problem

Clifton Adolescent and Family Solutions

Free counselling and support service for young
people and their families



Who we are

Mission Australia's Clifton Adolescent and Family Solutions (CAFS) is a service for young people aged ~~14-18~~ **12-24** and for their families.

CAFS is committed to strengthening family relationships and helping to minimise youth homelessness wherever possible.

How we work

We believe everyone has skills and abilities. We believe that it is not the person that is the problem; it is the problem that is the problem. We aim to work together with you to find ways to bring about the changes you want and achieve the goals you set for yourself. We are a confidential, flexible and friendly service.

How we can help

CAFS provides:

- Counselling and support for individuals.
- Counselling and support for families.
- Group work programs eg. creative, support, education and information groups for parents and for young people.
- Information, referrals and practical assistance.

Who we can help

Young people aged 14-18 and their parents, carers or other family members when:

- Problems are getting in the way of relationships or hopes for the future;
- It's getting hard for the young person to keep living at home; or
- If the young person has already left home.

We are funded to work with people who live in or have ties to the Hornsby, and Ryde Local Government Areas,

Ku-ring-gai

**CAFS recently had Ku-ring-gai added to their region for service delivery. Their DoCS service specifications now include Ku-ring-gai*

How to use our service:

For counselling or support:

Anyone can make a referral to CAFS for counselling or support (young people, families or anyone acting for you).

Call and speak to one of the Adolescent and Family Counsellors. We will ask you some basic information over the phone and then make an appointment to see you at your home, at our office or somewhere close that would suit you at a time that would suit you. We can be flexible to fit in with you. Out of hours appointments can be organised between you and your counsellor. If we don't have a vacancy we will help you find another service that may be able to help.

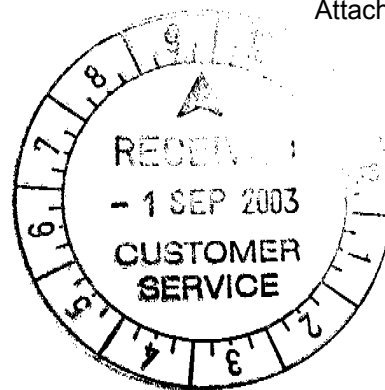
For group work programs:

If you are interested in knowing what groups CAFS is running or you wish to register to attend a group, call and speak to one of the Adolescent and Family Counsellors.

Other:

For information or referrals to other services, phone CAFS.

counselling support young people families



Ku-ring-gai Youth Development Service

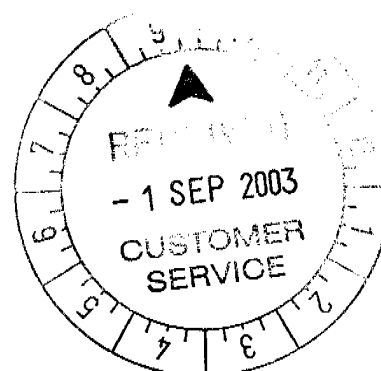
Business Plan

Version 1.42, November 26, 2001

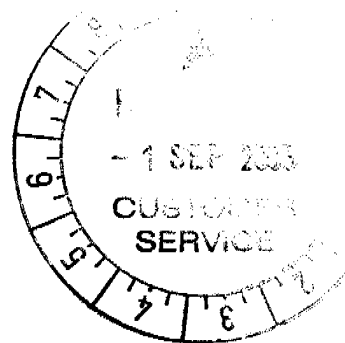
Rotary Club of Lindfield Inc.

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Executive Summary



The vision

The Rotary Club of Lindfield has a vision. It is to establish in Ku-ring-gai a facility providing youth with support and counselling to enable them to achieve their full potential. It will be called the Ku-ring-gai Youth Development Service (KYDS).

But it is more than a vision. It is a project that has been extensively researched and planned over the past twelve months.

The need

We know there is a need for such a facility in our local community. Nine years of successful operating experience of the Epping Youth Development Group Inc. tells us so. Unfortunately the Municipality of Ku-ring-gai is not immune from issues confronting its young people. Problems at home, at school or at work, increasing access to drugs and alcohol, sexual abuse and depression are all too common in our own neighbourhood. This need is clearly identified in the **Ku-ring-gai Municipal Council Social Plan of June 2000**. We must provide a solution to these serious problems.

Community support

The KYDS project has been widely publicised and has received broad support from many sections of the community. These include the Police, local schools, religious groups, other community groups and many individuals. It should be noted that the Service will operate from 10:30 am to 5:30 pm on weekdays only.

Operating budget

The projected operating cost of the KYDS is approximately \$86,000 in the first full year, rising to \$104,000 in year 3. Whilst this is a significant annual expense, it is a target that we are confident can consistently be met. The Rotary Club of Lindfield, and its fellow Rotary Clubs in Ku-ring-gai, has extensive experience in raising funds for deserving community projects. It is being done in Epping and there is no reason to doubt it can be done in Lindfield.

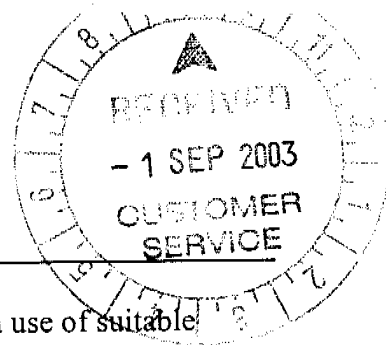
The project will not proceed unless we have adequate committed sponsorship.

Staffing

Whilst numerous administrative and support functions will be performed by volunteers, the Service will be staffed by a full time qualified Youth Development Officer, supported initially by a part time youth worker. Employment expenses will account for approximately 90% of the total expected operating expense in the first 3 years.

Continued on next page

Executive Summary, Continued



Premises

For the project to proceed, it must secure the dedicated use of suitable premises.

A requirements specification has been prepared and a large number of possible venues have been assessed against this specification. Despite an extensive search and appeal to the public, the only suitable site that is potentially available is the rooms at the rear of Lindfield Library.

The Rotary Club of Lindfield therefore requests Ku-ring-gai Council to grant the KYDS an exclusive right to use the Lindfield Library premises for an initial period of 3 years with an option to renew for a further period at the end of this initial term.

An overriding assumption in the financial plan is that premises will be provided to the KYDS at a highly concessional rent.

Community & Local Site Impact

Consultations have been held with a representative group of residents of the Arrunga flats adjacent to the Lindfield Library site who have an obvious interest in the KYDS project. They are concerned that at present groups of people regularly congregate in the general vicinity of the flats after school and particularly at nights and weekends. This constant harassment of the Arrunga residents has been and continues to be a grave concern.

Interestingly the Council's Student Resource Centres at Gordon and St. Ives have not experienced this problem.

It is also worth noting that the Epping experience in a similar environment to that proposed at Lindfield is that the presence of its Youth Development Service has enhanced community safety for local residents. Harassment of seniors ceased, drinking in a nearby park and bus shelter stopped and there was a significant reduction in petty crime and graffiti.

Whilst not all Arrunga residents have been party to the consultations held to date, (some are absent for various reasons) we have their agreement in principle that the proposal to establish the KYDC at the Lindfield Library site should be submitted to Council on the basis that they will be given the opportunity to provide input to the Plan of Management for the site when the project receives approval. That is, the Arrunga residents are not opposed to the project and wish to play an active part in its planning in the event that it proceeds at the Lindfield site.

Mission, Objective & Rotary Club of Lindfield involvement

Mission

To provide a caring and nurturing facility within the community, where youth in need can be counselled and assisted to enable them to achieve their full potential and personal development.

Objective

The Rotary Club of Lindfield together with other participating service organisations to identify, define, establish, fund and manage a facility within the Ku-ring-gai municipal area, where youth in need can meet and associate within a nurturing, caring and controlled environment. Facilities and professional counsellors will be provided to help youth identify and resolve problems and to assist them to reach their true potential and fulfil a useful role in the community.

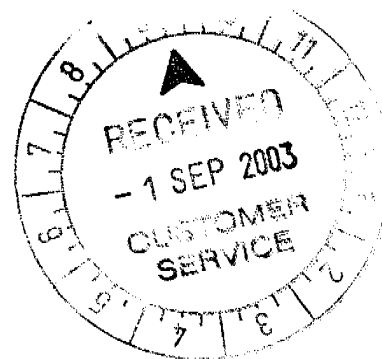
Scope of Rotary Club of Lindfield involvement

The Rotary Club of Lindfield and associates will:

- Identify and secure suitable premises
 - Communicate and liaise with community and other interest groups
 - Draft a business plan and viability study
 - Recruit suitable administrative staff and counsellors
 - Liaise with Council to obtain appropriate approvals
 - Identify and obtain suitable funding
 - Create management systems for the running of the Service
 - Hand the Service over to an appropriate organisation
-

Facility

The facility will be known as "The Ku-ring-gai Youth Development Service" and may be referred to in this document by that name or simply the KYDS.



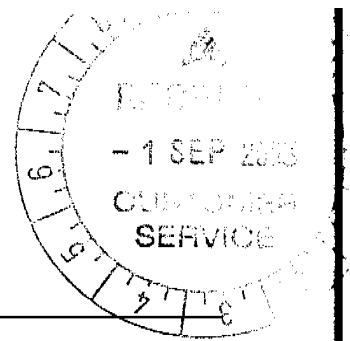
Project Outline



| | |
|-------------------------|--|
| Youth at risk | <p>In recent years the Rotary Club of Lindfield has become increasingly concerned about the welfare of the youth in our community. This concern is broadly based and relates to the pressures experienced by young people who are at "risk" and are experiencing rejection by their family, peers, school or work.</p> <p>The "risk" is in many forms and includes drug abuse, alcohol abuse, psychological problems, sexual abuse, suicidal tendencies, homelessness, unemployment, family breakdown, neglect, violence, teenage pregnancy and lack of discipline.</p> |
| Proposed Service | <p>This project is for the establishment of a Youth Development Service in the Ku-ring-gai Municipality. The proposed Service will offer family support and counselling for young people, mainly 12 to 18 years of age, who are experiencing difficulty in addressing the pressures of today's society.</p> <p>The operating hours will be from 10:30 am to 5:30 pm on weekdays only.</p> |
| Model | <p>The model on which the proposed Ku-ring-gai Youth Development Service is based is the most successful facility known as "The Shack" which is located in the grounds of St Albans Church in Epping. The Shack has been operating for 9 years with an average annual attendance of approximately 3,000 young people. This equates to a daily attendance of approximately 12. It claims a minimum success rate of 90% in its endeavour to restore young people to a responsible position in the community.</p> <p>It functions under the control of a community committee with assistance of a fund raising committee and a youth committee. Some 16 local churches give valuable support along with a number of other community groups. The Shack operates from 10.30 am and 5.30 pm each weekday and employs one full time youth counsellor and one part time youth counsellor.</p> |

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Project Outline, Continued



Research

Our research has shown that there is no organization in the Ku-ring-gai Municipality offering a facility of the type proposed exclusively for young people. The Northside Health Service, Lifeline, NSW Police, Youth off the Streets, and Ku-ring-gai Council have all confirmed our views in this matter and are supportive of our endeavour.

We have explored all available sources of statistical data in an attempt to obtain firm quantitative information on the number of young people in our local community who are in need of support. Whilst definitive statistics are difficult to obtain, our discussions with the Police, local schools, religious groups and Community Services have confirmed the need and shown widespread support for a facility such as the KYDS. It is our firm belief that there is no credible reason to suggest the need in Ku-ring-gai is significantly different from that in Ryde municipality in which the Epping facility is located.

Ku-ring-gai Municipal Council Social Plan - June 2000

Whilst providing no quantitative data, the Ku-ring-gai Municipal Council Social Plan of June 2000 notes a number of important issues and recommendations in relation to the needs of young people in the municipality. In the section of this document "**Target Group Plan – Young People**" the following points are specifically noted.

Belonging & Sense of Community

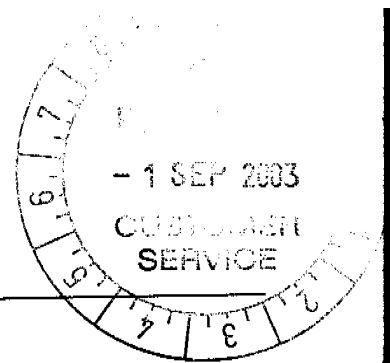
- Young people perceived that they often did not have the same rights to use public space as other members of the community, and that they were moved on or prevented from using that space due to their age and appearance rather than the activities they were engaging in.
- It was clear from the consultation process that young people in Ku-ring-gai wanted to establish a legitimate and valued role in the broader community, but felt that this was lacking at present.
- *Recommendations - That Council endorse and encourage inter-generational activities and initiatives to develop positive relationships between younger and older residents*

Areas of Limited Resource Allocation

- The issue of youth appropriate and accessible drug and alcohol counselling and detoxification services has been brought to the attention of the Northern Region Area Health Service by a number of bodies including; Councils, Ku-ring-gai Youth Council and the Hornsby/ Ku-ring-gai Youth Network.
- To date limited resources appear to have been available to meet this need. Currently the local Area Health Service operate the Youth Health Project, which aims to encourage young people to attend existing health services through education, advertising and a peer support project.

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Project Outline, Continued



Ku-ring-gai Municipal Council Social Plan - June 2000 (continued)

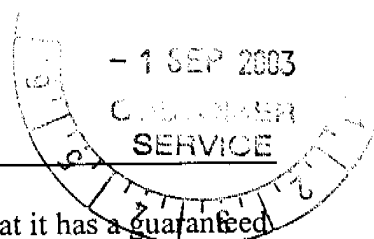
Housing and Accommodation Options

- ... However, young people under threat of homelessness are in a very high risk category and therefore require effective intervention strategies.

Health Issues

- Access to support and counselling services was seen as a major problem due to the lack of services and resources in the Municipality. The increasing demand on existing services and the lack of youth specific services was also considered a major barrier for young people.
 - Access to family planning and sexual health, youth specific counselling and health services were all issues raised in the consultations.
 - Perceived confidentiality and privacy was another concern. Several students expressed a preference for accessing support and counselling other than the school counsellor for these reasons.
-

Venue



Key requirement

One of the key requirements to launch the project is that it has a ~~guaranteed~~ venue from which to operate. Without such a guarantee prior to commencing operations the project would be doomed to failure. To function effectively, the venue must also meet a minimum specification.

The committee has therefore undertaken an extensive search for suitable premises within the Ku-ring-gai municipality.

Specification

Based on the experience of the Epping Shack, the following minimum venue specification has been established. The venue must: -

1. Be close to a railway station in our Municipality.
2. Preferably have an area of 60 to 80 square metres.
3. Have a kitchenette and toilet facilities.
4. Have an area outside the building where could be installed.
5. Be adjacent to shopping facilities, but not in the obvious gaze of the public.
6. Be available for the dedicated use of the KYDS.

Search & public appeal

Members of the KYDS planning committee have investigated a large number of possible sites throughout the municipality. These include twenty-two church premises and scout halls plus several other business, commercial and public buildings.

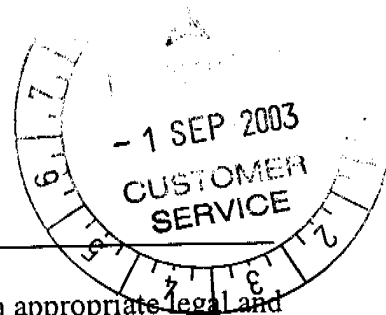
Letters have been written to thirteen of the churches and other property owners whose premises were considered worthy of further investigation. Whilst supportive of our project, none of these organisations is in a position to offer the use of a venue.

Advertisements have been placed in the local press seeking offers of a suitable venue. The requirement was further publicised in articles and editorial in the local press.

Lindfield Library site

In spite of this widespread appeal to the community and detailed investigations by the executive of the KYDS over a period of several months, the only suitable site that is potentially available is the Lindfield Library (the area at the rear formerly occupied by the Girl Guides). Whilst in need of general refurbishment and initial fit-out for the Youth Development Service, it does satisfy all the important selection criteria summarized above.

Operational Plan



It is essential that the KYDS be properly set up with an appropriate legal and management structure. The following is proposed.

Legal structure

The Service will be registered with the NSW Department of Fair Trading as an Incorporated Association. A constitution has been drafted by a solicitor and is essentially based on that of the Shack. The name "Ku-ring-gai Youth Development Centre" has been reserved with the Department of Fair Trading. The cost of incorporation will be approximately \$130.

Insurance

The following minimum insurance cover will be effected.

- Public Liability insurance (cost of approximately \$500)
- Workers compensation insurance.
- Building and contents insurance.
- Professional indemnity insurance

Membership criteria

This has not yet been determined but it will be on a similar basis as The Shack. (for example Ku-ring-gai ratepayers, at a modest annual subscription)

Management Committee

The KYDS will have its affairs controlled and managed by the office bearers and other members known as the Committee.

The office bearers will consist of the following:

- Chairperson
- Vice-Chairperson
- Secretary
- Treasurer
- 3-7 General Committee members.

A high profile community member will be sought for the position of Chairperson.

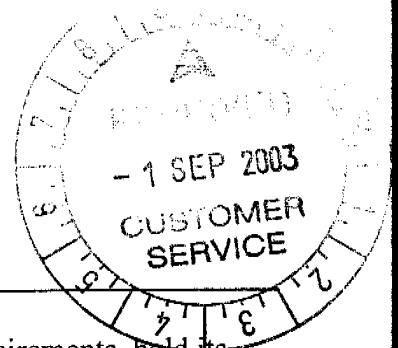
Sub-committees and advisory groups will be established as required. Refer to Appendix A for a suggested management structure.

Annual general meeting

Office bearers and other members of the Committee will be elected at each Annual General Meeting. The Committee will have authority to appoint a member to fill any casual vacancy that may occur.

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Operational Plan, Continued



Business operations

The KYDS will comply with the annual reporting requirements, hold its AGM, conduct its Finances & be Audited in accordance with Associations Law.

Registrations

Application will be made to the Australian Taxation Office for all necessary registrations including ABN, PAYG, BAS and not for profit status. It is expected that all donations to the Service will be tax deductible.

Application will be made to the Department of Gaming for authority to fundraise.

Staff

The KYDS will initially have only one full time employee – the Youth Development Officer. This is a key role and the success of the whole project will largely depend on identifying and appointing a suitably qualified and experienced person. A part time youth worker will support the Youth Development Officer in accordance with demand.

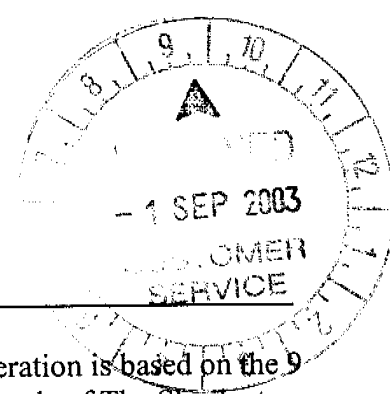
Members of the KYDS planning committee have discussed the requirements of the position with the Youth Development Officer of The Shack. As a result of these detailed discussions we have a clear understanding of the requirements of the position and the required qualifications and experience of the person.

Preliminary enquiries have identified at least one suitable person and there is every reason to be confident that filling the position will not present an insurmountable obstacle to success. A number of other suitably qualified people in the community have also indicated a willingness to offer their services on a voluntary basis.

Operating hours

The proposed operating hours for the KYDS are from 10:30 am to 5:30 pm each weekday.

Financial Plan



Budget – establishment & three year operations

The budget included below for the first 3 years of operation is based on the 9 years of operating experience and actual financial records of The Shack at Epping. It has been prepared by a financial consultant to The Shack in consultation with members of the KYDS executive committee. The estimates are based on the following parameters drawn from actual operating experience at The Shack.

Attendance pattern & target groups

In the initial year of operation the pattern of attendance at the service is likely to reflect a strong demand from various target groups. These groups comprise:

- Youth in general who have been looking forward to supervised activities with low counselling demands – less regular attendance based around after-school activities but in larger numbers. (Such as those already congregating in the general area of the Lindfield Library – but without supervision).
 - Youth and families who are in urgent need of extensive counselling and support and assistance with referrals to other professionals including home visitation - regular attendance but smaller numbers and often drop-in and crisis presentation
 - Individuals, volunteers, local community leaders, representatives from government services and community based organizations etc. who have an interest in the new service – essential that time is available to nurture these services.
-

Initial demand

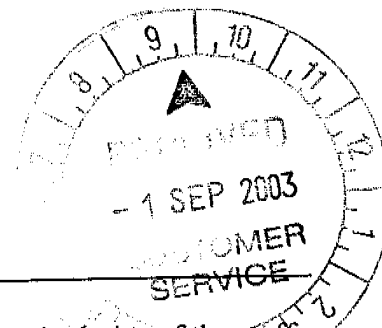
The attendance would start off at levels currently experienced by well-established groups such as The Shack at Epping. Experience shows that demand is there from the opening of a green-site and that the services have to be limited to the available finances. Hence the service tends not to grow over time unless additional funding is obtained

Staffing level

Staffing during the initial year would be based on a full time senior youth worker supported by a part time youth worker equivalent to 32 hours per week, likely to become full time depending on the demand. Supervised voluntary support will also be required during peak activity periods.

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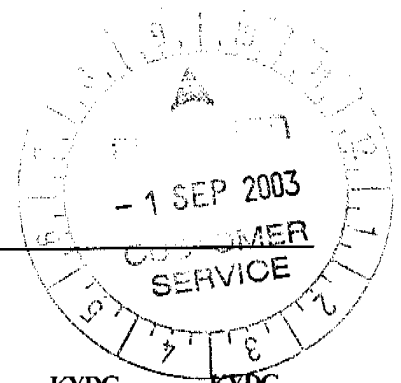
Financial Plan, Continued



| | |
|---|---|
| Administration | Administration duties must be scheduled into the weekly duties of the staff, with the local management committee providing significant administrative support in such areas as bookkeeping. |
| Employment conditions | Staff will most likely be employed under the Social and Community Services Employees (State) Consolidated Award. This award provides for four salary classifications based on responsibility criteria, with each classification having years of service remuneration. |
| Capital requirement | An initial capital outlay will be required for office furnishings and fit-out, office equipment such as photocopier, fax, telephones, computers and peripherals, stationery & promotional material design and recreational equipment. The total cost of such items would be in the order of \$10,000 if purchased. Experience suggests these items should all be available at no cost to the KYDS by donation of cash or second-hand equipment. No dollar amount is included in the budget for capital items or depreciation in the first three years. |
| Building refurbishment | Any initial refurbishment of the proposed rooms will be undertaken by the Rotary Club of Lindfield at no cost to Council. This work will be done on a voluntary basis at little or no cost to the project and will significantly improve this Council asset. |
| Operating Budget for KYDS years 1 to 3 | <p>Once the initial demand is measured and programs developed, the on-going budget will to a large extent determine the level of service that can be reasonably provided. This budget is unlikely to change too much over the first few years with the exception of an increase to full-time in the third year for the support worker. Depending on the availability of funding, it is quite foreseeable that the services would expand or contract accordingly.</p> <p>The budget below excludes rent on the KYDS premises in the expectation that a suitable arrangement can be negotiated.</p> |

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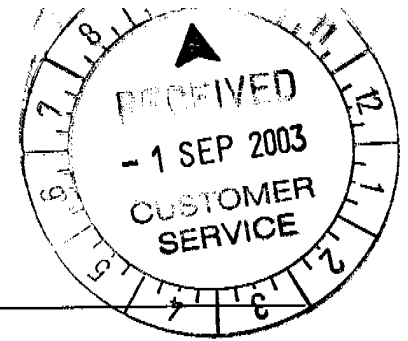
Financial Plan, Continued



Operating budget for KYDS – Years 1 to 3

| | KYDC Year 1 \$ | KYDC Year 2 \$ | KYDC Year 3 \$ |
|--------------------------------------|----------------------|----------------------|----------------------|
| TOTAL RECEIPTS | 86,000 | 93,000 | 105,000 |
| PAYMENTS | | | |
| Accounting & Book Keeping Fees | 0 | 0 | 1,000 |
| Advertising | 500 | 500 | 500 |
| Bank Charges | 400 | 400 | 400 |
| Counselling Supervision | 500 | 1,000 | 2,000 |
| Filing Fees | 50 | 50 | 50 |
| General Expenses | 400 | 400 | 400 |
| Gifts & Entertainment | 0 | 100 | 100 |
| Insurance | 2,000 | 2,000 | 2,000 |
| Printing, Stationery & Postage | 2,700 | 2,700 | 2,700 |
| Rent | 0 | 0 | 0 |
| Repairs & Maintenance | 300 | 550 | 750 |
| Telephone & Internet | 3,200 | 3,200 | 3,200 |
| Other | 200 | 200 | 200 |
| Sub-total | 10,050 | 10,900 | 13,100 |
| Employment expenses | | | |
| Salaries & Wages | 66,000 | 69,000 | 78,000 |
| Superannuation | 5,900 | 6,200 | 6,500 |
| Motor Vehicle Allowance | 1,500 | 2,500 | 3,000 |
| Staff Development | 500 | 1,000 | 1,500 |
| Staff Amenities | 100 | 100 | 100 |
| Workers Compensation Insurance | 1,500 | 1,700 | 1,800 |
| Sub-total Employment Expenses | 75,500 | 80,500 | 90,900 |
| TOTAL PAYMENTS | 85,550 | 91,400 | 104,000 |
| OPERATING SURPLUS | 450 | 1,600 | 1,000 |

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Financial Plan, Continued

Sources of funds

From the above it is apparent that the annual operating costs are likely to be between \$85,000 and \$104,000 per year during the first three years of operation. To guarantee this level of funding on an annual basis will require a coordinated and professional approach.

Whilst firm commitments have not yet been obtained, the many years of experience of The Rotary Club of Lindfield (and that of other Rotary Clubs) in raising funds for deserving community projects suggests such a target is readily achievable.

A senior Rotarian who is one of Sydney's most successful fundraisers has agreed to be a member of the fund raising committee.

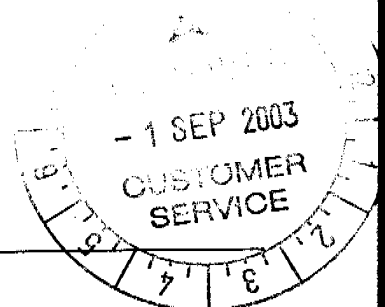
Likely sources of funds include the following

- Rotary Clubs of Lindfield, Wahroonga, St. Ives, Ku-ring-gai and Turramurra.
- RSL Clubs – Roseville, North Ryde, Hornsby.
- Hotels
- Golf Clubs
- Corporations
- Local Councils - Ku-ring-gai, Willoughby, Hornsby
- State & Federal Governments
- Professionals
- Churches
- Masonic Lodges
- Trusts & Foundations
- Special fund raising activities

Fund raising campaign

A targeted fund raising campaign can only be commenced once a suitable venue has been obtained and the decision taken for the project to proceed. However the Rotary Club of Lindfield currently has funds equivalent to approximately 60% of the first years operating costs of the KYDS set aside for this specific purpose in anticipation of the project proceeding.

Community and Local Site Impact



Project External Needs

The operation of the KYDS will have some external needs such as parking, a smoking area, perhaps a limited area for outside gathering and it is natural that concerns may be expressed as to noise and litter issues. These needs or impacts must be then considered in relation to the existing activities on the total site and how they may be managed.

Site Access and Parking

Many of the clients who come to the KYDS would prefer quiet and anonymous access to the Service and this should be a consideration in site development.

The KYDS project is aimed at youth-in-need mainly below 18 years of age (hence one of the criteria is that it must have easy public transport access). We would not expect visitors to have a car or necessarily need to be driven to the site except where they may be coming to counselling with an adult. On the other hand, it is likely that the permanent counsellor may travel by car.

Waiting Area

It is not envisaged that there will be a need for an external waiting area as this will be provided within the existing facility.

Smoking and Outdoor Needs

There will be a need for an area in which a limited number of youth may socialise and particularly smoke under supervised Service hours.

Noise and Other Issues

The nature of the activities being conducted, the daytime hours the facility is open and the fact that all activities will be supervised should limit noise to the level of normal meetings or functions.

Current Venue Issues

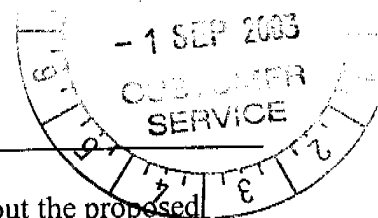
While the Lindfield Library site has desirable project attributes, one of the crucial issues is the project impact on other community activities undertaken on the general Lindfield Community Centre and Library site.

Parking

It has been reported to us during community interviews that parking at the existing centre can be a problem. It is alleged that local business owners use many of the 2-hour parking spots for most of the day. This must detract from the access to the Lindfield library and for seniors to come to meetings at adjoining facilities. It is not clear if Arrunga residents have dedicated parking areas.

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Community and Local Site Impact, Continued



Tennis

There are two tennis courts, and the two tennis sheds abut the proposed KYDS annex. The sheds are enclosed and hidden but are not lockable from public access. On most visits the sheds were in a poor condition with refuse on the seats and floors from fast food and beer bottles and mixed drink cans. One of the Arrunga residents advised us that these sheds are used at night by unsupervised teenagers who may urinate in them rather than going down to the toilets. They further commented that this had been occurring for some years. It was suggested that some of the previous active tennis groups no longer used the site for this reason.

Senior Citizens

The Senior Citizens Centre is located on the Highway away from the annex but the Resource Centre is directly opposite the back of the proposed KYDS Annex, where there is currently a driveway and entrance.

Arrunga Aged Care Units

The Aged Care Units are directly opposite the KYDS Annex and any substantial increase in traffic or outdoor activity to the east or south of the Annex might disturb the peace and tranquillity of these residents.

Current Out of Hours Issues

There is a major issue with teenagers and school children using the outdoor and accessible areas of the sites after 3 pm and at night and weekends, including the tennis sheds and loitering near the outdoor toilets and grassed area near the railway line, to smoke and to consume alcohol. This is not a new issue, and rubbish is littered, graffiti applied to walls and they can be very noisy, particularly if drunk. While Council retains a security service to make rounds and Council's Youth bus does sometimes call at night, this often does not deter the problem-makers who return later

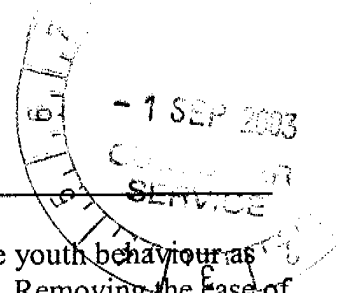
Suggested Plan to Overcome Current Site Issues and Project Needs

Site Plan

A survey of the buildings and facilities in the immediate vicinity to the proposed location of the KYDS has been undertaken. This indicates that a number of relatively simple measures could be implemented to ensure the project operates smoothly with no negative impact on others. Refer to the plan included as Appendix B. Numbers in brackets in the following paragraphs refer to the numbered notes on this plan.

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Community and Local Site Impact, Continued



Removing Out of Hours Issues

We see the existing issue of discouraging inappropriate youth behaviour as being crucial to the successful operation of the KYDS. Removing the ease of access and providing more exposure should however resolve the problem at this site. Furthermore, the provision of supervised facilities for youth may be seen as a partial resolution to the overall problem.

Resolution should be achievable by fencing off the areas and providing access through lockable gates (open during normal hours), and providing more evening lighting and exposure.

We feel that it would be appropriate to re-fence the access from Scuderia Veloce motors (1), run a short chain-wire fence and gate from the tennis sheds to the closest tennis court (2), run a chain wire fence and gate from the corner of the eastern tennis court and the Senior Citizen's Resource centre (3) (4) and to fence the short distance from the Resource Centre to the railway fence.

More open exposure could be provided by replacing metal cladding on the sides of the tennis sheds with clear fibreglass, and by running some 12v outdoor spot-lights or mains power up into the trees along the railway line fence to the east (5). Closure of the northern side of the Library is covered below.

Site Access and Outdoor Gathering

We envisage that access to the KYDS through the existing "Spray Room" of the Annex (6) could be easily achieved by removing the cladding and putting in a doorway. This area is to the northwest of the Annex behind the tennis sheds and would provide privacy of access for the KYDS participants and would be hidden from the other users of community facilities. The area outside this would perhaps be paved and some benches and outdoor furniture provided.

A permanent pathway or stepping-stones (8) could then be built behind the library and around past its northern wall. An attractive high wooden fence and gate (9) (perhaps painted green) with brass plaque would provide the official entrance to the KYDS for visitors. (This will also close off the whole back area except for those with access keys out-of-hours).

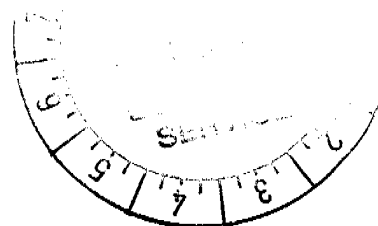
The other external doors of the KYDS Annex would be locked and / or discouraged from use.

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Community and Local Site Impact, Continued

Solving Parking Issues

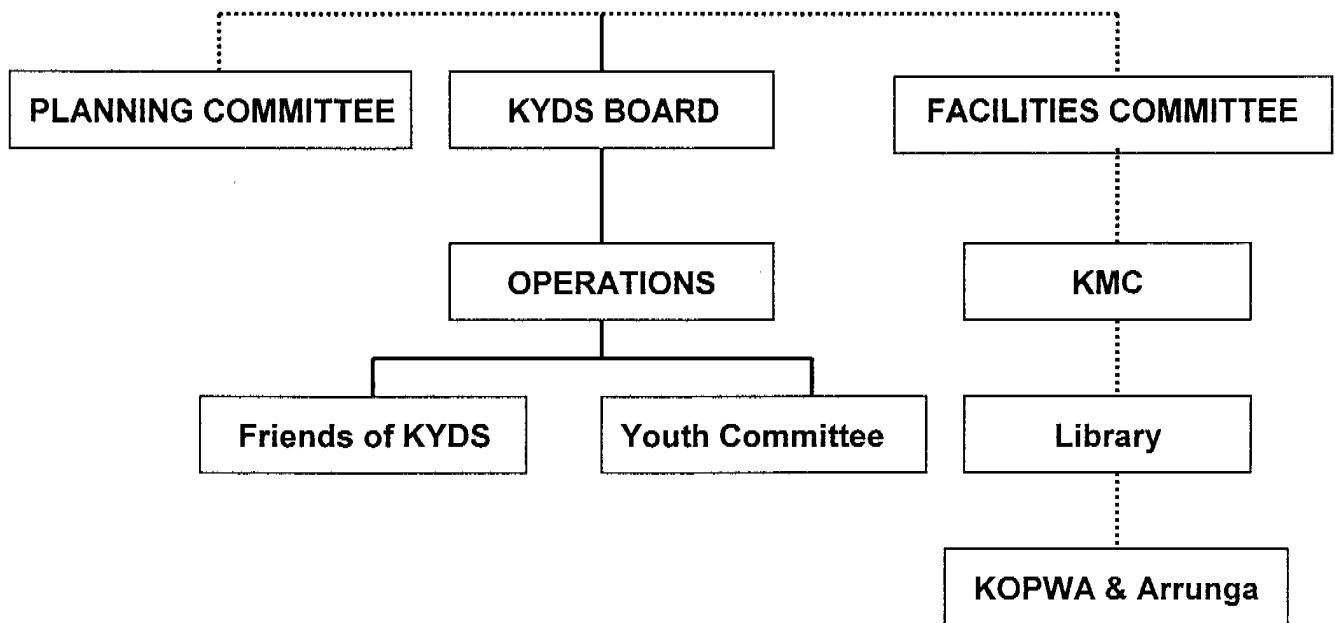
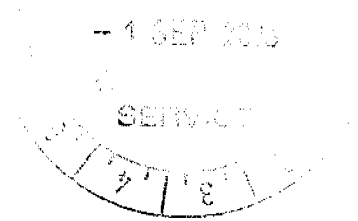
We propose that the driveway area next to the steps on the eastern side of the KYDS Annex be dedicated to the use of one KYDS staff vehicle. If additional staff have a need for casual parking, we propose that this be taken up with the staff of the library on an 'as-needed' basis to share the staff parking area, if and when available. Thus there should be no impact on existing parking.



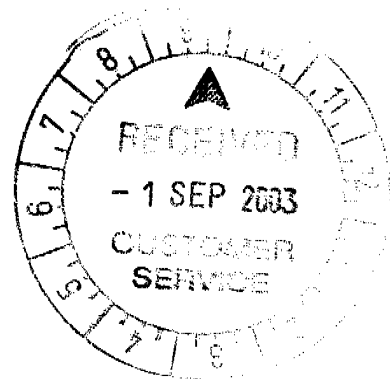
Appendices

Appendix A – KYDS Management Structure

The following is a suggested management structure for the KYDS.



Appendix B – Lindfield Library Site Plan



COUNCIL SPONSORSHIP FOR THE KU-RING-GAI PHILHARMONIC ORCHESTRA

EXECUTIVE SUMMARY

PURPOSE OF REPORT:

To advise Council of a sponsorship proposal from the Ku-ring-gai Philharmonic Orchestra.

BACKGROUND:

Ku-ring-gai Council helped to establish the Ku-ring-gai Philharmonic Orchestra in 1971 and has supported it through the Financial Assistance to Community Groups program. In 2008 Council decided to sponsor the orchestra, which allows a more structured approach and agreed upon mutual benefits

COMMENTS:

The Ku-ring-gai Philharmonic Orchestra has requested sponsorship of \$20,000 for a series of programs and activities throughout 2011.

RECOMMENDATION:

That Council consider whether to sponsor the Ku-ring-gai Philharmonic Orchestra in 2011 for the requested amount of \$20,000.

PURPOSE OF REPORT

To advise Council of a sponsorship proposal from the Ku-ring-gai Philharmonic Orchestra.

BACKGROUND

With a pool of more than 150 musicians, the Ku-ring-gai Philharmonic is a full-scale community orchestra which consistently receives high critical acclaim for its performances.

Ku-ring-gai Council helped to establish the Ku-ring-gai Philharmonic Orchestra in 1971 and has supported it through the Financial Assistance to Community Groups program. In 2008 Council decided to sponsor the orchestra, which allows a more structured approach and agreed upon mutual benefits.

Over the past two years of the sponsorship arrangement, Council received significant benefits including the logo featuring on all promotional material, opportunity to have our banners up at the concerts and tickets to performances for councillors.

COMMENTS

The Ku-ring-gai Philharmonic Orchestra has requested sponsorship of \$20,000 for a series of programs and activities throughout 2011. This is an increase of \$10,000 on previous years.

The request for additional funding is to:

- cover the increasing cost of hiring suitable performance venues, due to the lack of appropriate community facilities in Ku-ring-gai
- contribute to purchasing advertising to raise the profile of the KPO
- allow the KPO to hire professionals to drive the orchestra's artistic development
- contribute to the Young Performers Program and the annual NSW Secondary School Concerto Competition.

Since the introduction of the Sponsorship Policy, Council has provided funding to a number of organisations including the Ku-ring-gai Philharmonic Orchestra, Carols in the Park, Cumberland Press Local Business Awards, Ku-ring-gai Garden Festival and The National Trust Heritage Festival and Corporate Memberships. Recently Council provided \$15,000 to Carols in the Park, and at the time of writing this report requests had been received from The National Trust for \$5,700 for Corporate Membership and Heritage Festival sponsorship.

CONSULTATION

Representatives from Ku-ring-gai Philharmonic Orchestra were consulted in writing this report.

FINANCIAL CONSIDERATIONS

Council has a sponsorship budget of \$40,900 for the 2010-2011 financial year. Council approved an increased sponsorship of \$15,000 for Carols in the Park. Council is also considering sponsorship of

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S05650
29 October 2010

the National Trust Heritage Festival for \$3,200 and Corporate Membership of the National Trust for \$2,500. Council has also agreed to sponsor the ALGWA National Women's Conference for \$1,000 and the Lindfield Rotary Community Fun Run for \$200.

To date Council has committed \$16, 200 for sponsorship. Of the remaining \$24,700 there are currently proposals for \$20,000 from the Ku-ring-gai Philharmonic Orchestra and \$5,700 for The National Trust. If the Council decides to sponsor the National Trust initiatives, Council will have committed \$21,900, leaving \$19,000 in the 2010-2011 sponsorship budget.

CONSULTATION WITH OTHER COUNCIL DEPARTMENTS

Not applicable.

SUMMARY

Ku-ring-gai Council helped to establish the Ku-ring-gai Philharmonic Orchestra in 1971 and has supported it through the Financial Assistance to Community Groups program. In 2008 Council decided to sponsor the orchestra, which allows a more structured approach and agreed upon mutual benefits.

In previous years Council sponsored the KPO for \$10,000. The KPO have requested an increased sponsorship to \$20,000 to hire venues, increase advertising, hire professionals and develop their youth program.

There is \$24,700 in the remaining 2010-2011 sponsorship budget.

RECOMMENDATION

- A. That Council consider whether to sponsor the Ku-ring-gai Philharmonic Orchestra for \$20,000 as requested.
- B. That a sponsorship agreement be developed with the Ku-ring-gai Philharmonic Orchestra, according to Council's Sponsorship and Donations Policy, reflecting the recommended sponsorship amount.

Tiffany Kellar
Manager Communications

Janice Bevan
Director Community

Attachments: Ku-ring-gai Philharmonic Orchestra letter - 2010/009908



John McKee
Managing Director
Ku-ring-gai Council
818 Pacific Hwy
Gordon NSW 2073

28 December 2009

Dear John,

**Re: Ku-ring-gai Council sponsorship of
Ku-ring-gai Philharmonic Orchestra**

I write at this point in the year to request that Council consider an increase in the sponsorship amount to \$20,000 for the Ku-ring-gai Philharmonic Orchestra (KPO) in the forward planning budgets for 2010.

Council recently approved the second year of a \$10,000 sponsorship agreement with KPO. The KPO Council sponsorship relationship has seen numerous mutual benefits, amongst these enhanced public profile and closer collaboration between Council & KPO with positive community impacts. We are already working on ways to strengthen these links in 2010.

Major recent projects for KPO included:

- Appointment of the new Artistic Director/Chief Conductor Ronald Prussing
- Developments with the NSW Secondary Schools Concerto Competition and Young Performers Program
- re-location and development of Kids Proms concerts to St Ives Uniting Church

Major issues ahead for 2010 are:

- Working with local residents keen to establish a Ku-ring-gai Youth Orchestra following Knox's decision to cease the Knox Abbotsleigh Youth Orchestra
- Ensuring greater accessibility to secure performance venues for KPO concerts

KPO has a multi-layered range of activities all of which strongly align with Council's cultural policy objectives and contribute depth to the Ku-ring-gai cultural environment.

Council has supported KPO since its inception in 1971 and KPO has developed enormously since that time, and been recognised nationally for its innovative and community focussed programs. KPO has survived and thrived because of its strong

volunteer base, but a couple of areas loom as major threats and are exacerbated because KPO's expenditure capacity is so limited.

Two examples are:

1. Performance venues and rehearsal facilities:

As there are no community venues suited to KPO performances in Ku-ring-gai, KPO strives continuously to ensure a good working relationship with local schools. We have a long term relationship with Ravenswood, and work also with Pymble Ladies College, Barker College, Abbotsleigh and Wahroonga Public School. We are discussing the possibility of holding rehearsals and workshops at Roseville College, and in time we would like to be able to hold performances at Roseville College, if their Board agrees and the issues associated can be overcome.

KPO requires forward planning of 12 to 24 months to contract top artists to perform with KPO. Such forward planning does not synchronise well with school performance venues, where school calendars are often not finalised until just before the following year. 2010 is a case in point where Ravenswood have advised in the last couple of weeks that their auditorium will be unavailable for outside performances April – June. Alternative venues such as UTS Auditorium are prohibitively expensive and outside KPO's cost structure being almost 10 times the cost of Ravenswood for two weekend performances. Pymble Ladies College is also expensive & not available for Sunday performances, and it is unlikely the issues associated with Roseville College will be resolved sufficiently early in the year. Hence we are having to explore alternatives such as the Hornsby RSL outside the Ku-ring-gai area for our May concerts in 2010.

Working with school venues requires constant juggling. Schools also change the availability of their facilities within the year, because their internal school activities take priority. KPO does use the Ku-ring-gai Town Hall for rehearsals and music and instrument storage on a regular basis, but these facilities are not suited to performances (even though the KTH was designated as Council's performing arts venue) or for rehearsals leading up to performances.

KPO is aware that Council's forward planning is factoring in the need for performance space in Ku-ring-gai, and strongly supports such planning, but we are realistic enough to know that this is unlikely to happen before 2020. In the interim KPO would appreciate Council assistance to help KPO secure alternative venue access for concerts in Ku-ring-gai, either with schools or using UTS facilities. This will require assistance with negotiations and additional financial bargaining power.

2. Community visibility

Obtaining publicity and community profile is an ongoing challenge, given that KPO does not have the budget for paid advertising in the print or other media. We rely on the hit and miss success strategy of free publicity, although increasingly we use internet opportunities. We have valued developing stronger relationships with Council staff and opportunities to maximise the value of web and e-news promotion, banners in various locations and involvement in local projects. We are constantly exploring cost-effective ways to raise KPO's community profile but the budget limitations as well as the time required to solve performance logistics hampers these strategies.

Many community orchestras are supported by their local Councils to much greater a degree than Ku-ring-gai Council's support for KPO, yet KPO would arguably be one of the most community focussed orchestras across Australia. With newly appointed Artistic Director, Ron Prussing keen to develop the KPO further, KPO would greatly value increased financial support from Council. We can guarantee that KPO will give a high level return for Council's investment.

Additional financial support would contribute to the following:

1. Artistic development of the KPO led by Ronald Prussing, continuing KPO's commitment to high artistic standards. Each year KPO works in partnership with high quality professional musicians, who lead, strengthen and develop the skills of our volunteer player base. KPO spends around \$28,000 each year on professionals to drive the orchestra's artistic development.
2. The capacity to consider higher cost venues for performances, and alternatives to Ravenswood so that KPO can continue to perform in Ku-ring-gai. We would also value Council's assistance in venue negotiations.
3. Allocating resources to obtaining wider community profile.
4. Young Performers Program and the annual NSW Secondary School Concerto Competition. KPO is strongly focussed on developing opportunities for young musicians in the local area, and will continue to support the group seeking to establish a youth orchestra in Ku-ring-gai

KPO's pool of volunteer musicians are committed to providing high quality orchestral music and cultural engagement for a diverse range of demographics across Ku-ring-gai fostering community well-being and community participation.

KPO has a long-term commitment to Ku-ring-gai's cultural development and supports Council's strategies to assist cultural activities in the area to grow and thrive. I trust you will consider this submission favourably and welcome the opportunity to discuss any issues further with you.

Yours sincerely,

Anne Cahill
Vice President
Ku-ring-gai Philharmonic Orchestra
Email: annecahill@optusnet.com.au
Tel: 02 9416 4199
Mob: 0412 797 223

DEVELOPMENT APPLICATION

SUMMARY SHEET

| | |
|---|---|
| REPORT TITLE: | 170 TRYON ROAD, EAST LINDFIELD - ALTERATIONS AND ADDITIONS INCLUDING SWIMMING POOL |
| WARD: | Roseville |
| DEVELOPMENT APPLICATION N^o: | 0572/10 |
| SUBJECT LAND: | 170 Tryon Road, East Lindfield |
| APPLICANT: | C plus C Design Construct Pty Ltd |
| OWNER: | Ms T Rath |
| DESIGNER: | C plus C Design Construct Pty Ltd |
| PRESENT USE: | Dwelling |
| ZONING: | Residential 2(a) |
| HERITAGE: | No |
| PERMISSIBLE UNDER: | Ku-ring-gai Planning Scheme Ordinance |
| COUNCIL'S POLICIES APPLICABLE: | KPSO, DCP38-Residential Design Manual, DCP40-Waste Management, DCP47-Water Management, DCP56- Notification |
| COMPLIANCE WITH CODES/POLICIES: | Yes |
| GOVERNMENT POLICIES APPLICABLE: | SEPP 55, BASIX, SREP (Sydney Harbour Catchment) |
| COMPLIANCE WITH GOVERNMENT POLICIES: | Yes |
| DATE LODGED: | 12 August 2010 |
| 40 DAY PERIOD EXPIRED: | 21 September 2010 |
| PROPOSAL: | Alterations and additions including swimming pool |
| RECOMMENDATION: | Approval. |

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DEVELOPMENT APPLICATION N^o 0572/10
PREMISES: 170 TRYON ROAD EAST LINDFIELD
PROPOSAL: ALTERATIONS AND ADDITIONS
INCLUDING SWIMMING POOL
APPLICANT: C PLUS C DESIGN CONSTRUCT PTY LTD
OWNER: MS T RATH
DESIGNER C PLUS C DESIGN CONSTRUCT PTY LTD

PURPOSE FOR REPORT

To determine application No.0572/10, which seeks consent for alterations and additions to the existing dwelling and a swimming pool located in the rear garden.

This matter was called to Full Council for determination by Councillor J Anderson on 7 October, 2010.

EXECUTIVE SUMMARY

| | |
|----------------------------------|----------|
| Issues: | Setbacks |
| Submissions: | 6 |
| Land & Environment Court Appeal: | N/A |
| Recommendation: | Approval |

HISTORY

The site has a history of residential use. Council has no record of any other development applications lodged for the site.

THE SITE AND SURROUNDING AREA

The site

| | |
|----------------------------------|--|
| Zoning: | Residential 2(a) |
| Visual Character Study Category: | 1945-68 |
| Lot Number: | 720 |
| DP Number: | 752031 |
| Area: | 854.83m ² |
| Side of Street: | Northern |
| Cross Fall: | 8 metres, south-east to north-west |
| Stormwater Drainage: | Storm water tanks and existing drainage |
| Heritage Affected: | No |
| Required Setback: | Established setback 9.1 metres |
| Integrated Development: | No |
| Bush Fire Prone Land: | Yes (Bushfire prone vegetation buffer) |
| Endangered Species: | No |
| Urban Bushland: | No, however Garigal National Park adjoins to the north |
| Contaminated Land: | No |

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Site description:

The subject site is located on the northern side of Tryon Road, approximately 120 metres east of the intersection with Cooperbrook Crescent. Garigal National Park adjoins the site to the north. Existing improvements include a part two storey dwelling with an integrated carport. The site falls towards the south or rear. A rock ledge exists at the rear of the site.

Surrounding development:

The surrounding development mainly consists of large dwellings situated on large landscaped lots. A two storey dwelling (172 Tryon Road) is located on the east side of the subject site whilst a three storey dwelling (168 Tryon Road) adjoins the western boundary.

THE PROPOSAL

The application proposes major alterations and additions to the existing dwelling and a new swimming pool located in the rear garden. The proposed development includes the following alterations and additions:

Upper floor level (street level):

- single garage, bedroom 4, front courtyard, en-suite, master bedroom, study, bedroom 2, entry, guest bathroom, toilet, pantry, upper deck, lounge and new stair to lower level

Lower floor level:

- new laundry, rumpus room deck, swimming pool and stairs to the lower garden levels at the rear of the site

Amended plans dated 6/10/10

The amended plans proposed the following changes to the application:

- increased front setback
- clarification of a number of reduced levels in the north elevation
- retaining wall integrated into the eastern end of the swimming pool

CONSULTATION - COMMUNITY

In accordance with Council's Notification DCP, adjoining owners were given notice of the application.

In response, submissions have been received from the following:

1. Steve and Sue van der Sluys 168 Tryon Road, East Lindfield
2. Mrs Jan Mortimer 227 Tryon Road, East Lindfield
3. P J and H M Mathlin - 10 Ailsa Close, East Lindfield
4. A and J Lamble - 172 Tryon Road, East Lindfield
5. Marika Jones - 166 Tryon Road, East Lindfield

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6. Suzy Bekkedahl and Peter Webb – 12 Ailsa Close, East Lindfield

The submissions raised the following issues:

The proposal is out of character with the adjoining dwellings and has a significant increase in footprint

The proposal results in an increase in building footprint, however it has a relatively conservative built upon area of 36.4% and a compliant floor space ratio of 0.32:1. A built upon area of 60% is permissible under the KPSO and DCP 38 permits a floor space ratio of 0.39:1.

The struts of the design have a bulky appearance

The struts are integrated in the roof design, do not result in any unreasonable amenity impacts and are considered acceptable.

Loss of privacy and impacts upon the views from 168 Tryon Road and 172 Tryon Road

The upper floor level addition at the rear of the dwelling is an extension of the existing ground floor level and is below the upper levels of both adjoining dwellings and there are not considered to be any adverse privacy impacts.

The proposal is well forward of the adjoining dwellings in terms of the rear line of established dwellings

The rear addition has a minimum rear setback of 12.4 metres and satisfies the 12 metres rear setback control of DCP 38.

Loss of value to property 168 Tryon Road

This is not a matter for consideration under Section 79C of The Environmental Planning and Assessment Act 1979.

Loss of solar access to 168 Tryon Road

No. 168 Tryon Road is located west of the subject site and is partly overshadowed by the proposal between 9.00AM and 11.00AM but is virtually unaffected after 11.00AM in midwinter. The proposal will maintain a reasonable level of solar access to the habitable rooms and open space of adjoining development, causes no overshadowing of the bushland to the north, and provides sun protection with the use of sun shading devices in accordance with DCP 38 and is considered to be satisfactory.

Concern in relation to the proposed excavation

The additions require only minimal excavation as the new work is generally at existing grade. The swimming pool involves excavation of up to 900mm in depth, located 2 metres from the east site boundary. Council's development control engineer considers the amount of excavation reasonable in the circumstances.

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The proposal is forward of the established front building line

The applicant has submitted revised plans which increase the front setback.

The survey has positioning mistakes and inaccuracies, eg the boundary between 168 and 170 is poorly drawn and inaccurate

The survey lodged with the application was prepared by C.M.S. Surveyors Pty Limited and is considered acceptable.

All large trees should be retained

Council's Landscape officer does not object to the proposed removal of a small Lemon Scented Tea Tree in the rear garden. Council's Landscape and Tree Assessment Officer's comments are included under the "Consultation within Council" part of this report.

Additional detail is required for the pool

There is sufficient detail lodged with the application to enable a proper assessment of the swimming pool. A floor plan, elevations, a section and levels to AHD have been provided.

Impact upon Garigal National Park

The development is located a minimum of 10.3 metres from the common boundary with Garigal National Park, with the swimming pool integrated into the landscaped rear garden of the property. Council's Landscape and Tree Assessment Officer supports the proposal and no adverse impacts on Garigal National Park are anticipated.

The DA does not meet AS3959-2009 Construction of Buildings in Bush Fire Prone Areas, as a lot of timber is proposed

The Rural Fire Service of NSW have assessed the proposal and have recommended conditions that include compliance with AS3959-2009 Construction of Buildings in Bush Fire Prone Areas. Should the application be approved the conditions recommended by the Rural fire Service will be imposed along with other conditions of consent. Any changes required as a result of the compliance with the Australian Standard will be effected at Construction Certificate stage (refer **Condition 8**).

Concern as to whether the retaining wall located on the west boundary of 172 Tryon Road will be affected by excavation of the pool

The retaining wall is 2 metres from the proposed pool and Council's Development control Engineer has not raised a concern in this regard.

The design of the pool fence would have considerable impact upon 10 Ailsa Close, and the National Park

It is not considered that the pool fence located directly around the environs of the pool will have any significant impact on the privacy of the adjoining property or Garigal National Park.

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RFS recommend that "the building line should be no closer to the hazard than neighbouring properties" and "the extensions should be no closer to the hazard than the existing building footprint".

These statements do not accord with the actual correspondence from the RFS attached to this report.

The NSW Rural Fire Service recommended that conditions are imposed should the application be supported. These conditions are included within the recommended conditions of consent (Condition 8).

Complaint about the standard of the Statement of Environmental Effects prepared by Damian O'Toole Planning

The Statement of Environmental Effects submitted with the application, together with the supporting documentation is considered acceptable to make an informed assessment of the proposal.

Detail of proposed landscaping not sighted

The complete application, including a concept landscape plan, was available for public inspection at Council's Customer Service section throughout the notification period.

Why were the applicants at 12 Ailsa Close required to submit a Bushfire Risk Assessment but was not required for 170 Tryon Road?

The property at 12 Ailsa Close required a bushfire report because the site is classified as Vegetation Category 1 (Flame) Zone as well as Vegetation Buffer Zone. The subject site at 170 Tryon Road, is classified only as Vegetation Buffer Zone and a Bushfire report is not required.

The Vegetation Buffer Zone is shown in dark hatching (red) while the Vegetation Category 1 Zone is shown in light hatching (orange) on the attached Bushfire Prone Land map.

Why the proposed dwelling is to be constructed of combustible materials with no consideration of fire safety

The applicant at 12 Ailsa Close had to supply a Bushfire Risk Assessment, build in noncombustible materials including adding metal roll down shutters on all new windows and doors, commission a pool architect to draw pool, which was then denied.

The recommended conditions provided by the NSW Rural Fire Service are included as conditions that will be imposed as part of the consent. The applicant has advised that the conditions recommended by the Rural Fire Service can be satisfied and any changes to building materials will be included before a Construction Certificate is issued. (Condition 8)

Why was the applicant allowed to submit their pool with no design or engineering details (as Council required for the development application of No.12 Ailsa Close)?

The plans submitted included sufficient detail to assess the location, design and environmental impacts of the swimming pool. Plans submitted include a section, floor plans, elevations, levels to

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AHD and a concept landscape plan. Engineering details are generally not required at the development application stage. Detailed engineering and construction plans are prepared as part of the Construction Certificate process.

The development application submitted for 12 Ailsa Close, included plans elevations, a floor plan of the pool and a tree location plan. The pool was not supported as it required the removal of two naturally occurring endemic species, was elevated up to 3.6 metres above the existing ground level and set back only 200mm from the boundary with Garigal National Park. Structural details were not required and were never submitted with the development application.

Support for the proposal

Two of the submissions received expressed support for the proposed development.

Amended plans dated 6/10/10

The amended plans were not notified to surrounding residents as the amendments were minor and do not result in a greater environmental impact than the original proposal, in accordance with DCP56.

CONSULTATION - WITHIN COUNCIL

Landscaping

Council's Landscape and Tree Assessment Officer, commented on the proposal as follows:

"Site characteristics

The site is characterised by an established landscape setting with mature trees and shrubs within formal garden beds and grassed expanses. The rear of the site is traversed by a natural rock ledge.

Tree impacts

The development proposes the removal of part of the existing landscape setting immediately surrounding the development footprint and the removal of one existing small tree. The subject tree to be removed is a mature leptospermum petersonii (Lemon Scented Tea Tree), located within the rear garden. The tree is not considered significant within the broader landscape setting and no objection is raised to its removal.

Landscape plan/tree replenishment

A basic landscape plan has been submitted with the application. Any changes required can be conditioned.

Stormwater plan

Stormwater is to be connected to the existing drainage system. No objections are raised by Landscape Services.

BASIX

No landscape commitments for low water use/indigenous plant species have been made within BASIX certificate #A91255 dated 09/08/2010.

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Fire

The site is identified as bushfire prone land, as it adjoins natural bushland at the rear. At the time of assessment, no response has been received from RFS. It is expected that RFS will require the site to be maintained as an IPA. The submitted landscape plan does not comply with this potential requirement. It will be conditioned for the proposed screen planting adjacent to the dwelling to be deleted as it may create a direct hazard to the dwelling.

CONCLUSION

The application can be supported by Landscape Services with conditions.

Engineering

Council's Development Engineer commented on the proposal as follows:

"supported, conditions recommended"

EXTERNAL REFERRALS

Rural Fire Services

In accordance with the provisions of section 79BA of the Environmental Planning and Assessment Act 1979, Council has consulted with the Commissioner of the NSW Rural Fire Service, concerning measures to be taken with respect to the protection of persons, property and the environment from danger that may arise from a bush fire. A complete copy of the development application was submitted to the NSW Rural Fire Service who commented as follows:

"Land Use Application for 720//752031 170 Tryon Road East Lindfield 2070

I refer to your letter dated 24 August 2010 seeking advice regarding bush fire protection for the above Land Use Application in accordance with Section 79BA of the 'Environmental Planning and Assessment Act 1979'.

The Service provides the following recommended conditions:

Asset Protection Zones

The intent of measures is to provide sufficient space and maintain reduced fuel loads so as to ensure radiant heat levels of buildings are below critical limits and to prevent direct flame contact with a building.

- 1. At the commencement of building works and in perpetuity the entire property shall be managed as an inner protection area (IPA) as outlined within section 4.1.3 and Appendix 5 of 'Planning for Bush Fire Protection 2006' and the NSW Rural Fire Service's document 'Standards for asset protection zones'.*

Design and Construction

The intent of measures is that buildings are designed and constructed to withstand the potential impacts of bush fire attack.

2. *New construction on the north elevation shall comply with Australian Standard AS3959-2009 "Construction of buildings in bush fire-prone areas" Section 9.*

However, any material, element of construction or system when tested to the method described in Australian Standard AS1 530.8.2 "Methods for fire tests on building materials, components and structures Part 8.2: Tests on elements of construction for buildings exposed to simulated bushfire attack—Large flaming sources" shall comply with Clause 13.8 of that Standard except that flaming of the specimen is not permitted.

Windows assemblies shall comply with modified Section 9 of AS3959 (as above) or the following:

- i They shall be completely protected by a non-combustible and non perforated bushfire shutter that complies with Section 3.7 excluding (e) and (f); and*
- ii. They shall comply with the following:*
 - a) Window frames and hardware shall be metal;*
 - b) Glazing shall be toughened glass, minimum 5mm;*
 - c) Seals to stiles, head and sills or thresholds shall be manufactured from materials having a flammability index no greater than 5;*
 - d) The openable portion of the window shall be screened internally or externally with a mesh with a maximum aperture of 2mm, made from corrosion resistant steel or bronze. The frame supporting the mesh shall be metal.*

External Doors (not including garage doors) shall comply with modified Section 9 of AS3959 (as above) or the following:

- iii. They shall be completely protected by a non-combustible and non perforated bushfire shutter that complies with Section 3.7 excluding (e) and (f); and*
- iv. They shall comply with the following:*
 - a) Doors shall be non-combustible;*
 - b) Externally fitted hardware that supports the panel in its function of opening and closing shall be metal;*
 - c) Where doors incorporate glazing, the glazing shall be toughened glass minimum 6mm;*
 - d) Seals to stiles, head and sills or thresholds shall be manufactured from silicone;*
 - e) Doorframes shall be metal;*
 - f) Doors shall be tight fitting to the doorframe or an abutting door;*
 - g) Weather strips, draught excluders or draught seals shall be installed if applicable.*

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3. *New construction on the east, south and west elevation(s) shall comply with Australian Standard AS3959-2009 "Construction of buildings in bush fire-prone areas" BAL 40.*
4. *Roofing shall be gutterless or guttering and valleys are to be screened to prevent the build up of flammable material. Any materials used shall have a Flammability Index of no greater than 5 when tested in accordance with Australian Standard AS1530.2-1 993 "Methods for Fire Tests on Building Materials, Components and Structures - Test for Flammability of Materials".*

General Advice - consent authority to note

Any new fencing shall comply with Development Control Services 'Fast Fact 2/06' for Fences and Gates in Bush Fire Prone Areas.

The abovementioned requirements are included as **Condition 8** in accordance with the recommendation of the NSW Rural Fire Service.

STATUTORY PROVISIONS

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 Planning Policy (Sydney Harbour Catchment) 2005

Matters for consideration under SREP 2005 include biodiversity, ecology and environmental protection, public access to and scenic qualities of foreshores and waterways, maintenance of views, control of boat facilities and maintenance of a working harbour. The proposal is not in close proximity to, or within view, of a waterway or wetland and is considered satisfactory. Water re-use measures proposed in the application will minimise the impact on downstream waterways.

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004

A valid BASIX certificate has been submitted. The certificate demonstrates compliance with the provisions of the SEPP and adequately reflects all amendments to the application.

Ku-ring-gai Planning Scheme Ordinance

Part A: Development standards

| Development standard | Proposed | Complies |
|--------------------------------|----------|----------|
| Site area: 854.8m ² | | |
| Building height 8m (max) | 6.5m | YES |
| Built upon areas 60%(max) | 36% | YES |

Part B: Aims and objectives for residential zones:

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

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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.

POLICY PROVISIONS**Development Control Plan No. 38 - Ku-ring-gai Residential Design Manual**

| Development Control | Proposed | Complies |
|--|--|---------------------------------|
| 4.1 Streetscape: | | |
| Building setbacks (s.4.1.3) | | |
| Front setback: 11m (Ave) -75% front elevation 9m (min) – 25% front elevation | 12.6m (40%) 9.1-, 9.6m (60%) | NO YES |
| Established setback by adjoining dwellings 166 Tryon Rd to 174 Tryon Rd 7.11m to 8.75m | 9.1m, 9.6m & 12.6m | YES |
| Side setback: Ground floor: 2m 1 st floor: 2.7m (min) | 1.8m-1.87m (existing) west side 2.3m-2.8m proposed 2.3m | N/A (existing) YES NO |
| Rear setback: 12m(min) | 12.3m | YES |
| 4.2 Building form: | | |
| FSR (s.4.2.1) 0.39:1 (max)(333.7m ²) | 0.32:1(274.37m ²) | YES |
| Height of building (s.4.2.2) | | |
| 2 storey (max) and 8m (site >20° slope) or 7m (site <20° slope) | 2 storey & 6.5m | YES YES |
| Building height plane (s.4.2.3) 45° from horizontal at any point 3m above boundary | 500mm north west rear corner | NO |
| Roof Line (s.4.2.6) | | |
| Roof height (5m – single storey) (3m – two+ storey) | 1.3m | YES |
| Roof pitch 35° (max) | 17° | YES |
| Built-upon area (s.4.2.7) 56% (max) | 36.4% | YES |
| Unrelieved wall length (s.4.2.8) 12m (min) | 10.7m | YES |

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| Development Control | Proposed | Complies |
|--|---|------------|
| Solar access (4.2.11) 4h solar access to adjoining properties between 9am to 3pm | 4hours to 3pm | YES |
| Cut & fill (s.4.2.14) | | |
| Max cut 900mm | 900mm (swimming pool) | YES |
| Max cut & fill across building area of 1800mm and 900mm | 1500mm | YES |
| No cut or fill within side setbacks | Nil | YES |
| 4.3 Open space & landscaping: | | |
| Soft landscaping area (4.3.3) 44% (min) | 63.6% | YES |
| Landscaping cut & fill (4.3.7) | | |
| max cut or fill 500mm relative to natural ground | 900mm (swimming pool) | NO |
| no cut & fill within 2m of boundary | Nil | YES |
| Useable open space (s.4.3.8) Min depth 5m and min area 50m ² | Depth 13mx18.5m Area 240.5m ² | YES YES |
| 4.4 Privacy & security: | | |
| Refer discussion below. | No adverse impact | YES |
| 4.5 Access & parking: | | |
| No. of car parking spaces (s.4.5.1) 2 spaces behind building line | 1 space behind building line | NO |
| Size of car parking space (s.4.5.2) 2.7m x 5.4m | 2.7m x 5.7m | YES |
| Driveway width (s.4.5.6) 2.9m | 2m existing | YES |
| 4.6 Ancillary facilities: | | |
| Swimming pools (s.4.6.1) | | |
| Setback from boundary: 2m | 2m | YES |
| Pool coping <500mm above ground level | 1.5m | NO |
| Pool excavation not below the canopy of trees | YES | YES |

Part 4.1 - Streetscape:

Due to an undercroft area containing the laundry the proposal is considered to be a two storey structure. As such, it does not comply with the front setback controls as only 40% of the front elevation achieves an average setback of 11 metres.

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Elevation to Tryon Road

This variation is considered acceptable as the proposal presents as single storey except for the undercroft area to the rear which is not visible in the streetscape. As a single storey dwelling, the proposal would meet the minimum DCP setback requirement of 9 metres. The proposal also has regard to the existing setback of adjoining properties, the setback pattern of the street block and is well articulated and of an acceptable bulk.

The additions located along the eastern elevation are set back 1.8 to 2.3 metres from the side boundaries instead of the required 2.7 metres. As the proposal will largely present as a single storey structure this variation is supported.

The same applies to the western side boundary where proposed Bedroom 4 is set back 2.36 metres. These variations are considered minor, will have little impact on the streetscape character of the area and are acceptable in the circumstances.

Part 4.2 - Building form:

The north-west rear corner of the addition is located 500mm outside the building envelope. Given that the design maintains the relative scale relationship between buildings, maintains adequate daylight to open space and habitable rooms of the adjacent property, the relatively minor non-compliance with the building envelope control is satisfactory in the circumstances.

Part 4.4 – Privacy and security

The upper floor level addition at the rear of the dwelling is an extension of the existing ground floor level and is below the upper levels of both adjoining dwellings and accordingly no privacy impacts are envisaged. In terms of security, the occupants of the dwelling will be able to observe people approaching without the necessity to open the front door. Direct access from the garage into the dwelling is available which also assists in the security of the proposal. Consequently, the security of the proposal is satisfactory.

Part 4.5 - Access & parking:

The proposal includes one car space located behind the building line whereas two car spaces should be provided. The existing dwelling currently provides for one car space behind the building line and it is considered that a design with two car spaces will not result in an improved

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environmental outcome in terms of streetscape and impact on adjoining properties.

Part 4.6 - Ancillary facilities:

The swimming pool has a height of up to 1.5 metres above the existing ground level. The coping level of the pool is proposed approximately 1 metre lower than the top of the existing stone retaining wall located adjacent to it, along the rear section of the common site boundary with property 172 Tryon Road. Given that the pool has a minimum rear setback of 10.3 metres, a 2 metres setback from the eastern side boundary, a setback of 9 metres from the western site boundary, and allows generous areas for landscape planting, the location of the pool is considered satisfactory.

LIKELY IMPACTS

The likely impacts have been considered in this report and are considered satisfactory, subject to conditions of consent.

SUITABILITY OF THE SITE

The site is considered to be 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 public interest.

OTHER RELEVANT CONSIDERATIONS

There are no other matters for consideration.

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. Therefore, it is recommended that the application be approved, subject to conditions.

RECOMMENDATION

PURSUANT TO SECTION 80(1) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979

That the Council, as the consent authority, grant development consent to DA 0572/10 for alterations and additions to the existing dwelling and construction of a swimming pool on land at 170 Tryon Road, East Lindfield, for a period of five (5) years from the date of the Notice of Determination, subject to the following conditions:

CONDITIONS THAT IDENTIFY APPROVED PLANS:**1. Approved architectural plans and documentation (alterations and additions)**

The development must be carried out in accordance with the following plans and documentation listed below and endorsed with Council's stamp, except where amended by other conditions of this consent:

| Plan no. | Drawn by | Dated |
|--|--------------------------------------|----------------------------------|
| DA001B, DA002B, DA010, DA011B, DA020, DA021B, DA030B, DA031B, DA040B, DA050, DA051, DA052, DA pool 01 | C plus C Design Construct Pty Ltd | 10/08/10, 6/10/10 and 1/11/10 |

| Document(s) | Dated |
|------------------------------|----------------|
| Basix Certificate No. A91255 | 9 August, 2010 |

Reason: To ensure that the development is in accordance with the determination.

2. Approved landscape plans

Landscape works shall be carried out in accordance with the following landscape plan(s), listed below and endorsed with Council's stamp, except where amended by other conditions of this consent:

| Plan no. | Drawn by | Dated |
|-----------------|---------------------------|--------------|
| DA06 | C plus C Design Construct | 10/08/10 |

Reason: To ensure that the development is in accordance with the determination.

3. No demolition of extra fabric

Alterations to, and demolition of the existing building shall be limited to that documented on the approved plans (by way of notation). No approval is given or implied for removal and/or rebuilding of any portion of the existing building which is shown to be retained.

Reason: To ensure compliance with the development consent.

CONDITIONS TO BE SATISFIED PRIOR TO DEMOLITION, EXCAVATION OR CONSTRUCTION:**4. Road opening permit**

The opening of any footway, roadway, road shoulder or any part of the road reserve shall not be carried out without a road opening permit being obtained from Council (upon payment of the required fee) beforehand.

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Reason: Statutory requirement (Roads Act 1993 Section 138) and to maintain the integrity of Council's infrastructure.

5. Notice of commencement

At least 48 hours prior to the commencement of any development (including demolition, excavation, shoring or underpinning works), a notice of commencement of building or subdivision work form and appointment of the principal certifying authority form shall be submitted to Council.

Reason: Statutory requirement.

6. Structural adequacy (alterations and additions)

Prior to commencement of any development or excavation works, the Principal Certifying Authority shall be satisfied that those components of the building to be retained and/or altered will be structurally sound and able to withstand the excavation and demolition process.

C1. Note: Evidence from a qualified practising structural engineer, demonstrating compliance with the above and detailing, where relevant, means of support for those parts of the retained building shall be provided to the Principal Certifying Authority.

Reason: To ensure that the development can be undertaken in accordance with accepted construction practices as indicated on the endorsed development plans, without the need for modification of the consent.

7. Tree replenishment

The property shall support a minimum number of three canopy trees that will attain 13.0 metres in height on the site. 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 the Principal Certifying Authority and approved by a Landscape Architect or qualified Landscape Designer prior to the issue of a Construction Certificate.

100% of the canopy trees to be planted are to be locally occurring native trees, consistent with the Sydney Sandstone Ridgetop Woodland plant community.

Reason: To preserve the tree canopy and ensure adequate landscaping of the site.

CONDITIONS TO BE SATISFIED PRIOR TO THE ISSUE OF THE CONSTRUCTION CERTIFICATE:

8. Amendments to approved architectural plans.

A. Asset protection zones

The intent of measures is to provide sufficient space and maintain reduced fuel loads so as to ensure radiant heat levels of buildings are below critical limits

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and to prevent direct flame contact with a building.

1. At the commencement of building works and in perpetuity the entire property shall be managed as an inner protection area (IPA) as outlined within section 4.1.3 and Appendix 5 of 'Planning for Bush Fire Protection 2006' and the NSW Rural Fire Service's document 'Standards for asset protection zones'.

B. Design and construction

The intent of measures is that buildings are designed and constructed to withstand the potential impacts of bush fire attack.

2. New construction on the north elevation shall comply with Australian Standard AS3959-2009 "Construction of buildings in bush fire-prone areas" Section 9.

However, any material, element of construction or system when tested to the method described in Australian Standard AS1 530.8.2 "Methods for fire tests on building materials, components and structures Part 8.2: Tests on elements of construction for buildings exposed to simulated bushfire attack—Large flaming sources" shall comply with Clause 13.8 of that Standard except that flaming of the specimen is not permitted.

Windows assemblies shall comply with modified Section 9 of AS3959 (as above) or the following:

- i. They shall be completely protected by a non-combustible and non perforated bushfire shutter that complies with Section 3.7 excluding (e) and (f); and
- ii. They shall comply with the following:
 - a) Window frames and hardware shall be metal;
 - b) Glazing shall be toughened glass, minimum 5mm;
 - c) Seals to stiles, head and sills or thresholds shall be manufactured from materials having a flammability index no greater than 5;
 - d) The openable portion of the window shall be screened internally or externally with a mesh with a maximum aperture of 2mm, made from corrosion resistant steel or bronze. The frame supporting the mesh shall be metal.

External doors (not including garage doors) shall comply with modified Section 9 of AS3959 (as above) or the following:

- iii. They shall be completely protected by a non-combustible and non perforated bushfire shutter that complies with Section 3.7 excluding (e) and (f); and

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- iv. They shall comply with the following:
 - a) Doors shall be non-combustible;
 - b) Externally fitted hardware that supports the panel in its function of opening and closing shall be metal;
 - c) Where doors incorporate glazing, the glazing shall be toughened glass minimum 6mm;
 - d) Seals to stiles, head and sills or thresholds shall be manufactured from silicone;
 - e) Doorframes shall be metal;
 - f) Doors shall be tight fitting to the doorframe or an abutting door;
 - g) Weather strips, draught excluders or draught seals shall be installed if applicable.
3. New construction on the east, south and west elevation(s) shall comply with Australian Standard AS3959-2009 "Construction of buildings in bush fire-prone areas" BAL 40.
4. Roofing shall be gutterless or guttering and valleys are to be screened to prevent the build up of flammable material. Any materials used shall have a Flammability Index of no greater than 5 when tested in accordance with Australian Standard AS1530.2-1 993 "Methods for Fire Tests on Building Materials, Components and Structures - Test for Flammability of Materials".
5. Any new fencing shall comply with Development Control Services 'Fast Fact 2/06' for Fences and Gates in Bush Fire Prone Areas.

Reason: Bush fire safety.

9. Amendments to approved landscape plan

Prior to the issue of a Construction Certificate, the Principal Certifying Authority shall be satisfied that the approved landscape plans, listed below and endorsed with Council's stamp, have been amended in accordance with the requirements of this condition as well as other conditions of this consent:

| Plan no. | Drawn by | Dated |
|----------|-------------------------|------------|
| DA06 | CplusC Design Construct | 10/08/2010 |

The above landscape plan(s) shall be amended in the following ways:

- The site is to be maintained as per the RFS requirements.
- The proposed screen planting adjacent to the eastern and western site boundaries is to be deleted.
- Tree replenishment planting and the increased setbacks from the front boundary for the garage and bedroom 4 as shown on the upper floor plan DA011B are to be shown.

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Prior to the issue of the Construction Certificate, the Principal Certifying Authority shall be satisfied that the landscape plan has been amended are required by this condition.

Note: An amended plan, prepared by a landscape architect or qualified landscape designer shall be submitted to the Certifying Authority.

Reason: To ensure adequate landscaping of the site

10. Amendments to engineering plans

Prior to the issue of a Construction Certificate, the Certifying Authority shall be satisfied that the engineering plan(s), listed below have been amended in accordance with the requirements of this condition as well as other conditions of this consent:

| Plan no. | Drawn by | Dated |
|----------|-------------------------|-----------|
| 09-057 | CplusC Design Construct | 10/8/2010 |

The above engineering plan(s) shall be amended as follows:

- The clear height of the proposed single garage door increased to a minimum 2.2m (currently 2.0m).

The above amendments are required to ensure compliance with Australian Standard 2890.1 - "Off-street car parking".

Reason: To ensure that the development is in accordance with the determination.

11. Long service levy

In accordance with Section 109F(i) of the Environmental Planning and Assessment Act a Construction Certificate shall not be issued until any long service levy payable under Section 34 of the Building and Construction Industry Long Service Payments Act 1986 (or where such levy is payable by instalments, the first instalment of the levy) has been paid. Council is authorised to accept payment. Where payment has been made elsewhere, proof of payment is to be provided to Council.

Reason: Statutory requirement.

12. Builder's indemnity insurance

The applicant, builder, developer or person who does the work on this development, must arrange builder's indemnity insurance and submit the certificate of insurance in accordance with the requirements of Part 6 of the Home Building Act 1989 to the 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. The

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builder's indemnity insurance does not apply to commercial or industrial building work or to residential work valued at 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).

Reason: Statutory requirement.

13. External service pipes and the like prohibited

Proposed water pipes, waste pipes, stack work, duct work, mechanical ventilation plant and the like must be located within the building. Details confirming compliance with this condition must be shown on construction certificate plans and detailed with construction certificate specifications. Required external vents or vent pipes on the roof or above the eaves must be shown on construction certificate plans and detailed with construction certificate specifications. External vents or roof vent pipes must not be visible from any place unless detailed upon development consent plans. Where there is any proposal to fit external service pipes or the like this must be detailed in an amended development (S96) application and submitted to Council for determination.

Vent pipes required by Sydney Water must not be placed on the front elevation of the building or front roof elevation. The applicant, owner and builder must protect the appearance of the building from the public place and the appearance of the streetscape by elimination of all external services excluding vent pipes required by Sydney Water and those detailed upon development consent plans.

Reason: To protect the streetscape and the integrity of the approved development.

14. Drainage of paved areas

All new exposed impervious areas graded towards adjacent property and/or habitable areas are to be drained via the main drainage system. This may require the installation of suitable inlets pits, cut-off structures (e.g. kerb), and/or barriers that direct such runoff to the formal drainage system. Details of such measures shall be shown on the Construction Certificate drawings, to the satisfaction of the Certifying Authority.

Reason: To control surface run off and protect the environment.

15. Vehicular access and garaging

Driveways and vehicular 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 2890.1 – 2004 "Off-Street car parking". Details are to be provided to and approved by the Certifying Authority prior to the issue of the Construction Certificate.

Reason: To ensure that parking spaces are in accordance with the approved development.

CONDITIONS TO BE SATISFIED PRIOR TO THE ISSUE OF THE CONSTRUCTION CERTIFICATE OR PRIOR TO DEMOLITION, EXCAVATION OR CONSTRUCTION (WHICHEVER COMES FIRST):

16. Infrastructure restorations fee

To ensure that damage to Council Property as a result of construction activity is rectified in a timely matter:

- a) All work or activity taken in furtherance of the development the subject of this approval must be undertaken in a manner to avoid damage to Council Property and must not jeopardise the safety of any person using or occupying the adjacent public areas.
- b) The applicant, builder, developer or any person acting in reliance on this approval shall be responsible for making good any damage to Council Property, and for the removal from Council Property of any waste bin, building materials, sediment, silt, or any other material or article.
- c) The Infrastructure Restoration Fee must be paid to the Council by the applicant prior to both the issue of the Construction Certificate and the commencement of any earthworks or construction.
- d) In consideration of payment of the Infrastructure Restorations Fee, Council will undertake such inspections of Council Property as Council considers necessary and also undertake, on behalf of the applicant, such restoration work to Council Property, if any, that Council considers necessary as a consequence of the development. The provision of such restoration work by the Council does not absolve any person of the responsibilities contained in (a) to (b) above. Restoration work to be undertaken by the Council referred to in this condition is limited to work that can be undertaken by Council at a cost of not more than the Infrastructure Restorations Fee payable pursuant to this condition.

- e) In this condition:

“Council Property” includes any road, footway, footpath paving, kerbing, guttering, crossings, street furniture, seats, letter bins, trees, shrubs, lawns, mounds, bushland, and similar structures or features on any road or public road within the meaning of the Local Government Act 1993 (NSW) or any public place; and

“Infrastructure Restoration Fee” means the Infrastructure Restorations Fee calculated in accordance with the Schedule of Fees & Charges adopted by Council as at the date of payment and the cost of any inspections required by the Council of Council Property associated with this condition.

Reason: To maintain public infrastructure.

CONDITIONS TO BE SATISFIED DURING THE DEMOLITION, EXCAVATION AND CONSTRUCTION PHASES:

17. Prescribed conditions

The applicant shall comply with any relevant prescribed conditions of development consent under clause 98 of the Environmental Planning and Assessment Regulation. For the purposes of section 80A (11) of the Environmental Planning and Assessment Act, the following conditions are prescribed in relation to a development consent for development that involves any building work:

- The work must be carried out in accordance with the requirements of the Building Code of Australia
- In the case of residential building work for which the Home Building Act 1989 requires there to be a contract of insurance in force in accordance with Part 6 of that Act, that such a contract of insurance is in force before any works commence.

Reason: Statutory requirement.

18. Hours of work

Demolition, excavation, construction work and deliveries of building material and equipment must not take place outside the hours of 7.00am to 5.00pm Monday to Friday and 8.00am to 12 noon Saturday. No work and no deliveries are to take place on Sundays and public holidays.

Excavation or removal of any materials using machinery of any kind, including compressors and jack hammers, must be limited to between 7.30am and 5.00pm Monday to Friday, with a respite break of 45 minutes between 12 noon 1.00pm.

Where it is necessary for works to occur outside of these hours (ie) placement of concrete for large floor areas on large residential/commercial developments or where building processes require the use of oversized trucks and/or cranes that are restricted by the RTA from travelling during daylight hours to deliver, erect or remove machinery, tower cranes, pre-cast panels, beams, tanks or service equipment to or from the site, approval for such activities will be subject to the issue of an "outside of hours works permit" from Council as well as notification of the surrounding properties likely to be affected by the proposed works.

Note: Failure to obtain a permit to work outside of the approved hours will result in on the spot fines being issued.

Reason: To ensure reasonable standards of amenity for occupants of neighbouring properties.

19. Statement of compliance with Australian Standards

The demolition work shall comply with the provisions of Australian Standard AS2601: 2001 The Demolition of Structures. The work plans required by AS2601: 2001 shall be

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accompanied by a written statement from a suitably qualified person that the proposal contained in the work plan comply with the safety requirements of the Standard. The work plan and the statement of compliance shall be submitted to the satisfaction of the Principal Certifying Authority prior to the commencement of any works.

Reason: To ensure compliance with the Australian Standards.

20. Site notice

A site notice shall be erected on the site prior to any work commencing and shall be displayed throughout the works period.

The site notice must:

- be prominently displayed at the boundaries of the site for the purposes of informing the public that unauthorised entry to the site is not permitted
- display project details including, but not limited to the details of the builder, Principal Certifying Authority and structural engineer
- be durable and weatherproof
- display the approved hours of work, the name of the site/project manager, the responsible managing company (if any), its address and 24 hour contact phone number for any inquiries, including construction/noise complaint are to be displayed on the site notice
- be mounted at eye level on the perimeter hoardings/fencing and is to state that unauthorised entry to the site is not permitted

Reason: To ensure public safety and public information.

21. Dust control

During excavation, demolition and construction, adequate measures shall be taken to prevent dust from affecting the amenity of the neighbourhood. The following measures must be adopted:

- physical barriers shall be erected at right angles to the prevailing wind direction or shall be placed around or over dust sources to prevent wind or activity from generating dust
- earthworks and scheduling activities shall be managed to coincide with the next stage of development to minimise the amount of time the site is left cut or exposed
- all materials shall be stored or stockpiled at the best locations
- the ground surface should be dampened slightly to prevent dust from becoming airborne but should not be wet to the extent that run-off occurs
- all vehicles carrying spoil or rubble to or from the site shall at all times be covered to prevent the escape of dust
- all equipment wheels shall be washed before exiting the site using manual or automated sprayers and drive-through washing bays
- gates shall be closed between vehicle movements and shall be fitted with shade

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- cloth
- cleaning of footpaths and roadways shall be carried out daily

Reason: To protect the environment and amenity of surrounding properties.

22. Excavation

A contractor with specialist excavation experience must undertake the excavations for the development.

Reason: To ensure the safety and protection of property.

23. Use of road or footpath

During excavation, demolition and construction phases, no building materials, plant or the like are to be stored on the road or footpath without written approval being obtained from 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.

Reason: To ensure safety and amenity of the area.

24. Guarding excavations

All excavation, demolition and construction works shall be properly guarded and protected with hoardings or fencing to prevent them from being dangerous to life and property.

Reason: To ensure public safety.

25. Toilet facilities

During excavation, demolition and construction phases, toilet facilities are to be provided, on the work site, at the rate of one toilet for every 20 persons or part of 20 persons employed at the site.

Reason: Statutory requirement.

26. Protection of public places

If the work involved in the erection, demolition or construction of the development is likely to cause pedestrian or vehicular traffic in a public place to be obstructed or rendered inconvenient, or building involves the enclosure of a public place, a hoarding or fence must be erected between the work site and the public place.

If necessary, a hoarding is to be erected, sufficient to prevent any substance from, or in connection with, the work falling into the public place.

The work site must be kept lit between sunset and sunrise if it is likely to be

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hazardous to persons in the public place.

Any hoarding, fence or awning is to be removed when the work has been completed.

Reason: To protect public places.

27. Recycling of building material (general)

During demolition and construction, the Principal Certifying Authority shall be satisfied that building materials suitable for recycling have been forwarded to an appropriate registered business dealing in recycling of materials. Materials to be recycled must be kept in good order.

Reason: To facilitate recycling of materials.

28. Road reserve safety

All public footways and roadways fronting and adjacent to the site must be maintained in a safe condition at all times during the course of the development works. Construction materials must not be stored in the road reserve. A safe pedestrian circulation route and a pavement/route free of trip hazards must be maintained at all times on or adjacent to any public access ways fronting the construction site. Where public infrastructure is damaged, repair works must be carried out when and as directed by Council officers. Where pedestrian circulation is diverted on to the roadway or verge areas, clear directional signage and protective barricades must be installed in accordance with AS1742-3 (2002) "Traffic Control Devices for Work on Roads". If pedestrian circulation is not satisfactorily maintained across the site frontage, and action is not taken promptly to rectify the defects, Council may undertake proceedings to stop work.

Reason: To ensure safe public footways and roadways during construction.

29. Services

Where required, the adjustment or inclusion of any new utility service facilities must be carried out by the applicant and in accordance with the requirements of the relevant utility authority. These works shall be at no cost to Council. It is the applicants' full responsibility to make contact with the relevant utility authorities to ascertain the impacts of the proposal upon utility services (including water, phone, gas and the like). Council accepts no responsibility for any matter arising from its approval to this application involving any influence upon utility services provided by another authority.

Reason: Provision of utility services.

30. Temporary disposal of stormwater runoff

During construction, stormwater runoff must be disposed of in a controlled manner that is compatible with the erosion and sediment controls on the site. Immediately upon completion of any impervious areas on the site (including roofs, driveways,

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paving) and where the final drainage system is incomplete, the necessary temporary drainage systems must be installed to manage and control runoff as far as the approved point of stormwater discharge. Such measures shall be to the satisfaction of the Principal Certifying Authority.

Reason: To preserve and enhance the natural environment.

31. Erosion control

Temporary sediment and erosion control and measures are to be installed prior to the commencement of any works on the site. These measures must be maintained in working order during construction works up to completion. All sediment traps must be cleared on a regular basis and after each major storm and/or as directed by the Principal Certifying Authority and Council officers.

Reason: To protect the environment from erosion and sedimentation.

32. Drainage to existing system

Stormwater runoff from all new impervious areas and subsoil drainage systems shall be piped to the existing site drainage system and generally in accordance with the submitted concept stormwater drainage plans by Whipps Wood Consulting (refer Project No. 2010-0334, Drawing No. HDA02, Amendment No. P1, dated 13/9/2010). The installation of new drainage components must be completed by a licensed contractor in accordance with AS3500.3 (Plumbing Code) and the BCA. No stormwater runoff is to be placed into the Sydney Water sewer system. If an illegal sewer connection is found during construction, the drainage system must be rectified to the satisfaction of Council and Sydney Water.

Reason: To protect the environment.

33. Grated drain at garage

A 200mm wide grated channel/trench drain, with a heavy-duty removable galvanised grate is to be provided in front of the garage door to collect driveway runoff. The channel drain shall be connected to the main drainage system and must have an outlet of minimum diameter 150mm to prevent blockage by silt and debris.

Reason: Stormwater control.

34. Approved tree works

Approval is given for the following works to be undertaken to trees on the site:

| Schedule Tree/Location | Approved tree works |
|---|---------------------|
| <i>Leptospermum petersonii</i> (Lemon Scented Tea Tree) Rear garden | Removal |
| <i>Murraya paniculate</i> (Orange Jessamine) Adjacent to western site boundary | Removal |

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Removal or pruning of any other tree on the site is not approved, excluding species exempt under Council's Tree Preservation Order.

Reason: To ensure that the development is in accordance with the determination.

35. No storage of materials beneath trees

No activities, storage or disposal of materials shall take place beneath the canopy of any tree protected under Council's Tree Preservation Order at any time.

Reason: To protect existing trees.

36. Removal of refuse

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.

Reason: To protect the environment.

37. Canopy replenishment trees to be planted

The canopy replenishment 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.

Reason: To maintain the treed character of the area.

38. On site retention of waste dockets

All demolition, excavation and construction waste dockets are to be retained on site, or at suitable location, in order to confirm which facility received materials generated from the site for recycling or disposal.

- Each docket is to be an official receipt from a facility authorised to accept the material type, for disposal or processing.
- This information is to be made available at the request of an Authorised Officer of Council.

Reason: To protect the environment.

CONDITIONS TO BE SATISFIED PRIOR TO THE ISSUE OF AN OCCUPATION CERTIFICATE:

39. Compliance with BASIX Certificate

Prior to the issue of an Occupation Certificate, the Principal Certifying Authority shall be satisfied that all commitments listed in BASIX Certificate No.A91255 have been complied with.

Reason: Statutory requirement.

40. Completion of landscape works

Prior to the release of the Occupation Certificate, the Principal Certifying Authority is to be satisfied that all landscape works, including the removal of all noxious and/or environmental weed species, have been undertaken in accordance with the approved plan(s) and conditions of consent.

Reason: To ensure that the landscape works are consistent with the development consent.

41. Certification of drainage works (alterations/additions)

Prior to issue of the Occupation Certificate, the Principal Certifying Authority is to be satisfied that:

- the components of the new drainage system have been installed by a licensed contractor in accordance with the National Plumbing and Drainage Code AS3500.3 (2003) and the Building Code of Australia
- the stormwater drainage works have been completed in accordance with the approved Construction Certificate drainage plans and Ku-ring-gai Water Management DCP 47

Note: Evidence from the plumbing contractor or a qualified civil/hydraulic engineer confirming compliance with this control is to be provided to Council prior to the issue of an Occupation Certificate.

Reason: To protect the environment.

42. Swimming pool (part 1)

Prior to the issue of the Occupation Certificate, the Principal Certifying Authority shall be satisfied that:

- C1 1. Access to the pool/spa shall be restricted by a child resistant barrier in accordance with the regulations prescribed in the Swimming Pools Act, 1992:
- (a) The pool shall not be filled with water or be allowed to collect stormwater until the child resistant barrier is installed; and
 - (b) The barrier is to conform to the requirements of AS 1926-1 2007 Fences and Gates for Private Swimming Pools.

Reason: To ensure the safety of children.

- 2. Any mechanical equipment associated with the swimming pool and/or spa pool shall be located in a sound-attenuating enclosure and positioned so that it is setback a minimum of 2m from the boundary of any adjoining

premises. The Principal Certifying Authority shall be satisfied that the sound levels associated with the swimming pool/spa filtration system and associated mechanical equipment do not exceed 5dB(A) above the background noise level at the boundaries of the site.

Reason: To protect the amenity of surrounding properties.

43. Pool overflow to sewer

Prior to issue of the Occupation Certificate a high level overflow pipe is to be provided from the back of the skimmer box to the filter backwash line discharging to the sewer. This line must not directly vent the receiving Sydney Water sewer. This requirement is to collect stormwater overflow from the swimming pool surface only. A certificate from the installer, indicating compliance with this condition, must be submitted to the Principal Certifying Authority prior to issue of the Occupation Certificate.

Reason: To provide satisfactory drainage.

CONDITIONS TO BE SATISFIED AT ALL TIMES:

44. Bush fire protection

Asset Protection Zones

The intent of measures is to provide sufficient space and maintain reduced fuel loads so as to ensure radiant heat levels of buildings are below critical limits and to prevent direct flame contact with a building.

1. At the commencement of building works and in perpetuity the entire property shall be managed as an inner protection area (IPA) as outlined within section 4.1.3 and Appendix 5 of 'Planning for Bush Fire Protection 2006' and the NSW Rural Fire Service's document 'Standards for asset protection zones'.

Reason: Bushfire safety.

45. Swimming pool (part 2)

At all times:

1. Access to the swimming pool must be restricted by fencing or other measures as required by the Swimming Pools Act 1992.
2. Noise levels associated with spa/pool pumping units shall not exceed 5dB(A) at the boundaries of the site.
3. Devices or structures used for heating swimming pool water must not be placed where they are visible from a public place.

Item 6

4. For the purpose of health and amenity, the disposal of backwash and/or the emptying of a swimming pool into a reserve, watercourse, easement or storm water drainage system is prohibited. These waters are to discharge via a permanent drainage line into Sydney Water's sewer in accordance with Australian Standard AS3500.2 section 10.9. Permission is to be obtained from Sydney Water prior to the emptying of any pool to the sewer.
5. Lighting from the swimming pool and other communal facilities shall not detrimentally impact the amenity of other premises and adjacent dwellings.

Reason: Health and amenity.

G Bolton
Executive Assessment Officer

S Garland
Team Leader
Development Assessment - South

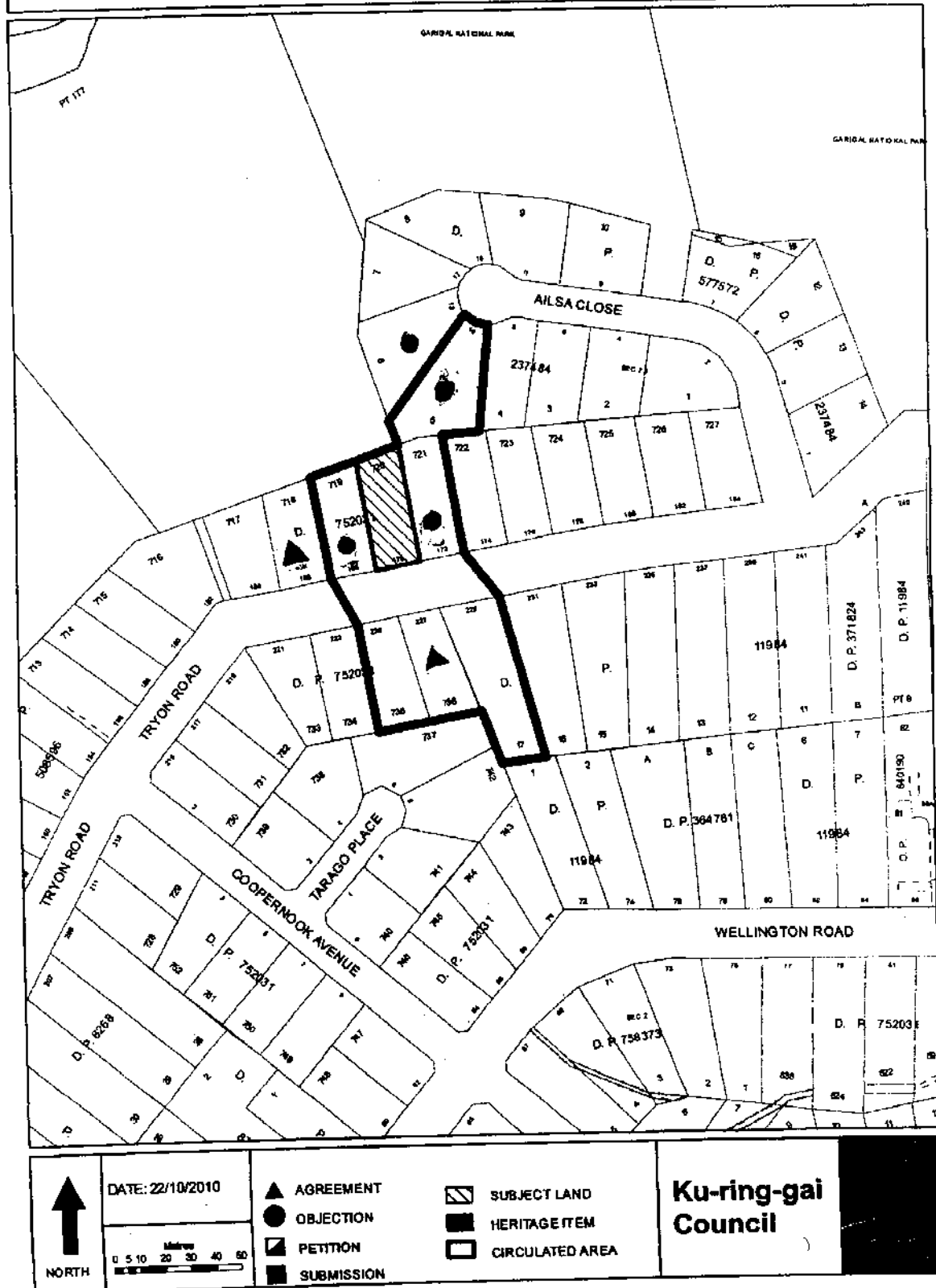
C Swanepoel
Manager
Development Assessment Services

M Miocic
Director
Development & Regulation

Attachments:

- Location sketch – 2010/206868**
- Zoning extract – 2010/206871**
- Bushfire map – 2010/206872**
- Survey plan – 2010/206876**
- Site/analysis plan – 2010/206911**
- Ground floor and lower ground floor plan – 2010/206910**
- Elevations and section A-A -2010/206913**
- Elevations – 2010/206912**
- NSW RFS referral letter - 2010/206885**
- NSW RFS recommended conditions – 2010/206889**

DEVELOPMENT APPLICATION No. 0572/10

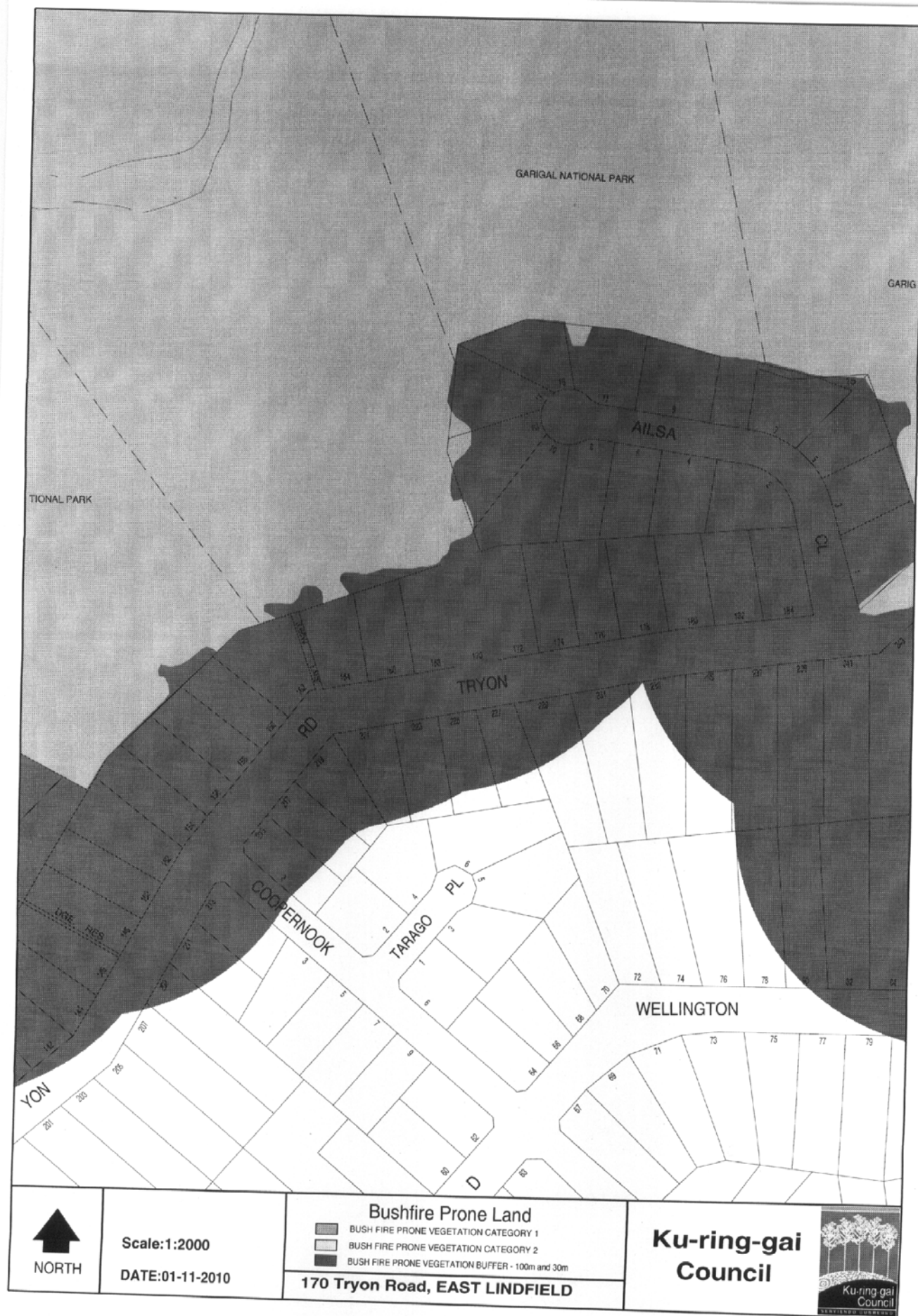


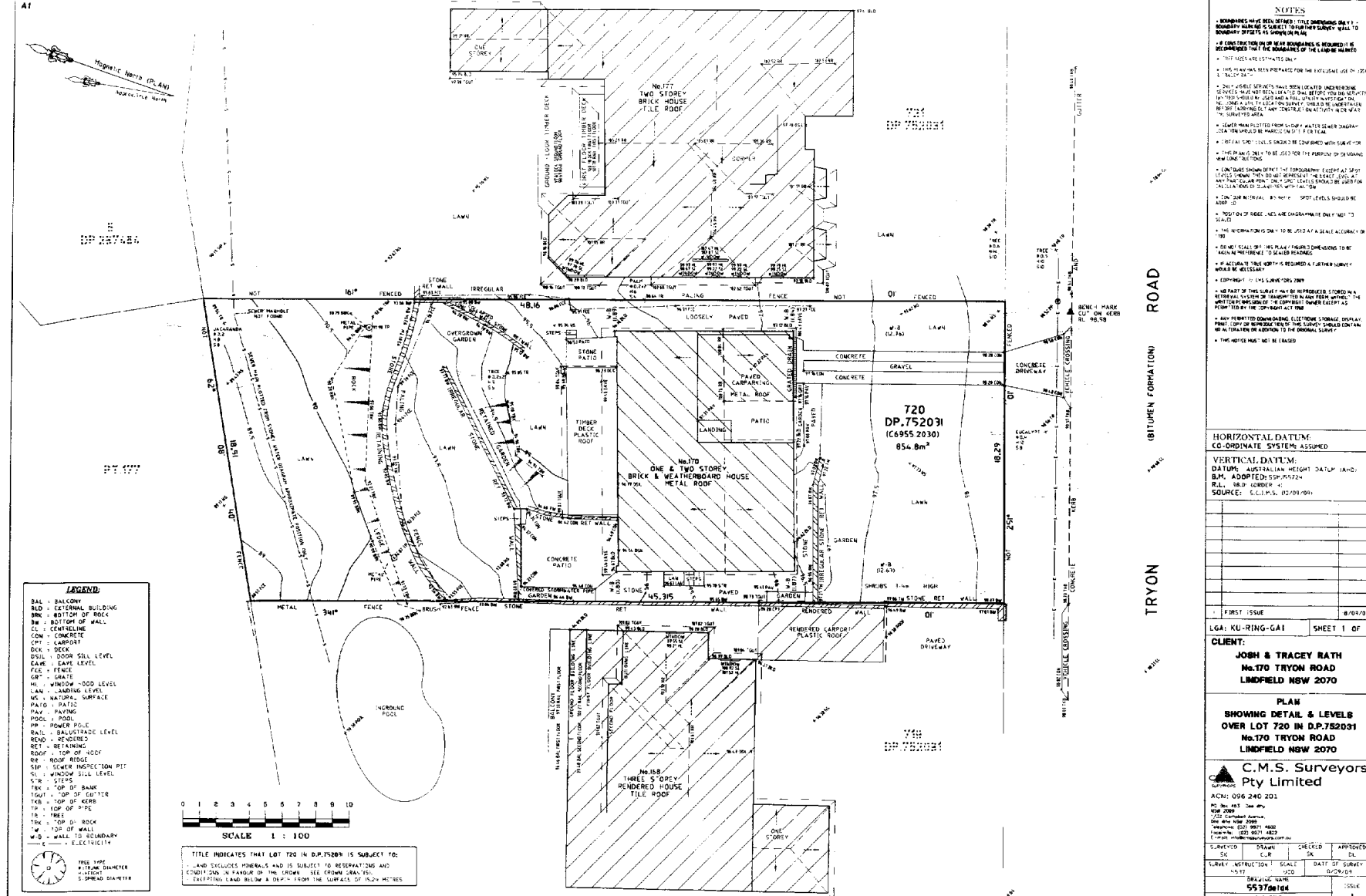
Ku-ring-gai Planning Scheme Zoning Extract

170 Tryon Road, EAST LINDFIELD



| ZONES | | | |
|----------------------------------|--------|---------------------------|---------|
| 2. RESIDENTIAL | | 3. BUSINESS | |
| (a) RESIDENTIAL A | | (a) RETAIL SERVICES | 3(a) |
| (b) RESIDENTIAL B | 2(b) | FLOOR SPACE RATIOS | |
| (c) RESIDENTIAL C | 2(c) | A1 2.0:1 | 3(a)-A1 |
| (c1) RESIDENTIAL C1 | 2(c1) | A2 1.0:1 | 3(a)-A2 |
| (c2) RESIDENTIAL C2 | 2(c2) | A3 0.75:1 | 3(a)-A3 |
| (d) RESIDENTIAL D | 2(d) | (d) COMMERCIAL SERVICES | 3(b) |
| (d3) RESIDENTIAL D3 | 2(d3) | FLOOR SPACE RATIOS | |
| (e) RESIDENTIAL E | 2(e) | B1 1.0:1 | 3(b)-B1 |
| (f) RESIDENTIAL F | 2(f) | B2 1.0:1 | 3(b)-B2 |
| (g) RESIDENTIAL G | 2(g) | | |
| (h) RESIDENTIAL H | 2(h) | | |
| 5. SPECIAL USES | | 6. OPEN SPACE | |
| (a) SPECIAL USES A (Schools etc) | SCHOOL | (a) RECREATION EXISTING | |
| (a1) SPECIAL USES A1 | 5(a) | (b) RECREATION PRIVATE | |
| (b) SPECIAL USES (Railway) | | (c) RECREATION PROPOSED | |
| RESERVATIONS | | | |
| OPEN SPACE | | | |
| (a) OPEN SPACE | | (a) COUNTY ROAD WIDENING | |
| (b) COUNTY OPEN SPACE | C | (b) COUNTY ROAD PROPOSED | |
| SPECIAL USES | | | |
| SPECIAL USES (Parking) | | | |
| ROADS | | | |
| (a) COUNTY ROAD WIDENING | | (c) LOCAL ROAD PROPOSED | |
| (b) COUNTY ROAD PROPOSED | | (d) LOCAL ROAD WIDENING | |
| GENERAL | | | |
| OTHER | | | |
| EXISTING COUNTY ROAD | | | |
| OTHER PLANNING INSTRUMENT | | | |
| Scale: 1:2000 | | | |
| Date: 22/10/10 | | | |
| Ku-ring-gai Council | | | |





DOCUMENT REGISTER

DA001 DRAINAGE LIST / SITE ANALYSIS
DA002 SITE PLAN
DA012 EXISTING UPPER FLOOR PLAN
DA013 PROPOSED UPPER FLOOR PLAN
DA020 EXISTING LOWER FLOOR PLAN
DA021 PROPOSED LOWER FLOOR PLAN
DA030 PROPOSED NORTH & SOUTH ELEVATIONS
DA031 PROPOSED WEST & EAST ELEVATIONS
DA040 PROPOSED SECTIONS
DA050 SHADOW DIAGRAMS - EQUINOXES
DA061 SHADOW DIAGRAMS - EQUINOXES / WINTER SOLSTICE
DA062 SHADOW DIAGRAMS - WINTER SOLSTICE
DA060 PROPOSED LANDSCAPE PLAN
DA061 PROPOSED MATERIAL SELECTION
DA062 SITE PHOTOGRAPHS
DA070 SITE MANAGEMENT PLAN
DA071 STORMWATER MANAGEMENT PLAN

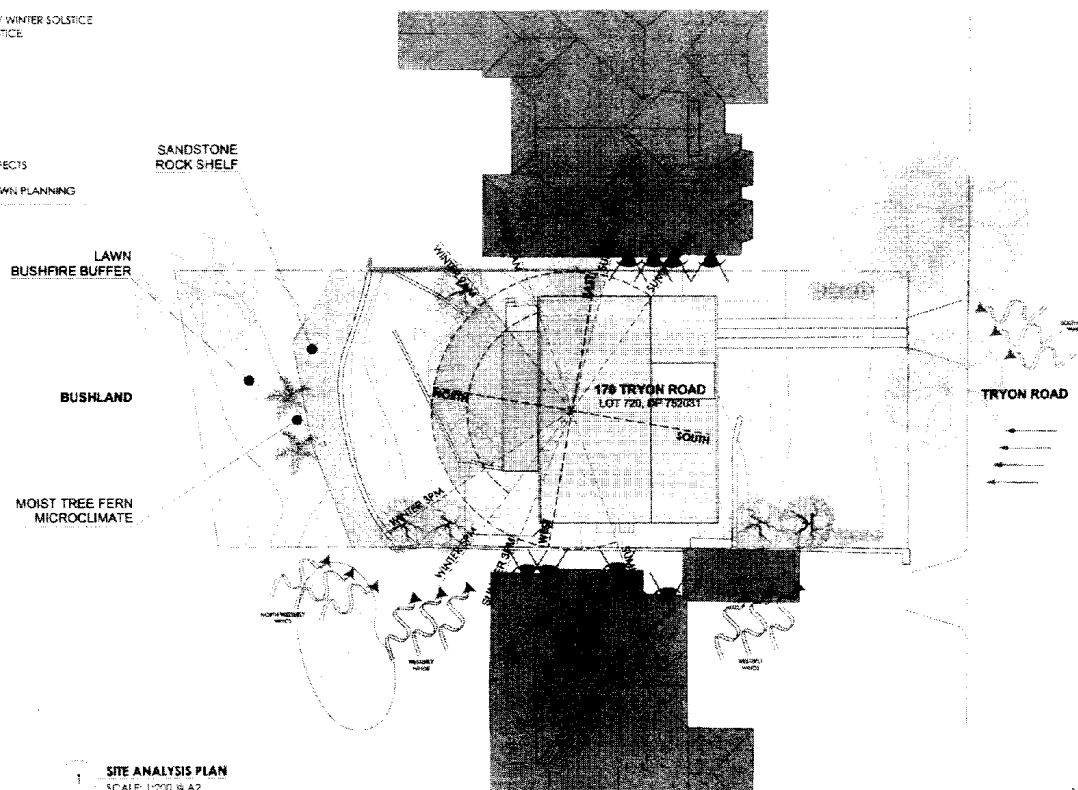
SURVEY PLAN
PREPARED BY CMS SURVEYORS

STATEMENT OF ENVIRONMENTAL EFFECTS
AND BASIS CERTIFICATE
PREPARED BY DAMIAN O'TOOLE TOWN PLANNING

SITE ANALYSIS KEY

-
- SITE BOUNDARY**
- BOUNDARY SETBACKS**
- NEIGHBOURING BUILT FORM**
- SOFT LANDSCAPE**
- SANDSTONE ROCK SHELF**
- SOLAR ACCESS**
- NOISE SOURCE**
- WIND**
- OVERLOOKING**

SITE ANALYSIS PLAN
SCALE: 1:200 @ A2

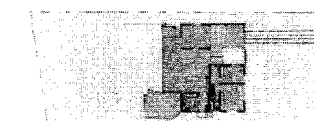


AREA CALCULATIONS

| | |
|-----------------------------------|-----------------------------|
| SITE AREA | 854.83 m² |
| PROPOSED FLOOR SPACE RATIO | |
| UPPER GROUND FLOOR | 209.92 m ² |
| LOWER GROUND FLOOR | 47.13 m ² |
| UPPER DECK | 16.16 m ² |
| STAIRS (BETWEEN DECKS) | 3.79 m ² |
| LOWER DECK | 21.47 m ² |
| MINUS SPACE CREDIT | 15.00 m ² |
| AREA | 274.37 m² |
| PROPOSED FSR | 0.32:1 |
| ALLOWABLE FSR | 0.56:1 |

EXISTING BUILT UPON AREA

| | |
|--------------------------|-----------------------|
| EXISTING BUA | 200.47 m ² |
| EXISTING LANDSCAPED AREA | 651.36 m ² |

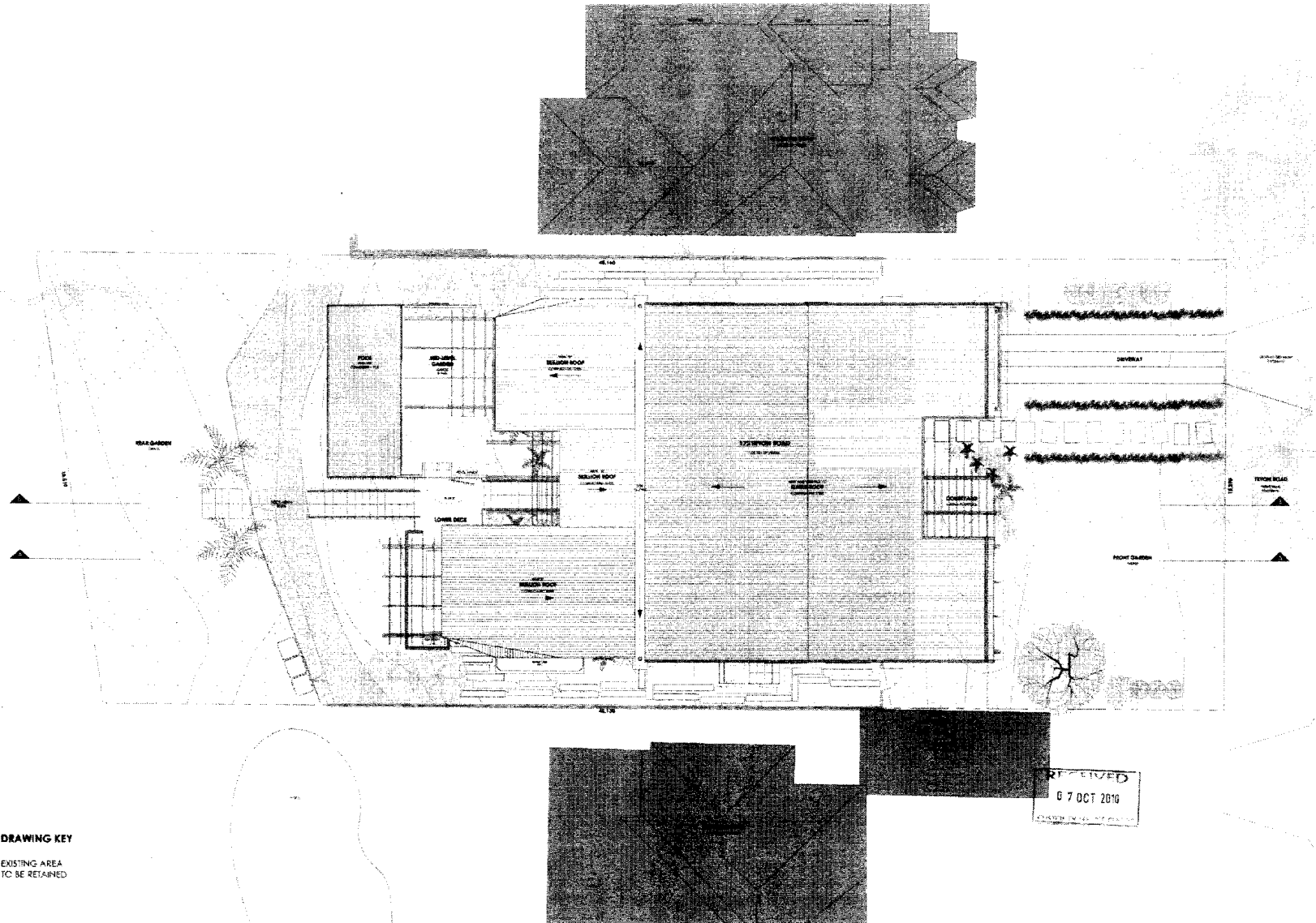


PROPOSED BUILT UPON AREA

| | |
|------------------------------|-----------------------|
| PROPOSED BUA | 31.14 % |
| PROPOSED SEMI PERMEABLE AREA | 58.61 m ² |
| PROPOSED LANDSCAPED AREA | 485.07 m ² |
| PROPOSED BUA (SITE %) | 36.43 % |
| ALLOWABLE BUA (SITE %) | 56.00 % |



07 OCT 2010



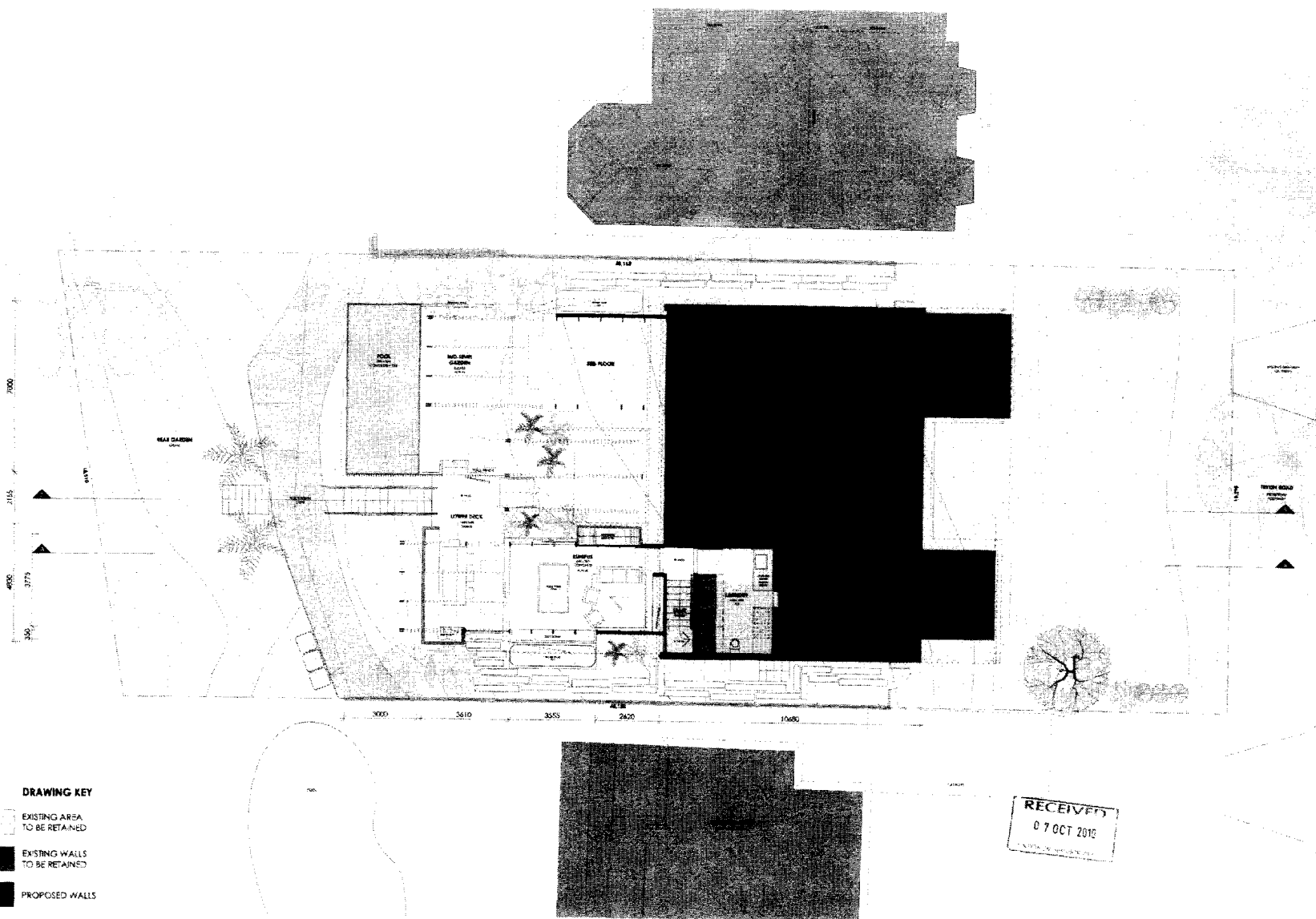
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www.calc.com




Owner:
170 Byron Road, Lindfield
Josh and Tracey Rath

SITE PLAN
170 BYRON ROAD, LINDFIELD
JOSH AND TRACEY RATH

| NO. | DATE | BY | CHKD | APP'D | SCALE | DATE |
|-----|----------|----|------|-------|------------|----------|
| 1 | 08-05-10 | LD | LD | LD | 1:100 @ A2 | 08-05-10 |
| 2 | 08-05-10 | LD | LD | LD | 1:100 @ A2 | 08-05-10 |
| 3 | 08-05-10 | LD | LD | LD | 1:100 @ A2 | 08-05-10 |
| 4 | 08-05-10 | LD | LD | LD | 1:100 @ A2 | 08-05-10 |
| 5 | 08-05-10 | LD | LD | LD | 1:100 @ A2 | 08-05-10 |
| 6 | 08-05-10 | LD | LD | LD | 1:100 @ A2 | 08-05-10 |
| 7 | 08-05-10 | LD | LD | LD | 1:100 @ A2 | 08-05-10 |
| 8 | 08-05-10 | LD | LD | LD | 1:100 @ A2 | 08-05-10 |
| 9 | 08-05-10 | LD | LD | LD | 1:100 @ A2 | 08-05-10 |
| 10 | 08-05-10 | LD | LD | LD | 1:100 @ A2 | 08-05-10 |



DRAWING KEY

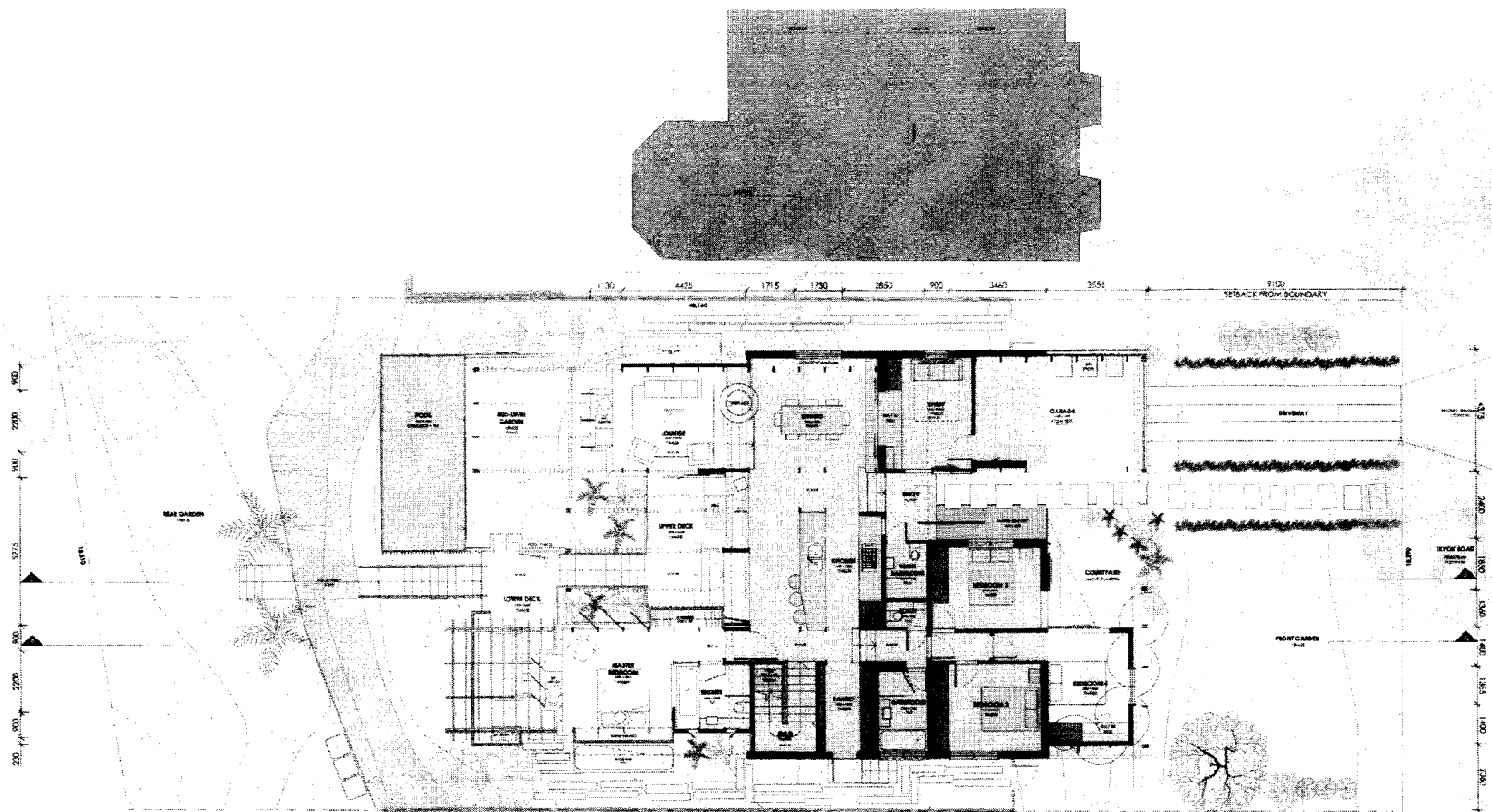
-  EXISTING AREA TO BE RETAINED
-  EXISTING WALLS TO BE RETAINED
-  PROPOSED WALLS

Cyprus Design Limited Pty Ltd
 10/1000 Street, Durrigra, NSW 2110
 02 9511 1111
 02 9511 1111
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 www.cypdesign.com.au

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PROPOSED LOWER FLOOR PLAN
 Attention: LINDA WATSON
 170 BEYON ROAD, LINDFIELD
 JOSH AND TRACEY RATH

| | | | |
|----------|-------------|------|-------------|
| DATE | 07 OCT 2012 | BY | LD |
| REVISION | 1 | DATE | 07 OCT 2012 |
| REVISION | 2 | DATE | 07 OCT 2012 |
| REVISION | 3 | DATE | 07 OCT 2012 |
| REVISION | 4 | DATE | 07 OCT 2012 |
| REVISION | 5 | DATE | 07 OCT 2012 |
| REVISION | 6 | DATE | 07 OCT 2012 |
| REVISION | 7 | DATE | 07 OCT 2012 |
| REVISION | 8 | DATE | 07 OCT 2012 |
| REVISION | 9 | DATE | 07 OCT 2012 |
| REVISION | 10 | DATE | 07 OCT 2012 |



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Tel: 02 9511 1111
Fax: 02 9511 1111
Email: info@clavin.com.au
www.clavin.com.au

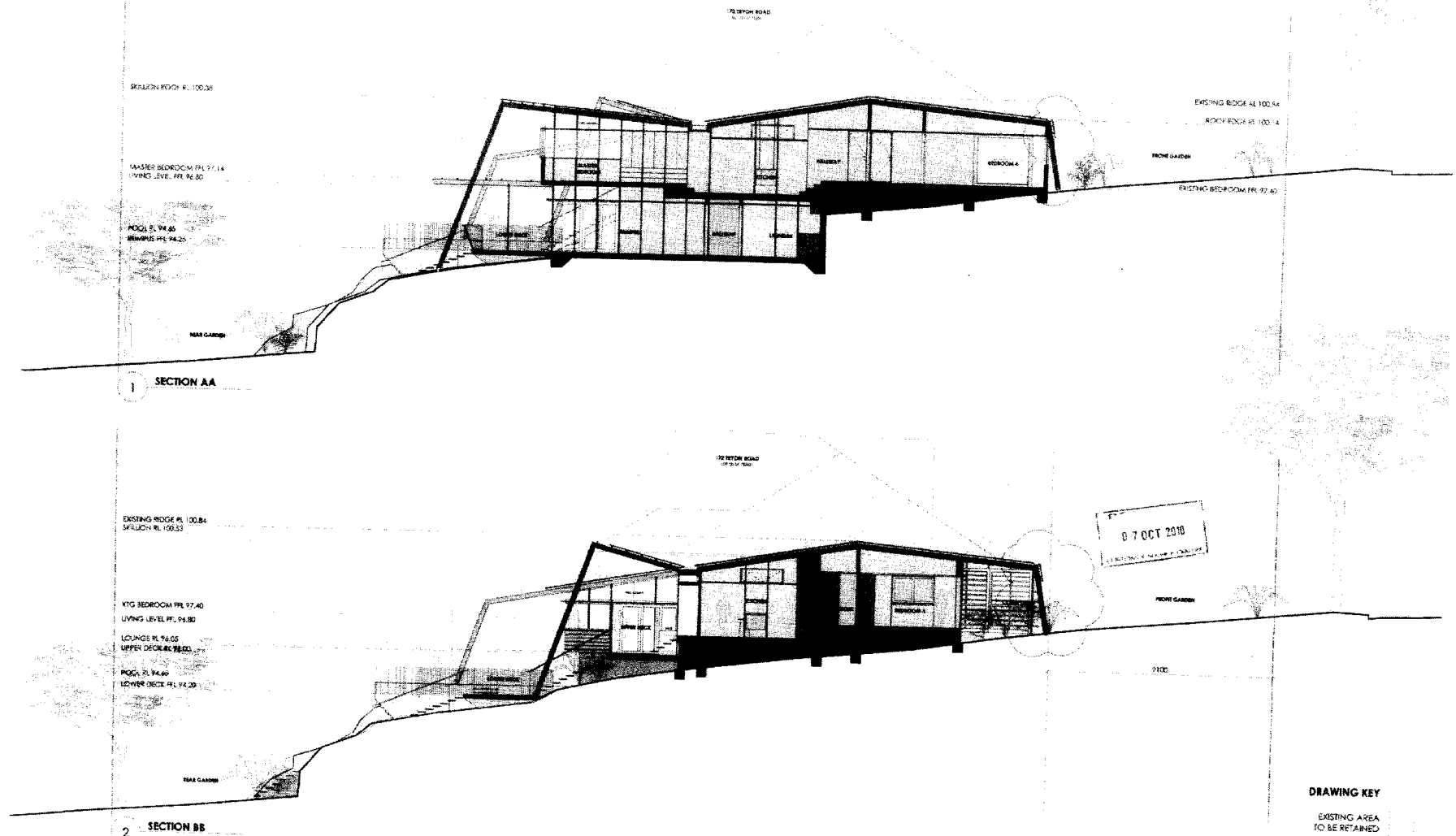
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PROPOSED UPPER FLOOR PLAN
140 BRYON ROAD, LOUGHFIELD
JOSH AND TRACEY PATH

07 OCT 2010

1:100 3 A2

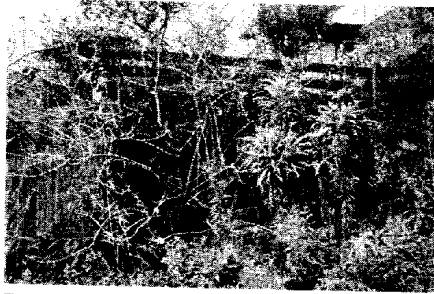
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PROPOSED GREVILLEA BANKSII
FOR 3m SCREENING



EXISTING STONE RETAINING WALL

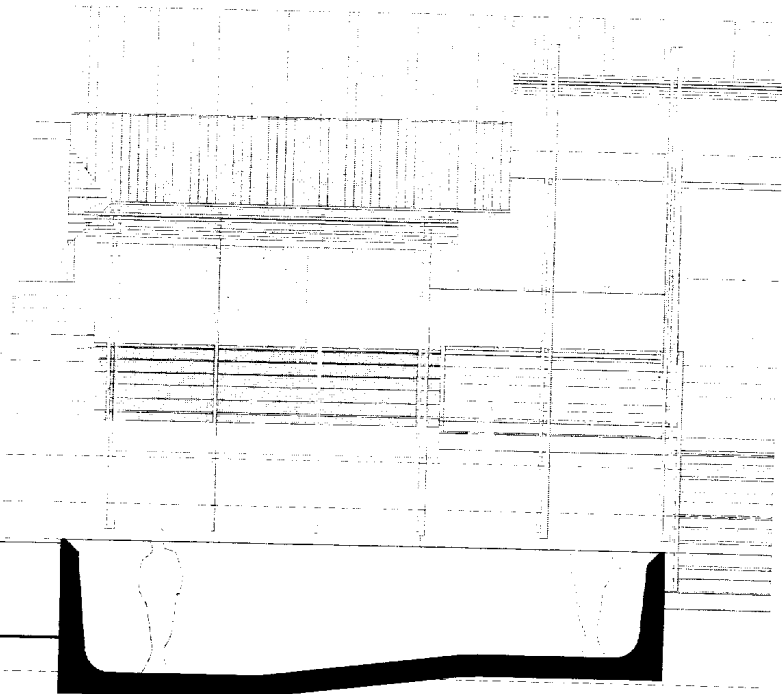
RL 95.63 TOP OF FENCE

RL 95.08 TOP OF STONE WALL

RL 94.65 TOP OF POOL COPING

RL 93.50 NATURAL ROCK SHELF

RL 93.10 BASE OF POOL



SECTION D - POOL AND EASTERN BOUNDARY

Alterations and Additions to
170 TRYON ROAD, LINDFIELD
JOSH AND TRACEY RATH

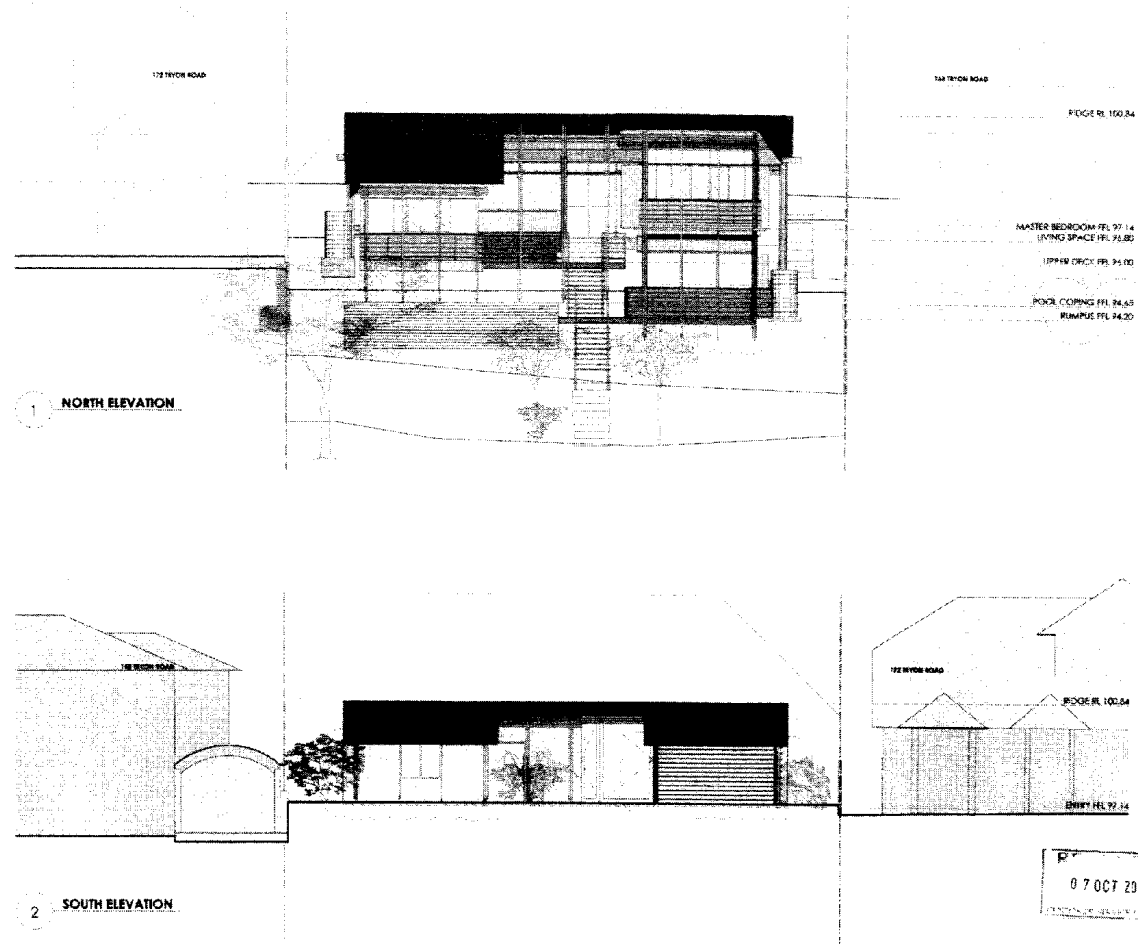
| REV | DATE | BY | REVISION | AUTHOR | SCALE |
|-----|----------|------|----------|---------|-------------|
| A | 01/11/10 | INFO | COUNCIL | LD | 1:50 @ A3 |
| | | | | CHECKED | PRODUCT NO. |
| | | | | LD | 09-057 |

DA
POOL 01



CplusC Design Construct Pty Ltd
44 Langley Street, Darlinghurst, NSW, 2010
ACN 113 120 371
Licence No. 17394SC
p: +61 2 9331 7555
f: +61 2 9331 3655
e: info@cplusc.com.au
www.cplusc.com.au

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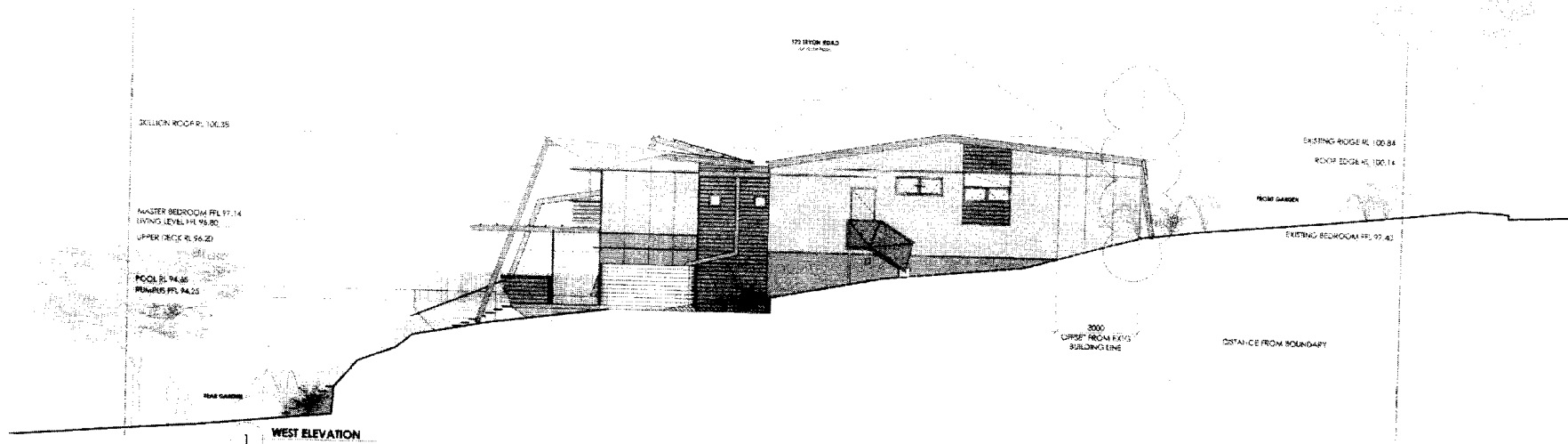


C
Crescent Design Consultants Pty Ltd
111 Lynden Street, Dingley VIC 3172
03 9511 1234
03 9511 1235
03 9511 1236
03 9511 1237
www.crescentdesign.com.au

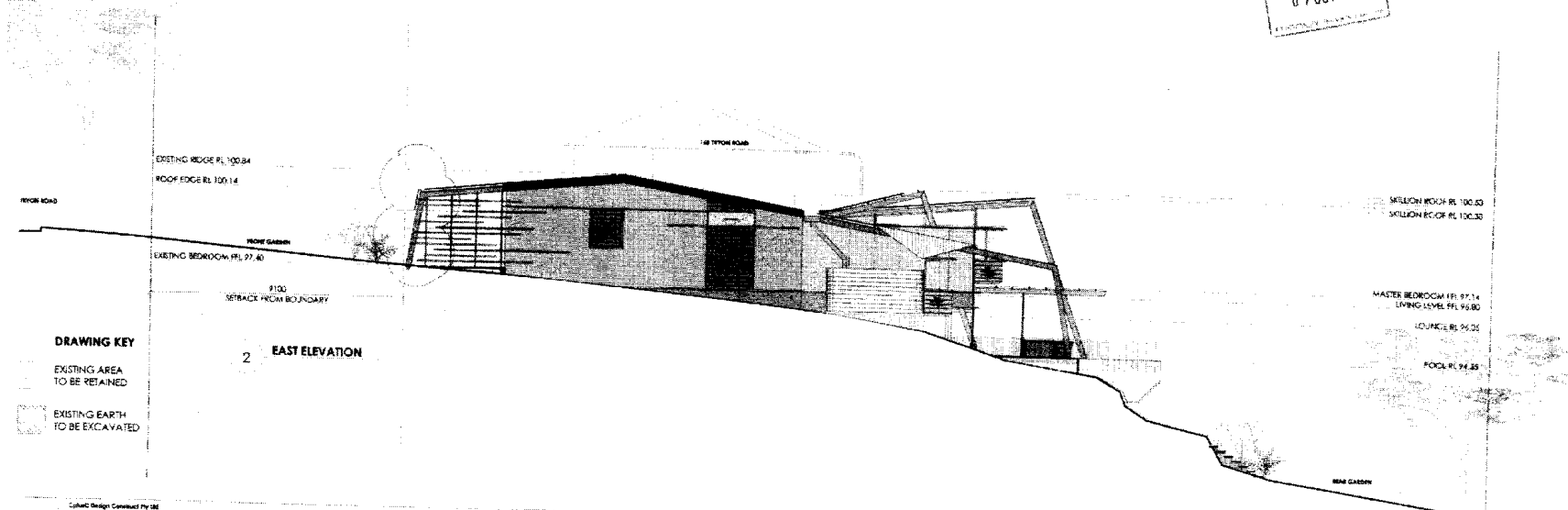
Client:
Adaptive Architecture Pty Ltd
172 Tryon Road, Dingley VIC 3172
03 9511 1234
03 9511 1235
03 9511 1236
03 9511 1237
www.crescentdesign.com.au

PROPOSED NORTH & SOUTH ELEVATIONS
Adaptive Architecture Pty Ltd
172 TRYON ROAD, DINGLEY
VIC 3172

| | | | |
|----------|-------------------------------------|----|--------|
| DATE | 07 OCT 2010 | BY | 06-057 |
| SCALE | 1:100 @ A2 | | |
| PROJECT | 172 TRYON ROAD | | |
| CLIENT | Adaptive Architecture Pty Ltd | | |
| DESIGNER | Crescent Design Consultants Pty Ltd | | |
| REVISION | 06-057 | | |



RECEIVED
07 OCT 2010
COUNCIL



DRAWING KEY

EXISTING AREA
TO BE RETAINED

EXISTING EARTH
TO BE EXCAVATED

2 EAST ELEVATION

| |
|--|
| <p>Consultant Cubitt Design Consultants Pty Ltd 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818 Pacific Highway, Gordon NSW 2072

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T 02 9424 0000 F 02 9424 0001

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ABN 86 408 856 411



Contact: Graham Bolton

Ref: DA0572/10

24 August 2010



NSW Rural Fire Services
 Ku-ring-gai Rural Fire District
 Hornsby Fire Control Centre
 PO Box 472
 HORNSBY NSW 1630

Dear Sir/Madam,

REFERRAL OF DEVELOPMENT APPLICATION

| | |
|--------------------------|---|
| Application No: | DA0572/10 |
| Proposed Development: | Major alterations and additions including swimming pool |
| Applicant Name & Address | Cplusc Design Construct Pty Ltd 46 Langley Street DARLINGHURST NSW 2010 |
| Property: | 170 Tryon Road EAST LINDFIELD NSW 2070 |

This development application proposes development on bush fire prone land. In accordance with S.79BA of the Environmental Planning and Assessment Act 1979, we seek comments from the Commissioner of the NSW Rural Fire Service concerning measures to be taken with respect to the development to protect persons, property and the environment from danger that may arise from a bush fire.

We request that any comments you wish to make on the proposed development are forwarded to us within 21 days of the date of this letter.

Enclosed are copies of the development application plans and documentation.

If you have any further enquiries, please contact our assessment officer Graham Bolton on telephone 9424 0000 or facsimile 9424 0001 between 9.00am and 10.00am Monday to Friday.

Team Leader

Development Assessment

Encl: Copy of development application plans and accompanying documentation.

All communications to be addressed to:

Hornsby FCC Office
1049 Pacific Highway
Cowan NSW 2081

Hornsby FCC Office
PO Box 472
Hornsby NSW 2077

Telephone: 9883 2000
e-mail: hornsby.fcc@rfs.nsw.gov.au

Facsimile: 9883 2004



The General Manager
Ku-ring-gai Council
Locked Bag 1056
Pymble NSW 2073



Your Ref: DA0572/10
Our Ref: DA0572/10
DA10082672169 WS
ID:72169/66483/5

ATTENTION: Graham Bolton

7 September 2010

Dear Graham

Land Use Application for 720//752031 170 Tryon Road East Lindfield 2070

I refer to your letter dated 24 August 2010 seeking advice regarding bush fire protection for the above Land Use Application in accordance with Section 79BA of the 'Environmental Planning and Assessment Act 1979'.

The Service provides the following recommended conditions:

Asset Protection Zones

The intent of measures is to provide sufficient space and maintain reduced fuel loads so as to ensure radiant heat levels of buildings are below critical limits and to prevent direct flame contact with a building.

1. At the commencement of building works and in perpetuity the entire property shall be managed as an inner protection area (IPA) as outlined within section 4.1.3 and Appendix 5 of 'Planning for Bush Fire Protection 2006' and the NSW Rural Fire Service's document 'Standards for asset protection zones'.

Design and Construction

The intent of measures is that buildings are designed and constructed to withstand the potential impacts of bush fire attack.

2. New construction on the north elevation shall comply with Australian Standard AS3959-2009 "Construction of buildings in bush fire-prone areas" Section 9. However, any material, element of construction or system when tested to the method described in Australian Standard AS1530.8.2 "Methods for fire tests on building materials, components and structures Part 8.2: Tests on elements of construction for buildings exposed to simulated bushfire attack—Large flaming sources" shall comply with Clause 13.8 of that Standard except that flaming of the specimen is not permitted.

Windows assemblies shall comply with modified Section 9 of AS3959 (as above) or the following:

- i. They shall be completely protected by a non-combustible and non perforated bushfire shutter that complies with Section 3.7 excluding (e) and (f); and
- ii. They shall comply with the following:

- a) Window frames and hardware shall be metal;
- b) Glazing shall be toughened glass, minimum 5mm;
- c) Seals to stiles, head and sills or thresholds shall be manufactured from materials having a flammability index no greater than 5;
- d) The openable portion of the window shall be screened internally or externally with a mesh with a maximum aperture of 2mm, made from corrosion resistant steel or bronze. The frame supporting the mesh shall be metal.

External Doors (not including garage doors) shall comply with modified Section 9 of AS3959 (as above) or the following:

- iii. They shall be completely protected by a non-combustible and non perforated bushfire shutter that complies with Section 3.7 excluding (e) and (f); and

- iv. They shall comply with the following:

- a) Doors shall be non-combustible;
- b) Externally fitted hardware that supports the panel in its function of opening and closing shall be metal;
- c) Where doors incorporate glazing, the glazing shall be toughened glass minimum 6mm;
- d) Seals to stiles, head and sills or thresholds shall be manufactured from silicone;
- e) Doorframes shall be metal;
- f) Doors shall be tight fitting to the doorframe or an abutting door;
- g) Weather strips, draught excluders or draught seals shall be installed if applicable.

3. New construction on the east, south and west elevation(s) shall comply with Australian Standard AS3959-2009 "Construction of buildings in bush fire-prone areas" BAL 40.

4. Roofing shall be gutterless or guttering and valleys are to be screened to prevent the build up of flammable material. Any materials used shall have a Flammability Index of no greater than 5 when tested in accordance with Australian Standard AS1530.2-1993 "Methods for Fire Tests on Building Materials, Components and Structures - Test for Flammability of Materials".

General Advice – consent authority to note

Any new fencing shall comply with Development Control Services 'Fast Fact 2/06' for Fences and Gates in Bush Fire Prone Areas.

For any queries regarding this correspondence please contact Wayne Sketchley on 9883 2000.

Yours sincerely

Peter McKechnie
Manager

The RFS has made getting information easier. For general information on 'Planning for Bush Fire Protection, 2006', visit the RFS web page at www.rfs.nsw.gov.au and search under 'Planning for Bush Fire Protection, 2006'.

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DEVELOPMENT APPLICATION

SUMMARY SHEET

| | |
|---|--|
| REPORT TITLE: | 4 TO 8 RAILWAY AVENUE, WAHROONGA - ALTERATIONS AND ADDITIONS TO AN EXISTING COMMERCIAL BUILDING |
| WARD: | Wahroonga |
| DEVELOPMENT APPLICATION N^o: | 0595/10 |
| SUBJECT LAND: | 4 to 8 Railway Avenue, Wahroonga |
| APPLICANT: | Gartly Holdings Pty Ltd |
| OWNER: | Gartly Holdings Pty Ltd |
| DESIGNER: | Rob Crump Design |
| PRESENT USE: | Commercial |
| ZONING: | Business 3(a)-(A2) Business |
| HERITAGE: | No |
| PERMISSIBLE UNDER: | Ku-ring-gai Planning Scheme Ordinance |
| COUNCIL'S POLICIES APPLICABLE: | KPS0, DCP14 - Development in Business Zones, DCP31 - Access, DCP40 - Waste Management, DCP43 - Car Parking Code, DCP56 - Notification |
| COMPLIANCE WITH CODES/POLICIES: | No |
| GOVERNMENT POLICIES APPLICABLE: | SEPP 1, SEPP 55, SREP 20 (Hawkesbury Nepean River) |
| COMPLIANCE WITH GOVERNMENT POLICIES: | No |
| DATE LODGED: | 19 August 2010 |
| 40 DAY PERIOD EXPIRED: | 28 September 2010 |
| PROPOSAL: | Alterations and additions to an existing commercial building |
| RECOMMENDATION: | Refusal. |

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DEVELOPMENT APPLICATION N^o 0595/10
PREMISES: 4 TO 8 RAILWAY AVENUE, WAHROONGA
PROPOSAL: ALTERATIONS AND ADDITIONS TO AN
EXISTING COMMERCIAL BUILDING
APPLICANT: GARTLY HOLDINGS PTY LTD
OWNER: GARTLY HOLDINGS PTY LTD
DESIGNER: ROB CRUMP DESIGN

PURPOSE FOR REPORT

To determine development application No.0595/10, which proposes alterations and additions to an existing commercial building.

This application is required to be determined by full Council in accordance with the requirements of the Department of Planning, where there is a variation to a development standard of 10% or greater.

Council's attention is directed to the attached planning circular PS 08-014 from the NSW Department of Planning concerning the determination by Council of Development Applications where a variation to a development standard is sought under the provisions of SEPP No. 1.

The circular requires all development applications which involve a variation greater than 10% under the provisions of SEPP No. 1 to be determined by full Council.

EXECUTIVE SUMMARY

| | |
|---|--|
| Issues: | SEPP 1 Objection, floor space ratio, car parking shortfall |
| Submission: | No submissions received |
| Lane & Environment Court Appeal: | N/A |
| Pre-DA Consultation | No |
| Recommendation: | Refusal |

HISTORY

Site history:

DA0581/09 Development Application for change of use to a gym and associated signage was approved on 20 November 2009 subject to Deferred Commencement. This gym is now in operation.

Development application history:

| | |
|------------------------------|--|
| 19 August 2010 | Application lodged. |
| 25 August – 8 September 2010 | Application notified to surrounding property owners. |

| | |
|-----------------|---|
| 12 October 2010 | Council's Assessment Officer met with the applicant and |
|-----------------|---|

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raised the following issues –

- A requirement to submit a fire engineer's analysis and report to support alternative solution for BCA exit requirements
- The lack of sanitary facilities for people with disabilities on ground floor
- The need for a revised site plan overlaid with the B85 design vehicle demonstrating that vehicles can manoeuvre through the basement car park in accordance with AS/NZS 2890.1 (2004) – "Off-street car parking"
- A requirement to submit a draft excavation and construction management plan
- Additional information to justify that there will be adequate queuing space within the site on the approach to the basement car park
- Revised plans demonstrating the disabled parking space in accordance with AS/NZS 2890.6 (2009) "Off street parking for people with disabilities"
- Additional information to justify the significant breach of the development standard

20 October 2010

Reminder sent to applicant to respond to Council's issues.

21 October 2010

Applicant responded to each issue raised in the meeting.

THE SITE AND SURROUNDING AREA

The site

| | |
|-------------------------------------|-----------------------------|
| Zoning: | Business 3(a)-(A2) Business |
| Visual Character Study Category: | 1920 - 1945 |
| Easements / rights of way: | Yes (right of way) |
| Stormwater drainage: | To the street |
| Heritage item: | No |
| Heritage conservation area: | No |
| In the vicinity of a heritage item: | No |
| Bush fire prone land: | No |
| Endangered species: | No |
| Urban bushland: | No |
| Contaminated land: | No |

Site description:

The site subject site is identified as Lot A & B in DP 331096 and is known as 4-8 Railway Avenue, Wahroonga. The property is located on the southern side of Railway Avenue, bounded by Redleaf

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Avenue to the east and the laneway to the west. The site has a frontage to Railway Avenue of 18m and a depth of 27.6m, producing a total site area of 530.1m².

The site benefits from a right of carriageway over the rear of the adjoining property at No.10 Railway Avenue. This right of carriageway currently provides access to the rear of the site (refer Figure 1, below).



Figure 1 – Aerial photograph of subject site

The site supports a two storey brick and tile building comprising ground floor retail tenancies (chemist, newsagent & real estate agent) with commercial tenancy (personal training/fitness instructors) on the upper floor (refer Figure 2, below).

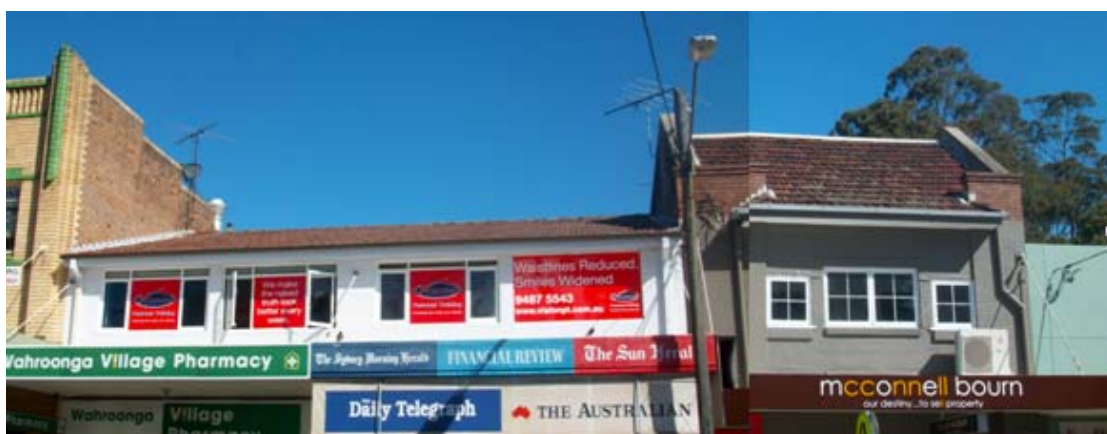


Figure 2 - Wahroonga Village commercial precinct containing the subject site (centre)

Item 7**Surrounding development:**

Forming part of the Wahroonga Village commercial precinct, the subject site is predominantly surrounded by single and two storey commercial developments, located to the east and west of the property. The majority of these buildings appear to have been constructed during the 1960's. The following is a description of the other commercial developments within the local commercial precinct:

| Address | Building description | First floor area coverage of ground floor building footprint | Apparent construction period / approval details |
|--------------------|---|--|---|
| 1-3 Railway Avenue | Two storey building with the ground floor used for commercial purposes and the first floor providing offices, 100% site coverage. | Equal to ground floor (100%) | Approximately 1960's (approval details not available) |
| 5 Railway Avenue | Single storey | N/A | N/A |
| 7-9 Railway Avenue | Two storey building with the ground floor covering 80% site coverage. | Equal to ground floor (100%) | Approximately 1960's Approval details relating to change of signage (2005) and internal modifications to ground floor (2007) No change to existing Floor Space Ratio. |
| 9A Railway Avenue | Two storey building with the ground floor 100% site coverage. | Equal to ground floor (100%) | Approximately 1960's No approval details available |
| 11 Railway Avenue | Two storey building with the ground floor covering approximately 75% site coverage. | Approximately 25% | Approximately 1970's No approval details available |
| 15 Railway Avenue | Two storey building with the ground floor used for commercial purposes and the first floor providing offices | Equal to ground floor (100%) | Approval granted 11 February 2004 for Alterations & additions to commercial building. Approved Floor Space Ratio 1.99:1 |
| 17 Railway Avenue | Two storey building with the ground floor covering 100% of the allotment | Equal to ground floor (100%) | Approximately 1960s No approval details available |
| 10 Railway Avenue | Two storey building with the ground floor covering 100% of the allotment | Equal to ground floor (100%) | Approximately 1990s Change of use from a bank to a real estate agent and erection of a sign (1998) |
| 12-14 Railway | Part one, part two | Approximately 50% | Approximately 1960s |

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| Address | Building description | First floor area coverage of ground floor building footprint | Apparent construction period / approval details |
|----------------------|--|--|---|
| Avenue | storey building with the ground floor covering 100% of the allotment | | No approval details available |
| 16 Railway Avenue | Two storey building with the ground floor covering approximately 50% of the allotment | Approximately 50% | Approximately 1960s Approval details relating to alterations and addition to commercial building (1993) |
| 18 Railway Avenue | Two storey building with the ground floor used for commercial purposes and the first floor for retail purposes | Approximately 60% | Approval granted 7 June 2004 for the Conversion of retail to office and minor alterations. No change to Floor Space Ratio |
| 20 Railway Avenue | Two storey building with the ground floor used for commercial purposes and the first floor for retail purposes | Approximately 60% | Approval granted 7 June 2004 for the Conversion of retail to office and minor alterations. No change to Floor Space Ratio |
| 22 Railway Avenue | Two storey building with the ground floor covering approximately 80% of the allotment | Approximately 60% | Approximately 1960s No approval details available |
| 24 Railway Avenue | Two storey building with the ground floor covering approximately 90% of the allotment | Approximately 60% | Approximately 1960s No approval details available |
| 26-28 Railway Avenue | Two storey building with the ground floor covering approximately 90% of the allotment | | Resolution of Council 26 May 1998 for alterations and additions to existing commercial premises including three (3) new shops. Resolved that 'The floor space ratio for the site not to exceed 1.23:1'. |
| 2 Railway Avenue | Two storey building with the ground floor covering approximately 90% of the allotment | Equal to ground floor (100%) | Approximately 1960s No approval details available |
| 1-11 Redleaf Avenue | Two storey building with the ground floor | Equal to ground floor (100%) | Approximately 1960s No approval details available |

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| Address | Building description | First floor area coverage of ground floor building footprint | Apparent construction period / approval details |
|----------------------|---|--|---|
| | covering approximately 90% of the allotment | | |
| 2 Redleaf Avenue | Two storey building with the ground floor covering approximately 60% of the allotment | Equal to ground floor (100%) | Approval in 1998 for the construction of a two storey development. Individual applications were submitted in 2000 for the fit out of these commercial suites. |
| 15 Redleaf Avenue | Part one, part two storey will the ground floor covering approximately 40% of the allotment | Approximately 25% | Approximately 1960s No approval details available |
| 17 Redleaf Avenue | Single storey | N/A | N/A |
| 19 Redleaf Avenue | Part one, part two storey will the ground floor covering approximately 50% of the allotment | Approximately 25% | Approximately 1960s No approval details available |
| 21 Redleaf Avenue | Single storey | N/A | N/A |
| 23 Redleaf Avenue | Part one, part two storey will the ground floor covering approximately 90% of the allotment | Approximately 30% | Approximately 1960s No approval details available |
| 25 Redleaf Avenue | Part one, part two storey will the ground floor covering approximately 60% of the allotment | Approximately 30% | Approximately 1960s No approval details available |
| 27 Redleaf Avenue | Two storey building with the ground floor covering 100% of the allotment | Equal to ground floor (100%) | Approximately 1960s No approval details available |
| 29-31 Redleaf Avenue | Two storey building with the ground floor covering approximately 90% of the allotment | Equal to ground floor (100%) | Approximately 1980s No approval details available |

Table 1: description of all commercial buildings contained within the Wahroonga Village commercial precinct.

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The land beyond the commercial precinct is predominantly zoned for residential purposes, supporting a mixture of single and two storey dwellings. Other land uses within the vicinity of the site include a public car park located to the south-west (Redleaf Lane), Wahroonga train station to the north-west (Millewa Avenue) and Wahroonga park to the north west of the train station (Illoura & Millewa Avenue).

THE PROPOSAL

The application is for alterations and additions to the existing two storey commercial building (containing a chemist, newsagent and real estate agent on ground floor and a personal training/fitness instructor on first floor). The proposal also involves the creation of basement car parking to the rear of the existing premises. The physical details of the proposed development, as originally submitted, are as follows:

Basement floor

- Car park for a total of 10 vehicles including 1 disabled person space;
- Access to the proposed basement car park will be via a proposed combined vehicle/passenger lift;
- Waste storage area

Ground floor

- Providing additional floor area for the (3) existing tenancies (chemist, newsagent and real estate agent), with the depth of each tenancy being increased, to provide a total of 495.74m².

First floor

- (2) new commercial tenancies
- New toilet facilities for use by both the ground and first floor tenants
- Disabled persons access to the first floor will be via a new stair lift proposed to be fitted to the rear common stairs

Use of premises

- No approval is sought for the use of the premises.
- Shop Nos 4 and 6 on the ground floor and Commercial tenancy No 6 on the first floor are to be occupied by their existing tenants.
- Separate applications would be lodged for the future use of the remaining spaces.

Advertising

The applicant has confirmed that the proposal does not incorporate any advertising signage.

CONSULTATION - COMMUNITY

In accordance with Council's Notification DCP, owners of adjoining properties were given notice of the application. No submissions were received.

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CONSULTATION - WITHIN COUNCIL

Engineering

Council's Development Engineer commented on the proposal as follows:

Parking Shortfall

A parking shortfall of 21 vehicle parking spaces will occur as a result of this development.

Particulars: As calculated in accordance with Council's Car Parking Development Control Plan 43, the proposed development will generate 31 (30.8) vehicle parking spaces. However, only 10 spaces have been provided in the proposed basement car park. The use of the surrounding road network, including the Council Car Park, is not considered an acceptable alternative, as a recent Wahroonga Traffic and Parking Study report by ARUP Transport Planning dated August 2008, has determined that the area is currently already at capacity.

Urban planning

Council's Senior Urban Planner commented on the proposal as follows:

I have reviewed the material for referred for the above application and in particular the SEPP No.1 Objection in section 8 of the Statement of Environmental Effects. The objection is not supported, as it fails to meet the objects of the EP&A Act and is not unnecessary or unreasonable in the circumstances of the case. The main issues from a strategic planning perspective relate to the hierarchy of centres.

In regard to the objects of Section 5(a)(i) and (ii) of the Act, the applicant states that:

In this regard it is considered that compliance with the development standard is not consistent with the aim of SEPP No.1 in that it fails to allow flexibility in design and does not have regard to the particular site circumstance whereby the proposal will result in a built form of a height, bulk and scale which is consistent with surrounding development and which does not result in any unreasonable streetscape impacts.

The applicant also states in the objection that:

The proposal will not result in a change in the hierarchal positioning of Wahroonga relative to the other business centres in Ku-ring-gai.

However, these comments are not supported and the proposal does not comply with the objects of the Act:

- 1. Council has carried out extensive planning for six town centres which will increase the floor space in those centres. This planning will ensure an appropriate hierarchy of centres, in line with the Metropolitan Strategy and the North Subregion -Draft North Subregional Strategy. Wahroonga is identified as a Small Village in the Draft Subregional Strategy and was not one of the centres included in the Ku-ring-gai LEP (Town Centres) 2010 (KLEP). Its status as a small village was supported by the Subregional Employment Study (SGS, May 2008) undertaken on behalf of the Department of Planning, Ku-ring-gai and Hornsby Councils to support the*

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preparation of the KLEP in accordance with the above state and regional plans. The study (p205) finds for Wahroonga that:

'There is sufficient potential floor space within the centre to meet future demand, with excess capacity of 4,667sqm. This reflects the relatively large potential supply of floorspace.'

Further, SGS identifies the risk for high growth in floor space in the small villages as jeopardising the strategy to concentrate growth in the major and town centres (p176).

The proposed large variation to the maximum floor space ratio would set a precedent for future development in this centre, post the KLEP (gazetted May 2010), which would adversely impact on the hierarchy and function of centres planned for increased business and retail density. It is therefore not 'orderly or economic development of the land' as required in the objects of the Act.

- 2. In line with the above, Council has submitted a Planning Proposal (PP) to the Department of Planning for the Principal LEP. The PP proposes to retain the existing floor space ratios (1:1) for areas zoned 3A – A2 under the KPSO, in line with the recommendations of the Employment Lands Study.*
- 3. While acknowledging that there are a number of other sites which exceed the maximum floor space ratio, the bulk and scale of the proposal is not consistent with the surrounding development.*

The objective of the standard is stated in Cl 30B (1) (b) of the KPSO:

In floor space zone A2, the district retail and community service centre within the Municipality, to provide a reasonable level of service to the surrounding district of each centre.

The applicant has not identified any circumstances of the site which would prevent the achievement of a development on the site which complies with the standard.

If the SEPP 1 objection to compliance with the development standard in clause 30B (2) were to be upheld on the grounds given in the SEPP 1 objection, there would be little justification for not also upholding SEPP 1 objections to increases of similar size and nature in the locality. These grounds are of a general nature and would be applicable to many sites in the locality. They are not particular to the circumstances of this land. The ad hoc deviation from the development standard in this case on these grounds would, therefore, create an adverse planning precedent for similar action to be taken in relation to other such land. This is particularly important after the gazettal of the KLEP, which was specifically planned to meet residential and employment targets, consistent with the retail and business hierarchy of centres, and state and regional planning policies, as discussed above.

Additionally, on street parking is already near capacity due to the shortage of available parking within the centre during business hours. The proposal would exacerbate the existing significant shortfall of 21 parking spaces on the site. This is a direct consequence of the excessive FSR sought by this proposal.

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Compliance with the standard is not unreasonable or unnecessary in the circumstances of this case. The SEPP 1 objection is not well founded, and is not supported.

Building

Council's Senior Building Surveyor has reviewed the proposal against the requirements of the Building Code of Australia (BCA) including disabled access. Subject to conditions, the Officer raises no objection to the application.

Environmental health

Council's Environmental Health Officer has considered the proposal with regard to waste management, noise and general amenity. Subject to conditions, the Officer raises no objection to the application.

STATUTORY PROVISIONS

This application is deemed to be 'Local Development' under Part 4 of the EP and A Act, 1979 and requires development consent pursuant to the KPSO.

State Environmental Planning Policy No. 1 – Development Standards (SEPP 1)

Clause 30B(2) of the Ku-ring-gai Planning Scheme Ordinance stipulates a maximum floor space ratio of 1.0:1 for commercial development on land zoned Business 3(a)-(A2) Business. Clause 30B (2) constitutes a development standard which may only be varied by way of an objection made pursuant to SEPP1.

The proposed development would result in a floor space ratio of 1.74:1, breaching the prescribed development standard by 391.49m² or 74%. An assessment of this breach, having consideration to the SEPP 1 objection submitted by the applicant, is provided below.

State Environmental Planning Policy No. 55 Remediation of Land (SEPP 55)

SEPP 55 requires consideration of the potential for a site to be contaminated. Should any evidence exist to suggest a site may be contaminated, Clause 7 of SEPP 55 requires consideration as to whether the land is suitable for the proposed use in its contaminated state.

Council's records indicate the site has a history of commercial use. Nothing in Council's records suggests the site may be contaminated. As a consequence, no further investigation is necessary in this regard.

Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River

SREP 20 applies to land within the catchment of the Hawkesbury Nepean River. The general aim of the plan is to ensure that development and future land uses within the catchment are considered in a regional context. The Plan includes strategies for the assessment of development in relation to water quality and quantity, scenic quality, aquaculture, recreation and tourism.

The proposed works are relatively minor in scale and will not result in any material detrimental impacts upon the catchment either environmentally or visually.

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Therefore, in respect of the above, the proposed development is assessed as being satisfactory having regard to the matters for consideration set out by this instrument.

Ku-ring-gai Planning Scheme Ordinance (KPSO)

Permissibility:

The proposed development is permissible within the Business 3(a)-(A2) Business zoning of the subject site, as per Clause 29 of the KPSO.

Development Standards:

| COMPLIANCE TABLE | | |
|--|--|--------------------------------|
| Development Standard | Proposed | Complies |
| Building height (cl.30A-a) 8m (max) and 2 storeys Zone 3(a)-(A2) | 7m and 2 storeys | YES |
| Building height plane (BHP) (cl.30A-b) 30° from horizontal measured at any point 1.5m above boundary with any 'Residential' or 'Open Space' zone | The subject site does not adjoin a 'Residential' or 'Open Space' zone | N/A |
| FSR (cl.30B-2) 3(a)-(A2) 1.0:1(max) – 530.1m ² | 1.74:1 – 921.59m ² (391.49m ² of non-compliant floor area) | NO (SEPP 1 objection provided) |
| FSR (cl.30B-2) Minimum 50% of total floor space to be used or designed for use as "shops" or "refreshment rooms" | >50% | YES |

Floor space ratio

The proposed development has a floor space ratio (FSR) of 1.74:1, breaching the prescribed development standard set out under Clause 30B (2) of the KPSO by 74%. The applicant's SEPP 1 objection is considered against the following provisions:

Whether the planning control to be varied is a development standard

Clause 30B (2) prescribes a maximum 1.0:1 FSR for development to be undertaken within a Business 3(a)-(A2) Business zone. The KPSO is a statutory planning instrument and Clause 30(B)(2) is a development standard as defined by Section 4 of the Environmental Planning and Assessment Act, 1979.

The underlying objective or purpose of the standard

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Clause 30B(1) of the KPSO provides objectives for the FSR control in the various business zones. The relevant objective contained under this clause states in floor space zone A2 the:

"District retail and community service centres within the Municipality, to provide a reasonable level of service to the surrounding district of each centre;" and will

"relate to the existing size, character and level of activity and to the existing and potential infrastructure capacity of individual centres"

Whether compliance with the standard is consistent with the aims of the policy and whether compliance hinders the attainment of the objectives specified in Section 5(a) (i) and (ii) of the Environmental Planning and Assessment Act, 1979

The aim of SEPP 1 is to:

Provide flexibility in the application of planning controls operating by virtue of development standards in circumstances where strict compliance with those standards would, in any particular case, be unreasonable or unnecessary or tend to hinder the attainment of the objectives specified in Section 5 (a) (i) and (ii) of the Act.

In this regard, the objects of Section 5 (a) (i) and (ii) of the Act are:

(a) To encourage:

- (i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment;*
- (ii) the promotion and co-ordination of the orderly and economic use and development of land*

Non-Compliance with the development standard is not considered to be consistent with the aims of SEPP 1 and compliance will not hinder attainment of the objectives set out under Section 5(a) (i) and (ii) of the Environmental Planning and Assessment Act, 1979 for the reasons outlined below.

Whether compliance with the development standard is unreasonable or unnecessary in the circumstances of the case

The following provides a summary of the arguments provided by the applicant within the submitted SEPP 1 objection seeking support for the variation of the development standard:

- *The proposal will not result in the height, bulk and scale of the development as viewed from Railway Avenue.*
- *The proposal in so far as it will be visible from Redleaf Lane and the Council car park will present as a two storey building having a built form consistent with surrounding development.*
- *The proposal will not result in a change in the hierarchal positioning of Wahroonga relative to the other business centres in Ku-ring-gai.*

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- *The proposal will provide for a greater opportunity for both the existing tenants (businesses) and new businesses to better serve the surrounding district.*
- *The Council has previously granted consent to other developments within the Wahroonga Village precinct which have an FSR greater than 1.0:1*

The arguments advanced by the applicant within the submitted SEPP1 objection fail to demonstrate that compliance with the prescribed development standard is either unreasonable or unnecessary in the circumstances of this case.

As outlined in **Table 1**, the surrounding two storey commercial developments of a comparable scale to that of the proposed development are the exceptions within the commercial precinct.

Council has carried out extensive strategic planning for six town centres which will increase the floor space in those centres. This planning will ensure an appropriate hierarchy of centres, in line with the Metropolitan Strategy and the North Subregion -Draft North Subregional Strategy. Wahroonga is identified as a Small Village in the Draft Subregional Strategy and was not one of the centres included in the Ku-ring-gai LEP (Town Centres) 2010 (KLEP).

Its status as a small village was supported by the Subregional Employment Study (SGS, May 2008) undertaken on behalf of the Department of Planning, Ku-ring-gai and Hornsby Councils to support the preparation of the KLEP in accordance with the above state and regional plans. The study (p205) finds for Wahroonga that:

'There is sufficient potential floor space within the centre to meet future demand, with excess capacity of 4,667sqm. This reflects the relatively large potential supply of floorspace.'

Further, SGS identifies the risk for high growth in floor space in the small villages as jeopardising the strategy to concentrate growth in the major and town centres (p176).

The proposed large variation to the maximum floor space ratio would set a precedent for future development in this centre, post the KLEP (gazetted May 2010), which would adversely impact on the hierarchy and function of centres planned for increased business and retail density. It is therefore not 'orderly or economic development of the land' as required in the objects of the Act.

If the SEPP 1 objection to compliance with the development standard in clause 30B (2) were to be upheld on the grounds given in the SEPP 1 objection, there would be little justification for not also upholding SEPP 1 objections to increases of similar size and nature in the locality. These grounds are of a general nature and would be applicable to many sites in the locality. They are not particular to the circumstances of this land. The ad hoc deviation from the development standard in this case on these grounds would, therefore, create an adverse planning precedent for similar action to be taken in relation to other such land. This is particularly important after the gazettal of the KLEP, which was specifically planned to meet residential and employment targets, consistent with the retail and business hierarchy of centres, and state and regional planning policies, as discussed above.

Therefore, for the reasons outlined above, strict compliance with the prescribed FSR development standard is not considered to be unreasonable or unnecessary in the circumstances of this case. This conclusion notes that:

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The failure of the development to meet on site parking requirement is a direct consequence of the excessive FSR sought by this proposal. Approval of the application would set an unacceptable precedence contrary to good planning outcomes to a low density residential area that is nearing its street parking capacity. For this reason alone the application fails to meet the requirements prescribed under SEPP 1 and should not be supported.

The proposed development is not consistent with the predominant building bulk, scale or character of the surrounding developments within the Wahroonga Village commercial precinct.

The proposed large variation to the maximum floor space ratio would set a precedent for future development in this centre, post the KLEP (gazetted May 2010), which would adversely impact on the hierarchy and function of centres planned for increased business and retail density. It is therefore not 'orderly or economic development of the land' as required in the objects of the Act.

The site has not been found to be constrained in any manner that would otherwise prevent compliance with the prescribed development standard.

Whether the objection is well founded

For the reasons outlined above, the SEPP1 Objection is not considered to be well founded. The Objection has failed to demonstrate that compliance with the development standard is unnecessary or unreasonable in the circumstances of this case. Additionally, the application has failed to demonstrate that the non-complying development satisfies the underlying objective of the standard or that strict compliance would hinder the attainment of the objectives specified in Section 5(a) (i) and (ii) of the Environmental Planning and Assessment Act, 1979.

Objectives for business zones – business:

The development is unsatisfactory having regard to the following objectives for development undertaken on land within a Business 3(a)-(A2) Business zone, as outlined by Clause 29 of the KPSO:

- (a) Identify existing business centres within the Municipality, the principal functions of which are to satisfy the retail and community service demands of the community which they serve*
- (b) Permit, within the business centre's hierarchy, business and office premises of a scale and character which do not threaten the role of the business centres as described in (a) above*

As outlined in the assessment of the proposal against the provisions of SEPP1, above, the proposed introduction of excessive floor area is not consistent with the prevailing scale, intensity and character of surrounding commercial development.

Development considerations:

Clause 30C of the KPSO requires the following to be considered in the assessment of development that is to take place on land within a business zone:

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- (a) That the carrying out of the development is consistent with the general aims for business zones, the objectives of this Part and any Development Control Plan applying to the land*

Comment: For the reasons outlined above, the proposal fails to achieve the general aims and objectives for the business zone. In this respect, the application also fails to satisfy the aims and objectives set out within Development Control Plan No. 14 – Development in Business Zones.

- (b) That any elevation of any building facing land in a residential zone has been designed to be reasonably compatible with the residential development on that land, or is suitably screened*

Comment: The proposal is satisfactory in this regard.

- (c) That the development will maintain a reasonable level (taking into consideration the existing level) of solar access to adjoining residential development between the hours of 9.00 am and 3.00 pm during the winter solstice on 22nd June*

Comment: The proposal is satisfactory in this regard.

- (d) That noise generation from the development site will be effectively insulated or otherwise minimised*

Comment: Should the application be supported suitable conditions may be imposed to ensure the proposed development will not be of any undue impact upon the acoustic amenity of surrounding residential properties.

- (e) That the development will minimise nuisance to adjoining residential development by way of traffic movements, parking, security lighting or the like*

Comment: In isolation, the proposed development does not have any significant impact upon neighbouring residential development in terms of generated traffic movements, security lighting or the like (subject to conditions that may be imposed). Nevertheless, approval of the application would set an undesirable precedent that has the potential to create significant parking impacts, as noted by Council's Urban Planner.

- (f) That the development is sited, designed or treated so as to minimise overlooking of adjoining residential living or recreation areas*

Comment: The development is satisfactory in this regard.

- (g) That sufficient (as determined by the Council) off-street parking is supplied by the development to meet the demand generated by the development*

Comment: The proposed development fails to provide sufficient parking spaces to satisfy the requirements of Council's DCP43. For the reasons outlined earlier in this report, the shortfall is not supported.

- (h) That traffic generated by the development is safely accommodated by the road system and does not unreasonably affect the amenity of surrounding localities*

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Comment: Council's Development Engineer is satisfied that the traffic generated by the proposal may be safely accommodated by the road system and will not unduly impact upon the amenity of the area.

(i) That adequate space and facilities have been provided, wherever site conditions reasonably permit, for the loading and unloading of goods and materials on the development site

Comment: The proposal is satisfactory in this regard.

(j) That the streetscape of the development is compatible with and enhances the streetscape in which it is situated

Comment: For the reasons outlined above, the proposed introduction of excessive floor area is not consistent with the prevailing scale and character of surrounding commercial development. As such, the proposed development is not considered to either enhance or retain consistency with the surrounding streetscape.

(k) That reasonable measures have been taken to make new buildings and major redevelopments energy efficient

Comment: The proposal provides adequate energy efficiency provisions. This conclusion notes the comments provided within the energy efficiency report submitted with the application.

(l) That an appropriate drainage system is incorporated in the development to minimise the adverse effects of the development on the natural drainage system, other properties and the environment

Comment: Should the application be supported conditions may be imposed to ensure the proposed development will not be of any undue impact upon the natural drainage system, other properties or the environment.

POLICY PROVISIONS

Development Control Plan No. 14 – Development in Business Zones (DCP14)

Part 1: General Aims

The proposed development fails to achieve the following general aim for the development of land contained within the business zones of the Ku-ring-gai local government area, set out under Clause 4 of DCP14:

To improve the supply and convenience of public and private parking and other community services and facilities related to the actual demands created by existing and proposed development

As outlined earlier under the SEPP 1 consideration, the proposed development fails to provide sufficient, on-site long-stay parking spaces. The parking shortfall and likely future demand for on street parking cannot be adequately absorbed by the local street network particularly if other

Item 7

properties in the precinct are to be allowed to development to a similar intensity.

Part 2: Business controls and guidelines

| Development Control | Proposals Numeric Compliance | Complies |
|--|---|-----------------------------------|
| Site Characteristics | | |
| Site Area = 530.1m ² | | |
| Controls | | |
| Height of Buildings (Part 12) <ul style="list-style-type: none"> Building Height: 2 storeys and 8m Building Height Plane: 30° from horizontal at any point 1.5m above boundary to land within a res. or open space zone. Solar Access 3h solar access to adjoining residential properties between 9am to 3pm | <p>2 storeys and 7m</p> <p>The subject site does not adjoin a 'Residential' or 'Open Space' zone</p> <p>The subject site does not adjoin a 'Residential' zone</p> | <p>YES</p> <p>N/A</p> <p>N/A</p> |
| FSR (Part 13) Max FSR: 1.0:1 | 1.74:1 - 921.59m ² (391.49m ² of non-compliant floor area) | NO – refer SEPP1 objection |
| Building Setbacks (Part 14) <ul style="list-style-type: none"> Development to be consistent with the defined building line | Proposed development consistent with building line defined by adjacent commercial development | YES |

Clause 11 – Development considerations

The matters for consideration listed under this Clause have been addressed in the assessment of the proposal against Clause 30C of the KPSO.

Clause 12 – Height of buildings

The proposed development complies with the numerical requirements and objectives set out by this Clause.

Clause 13 – Floor space ratio (FSR)

For the reasons outlined in the assessment of the proposal against the provisions of SEPP 1, the proposed breach of the floor space ratio control is not supported.

Clause 14 – Building setbacks

The proposal is satisfactory in this regard.

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Clause 15 – Landscaping

The subject site does not currently provide any landscaping that contributes to the surrounding environment given the 100% building coverage at the ground floor. In this respect, it is considered unreasonable to require new landscaping areas to be introduced to the site.

Clause 16 – Alterations and additions to existing premises

Clause 16 of DCP 14 aims to ensure the redevelopment of existing commercial buildings will retain compliance with the applicable building height, setback and privacy controls. The proposed development is satisfactory in this regard.

Clause 17 – Vehicular access and circulation

The proposal is satisfactory in this regard.

Clause 18 – Car parking

The deficiency of on-site, long stay parking spaces is not supported.
Refer Development Engineer's comments and DCP 43 compliance table and discussion.

Clause 19 – Developer contributions

Not required – refer below.

Clause 21 – Urban design

For the reasons outlined in the assessment of the application against the provisions of SEPP 1 above, the proposed development fails to comply with the following principle set out under Clause 21.2 (a) of DCP14:

The appearance of buildings should be consistent with the existing character of each centre

In this respect, the density of the proposed two storey development is inconsistent with the prevailing character of surrounding commercial development within the commercial precinct.

Clause 22 – Colour

A schedule of external materials and colours has been submitted with the application. The proposed colours and finishes are consistent with the surrounding environment.

Clause 24 – Plant

The proposed development does not incorporate any plant associated elements deemed likely to adversely impact upon the visual character of the surrounding environment.

Clause 25 – Open space and pedestrian access

The proposed development retains sufficient pedestrian access and does not remove from any

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existing open space areas.

Clause 26 – Solar access

The proposed development will not be of any detrimental impact upon solar access to neighbouring residential properties, public open spaces or the public realm in general.

Clause 27 – Facilities for the elderly and disabled

Should the application be supported, Council's Building Surveyor is satisfied that subject to conditions, adequate facilities for disabled and movement impaired persons will be provided to the site.

Clause 28 – Facilities for cyclists

Council's Development Engineer is satisfied the provision of facilities for cyclists is not necessary or a reasonable expectation in this instance.

Clause 29 – Community facilities

The objective of Clause 29 is:

To encourage the provision of community facilities in business centres

The existing chemist, newsagent and real estate agent on ground floor and a personal training/fitness instructor on first floor may be considered to be community facilities; however the proposed large variation to the maximum floor space ratio would set a precedent for future development in this centre, post the KLEP (gazetted May 2010), which would adversely impact on the hierarchy and function of centres planned for increased business and retail density.

Clause 30 – Services

It is anticipated that the proposed development will utilise the existing services (water, electricity and the like) available to the site.

Clause 31 – Storm water drainage

Council's Development Engineer's has not raised a significant issue in this regard.

Clause 32 – Controls during construction

Should the application be supported, this matter could be addressed by way of consent conditions.

Development Control Plan No. 31 – Access (DCP 31)

Matters for consideration under DCP 31 have been taken into account in the assessment of this application against the BCA and are considered to be satisfactory. If the application was to be supported suitable conditions of consent would be included to ensure the development is undertaken in a manner consistent with the accessibility requirements of DCP 31 and the BCA.

Development Control Plan No. 40 - Construction and Demolition Waste Management (DCP 40)

A waste management plan prepared in accordance with DCP 40 has been submitted with the application and is considered to be satisfactory. If the application was to be supported, conditions of consent would be recommended in relation to construction and demolition waste management.

| Development Control | Proposals Numeric Compliance | Complies |
|--|--|---------------|
| Total (new) floor area: 530.1m ² | | |
| Controls: | | |
| Car parking (Part 3.1) Gymnasium - 1 space per 17m ² Real Estate & Offices - 1 space per 33m ² Newsagent & Pharmacy - 1 space 35m ² <ul style="list-style-type: none"> Total required: 31 (30.8) spaces Car space dimensions (single) 5.4m x 2.5m or (double garage) 5.6m x 5.4m | 10 spaces 5.4m x 2.5m & 5.6m x 5.4m | NO YES |

DCP 43 sets rates for the provision of parking for a number of uses. The DCP also contains assessment criteria for design of parking areas, particularly in terms of parking space sizes and vehicle manoeuvrability.

The parking arrangements proposed by the application have been addressed within the comments provided by Council's Development Engineer. As outlined above and earlier, no objection is raised with regard to the size of the proposed parking spaces or the impacts of the proposal upon vehicle manoeuvrability. However, due to the likely adverse long-term impacts of the proposal upon the availability of public parking, the deficiency of on-site, long-stay parking spaces is not supported.

Development Control Plan No. 47 – Water Management (DCP 47)

The purpose of DCP 47 is to ensure that stormwater run-off associated with the proposed development is appropriately managed so as not to unduly impact upon both the subject site and downstream properties. The proposed development has been assessed against DCP 47 by Council's Development Engineer who is satisfied that the stormwater management measures proposed in the application are consistent with the relevant matters set out by DCP 47. If the application were to be supported, appropriate conditions could be included to ensure stormwater management provisions are implemented in a manner consistent with the requirements of the DCP.

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Development Control Plan No. 56 – Notification (DCP 56)

The application has been notified in accordance with the requirements set out within DCP 56. No submissions were received.

Section 94 Plan

It is recommended that the application be refused. Therefore, the payment of a Section 94 contribution will not be required in this instance.

LIKELY IMPACTS

The impacts of the proposed development have been considered in detail within this report.

SUITABILITY OF THE SITE

The site is suitable for commercial development. However, the excessive floor space area and associated short fall of on-site, long-term parking is unsatisfactory for the reasons stated throughout this report.

ANY SUBMISSIONS

No submissions have been received.

PUBLIC INTEREST

The approval of the application is considered not to be in the public interest for the reasons given within this report.

OTHER CONSIDERATIONS

There are no other matters for consideration.

CONCLUSION

The proposed development has been assessed against the relevant provisions of Section 79C of the Environmental Planning and Assessment Act 1979 and is considered to be unsatisfactory. Therefore, it is recommended that the application be refused.

RECOMMENDATION

PURSUANT TO SECTION 80(1) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979

That Ku-ring-gai Council, as the consent authority, refuse development consent to DA No. 595/10 for alterations and additions to an existing commercial building on land at 4-8 Railway Avenue WAHROONGA, for the following reasons:

1. Excessive floor space ratio

Issue

The non compliance with the FSR control is not in keeping with the low density character of this commercial area, and does not meet the on site parking

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requirement. Approval of the application would set an unacceptable precedence contrary to good planning outcomes within the low density commercial area with its on street parking already nearing capacity.

Particulars

- The proposed 1.74:1 floor space ratio (FSR) of the development breaches the maximum permissible 1.0:1 FSR control prescribed by Clause 30B (2) of the Kuring-gai Planning Scheme Ordinance (KPSO).
- The scale and character of the proposed development, with a building footprint that occupies a large proportion of the allotment and substantial first floor area, is inconsistent with the predominant scale and character of surrounding commercial developments within the Wahroonga Village commercial precinct.
- The proposal fails to satisfy Objective (b) set out under Clause 29 of the KPSO for development undertaken in 3(a) Business – Retail Services zones that seeks to ensure the commercial development is of an appropriate scale and character for the role of the commercial precinct in which it is to be contained.
- The proposed large variation to the maximum floor space ratio would set a precedent for future development in this centre, post the KLEP (gazetted May 2010), which would adversely impact on the hierarchy and function of centres planned for increased business and retail density. It is therefore not 'orderly or economic development of the land' as required in the objects of the Act.
- The approval of the proposed development, that incorporates an excessive FSR, would set a negative and undesirable precedent in relation to the deficiency in long term on site parking. The shortfall would have to be compensated by the local residential street network and will lead to it exceeding capacity if the other commercial development were to develop in a similar manner within the Wahroonga Village commercial precinct.

2. The SEPP 1 Objection submitted by the applicant is not well founded

Issue

The SEPP 1 Objection is not well found as the applicant has failed to demonstrate the proposal meets the test for acceptability. The non compliance with the standard is directly linked to another unacceptable non compliance to meet Council's on site parking provisions.

Particulars

- The SEPP1 Objection has not satisfactorily demonstrated why compliance with the FSR development standard prescribed by Clause 30B (2) of the KPSO is unnecessary or unreasonable in the circumstances of this case.

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- The SEPP1 objection has failed to demonstrate how the development satisfies the underlying objectives of the development standard set out under Clause 30B (1-b) of the KPSO.
- The scale and character of the proposed development, with a building footprint that occupies a large proportion of the allotment and substantial first floor area, is inconsistent with the predominant scale and character of surrounding commercial developments within the Wahroonga Village commercial precinct.
- The additional floor area and use proposed will result in increased demand for vehicle parking spaces. However, the proposal does not provide sufficient, onsite, long-stay parking spaces to accommodate the increased demand that will be generated by the development. This shortfall must be met by the available public parking surrounding the site. However, should the density of adjacent commercial development increase to a level similar to that of the proposal (based on the precedent that may be set through the approval of the application), this shortfall will be of a detrimental impact on the capacity of the available public parking surrounding the commercial precinct in the long term.
- The subject site is not identified to be constrained in any manner that would otherwise unreasonably prevent compliance with the development standard.

L Donovan
Development Assessment Officer

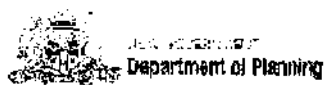
S Segall
Team Leader
Development Assessment - North

C Swanepoel
Manager
Development Assessment Services

M Miocic
Director
Development & Regulation

Attachments:

1. DOP circular PS08-014 - 2010/125179
2. Location sketch – 2010/207243
3. Zoning extract – 2010/207044
4. SEPP 1 objection - 2010/158992
5. Traffic and parking assessment report - 2010/159009
6. Site analysis plan, exist/proposed floor plans, elevations and sections - 2010/159032



PLANNING circular

PLANNING SYSTEM

State environmental planning policies

| | |
|-----------------|--------------------|
| Circular | PS 08-014 |
| Issued | 14 November 2008 |
| Related | PS 08-003 May 2008 |

Reporting variations to development Standards

The purpose of this circular is to remind councils of their responsibilities to complete quarterly returns on variations to development standards under delegations using State Environmental Planning Policy No. 1 - Development Standards or similar provisions under the Standard Instrument. The returns for the past two quarters – 1 April to 30 June 2008 and 1 July to 30 September 2008 – are to be forwarded to the Department by no later than 4 weeks from the date of this circular.

Introduction

Circular PS 08-003 reminded councils of their responsibilities to monitor the use of the Director-General's assumed concurrence under State Environmental Planning Policy No. 1 – Development Standards (SEPP 1) or under clause 4.6 of the Standard Instrument (or similar provision) on a quarterly basis.

Councils were reminded of the need to keep accurate records of the use of SEPP 1, or the relevant provision of the Standard Instrument and to report quarterly from the April to June 2008 quarter.

Reports due 4 weeks from date of this Circular

Despite the previous circular, a number of councils have not submitted their responses to the Department for the period 1 April to 30 June, which were due on 31 July 2008.

Councils are now advised that they are to forward their reporting of the use of SEPP 1 or clause 4.6 of the Standard Instrument (or similar provision) for the periods 1 April to 30 June and 1 July to 30 September **within 4 weeks from the date of this circular**. Where a council has not exercised its concurrence in a particular quarter, then a nil return is to be forwarded.

Quarterly reports are to be emailed to developmentstandards@planning.nsw.gov.au

If a council does not respond to this request by 15 December 2008, then the Director-General will commence the process of revocation of the concurrence.

Councils are to then report quarterly within one month of the end of the quarter. Failure to do so will trigger a review into the need to revoke of the concurrence.

Further Requirements

In response to the findings of the recent ICAC investigation into corruption allegations affecting Wollongong City Council, councils are required to adopt the following four measures:

- 1) Establish a register of development applications determined with variations in standards under SEPP 1;
- 2) Require all development applications where there has been a variation greater than 10% in standards under SEPP 1 to be determined by full council (rather than general manager or nominated staff member);
- 3) Provide a report to each council meeting on the development applications determined where there had been a variation in standards under SEPP 1;
- 4) Make the register of development applications determined with variations in standards under SEPP 1 available to the public on the council's website.

Further information

The Department will also be undertaking a number of random audits in 2009 on SEPP 1 decisions based on the data received this year.

Links to SEPP 1 and the Standard Instrument can be found on the Department of Planning's website at: <http://www.planning.nsw.gov.au>

If you have further enquiries, please phone the Planning Information Centre 02 9228 6333 or email information@planning.nsw.gov.au

Note: This and other Department of Planning circulars are published on the web at www.planning.nsw.gov.au/planningsystem

Authorised by:

Sam Haddad,
Director-General
NSW Department of Planning

Important note: This circular does not constitute legal advice. Users are advised to seek professional advice and refer to the relevant legislation, as necessary, before taking action in relation to any matters covered by this circular.

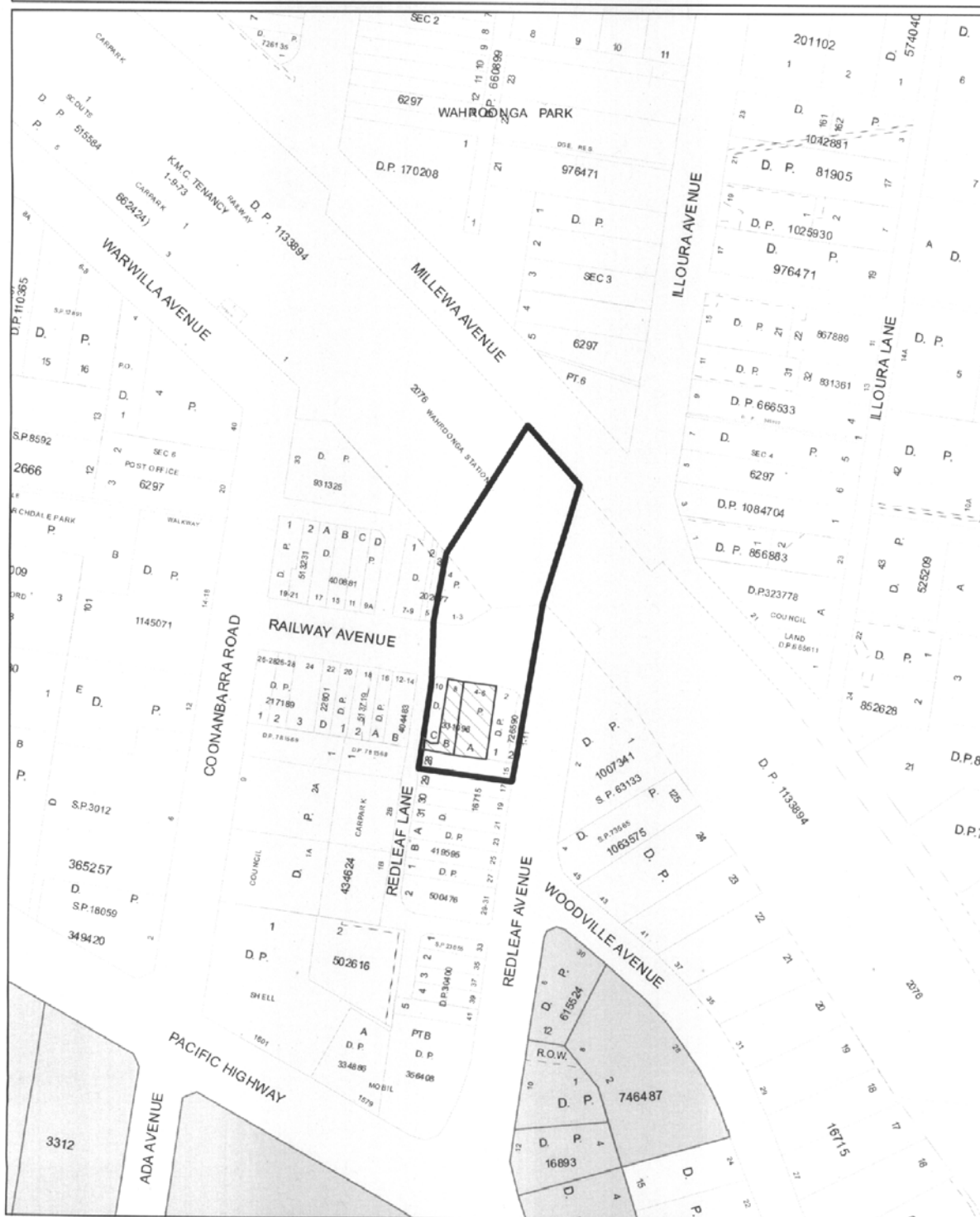
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LOCATION SKETCH

4-8 Railway Avenue, WAHROONGA

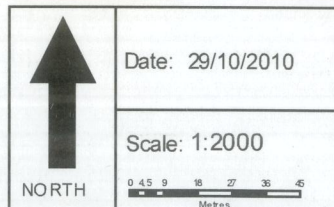
DEVELOPMENT APPLICATION No. 0595/10



| | | | | |
|-----------|------------------------------|--|--|-------------------------|
| NORTH | DATE: 2/11/2010 | No Written Responses | | Ku-ring-gai Council |
| | Metres 0 5 10 20 30 40 50 | ▲ AGREEMENT ● OBJECTION ▣ PETITION ■ SUBMISSION | ▨ SUBJECT LAND ▤ HERITAGE ITEM □ CIRCULATED AREA | |

Zoning Extract

4-8 Railway Avenue Wahroonga



 SUBJECT LAND

KU-RING-GAI COUNCIL

WARNING
Ku-ring-gai Council accepts no Liability for the accuracy otherwise of this plan



glendinning minto & associates p/l

planning & development control consultants abn 68 091 465 271

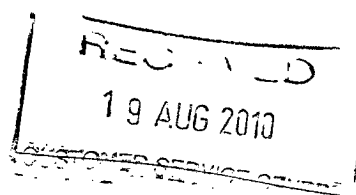
STATEMENT OF ENVIRONMENTAL EFFECTS

PROPOSED ALTERATIONS & ADDITIONS TO EXISTING COMMERCIAL BUILDING

4-8 RAILWAY AVENUE, WAHROONGA

**On behalf of
Gartly Holdings P/L**

August 2010



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STATEMENT OF ENVIRONMENTAL EFFECTS

Proposed Alterations & Additions to Existing Commercial Building

4-8 Railway Avenue, Wahroonga

Prepared under instructions from

Gartly Holdings P/L

Glendinning Minto & Associates Pty Ltd ABN 68 091 465 271

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1. INTRODUCTION

This Statement of Environmental Effects accompanies a Development Application lodged on behalf of Gartly Holdings P/L. The proposal seeks approval for the carrying out of alterations and additions predominantly comprising the construction of a new basement car park and two storey addition to the rear of premises known as 4-8 Railway Avenue, Wahroonga.

In preparation of this document, consideration has been given to the following:

- *The Environmental Planning and Assessment Act, 1979 as amended.*
- *Ku-ring-gai Planning Scheme Ordinance as amended.*
- *DCP No. 14 - Development in Business Zones*
- *DCP No. 43 - Car Parking*

This application relies on the following information submitted in support:

- Site Survey prepared by True North Surveys, Ref No. 5576, dated 6/06/2007;
- Architectural Plans prepared by Rob Crump Design, Job No. 1966/01 to 03 and dated 14/7/10;
- Preliminary Stability Report prepared by Jack Hodgson Consultants P/L and dated 3ed may 2010;
- Stormwater Management Plan & Covering Letter prepared by Waddington Consulting P/L and dated 4/8/10;
- Traffic & Parking Assessment Report prepared by Varga Traffic Planning P/L and dated 22nd July 2010;
- BCA Audit & Design Compliance Assessment prepared by BCA Vision and dated 20/7/10;
- Preliminary Fire safety Engineering Review prepared by Defire and dated 7th June 2010;
- Accessibility Report prepared by Accessibility Solutions and dated 16th August 2010.
- Brochure for Southwell Car Hoists;

This Statement describes the subject site and the surrounding area, together with the relevant planning controls and policies relating to the site and the type of development proposed. It provides an assessment of the proposed development against the heads of consideration as set out in Section 79C(1) of the Environmental Planning and Assessment Act 1979.

As a result of that assessment it is concluded that the development of the site in the manner proposed is considered to be acceptable and is worthy of the support of the Council.

2. THE SITE

The subject site is identified as Lot A & B in DP 331096 and is known as 4-8 Railway Avenue Wahroonga. The property is located on the southern side of Railway Avenue between its intersections with Redleaf Avenue to the east and the lane way to the west. The site has a total site area of 530.1m² with a combined frontage of 18m to Railway Avenue and a depth of 27.6m.

The site is benefitted by a right of carriageway for vehicular access over the rear of the adjoining property at No.10 Railway Avenue. This right-of-carriageway currently provides access to the rear of the premises and a number of existing on-grade car parking spaces.



Site Location Map

The subject site currently supports a two storey brick and tile roof building comprising ground floor retail tenancies with commercial tenancies above.

The existing façade as it presents to Railway Avenue and which is to be preserved is largely in its original form.

The lower level of the existing building is occupied by a chemist, newsagent and real estate agent whilst the upper level is part occupied by personal training/fitness instructors whilst the remainder is vacant.

The site is not heritage listed and is not within a bushfire prone area.

The subject site is illustrated in the following photographs.



View of Subject Properties from the Street



View of Site from Rear Lane

3. THE SURROUNDING ENVIRONMENT

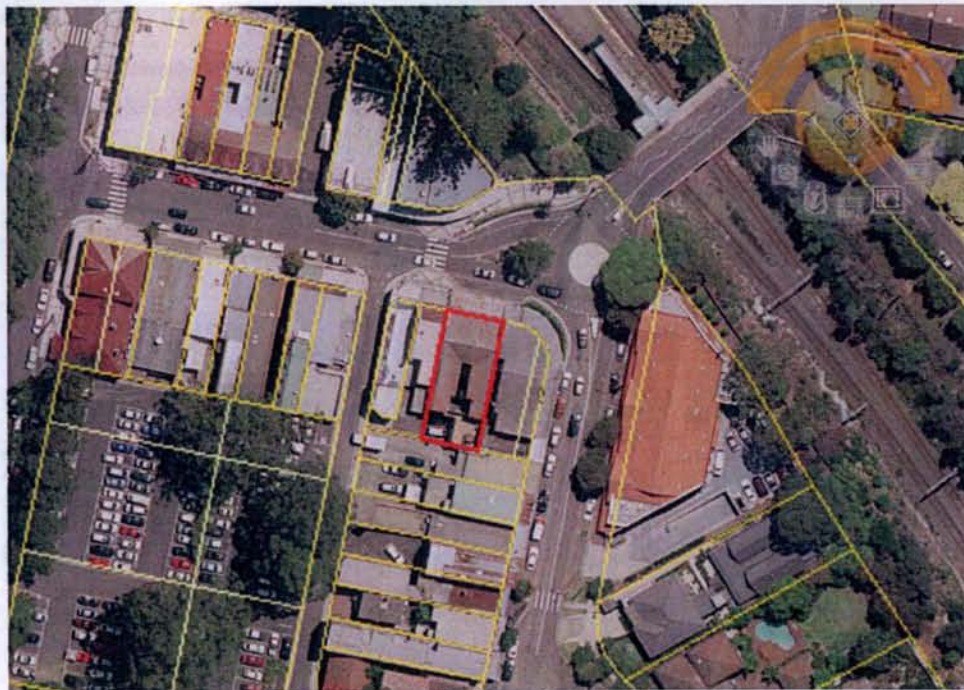
The subject site is located within the Wahroonga Village Shopping precinct and which comprises development generally fronting Railway Avenue and Redleaf Avenue to the east and Coonanbarra Road to the west.

Surrounding development comprises a variety of different commercial buildings, typically greater than 50 years old and erected on similar sized allotments. The surrounding development is typically all two storey in height and presents original and intact street facades.

The typical configuration of the surrounding properties comprises ground floor shops and predominantly office space and professional services on the upper level.

Despite the predominantly original architecture that dominates there are a number examples of more recent construction particularly to the rear of premises.

The site's relationship with surrounding development is illustrated in the following aerial photograph.



Aerial Photo with No.4 & 6 highlighted

Other features of the surrounding area include the Wahroonga Railway Station opposite and to the north of the site, Wahroonga Park to the north of the Station and a large on-grade Council car park to the south west of the site.

4. THE PROPOSAL

The proposal seeks approval for the construction of a two storey brick addition with a flat metal roof with basement carping to the rear of the existing premises. The proposal will involve the retention of the front 10m section of the existing buildings as they present to Wahroonga Avenue, including the facades and pitched tiled roofs.

The proposed rear addition as detailed is to comprise a new basement car park which will provide parking for a total of 10 vehicles including 1 disabled person space. Access to the proposed basement car park will be via a proposed combined vehicle/passenger lift. A waste storage area is also proposed to be located within the basement.

The proposed basement construction together with the additions above, are to be provided with zero setbacks to all site boundaries.

The proposed ground floor addition seeks approval for the creation of additional floor area for the 3 existing tenancies, with the depth of each tenancy being increased.

The first floor addition will also result in a total of 3 commercial tenancies being provided. Other works proposed for the first floor include the provision of new toilet facilities for use by both the ground floor and first floor occupancies. Disabled persons access to the first floor will be via a new stair lift proposed to be fitted to the rear common stairs.

Stormwater from the proposed addition is proposed to be drained to the street gutter in Redleaf Lane.

The subject application does not seek approval for the use of the premises with ground floor Shops 4 & 6 and the first floor Commercial 6 to be occupied by their existing tenants. Separate applications will be submitted for the future use of the remaining spaces.

The development indices associated with the proposal are as detailed below:

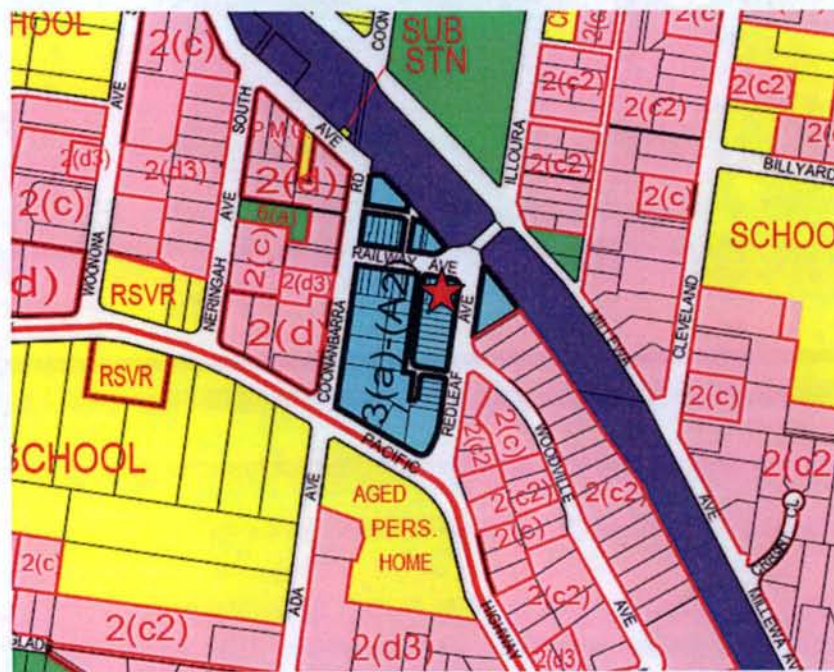
| | | |
|-------------------|-----------------------|----------------------|
| Site Area | | 530.1m ² |
| Floor Space | Proposed Ground Floor | 459.74m ² |
| | Proposed First Floor | 461.85m ² |
| | Total | 921.59m ² |
| Floor Space Ratio | | 1.74:1 |

5. ZONING AND DEVELOPMENT CONTROLS

The proposed development is identified as local development under the provisions of the Environmental Planning and Assessment Act 1979, as amended. The following is an assessment of the proposal against the relevant provisions of the Act and all of the relevant planning instruments and policies of Ku-ring-gai Council.

5.1 Ku-ring-gai Planning Scheme Ordinance

The subject site is zoned Business 3(a)-(A2) Business under the Ku-ring-gai Planning Scheme Ordinance 1971, as amended.



Extract from KPSO

The objectives of this zone are as follows;

- (a) To identify existing business centres within the Municipality, the principal function of which are to satisfy the retail and community service demands of the community which they serve;
- (b) To permit, within the business centres' hierarchy, business and office premises of a scale and character which do not threaten the role of the business centres as described in (a) above; and
- (c) To permit other community facilities, recreation, leisure and general services within the zone to meet the needs and demands of employees within the centres and the community with each centre services.

It is considered that the proposed development is consistent with the above objectives. In this regard the subject site is located within the existing Wahroonga Shopping Village and is considered to be currently under utilised in that the existing development occupies approximately half of the site area and has a floor space area of less than 1:1. In addition it is considered that the proposal provides for a built form which maintains the existing streetscape presentation and which is consistent with the height, bulk and scale of the surrounding development.

The following provisions of the KPSO are considered to be applicable to the proposal.

Clause 30(1) & 30B - Floor Space Zones & Ratios

The subject site is located in Floor Space Zone A2 under the KPSO and is subject to a maximum FSR of 1:1. The subject site is proposed to have an FSR of 1.74:1.

The proposal therefore does not comply with the maximum permissible floor space ratio permissible for the site. A SEPP No.1 Objection has been prepared in respect of this non-compliance and is included as an appendix to this report.

It is my opinion that the submitted SEPP No.1 Objection is well founded and is worthy of the support of the Council.

Clause 30A - Height of Buildings

This clause of the KPSO requires buildings to have a height of 2 storeys with a ceiling height of no more than 8m.

The proposal complies with these requirements.

Clause 30C - Development Considerations

The KPSO at Clause 30C lists a number of matters which Council must be satisfied of before granting consent. Each of the relevant matters is addressed below.

- (a) *The carrying out of the development is consistent with the general aims for business zones, the objectives of this Part and any Development Control Plan applying to the land;*

Comment: It is considered that the creation of addition space capable of being occupied by a range of business and commercial uses within the Business 3(a)-(A2) zone is consistent with the general aims and objectives of the zone and the relevant DCP.

- (b) *any elevation of any building facing land in a residential zone has been designed to be reasonably compatible with the residential development on that land or is suitably screened.*

Comment: The proposal is not located within or adjoining a residential zone

- (c) *the development will maintain a reasonable level (taking into consideration the existing level) of solar access to adjoining residential development between the hours of 9.00am and 3.00pm during the winter solstice on 22nd June;*

Comment: The proposal does not adjoin any residential development.

- (d) *noise generation from the development site will be effectively insulated or otherwise minimised;*

Comment: This application provides for the creation of additional commercial and retail space upon an existing commercial/retail site and within an existing commercial precinct. Activities associated with the proposed uses are not considered to be noise generating with all associated plant and equipment capable of being located internal to the building. It is therefore not considered that the proposed development will create any adverse impact in relation to noise generation.

- (e) *The development will minimise nuisance to adjoining residential development by way of traffic movements, parking, security lighting or the like;*

Comment: The proposed development does not adjoin any residential development.

- (f) *the development is sited, designed or treated so as to minimise overlooking of adjoining residential living or recreation areas;*

Comment: The proposed development does not adjoin any residential development.

- (g) *sufficient (as determined by the Council) off-street parking is supplied by the development to meet the demand generated by the development.*

Comment: A detailed assessment of the existing and proposed car parking associated with the subject site has been undertaken by Varga Traffic Planning P/L. Their report forms part of the information accompanying this application.

In summary their report provides that:

- a. *The nett increase in the existing parking shortfall (of 18 spaces) is only 2 spaces.*
- b. *The proposed development is to be re-occupied by the existing tenants, and is therefore not expected to result in any substantial increase in parking demands.*
- c. *The site is located directly opposite Wahroonga Railway Station, enabling customers and in particular, staff, to travel to/from the site by public transport.*
- d. *A large public car parking area is located at the rear of the site, in Redleaf Lane which may be used by customers and gym patrons.*

In addition to the above, Varga Traffic Planning advise that an additional shortfall of 2 spaces is considered to be acceptable in this instance because:

- e. *Gymnasiums tend to generate their peak parking demands outside normal business hours, usually between 5.30pm to 6.30pm on weekday evenings and which does not coincide with the peak parking demands related to the other uses on the site.*

On this basis it is considered that the proposal will provide for sufficient car parking so as to ensure that there are no unreasonable car parking impacts.

- (h) *traffic generated by the development is safely accommodated by the road system and does not unreasonably affect the amenity of surrounding localities;*

Comment: It is not considered that the proposal will result in a noticeable impact upon the surrounding road network.

- (i) *adequate space and facilities have been provided, wherever site conditions reasonably permit, for the loading and unloading of goods and materials on the development site.*

Comment: An existing loading zone is located adjacent to the frontage of the site in Railway Avenue for the loading and unloading of goods.

- (j) *the streetscape of the development is compatible with and enhances the streetscape in which it is situated;*

Comment: The proposed additions have been designed so as to retain the existing streetscape presentation to Railway Avenue. Works proposed on the site and which will be visible from Redleaf Lane will be limited but nevertheless will result in a significant improvement in that which currently exists.

- (k) *reasonable measures have been taken to make new buildings and major redevelopments energy efficient;*

Comment: The proposal will be provided with standard energy conservation measures such as wall and roof insulation and energy efficient light fittings.

- (l) *an appropriate drainage system is incorporated in the development to minimise the adverse effects of the development on the natural drainage system, other properties and the environment.*

Comment: The proposal does not seek to increase the existing hard surface area of the site. All collected stormwater will be connected to the existing stormwater drainage system and directed to Councils stormwater system in Redleaf Lane in accordance with the Stormwater Management Plan prepared by Waddington Consulting P/L.

There are no other provisions of the KPSO that apply to the proposed development.

5.2 Development Control Plan No 14 - Development in Business Zones

Development Control Plan No 14 applies to the subject site and contains essentially prescriptive based controls, with any variation from the numerical requirements only being permissible where the relevant objectives have been satisfied. The DCP predominantly applies to new buildings.

Each of the relevant controls have been assessed and addressed as follows;

Clause 4 - General Aims & Objectives

The general aims of this Plan in relation to land within business zones are:

- a. *To provide greater detail and explanation of the controls over business centres contained in Local Environmental Plan No. 100 (Business Zones);*
- b. *To prescribe controls and guidelines in respect of business centres additional to those contained in Local Environmental Plan No. 100 (Business Zones);*
- c. *To identify the only centres within the Municipality which provide opportunities for retail and office development;*
- d. *The generally assist the long term improvement of the appearance, amenity and convenience of business zones;*
- e. *To maintain and enhance the economic viability of business zones; and*
- f. *To improve the supply and convenience of public and private parking and other community services and facilities related to the actual demands created by existing and proposed development.*

It is considered that the proposed development is consistent with the above aims and objectives.

The following is an assessment of the proposal against the applicable provisions of the DCP.

Clause 12 - Height

The objectives of this clause are as follows;

- a. *to retain a consistent scale of buildings when viewed from the main streets of each business centre being generally 2 storeys with the exception of floor space zone No B1 which is 3 storeys;*
- b. *to minimise the potential for overlooking and overshadowing of business development on non-business development; and*
- c. *to promote a size of building which does not have an avoidable overbearing visual presence on adjacent residential development.*

| Control | Compliance |
|----------------------------|---|
| Maximum building height 8m | Yes - the proposed development has a total height of approximately 7m |

Clause 13 - Floor Space Ratio

The relevant objective of this clause is as follows

- b. *in floor space zone A2, the district retail and community service centres within the Council area, to provide a reasonable level of service to the surrounding district of each area;*

| Control | Compliance |
|-------------------|--|
| Maximum FSR 1.0:1 | No - The proposed development results in a floor space ratio of 1.74:1. A SEPP No.1 Objection has been prepared and is included as an Appendix to this report. |

Clause 16 - Alterations and Additions to Existing Premises

The objective of this clause is as follows:

To require that redevelopment of existing buildings complies with the aims and intent of the height control principles of this plan while not prohibiting redevelopment where existing buildings already exceed those controls.

The clause requires that the previously mentioned height and setback controls are applied to alterations and additions. The proposed development results in an overall building height less than the maximum permissible 8m.

The proposed additions are provided with zero setbacks from the side and rear boundaries consistent with existing development.

The proposal is therefore considered to satisfy the requirements of this clause.

Clause 17 - Vehicle Access and Circulation

The objective of this clause is as follows:

The objective of this clause is to ensure that vehicular access points for business developments are both adequate and safe.

The subject site will continue to be serviced by the existing right-of-carriageway accessed via Redleaf Lane. The benefit of the proposal is that the proposed basement car park in addition to providing for additional on-site carking has been configured so as to allow for vehicles to enter and leave the site in a forward direction. The subject property will also continue to be serviced by the existing loading zone which adjoins the frontage of the site.

The proposal is considered to satisfy the requirements of this clause.

Clause 18 - Car Parking

The objectives of this clause are as follows:

- a. *to establish minimum car parking requirements for development and redevelopment which reflect actual demand for parking generated by development in Ku-ring-gai;*
- b. *to establish that car parking is provided on-site within the specified height control principles of this Policy; and*
- c. *to promote car parking areas and structures of a high urban design and landscape quality.*

A detailed assessment of the existing and proposed car parking associated with the subject site has been undertaken by Varga Traffic Planning P/L. Their report forms part of the information accompanying this application.

In summary their report provides that:

- a. *The nett increase in the existing parking shortfall (of 18 spaces) is only 2 spaces.*
- b. *The proposed development is to be re-occupied by the existing tenants, and is therefore not expected to result in any substantial increase in parking demands.*

- c. *The site is located directly opposite Wahroonga Railway Station, enabling customers and in particular, staff, to travel to/from the site by public transport.*
- d. *A large public car parking area is located at the rear of the site, in Redleaf Lane which may be used by customers and gym patrons.*

In addition to the above, Varga Traffic Planning advise that an additional shortfall of 2 spaces is considered to be acceptable in this instance because:

- e. *Gymnasiums tend to generate their peak parking demands outside normal business hours, usually between 5.30pm to 6.30pm on weekday evenings and which does not coincide with the peak parking demands related to the other uses on the site.*

On this basis it is considered that the proposal will provide for sufficient car parking so as to ensure that there are no unreasonable car parking impacts.

Clause 21 - Urban Design

The objective of this clause is as follows:

The objective is to establish urban design principles to enhance the existing and future physical and social environment of Business Centres.

The proposal is considered to be consistent with the requirements of this clause in that it seeks to retain the existing streetscape presentation of the buildings to Railway Avenue. The proposed addition which is located to the rear of the site will generally not have a streetscape presence due to the surrounding subdivision pattern whereby the rear of the premises is essentially surrounded by the adjoining developments.

It is considered therefore that the proposal satisfies the requirements of this clause.

Clause 22 - Colour

The objective of this clause is as follows:

The objective is to emphasise colour as an important part of the design and environmental quality of centres.

The proposed colour scheme is considered to be sympathetic to the surrounding built environment and satisfies the requirements of this clause.

Clause 23 - Signs and Advertising Structures

The objective of this clause is as follows:

- a. *to maintain a balance between the established built form and character of the streetscape and commercial need to advertise goods and services;*
- b. *To ensure that advertisements and advertising structures erected or displayed do not unnecessarily intrude into and effect the amenity of the area;*
- c. *To ensure that advertisements and advertising structures erected or displayed are designed to be compatible with the architectural styles of the building and compatible with adjoining built environment; and*
- d. *To ensure that advertisements and advertising structures do not disrupt vehicular or pedestrian traffic flow.*

The proposal does not seek to alter any of the existing signage.

Clause 27 - Facilities for the Disabled and the Elderly

This clause requires that business centres should be provided with at-grade access from the street and wherever possible, ramps should replace stairs (except fire stairs). Clause 27 also requires that level access should be provided from parking areas to walkways and that disabled parking be located close to entrances.

In response to this clause a report has been prepared by Mark Relf of Accessibility Solutions. It is considered that based upon the findings of that report that the proposal provides for an appropriate response in relation to the provision of access and services for disabled persons.

Clause 30 - Services

This clause requires that adequate services are available to support the development. It is noted that all required services are currently provided on site.

Clause 31 - Stormwater Drainage

The proposed development does not result in any increase in hard surface area. All collected stormwater will drain to the existing stormwater system in Redleaf Lane.

There are no other provisions of DCP 14 that are applicable to the proposed development.

5.3 Development Control Plan No 43 - Car Parking Code

This DCP aims to ensure that adequate, safe and accessible parking is provided for developments and to minimise overflow of parking onto surrounding streets.

The aims of the Development Control Plan are as follows:

- *ensure that adequate parking is provided for developments in Ku-ring-gai, firstly to minimise the overflow of parking onto surrounding streets, and secondly to ensure that a high standard of parking and access to commercial developments is provided, to support their viability;*
- *provide objectives and guidelines for the design of parking and service areas, to ensure that these areas are safe, efficient and consistent with the desirable characteristics and environmental standards expected in the Ku-ring-gai area;*
- *provide ecologically sustainable car parking facilities ;*
- *to provide the community with a set of standards while recognising that opportunities need to be identified that will protect the environmental quality of the area and have regard for the major transport corridor that serves the Council area.*

A detailed assessment of the existing and proposed car parking associated with the subject site has been undertaken by Varga Traffic Planning P/L. Their report forms part of the information accompanying this application.

In summary their report provides that:

- a. *The nett increase in the existing parking shortfall (of 18 spaces) is only 2 spaces.*
- b. *The proposed development is to be re-occupied by the existing tenants, and is therefore not expected to result in any substantial increase in parking demands.*
- c. *The site is located directly opposite Wahroonga Railway Station, enabling customers and in particular, staff, to travel to/from the site by public transport.*
- d. *A large public car parking area is located at the rear of the site, in Redleaf Lane which may be used by customers and gym patrons.*

In addition to the above, Varga Traffic Planning advise that an additional shortfall of 2 spaces is considered to be acceptable in this instance because:

- e. *Gymnasiums tend to generate their peak parking demands outside normal business hours, usually between 5.30pm to 6.30pm on weekday evenings and which does not coincide with the peak parking demands related to the other uses on the site.*

On this basis it is considered that the proposal will provide for sufficient car parking so as to ensure that there are no unreasonable car parking impacts.

There are no other provisions of the DCP that apply to the proposed development.

6. SECTION 79C ASSESSMENT

Environmental Planning Instruments - Section 79C(a)(a)

The subject site is zoned Business 3(a)-(A2) under the provisions of the Ku-ring-gai Planning Scheme Ordinance. The proposed carrying out of alterations and additions to an existing commercial premises are permissible with the consent of Council. The proposal has been assessed against the objectives and provisions of the Ku-ring-gai Planning Scheme Ordinance, Council's DCP's and policies as detailed within this report. The proposal was found to generally satisfy the requirements of all relevant documents.

The proposal does not comply with the maximum permissible floor space for the site and a SEPP No.1 Objection has been prepared in relation to this non-compliance. It is considered that the SEPP No.1 Objection is well founded and is worthy of the support of the Council.

Impacts of the Development - Section 79C(1)(b)

The proposed development will have negligible impact on the amenity of the adjoining commercial properties or the character of the locality as has been demonstrated by this report.

The proposal is considered to be consistent with the objectives of the Business 3(a)-(A2) zone and is compatible with the existing surrounding uses. It is not considered that the proposal will have any negative impact on the streetscape.

Suitability of the Site - Section 79C(1)(c)

The subject site is zoned Business 3(a)-(A2) under the Ku-ring-gai Planning Scheme Ordinance. The proposed carrying out of alterations and additions to an existing commercial premise is permissible with the consent of Council.

There are no unreasonable impacts associated with the proposal and the subject site is therefore considered suitable for the proposed works.

7. CONCLUSION

The proposed development is Local Development under the terms of the Environmental Planning and Assessment Act 1979 and has been assessed against the requirements of Section 79C(1) of the Act, the Ku-ring-gai Planning Scheme Ordinance and Council's policies.

The proposal does not comply with the maximum permissible floor space for the site and a SEPP No.1 Objection has been prepared in relation to this non-compliance. It is considered that the SEPP No.1 Objection is well founded and is worthy of the support of the Council.

It is considered that this Statement of Environmental Effects has demonstrated that the proposal will not impact upon the amenity of adjoining properties or upon the character of the surrounding area.

It is my opinion that this proposal for the carrying out of alterations and additions to an existing commercial building upon property at 4-8 Railway Avenue, Wahroonga is worthy of the support of Council.

Andrew Minto
Graduate Diploma (Urban & Regional Planning), Associate Diploma (Health & Building Surveying). CPP, MPIA, MAIBS.
GLENDINNING MINTO & ASSOCIATES PTY LTD
August 2010

8. STATE ENVIRONMENTAL PLANNING POLICY NO.1 - OBJECTION TO FLOOR SPACE RATIO CONTROL

For: Additions and Alterations to Existing Commercial Premises
At: 4-8 Redleaf Avenue, Wahroonga
Owner: Gartly Holdings P/L
Applicant: Gartly Holdings P/L

Introduction

This objection is made pursuant to the provisions of Clause 6 of the State Environmental Planning Policy No.1 (SEPP No.1). This SEPP 1 objection has been structured in accordance with the approach adopted by the Land & Environment Court of NSW in *Winten Property Group v North Sydney Council* [2001] NSWLEC 46 at [26].

In this regard it is requested Council support a variation with respect to compliance with the maximum permissible floor space of a building of 1:1 within the A2 Floor Space Zone as required by Clause 30B(2) of the Ku-ring-gai Planning Scheme Ordinance (KPSO).

1. Is the control to be varied a development standard

Clause 30B(2) provides a maximum floor space ratio for development within the A2 Floor Space Zone of 1:1 and in my opinion is considered to be a development standard as defined by Section 4 of the Environmental Planning and Assessment Act.

The proposed development has a maximum floor space ratio of 1.74:1 as defined.

2. What is the underlying object or purpose of the development standard

The stated objective for the maximum floor space ratio for the A2 zone is to establish a hierarchy of business centres for the following purposes:

- (b) *in floor space zone A2, the district retail and community service centre within the Municipality, to provide a reasonable level of service to the surrounding district of each centre.*

This objection will demonstrate that the proposal is consistent with the above objective.

3. Is compliance with the development standard consistent with the aim of SEPP No. 1

The aim of SEPP No.1 is to:

“Provide flexibility in the application of planning controls operating by virtue of development standards in circumstances where strict compliance with those standard in circumstances where strict compliance would, in any particular case, be unreasonable or unnecessary or tend to hinder the attainment of the objects specified in Section 5(a)(i) and (ii) of the Act.”

In this regard the objects of Section 5(a)(i) and (ii) of the Act are:

- (i) *The proposer management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment;*
- (ii) *The promotion and co-ordination of the orderly and economic use and development of land;*

In this regard it is considered that compliance with the development standard is not consistent with the aim of SEPP No.1 in that it fails to allow flexibility in design and does not have regard to the particular site circumstance whereby the proposal will result in a built form of a height, bulk and scale which is consistent with surrounding development and which does not result in any unreasonable streetscape impacts.

4. Why compliance with the standard is unreasonable or unnecessary in the circumstances of this case

To require compliance with the maximum floor space ratio development standard is considered both unreasonable and unnecessary for the following reasons:

- The proposal will not result in the height, bulk and scale of the development as viewed from Railway Avenue.
- The proposal in so far as it will be visible from Redleaf Lane and the Council car park will present as a two storey building having a built form consistent with surrounding development.
- The proposal will not result in a change in the hierarchal positioning of Wahroonga relative to the other business centres in Ku-ring-gai.

- The proposal will provide for a greater opportunity for both the existing tenants (businesses) and new businesses to better serve the surrounding district.
- The Council has previously granted consent to other developments within the Wahroonga Village precinct which have an FSR greater than 1:1.

5. Is the objection well founded

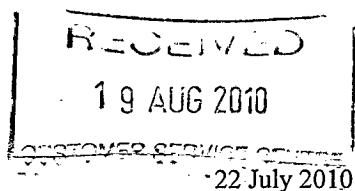
It is therefore submitted that it would be both unreasonable and unnecessary for strict compliance with this standard to be required in this case for the above mentioned reasons. It is submitted that the stated objectives of the clause have been achieved and the proposal does not result in any detrimental impact on the adjoining properties or the existing streetscape. The proposal is also considered to be in keeping with the desired future character of the locality.

Andrew Minto
Graduate Diploma (Urban & Regional Planning), Associate Diploma (Health & Building Surveying). CPP, MPIA, MAIBS.
GLENDINNING MINTO & ASSOCIATES PTY LTD
August 2010

Proposed Alterations and Additions
to Existing Mixed-Use
Retail/Commercial Development

4-8 Railway Avenue, Wahroonga

TRAFFIC AND PARKING ASSESSMENT REPORT



Ref 10062

VARGA TRAFFIC PLANNING Pty Ltd
Transport, Traffic and Parking Consultants 

Suite 6, 20 Young Street, Neutral Bay NSW 2089 - PO Box 1868, Neutral Bay NSW 2089
Ph: 9904 3224 Fax: 9904 3228, Email: varga@vtp.net.au

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APPENDIX A TRAFFIC SURVEY DATA

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| Figure 1 | Location |
| Figure 2 | Site |
| Figure 3 | Road Hierarchy |
| Figure 4 | Existing Traffic Controls |
| Figure 5 | Existing Parking Controls |

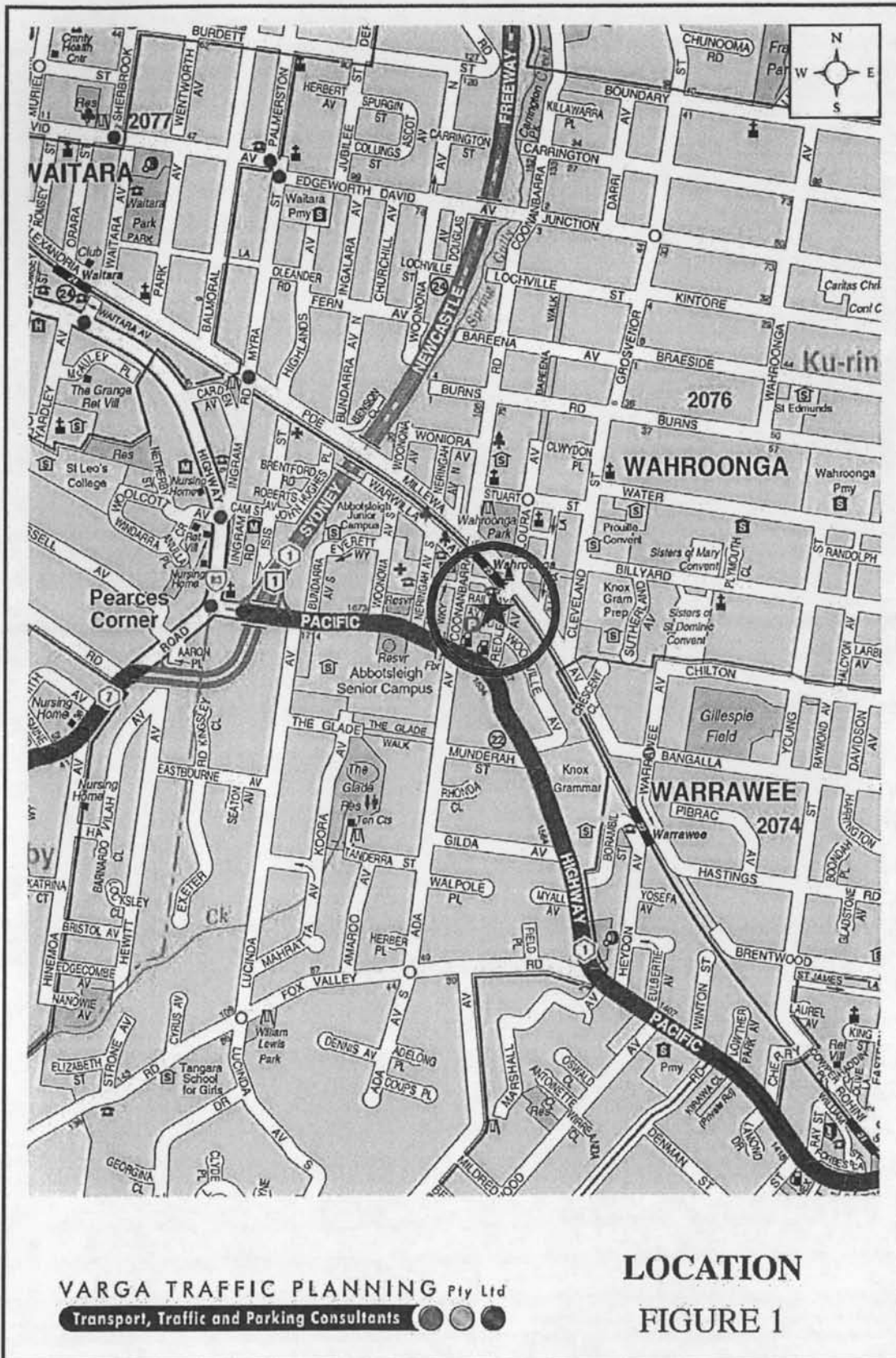
1. INTRODUCTION

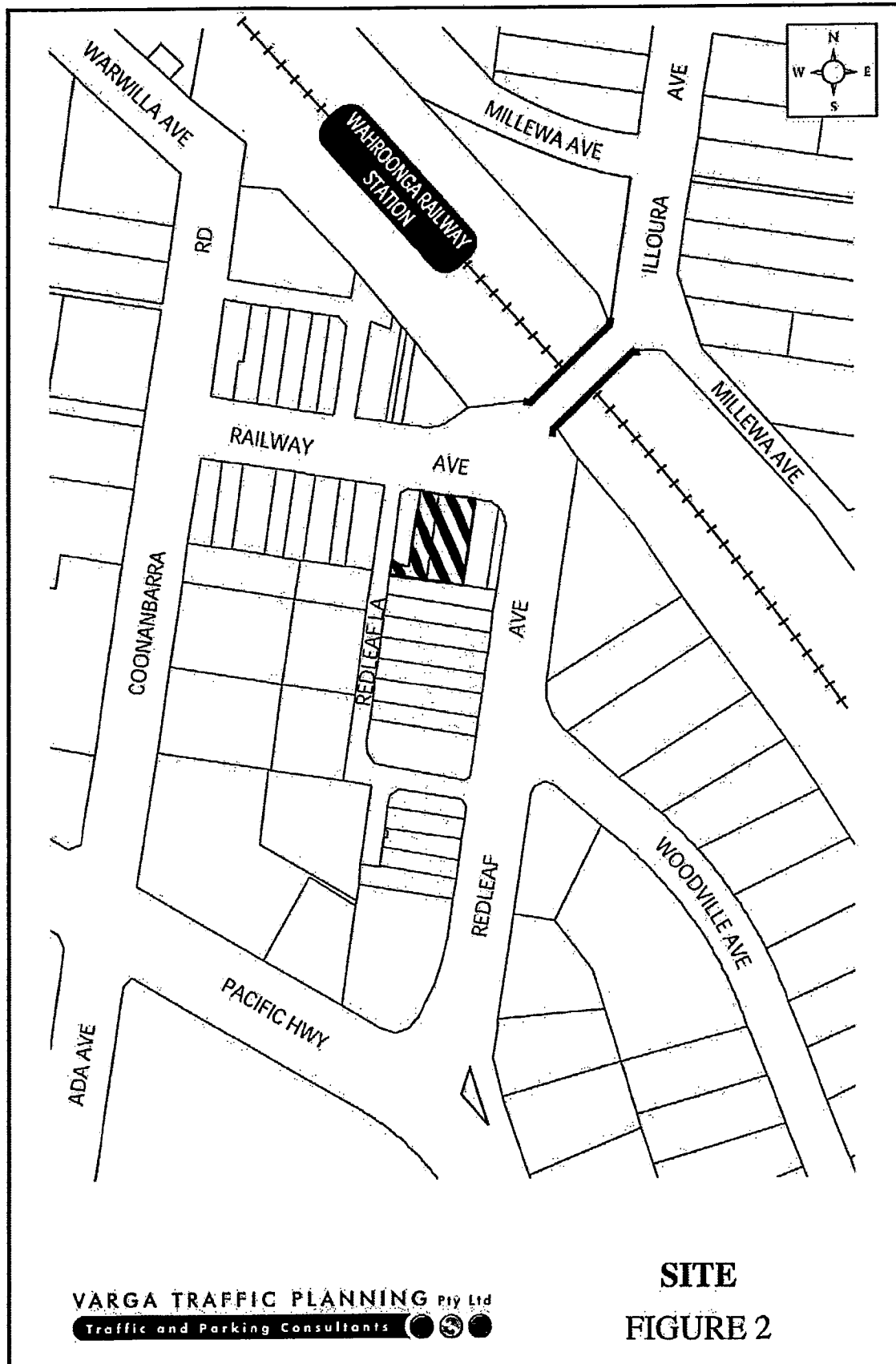
This report has been prepared to accompany a Development Application to Ku-ring-gai Council for a mixed-use retail/commercial development proposal to be located at 4-8 Railway Avenue, Wahroonga (Figures 1 and 2).

The proposed development will involve alterations and additions to the existing mixed-use retail/commercial building on the site, with carparking to be provided in a new single-level basement carparking area in accordance with Council's requirements.

The purpose of this report is to assess the traffic and parking implications of the development proposal and to that end this report:

- describes the site and provides details of the development proposal
- reviews the road network in the vicinity of the site, and the traffic conditions on that road network
- estimates the traffic generation potential of the development proposal, and assigns that traffic generation to the road network serving the site
- assesses the traffic implications of the development proposal in terms of road network capacity
- reviews the geometric design features of the proposed basement carparking facilities for compliance with the relevant codes and standards
- assesses the adequacy and suitability of the quantum of off-street carparking provided on the site.





2. PROPOSED DEVELOPMENT

Site

The subject site is located on the southern side of Railway Avenue, between Redleaf Lane and Redleaf Avenue. The site has a street frontage approximately 18.1m in length to Railway Avenue and a secondary frontage 4.6m in length to Redleaf Lane. The site occupies an area of approximately 530m².

The subject site is currently occupied by a two-storey mixed-use retail/commercial building with uses and floor areas as follows:

| | | |
|---------------------|-------------------------|--------------|
| Real Estate Office: | 88m ² | Ground floor |
| Newsagency: | 88m ² | Ground floor |
| Pharmacy: | 88m ² | Ground floor |
| Gymnasium: | 180m ² | First floor |
| Commercial Office: | 80m ² | First floor |
| TOTAL: | 524m² | |

Off-street parking is currently provided for 5 cars in a rear carparking area, comprising 2 spaces in individual lock-up garages and 3 outdoor spaces. Vehicular access to the carparking area is currently provided via a driveway off Redleaf Lane.

Proposed Development

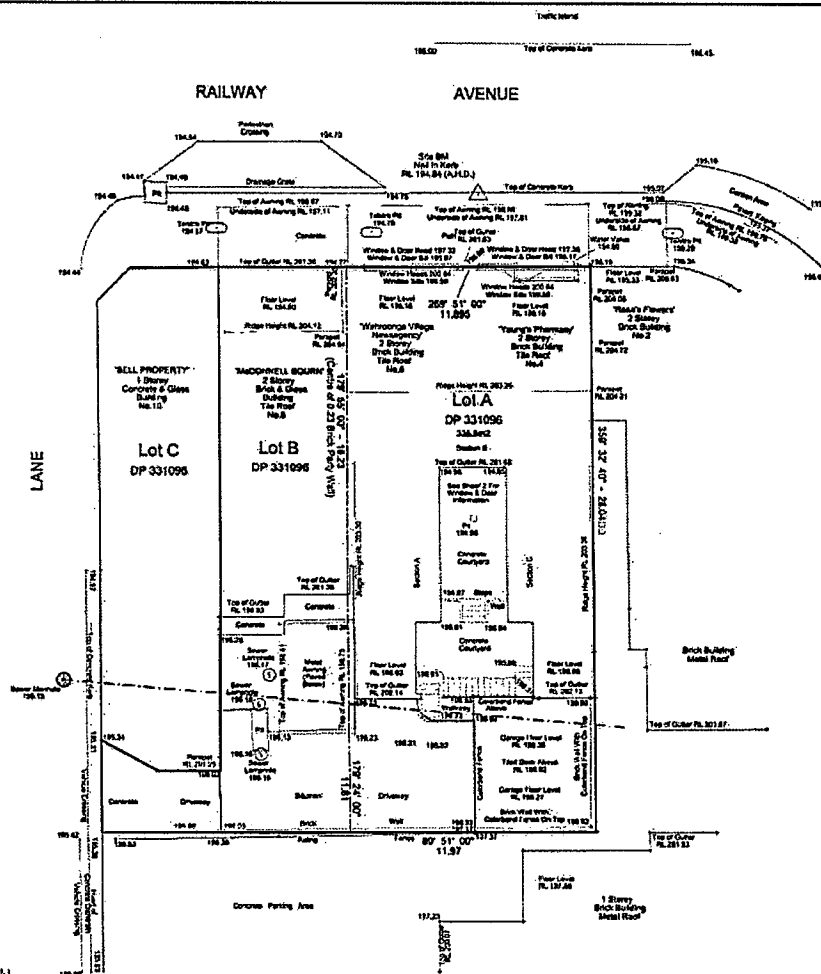
The proposed development will involve alterations and additions to the existing two-storey mixed-use retail/commercial building on the site, with carparking to be provided in a new basement carparking area. It is expected that the existing tenants will continue to occupy the building upon completion, yielding the following uses and floor areas:

| | | |
|---------------------|-------------------------|--------------|
| Real Estate Office: | 120m ² | Ground floor |
| Newsagency: | 97m ² | Ground floor |
| Pharmacy: | 194m ² | Ground floor |
| Gymnasium: | 177m ² | First floor |
| Commercial Office: | 246m ² | First floor |
| TOTAL: | 834m² | |

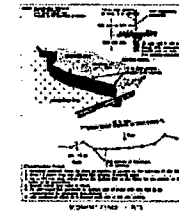
Off-street carparking is proposed for a total of 10 cars in a new single-level basement carparking area in accordance with Council's requirements. Vehicular access to the carparking facilities is to be provided via the existing driveway in Redleaf Lane which then leads to a car lift which will access the basement carparking area. It should be noted that all cars will be able to enter and exit the site in a forward direction at all times.

Plans of the proposed development have been prepared by *Rob Crump Design Pty Ltd* and are reproduced in the following pages.

SITE PLAN & SITE ANALYSIS PLAN



NOT structural plans, structures, adequacy, retaining walls, and drainage to engineers details. If in doubt, see. Builder to check all dimensions and details prior to construction. Construction is to be carried out in accordance with the plan. This plan is copyrighted by the company and may not be reproduced without the written consent of the company.



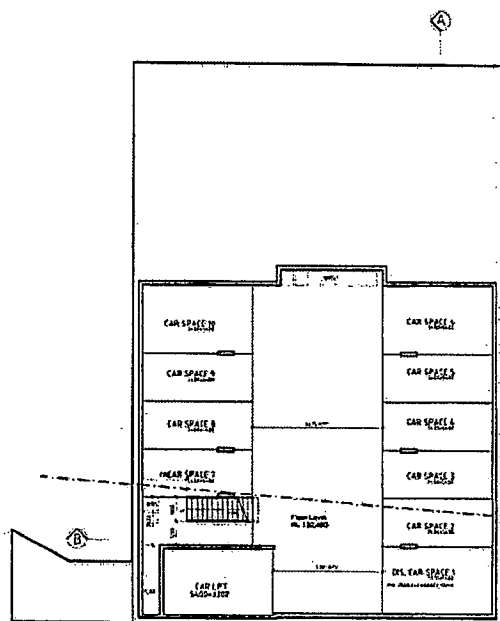
REDLEAF AVENUE

ROB CRUMP DESIGN
 Structural Design and Drafting Consultants
 1/19 14 721 760 815
 30 Surrey Street, Suite 101
 Ashfield NSW 2077
 Ph: (02) 9176 2003
 Fax: (02) 9176 2007
 Mobile: 0412 591 519
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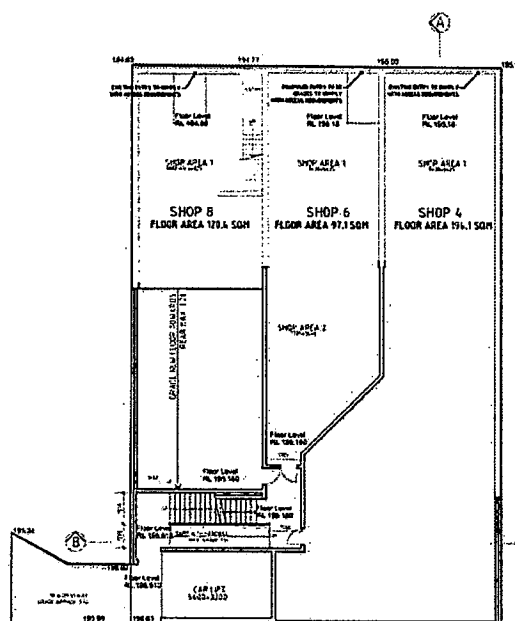
CARTLEY HOLDINGS
 ALTERATIONS AND ADDITIONS
 8A & 8B RAILWAY AVENUE
 WAHROONGA NSW 2070
 Scale: 1:100
 Date: 14 July 2018
 Job No: 1906/01
 Drawn: [Signature]

VARGA TRAFFIC PLANNING PTY LTD

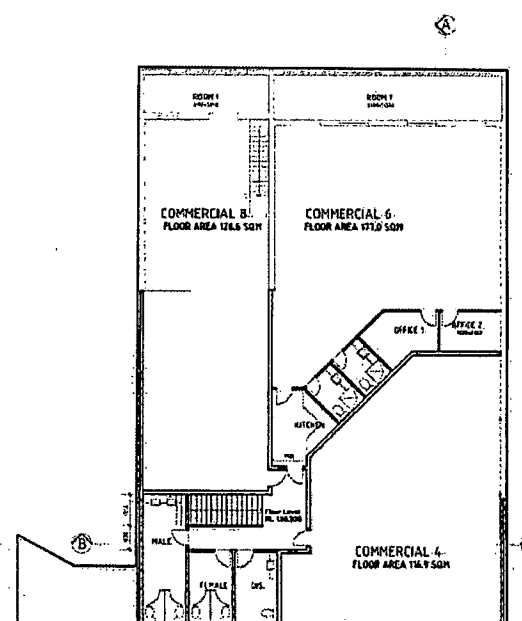
All structural work, structural alterations, retaining walls and drainage to engineering details. If in doubt, etc.
 Builder to check all dimensions and details prior to construction.
 Construction to be in accordance with existing structure if necessary.
 All alterations to be in accordance with existing structure.
 This plan is copyright to Rob Crump Design Pty Ltd and may not be reproduced without the written consent of the company.



BASEMENT FLOOR PLAN

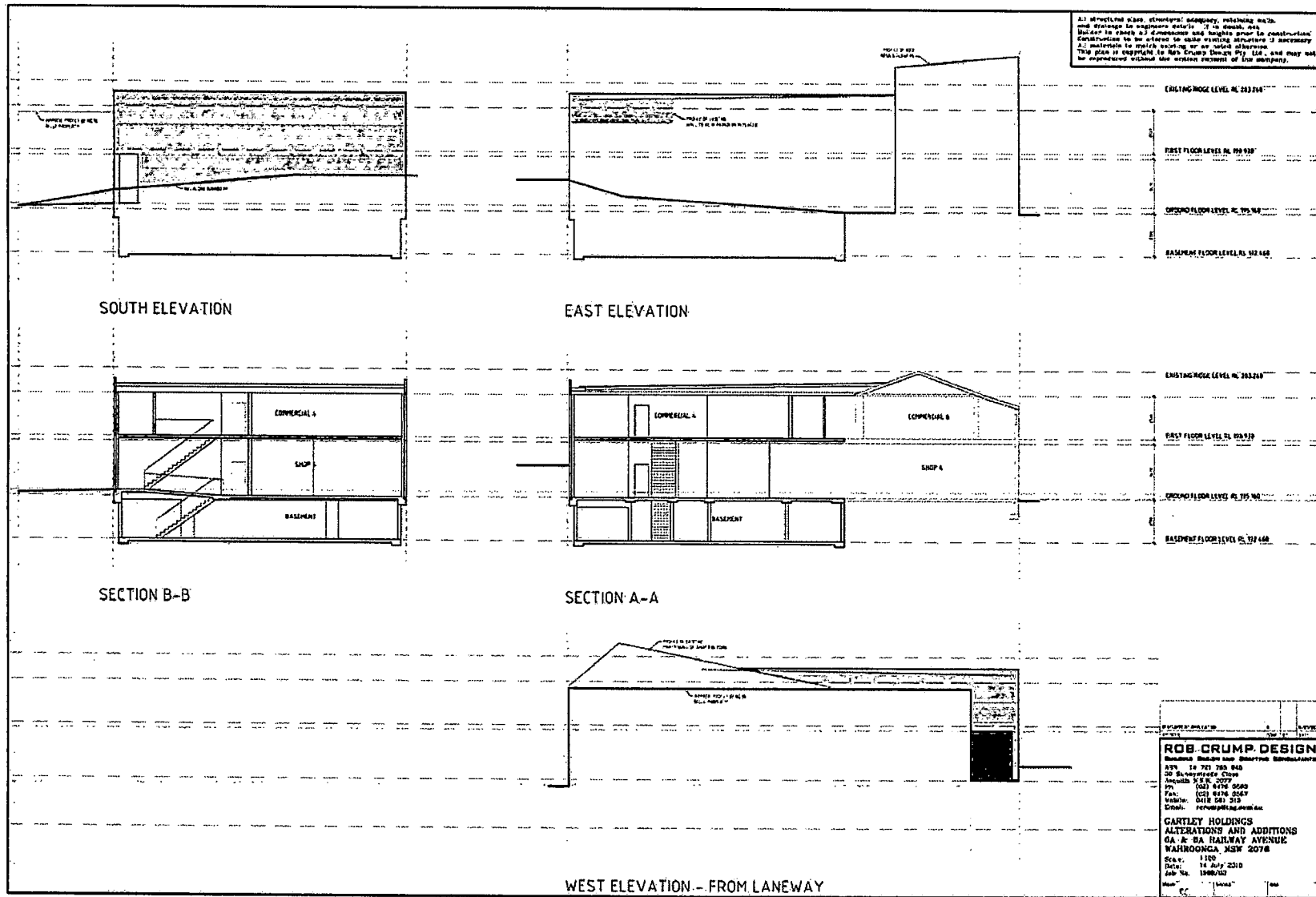


GROUND FLOOR PLAN.



FIRST FLOOR PLAN

ROB CRUMP DESIGN
 Building Design and Structural Engineering
 PHONE: 02 921 765 845
 100 Railway Parade Floor
 Rydalmere NSW 2114
 FAX: (02) 921 76882
 Email: rob@robcrumpdesign.com.au
 GARTLEY HOLDINGS
 ALTERATIONS AND ADDITIONS
 6A & 6A RAILWAY AVENUE
 WARRIMONGA NSW 2070
 Scale: 1:100
 Date: 15 JULY 2010
 Job No: 1004/101
 Drawn: [Signature]



3. TRAFFIC ASSESSMENT

Road Hierarchy

The road hierarchy allocated to the road network in the vicinity of the site by the Roads and Traffic Authority is illustrated on Figure 3.

The Pacific Highway is classified by the RTA as a *State Road* and provides the key north-south road link in the area, linking the City to Wahroonga and the F3 Freeway. It typically carries three traffic lanes in each direction in the vicinity of the site, with opposing traffic flows separated by a centre median island. Kerbside parking is permitted at selected locations outside of commuter peak periods.

Redleaf Avenue is classified by the RTA as a *Collector Route* which links the Pacific Highway to Millewa Avenue. It typically carries one traffic lane in each direction with kerbside parking generally permitted along both sides of the road.

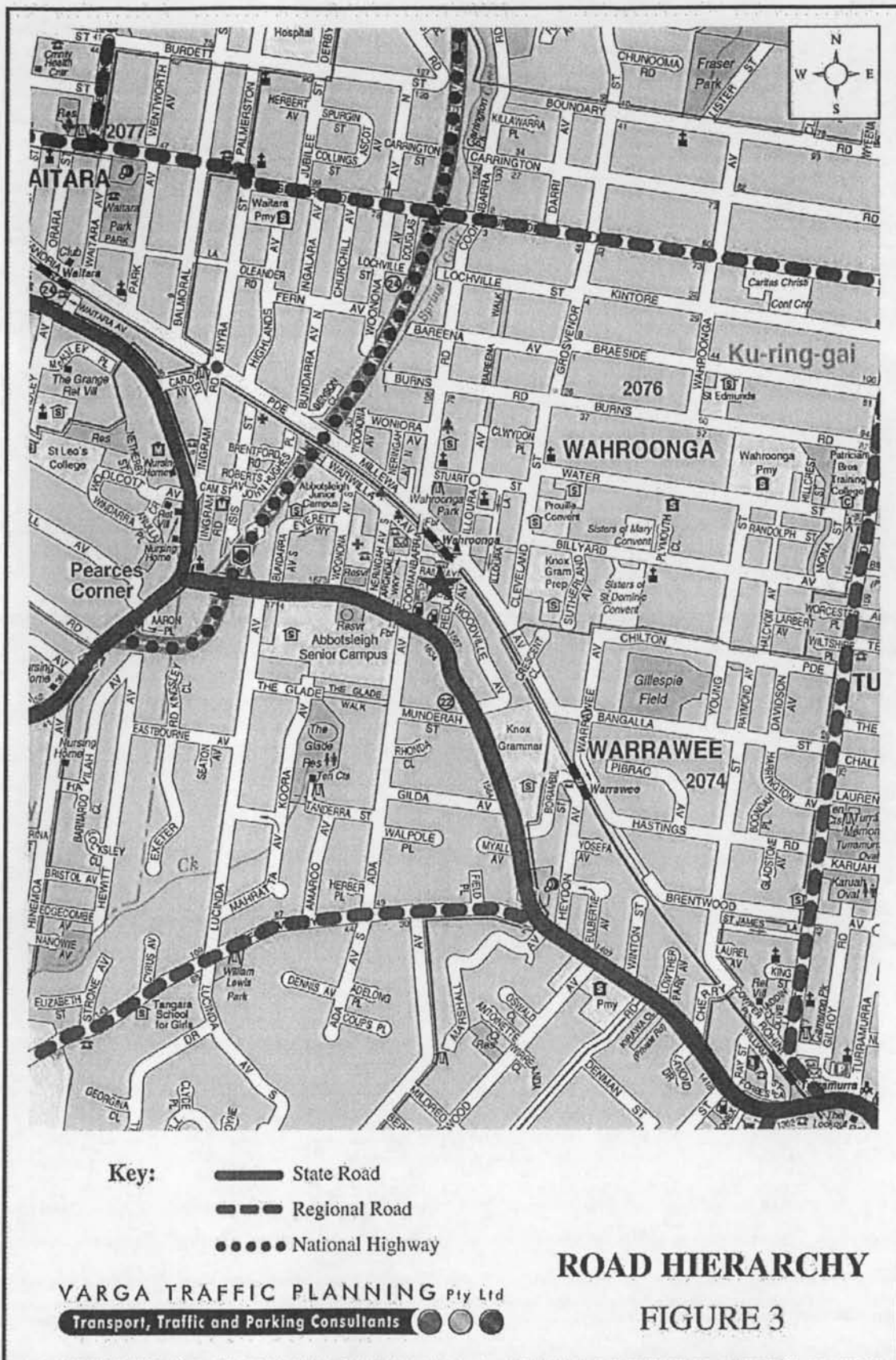
Railway Avenue is a local, unclassified road which is primarily used to provide vehicular and pedestrian access to frontage properties. Kerbside parking is generally permitted on both sides of the road.

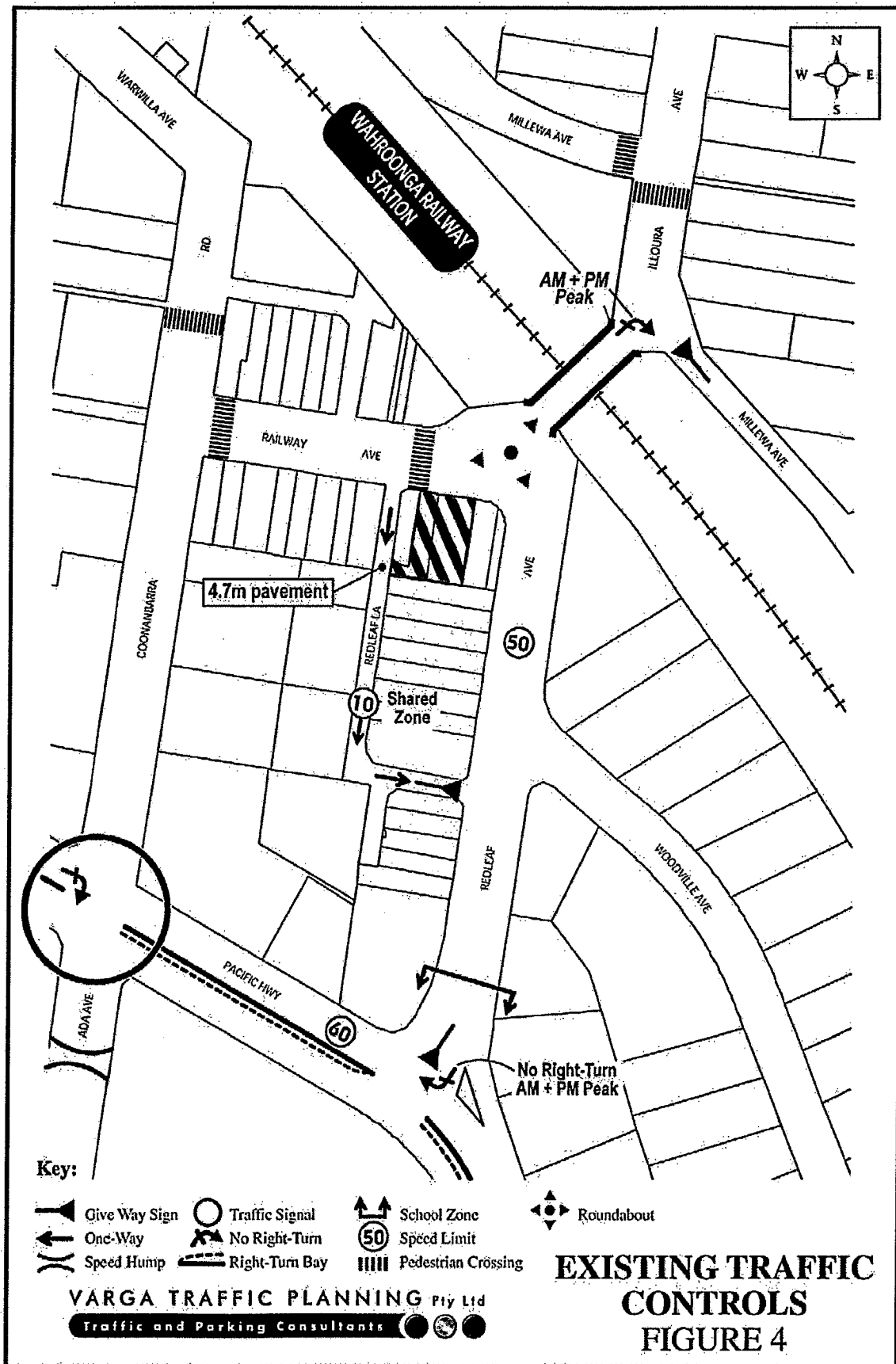
Redleaf Lane is a local, unclassified laneway which is primarily used to provide rear vehicular and pedestrian access to properties fronting Redleaf Avenue and Railway Avenue. Kerbside parking is not permitted.

Existing Traffic Controls

The existing traffic controls which apply to the road network in the vicinity of the site are illustrated on Figure 4. Key features of those traffic controls are:

- a 60 km/h SPEED LIMIT which applies to the Pacific Highway
- a 50 km/h SPEED LIMIT which applies to Railway Avenue and all other local roads in the area





- a 10km/h SHARED ZONE which applies to Redleaf Lane
- TRAFFIC SIGNALS in the Pacific Highway where it intersects with Coonanbarra Road
- a NO RIGHT-TURN southbound restriction in Redleaf Avenue onto the Pacific Highway during the morning and afternoon commuter peak periods
- a ONE-WAY southbound restriction in Redleaf Lane
- PEDESTRIAN CROSSINGS in Railway Avenue including outside the site frontage

Existing Traffic Conditions

An indication of the existing traffic conditions on the road network in the vicinity of the site is provided by peak period traffic surveys undertaken as part of this traffic study. The traffic surveys were undertaken in Redleaf Avenue where it intersects with Redleaf Lane on 30th June, 2010. The results of the traffic surveys are reproduced in full in Appendix A and reveal that:

- two-way traffic flows in Redleaf Avenue are typically in the order of 600-670 vehicles per hour (vph) during peak periods
- one-way eastbound traffic flows in Redleaf Lane are typically in the order of 60-100 vph during peak periods

Projected Traffic Generation

An indication of the traffic generation potential of the development proposal is provided by reference to the Roads and Traffic Authority's publication *Guide to Traffic Generating Developments, Section 3 - Landuse Traffic Generation (October 2002)*.

The RTA *Guidelines* are based on extensive surveys of a wide range of land uses and nominates the following traffic generation rates which are applicable to the development proposal:

Commercial Premises2.0 peak hour vehicle trips per 100m² GFA**Gymnasiums**9.0 peak hour vehicle trips per 100m² GFA

The RTA *Guidelines* do not nominate a traffic generation rate for small, local shops, referring only to major regional shopping centres incorporating supermarkets and department stores. For the purposes of this assessment therefore, the traffic generation rate of 2.0 peak hour vehicle trips/100m² GFA nominated in the RTA *Guidelines* for commercial premises has been adopted in respect of the retail component of the development proposal.

Application of the above traffic generation rates to the retail, commercial and gymnasium components of the development proposal yields a traffic generation potential of approximately 29 vehicle trips per hour during commuter peak periods as set out below:

Projected Future Traffic Generation

| | |
|---|-------------------------------------|
| Gymnasium (177m ²): | 15.9 peak hour vehicle trips |
| Real Estate & Offices (366m ²): | 7.3 peak hour vehicle trips |
| Newsagent & Pharmacy (291m ²): | 5.8 peak hour vehicle trips |
| TOTAL TRAFFIC GENERATION POTENTIAL: | 29.0 peak hour vehicle trips |

That projected future level of traffic generation potential should however, be offset or *discounted* by the volume of traffic which could reasonably be expected to be generated by the existing uses of the site, in order to determine the *nett increase (or decrease)* in traffic generation potential expected to occur as a consequence of the development proposal.

Application of the above traffic generation rates to the retail, commercial and gymnasium components of the existing development yields a traffic generation potential of approximately 23 vehicle trips per hour during commuter peak periods as set out below:

Existing Traffic Generation Potential

| | |
|---|-------------------------------------|
| Gymnasium (180m ²): | 16.2 peak hour vehicle trips |
| Real Estate & Offices (168m ²): | 3.4 peak hour vehicle trips |
| Newsagent & Pharmacy (176m ²): | 3.5 peak hour vehicle trips |
| TOTAL TRAFFIC GENERATION POTENTIAL: | 23.1 peak hour vehicle trips |

Accordingly, it is likely that the proposed development will result in an *increase* in the traffic generation potential the site of approximately 6 vph as set out below:

| Projected Nett Increase in Peak Hour Traffic Generation Potential as a consequence of the development proposal | |
|---|--------------------------|
| Projected Future Traffic Generation Potential: | 29.0 vehicle trips |
| Existing Traffic Generation Potential: | 23.1 vehicle trips |
| NETT INCREASE IN TRAFFIC GENERATION POTENTIAL: | 5.9 vehicle trips |

That projected increase in traffic activity as a consequence of the development proposal is *statistically insignificant* and will clearly not have any unacceptable traffic implications in terms of road network capacity, as is demonstrated by the following section of this report.

For the purposes of this assessment however, it has been assumed that *all* of the projected future traffic flows of 29 peak hour vehicle trips will be new or *additional* to the existing traffic flows currently using the adjacent road network.

Traffic Implications - Road Network Capacity

The traffic implications of development proposals primarily concern the effects that any *additional* traffic flows may have on the operational performance of the nearby road network. Those effects can be assessed using the INTANAL program which is widely used by the RTA and many LGA's for this purpose. Criteria for evaluating the results of INTANAL analysis are reproduced in the following pages.

The results of the INTANAL analysis of the Redleaf Avenue & Redleaf Lane intersection are summarised on Table 3.1 below, revealing that:

- the Redleaf Avenue & Redleaf Lane intersection currently operates at *Level of Service "A"* under the existing traffic demands with total average vehicle delays in the order of 5 seconds/vehicle
- under the projected future traffic demands expected to be generated by the development proposal, the Redleaf Avenue & Redleaf Lane intersection will continue to operate at

Level of Service "A", with increases in average vehicle delays of *less than 1* second/vehicle.

In the circumstances, it is clear that the proposed development will not have any unacceptable traffic implications in terms of road network capacity.

| TABLE 3.1 - RESULTS OF INTANAL ANALYSIS OF REDLEAF AVENUE & REDLEAF LANE | | | | |
|---|----------------------------|------------|---|------------|
| Key Indicators | Existing Traffic Demand | | Projected Development Traffic Demand | |
| | AM | PM | AM | PM |
| Level of Service | A | A | A | A |
| Degree of Saturation | 0.10 | 0.18 | 0.12 | 0.21 |
| Average Vehicle Delay (secs/veh) | | | | |
| Redleaf Avenue (south) T | 0.0 | 0.0 | 0.0 | 0.0 |
| Redleaf Avenue (north) T | 0.0 | 0.0 | 0.0 | 0.0 |
| Redleaf Lane (west) L R | 4.0 | 4.5 | 4.1 | 4.7 |
| | 6.2 | 6.6 | 6.3 | 6.8 |
| TOTAL AVERAGE VEHICLE DELAY | 4.4 | 4.9 | 4.5 | 5.1 |

RED_REDX

RED_REDP

Criteria for Interpreting Results of Intanal Analysis

1. Level of Service (LOS)

| LOS | Traffic Signals and Roundabouts | Give Way and Stop Signs |
|-----|--|---|
| 'A' | Good operation. | Good operation. |
| 'B' | Good with acceptable delays and spare capacity. | Acceptable delays and spare capacity. |
| 'C' | Satisfactory. | Satisfactory but accident study required. |
| 'D' | Operating near capacity. | Near capacity and accident study required. |
| 'E' | At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode. | At capacity and requires other control mode. |
| 'F' | Unsatisfactory and requires additional capacity. | Unsatisfactory and requires other control mode. |

2. Average Vehicle Delay (AVD)

The AVD provides a measure of the operational performance of an intersection as indicated on the table below which relates AVD to LOS. The AVD's listed in the table should be taken as a guide only as longer delays could be tolerated in some locations (ie inner city conditions) and on some roads (ie minor side street intersecting with a major arterial route).

| Level of Service | Average Delay per Vehicle (secs/veh) | Traffic Signals, Roundabout | Give Way and Stop Signs |
|------------------|--------------------------------------|--|--|
| A | less than 14 | Good operation. | Good operation. |
| B | 15 to 28 | Good with acceptable delays and spare capacity. | Acceptable delays and spare capacity. |
| C | 29 to 42 | Satisfactory. | Satisfactory but accident study required. |
| D | 43 to 56 | Operating near capacity. | Near capacity and accident study required. |
| E | 57 to 70 | At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode. | At capacity and requires other control mode. |

3. Degree of Saturation (DS)

The DS is another measure of the operational performance of individual intersections.

For intersections controlled by traffic signals¹ both queue length and delay increase rapidly as DS approaches 1, and it is usual to attempt to keep DS to less than 0.9. Values of DS in the order of 0.7 generally represent satisfactory intersection operation. When DS exceeds 0.9 queues can be anticipated.

For intersections controlled by a roundabout or GIVE WAY or STOP signs, satisfactory intersection operation is indicated by a DS of 0.8 or less.

¹ The values of DS for intersections under traffic signal control are only valid for cycle length of 120 secs.

4. PARKING IMPLICATIONS

Existing Kerbside Parking Restrictions

The existing kerbside parking restrictions which apply to the road network in the vicinity of the site are illustrated on Figure 5 and comprise:

- NO STOPPING restrictions in the vicinity of the Redleaf Avenue and Railway Avenue intersection
- NO PARKING restrictions along both sides of Redleaf Lane
- NO PARKING restrictions along the Railway Avenue site frontage
- 1 HOUR PARKING elsewhere in Railway Avenue
- 1 HOUR PARKING along both sides of Redleaf Avenue
- a 2 HOUR PUBLIC CARPARK located in between Coonanbarra Road and Redleaf Lane.

Off-Street Parking Provisions

The off-street parking requirements applicable to the development proposal are specified in Council's *Development Control Plan No. 43 – Car Parking* document in the following terms:

Gymnasiums

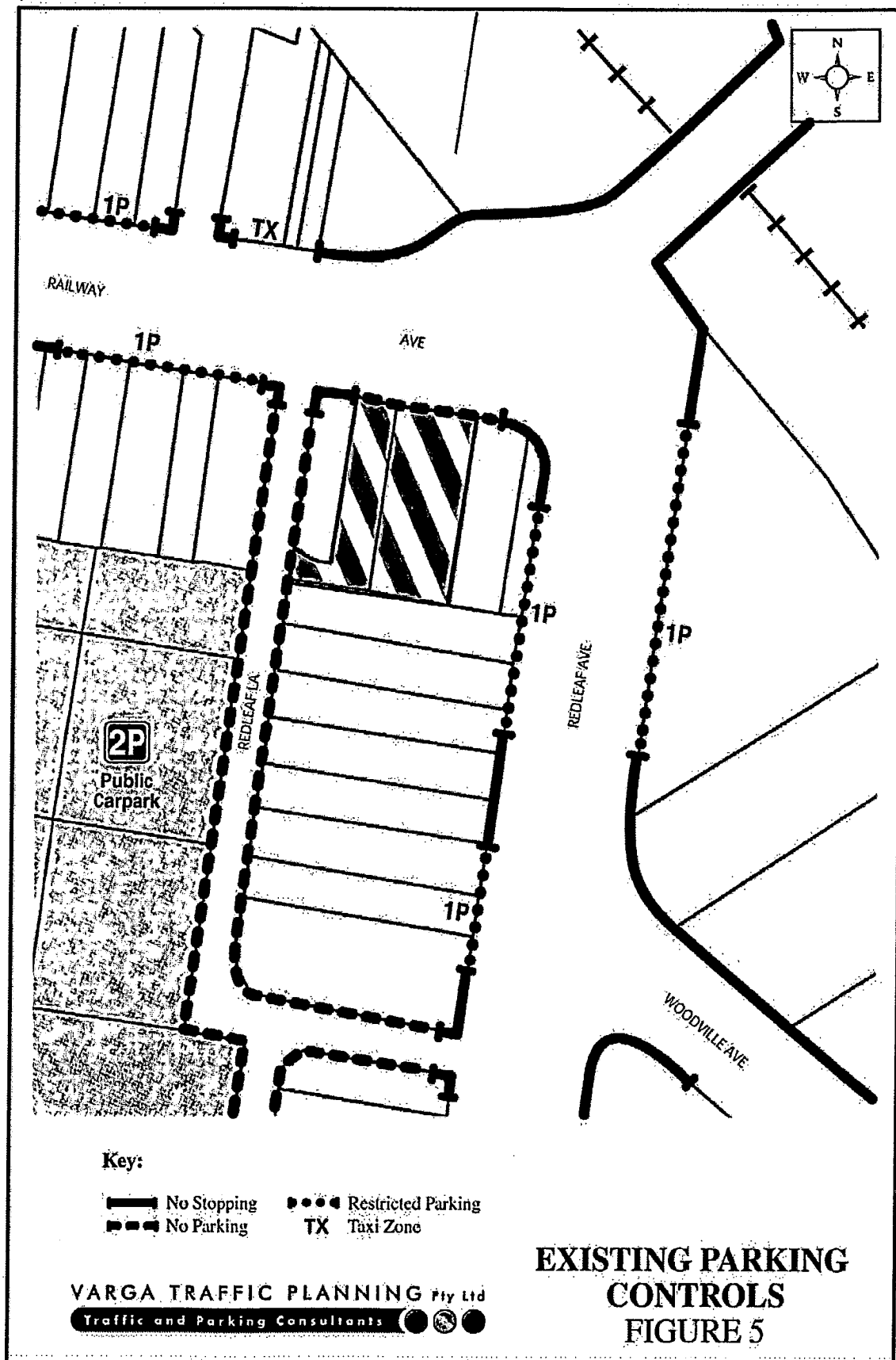
1 space per 17m² GFA

Office & Commercial

1 space per 33m² GFA

Retail Shops (within 400m radius of a Railway Station)

1 space per 26m² GFA, may be reduced to 1 space per 35m² GFA



Application of the above parking requirements to the retail, commercial and gymnasium components of the development proposal yields an off-street parking requirement of 30 parking spaces as set out below:

| | |
|---|--------------------|
| Gymnasium (177m ²): | 10.4 spaces |
| Real Estate & Offices (366m ²): | 11.1 spaces |
| Newsagent & Pharmacy (291m ²): | 8.3 spaces |
| TOTAL: | 29.8 spaces |

By way of comparison, application of the above parking requirements to the existing retail, commercial and gymnasium on the site yields an off-street parking requirement of 23 spaces as set out below:

| | |
|---|--------------------|
| Gymnasium (180m ²): | 10.6 spaces |
| Real Estate & Offices (168m ²): | 5.1 spaces |
| Newsagent & Pharmacy (176m ²): | 6.8 spaces |
| TOTAL: | 22.5 spaces |

The proposed development makes provision for a total of 10 off-street carparking spaces, thereby resulting in a *shortfall* of 20 parking spaces. However that *shortfall* is considered to be acceptable in this instance because:

- the nett increase in the existing parking shortfall (of 18 spaces) is only 2 spaces
- the proposed development is to be reoccupied by the existing tenants, and is therefore not expected to result in any substantial increase in parking demands
- the site is located directly opposite Wahroonga Railway Station, enabling customers and in particular, staff, to travel to/from the site by public transport
- a large public carparking area is located at the rear of the site, in Redleaf Lane which may be used by customers and gym patrons.

In addition, it is also pertinent to note that gymnasiums tend to generate their *peak parking demands* outside normal business hours, usually between 5.30pm-6.30pm on weekday evenings as detailed in the RTA *Guidelines*. As such, the peak parking demands expected to

be generated by the gymnasium will not coincide with the peak parking demands generated by the other uses on the site, thereby reducing the cumulative parking demands which may be generated by the site at any given point in time.

In the circumstances, it is reasonable to conclude that the proposed provision of 10 off-street carparking spaces will comfortably satisfy the needs of the development.

The geometric design layout of the proposed carparking facilities have been designed to comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 1 - Off-Street Carparking AS2890.1* in respect of parking bay dimensions and aisle widths.

In summary, the proposed parking facilities satisfy the relevant requirements specified in both Council's Parking Code as well as the Australian Standards and it is therefore concluded that the proposed development will not have any unacceptable parking implications.

APPENDIX A

TRAFFIC SURVEY DATA



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

Client : Varga Traffic Planning

Job No/Name : 3173 Wairoanga Redleaf Ln

Day/Date : Wednesday 30th June 2010

Lights

| Time Per | NORTH Redleaf Av | | WEST Redleaf Ln | | SOUTH Redleaf Av | | TOT |
|-------------|---------------------|---|--------------------|----|---------------------|-----|------|
| | L | R | L | R | L | R | |
| 0730 - 0745 | 51 | 0 | 0 | 1 | 0 | 74 | 126 |
| 0745 - 0800 | 47 | 0 | 4 | 1 | 0 | 96 | 148 |
| 0800 - 0815 | 34 | 0 | 8 | 1 | 0 | 74 | 117 |
| 0815 - 0830 | 29 | 0 | 10 | 3 | 0 | 81 | 123 |
| 0830 - 0845 | 43 | 0 | 9 | 2 | 0 | 101 | 155 |
| 0845 - 0900 | 54 | 0 | 18 | 2 | 0 | 100 | 174 |
| 0900 - 0915 | 47 | 0 | 12 | 2 | 0 | 110 | 171 |
| 0915 - 0930 | 62 | 0 | 10 | 5 | 0 | 77 | 154 |
| Per End | 367 | 0 | 71 | 17 | 0 | 713 | 1168 |

Heavies

| Time Per | NORTH Redleaf Av | | WEST Redleaf Ln | | SOUTH Redleaf Av | | TOT |
|-------------|---------------------|---|--------------------|---|---------------------|---|-----|
| | L | R | L | R | L | R | |
| 0730 - 0745 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0745 - 0800 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0800 - 0815 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0815 - 0830 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0830 - 0845 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 0845 - 0900 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0900 - 0915 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0915 - 0930 | 2 | 0 | 0 | 0 | 0 | 1 | 3 |
| Per End | 2 | 0 | 0 | 0 | 0 | 2 | 4 |

Combined

| Time Per | NORTH Redleaf Av | | WEST Redleaf Ln | | SOUTH Redleaf Av | | TOT |
|-------------|---------------------|---|--------------------|----|---------------------|-----|------|
| | L | R | L | R | L | R | |
| 0730 - 0745 | 51 | 0 | 0 | 1 | 0 | 74 | 126 |
| 0745 - 0800 | 47 | 0 | 4 | 1 | 0 | 96 | 148 |
| 0800 - 0815 | 34 | 0 | 8 | 1 | 0 | 74 | 117 |
| 0815 - 0830 | 29 | 0 | 10 | 3 | 0 | 81 | 123 |
| 0830 - 0845 | 43 | 0 | 9 | 2 | 0 | 102 | 156 |
| 0845 - 0900 | 54 | 0 | 18 | 2 | 0 | 100 | 174 |
| 0900 - 0915 | 47 | 0 | 12 | 2 | 0 | 110 | 171 |
| 0915 - 0930 | 64 | 0 | 10 | 5 | 0 | 78 | 157 |
| Per End | 369 | 0 | 71 | 17 | 0 | 715 | 1172 |

Lights

| Peak Per | NORTH Redleaf Av | | WEST Redleaf Ln | | SOUTH Redleaf Av | | TOT |
|-------------|---------------------|---|--------------------|----|---------------------|-----|-----|
| | L | R | L | R | L | R | |
| 0730 - 0830 | 161 | 0 | 22 | 6 | 0 | 325 | 514 |
| 0745 - 0845 | 153 | 0 | 31 | 7 | 0 | 352 | 543 |
| 0800 - 0900 | 160 | 0 | 45 | 8 | 0 | 356 | 569 |
| 0815 - 0915 | 173 | 0 | 49 | 9 | 0 | 392 | 623 |
| 0830 - 0930 | 206 | 0 | 49 | 11 | 0 | 388 | 654 |

Heavies

| Peak Per | NORTH Redleaf Av | | WEST Redleaf Ln | | SOUTH Redleaf Av | | TOT |
|-------------|---------------------|---|--------------------|---|---------------------|---|-----|
| | L | R | L | R | L | R | |
| 0730 - 0830 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0745 - 0845 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 0800 - 0900 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 0815 - 0915 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 0830 - 0930 | 2 | 0 | 0 | 0 | 0 | 2 | 4 |

Combined

| Peak Per | NORTH Redleaf Av | | WEST Redleaf Ln | | SOUTH Redleaf Av | | TOT |
|-------------|---------------------|---|--------------------|----|---------------------|-----|-----|
| | L | R | L | R | L | R | |
| 0730 - 0830 | 161 | 0 | 22 | 6 | 0 | 325 | 514 |
| 0745 - 0845 | 153 | 0 | 31 | 7 | 0 | 353 | 544 |
| 0800 - 0900 | 160 | 0 | 45 | 8 | 0 | 357 | 570 |
| 0815 - 0915 | 173 | 0 | 49 | 9 | 0 | 393 | 624 |
| 0830 - 0930 | 208 | 0 | 49 | 11 | 0 | 390 | 658 |

| | | | | | | | |
|---------|-----|---|----|----|---|-----|-----|
| PEAK HR | 206 | 0 | 49 | 11 | 0 | 388 | 654 |
|---------|-----|---|----|----|---|-----|-----|

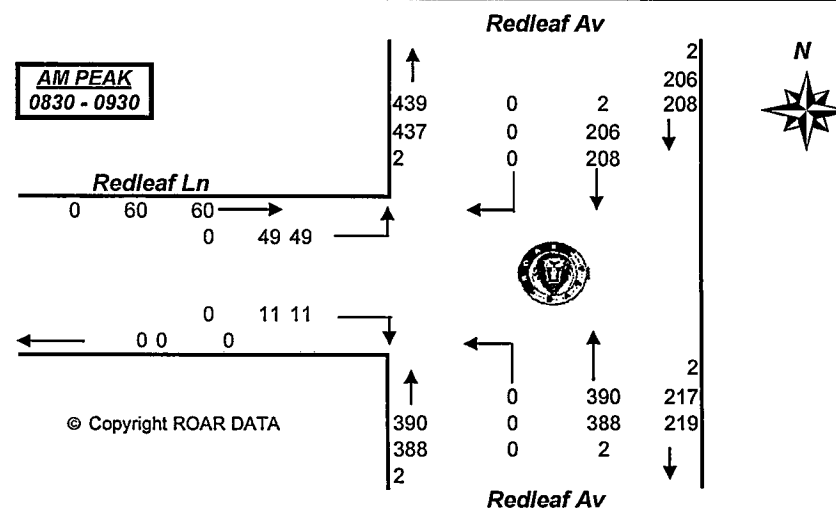
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|---------|---|---|---|---|---|---|---|
| PEAK HR | 2 | 0 | 0 | 0 | 0 | 2 | 4 |
|---------|---|---|---|---|---|---|---|

| | | | | | | | |
|---------|-----|---|----|----|---|-----|-----|
| PEAK HR | 208 | 0 | 49 | 11 | 0 | 390 | 658 |
|---------|-----|---|----|----|---|-----|-----|

Peds

| Time Per | NORTH Redleaf Av | | WEST Redleaf Ln | | SOUTH Redleaf Av | | TOT |
|-------------|---------------------|---|--------------------|---|---------------------|---|-----|
| | L | R | L | R | L | R | |
| 0730 - 0745 | 1 | | 5 | | 1 | | 7 |
| 0745 - 0800 | 6 | | 12 | | 2 | | 20 |
| 0800 - 0815 | 1 | | 10 | | 3 | | 14 |
| 0815 - 0830 | 11 | | 6 | | 2 | | 19 |
| 0830 - 0845 | 10 | | 9 | | 2 | | 21 |
| 0845 - 0900 | 3 | | 3 | | 3 | | 9 |
| 0900 - 0915 | 10 | | 10 | | 4 | | 24 |
| 0915 - 0930 | 7 | | 11 | | 1 | | 19 |
| Per End | 49 | | 66 | | 18 | | 133 |

| Peak Per | NORTH Redleaf Av | | WEST Redleaf Ln | | SOUTH Redleaf Av | | TOT |
|-------------|---------------------|---|--------------------|---|---------------------|---|-----|
| | L | R | L | R | L | R | |
| 0730 - 0830 | 19 | | 33 | | 8 | | 60 |
| 0745 - 0845 | 28 | | 37 | | 9 | | 74 |
| 0800 - 0900 | 25 | | 28 | | 10 | | 63 |
| 0815 - 0915 | 34 | | 28 | | 11 | | 73 |
| 0830 - 0930 | 30 | | 33 | | 10 | | 73 |
| PEAK HR | 30 | | 33 | | 10 | | 73 |





R.O.A.R DATA

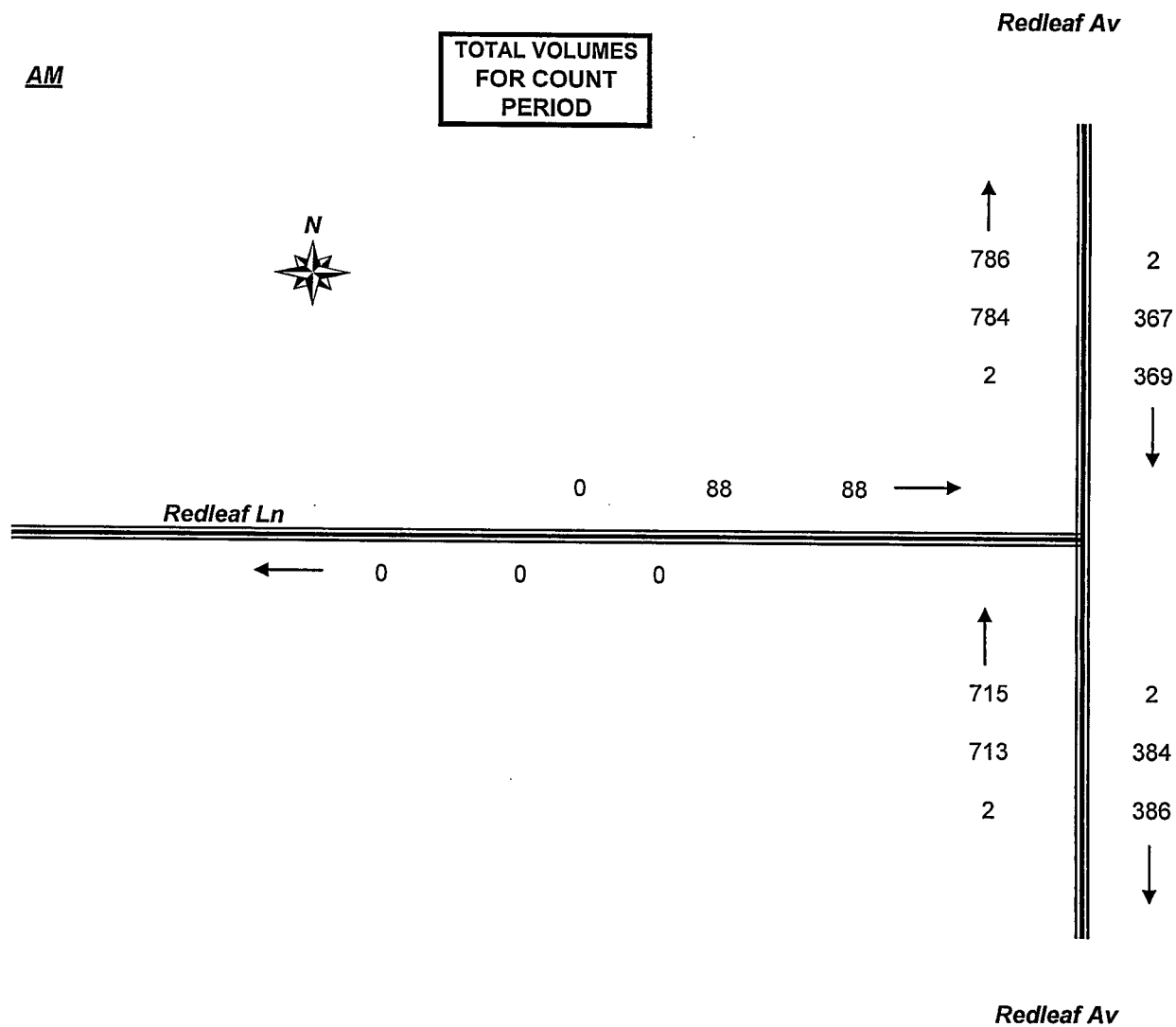
Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

Client : Varga Traffic Planning

Job No/Name : 3173 Wahroonga Redleaf Ln

Day/Date : Wednesday 30th June 2010





R.O.A.R DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

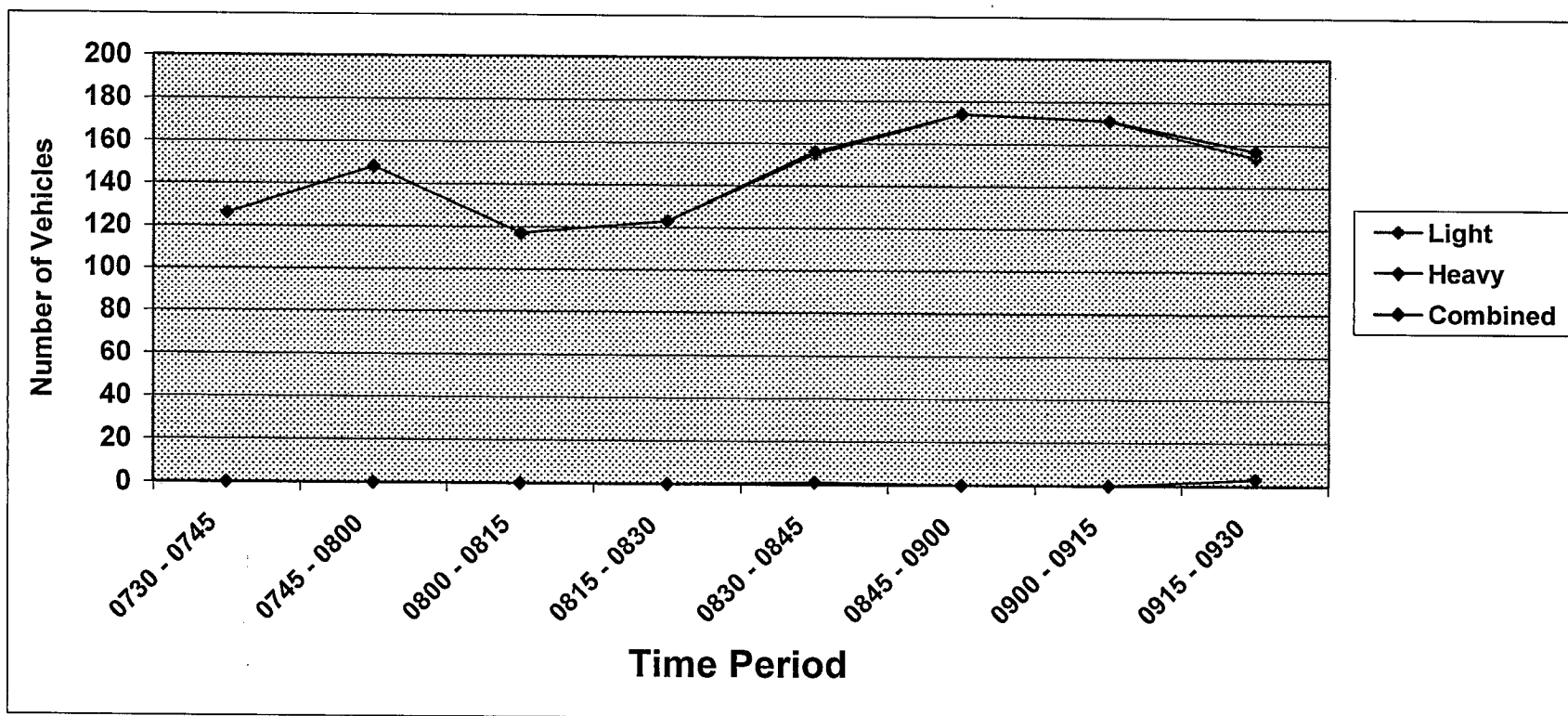
Client : Varga Traffic Planning

Job No/Name : 3173 Wahroonga Redleaf Ln

Day/Date : Wednesday 30th June 2010

AM

Redleaf Av & Redleaf Ln





R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

Client : Varga Traffic Planning

Job No/Name : 3173 Wahroonga Redleaf Ln

Day/Date : Wednesday 30th June 2010

Lights

| Time Per | NORTH | | WEST | | SOUTH | | TOT |
|-------------|------------|------------|------------|------------|------------|------------|------|
| | Redleaf Av | Redleaf Ln | Redleaf Ln | Redleaf Av | Redleaf Av | Redleaf Ln | |
| 1630 - 1645 | 60 | 0 | 20 | 6 | 0 | 103 | 189 |
| 1645 - 1700 | 32 | 0 | 21 | 3 | 0 | 107 | 163 |
| 1700 - 1715 | 43 | 0 | 21 | 7 | 0 | 109 | 180 |
| 1715 - 1730 | 49 | 0 | 20 | 4 | 0 | 83 | 156 |
| 1730 - 1745 | 40 | 0 | 22 | 4 | 0 | 74 | 140 |
| 1745 - 1800 | 52 | 0 | 8 | 3 | 0 | 93 | 156 |
| 1800 - 1815 | 43 | 0 | 20 | 3 | 0 | 89 | 155 |
| 1815 - 1830 | 60 | 0 | 14 | 7 | 0 | 104 | 185 |
| Per End | 379 | 0 | 146 | 37 | 0 | 762 | 1324 |

Heavies

| Time Per | NORTH | | WEST | | SOUTH | | TOT |
|-------------|------------|------------|------------|------------|------------|------------|-----|
| | Redleaf Av | Redleaf Ln | Redleaf Ln | Redleaf Av | Redleaf Av | Redleaf Ln | |
| 1630 - 1645 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1645 - 1700 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1700 - 1715 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1715 - 1730 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1730 - 1745 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1745 - 1800 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1800 - 1815 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1815 - 1830 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Per End | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Combined

| Time Per | NORTH | | WEST | | SOUTH | | TOT |
|-------------|------------|------------|------------|------------|------------|------------|------|
| | Redleaf Av | Redleaf Ln | Redleaf Ln | Redleaf Av | Redleaf Av | Redleaf Ln | |
| 1630 - 1645 | 60 | 0 | 20 | 6 | 0 | 103 | 189 |
| 1645 - 1700 | 32 | 0 | 21 | 3 | 0 | 107 | 163 |
| 1700 - 1715 | 43 | 0 | 21 | 7 | 0 | 109 | 180 |
| 1715 - 1730 | 49 | 0 | 20 | 4 | 0 | 83 | 156 |
| 1730 - 1745 | 40 | 0 | 22 | 4 | 0 | 74 | 140 |
| 1745 - 1800 | 52 | 0 | 8 | 3 | 0 | 93 | 156 |
| 1800 - 1815 | 43 | 0 | 20 | 3 | 0 | 89 | 155 |
| 1815 - 1830 | 60 | 0 | 14 | 7 | 0 | 104 | 185 |
| Per End | 379 | 0 | 146 | 37 | 0 | 762 | 1324 |

Lights

| Peak Per | NORTH | | WEST | | SOUTH | | TOT |
|-------------|------------|------------|------------|------------|------------|------------|-----|
| | Redleaf Av | Redleaf Ln | Redleaf Ln | Redleaf Av | Redleaf Av | Redleaf Ln | |
| 1630 - 1730 | 184 | 0 | 82 | 20 | 0 | 402 | 688 |
| 1645 - 1745 | 164 | 0 | 84 | 18 | 0 | 373 | 639 |
| 1700 - 1800 | 184 | 0 | 71 | 18 | 0 | 359 | 632 |
| 1715 - 1815 | 184 | 0 | 70 | 14 | 0 | 339 | 607 |
| 1730 - 1830 | 195 | 0 | 64 | 17 | 0 | 360 | 636 |

Heavies

| Peak Per | NORTH | | WEST | | SOUTH | | TOT |
|-------------|------------|------------|------------|------------|------------|------------|-----|
| | Redleaf Av | Redleaf Ln | Redleaf Ln | Redleaf Av | Redleaf Av | Redleaf Ln | |
| 1630 - 1730 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1645 - 1745 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1700 - 1800 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1715 - 1815 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1730 - 1830 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Combined

| Peak Per | NORTH | | WEST | | SOUTH | | TOT |
|-------------|------------|------------|------------|------------|------------|------------|-----|
| | Redleaf Av | Redleaf Ln | Redleaf Ln | Redleaf Av | Redleaf Av | Redleaf Ln | |
| 1630 - 1730 | 184 | 0 | 82 | 20 | 0 | 402 | 688 |
| 1645 - 1745 | 164 | 0 | 84 | 18 | 0 | 373 | 639 |
| 1700 - 1800 | 184 | 0 | 71 | 18 | 0 | 359 | 632 |
| 1715 - 1815 | 184 | 0 | 70 | 14 | 0 | 339 | 607 |
| 1730 - 1830 | 195 | 0 | 64 | 17 | 0 | 360 | 636 |

| | | | | | | | |
|---------|-----|---|----|----|---|-----|-----|
| PEAK HR | 184 | 0 | 82 | 20 | 0 | 402 | 688 |
|---------|-----|---|----|----|---|-----|-----|

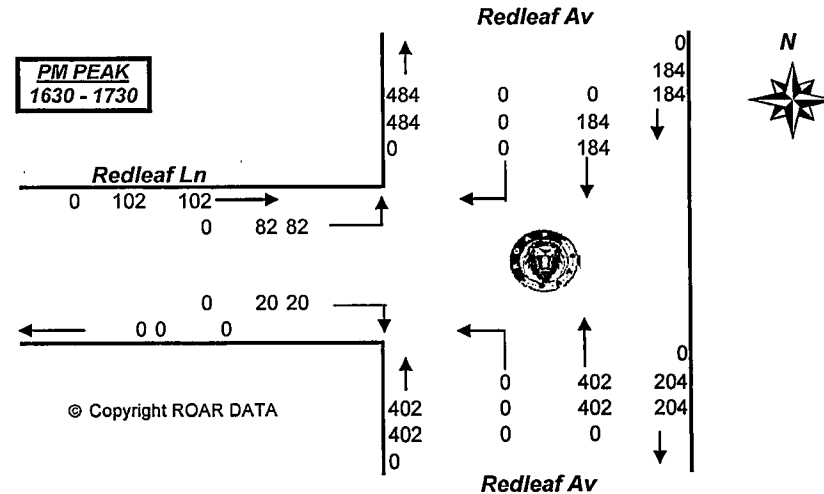
| | | | | | | | |
|---------|---|---|---|---|---|---|---|
| PEAK HR | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---------|---|---|---|---|---|---|---|

| | | | | | | | |
|---------|-----|---|----|----|---|-----|-----|
| PEAK HR | 184 | 0 | 82 | 20 | 0 | 402 | 688 |
|---------|-----|---|----|----|---|-----|-----|

Peds

| Time Per | NORTH | | WEST | | SOUTH | | TOT |
|-------------|------------|------------|------------|------------|------------|------------|-----|
| | Redleaf Av | Redleaf Ln | Redleaf Ln | Redleaf Av | Redleaf Av | Redleaf Ln | |
| 1630 - 1645 | 10 | 7 | 7 | 24 | | | |
| 1645 - 1700 | 11 | 13 | 1 | 25 | | | |
| 1700 - 1715 | 2 | 10 | 0 | 12 | | | |
| 1715 - 1730 | 8 | 5 | 0 | 13 | | | |
| 1730 - 1745 | 7 | 12 | 5 | 24 | | | |
| 1745 - 1800 | 6 | 5 | 3 | 14 | | | |
| 1800 - 1815 | 2 | 7 | 3 | 12 | | | |
| 1815 - 1830 | 6 | 2 | 4 | 12 | | | |
| Per End | 52 | 61 | 23 | 136 | | | |

| Peak Per | NORTH | | WEST | | SOUTH | | TOT |
|-------------|------------|------------|------------|------------|------------|------------|-----|
| | Redleaf Av | Redleaf Ln | Redleaf Ln | Redleaf Av | Redleaf Av | Redleaf Ln | |
| 1630 - 1730 | 31 | 35 | 8 | 74 | | | |
| 1645 - 1745 | 28 | 40 | 6 | 74 | | | |
| 1700 - 1800 | 23 | 32 | 8 | 63 | | | |
| 1715 - 1815 | 23 | 29 | 11 | 63 | | | |
| 1730 - 1830 | 21 | 26 | 15 | 62 | | | |
| PEAK HR | 31 | 35 | 8 | 74 | | | |



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R.O.A.R DATA

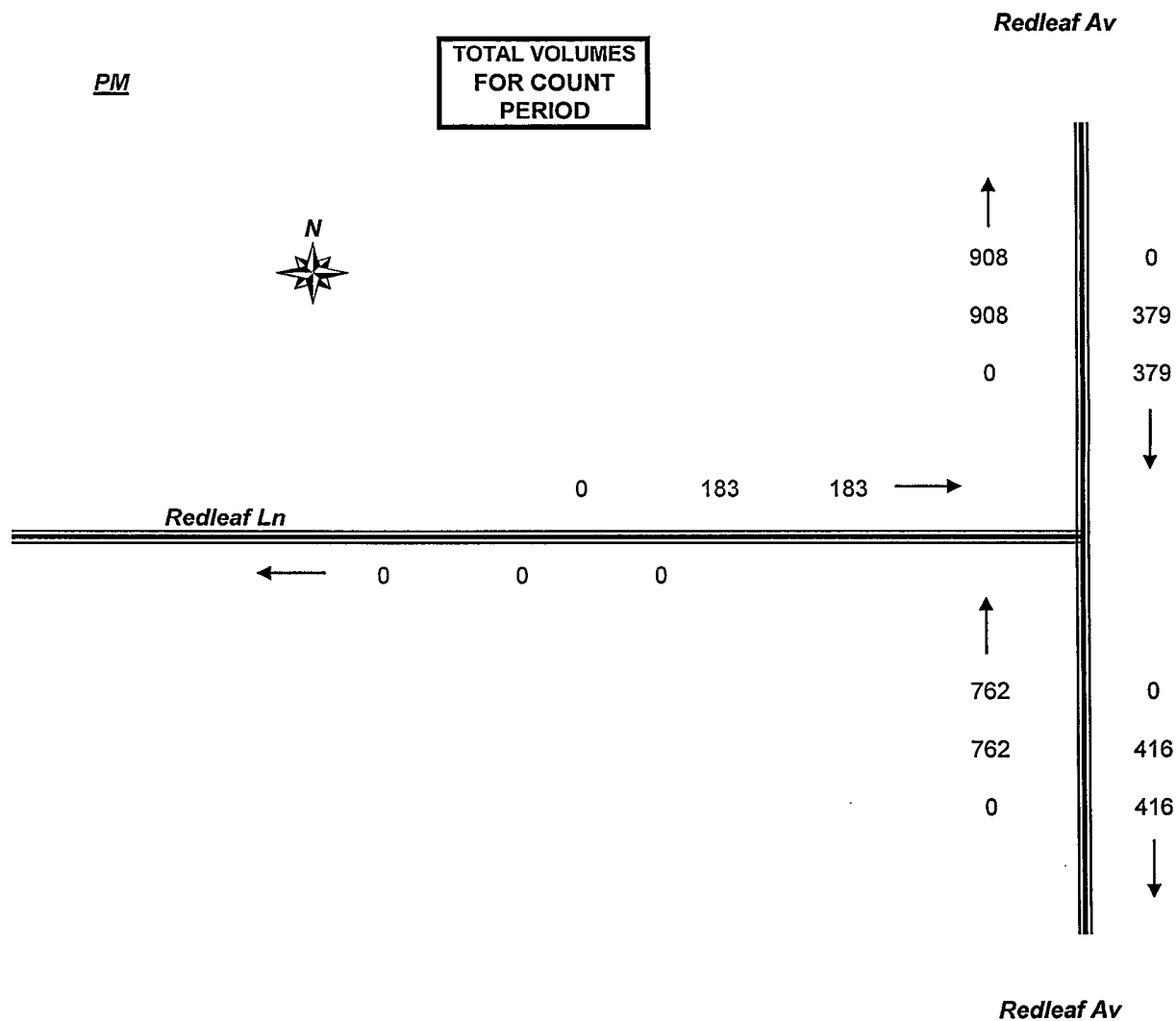
Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

Client : Varga Traffic Planning

Job No/Name : 3173 Wahroonga Redleaf Ln

Day/Date : Wednesday 30th June 2010





R.O.A.R DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

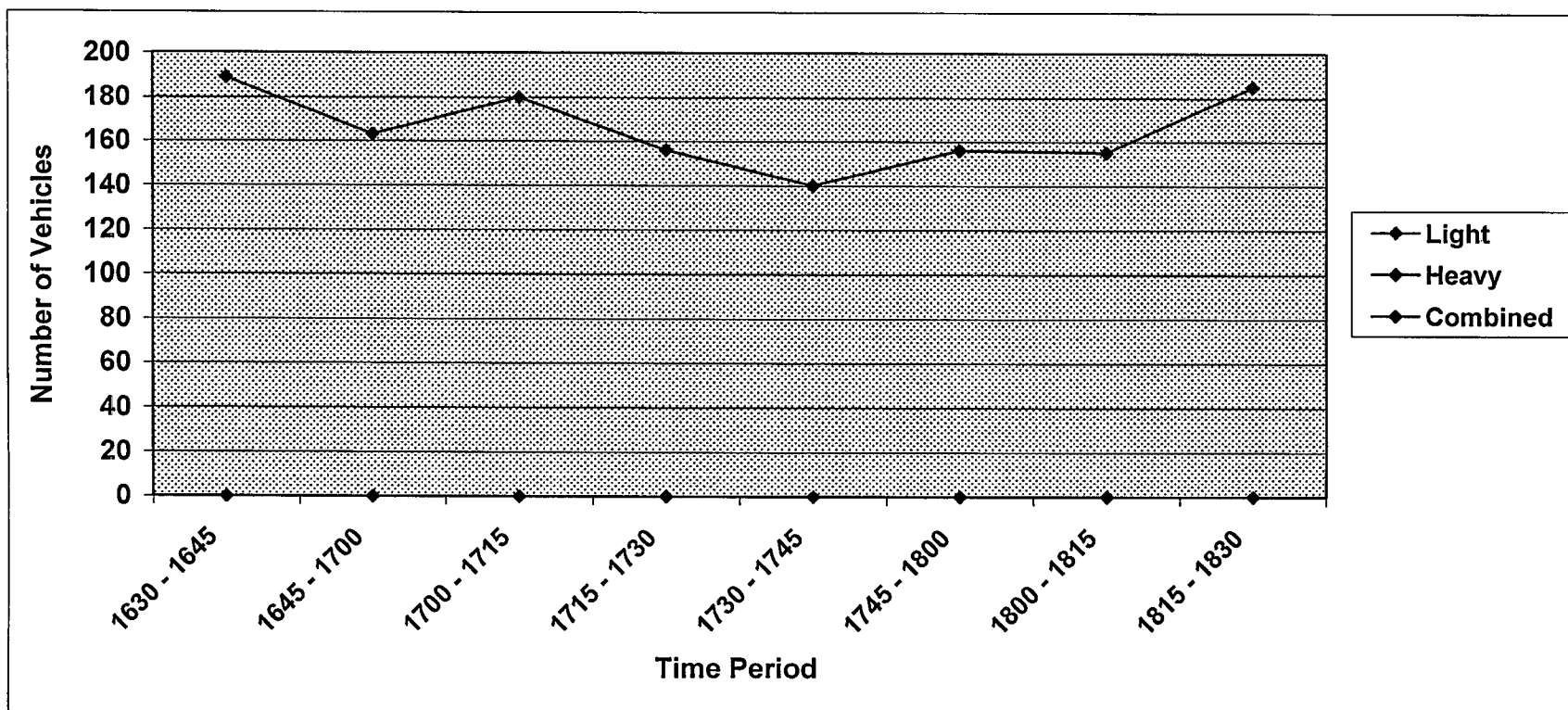
Client : Varga Traffic Planning

Job No/Name : 3173 Wahroonga Redleaf Ln

Day/Date : Wednesday 30th June 2010

PM

Redleaf Av & Redleaf Ln





R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 3173 Wahroonga Redleaf Ln
Day/Date : Wednesday 30th June 2010

Intersection Details

Obtained via satellite

May be incorrect

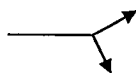
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AM PEAK HOUR
0830 - 0930



Redleaf Av

Redleaf Ln



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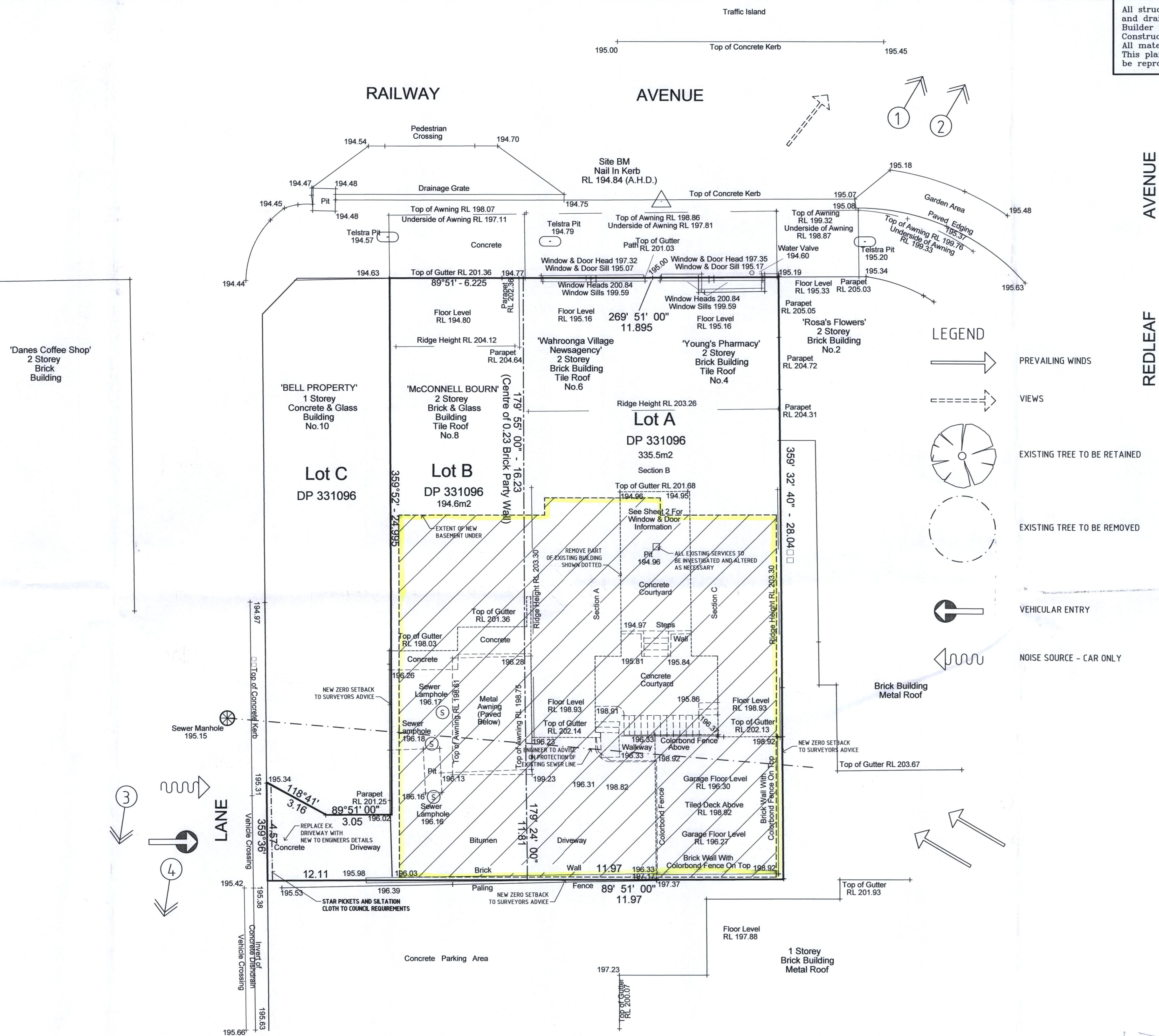
PM PEAK HOUR
1630 - 1730

Combined Figures only

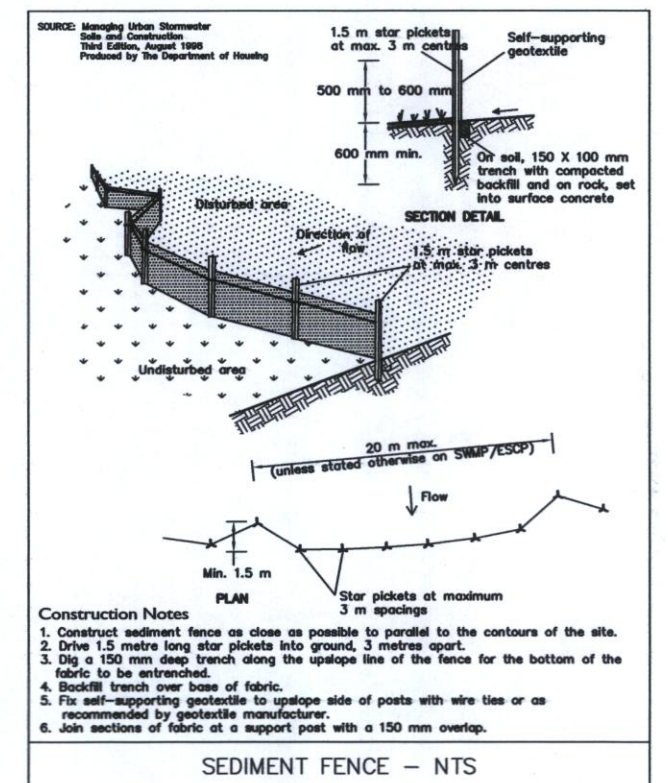
Weather >>>



Redleaf Av



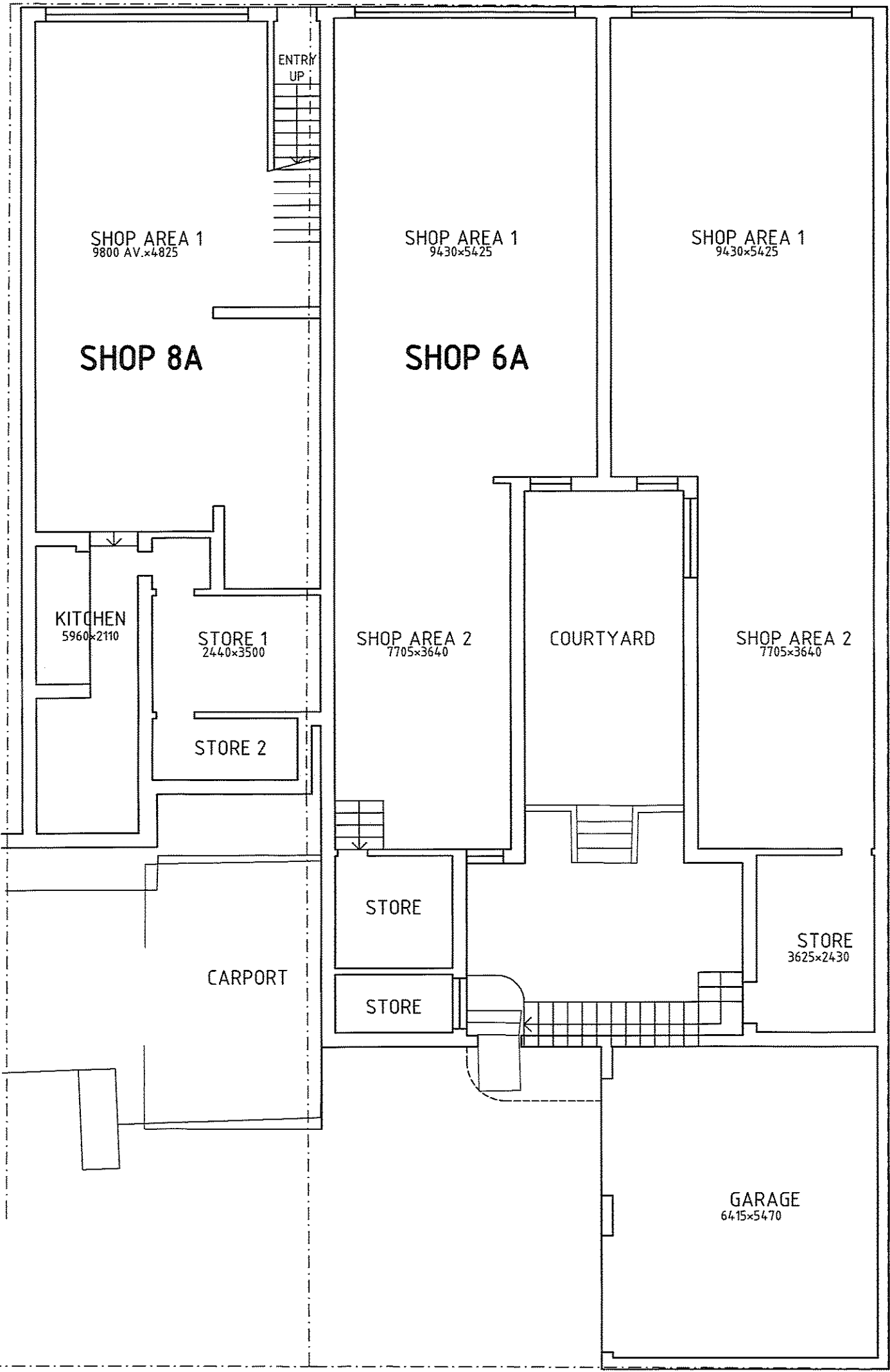
All structural sizes, structural adequacy, retaining walls, and drainage to engineers details. If in doubt, ask. Builder to check all dimensions and heights prior to construction. Construction to be altered to suite existing structure if necessary. All materials to match existing or as noted otherwise. This plan is copyright to Rob Crump Design Pty. Ltd., and may not be reproduced without the written consent of the company.



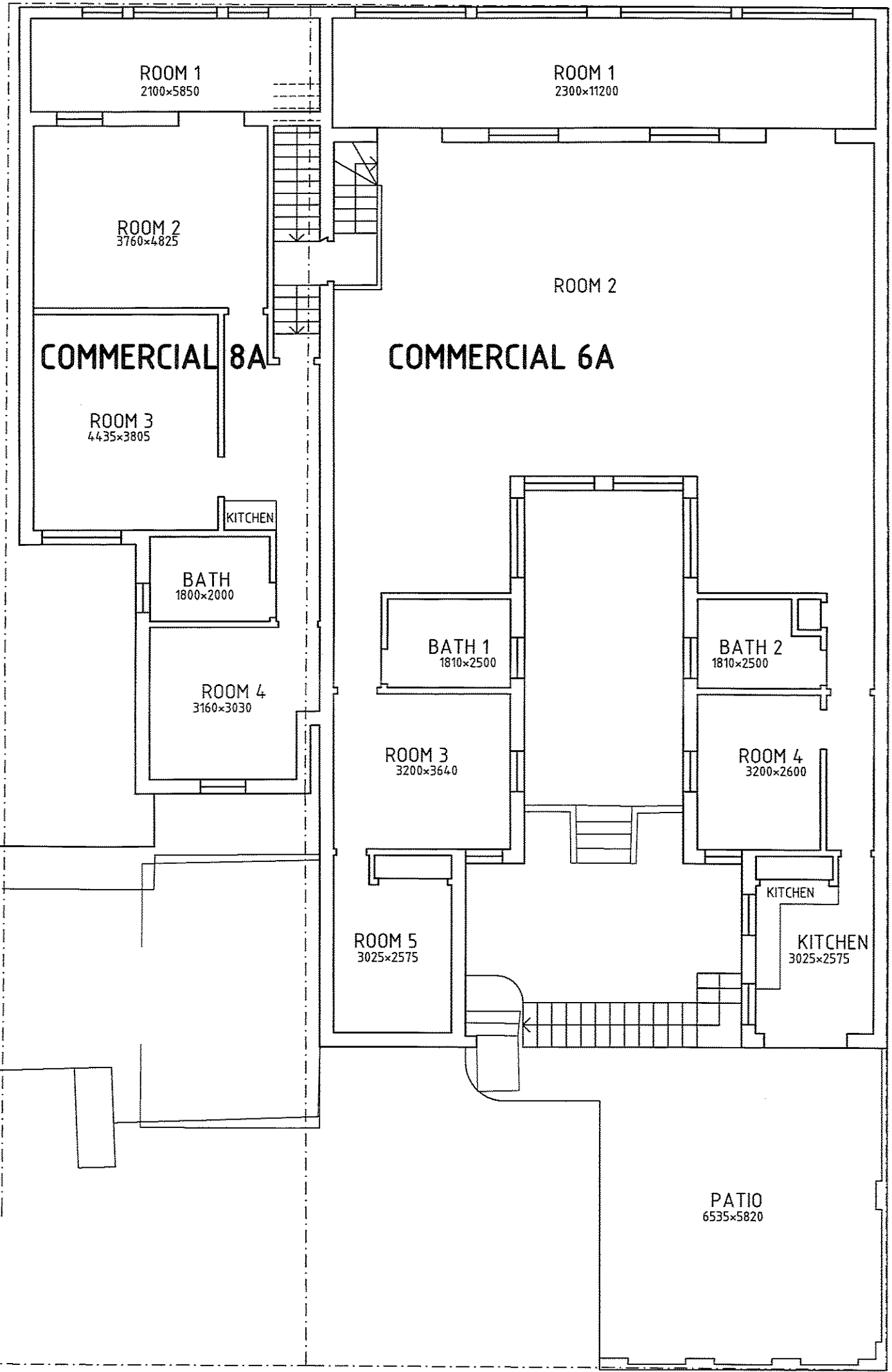
SITE PLAN & SITE ANALYSIS PLAN

NOTE: ENGINEER TO ADVISE ON SUPPORT AND STRUCTURAL INTEGRITY OF ALL ADJOINING SUPPORTING WALLS AS NECESSARY

All structural sizes, structural adequacy, retaining walls, and drainage to engineers details. If in doubt, ask. Builder to check all dimensions and heights prior to construction. Construction to be altered to suite existing structure if necessary. All materials to match existing or as noted otherwise. This plan is copyright to Rob Crump Design Pty. Ltd., and may not be reproduced without the written consent of the company.

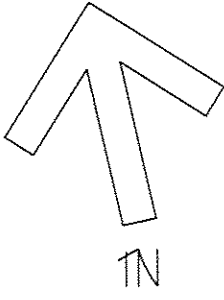


GROUND FLOOR PLAN



FIRST FLOOR PLAN

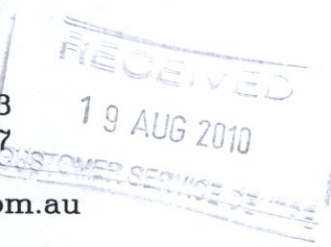
EXISTING PLANS



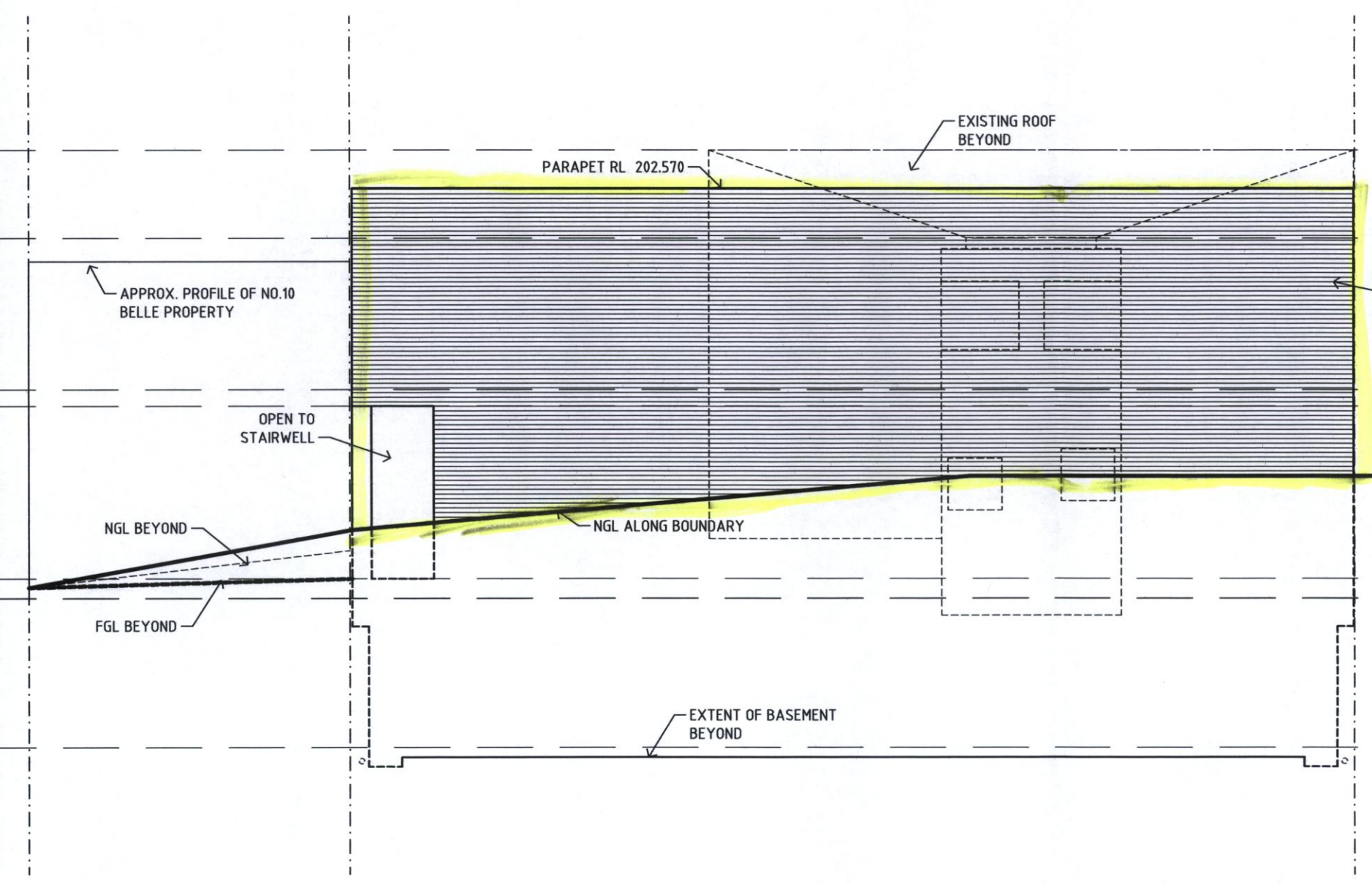
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|---|------------------|------------|
| DEVELOPMENT APPLICATION | A | 17/08/2010 |
| AMENDED: | ISSUE: | BY: DATE: |
| ROB CRUMP DESIGN BUILDING DESIGN AND DRAFTING CONSULTANTS ABN 14 721 765 945 30 Sunnyside Close Asquith N.S.W. 2077 Ph: (02) 9476 3683 Fax: (02) 9476 3567 Mobile: 0412 581 313 Email: rcrump@tpg.com.au | | |
| GARTLEY HOLDINGS ALTERATIONS AND ADDITIONS 6A & 8A RAILWAY AVENUE WAHROONGA NSW 2076 Scale: 1:100 Date: 17 August 2010 Job No: 1966/04 | | |
| DRAWN: R.C. | CHECKED: R.C. | ISSUE: |



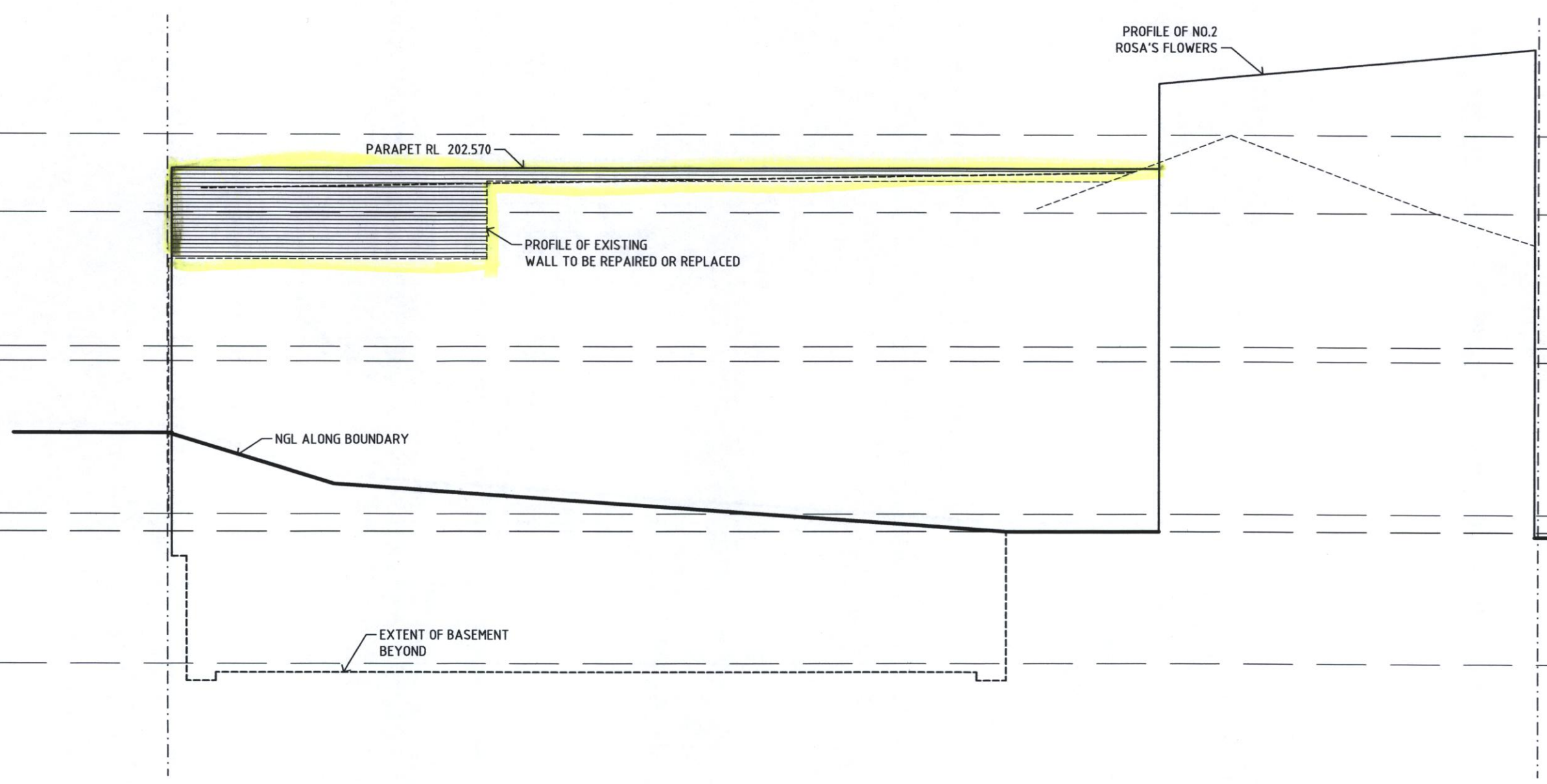
GENERAL NOTES:-
DEMOLITION MUST COMPLY WITH AS 2601-1991
DRIVEWAYS AND VEHICULAR ACCESS TO COMPLY WITH AS 2890.1 (2004)
PROVIDE TERMITE TREATMENT BARRIER TO
MANUFACTURER'S DETAILS TO AS 3601-1989
GLAZING TO COMPLY WITH AS 1288-1989
PROVIDE 20mm RESIN IN SLAB TO ALL WET AREAS
DRAINAGE AND WATERPROOFING TO ENGINEER'S DETAILS
PROVIDE SMOKE DETECTORS IN ACCORDANCE
WITH AS 3786 AND PART 3.12 OF THE B.C.A.
STAIRS AND BALUSTRADES TO BE IN ACCORDANCE
WITH PARTS 39.1.8 39.2 OF THE B.C.A.
PROVIDE MECHANICAL VENTILATION TO ALL INTERNAL WET AREAS
TO B.C.A. REQUIREMENTS, PART 3.8.5.0 AND AS 1684
ALL CONSTRUCTION TO BE IN ACCORDANCE WITH
BOTH B.C.A. AND AUSTRALIAN STANDARD REQUIREMENTS
PROVIDE R30 INSULATION TO CEILING WITH FOIL BACKED
INSULATION TO UNDERSIDE OF NEW ROOF SHEETS
ALL NEW PLUMBING DEVICES INCLUDING BATHROOM TAPS, SHOWER HEAD, W.C'S ETC
ARE TO BE MINIMUM 3 STAR RATED AND MEET SAA-M64-1995 REQUIREMENTS
LETTERING AND HOUSE NUMBERS TO COMPLY WITH AUSTRALIA
POST STANDARDS.

| | | | |
|---|----------|--------|------------|
| | | | |
| PROJECT INFORMATION | | A | 17/08/2010 |
| AMENDED: | | ISSUE: | BY: DATE: |
| <h1>ROB CRUMP DESIGN</h1> <p>BUILDING DESIGN AND DRAFTING CONSULTANTS</p> <p>ABN 14 721 765 945 30 Sunnymead Close Asquith N.S.W. 2077 Ph: (02) 9476 3683 Fax: (02) 9476 3567 Mobile: 0412 581 313 Email: rcrump@tpg.com.au</p>  | | | |
| <h2>GARTLEY HOLDINGS</h2> <p>ALTERATIONS AND ADDITIONS</p> <p>6A & 8A RAILWAY AVENUE</p> <p>WAHROONGA NSW 2076</p> <p>Scale: 1:100 @ A1 plot size Date: 17 August 2010 Job No: 1966/02</p> | | | |
| DRAWN: | CHECKED: | ISSUE: | |
| RC | RC | | |

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SOUTH ELEVATION



EAST ELEVATION

EXISTING RIDGE LEVEL RL 203.260

271.0

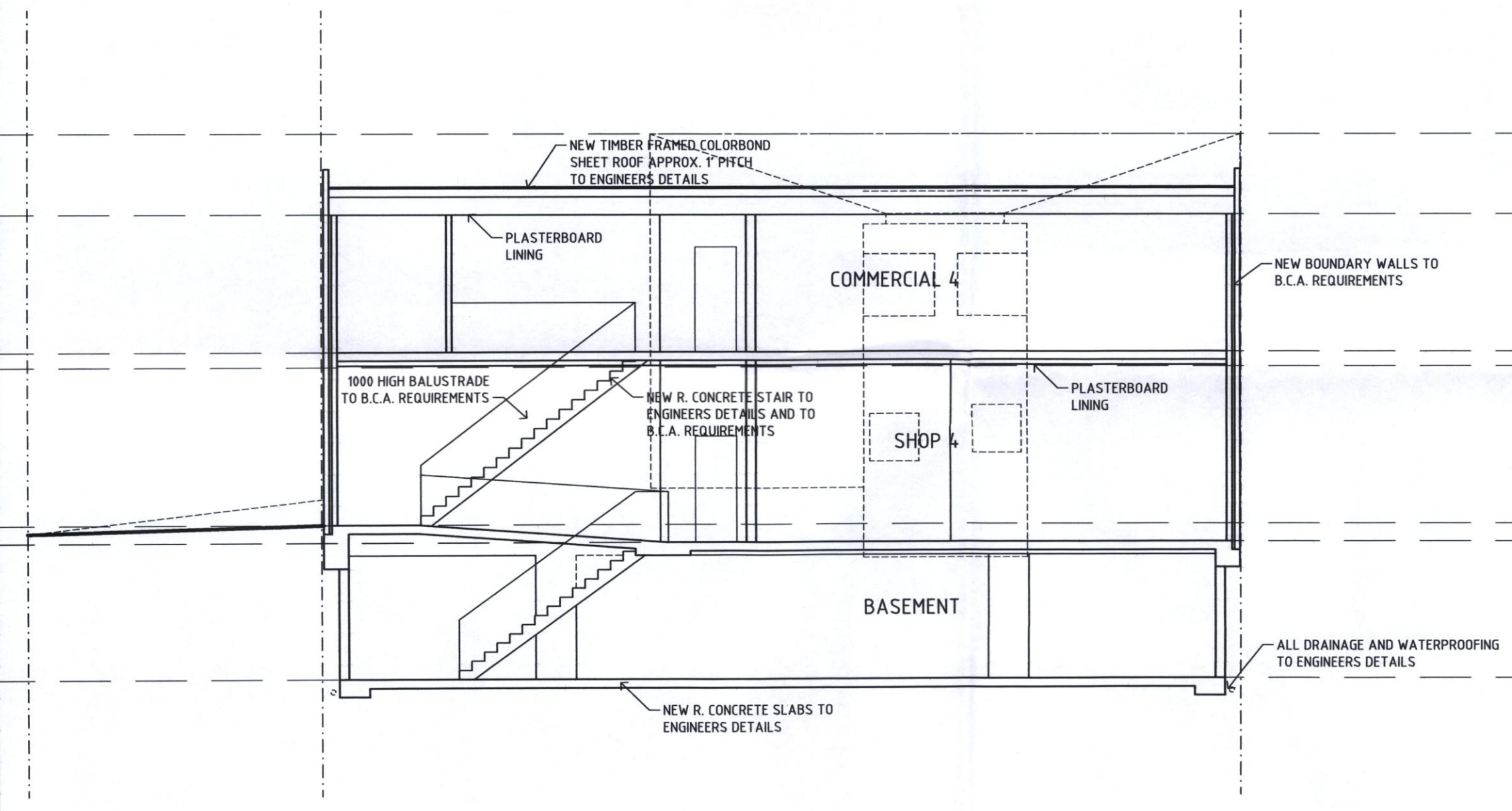
34.70

FIRST FLOOR LEVEL RL 198.930

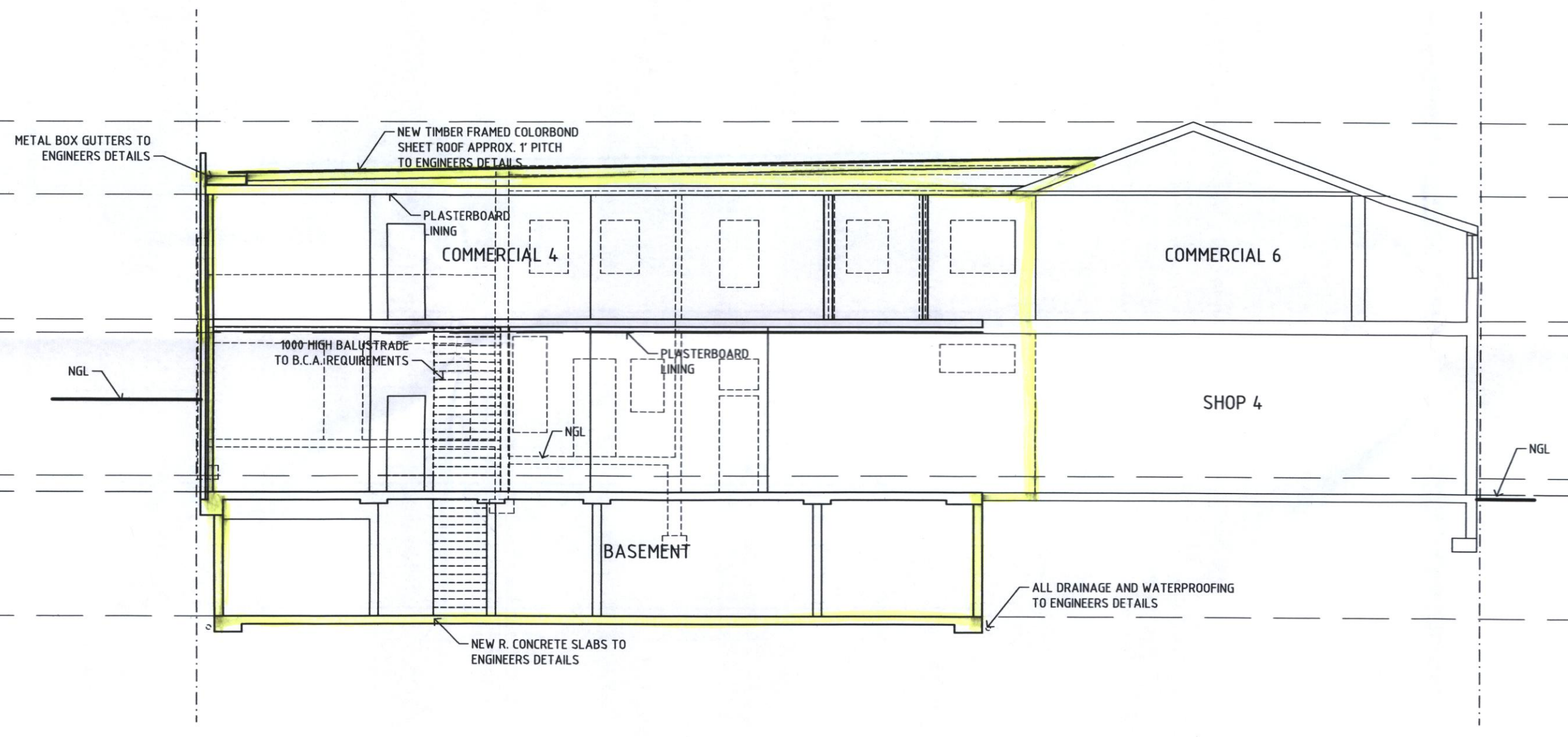
GROUND FLOOR LEVEL RL 195.160

2700

BASEMENT FLOOR LEVEL RL 192.460



SECTION B-B



SECTION A-A

EXISTING RIDGE LEVEL RL 203.260

271.0

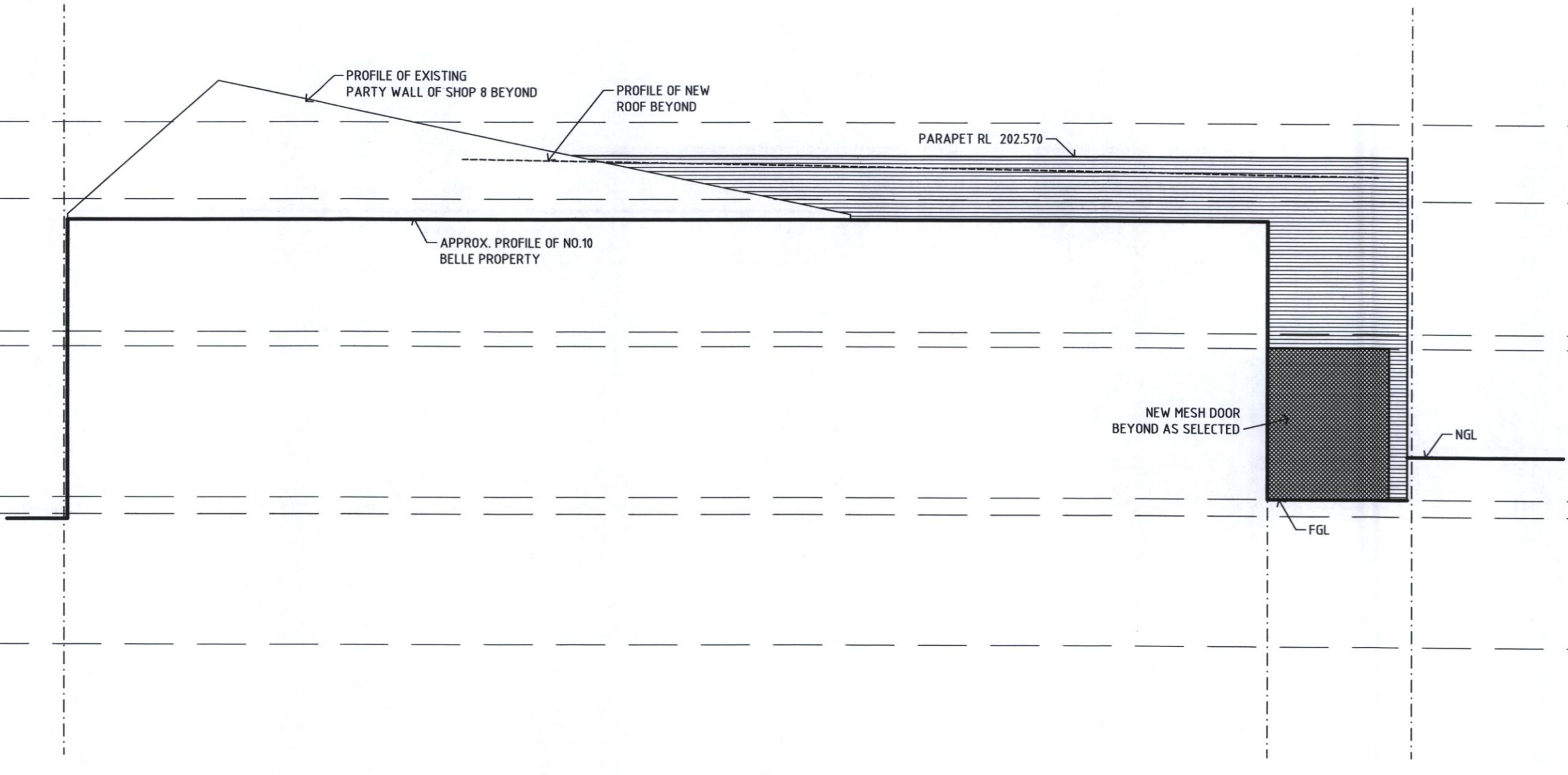
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FIRST FLOOR LEVEL RL 198.930

GROUND FLOOR LEVEL RL 195.160

2700

BASEMENT FLOOR LEVEL RL 192.460



WEST ELEVATION - FROM LANEWAY

| | | |
|-------------------------|------------------|------------|
| DEVELOPMENT APPLICATION | A | 17/08/2010 |
| AMENDED: | ISSUE: BY: DATE: | |

ROB CRUMP DESIGN
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GARTLEY HOLDINGS
ALTERATIONS AND ADDITIONS
6A & 8A RAILWAY AVENUE
WAHROONGA NSW 2076
Scale: 1:100 @ A1 plot size
Date: 17 August 2010
Job No: 1966/03

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| DRAWN: R.C. | CHECKED: R.C. | ISSUE: |
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19 AUG 2010

CARLOTTA DEPOT TENDERS

EXECUTIVE SUMMARY

PURPOSE OF REPORT:

To report on the results of the public tender and to seek Council's approval to accept the preferred tender for these works.

BACKGROUND:

Council has sold the Carlotta Avenue Depot. The sale is conditional upon Council remediating the site to a condition suitable for residential development with garden and accessible soils.

COMMENTS:

Council is responsible for the remediation of the Council depot. The most efficient method to undertake these remediation works is in two stages as outlined in the background to this report.

RECOMMENDATION:

That Council accepts the tender from Ross Mitchell & Associates for the Stage One remediation works at the Carlotta Avenue Depot.

PURPOSE OF REPORT

To report on the results of the public tender and to seek Council's approval to accept the preferred tender for these works.

BACKGROUND

Council has sold the Carlotta Avenue Depot. The sale is conditional upon Council remediating the site to a condition suitable for residential development with garden and accessible soils.

The remediation works proposed for the Depot have been divided into two (2) stages (Stage 1 and Stage 2). It is proposed that Stage 1 works will be undertaken while the Depot is operational, while Stage 2 works will not commence until after the Depot has been vacated by Council.

A Request for Tender has been issued for the Stage 1 remediation works at the Depot and four (4) tenders were received. Tenders were received from the following four (4) organisations:

- Enviropacific Services;
- Ross Mitchell & Associates;
- Transpacific Industries Group; and
- JFTA Engineering Services.

A full evaluation was carried out by the Tender Evaluation Committee. Their **Confidential** report is attached.

COMMENTS

Council is responsible for the remediation of the Council Depot. The most efficient method to undertake these remediation works is in two (2) stages as outlined in the background to this report.

The acceptance of a tender facilitates the first stage of these remediation works.

CONSULTATION

As all works are within Council's Depot, Council has not consulted with the broader community.

FINANCIAL CONSIDERATIONS

As Council is responsible for the remediation costs for the site, the cost of these works is met from the sale proceeds of the property.

CONSULTATION WITH OTHER COUNCIL DEPARTMENTS

The report was prepared by the Strategy and Environment Department in extensive consultation with Council's Operations Department.

SUMMARY

This report recommends the acceptance of the tender from Ross Mitchell & Associates and seeks Council's authorisation to enter into a contract with Ross Mitchell & Associates.

RECOMMENDATION

- A. That Council accept the tender from Ross Mitchell & Associates to carry out the Stage 1 remediation works at the Carlotta Avenue Council Depot.
- B. That the execution of all documents, including the affixing of Council's Seal relation to the tender be delegated to the Mayor and General Manager.

Ian Dreghorn
Manager Strategic Projects

Andrew Watson
Director Strategy & Environment

Attachments: Tender Evaluation Committee Report - Confidential

CLIMATE CHANGE ADAPTATION STRATEGY

EXECUTIVE SUMMARY

PURPOSE OF REPORT:

To present to Council for adoption an amended draft Climate Change Adaptation Strategy.

BACKGROUND:

On 13 October 2009, Council adopted a Climate Change Policy. As part of this resolution it was required to prepare a climate change adaptation strategy. A draft strategy was considered by Council on 22 June 2010 and was publicly exhibited between 5 July 2010 and 31 August 2010.

COMMENTS:

The draft *Climate Change Adaptation Strategy* has investigated the vulnerability and resilience factors to changing weather patterns affecting Council and the local community. This involved developing a method to identify and evaluate the specific risks expected across the Ku-ring-gai local government area, prioritising actions based on foreseeable risk, context as well as the social, financial and environmental impacts. Feedback from the 138 responses as part of the consultation resulted in minor improvements to the ranking of options.

RECOMMENDATION:

That the amended draft Climate Change Adaptation Strategy be adopted.

PURPOSE OF REPORT

To present to Council for adoption an amended draft Climate Change Adaptation Strategy.

BACKGROUND

On 13 October 2009 Council adopted a Climate Change Policy (GB 8 minute number 211). As part of the resolution, Council resolved:

- D. That a Climate Change Adaptation Strategy for bushfires and storms be developed by June 2010 and reported to Council.*

At the Ordinary Council Meeting of 22 June 2010 (GB.8, Minute Number 174), Council considered a draft climate change adaptation strategy and resolved that this be placed on public exhibition. The report provides comments on the feedback received during the exhibition period and how the policy has been modified.

COMMENTS

The key purpose of the consultation of this draft strategy was to determine the level of agreement with the proposed actions and their priority extending to initiatives that rest in the domain of Council and also for the community.

This was achieved through three methods: public exhibition of the draft document on the web and at key Council facilities; a public meeting to discuss the draft strategy; and via a community survey.

The results from the general comments and survey are provided below:

- there was a high level of support and need for a climate change adaptation strategy for Kuring-gai;
- bushfire was ranked as the greatest risk (refer to Table 1);
- of the top 10 actions for the four extreme weather events, comments were given as to their relative priority for funding and implementation; and
- over 60% of residents believe Council has a responsibility to lead adaptation in the local area.

Table 1: Survey responses to severity of climate related risk (refer to Appendix 6 in the draft strategy).

In response to the feedback from the community and experts, many strategies for each weather related event were reassessed against the ranking method as outlined in the draft policy. This resulted in a revision to the priority of many actions as included in the **attached strategy**.

Table 1 provides a list of the top 10 strategies for Council that reflect the changes from the consultation process.

Item 9

S06055
11 October 2010

Table 1: Top 10 Council options for each extreme weather event.

| Weather event | Option | Previous rank | Proposed rank |
|---------------------------|---|---------------|---------------|
| Bushfire Council | Increase percentage of existing and new homes compliant with AS3959 | 1 | 1 |
| | Conduct community and agency education program | 2 | 2 |
| | Invest in R&D Projects, eg. selective weeding, identification of sections of corridor that can be cleared in an emergency, fast decomposing bacteria to reduce fuel - carbon sequestration, or mechanical removal, pre-curing process prior to hazard reduction burns in APZs for hotter burns support natives plants | 3 | 3 |
| | Build and operate new RFS | 7 | 4 |
| | Planning private land e.g. increase minimum lot sizes and/or setbacks to bushland in bushfire prone areas, extending area of Level 1 construction, restrict type of development | 8 | 5 |
| | Identify and support residents requiring property maintenance assistance in high risk areas | 6 | 6 |
| | Develop new community fire units | 4 | 7 |
| | Discount or rebate on fire resilient installations in homes | 5 | 8 |
| | Utilise water sensitive urban design | 10 | 9 |
| | Provision of safe refuge areas for people and pets | 11 | 10 |
| | | | |
| Bushfire Community | Install fire resilient products eg. sprinklers, double brick/triple brick homes, ember proofed garage doors etc | 1 | 1 |
| | Voluntary compliance with AS3959 | 2 | 2 |
| | Install and maintain privately owned fire fighting equipment in good working order | 3 | 3 |
| | Monitor fire warning protocols, be aware of appropriate action and ready to act on them | 8 | 4 |
| | Psychological preparedness by practicing fire drills | 16 | 5 |
| | Build locate or have access to safe refuge areas for pets and people | 6 | 6 |
| | Volunteering in community programs | 4 | 7 |
| | Assist neighbours to decrease vulnerability to fires | 11 | 8 |
| | Install additional water source with fire fighting reserve | 3 | 9 |
| | Develop household/business emergency response plan | 5 | 10 |
| | | | |
| Storm Council | Relocate power and phone lines underground | 6 | 1 |
| | Conduct community education program | 2 | 2 |
| | Discounts or rebates provided for storm resilient installations (eg, window shutters, corrugated roofing) | 1 | 3 |
| | SMS warning system | 8 | 4 |
| | Undertake disaster risk assessments of key infrastructure | 3 | 5 |
| | Stabilisation works of known high erosion areas | 9 | 6 |
| | Replace roofing with storm resilient materials | 4 | 7 |
| | Revise and regulate planning controls which increase resilience of the built environment in storm events | 7 | 8 |
| | Train staff in disaster management (ie, chainsaw operation) | 5 | 9 |
| | Identify and manage vulnerable trees | 10 | 10 |
| | | | |

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11 October 2010

| Weather event | Option | Previous rank | Proposed rank |
|-----------------------------|--|---------------|---------------|
| Storm Community | Replace roofing with storm resilient materials | 1 | 1 |
| | Install storm resistant fixtures (ie, reinforced garage doors, shutters) | 2 | 2 |
| | Landscaping for overland flow | 3 | 3 |
| | Voluntary compliance with building code | 4 | 4 |
| | Undertake disaster risk assessments of property | 5 | 5 |
| | Develop household/business emergency response plan | 6 | 6 |
| | Participate in Community Education Programs | 7 | 7 |
| | Volunteering in community programs (eg SES, RFS, Meals on Wheels) | 8 | 8 |
| | Assist neighbours to decrease vulnerability to storms | 9 | 9 |
| | Training in disaster management (ie. first aid, chainsaw operation) | 10 | 10 |
| Drought Council | Undertake community education campaigns | 4 | 1 |
| | Stormwater harvesting for Council facilities | 5 | 2 |
| | Monitor water consumption for leaks and anomalies | 1 | 3 |
| | Install sewer mining/stormwater harvesting for communal use | 3 | 4 |
| | Use flexible materials for paths | 7 | 5 |
| | Fix leaking taps | 6 | 6 |
| | Install synthetic play surfaces | 2 | 7 |
| | Install sealed toilet cisterns to prevent leakage | 9 | 8 |
| | Install drought tolerant landscaping at Council facilities | 10 | 9 |
| | Install shade structures for pools | 12 | 10 |
| Drought Community | Install a rainwater tank and connect to toilet and laundry | 1 | 1 |
| | Participate in education programs | 3 | 2 |
| | Education for health risk reduction for water saving | 2 | 3 |
| | Purchase low water and energy star rated appliances | 7 | 4 |
| | Install more water efficient toilets eg. dual flush | 8 | 5 |
| | Real time water monitoring (smart metering) | 4 | 6 |
| | Use drought tolerant grass species in lawns | 12 | 7 |
| | Use products made with less water | 11 | 8 |
| | Install rainwater tank for garden use only | 13 | 9 |
| | Take shorter showers | 14 | 10 |
| Extreme Heat Council | Ensure that OH&S addresses working outdoors in extreme heat conditions | 1 | 1 |
| | Insulate Council buildings including windows, walls and roof | 2 | 2 |
| | Install and operate co-generation systems to feed power to the grid in times of peak demand | 5 | 3 |
| | Invest in low energy technology to offset price increases of fossil fuel derived power | 6 | 4 |
| | Conduct community education program to increase awareness of heat risk and response | 9 | 5 |
| | Discounts and rebates for passive solar design principles to reduce dependence on mechanical heating and cooling | 3 | 6 |

Item 9

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11 October 2010

| Weather event | Option | Previous rank | Proposed rank |
|-------------------------------|---|---------------|---------------|
| | Develop a 'House Buddy' program to assist neighbourhoods to monitor vulnerable residents in time of extreme risks | 7 | 7 |
| | Planning controls – within LEPs and DCPs | 17 | 9 |
| | Synthetic playing surface on Council owned ovals to reduce heat and water consumption | 4 | 10 |
| | | | |
| Extreme Heat Community | Contribute to schemes to place power infrastructure underground | 8 | 1 |
| | Insulate buildings including windows, walls and roof | 1 | 2 |
| | Apply passive solar design principles to reduce dependence on mechanical heating and cooling | 2 | 3 |
| | Know what to do to keep your home cooler on extreme days | 9 | 4 |
| | Install renewable power supply to ensure sustainability of energy supply during peak demand | 3 | 5 |
| | Participate in a 'House Buddy' program to monitor vulnerable residents in time of extreme risks | 14 | 6 |
| | Landscape and roofing with materials and colours to reduce heat absorption | 13 | 7 |
| | Install a generator for backup supply in the event of blackouts | 17 | 8 |
| | Be aware of how to reduce the risk of heat stress and how to manage heat stress | 10 | 9 |
| | Invest in low energy technology to offset price increases of fossil fuel derived power | 11 | 10 |

Supporting the revised draft strategy is an assessment guide to assist Councillors and key decision makers to allow for options and funding to be incorporated into the Operational Plan and Delivery Program (Appendix 7).

CONSULTATION

The draft adaptation options were considered by staff, local experts from various emergency services organisations, business, state government departments, community members and academics. The opinions have guided the assessment of vulnerability and resilience and in turn assisted in determining the scope and rank of the adaptation options. 138 responses were received that included comment on the top 10 actions for each extreme weather event.

The consultation of the draft strategy included:

- Community Workshop (14 August 2010) attended by approximately 45 residents
- Resident Feedback Register survey (August 2010)
- Gordon Shopping Centre display and survey (24 – 26 August 2010)
- St Ives Shopping Village display and survey (30 – 31 August 2010)
- Council Clothing Exchange display and survey (21 August 2010)
- Festival of the Wildflower display and survey (29 August 2010)
- Councillor workshop (6 September 2010).

FINANCIAL CONSIDERATIONS

The amended draft strategy clearly points to the need to consider the allocation of Council's limited resources in relation to addressing risks associated with climate change.

Item 9

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11 October 2010

In recent years the Environmental Levy has supported a range of projects to alleviate the impacts of drought and associated water restrictions as well as the construction of important links in the fire trail network as a proactive bushfire management action. It is foreseeable that if Council was to continue with a second Environmental Levy, a key area for its focus could be to fund a range of projects to assist in its preparedness to extreme climatic events be they adapting to climate change or as part of good risk management. Furthermore the adoption and funding of such a strategy would likely provide the necessary and complementary funding from Federal and State Government grants for projects in this area. As this draft strategy positions Ku-ring-gai Council as a leader in this area the likelihood of attracting the early round of government grants is strong.

CONSULTATION WITH OTHER COUNCIL DEPARTMENTS

All Council departments were invited to review and comment on risks and adaptation options and their rankings. This included various presentations and workshops with Council's internal sustainability reporting team.

SUMMARY

Contemporary research confirms the need to plan for an increase in the frequency and intensity of extreme weather events. For the Ku-ring-gai local government area these are expected to be bushfires, droughts, extreme heat events and storms. Responding to these anticipated changes in weather events, various climate change adaptation options were identified and prioritised against their environmental, social and financial impacts. The consultation process as part of the exhibition has refined the rankings though no significant changes were made.

Should Council adopt this draft strategy, it would be able to prepare and budget for a range of strategic programs to be included in future Operational Plans and Delivery Programs. This could be incorporated into a future funding strategy linked to a second environmental levy as assumed within Council's long term financial model.

RECOMMENDATION

- A. That the draft *Climate Change Adaptation Strategy* be adopted.
- B. That community members who have participated in the exhibition period be notified of the adoption.
- C. That the strategy be placed on Council's website and that a purchase price be applied to hard copies in accordance with Council's Fees and Charges.

Louise Hayward
Sustainability Officer

Jenny Scott
Sustainability Program Leader

Peter Davies
Manager Corporate Planning and Sustainability

Andrew Watson
Director Strategy and Environment

Attachments: Draft Climate Change Adaptation Strategy - 2010/175799



Climate Change

Adaptation Strategy

Ku-ring-gai Council

For those who have to make decisions now, we believe it is better to base those decisions on current imperfect models rather than on no information at all, provided the associated uncertainties are made clear.

Chief Scientists of the UK Meteorological Office 2007

Executive Summary

Contemporary science strongly supports the need for regionalised climate forecasting to better inform decision making around adaptation for climate change.

Regionalised modelling is now available to guide land managers in their determinations of risk and planning effective and efficient adaptations. Downscaled climate modelling for 2030 in the Sydney region predicts significantly increased spring and summer rainfall while winter rainfall decreases, higher maximum temperatures, higher sea levels, changing flood patterns with greater runoff in summer and autumn; a longer fire season with increased frequency of very high or extreme fire-risk days and increased fire frequency and intensity.

The risks emerging from these changed weather patterns feature more frequent and intense extreme weather events, such as bushfires, storms, droughts and heat waves. Planning to adapt to these risks requires investigation of vulnerability (weaknesses that increase risk exposure and impede recovery) and resilience (strengths that reduce risk exposure and enhance recovery).

The Ku-ring-gai LGA has experienced many extreme weather events and their associated costs. In February 2010 an extreme rain event resulted in significant storm damage to public and private property. The magnitude of this event was consistent with intensity of storm events envisaged in the climate change modelling. In 1991 a single storm event in Ku-ring-gai caused over \$670M of damage which if converted into today's dollars would be exceed a \$1B in clean up costs.

Over the next 30 years climate scientists advise that changes to our climate will continue irrespective of any reduction in greenhouse gas emissions to the atmosphere. This does not allow government, industry or individuals to be complacent or shift the burden to the next generation. Such action will exacerbate the challenges we are set to face over this period. Adaptation requires decision makers to not only acknowledge the reality of short term changes to our climate but also commence action to reduce risk exposure in their areas of influence.

From a legal perspective, councils need to take steps to demonstrate they have investigated the risks facing their communities from climate change and put plans in place to ensure actions to reduce the risk exposure are introduced. While the state government has absolved itself such claims for sea level rise, it has not yet taken such action for the major risks facing non coastal councils.

It is probable that civil liability around climate change will follow a similar path to that of tobacco and asbestos litigation. That is Councils cannot claim there was insufficient knowledge about the risks of climate change. Regionalised modelling available from CSIRO and others clearly demonstrates the risks and their likelihood are beyond the threshold of probability which is all that is required for civil burden of proof.

Given the volume and rigour of the evidence supporting climate change, it is likely the Courts will become unequivocal in their view regarding the need for due diligence amongst decision makers.

The development of this Adaptation Strategy was a collaborative and consultative in process. The method developed investigates Ku-ring-gai's vulnerability emerging from changing weather patterns, evaluates the adequacy of current resilience factors and plans adaptations designed to reduce vulnerability and improve resilience.

This strategy has considered adaptation options according to their ability to reduce risk (benefit) and minimise financial, social and environmental impact (cost). The purpose of this adaptation strategy report is to reinforce the advice that climate change is progressing rapidly; that adaptation action is required to satisfy due diligence in decision making; and that well designed and timely implementation of adaptation strategies can reduce the impacts of extreme weather events and enhance sustainability.

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Introduction

In 1999 Ku-ring-gai Council was one of the first Councils in Australia to join the Cities for Climate Protection Program (CCPP) which assisted Councils to reduce their greenhouse gas emissions. In 2002 Council achieved the highest ranking possible under the CCPP and progressed on to the CCPP plus program. In 2008 Council researched, wrote and released a discussion paper on climate change mitigation and adaptation which confirmed the need to act quickly on mitigation and commence planning adaptation strategies to guide future decision making. Macquarie and Bond Universities joined Council in a collaborative study in 2009 to establish an economic method to analyse adaptation options. Having completed this, Council went on to develop a scoping component to enable an analysis of a broad range of adaptation options. On 13 October 2009, Council adopted a Climate Change Policy. As part of this resolution it was required to prepare a climate change adaptation strategy. This document is the result of that research and development project and embodies the Ku-ring-gai Climate Change Adaptation strategy. It is underpinned by the economic analysis contained in the Macquarie Collaborative report, links to Councils 2020 vision and will link Councils' management after adoption by Council.

Local Government has a significant role and responsibility to make our communities safer from extreme weather events. It is difficult and in many respects unproductive to isolate mitigation from adaptation. This is because many mitigation strategies also serve to reduce vulnerability and increase resilience to extreme weather impacts. For example reducing dependence on mains power supply by local generation of sustainable green power such as solar or wind generation has benefits for both adaptation and mitigation. Not only will it give council independence from the vagaries of an already overloaded and unreliable power infrastructure, it also reduces the CO₂ generated by council activity. Options that will provide benefits across both mitigation and adaptation have the greatest return on investment.

Adaptation requires decision makers to not only acknowledge the need to act but to commence action to reduce risk exposure in their areas of influence.

The Approach

In order to create a credible, rigorous and contextualised climate adaptation strategy for the people and assets within Ku-ring-gai, a range of practitioners have been engaged as part of this review. These people have been selected not only for their knowledge of climate science and risk assessment but also because they have valuable local and regional roles to protect the physical and social assets of this area. A list of participants is included in Appendix 6 of this report.

This strategy has four parts:

1. identification of changes in regional weather trends
2. identification of local risks arising from changed weather trends
3. identification of Ku-ring-gai's vulnerability and resilience factors
4. identification and prioritisation of adaptation strategies to improve resilience to the risks in Ku-ring-gai.

Each part in the above sequence of steps is dependent upon the results of previous step. While there are other models and approaches available for local government to use (such as the ICLEI model), none reviewed prior to the commencement of this project has the capacity to create contextualised, risk relevant adaptation comparisons to guide investment. This approach seeks to address each of these steps and overcome the deficiencies identified other climate change adaptation models (Scott et al, 2010) and builds on techniques and concepts developed during the collaborative research project with Macquarie and Bond Universities (Taplin et al, 2010). Tools such as the Borda Count and Bayesian theory have proved useful in guiding this inquiry.

Climate Science and Ku-ring-gai

Contemporary science strongly supports the need for regionalised climate modelling to better inform decision making around adaptation for climate change.

Predicted weather patterns (CSIRO, 2007) for the Sydney region include:

- significantly increased spring and summer rainfall with winter rainfall decreasing
- higher maximum temperatures
- higher sea levels
- changing flood patterns from greater runoff in summer and autumn
- a longer fire season with increased frequency of extreme or catastrophic fire-risk days.

In Ku-ring-gai, past extreme weather events have imposed significant costs. In February 2010, Ku-ring-gai experienced an extreme weather event consistent with climate change modelling. This affected public and private land across urban and natural areas, impacted on major capital works projects and highlighted the limitations in the capacity of council's drainage system for events of this magnitude.

Extreme storm events in the form of increased rainfall intensity are but one of the climate change related impacts on the increase (CSIRO, 2007).

While it is imperative to continue investment in climate change mitigation, over the next thirty years scientists advise (Taplin et al., 2010), that we will experience substantial changes in weather patterns regardless of how much CO₂ is removed from the atmosphere.

Legal Issues

From a litigation perspective, councils are advised (England, 2007, Taplin et al, 2010, Lyster, 2010) that they need to take steps to demonstrate they have investigated the risks posed to their communities from climate change and put in place plans and actions to reduce the risk exposure.

It is probable that civil liability around climate change will follow a similar path to that of the individual and class action suits against tobacco and asbestos companies. For government and also industry it is untenable to claim there was insufficient knowledge regarding risks as regionalised climate modelling clearly demonstrate the risks, with the likelihood and consequences being beyond the threshold of probability which is all that is required for civil burden of proof.

Given the volume and rigour of the evidence supporting climate change, it is likely Courts will become unequivocal in their view regarding the need for due diligence amongst decision makers.

Rationale for adaptation

When is a decision support model 'good enough' to inform public policy?

The Chief Scientist of the UK Meteorological Office wrote *'for those who have to make decisions now, we believe it is better to base those decisions on current imperfect models rather than on no information at all, provided the associated uncertainties are made clear.'* (New Scientist 2007, p. 26)

Society can choose to act on climate change now or defer decisions to some future date. Given the high level of confidence in the current scientific information that finds the current warming trend is accelerating, delaying actions to reduce immediate and intensifying future risks may exacerbate the potential impacts.

Engineers Australia (2009) have stated that it is preferable to educate the community and make them understand that climate change is a shared responsibility. It is clearly beyond the means of local government to singularly absorb the cost burden of adapting to climate change in private dwellings.

What is a reasonable response?

Reasonableness is a long standing legal concept at the centre of the tort of negligence. It has been applied in a variety of ways by the Courts to determine if an act or omission was sufficiently mindful of a foreseeable risk of harm (Underwood, 1999 p.10), *Tame v New South Wales*.

Across each decision there remains an option whereby legislative immunity could be provided irrespective of action or inaction, though clearly this in itself carries significant risk and uncertainty.

In *Donoghue v Stevenson* (Maxwell, 2009) Lord MacMillan recognised that the assessment of reasonableness must reflect the changing community values and circumstances and that the grounds of action may develop in adaptation to altering social conditions and standards. The criterion of judgment must adjust and adapt itself to the changing circumstances of life. The concept of reasonable foresight in Lord Atkin's speech in *Donoghue v Stevenson* combines both the concept of fact and value. What is foreseeable is a matter of predictive fact and reasonableness is a contemporary value judgement (Maxwell, 2009).

Given the detailed advice on the evidence supporting the probability and consequence arising from Climate Change it is evident that the concept of fact regarding foreseeability is satisfied. This applies at the global level from the IPCC (2007), for the Sydney region from CSIRO (2007) modelling, and specifically Ku-ring-gai in the research by Macquarie University (Taplin et al, 2010).

The residents of Ku-ring-gai highly value their local environment. Their vision for 2030 as developed by the community and councillors states: ;

'a really good vision is a little pocket of Sydney that can be a real symbiosis between the environment and the built -in environment'

(local resident Sustainability Vision Report, 2008 p26)

It is reasonable then that where the local environment may be threatened by extreme weather events, the residents of Ku-ring-gai will expect Council to take leadership to protect the natural, social and built heritage of the locality.

It is feasible that local government decisions may be subject to increasing litigation and legal challenge on the basis of climate change impacts (England, 2007). This is particularly in relation to policy frameworks such as town planning schemes, land zonings, town planning policies, building approval regimes, major construction plans and environmental protection policies, etc. Decision makers must be aware and plan for climate change implications in a very demonstrable way in order to meet the test of "reasonableness" in their defence notes England (2007). Some legal experts such as Lyster (2010 pers com.) believe the Courts will consider awarding significant damages to plaintiffs against public sector agencies such as Local Governments if they show disregard toward the impacts of climate change. If this occurs there could be serious financial implications for individual Councils and government generally (England, 2007).

Local government is the most vulnerable sector and least well resourced to cope with climate change risks and impacts (Bainbridge, 2008). As a land manager and custodian of open space with general responsibilities for environmental issues, local government will be largely responsible for the implementation of Climate Change adaptation strategies. In this regard it needs effective, efficient policies to increase investment and foster creativity and innovation in addressing climate change issues (Bainbridge, 2008).

The Local Government Act 1993 sets the charter for Councils to follow. This Act specifically requires a council to 'properly manage, develop, protect, restore, enhance and conserve the environment of the area for which it is responsible, in a manner consistent with the Principles of Ecologically Sustainable Development. Within the definition of ESD lies the application of the Precautionary Principle. This principle directs that:

"Where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation." (Cole, 2005).

The Precautionary Principle is contained in Principle 15 of the 1992 Rio Declaration as a fundamental component of the concept of ESD (Cole, 2005). As the Precautionary Principle is elemental to ESD it makes sense to analyse potential adaptation options for their capacity to achieve their intended purpose; that is to firstly reduce risk and secondly limit unintended effects that occur in every change process. Where potential impacts are sufficiently uncertain (such as is the case with regional Climate Change modelling) it is wise to apply the Precautionary Principle (Cole, 2005).

Further to this the charter of Local Government also requires Councils to have regard to the long term and cumulative impacts of its decisions and also to engage in long term strategic planning on behalf of the local community (section 8 (ii))

In terms of civil liability it is worth noting that evidence relating to 'foreseeability' needs to be demonstrated only to the satisfaction of the civil burden of proof that is '*on the balance of probability*' rather than the more rigorous criminal burden of '*beyond reasonable doubt*.' Williams, (2003 p1) explains the application of balance of probability has in built flexibility:

*'In expressing the standard of proof the expression 'balance of probabilities', as interpreted by Dixon J in *Briginshaw v Briginshaw* [1938] HCA 34; [1938] 60 CLR 336, gives the court a degree of flexibility in applying the civil standard without requiring the development of intermediate standards between the normal civil standard and the criminal.'*

Therefore it is possible that depending upon the context before the Court, the threshold to satisfy whether or not a risk was likely to occur on the balance of probability, may be varied as it is not a fixed standard. As a result the Precautionary Principle is all the more relevant when considering climate change.

Liability under statutory law may also be an issue. Norton Rose (2010) advise that *'councils may be liable in common law negligence or nuisance, or under the Civil Liabilities Act 2002 for negligence or breach of statutory duty'*.

Councils need to be mindful of whether their policies and strategies demonstrate sufficiently precaution or foresight in the investigation and interpretation of the likelihood of a risk occurring. This consideration also links to the magnitude of the consequence arising from the manifestation of the risk.

Provided adaptation options reflect the scientific information and are timely they should be able to satisfy threshold or standard for foreseeability. With this in mind Councils need to:

- keep well informed on the climate science;
- understand the risks emerging from changing weather patterns to their region;
- ensure assessments of vulnerability and resilience is related to foreseeable risks and consequences and;
- adaptation options are selected on basis of their capacity to reduce risk and minimise environmental, social and financial impact.

In debate surrounding the draft Coastal Protection Bill [\[ref\]](#), the NSW government intends to grant itself immunity from liability regarding sea level rise which means the local authorities and the community would carry responsibility for sea level rise. According to the July 1st edition of LG News:

'in its current form, the Billalso shift responsibility and liability for coastal protection on to councils, where previously this responsibility has been shared between councils, communities and the State Government'.

Debate of this controversial Bill was extended to allow for further stakeholder input. While it is anticipated that immunity to sea level rise risk may be granted, it remains unknown and unlikely that immunity will be granted to other extreme events such as drought, extreme heat, storms and bush fire. This is because the events have occurred in the past and therefore the harm is clearly foreseeable. Sea level rise on the other hand whilst it has occurred in geological time, it is much more problematic to forecast magnitude of risk as it has not been encountered in the modern era.

The intent of this climate change adaptation strategy is to address these and other important considerations and responsibilities of Council.

Climate Modelling for Ku-ring-gai

The expectation that climate change effects will increase in future has led to an escalating demand for regionalised predictions to guide adaptation plans. Although there is high confidence in the large scale patterns of changes in some parameters, the skill in regional prediction is much more limited and indeed difficult to assess, given that we do not have data for a selection of different climates against which to test models.

To determine the potential weather related changes for Ku-ring-gai, regionalised modelling had to be examined. This has relied on data from CSIRO (2007) and the Bureau of Meteorology (Bureau of Meteorology, 2007) and analysis by Macquarie University to develop a regionalised model.

Climate change downscaling for the Ku-ring-gai LGA has been completed in partnership with Macquarie and Bond Universities (Taplin, et. al. 2010).

Downscaled models for the Sydney region predict:

- significantly increased spring and summer rainfall
- increased intensity of storm cells and micro bursts
- winter rainfall decreases;
- higher maximum temperatures;
- higher sea levels;
- changing flood patterns with greater runoff in summer and autumn;
- a longer fire season with increased frequency of very high or extreme fire-risk days and
- increased fire frequency and intensity.

Dynamical or statistical downscaling from global models should be used to generate high resolution climate change information for attribution of past change, for understanding the processes that lead to change and for projecting future change. The statistical downscaling of models depends fundamentally on high quality, high resolution and comprehensive observations to inform statistical approaches and to confirm error reductions in models. In addition, appropriate and robust statistical methods are needed for extremes, extrapolation and downscaling, and these methods must be suitable for providing information useful to decision-makers.

Care is needed to ensure that statistical samples of regional models are long enough to be reliable for trend analysis. As other finer-scale events of general importance such as flash floods and cyclones cannot realistically be resolved, the modelling effort must be supported with careful statistical analysis of the relationship between model-scale features and extreme events.

The Macquarie team used the Richmond RAAF (Royal Australian Air Force) Base data as a surrogate for Ku-ring-gai . This is because it is almost as close as Sydney Airport and more closely reflects the non-coastal character of Ku-ring-gai.

To optimise regional predictability a coordinated approach with Regional Climate Models (RCMs) and higher resolution global models is required.

Research is being undertaken to try to improve model predictions but progress is likely to be slow (Taplin, et. al. 2010). In the meantime, society is faced with making decisions now, and must rely on the best available climate advice today. Despite the limitations, down scaled climate models

provide the most promising means of delivering locally relevant information on climate change. However, the limitations of any regional and local scale predictions must be made clear.

Government agencies of NSW and the University of NSW have been developing climate change forecasts for the NSW regions [CSIRO, 2007]. The following summary is from the 'Summary of Climate Change Impacts Central Coast Region of the NSW Climate Change Action Plan' [CSIRO 2007]. NSW local governments will have to use these predictions in future planning and reporting.

Key climate trends

Ku-ring-gai is likely to experience a warmer climate with fewer extreme cold days and increasing number and duration of extreme heat days. Winters will be drier with spring and summer featuring increased rainfall, mostly in heavy storm events. Bushfire weather is intensified, drought periods and water shortages increase and heat stress impact people during prolonged periods of extreme warm temperatures (see Fig.1).

Temperature

Mean daily minimum and maximum temperature are projected to increase by between 1.5 and 3.0°C.

Rainfall

Summer rainfall is projected to increase across the region by 20 to 50%, with a smaller increase in spring. Winter rainfall is projected to decrease. Higher temperatures and changes to evaporation are likely to create slightly drier conditions in winter and spring.

Figure – climate change predictions for Ku-ring-gai

Increased average daily temperature

Overall decrease in average annual rainfall

More rainfall during summer

Drier winters and springs

Sea level rise

Greater intensity of El Niño and La Niña cycles

Increased runoff

Increased extreme temperature days

The pattern of the El Niño-Southern Oscillation cycle is projected to continue but with higher temperatures than currently experienced. El Niño years are likely to continue to be drier than average and become hotter. La Niña years are likely to continue to be wetter than average and also to become warmer. In El Niño events, water stress may be more intense due to higher temperatures. During La Niña years, storms with heavy downpours, damaging winds and hail may be more frequent.

Runoff

A slight increase in annual runoff likely (with estimates ranging from -5% to +13%), with likely increases in summer and

autumn and decreases in winter and spring.

In summer, there is very likely to be a major increase in runoff depths (with estimates ranging from +5 to +22%) and a major increase in the magnitude of high flows. Current levels of low flows are likely to occur with about the same frequency.

In autumn, there will more likely than not be a moderate increase in runoff depths (with estimates ranging from -5% to +16%). There is likely to be a moderate increase in the magnitude of high flows, and current levels of low flows will more likely than not occur slightly less frequently.

In winter, there is likely to be a minor decrease in runoff depths (with estimates ranging from -16% to +11%) and a slight decrease in the magnitude of high flows. Current levels of low flows will more likely than not occur slightly more frequently.

In spring, there is likely to be a minor decrease in runoff depths (with estimates ranging from -14% to +8%). There will more likely than not be a slight decrease in the magnitude of high flows. Current levels of low flows will more likely than not occur moderately more frequently.

Bush fire

The frequency of very high or extreme fire-risk days is predicted to increase across NSW. Increases in temperature, evaporation and high fire-risk days are predicted to likely increase fire frequency and intensity. The fire season is may be extended as a result of warmer temperatures.

Potential changes in suitable weather to undertake prescribed burning – longer summers will restrict burning safely while wet winters will reduce opportunities to

implement successful burns that meet fuel management and ecological requirements.

Sea Level

Sea level rise figures are based on projections by the Intergovernmental Panel on Climate Change and CSIRO and are still being reviewed to quantify expected local changes. Along the coast, storm events and sea level rise are projected to have a significant impact. This will have minor direct impact for Ku-ring-gai which will be largely contained to the tidal areas at Echo Point, Roseville and along Lady Game Drive at Lindfield

Risks Emerging from Changed Weather Patterns

While climate change may impose new risks in some locations, for Ku-ring-gai the modelling suggests that *no new risks* are likely to emerge, however *existing weather related risks are likely to intensify and occur more frequently*.

The challenge is to ascertain the significance of the predicted effects of climate change and to identify local consequences in relation to future liability. Decision-makers must also consider the benefits foregone and the cost of failure to take pre-emptive action to mitigate and adapt to the more extreme impacts of climate change.

In 2008, two workshops were conducted by Council through a community consultation process to discuss the climate change weather predictions and the consequence of altered climatic conditions on Ku-ring-gai. Participants were selected from local business, government agencies, emergency services and NGOs. Participants ranked risks according to the vulnerability of Ku-ring-gai to a particular change and the magnitude of the consequence of that change. The following key risks were identified by participants as the highest priority for Ku-ring-gai:

- Bushfire frequency and intensity
- Storm frequency and intensity
- Potable water supply security
- Heat stress mortality rates.

Participants noted that these risks will have an effect on the environment, especially critically endangered species, the local economy, our community and the administration and operation of council.

Bush fire

Bush fires are included in Garnaut's (Garnaut, 2008) economic analysis of climate change as one of nine types of 'extreme weather events'. It is worth noting that this analysis occurred prior to the Victorian Black Saturday Bushfires and as such are likely to underestimate the extent and costs of wildfire.

Additional costs of bush fire management are manifold including the opportunity cost of intensely managing the interface, in terms of loss of diversity, simplification of ecosystems, loss of habitat and disturbance that assists penetration of weeds is often not acknowledged.

The historical record for bush fire weather in South East Australia show (Lucas *et al.* 2007) that for the period 1973–2007, there has been a general increase in the Forest Fire Danger Index (FFDI) and a statistically significant (above the 95% level) increasing trend in FFDI for most inland locations. Pitman *et al.* (2007) also discuss bushfire incidence under warmed climate conditions in terms similar to those of Lucas *et al.* (2007) but with a probability density function (PDF) that might contribute to economic modelling (Figure 4.4). Pitman *et al.* (2007) predict increases in forest and grassland fire risk by 2050 and 2100 for all Australia. They use two emission scenarios (low and high) but find that by 2050 the magnitude of the increase in risk is relatively independent of scenario. They confirm the findings (Lucas *et al.* 2007) and earlier analyses (Beer & Williams 1995) that the changes in wind speeds are relatively insignificant in changing fire risk. Increased risk is largely due to alternations in temperature and relative humidity. By 2100 the low emissions scenario further increases the fire risk (above 2050) by ~25% while the high emissions case has increases in fire risk of 50–100% along the NSW coast.

The analysis of the results confirmed bush fire was considered to be the single most serious threat given the area is surrounded by three National Parks, features ridge top development and has significant evacuation issues in the event of a bush fire emergency. Research has indicated that in terms of risk reduction, hazard reduction burns have limited value. Strengthening houses to withstand ember attack is viewed as a more viable and effective way to reduce infrastructure loss. Improved landuse planning for developments in bush fire prone areas will be intrinsic for enhanced resilience and for reduction of risk for new development.

Some other issues for consideration:

Fires burning under extreme or catastrophic conditions will be almost impossible to stop until they run out of fuel or the weather changes. Thus, there will need to be a focus on life safety and increased emphasis on residents evacuating out of bush fire prone areas. This may lead to an exponential increase in house loss and losses from ember attack up to several hundred metres into built up areas.

Vulnerable people and communities will need different management requiring increased intervention during bush fire emergencies. Evacuation management and post fire management will be critical.

Existing developments should be encouraged to incorporate additional bush fire protection measures such as asset protection zones, defensible space, water for fire fighting purposes, upgraded construction and ember protection.

People living in bush fire prone areas will need to understand their bush fire risk and what they will do under various Fire Danger Ratings and if fires break out in the vicinity, have completed a Bush Fire Survival Plan.

Council will need to help provide evacuation centres and Neighbourhood Safer Places that can accommodate people in extreme bush fire weather or when fires are actually burning.

Storms

Risks associated with storms include injuries and deaths, destruction and or damage to houses from wind and water, falling trees and limbs canopy tree loss, power infrastructure damage and failure, localised flooding, stream and creek scouring and erosion, road pavement destabilisation to name but a few. The consequences of the changed catchment runoff for stream flow will depend on what part of the reported range of change is realised, as well as the influence of water infrastructure. If the drier end of the range were realised, there is a risk of inflow reductions of 10% to 20% during drier periods.

Storms have wreaked havoc in the past. The 1991 storm recorded a clean up and restoration cost of nearly \$700M (Pollock, 2007).. If storms, damaging winds and hail are likely to increase in frequency it is clear steps need to be taken to reduce the impact occurring from these events. While the direct loss to council may be offset by state government emergency funding, as per 20B of the *State Emergency and Rescue Management Act 1989*, the drawn down effect on the public purse will accelerate commensurate with the increase in the incidence of these events. The effect of extreme events such as bushfire and storms extends well beyond the financial impact with the disruption to daily life and emotional stress leaving long term psychological and physical damage.

Storms also close roads - downed trees and power impact not only to Ku-ring-gai residents but to commuters that need to travel through Ku-ring-gai. The Pacific Highway is one of two main arterial roads to the freeway.

Drought

Droughts create financial pressures and impact the community in variety of ways. While Ku-ring-gai residents continue to take up water tank rebates the progress is slow (Climate Clever Shop, 2010). Promoting local water and energy security are two impact adaptation programs already underway in council subsidised by State and Federal Government funding. However if Ku-ring-gai is to continue to enjoy the current very high standard of living, more must be done to reduce water and energy consumption and increase local water capture and re-use and sustainable energy production.

In terms of Council, investment in water efficiency, capture and re-use represents considerable financial savings. Investment in low water technology not only serves to reduce operational costs but also showcase relevant technology to local residents and promotes uptake of that technology in local homes.

Extreme heat

Extreme heat events have occurred periodically in the past. Most detached housing in Ku-ring-gai is of brick and tile construction which withstands heat over short periods. However, lack of ventilation is a common problem with many homes constructed before passive solar design principles came into common use. As such homes heat up during the day and release heat at night. During periods of extended high temperatures the night time temperatures also increase. It is the night time temperature that is a key indicator of heat stress. Houses in these circumstances don't cool down at night and the internal temperatures remain elevated increasing the likelihood of heat induced illness.

Appendix 2 contains an article from an edition of the Sydney Morning herald in

2009 discussing the most recent trends in heat related deaths.

No new risks are likely to emerge, however existing weather related risks are likely to intensify

Existing vulnerability and resilience

In order to create adaptations that are timely and relevant it is necessary to investigate both the vulnerability and resilience factors affecting a local area. The first adaptation workshop conducted in 2008 focused on better understanding the risks arising from climate change by identifying vulnerabilities and establishing the resilience factors to extreme weather events already in place.

Determining the vulnerability and resilience of council and community to projected weather changes allowed council to establish where future adaptation strategies need to be applied. Vulnerability and resilience factors were based on a literature review, council staff experience, historical records of extreme events and advice from local and regional community experts.

Both the vulnerability and resilience factors listed in the following tables are based on current weather conditions and trends.

Vulnerability and resilience are closely related. Vulnerability focuses on the weaknesses in the defence or exposure to extreme weather related risks. Resilience is the level of resistance to minimise the impacts and recover from a particular extreme weather event.

Each measures the capacity of the community to limit loss and maximise opportunities from future changes. An example of vulnerability is the individual mobility of residents. With nearly 20 per cent of Australians suffering some sort of limitation due to a disability (Australian Human Rights Commission, 2010) their capacity to prepare and respond to extreme

events can be compromised. Ku-ring-gai has pockets containing significant numbers of people whose mobility is compromised because of age, infirmity, illness or a permanent disability.

If a catastrophic event occurs such as a bushfire, moving these people to safety and assisting them to recover could be a major undertaking for Council, community services and local residents. This example demonstrates how local factors can intensify risk, hence it is a vulnerability.

In terms of resilience, Council and the community have programs or features that improve the capacity to reduce risk exposure or recover from an extreme event. Handmer (2010) suggests many factors that influence resilience.

First, residents who are well connected to their local community are better able to cope in a crisis as they know how to access information and services they need.

Second, is the ability to maintain an income flow that is the household income is not jeopardised by the impact of the extreme weather event. For example, illness from heat stress may affect self employed people maintain an income, a storm could destroy a business premises or a bushfire burn out cars leaving people with no means to travel to work. Insurance levels are a key indicator of income protection but the insurance industry is reluctant to share statistics regarding extent and levels of cover.

Insurance and other adaptation measures seek to improve the capacity of council and residents to

deal with financial problems. Understanding resilience allows for the opportunity to build on strengths and avoid re-inventing solutions that are already in place. While the following sections of this report show risk, vulnerability, resilience and adaptation options, they are not in priority order, their purpose is to scope the potential magnitude of impact and works necessary to reduce the likelihood of severe losses.

The following tables provide the vulnerability, resilience and adaptation options available for both council and the community.

Bush Fire

Risk

Increased bush fire risk is largely due to alternations in temperature and relative humidity. By 2100 the low emissions scenario further increases the fire risk (above 2050) by ~25% while the high emissions case has increases in fire risk of 50–100% along the NSW coast.

Vulnerability

Intensification of development on interface

Declining opportunity to conduct hazard reduction burns due to weather

Likely fuel loads will increase due to weather changes

Many endangered ecological communities dependent on specific fire regimes

Changing fire regimes, that is increased frequency hazard reduction burns impacts ecological integrity

Unsuitable development on interface (aged care, hospitals, schools)

Resilience

Adherence to bushfire environmental assessment code
Interface maintenance program

Strategies for fire education rolling out street by street basis
Hazard reduction program

An annual hazard reduction program is undertaken when possible.
Ecological burns undertaken in vulnerable areas

Vegetation mapping process complete

Possum ladders, Pool to Pond, Walks and Talks, Wild things program, Fauna and habitat mapping, protection protocol for endangered species from hazard reduction burns

Alert Department of Planning of unsuitable development areas

Possible Adaptation Options

Increase percentage of existing and new homes compliant with AS3959
Planning private land e.g. increase minimum lot sizes and/or setbacks to bushland in bushfire prone areas, extending area of Level 1 construction, restrict type of development
Discount or rebate on fire resilient installations in homes
Increase buffer width on interface
Planning controls within the LEP and DCP
Conduct community and agency education program

Increased number of prescribed burns
Invest in R&D Projects, eg. selective weeding, identification of sections of corridor that can be cleared in an emergency, fast decomposing bacteria to reduce fuel - carbon sequestration, or mechanical removal, pre-curing process prior to hazard reduction burns in APZs for hotter burns support natives plants
Council bulk green waste removal and chipping service (subsidised) in high risk area
Selective removal of mid-story vegetation
Map areas of non fire tolerant vegetation communities, *phytophthora* locations, wildlife refuges

Wildlife Protection - animal evacuation, notification of wildlife carers in post burn work, veterinary care capacity identified, habitat boxes to be made out of non-combustible material,
Planning public land - eg biodiversity offset for APZs, conserve bush corridors including interface areas that link with reserve
Utilise water sensitive urban design to reduce fuel load from weed invasion

Rezone land to restrict development in high risk areas
Identify and support residents requiring property maintenance assistance in high risk areas

| | | | |
|---|---|---|--|
| Risk of a uncontained fire starting and spreading on a Extreme or Catastrophic day | Unknown locations of available water resources (i.e. pools) | Static Water Supply signage available | Increase static water supply volume e.g. tanks |
| | Limitation of access to properties | Extensive network of fire trails 56 fire breaks in Ku-ring-gai | Construct new fire trail Build and operate new RFS |
| | Heat and drought frequency and intensity exacerbates bushfire risk | Hornsby/Ku-ring-gai Disaster Plan developed (DISPLAN) Bushfire Risk Management Plan completed | Enforce fire retardant landscape design Compulsory high risk property acquisition Develop new community fire units Install fire danger signs Install early alert fire warning system |
| | Shortage of sufficient resources to meet demand | Ku-ring-gai Council is one of the few local government authorities in the region with a Bushfire Team | Provision of safe refuge areas for people and pets Evacuation route signage Audit and assure compliance for key fire evacuation routes and develop min. standard or code Consider potential for new roads to reduce evacuation risk |
| | 13,000 existing properties within the High Risk Bush Fire area | Bushfire Risk Management Plan completed Hornsby/Ku-ring-gai Disaster Plan developed (DISPLAN) | Enforce fire retardant landscape design Compulsory high risk property acquisition Develop new community fire units Install fire danger signs Install early alert fire warning system |

Bush Fire

| Risk | Vulnerability | Resilience | Possible Adaptation Options |
|---|--|---|--|
| Increased bush fire risk is largely due to alternations in temperature and relative humidity. By 2100 the low emissions scenario further increases the fire risk (above 2050) by ~25% while the high emissions case has increases in fire risk of 50–100% along the NSW coast. | Number of homes located in high bushfire hazard zone (13,000 homes) | High level of insurance protection Enhanced financial buffering capacity New dwellings adhere to Aust. Standard for construction of dwellings in bushfire prone areas | Maintain adequate fire insurance Higher standard of homes – Limited heat transfer. Complete with fire retardant door to leave house and internal entrance from with house. |
| | Limited community awareness and education programs | High rate of volunteerism High level of education | Volunteering in community programs Education programs and developing community networks |
| | Extent of above ground power infrastructure | Willingness to contribute to underground powerlines | Relocate power and phone lines underground |
| | Complacency of home owners / property managers to reduce risk | All households within high bushfire prone areas provided with a Fire Wise kit | Install fire resilient products eg sprinklers, double brick / triple brick homes, ember proofed garage doors etc Develop household/business emergency response plan |
| | Evacuation capacity and process untested and problematic (pedestrian + traffic calming v evacuation) | RFS input into evacuation process Hornsby/Ku-ring-gai Disaster Plan developed (DISPLAN) | Monitor fire warning protocols, be aware of appropriate action and ready to act on them |
| | Older properties less well adapted than new; large stock of aged properties | Willingness of younger community members to assist aged and disabled residents Limited number of timber housings structures | Voluntary compliance with building code for existing properties Install Static Water Supply signage for emergency services |
| | Limited community knowledge of identified neighbourhood safe places | Many areas of the local government area not classified as bushfire prone could act as safe refuges | Nominate house as a safe house Build locate or have access to safe refuge areas for pets and people |
| | Only one RFS station in Ku-ring-gai | Local Community Fire Units Area has an RFS unit Additional RFS units in neighbouring Local Government Areas | Increase number of CFUs and recruit more members Build a second RFS facility |
| | Capacity of residents to stay and defend compromised by older demographic | Participation in community groups and connections to local communications | Assist neighbours to decrease vulnerability to fires Psychological preparedness by practicing fire drills |



| | networks | |
|---|--|---|
| Geographic features maximise exposure to bushfire risk (aspect, slope, vegetation type, fuel loads) | Bushfire prone land mapped Participation in Bushcare who undertake some APZ management, Wild Things, WIRES volunteers, conversion of pools to ponds, participation in Clean Up Aust Day to keep residents connected in vulnerable areas | Install additional water source with fire fighting reserve Assist in the maintenance of Asset Protection Zones (APZ) Reduce fuel load on property including gutters Use fire resilient garden design, plants and practices |

Storms

Risk

Summer rainfall is projected to increase across the region by 20 to 50%, with a smaller increase in spring.

During La Niña years, storms with heavy downpours may be more frequent.

Vulnerability

Drainage infrastructure capacity inadequate to meet increased storm flows

Council chambers unable to withstand extreme rain events

Many council buildings aged and of brick and tile construction.

Council facilities in poor condition and subject to water damage

Extent of above ground power infrastructure vulnerable to damage from falling trees and braches

Local flooding and water velocity damaging road and footpath infrastructure

Shallow rooted native trees unstable in saturated soils

Resilience

Storm water harvesting reduces peak flows and velocity

Council insured against storm effects

Council insured against storm effects

Wet weather policy for sports fields
Infrastructure re-development program

Canopy and tree maintenance program on public land

Water Sensitive Urban Design program
Developing code of conduct standards for fire trails and walking tracks in wet weather

Weed mapping, Noxious weed control program
Drainage around the vulnerable trees

Possible Adaptation Options

Implement Water Sensitive Urban Design for flood management

Increase capacity of stormwater infrastructure

Replace roofing with storm resilient materials

Undertake disaster risk assessments of key infrastructure

Stabilisation works of known high erosion areas
Revise and regulate planning controls which increase resilience of the built environment in storm events

Relocate power and phone lines underground
Install uninterrupted power supply (co-generation) at key council facilities (ie. Council chambers, depot, community centres/meals on wheels)

Assess and reinforce vulnerable infrastructure (ie bridges)
Upgrade road structure and materials to improve resilience
Maintain Local Emergency Operation Centre for the provision of logistical support

Identify and manage drainage around vulnerable trees
Replace canopy trees with appropriate trees to withstand high velocity winds
Decrease tree canopy
Discounts or rebates provided for storm resilient

installations (eg, window shutters, corrugated roofing)

Conduct community education program

Train staff in disaster management (ie, chainsaw operation)

| | | |
|--|--|--|
| Majority of council facilities do not provide under cover parking for fleet vehicles | Council vehicles comprehensively insured | SMS warning system Warn staff to put vehicles undercover |
| Roads and drainage systems capacity exceeded in storms | Development of the Hornsby/Ku-ring-gai Disaster Plan (DISPLAN) | Review, update and increase awareness of the DISPLAN Provide mobile welfare support (eg, Meals on Wheels) Install signage for evacuation routes and welfare centres Build and support new State Emergency Service or Rural Fire Service operations Establish Evacuation Centres to manage the provision of emergency accommodation and essential material needs to residents, pets and businesses affected by storms |
| Tree canopy loss | Street tree planting program | increase tree canopy with appropriate trees to withstand high velocity winds |
| Blockage of drainage channels from leaf litter | Stormwater maintenance programs | Provide welfare and resource information to residents and businesses affected by storms Council bulk green waste removal and chipping service (subsidised) |
| Steep topography increases the velocity of stormflows | Storm water harvesting reduces peak flows and velocity | Implement Water Sensitive Urban Design for flood management Increase capacity of stormwater infrastructure |

Storms

Risk

Summer rainfall is projected to increase across the region by 20 to 50%, with a smaller increase in spring.

During La Niña years, storms with heavy downpours may be more frequent.

Vulnerability

Brick and tile construction vulnerable to wind and hail damage

Steep catchments increase velocity of storm water and damage potential

Older domestic retaining walls not built to withstand extreme rain events.

Canopy trees 'self pruning', that is prone to losing large limbs

Increased hard stand area accelerates runoff and increases volume

Domestic drainage systems overloaded by volume.

Tree damage to houses

Grassed sports grounds closed frequently due to saturation by rain

Disconnected community members

High number of aged residents living alone

Resilience

High percentage of insured dwellings

Many dwelling on ridge tops

Retaining walls over 0.9 metres require DA and engineers certification

State Emergency Service group in Ku-ring-gai

Most properties have sufficient drainage capacity to handle normal flows

Participation in community groups and connections to local communications networks

Bio-box uptake, increase in visits to Council nursery,
Encourage planting of less susceptible tree species

Community programs providing advice and incentives to install water tanks

High level of volunteerism

Community groups assist with vulnerable property maintenance

Possible Adaptation Options

Replace roofing with storm resilient materials
Install storm resistant fixtures (ie, reinforced garage doors, shutters)

Voluntary compliance with building code provide hail resistant shelter for vehicles

Participate in community education programs
Map drainage hotspots for local flooding

Maintain adequate storm insurance
regularly maintain gutters and drains
Community education on designing and maintaining retaining walls

Replace canopy trees with appropriate trees to withstand high velocity winds
identify and manage vulnerable trees
decrease tree canopy
Build locate or have access to safe refuge areas for pets and people

Landscaping for overland flow
install detention basin (ie water tanks)
Increase capacity of stormwater infrastructure (ie gutters, downpipes)

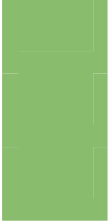
Undertake disaster risk assessments of property
Establish whether properties have sufficient capacity to handle an increase in volume

Develop household/business emergency response plan

Install synthetic playing surfaces

Volunteering in community programs (eg State Emergency Service, Rural Fire Service, Meals on Wheels)

Assist neighbours to decrease vulnerability to storms



| | | |
|---|--|---|
| Higher number of trees vulnerable to storm damage | Number of community members in disaster response organisations | Training in disaster management (ie. first aid, chainsaw operation) |
| Number of older homes vulnerable to electrical surges | Affordability to install technology | Subscribe to SMS warning system Install storm surge protection |
| Existing power infrastructure is vulnerable to falling trees and debris | Reasonable emergency response from power utilities | Install temporary power supply (eg. generator) |

Drought

Risk

The pattern of the El Niño-Southern Oscillation cycle is projected to continue but with higher temperatures than currently experienced. El Niño years are likely to continue to be drier than average and become hotter. In El Niño events, water stress may be more intense due to higher temperatures.

Vulnerability

Water capture and reuse project dependent on external funding

Slow uptake of water saving technology e.g. absence of half flush toilets in Council Chambers, tap aerators, water saving dishwasher etc

Parks and gardens increase water demand during drought

Water intensive facilities to service ie pool, golf courses, and sports ovals

Aged community infrastructure damage by shrinking and swelling clay soils

Stress of canopy trees resulting in limb failure or tree death

Food price increases as production in rural areas declines

Building design doesn't allow for soil movement

Resilience

Stormwater harvesting and re-use – underway including sewer mining

Discounts on water tanks through Council's Climate Clever Shop
Better Business Partnership opportunities

Water Sensitive Urban Design
Drought tolerant grass species on sports fields
Low water demand gardens

Sewer mining and re-use at Gordon Golf Course and North Turrumurra Recreation Area
Use of drought resistant turf species
Leachate re-use at the St Ives Showground Precinct
Opportunistic amenities upgrade to water efficient fixtures

Council buildings inspected regularly for cracks and other damage

Council tree management team assess and manage vulnerable trees

Bland Shire Council support program

Council buildings inspected regularly for cracks and other damage

Possible Adaptation Options

Stormwater harvesting for Council facilities expanded and Install further sewer mining/stormwater harvesting for communal use

Undertake community education campaigns
Promote and provide rebates for water saving installations
Enforce planning controls for water efficiency
Monitor water consumption for leaks and anomalies
Install sealed toilet cisterns to prevent leakage
Waterless printing and paper products

Install subsurface irrigation where required
Rainwater tanks on all facilities
Install drought tolerant landscaping at Council facilities
Install synthetic play surfaces

Sewer / leachate mining for Council facilities
Install shade structures for pools
Install backwash recycling at pool
Fix leaking taps
Install dual flush toilets
Install aerators / flow restrictors on taps

Use flexible materials for paths
Use pervious paving materials

Monitor and manage vulnerable trees

Sister city support with rural drought affected communities

Use flexible materials for paths
Use pervious paving materials

Drought

Risk

The pattern of the El Niño-Southern Oscillation cycle is projected to continue but with higher temperatures than currently experienced. El Niño years are likely to continue to be drier than average and become hotter. In El Niño events, water stress may be more intense due to higher temperatures.

Vulnerability

High number of properties with swimming pools

Limitations of State Environmental Planning Policy—Building Sustainability Index (BASIX)

Water dependant European gardens favoured by residents

Increasing costs of water consumption

High level of household water consumption

Extensive tree canopy

Resilience

Number of pool to pond conversions

Space on properties to install water tanks

Sydney Water Love Your Garden program
Rainwater tank installation
Availability of drought tolerant garden species

Financial capacity to meet increase water costs
Affordability of retrofitting homes

Installation of water efficient technology
Sydney Water Water Fix program

Tree maintenance program

Possible Adaptation Options

Pool water use management
Shade pools to protect from UV radiation and reduce evaporation
Install and use pool covers
Allow pools to form part of stormwater retention and detention systems

Informing sustainable design beyond the BASIX
Education for health risk reduction for water saving
Purchase low water and energy star rated appliances
Install more water efficient toilets eg dual flush

Real time water monitoring (smart metering)
Install rainwater tank for garden use only
Promote grey water reuse
Install trigger nozzles on hoses
Use drought tolerant grass species in lawns
Construct drought tolerant landscaping
Replace lawn areas with synthetic grass

Participate in education programs
Donate to drought relief programs
Use products made with less water
Buy local and Australian produce

Install a rainwater tank and connect to toilet and laundry
Large scale flow restrictors - pressure reduction
Install water efficient showerhead
Take shorter showers
Install tap aerators / flow restrictors
Minimise water use when washing the car

Maintain environmental flows

| Council | Extreme heat | | | |
|---------|---|---|---|---|
| | Risk | Vulnerability | Resilience | Possible Adaptation Options |
| | <p>Mean daily minimum and maximum temperature are projected to increase by between 1.5 and 3.0°C.</p> <p>El Niño years are likely to continue to be drier than average and become hotter.</p> | Dependence on mechanical heating and cooling in council buildings | Number of canopy trees on public land | Install underground living areas that are cool in extreme heat |
| | | Heat island effect particularly in town centres with high rise and little natural shade | Number public rest areas with shade Footpaths shaded by street trees Council pool expansion Number of playgrounds with shade covers Community bus to transport residents to service centres | Use road and footpath surface material to be less heat absorbent Plant more trees in streets, parks and public domain areas Increase shaded areas in public places Synthetic playing surface on council owned ovals to reduce heat and water consumption Ensure that OH&S addresses working outdoor in extreme heat conditions Develop a 'House Buddy' program to assist neighbourhoods to monitor vulnerable residents in time of extreme risks Provide an information telephone service to keep residents informed of appropriate responses Conduct community education program to increase awareness of heat risk and response Shade pools to protect from UV radiation exposure in summer months Ready access to water in public places for pets and people Provide a shuttle bus to vulnerable residents in time of extreme heat |
| | | No backup power to augment supply during blackouts | | Backup key facilities with uninterrupted power supplies Place power infrastructure underground to ensure continuity of supply Install and operate co-generation systems to feed power to the grid in times of peak demand Invest in low energy technology to offset price increases of fossil fuel derived power Nominate cool areas with sustainable power supplies where residents can go to escape the heat Rebates for renewable power supply to ensure sustainability of energy supply during peak demand |
| | | Pavement and road surface damage | | Upgrade road and footpath structure and materials to improve heat resilience |
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|--|---|--|
| Poor natural ventilation and passive solar design | | Discounts and rebates for passive solar design principles to reduce dependence on mechanical heating and cooling |
| Aging heat and cooling systems overwhelmed in extreme heat | Community buildings with cooling systems | Insulate council buildings including windows, walls and roof |
| Large number of outdoor Council staff | Staff strategies are underway to reduce vulnerability of working in extreme heat eg. Ice dispensers and drink bottles | Monitor outdoor staff cardiovascular health |
| Poor condition of AC system within Chambers | Reflective film on windows | Educate staff about heat stress |

| Community | Extreme heat | | |
|-----------|---|--|---|
| | Risk | Vulnerability | Resilience |
| | <p>Mean daily minimum and maximum temperature are projected to increase by between 1.5 and 3.0°C.</p> <p>El Niño years are likely to continue to be drier than average and become hotter.</p> | <p>Dependence on mechanical heating and cooling in domestic dwellings and businesses.</p> | <p>Proximity to the coast and sea breezes</p> <p>Number of pools on private land</p> <p>Under cover parking</p> <p>Shade trees around homes</p> |
| | | No power to back-up supply during blackouts | <p>Number of canopy trees on private land</p> <p>Affordability of power generators</p> |
| | | Aging community more vulnerable to the effects of heat | <p>Participation in community groups and connections to local communications networks</p> <p>House insulation quite common</p> |
| | | European plants favoured in residential gardens | Drought resilient plant available |
| | | Aged housing stock with poor ventilation and passive solar design, not up to BCA standards | <p>Air conditioned shopping centres</p> <p>Affordability of retrofitting</p> |
| | | Railway lines buckle in heat | Alternative transport available to back-up rail |
| | Possible Adaptation Options | | |
| | <p>Apply passive solar design principles to reduce dependence on mechanical heating and cooling</p> <p>Insulate buildings including windows, walls and roof</p> <p>Alternative working activities in extreme conditions to reduce heat stress</p> <p>Plant more shade trees</p> <p>Install underground living areas that are cool in extreme heat</p> <p>Shade pools to protect from UV radiation exposure in summer months</p> <p>Install renewable power supply to ensure sustainability of energy supply during peak demand</p> <p>Contribute to schemes to place power infrastructure underground</p> <p>Invest in low energy technology to offset price increases of fossil fuel derived power</p> <p>Install a generator for backup supply in the event of blackouts</p> <p>Increase capacity of health services to cope with victims of heat stress</p> <p>Participate in a 'House Buddy' program to monitor vulnerable residents in time of extreme risks</p> <p>Go to cool areas with sustainable power supplies to escape the heat</p> <p>Ensure ready access to water for animals and people</p> <p>Ensure supervision of children on extreme heat days</p> <p>Plant wind breaks where possible</p> <p>List public buildings with air conditioning</p> <p>Know what to do to keep your home cooler on hot days</p> <p>Be aware of how to reduce the risk of heat stress and how to manage heat stress</p> <p>Planning controls</p> <p>Monitor weather warnings for extreme heat days</p> <p>Landscape with materials and colours to reduce heat absorption</p> | | |



Plan of bus line and infrastructure to replace rail network along the highway during periods when network is compromised by heat.

Bush fire

The management of bushfire risk is largely coordinated at a regional level by the Hornsby Ku-ring-gai District of the NSW Rural Fire Service. Every five years this committee prepares a new bushfire risk management plan the most recent approved in 2010 (Hornsby/Ku-ring-gai Management Committee 2010). This plan however does not guarantee protection in the event of a fire, in fact it highlights the number of areas in Ku-ring-gai exposed to different level of bush fire risk., including those at extreme risk of wildfire.

One of the most effective long term strategies to managing risk is by effective planning and building regulation. Managing fire risk from a development control perspective is addressed in part through the provisions of the *Environmental Planning and Assessment Act 199* and the *Rural Fires Act*. All development in bush fire prone areas must comply with Planning for Bushfire Protection (NSW Rural Fire Service 2006) as the basis for building, development planning and approval.

In the high-risk fire areas it may be time to discourage building in a manner similar to restricting building in flood-prone areas (Handmer, 2007). The Victorian Royal Commission mentions a voluntary buy back, such schemes are extraordinarily expensive and risk shifting the cost burden onto the neighbours. Leaving early remains the safest and most efficient way to respond to threats of fire. Knowledge about places that are particularly high risk, for example due to the topography, (such as north to north west-facing, steep slopes) but it is not being used is available and construction, should either be prohibited (definitely prohibit Special Fire Protection Purpose developments see S.100B of Rural Fires Act for definitions) or the topography modified. For example some people should be required to alter the grade of slopes they are building on to reduce the fire

intensity exposure (Handmer, 2010). However bush fire-related building regulations although helpful would make little difference in catastrophic events (Handmer, 2007). The AS3959 constructs up to an FDI of 100 beyond this there is little chance of reducing risk.

Storms

Ku-ring-gai residents are also vulnerable to impacts from storm events with the extensive tree canopy causing costly damage to homes, businesses and infrastructure. Already the area has suffered considerable damage from intensifying stormwater flows with storms in February 2010 seeing stormwater damage both to council buildings, roads, stormwater infrastructure and private dwellings. Unlike wildfires, it is far more difficult to predict the areas likely to be impacted by a storm. Past storm events do not reveal a preferred corridor that storms take but rather there is a random pattern of destruction governed by climatic factors on the day.

Drought

Vulnerability to water shortages is also a long term concern due to the high level of consumption of water per person in Ku-ring-gai. Sydney has long been beyond the threshold for a sustainable supply for water, meaning Sydney cannot store sufficient water in its water supply system to buffer the community from drought. Given the increasing population and decreasing rainfall volume, pressure on the community supply will intensify in the coming years.

Extreme heat

Heat stress is of concern in Ku-ring-gai given the aging population and the number of elderly people residing in the area. On extreme heat days the probability of the energy infrastructure failing to meet peak demand is very likely. Reliance in homes on mechanical cooling becomes critical but with the unreliability of energy supply

combined with reluctance particularly by elderly people on limited incomes to use high cost, energy hungry air conditioning, people are tempted to endure the heat. Responses to heat stress management need to be independent of the mains energy supply.

Cooling responses will not only be targeted to the householder but also to town centres and public buildings where people can gather in the event of extreme heat and energy infrastructure failing. Such location would require an independent power supply.

Identification and prioritisation of adaptation strategies

Once the vulnerability and resilience factors had been determined, the adequacy of current programs to deal with an increase in risk can be established. Given the historical impact of severe weather events, it is clear there is a level of risk accepted or at least understood by the community. However as these events expand in frequency and intensity it is foreseeable that the community's acceptability will decline which brings with it an escalation in complaints. This is evident with the findings of the 2009 Victorian Bushfires Royal Commission where local responses to this event indicated current efforts were insufficient in the face of a catastrophic impact.

This level of risk, while difficult to quantify, can be considered as the limit of acceptable risk. It is clear from the increasing costs of these events that the level of risk abatement must be improved to maintain a standard of 'reasonableness' in risk mitigation. This brings with it a range of other considerations such as the capacity and prioritisation of public and private resources.

The method used to isolate suitable adaptation strategies involved the use of multi-criteria analysis. The adaptation tables are included in Appendix 4. The tables are divided into the four key risks of bushfire, storm, drought and extreme heat. Each category was then separated into adaptation actions that council could take in order to make Ku-ring-gai more resilient to extreme weather events and community adaptation actions to improve the resilience of local residents and their properties.

Options for each adaptation to an extreme weather event was tested against a set of questions designed to rank each adaptation against:

- a) financial performance
- b) social performance
- c) environmental performance and
- d) the ability of adaptation action to reduce the identified risk

The questions used can also be found in Appendix 2. The purpose of the questions was to test each adaptation option for its ability to reduce a specific risk while minimising any unintended negative consequences. Intrinsically these questions filter each option against aspects of the ESD principles by framing the inquiry with the Triple Bottom Line (TBL). The questions therefore examine aspects of equity, natural resource conservation and true cost issues through a precautionary lens.

By using a precautionary lens to answer each question, an answer can be accorded an empirical value from -3 (high impact, low risk reduction capacity) to +3 (low impact, high risk reduction capacity). By allocating these scores it was possible to incorporate a combination of empirical (quantitative) and social (qualitative) data to identify potential advantages and disadvantages of each adaptation option. To calculate the top scoring option across the TBL involved the adaptation of the Borda Count method.

The Borda count is a method where voters rank issues, options, solutions etc in order of preference. In this project this was determined across three themes from which a score was determined. The Borda count determines the result by giving each issue a certain number of points corresponding to the position the issue is ranked against all others in that particular risk category. Once all scores have been counted the option with the most points is regarded as the most favourable in terms

of risk reduction and the least harmful preference. The Borda Count sometimes elects broadly acceptable options, rather than those preferred by the majority and it is for this reason the Borda count is considered a consensus-based electoral system, rather than a majority one (Borda Count Method, 2010).

The options as determined by staff within the Strategy and Environment Department were then tested through council's Sustainability Reference Team, an internal committee comprising of representatives across all divisions and levels in the organisation. This input was then considered and incorporated into the final count.

A key limitation of this approach up to this point was the absence of a more accurate financial analysis relating to the full capital and opportunity costs and future benefits that could be derived from the option in consideration.

If this level of analysis is required a more detailed method has been developed in collaboration with Macquarie and Bond Universities (Taplin *et al*, 2010). The objective of this study was to build on council's risk analysis to find a method to prioritise adaptations according to their return on investment and ability to reduce financial risk. A summary of the Macquarie University project can be found in Appendix 5 and the full document is available on Councils web site.

Determining Risk Reduction Capacity

To establish a comparative method to determine which options would likely achieve the maximum benefit in terms of reduced risk it was necessary to source two types of data:

- 1) data based on expert first hand experience with extreme weather events
- 2) Records relating to past extreme weather events

Lived experience from a range of experts and community members was derived from the SES, RFS, NPWS, BOM and Council staff.

Records and data on extreme weather events came from the media, academic research, BOM, Victorian and Canberra Royal Commission of Bushfires, Council records and Risk Frontiers at Macquarie University. Surveys were sent out to gather Ku-ring-gai's community perception towards Climate Change see Appendix 6. This feedback received from the surveys were considered in this strategy.

For each weather related event a set of key impacts was isolated. Each adaptation option was scored according to its ability to reduce either the probability or magnitude of the impact.

For example, the bush fire options were examined for their ability to:

- reduce the effect of radiant heat
- reduce the effect of ember attack
- effect on water supply
- fuel load transference capacity
- destructiveness of the fire

The full set risk analysis criteria can be found in Appendix 3

A

adaptation Options

In determining how to adapt to a risk it is important to recognise the various roles and responsibilities of all involved. This can range from Federal and State Government funding for natural disaster, or the revision of building codes, the extent of local government support services, business practice of the private sector and individuals upgrading their homes.

The challenge for local government is to determine which actions are in their direct control, or whether they have an influencing or advocacy role. These decisions are often complicated through the changing in responsibilities by cost shifting, partnerships and in meeting community expectations.

Community options will largely rely on education and promotion of adaptation options. Some options will provide information to householders on methods of increasing their resilience to specific risks and yet others will be strategies to improve resilience to weather related risks in general for example improving connectivity with their local community. There are a range of community projects already underway that assist resilience, some are council initiated and run programs and others initiatives of other agencies such as RFS and DECCW.

While some of these programs do not specifically link to a weather related impact, they all contribute to improving the resilience of Ku-ring-gai to increase pressure from the extreme weather impacts. New programs to further augment resilience can build on existing programs where possible to leverage

the interest already evident in environmentally related issues.

Bush fire

| | Option | Primary Responsibility | Secondary Responsibility | Score | Priority | Comments |
|--------------------|---|------------------------|---------------------------|-------|----------|---|
| Council adaptation | Increase percentage of existing and new homes compliant with AS3959 | Council | NSW RFS | 20 | High | Improves resilience of existing housing stock |
| | Conduct community and agency education program | Council | NSW RFS | 19 | | Raises awareness of bush fire safety |
| | Invest in R&D Projects, eg. selective weeding, identification of sections of corridor that can be cleared in an emergency, fast decomposing bacteria to reduce fuel - carbon sequestration, or mechanical removal, pre-curing process prior to hazard reduction burns in APZs for hotter burns support natives plants | Council | NSW National Parks | 19 | | Research into more efficient and effective means of bush fire management |
| | Build and operate new RFS | NSW RFS | Council | 18 | | Provides greater number of emergency volunteers |
| | Planning private land e.g. increase minimum lot sizes and/or setbacks to bushland in bushfire prone areas, extending area of Level 1 construction, restrict type of development | Council | State Government | 17 | | Improves resilience of new housing |
| | Identify and support residents requiring property maintenance assistance in high risk areas | Council | Residents | 16 | | Assists vulnerable community members |
| | Develop new community fire units | NSWFB | Council | 15 | | Improve community self sufficiency and awareness |
| | Discount or rebate on fire resilient installations in homes | Council | NSW RFS | 14 | | Provision of an incentive to improve resilience of existing housing stock |
| | Utilise water sensitive urban design | Council | State Government | 9 | Medium | Reduces weeds along the interface, therefore reducing fuel loads |
| | Provision of safe refuge areas for people and pets | Council | NSW RFS | 8 | | Provides a refuge in the case where evacuation is not an option |
| | Wildlife Protection - animal evacuation, notification of wildlife carers in post burn work, veterinary care capacity identified, habitat boxes to be made out of non-combustible material, | Council | WIRES, NSW National Parks | 8 | | Provides protection to fauna |
| | Map areas of non fire tolerant vegetation communities, <i>phytophthora</i> locations, wildlife refuges | Council | NSW National Parks | 7 | | Protects vulnerable plant communities |
| | Increase static water supply volume e.g. tanks | Council | Residents | 6 | Low | Provides additional water sources for emergency services |
| | Rezone land to restrict development in high risk area | Council | State Government | 6 | | Reduce the increase in dwellings within high risk areas |
| | Enforce fire retardant landscape design | Council | State Government | 5 | | Improves resilience of new housing |
| | Fire danger signs | NSW RFS | Council | 3 | | Provides the community with continuous updates regarding |

| | | | | | |
|--|--|--------------------|-----------------------------|-----|---|
| | | | | | fire danger index. |
| | Evacuation route signage | Council | RTA | 3 | Provide clear direction in the case of emergency |
| | Audit and assure compliance for key fire evacuation routes and develop min. standard or code | Council | RTA, NSW RFS | 3 | Improved safety |
| | Install early alert fire warning system | Emergency Services | Council | 1 | Improves preparedness |
| | Council bulk green waste removal and chipping service (subsidised) in high risk area | Council | Business | 0 | Reduce fuel load |
| | Compulsory high risk property acquisition | Council | State Government | -2 | Increased buffer and reduced transference of fire |
| | Planning public land - eg biodiversity offset for APZs, conserve bush corridors including interface areas that link with reserve | Council | State Government | -3 | Improve biodiversity resilience |
| | Consider potential for new roads to reduce evacuation risk | Council | RTA | -7 | Improve safety |
| | Selective removal of mid-story vegetation | Council | NSW National Park | -7 | Reduce fuel load and transference |
| | Construct new fire trail | Council | NSW National Parks | -8 | Improve fire fighting capacity |
| | Increase buffer width on interface | Council | State Government | -12 | Reduce transference |
| | Increased number of prescribed burns | NSW RFS | Council, NSW National Parks | -16 | Reduces fuel loads in high risk areas |

Bush fire

| | Option | Primary Responsibility | Secondary Responsibility | Score | Priority | Comments |
|----------------------|--|------------------------|--------------------------|-------|----------|---|
| Community adaptation | Install fire resilient products eg sprinklers, double brick / triple brick homes, ember proofed garage doors etc | Resident | Business | 25 | High | Improves the resilience of structures to bush fire |
| | Voluntary compliance with AS3959 | Developer | Residents | 23 | | Improves the resilience of structures to bush fire |
| | Install and maintain privately owned fire fighting equipment in good working order | Resident | RFS | 20 | | Improved fire fighting capacity and safety |
| | Monitor fire warning protocols, be aware of appropriate action and ready to act on them | Resident | RFS | 18 | | Reduce risk through preparedness |
| | Psychological preparedness by practicing fire drills | Resident | Council | 17 | | Improved fire fighting capacity and safety |
| | Build locate or have access to safe refuge areas for pets and people | Resident | Council | 15 | | Save lives |
| | Volunteering in community programs | Resident | Council | 15 | | Greater awareness and capacity building of community |
| | Assist neighbours to decrease vulnerability to fires | Resident | Council | 15 | | Community capacity building |
| | Install additional water source with fire fighting reserve | Resident | RFS | 14 | | Improved fire fighting capacity and safety |
| | Develop household/business emergency response plan | Resident, Business | RFS | 13 | | Reduce risk through preparedness |
| | Maintain adequate fire insurance | Resident, Business | Business | 13 | Medium | Reduced financial loss and improved resilience |
| | Relocate power and phone lines underground | Council | Energy utilities | 11 | | Reduced ignition sources and greater resilience of electricity network during fire events |
| | Nominate house as a safe house | Resident | Council | 10 | | Save lives |
| | Reduce fuel load on property including gutters | Resident | RFS | 9 | | Reduce fire ignition sources |
| | Install Static Water Supply signage for emergency services | Resident | RFS | 9 | | Improved fire fighting capacity |
| | Pressed Earth brick homes – limited heat transfer and fire retardant door. | Resident | Council | 8 | | Reduce risk and improve fire fighting capacity. |
| | Use fire resilient garden design, plants and practices | Resident | Business | 7 | Low | Reduce fire ignition sources and fuel load |
| | Assist in the maintenance of Asset Protection Zones (APZ) | Resident | Council | 5 | | Reduce fuel loads |

Storms

| | Option | Primary Responsibility | Secondary Responsibility | Score | Priority | Comments |
|--------------------|---|------------------------|--------------------------|-------|----------|---|
| Council adaptation | Relocate power and phone lines underground | Council | Energy Australia | 25 | High | Protects power lines from falling trees and debris. Assists to maintain continuous power supply during storm events |
| | Conduct community education program | Council | Emergency services | 20 | | Improves community self reliance |
| | Discounts or rebates provided for storm resilient installations (eg, window shutters, corrugated roofing) | Council | Supplier | 20 | | Provides greater protection to the internal environment of a building and reduces rain inundation |
| | SMS warning system | | Council | 18 | | Provides warning to allow for early response |
| | Undertake disaster risk assessments of key infrastructure | Council | Consultant | 17 | | Provides greater protection to the internal environment of a building and reduces rain inundation |
| | Stabilisation works of known high erosion areas | Council | Contractor | 16 | | Protects infrastructure and property in high erosion areas |
| | Replace roofing with storm resilient materials | Council | Contractor | 16 | | Provides greater protection to the internal environment of a building and reduces rain inundation |
| | Revise and regulate planning controls which increase resilience of the built environment in storm events | Council | State Government | 14 | | Provides greater protection to the internal environment of a building and reduces rain inundation |
| | Train staff in disaster management (ie, chainsaw operation) | Council | Education | 14 | | Improves clean up response by Council |
| | Identify and manage vulnerable trees | Council | Contractor | 12 | Medium | Reduces the incidence of damage caused by falling trees |
| | Replace canopy trees with appropriate trees to withstand high velocity winds | Council | Contractor | 8 | | Reduces the incidence of damage caused by falling trees |
| | Maintain Local Emergency Operation Centre for the provision of logistical support | Council | Emergency Services | 8 | | Allows for greater coordination at a storm event |
| | Install uninterrupted power supply (co-generation) at key Council facilities (ie. Chambers, Depot, Community centres/meals on wheels) | Council | Contractor | 7 | | Allows for continued operation of key Council facilities throughout power failure events |
| | Provide welfare and resource information to residents and businesses affected by storms | Council | SES | 7 | | Assists affected community members to access available services |
| | Review, update and increase awareness of the DISPLAN | Council | Emergency services | 5 | Low | Provides relevant and up to date procedures in managing the logistics of emergency events |
| | Assess and reinforce vulnerable infrastructure (ie bridges) | Council | Consultant | 5 | | Protects infrastructure in high risk areas |
| | Upgrade road structure and materials to improve resilience | Council | Contractor | 5 | | Protects road surfaces to withstand greater water velocities |
| | Increase capacity of stormwater infrastructure | Council | Contractor | 5 | | Reduces flooding of downstream properties |
| | Provide mobile welfare support (eg, Meals on Wheels) | Council | State Government | 4 | | Provides food and other services to vulnerable and less mobile community members |

| | | | | | | |
|--|---|---------|--------------------|-----|--|---|
| | Increase tree canopy with appropriate trees to withstand high velocity winds | Council | Contractor | 3 | | Reduces velocity of wind |
| | Install signage for evacuation routes and welfare centres | Council | Emergency services | 3 | | Assists affected community members to access safe evacuation or welfare centres |
| | Implement WSUD for flood management | Council | Contractor | 2 | | Reduces flooding of downstream properties |
| | Council bulk green waste removal and chipping service (subsidised) | Council | Contractor | 2 | | Assists residents in removing green waster after storm events |
| | Build and support new SES or RFS operations | Council | Emergency services | 1 | | Provides infrastructure for greater number of emergency service volunteers |
| | Establish Evacuation Centres to manage the provision of emergency accommodation and essential material needs to residents, pets and businesses affected by storms | Council | Emergency services | -1 | | Provides welfare and accommodation to affected community members |
| | Decrease tree canopy | Council | Contractor | -20 | | Reduces the incidence of damage caused by falling trees |

Storms

| | Option | Primary Responsibility | Secondary Responsibility | Score | Priority | Comments |
|----------------------|--|------------------------|--------------------------|-------|----------|---|
| Community adaptation | Replace roofing with storm resilient materials | Resident | Contractor | 26 | High | Provides greater protection to the internal environment of a building and reduces rain inundation |
| | Install storm resistant fixtures (ie, reinforced garage doors, shutters) | Resident | Business | 20 | | Provides greater protection to the internal environment of a building and reduces rain inundation |
| | Landscaping for overland flow | Resident | Council | 17 | | Provides methods for moving water away from buildings |
| | Voluntary compliance with building code | Resident | Council | 15 | | Provides greater protection to the internal environment of a building and reduces rain inundation |
| | Undertake disaster risk assessments of property | Resident | Insurers | 15 | | Allows building owners to identify key issues with their site |
| | Develop household/business emergency response plan | Resident | State Emergency Service | 15 | | Provides better response to storms |
| | Participate in Community Education Programs | Resident | Council | 15 | | Allows residents to have greater knowledge in protecting their homes from storms |
| | Volunteering in community programs (eg SES, RFS, Meals on Wheels) | Resident | State Emergency Services | 14 | | Provides greater capacity for our local emergency services |
| | Assist neighbours to decrease vulnerability to storms | Resident | State Government | 11 | Medium | Reduces the vulnerability |
| | Training in disaster management (ie. first aid, chainsaw operation) | Resident | Education department | 11 | | Improves self reliance |
| | Subscribe to SMS warning system | Resident | NSW RFS and BOM | 10 | | Provides warning to allow for early response |
| | Install storm surge protection | Resident | Council | 9 | | Protects electrical appliances from electrical surges |
| | Regularly maintain gutters and drains | Resident | Business | 8 | | Provides greater protection to the internal environment of a building and reduces rain inundation |
| | Maintain adequate storm insurance | Resident | Insurer | 5 | | Provides financial protection from damage |
| | Install temporary power supply (eg. generator) | Resident | Energy Company | 5 | | Allows residents to still have power during storm related black outs |
| | Identify and manage vulnerable trees | Resident | Council | 5 | Low | Reduces the incidence of damage caused by falling trees |
| | provide hail resistant shelter for vehicles | Resident | Council | 4 | | Protects vehicles from hail damage |
| | install detention basin (ie water tanks) | Resident | Council | 4 | | Reduces flooding of downstream properties |
| | Increase capacity of stormwater infrastructure (ie gutters, downpipes) | Resident | Council | 3 | | Provides greater protection to the internal environment of a building and reduces rain inundation |
| | Build locate or have access to safe refuge areas for pets and people | Resident | Council | 3 | | Provides protection to humans and animals |
| | Replace canopy trees with appropriate trees to withstand high velocity winds | Resident | Council | 2 | | Reduces the occurrence of limb and tree drop on properties |
| | Decrease tree canopy near dwellings | Resident | Council | -18 | | Reduces the incidence of damage caused by falling trees. However can increase the velocity of wind. |

Drought

| | Option | Primary Responsibility | Secondary Responsibility | Score | Priority | Comments |
|--------------------|---|------------------------|--------------------------|-------|----------|---|
| Council adaptation | Undertake community education campaigns | Sydney Water | Council | 18 | High | Increases education and awareness on actions to reduce water consumption |
| | Stormwater harvesting for Council facilities | Council | Supplier | 17 | | Provides additional water source for Council facilities and improves resilience of turf sites |
| | Monitor water consumption for leaks and anomalies | Council | Sydney Water | 15 | | Water wastage is detected early |
| | Install sewer mining/stormwater harvesting for communal use | Council | Developers | 14 | | Provides additional water source for communal use |
| | Use flexible materials for paths | Council | Contractor | 13 | | Reduces damage to infrastructure through soil shrinking during drought |
| | Fix leaking taps | Council | Contractor | 12 | Medium | Water wastage is reduced |
| | Install synthetic play surfaces | Council | Sports groups | 12 | | No water required to maintain them, and greater use of the sites can be employed |
| | Install sealed toilet cisterns to prevent leakage | Council | Contractor | 11 | | Water wastage is reduced |
| | Install drought tolerant landscaping at Council facilities | Council | Contractor | 11 | | Reduces drought stress of plants through better plant selection |
| | Install shade structures for pools | Council | Contractor | 10 | | Reduces evaporation |
| | Install subsurface irrigation where required | Council | Contractor | 10 | | Provides a watering system which reduces evaporation |
| | Rainwater tanks on all facilities | Council | Contractor | 9 | | Provides alternate water source to facilities |
| | Install dual flush toilets | Council | Contractor | 9 | | Water wastage is reduced |
| | Promote and provide rebates for water saving installations | Council | Sydney Water | 9 | | Provide incentives to residents to improve their drought resilience |
| | Use pervious paving materials | Council | Contractor | 9 | | Assists in ground water recharging |
| | Install aerators / flow restrictors on taps | Council | Contractor | 8 | | Water wastage is reduced |
| | Waterless printing and paper products | Council | Suppliers | 7 | | Water wastage is reduced |
| | Sewer / leachate mining for Council facilities | Council | Contractor | 6 | | Provides additional water source for Council facilities and improves resilience of turf sites |
| | Install backwash recycling at pool | Council | Contractor | 5 | Low | Water wastage is reduced |
| | Sister city support with rural drought affected communities | Council | Residents | 5 | | Provide support to a rural town affected by drought |
| | Enforce planning controls for water efficiency | Council | State Government | 0 | | Water wastage is reduced in new developments |

Drought

| | Option | Primary Responsibility | Secondary Responsibility | Score | Priority | Comments |
|----------------------|---|------------------------|--------------------------|-------|----------|--|
| Community adaptation | Install a rainwater tank and connect to toilet and laundry | Resident | Business | 23 | High | Reduces potable water consumption |
| | Participate in education programs | Resident | Business | 18 | | Improves knowledge on methods for becoming more resilient to drought |
| | Education for health risk reduction for water saving | Resident | Business | 17 | | Improves knowledge on methods for becoming more resilient to drought |
| | Purchase low water and energy star rated appliances | Resident | Business | 17 | | Reduces potable water consumption |
| | Install more water efficient toilets eg dual flush | Resident | Business | 15 | | Reduces potable water consumption |
| | Real time water monitoring (smart metering) | Resident | Business | 12 | Medium | Increased awareness of real time water consumption |
| | Use drought tolerant grass species in lawns | Resident | Business | 12 | | Gardens are more resilient to drought |
| | Use products made with less water | Resident | Business | 11 | | Encourages suppliers to use less water |
| | Install rainwater tank for garden use only | Resident | Business | 11 | | Reduces potable water consumption |
| | Take shorter showers | Resident | Business | 11 | | Reduces potable water consumption |
| | Buy local and Australian produce | Resident | Business | 9 | | Reduces transport requirements of products |
| | Install water efficient showerhead | Resident | Business | 8 | | Reduces potable water consumption |
| | Shade pools to protect from UV radiation and reduce evaporation | Resident | Business | 8 | | Reduces potable water consumption |
| | Construct drought tolerant landscaping | Resident | Business | 8 | | Gardens are more resilient to drought |
| | Minimise water use when washing the car | Resident | Business | 8 | | Reduces potable water consumption |
| | Informing sustainable design beyond the BASIX | Developer | Resident | 7 | | Reduces potable water consumption |
| | Reuse pool backwash | Resident | Supplier | 7 | | Reduces potable water consumption |
| | Install and use pool covers | Resident | Business | 7 | | Reduces potable water consumption |
| | Install tap aerators / flow restrictors | Resident | Business | 7 | | Reduces potable water consumption |
| | Replace lawn areas with synthetic grass | Resident | Business | 7 | | Reduces potable water consumption |
| | Donate to drought relief programs | Resident | Business | 7 | | Provides support to towns vulnerable to drought |
| | Promote grey water reuse | Resident | Business | 6 | Low | Reduces potable water consumption |
| | Install trigger nozzles on hoses | Resident | Business | 3 | | Reduces potable water consumption |
| | Large scale flow restrictors - pressure reduction | Sydney Water | Resident, Business | 0 | | Reduces potable water consumption |

Extreme heat

| | Option | Primary Responsibility | Secondary Responsibility | Score | Priority | Comments |
|--------------------|---|------------------------|--------------------------|-------|----------|--|
| Council adaptation | Ensure that OH&S addresses working outdoor in extreme heat conditions | Council | Workcover | 22 | High | Reduces incidences of heat stroke |
| | Insulate council buildings including windows, walls and roof | Council | Suppliers | 19 | | Reduces temperature extremes in buildings |
| | Install and operate co-generation systems to feed power to the grid in times of peak demand | Council | Energy utilities | 19 | | Reduces peak load on energy network and reduces potential for network failures. Also reduces energy costs. |
| | Invest in low energy technology to offset price increases of fossil fuel derived power | Council | Suppliers | 16 | | Reduces peak load on energy network and reduces potential for network failures. Also reduces energy costs. |
| | Conduct community education program to increase awareness of heat risk and response | Council | Area Health Service | 16 | | Assists community in being better prepared to adapt to extreme temperatures |
| | Discounts and rebates for passive solar design principles to reduce dependence on mechanical heating and cooling | Council | Suppliers | 14 | | Provides financial assistance to residents as a prompt to improve the resilience of their own homes. |
| | Develop a 'House Buddy' program to assist neighbourhoods to monitor vulnerable residents in time of extreme risks | Council | Area Health Service | 14 | | Assists the community to monitor each other in extreme events |
| | Plant more trees in streets, parks and public domain areas | Council | RTA | 13 | | Provides additional shading and improves micro climate of public domain |
| | Planning controls – within LEPs and DCPs | Council | State Government | 13 | Medium | Improves the resilience of newly constructed homes |
| | Synthetic playing surface on Council owned ovals to reduce heat and water consumption | Council | Suppliers | 10 | | Synthetic surfaces are more resilient to heat extremes compared to turf, which allows Council to provide more usage hours to Council facilities. |
| | Provide an information telephone service to keep residents informed of appropriate responses | Emergency Authorities | Council | 9 | | Provides topical information to the community and helps with preparation and awareness. |
| | Rebates for renewable power supply to ensure sustainability of energy supply during peak demand | Council | Energy utilities | 8 | | Provides a financial incentive to the community to install power systems which will reduce load on the network during peak periods. |
| | Backup key facilities with uninterrupted power supplies | Council | Energy utilities | 8 | | Allows for continuous use of air conditioning during periods of interrupted power supply |
| | Shade public pools to protect from UV radiation | Council | Suppliers | 7 | | Reduces heat transfer loss and heat related illness on extreme heat days |
| | Place power infrastructure underground to ensure continuity of supply | Council | Energy utilities | 5 | Low | Reduces heat transfer loss on extreme heat days |

| | | | | | | |
|--|---|---------|---------------------|----|--|--|
| | Use road and footpath surface material to be less heat absorbent | Council | RTA | 5 | | Reduces urban heat island effect and improves micro climates |
| | Upgrade road and footpath structure and materials to improve heat resilience | Council | RTA | 5 | | Reduces damage to bitumen surfaces during periods of extreme heat |
| | Nominate cool areas with sustainable power supplies where residents can go to escape the heat | Council | Businesses | 2 | | Provides a cool place for residents who may not have a cool home. |
| | Identify and list public buildings with air conditioning | Council | Businesses | 2 | | Reduces potential for heat related illnesses for residents in the public areas |
| | Increase shaded areas in public places | Council | Businesses | 1 | | Provides additional shading and improves micro climate of public domain |
| | Ready access to water in public places for pets and people | Council | Businesses | 0 | | Reduces potential for heat related illnesses for residents in the public areas |
| | Install underground living areas that are cool in extreme heat | Council | Developers | -2 | | Provides naturally cool places which do not require mechanical cooling |
| | Provide a shuttle to vulnerable residents in time of extreme heat | Council | Area Health Service | -4 | | Allows less mobile residents an opportunity to go to cooler places on extreme heat days. |

Extreme heat

| | Option | Primary Responsibility | Secondary Responsibility | Score | Priority | Comments |
|----------------------|---|------------------------|--------------------------------|-------|----------|---|
| Community adaptation | Contribute to schemes to place power infrastructure underground | Residents | Developers, Council | 22 | High | Reduces overload of electricity network |
| | Insulate buildings including windows, walls and roof | Resident | DECCW, Council | 21 | | Reduces temperature extremes in buildings |
| | Apply passive solar design principles to reduce dependence on mechanical heating and cooling | Resident | DECCW, Council | 20 | | Reduces reliance on mechanical heating and cooling |
| | Know what to do to keep your home cooler on extreme days | Resident | Council | 19 | | Each home will have differences in the optimum methods to keep it cool. By knowing these methods, residents can greatly reduce temperature extremes |
| | Install renewable power supply to ensure sustainability of energy supply during peak demand | Resident | DECCW, Energy Utility, Council | 18 | | Reduces overload on electricity network during peak times |
| | Participate in a 'House Buddy' program to monitor vulnerable residents in time of extreme risks | Resident | Council | 17 | | Provides a method of monitoring vulnerable community members |
| | Landscape and roofing with materials and colours to reduce heat absorption | Resident | Landscape suppliers | 15 | | Reduces urban heat island effect |
| | Install a generator for backup supply in the event of blackouts | Resident | Council | 13 | | Allows for uninterrupted usage of residential and commercial buildings. |
| | Be aware of how to reduce the risk of heat stress and how to manage heat stress | Resident | Area Health Service | 13 | | Prevents health effects from heat |
| | Invest in low energy technology to offset price increases of fossil fuel derived power | Resident | Council | 13 | | Reduce the vulnerability towards increasing electricity costs |
| | Plant wind breaks where possible | Resident | Council | 12 | Medium | Provides shading |
| | Ensure ready access to water for animals and people | Council | Council | 12 | | Reduces heat related illness with people and pets |
| | Plant more shade trees | Resident | Council | 11 | | Provides microclimate effect for buildings and external areas |
| | Install underground living areas that are cool in extreme heat | Resident | Council | 8 | | Provides and in-home haven from extreme temperatures without requiring excessive mechanical cooling |
| | Monitor and be aware of weather warnings for extreme heat days | Resident | Bureau of Meteorology | 8 | Low | Allows for early action and preparation for extreme temperatures |
| | Ensure supervision of children on extreme heat days | Resident | Schools, childcare | 6 | | Children can be particularly susceptible to heat related illness and require additional supervision |
| | Go to cool areas with sustainable power supplies to escape the heat | Resident | Council, Businesses | 6 | | Provides temporary relief from heat where it is not available in a residents existing home. |

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|--|--|---------------------|-----------------|----|--|---|
| | Alternative working activities in extreme conditions | Businesses | Workcover | 5 | | Reduces incidences of heat stroke |
| | Provide transport to air conditioned areas | Resident | Council | 4 | | Targets elderly or isolated residents |
| | Shade pools to protect from UV radiation exposure in summer months | Resident | Business | 4 | | Allows for use of pools to cool down whilst reducing excessive UV damage to users |
| | Increase capacity of health services to cope with victims of heat stress | Area Health Service | Local Hospitals | -6 | | Improves preparation of our health system |

R recommendations

The Climate Change Adaptation Strategy is designed to be a living document that is regularly updated as new information emerges on:

- regionalised climate modelling;
- community resilience developments;
- new funding programs and priorities by other tiers of government;
- new opportunities to participate in partnerships with other agencies to introduce new opportunities to augment resilience;
- feedback on the most successful ways to partner business and community in the developing resilience;
- emerging trends in legal obligations of local government with respect to climate change
- any other information pertinent to climate adaptation.

It is recommended that Council place a draft of the Climate Change Adaptation Strategy on public exhibition to seek feedback on adaptation options as a final test of adaptation scope and relevance. This feedback will be incorporated into adaptation option tables and analysed against the test questions.

It is then for Council to decide which adaptation strategies it wishes to pursue. The information provided in the tables shows Councillors and the community a simplified cost benefit comparison of all the options. Where more information is desired regarding investment horizons, it is recommended the method from the Macquarie Report be applied.

Where more information is required to target a specific audience exposed to extreme risk an overlay map (for example residents in the extreme hazard area for bushfire) can be used which would

highlight those areas that need to be targeted quickly.

Adaptation are often characterised by their public-good. As such all levels of government must play an important role in stimulating progress to introduce a range of measures. It is very difficult to quantify where the least cost and greatest benefit will lie in any adaptation measure. In many areas the greatest value-for-dollar investment in climate adaptation efforts by council may lie in encouraging action and investment by private households and business.

Barriers to the uptake of sustainable strategies often occur because of a failure to consider the psychological and behavioural aspects of adaptation. Encouraging residents and business to take responsibility for their own future welfare will likely be an effective way to maximise resilience. When ownership and control is in the hands of the resident, this can mean the tasks for council can be concentrated on leveraging funding and facilitating opportunities for the community. This may take the form of encouraging uptake of solar panels, water tanks, storm shutters and providing market information such that each household need not do its own extensive research into sustainable adaptation renovation options such as is the case in the Greenstyles and Climate Clever programs. These strategies will likely link to responsibilities of State owned utilities and corporations. The task for Council is to act as a facilitator and educator to encourage participation in these programs.

Once the community consultation is complete and Council is satisfied with draft Strategy, attention will move into the implementation of the actions. Council needs to consider the adaptation options put forward and particularly understand

the practicality of implementation. Where longer term and larger investment is considered external funding should be investigated if internal funds and capacity are not available.

The final ranking of options will have been thoroughly tested once the public comments have been reviewed and used to adjust or amend options where necessary. Determining the timing regarding which options should be tackled in the short, medium and long term is the next step. Some options will require further research and development with external partners. Where there is a need to develop partnerships with other agencies to implement an option, Council has to take a lead role in forging these initiatives.

A large number of the high scoring options involve community changes in practice and behaviour, as such education and promotion of sustainable strategies will become more prominent in staff work loads. It is recommended Council consider the following questions to determine the priorities for investment. Council may choose to confirm the current order of issues and priorities or it may determine to choose a different order.

- Which risks need to be prioritised?
- Which sectors of the community to target due to their vulnerability?
- Which options contain the best return on investment?
- What should be the timing for implementation?
- Which options require the development of partnerships with external agencies?

- Which options are recommended to implement within the next financial year and beyond?

Finally it needs to be acknowledged that the do nothing option is a risk to both council and the residents. Given the changing face of litigation no decision or inaction falls short of good risk management.

In Appendix 7, a sets out for Councillors a set of tables, that provide them with a framework to guide their determination in how options can be integrated into Council's agenda both in terms of existing and future objectives.

R

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Appendix 1

Fire Prone Communities Resilient but not Resistant'

pp 10 CSIRO ECOS article April – May 2010

As people get on with the task of rebuilding their homes and their lives in Victoria's fire ravaged communities and new suburbs continue to expand on Melbourne's fringe, the state is missing an opportunity to make communities more fire resistant, a Melbourne-based academic has warned.

Bushfire CRC program leader Professor John Handmer, who is also director of the Centre for Risk and Community Safety at RMIT, says in the same way that people are discouraged from building in the worst flood-prone areas, action needs to be taken in high-risk fire areas. 'In fire areas we have the same sort of knowledge about places that are particularly high risk, for example due to the topography, such as north-facing, steep slopes but it is not being used,' he says.

Prof Handmer believes that building in some high-risk areas should be prohibited or the topography modified for example, some people should be required to alter the grade of slopes they are building on to reduce the fire intensity to which the house is exposed. 'Bushfire-related building regulations help but would probably make little difference in extreme events,' he says. Prof Handmer has studied the widely debated concept of community resilience. Although there are many different definitions, he says one important underlying feature of resilience is how connected people are in their community or neighbourhood.

'Our studies have shown that people who are well connected have a much better information flow about crises,' he says. A second important element is money flow. 'If you have steady income flow, whatever the source, then you have an enhanced resilience because you have a better capacity to deal with financial problems. 'Individual mobility is also a key factor.

Up to 20 per cent of Australians have some disability and in many cases this limits mobility or stamina. Such limitations can affect people's capacity to carry out aspects of fire preparedness and personal safety,' says Prof Handmer believes that while Australian communities in bushfire-prone areas are resilient, they could be more so. 'When you find that those communities are quite resilient, even in communities where many people died there is strong rebuilding, businesses recovering and a lot of social support. However, it doesn't mean that in 20 years time the community will be significantly better prepared for fire,' is his sobering warning.

Appendix - 2

More heat-related deaths 'likely'

DANNY ROSE, Sydney Morning Herald - *March 25, 2009*

Australia's big cities need to guard against a surge in heat-related deaths as they suffer more days with temperatures topping 30 degrees, scientists warn.

Two independent studies looking at projected atmospheric conditions in Sydney and Melbourne have concluded that deaths of older people from heat stress and air pollution could double. The Sydney study, by Dr Martin Cope of CSIRO Marine and Atmospheric Research, sought to forecast the number of days when the maximum temperature exceed 30 degrees during the city's October to March "smog season".

Such sweltering days, with elevated levels of ozone pollution over the city, were projected to increase by about 20 per cent over the next 50 years. "We know that we currently have about a thousand deaths a year in Australia due to heat stress and related illnesses," Dr Cope said.

"Within Sydney itself, we're typically looking at around 200 at the moment, and we think that under climate-changed conditions that may well double."

Sydney's coastal breeze was expected to play a moderating role, Dr Cope adds, as temperatures would rise more in inland areas. In the inner-west suburb of Earlwood, the number of smog season days over 30 degrees was expected to rise from 24 to 30 by 2060. In Richmond, in the city's west, the figure would increase from 44 to 50 days.

The expected increase in deaths would not be driven only by hotter conditions, as the ageing population would put more people in the at-risk group, Dr Cope said. "Looking at heat stress ... the more vulnerable group is the over 65s," Dr Cope said. "The population is going to age over time and by 2050 ... about 20 to 25 per cent will comprise that group."

The Melbourne-based study was done by Nicole Joffe, an honours student at Monash University who is now associated with Net Balance, a sustainable development consultancy and non-profit think tank. She counted 43 extreme days when the average daily temperature was over 30 degrees, and deaths among older people were known to increase, in the 20 years to 2000. Ms Joffe projected the frequency of such days would roughly double to 82 days, but possibly reach as many as 105 days, during the 20 years to 2065.

The study did not take into account the "urban heat island" effect - the ability of a city to produce and retain heat. Other studies have shown the effect can add up to four degrees in Melbourne. Greenhouse gas levels now observable in the atmosphere were also "likely to be tracking higher" than projections used in the study, Ms Joffe says.

Ms Joffe said the research amounted to an effective "doubling of the days linked to [heat stress] mortality". "And these increases could actually be a best-case scenario," she said.

Both studies were released at the Greenhouse 2009 conference in Perth

Appendix - 3

Ranking criteria for adaptation actions

Criteria for Ranking across each event (ranked by effect from -3 - +3) using the following definitions: [-3 very bad, -2 moderately bad, -1 mildly bad, 0 no change, + 1 mildly good, +2 moderately good, +3 very good]

Economic

What effect will this option have on:

Capital costs
Operational costs
Opportunity cost
Employment loss or gain
Insurance premium effect incl. availability
Negligence litigation
Independence of assistance

Environmental

What effect will this option have on

Resource use
Air emissions including greenhouse emissions
Catchment water quality (N/P and turbidity)
Soil condition and erosion
Noise
Visual amenity
Micro-climate
Biodiversity (flora and fauna esp. threatened species and habitats)

Social

What effect will this option have on

Equity between benefit and cost allocation (-3 the individual benefits and community pays, 0 the individual and community mutually benefit and pay, +3 the individual benefits
Sense of security (-3 decreases sense of security, 0 no effect, +3 increased sense of security)
Property / civil rights (-3 negative effect, 0 no effect, +3 positive effect (effect on neighbours)
Community cohesion / isolation (-3 increases isolation, +3 increases cohesion)
Self reliance (-3 reliant on community support, +3 independent of community support)
Crime and vandalism
Health physical and psychological
Disruption to daily life

Risk Reduction

What effect will this option have in reducing risk to *'insert criteria'*?

| | |
|--------------------|--|
| BUSHFIRE Council | Radiant Heat - fire fighting capacity (-3 low capacity, +3 high capacity) Knowledge and awareness (-3 maintenance, +3 increases knowledge and awareness) Ember Attack - material flammability (-3 highly flammable, +3 fire resilient) Water supply (-3 supply severely decreased, 0 supply sustained, +3 supply increases) Fuel load and fire transference capacity (-3 high fuel load and transference capacity, +3 low fuel load) Destruction in the event of fire - destruction (-3 increases destruction, 0 no effect, +3 prevents destruction) |
| BUSHFIRE Community | What effect will this option in reducing risk to <i>'insert criteria'</i> ? Radiant Heat - fire fighting capacity (-3 low capacity, +3 high capacity) Knowledge and awareness (-3 maintenance, +3 increases knowledge and awareness) Ember Attack - material flammability (-3 highly flammable, +3 fire resilient) Water supply (-3 supply severely decreased, 0 supply sustained, +3 supply increases) Fuel load and fire transference capacity (-3 high fuel load and transference capacity, +3 low fuel load) Destruction in the event of fire - destruction (-3 increases destruction, 0 no effect, +3 prevents destruction) |
| STORM Council | Wind damage (-3 increases destruction, 0 no effect, +3 prevents destruction) Overland flooding (-3 increases destruction, 0 no effect, +3 prevents destruction) Rain inundation (-3 increases destruction, 0 no effect, +3 prevents destruction) Electrocution (-3 increases electrocution, 0 no effect, +3 prevents electrocution) Hail damage (-3 increases destruction, 0 no effect, +3 prevents destruction) Flying/falling debris (trees, power poles, roofing) (-3 increases destruction, 0 no effect, +3 prevents destruction) |
| STORM Community | Wind damage (-3 increases destruction, 0 no effect, +3 prevents destruction) Overland flooding (-3 increases destruction, 0 no effect, +3 prevents destruction) Rain inundation (-3 increases destruction, 0 no effect, +3 prevents destruction) Electrocution (-3 increases destruction, 0 no effect, +3 prevents destruction) Hail damage (-3 increases destruction, 0 no effect, +3 prevents destruction) Flying/falling debris (trees, power poles, roofing) (-3 increases destruction, 0 no effect, +3 prevents destruction) |

| | |
|------------------------|---|
| EXTREME HEAT Council | <p>Staff ability to perform service obligations to community and environment (-3 reduces capacity, 0 no effect, +3 enhances capacity)</p> <p>Heat stress/stroke of Council outdoor staff (-3increaases vulnerability, 0 no effect, +3 reduces vulnerability)</p> <p>Infrastructure failure or damage (-3 increases likelihood, 0 no effect, +3 minimises likelihood)</p> <p>Reduced productivity in indoor staff (-3 staff leave workplace, 0 no effect, +3 no work complaints)</p> |
| EXTREME HEAT Community | <p>Ability to reduce indoor temperature (-3increase indoor temperature, 0 no effect, +3 decreases indoor temperature)</p> <p>Reduce the incidence of heat stress/stroke (-3 increases risk, 0 no effect, +3 minimises risk)</p> <p>Infrastructure failure or damage (-3 increases vulnerability, 0 no effect, +3 minimises vulnerability)</p> <p>Declining productivity (-3 inability to work, 0 no effect, +3 efficient productivity)</p> |
| DROUGHT Council | <p>Ability to perform service obligations to community and environment without water (toilet, taps, fire fighting capacity, equipment maintenance, constructed wetlands) (-3 insufficient to maintain operation, 0 no effect, +3 no restrictions)</p> <p>Effect on natural systems, eg bushland, creeks and nature reserves (-3 ecosystem disruption, 0 no effect, +3 ecosystem enhanced)</p> <p>Effect on water dependent facilities eg pools, golf courses, playing fields, parks and gardens, plant nursery (-3 facilities close, 0 no effect, +3 maintain optimum condition)</p> <p>Water availability, restrictions and increases in cost of water (eg desalination plant) (-3 cost prohibitive, 0 no effect, +3 cost reduced)</p> |
| DROUGHT Community | <p>Ability to reduce pressure on community water supply system (-3 supply shut down, 0 no effect, +3 no restrictions)</p> <p>Effect on natural systems, eg bushland, creeks and nature reserves (-3 ecosystem disruption, 0 no effect, +3 ecosystem enhanced)</p> <p>Effect on water dependent facilities eg pools, lawns and gardens (-3 facilities close, 0 no effect, +3 maintain optimum condition)</p> <p>Water affordability and increasing cost of water (-3 cost prohibitive, 0 no effect, +3 cost reduced)</p> |

In order to determine whether the adaptation option priority is High, Medium or Low level, see criteria below:

| Score | Priority |
|---------|----------|
| 12+ | HIGH |
| 12 to 7 | MEDIUM |
| 6- | LOW |

Appendix - 4

Assessment matrix

Drought Adaptation – Community option ranking

| Action | Economic | | | | | | | Environmental | | | | | | | Risk Reduction | | | | Other risk reduction | Ranks | | | | | | | | | | | | |
|--|----------|-------------|------------------|------------|-----------|------------|--------------|---------------|------|-----------|---------------|-----------|------|-------|----------------|--------------|--------------|----------|----------------------|--------|-----------------|----------------------|---------------|----------|------|--------|-----------|--------------|-------|-------------|----------------|----|
| | Capital | Operational | Opportunity cost | Employment | Insurance | Litigation | Independence | Subtotal | Rank | Resources | Air emissions | Catchment | Soil | Noise | Visual amenity | Microclimate | Biodiversity | Subtotal | Rank | Supply | natural systems | Dependent facilities | Affordability | Subtotal | Rank | Storms | Bush fire | Extreme heat | TOTAL | Borda count | Expert opinion | |
| Install a rainwater tank and connect to toilet and laundry | -2 | 2 | 0 | 2 | -1 | 0 | 3 | 4 | 1 | 2 | 1 | 1 | 1 | -1 | -1 | 0 | 1 | 4 | 3 | 1 | 2 | 2 | 8 | 23 | 1 | ✓ | ✓ | ✓ | 23 | 1 | 1 | |
| Participate in education programs | -1 | 1 | 0 | 0 | -1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 0 | 0 | 1 | 6 | 1 | 1 | 1 | 1 | 1 | 4 | 18 | 2 | ✓ | ✓ | ✓ | 18 | 2 | 4 | |
| Education regarding health risks and water saving technology | -1 | -1 | -1 | 1 | -1 | 1 | -1 | -1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 4 | 2 | 1 | 2 | 1 | 6 | 17 | 3 | ✓ | ✓ | ✓ | 17 | 3 | 3 | | |
| Purchase low water and energy star rated appliances | -2 | 2 | 0 | 0 | 2 | 4 | 4 | 4 | 1 | 2 | 1 | 1 | 0 | 0 | 1 | 6 | 1 | 1 | 2 | 1 | 5 | 17 | 3 | 10 | ✓ | ✓ | ✓ | 17 | 3 | 10 | | |
| Install more water efficient toilets eg dual flush | -2 | 2 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 1 | 6 | 2 | 2 | 0 | 1 | 5 | 15 | 4 | 13 | ✓ | ✓ | ✓ | 15 | 4 | 13 | |
| Real time water monitoring (smart metering) | -1 | 0 | 0 | 1 | 0 | 1 | 2 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 3 | 2 | 1 | 1 | 2 | 6 | 12 | 5 | 7 | ✓ | ✓ | ✓ | 12 | 5 | 7 | | |
| Use drought tolerant grass species in lawns - consider higher rank | 0 | 1 | 0 | 1 | 0 | 1 | 3 | 3 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 5 | 0 | 1 | 1 | 2 | 6 | 12 | 5 | 6 | ✓ | ✓ | ✓ | 12 | 5 | 6 | |
| Use products made with less water | -1 | 1 | 0 | 1 | 0 | 1 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 3 | 1 | 1 | 1 | 1 | 4 | 11 | 6 | 21 | ✓ | ✓ | ✓ | 11 | 6 | 21 | | |
| Install rainwater tank for garden use only | -2 | 1 | -1 | -1 | 0 | 2 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | -1 | 0 | 1 | 3 | 1 | 0 | 1 | 1 | 3 | 11 | 6 | 2 | ✓ | ✓ | ✓ | 11 | 6 | 2 | |
| Take shorter showers | 1 | 1 | 1 | 0 | 0 | 1 | 4 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 4 | 1 | 0 | 0 | 1 | 2 | 11 | 6 | 12 | ✓ | ✓ | ✓ | 11 | 6 | 12 | | |
| Buy local and Australian produce | -1 | -1 | -1 | 2 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 1 | 2 | 9 | 7 | 22 | ✓ | ✓ | ✓ | 9 | 7 | 22 | | |
| Install water efficient showerhead | -1 | 1 | 0 | 1 | 0 | 1 | 2 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 1 | 1 | 3 | 8 | 8 | 11 | ✓ | ✓ | ✓ | 8 | 8 | 11 | | |
| Shade pools to protect from UV radiation and reduce evaporation | -1 | 1 | 0 | 1 | 0 | 1 | 2 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 1 | 1 | 3 | 8 | 8 | 15 | ✓ | ✓ | ✓ | 8 | 8 | 15 | | |
| Construct drought tolerant landscaping | 2 | 1 | -1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 4 | 0 | 1 | 0 | 2 | 8 | 8 | 5 | ✓ | ✓ | ✓ | 8 | 8 | 5 | | |
| Minimise water use when washing the car | 1 | 1 | 1 | 0 | 0 | 1 | 4 | 4 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ✓ | ✓ | ✓ | 8 | 8 | 5 | |
| Informing sustainable design beyond BASIX | 0 | -1 | -1 | 1 | 0 | 1 | 0 | 0 | -1 | -1 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ✓ | ✓ | ✓ | 7 | 9 | 14 | |
| Reuse pool backwash | -1 | -1 | 0 | 1 | 0 | -1 | -1 | -1 | 1 | -1 | 1 | 1 | -1 | -1 | 0 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 7 | 9 | ✓ | ✓ | ✓ | 7 | 9 | 17 |
| Install and use pool covers | -1 | 1 | 0 | 1 | 0 | 1 | 2 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 1 | 4 | 7 | 9 | 16 | ✓ | ✓ | ✓ | 7 | 9 | 16 | | |
| Install tap aerators / flow restrictors - consider lower rank | -1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 1 | 1 | 3 | 7 | 9 | 18 | ✓ | ✓ | ✓ | 7 | 9 | 18 | | |
| Replace lawn areas with synthetic grass | -2 | 2 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | -1 | -1 | 1 | 1 | 0 | -1 | 1 | 1 | 0 | 0 | 2 | 7 | 9 | 23 | ✓ | ✓ | ✓ | 7 | 9 | 23 | | |
| Donate to drought relief programs | -1 | 0 | -1 | 1 | 0 | 0 | -1 | -1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 7 | 9 | 24 | ✓ | ✓ | ✓ | 7 | 9 | 24 | |
| Promote grey water reuse | 0 | -1 | 0 | 1 | 0 | -1 | 1 | 0 | 1 | -1 | 1 | 0 | 0 | -1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 6 | 10 | 8 | ✓ | ✓ | ✓ | 6 | 10 | 8 | | |
| Install trigger nozzles on hoses | -1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 3 | 11 | 19 | ✓ | ✓ | ✓ | 3 | 11 | 19 | | |
| Large scale flow restrictors - pressure reduction | -1 | 0 | 0 | -2 | -2 | 0 | -5 | -5 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 4 | 0 | 12 | 9 | ✓ | ✓ | ✓ | 0 | 12 | 9 | | |

Appendix 5

Summary of the Macquarie Bond Universities Collaborative Project

Bush fire was selected to test the model as it was ranked highest of all the risks identified in the consultation process.

Establishing a cost benefit modelling to determine which adaptation options to invest in involved addressing a number of complex questions that drew upon a range of economic theories and techniques. Without the type of assistance of the skilled economists and scientists, it would be overly ambitious for any council to find the skills required to undertake this form of inquiry without considerable cost. Despite the technical resource limitations this study has relevance to local government planning.

The Macquarie Report notes that traditional Cost Benefit Analysis (CBA) has limited appeal for this type of inquiry as it identifies present and future gains and losses incurred by a particular action in the present. It usually applies to financial cases where dollar values exist. Consistent, transparent and replicable, CBA is embraced by local councils; however, when used to value environmental or social impacts, it becomes inaccurate in establishing monetary values for non-market values.

Climate adaptation actions demand immediate attention, an urgency largely accepted in the business community and parts of government. An attempt to use CBA for Triple Bottom Line planning may fail in the environmental case but will almost certainly fail in the social case, where putting dollar values to life, health and pain will be contentious. An incomplete or partial CBA will necessarily reflect the bias of those commissioning the analysis.

Ranking the three elements of TBL had to be individually considered. In this method

ranking in the financial case is purely based on dollar returns and takes into consideration maximum net benefits for each choice. A strategy showing most net benefit will be ranked first. Environmental and social ranking are left to the discourse of council's experts. This system of ordering social and environmental impacts resolves the dilemma of choosing a discount rate inasmuch as no dollar values need be devised for non-market public goods. Accompanying the rankings by qualitative statements describing the costs and benefits and reasons for the ranks assigned would help to make the cases transparent and reduce discrepancies.

The lack of historical data regarding bushfires may be overcome by supplementing historical observation with expert opinion in the estimation process as described in the following section. The Macquarie report (2010) provides a general description of the Loss Distribution Approach (LDA). This approach is used in the financial sector for modelling insurance claims and losses arising from operational risks within the banking industry¹.

LDA involves the estimation of an adequate frequency and severity distribution for the catastrophic events under consideration. The aggregate loss distribution of the events is then computed by combining these two distributions such that the expected annual loss at the desired confidence level can be computed. Simulations can also be used to derive higher quantiles of the aggregate loss distribution. Once the potential losses have been determined using the appropriate discount rate, the discounted present value (DPV) of the

¹ Klugman, *et al.* 1998, and Bank for International Settlements 2001

expected losses and costs for a chosen time horizon can be calculated.

When climate change adaptation strategies are compared it is possible to use the DPV of total costs. In financial applications, the discount rate is usually chosen as the cost of capital. However, as previously discussed there are important differences between economic and financial modelling and the appropriate choice of the discount rate. It should be pointed out that in this approach it is assumed that the chosen strategies will have different effects on the parameters of the frequency and severity distribution which will lead to differences in the calculated or simulated loss figures for each year. The approach also provides the possibility of including the effects of climate change by adjusting the parameters of the frequency and severity distribution in the model.

Once the discounted present value of the costs for each adaptation strategy has been calculated, the strategies can be compared with respect to their net benefit or to the business-as-usual scenario. This involves no investment for adaptation strategies, but will likely yield higher figures for the losses arising from catastrophic events.

The Loss Distribution Approach (LDA) and additional statistical techniques that are relevant for the modelling of losses arising from catastrophic events like storms, droughts or bushfires are further discussed with preliminary results on distributions and bushfire loss estimations.

The LDA is a statistical approach for generating aggregate loss distribution. This section provides the algorithms that can be used to compute the aggregate loss distribution and illustrates the calculation of extreme quantiles for losses based on the generated aggregate loss distribution. As mentioned above this

approach is particularly popular in the financial industry². Researchers commonly use the Poisson distribution for frequency and the Lognormal distribution for severity.

To compute the probability distribution of the aggregate loss from bushfires over one year, it is necessary to estimate the probability distribution function of the single event loss and its frequency for one year. With the benefit of internal and external data (data generated outside the current research project for different purposes and adapted for the present project, for example, bushfire losses experienced by other regions of Australia) supplemented by expert opinion, researchers may estimate the probability distribution function of residential property loss and the bushfire frequency over one year. Then it is possible to compute the cumulative residential property loss for one year or longer.

The Macquarie Report details the method applied to determine investment direction but such is complexity of this type of analysis it is recommended that Council only apply this method to projects that involve a high level of investment. The more simplified version applied early by Council officers is sufficient to scope and prioritise adaptation options but the Macquarie method may be necessary to more carefully analyse return on investment where the project is longer term, complex and expensive.

² Klugman *et al.* 1998, and Bank for International Settlements 2001

Appendix 6

Risk and adaptation options assessment workshops attendees

Workshop 1

02-08-08

Resource Use, Health, Well Being and Biodiversity

National Parks and Wildlife
Macquarie University
SRC/Retirement Village
Ron Barnes
David Newhouse
Sustainability Program Leader
Environmental Levy Program Leader
Dianne Miller
Sustainability Officer
Rob Hall
John Mack
Manager corporate Planning and Sustainability

Workshop 2

02-09-08

Infrastructure and Logistics, Water Energy and Waste, Business and Non-residential, Health and Well Being, Domestic and Property, Emergence Services

Rail Corp
RTA
Energy Australia
Telstra
Sydney Water
AGL
St. Ives and Pymble Chambers of Commerce
West Pymble Group
Retirement Village
Sustainability Reference Group
SAN Hospital
Gordon/St Ives Shopping Centre
Local Service groups (Rotary, Lions, Zonta)
Meals on Weals
NSW Fire Brigade
NSW Rural Fire Service
State Emergency Service
WIRES
RSPCA
Police
Resident

Workshop 3

08-05-10

Adaptation option assessment

David Newhouse
Macquarie University
NSW Rural Fire Service
NSW National Parks and Wildlife Service
Department of Lands
Rail Infrastructure Corp
RTA
Energy Australia
Transgrid
Sydney Water
AGL
Gordon Shopping Centre Manager
San Hospital
NSW Fire Brigade
NSW Rural Fire Service
NSW State Emergency Service
NSW Police
University of NSW
Macquarie University
Macquarie University Graduate School of Law
Wentworth Chambers
Manager Corporate Planning and Sustainability
Sustainability Program Leader
Sustainability Officer
Sustainability Trainee
Technical Officer Fire
Environmental Levy Program Leader

Appendix 6

Survey Results of the Community

Council surveyed residents on their thoughts about Climate Change and gave extensive feedback on the draft strategy.

The sample was collected primarily from the Resident Feedback Register, Community Workshop and Public Exhibition. As well as Gordon and St Ives Shopping Villages, numerous Council events including the Clothing Exchange and Festival of the Wildflowers.

The survey aimed to assess the perceptions of Ku-ring-gai residents on Climate Change and how they have/have not acted on their information.

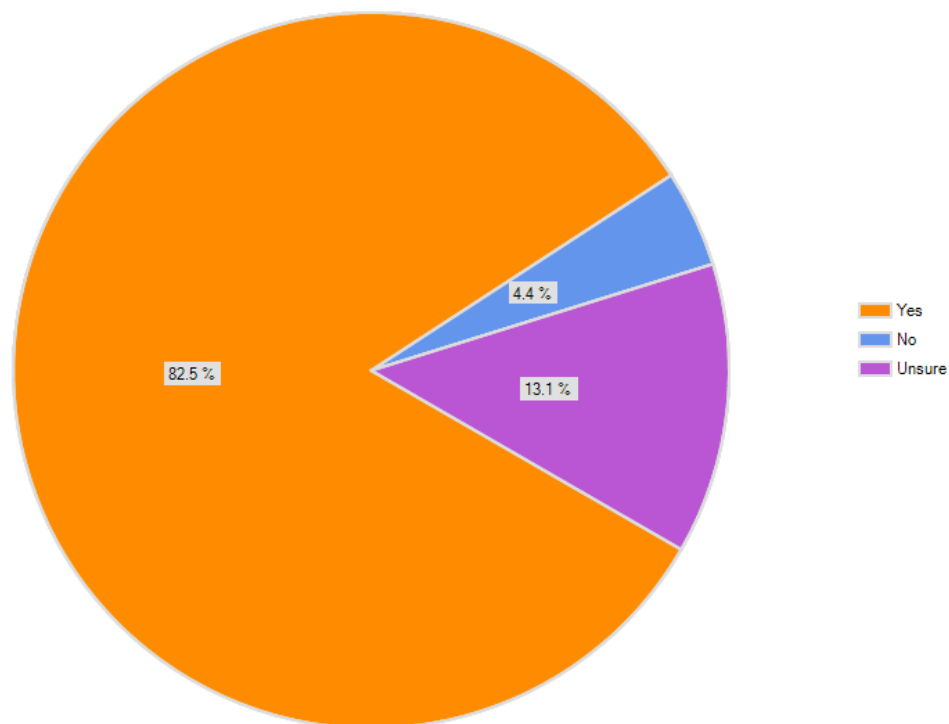
The opening question was *'Do you think Climate Change is happening or going to happen?'* an overwhelming response showed:

82.5% of respondents think climate change is happening or is going to happen

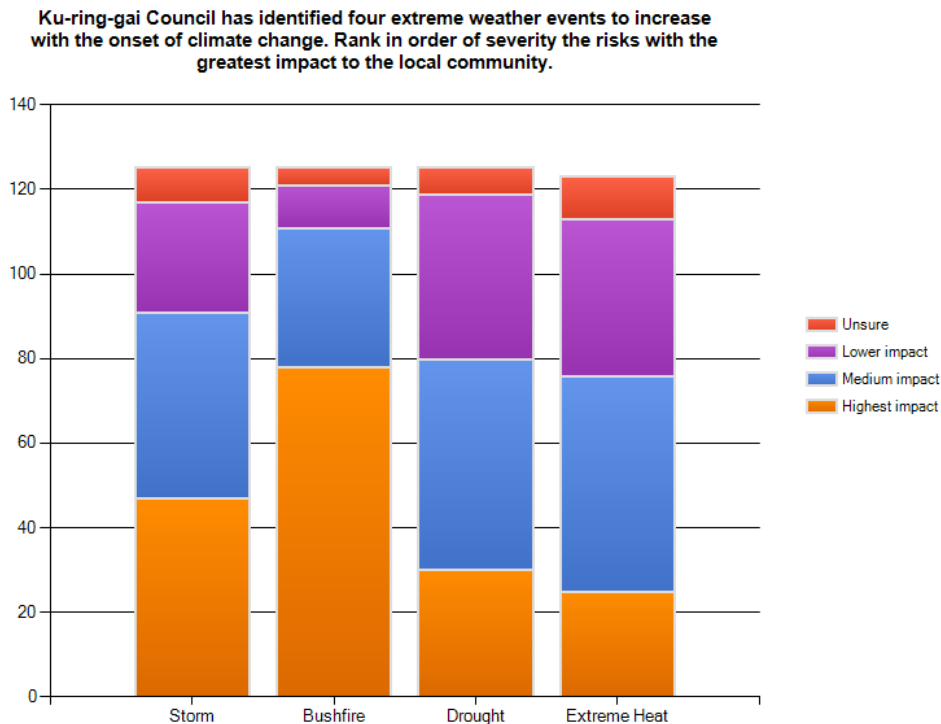
13.1% of respondents were unsure about climate change

4.4% of respondents did not think climate change was occurring (see below)

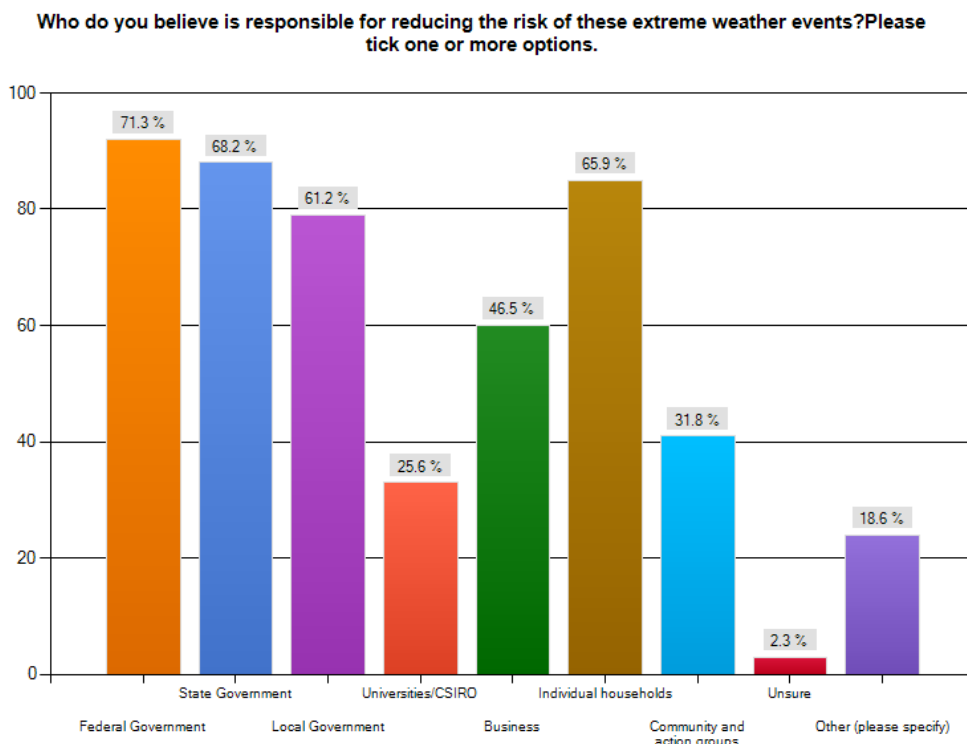
Do you think climate change is happening or going to happen?



Respondents were also asked to rate the four climate change extreme weather events identified in the strategy by which one they perceive to be the most severe. The majority of respondents ranked bush fire as the greatest threat followed by storm, drought and extreme heat respectively. (see below)



Furthermore, when respondents were asked who was responsible for reducing the risk, over 60% of respondents felt that Council has a responsibility to lead adaptation in the local area. This is coupled with over 65% whom felt that individual households needed to take responsibility as well. (see below)



Appendix 7

Council Framework

Below are a combination of tables which the Councillors and key decision makers need to address for the options to be fully implemented into council's Management Plan and direct the allocation of funding.

Bushfire Council Framework

| Adaptation Option | Management Plan Objective | Funding Source | | | Service Level and Type |
|--|---------------------------|----------------|-----------|--------|------------------------|
| | | Recurrent | Env. Levy | Grants | |
| Increase percentage of existing and new homes compliant with AS3935 | | | | | |
| Conduct community and agency education program | | | | | |
| Invest in R&D Projects, e.g. selective weeding, identification of sections of corridor that can be cleared in an emergency, fast decomposing bacteria to reduce fuel - carbon sequestration, | | | | | |
| Build and operate new RFS | | | | | |
| Planning private land e.g. increase minimum lot sizes and/or setbacks to bushland in bushfire prone areas, extending area of Level 1 construction, restrict type of development eg. no dual occupancy/ subdivision | | | | | |
| Identify and support residents requiring property maintenance assistance in high risk areas | | | | | |

Bushfire Community Framework

| Adaptation Option | Management Plan Objective | Funding Source | | | Service Level and Type |
|--|---------------------------|----------------|-----------|--------|------------------------|
| | | Recurrent | Env. Levy | Grants | |
| Install fire resilient products eg sprinklers, ember proofed garage doors and ember traps/brushes at the top of roller door, sarking, infill in roofing for protection in crevasses, gutters and valleys | | | | | |
| Voluntary compliance with building code for existing dwellings | | | | | |
| Install and maintain privately owned fire fighting equipment in good working order | | | | | |
| Monitor fire warning protocols, be aware of appropriate action and ready to act on them | | | | | |
| Psychological preparedness by practicing fire drills | | | | | |
| Build locate or have access to safe refuge areas for pets and people | | | | | |

Storm Council Framework

| Adaptation Option | Management Plan Objective | Funding Source | | | Service Level and Type |
|---|---------------------------|----------------|-----------|--------|------------------------|
| | | Recurrent | Env. Levy | Grants | |
| Relocate power and phone lines underground | | | | | |
| Conduct community education program | | | | | |
| Discounts or rebates provided for storm resilient installations (eg, window shutters, corrugated roofing) | | | | | |
| SMS warning system | | | | | |
| Undertake disaster risk assessments of key infrastructure | | | | | |
| Stabilisation works of known high erosion areas | | | | | |

Storm Community Framework

| Adaptation Option | Management Plan Objective | Funding Source | | | Service Level and Type |
|--|---------------------------|----------------|-----------|--------|------------------------|
| | | Recurrent | Env. Levy | Grants | |
| Replace roofing with storm resilient materials | | | | | |
| Install storm resistant fixtures (ie, reinforced garage doors, shutters) | | | | | |
| Landscaping for overland flow | | | | | |
| Voluntary compliance with building code for existing buildings | | | | | |
| Undertake disaster risk assessments of property | | | | | |
| Develop household/business emergency response plan | | | | | |

Drought Council Framework

| Adaptation Option | Management Plan Objective | Funding Source | | | Service Level and Type |
|---|---------------------------|----------------|-----------|--------|------------------------|
| | | Recurrent | Env. Levy | Grants | |
| Undertake community education campaigns | | | | | |
| Stormwater harvesting for Council facilities | | | | | |
| Monitor water consumption for leaks and anomalies | | | | | |
| Install sewer mining/stormwater harvesting for communal use | | | | | |
| Use flexible materials for paths | | | | | |
| Fix leaking taps | | | | | |

Drought Community Framework

| Adaptation Option | Management Plan Objective | Funding Source | | | Service Level and Type |
|--|---------------------------|----------------|-----------|--------|------------------------|
| | | Recurrent | Env. Levy | Grants | |
| Install a rainwater tank and connect to toilet and laundry | | | | | |
| Participate in education programs | | | | | |
| Education regarding health risks and water saving technology | | | | | |
| Purchase low water and energy star rated appliances | | | | | |
| Install more water efficient toilets eg dual flush | | | | | |
| Real time water monitoring (smart metering) | | | | | |

Extreme Heat Council Framework

| Adaptation Option | Management Plan Objective | Funding Source | | | Service Level and Type |
|--|---------------------------|----------------|-----------|--------|------------------------|
| | | Recurrent | Env. Levy | Grants | |
| Ensure that OH&S addresses working outdoor in extreme heat conditions | | | | | |
| Insulate council buildings including windows, walls and roof | | | | | |
| Install and operate co-generation systems to feed power to the grid in times of peak demand | | | | | |
| Invest in low energy technology to offset price increases of fossil fuel derived power | | | | | |
| Conduct community education program to increase awareness of heat risk and response | | | | | |
| Discounts and rebates for passive solar design principles to reduce dependence on mechanical heating and cooling | | | | | |

Extreme Heat Community Framework

| Adaptation Option | Management Plan Objective | Funding Source | | | Service Level and Type |
|--|---------------------------|----------------|-----------|--------|------------------------|
| | | Recurrent | Env. Levy | Grants | |
| Contribute to schemes to place power infrastructure underground | | | | | |
| Insulate buildings including windows, walls and roof | | | | | |
| Apply passive solar design principles to reduce dependence on mechanical heating and cooling | | | | | |
| Know what to do to keep your home cooler on extreme days | | | | | |
| Install renewable power supply to ensure sustainability of energy supply during peak demand | | | | | |
| Participate in a 'House Buddy' program to monitor vulnerable residents in time of extreme risks consider elevating | | | | | |

RESPONSE TO SUBMISSIONS ON DRAFT AMENDMENT 1 TO THE KU-RING-GAI DEVELOPMENT CONTROL PLAN (TOWN CENTRES) 2010

EXECUTIVE SUMMARY

PURPOSE OF REPORT:

To enable Council to consider draft Amendment 1 to the Ku-ring-gai Development Control Plan (Town Centres) 2010 following the formal exhibition period.

BACKGROUND:

At its meeting of 8 June 2010 Council resolved to adopt the Ku-ring-gai Development Control Plan (DCP) (Town Centres), with amendments. It also resolved:

“That an amendment to the DCP be prepared and publicly exhibited to re-categorise the Treatts Road precinct in Lindfield from Biodiversity Category 5 to Biodiversity Category 3, and a report be brought back to Council at the completion of the exhibition process.”

COMMENTS:

The draft amendment was exhibited for 4 weeks and 20 submissions were received. This report summarises the submissions and provides a response to the issues raised.

RECOMMENDATION:

That Council amend the categories identified on the Greenweb map in the Ku-ring-gai Development Control Plan (Town Centres) 2010 as shown in Attachment 4.

PURPOSE OF REPORT

To enable Council to consider draft Amendment 1 to the Ku-ring-gai Development Control Plan (Town Centres) 2010 following the formal exhibition period.

BACKGROUND

At its meeting of 8 June 2010, Council resolved to adopt the *Ku-ring-gai Development Control Plan (Town Centres) 2010*, with amendments. It also resolved:

'That an amendment to the DCP be prepared and publicly exhibited to re-categorise the Treatts Road precinct in Lindfield from Biodiversity Category 5 to Biodiversity Category 3, and a report be brought back to Council at the completion of the exhibition process.'

The draft amendment was exhibited for four weeks from 20 August 2010 to 17 September, 2010.

Clause 6.5 of the *Ku-ring-gai Local Environment Plan (Town Centres) 2010* (KLEP) includes provisions in relation to Natural Resource Sensitivity – Biodiversity, and applies to lands identified on the Natural Resource Sensitivity – Biodiversity Map.

Part 7 of the *Ku-ring-gai Development Control Plan (Town Centres) 2010* (the DCP) contains more detailed provisions in relation to the lands identified on the Natural Resource Sensitivity – Biodiversity Map. The vegetated areas covered by the map are also broken up into categories, each with its own controls. The map identifying the categories is called the 'Greenweb' in the DCP and is shown at Appendix 1 of the DCP.

The Greenweb areas within the triangle formed by Treatts Road, Wolseley Road and the railway in Lindfield, including the vegetation patches that cross both this land and the railway land (**Attachment 1**) are identified as Category 5 – Landscape Remnant in the DCP.

The draft amendment proposes to amend the Greenweb map for Lindfield at Appendix 1 of the DCP to identify the above lands as Category 3 – Support for Core B, a category of higher ecological significance.

Five categories of significance are identified on the Greenweb maps. The Greenweb categories were developed through a biodiversity significance assessment process, which is outlined in the 'Lands of High and Special Ecological Significance – Draft Study' included with the report to the Ku-ring-gai Planning Panel for the consideration of the exhibition of the then draft KLEP. The process is based on the fact that an intact area of a particular ecological community, that is part of a large undisturbed natural area, has higher conservation significance than an isolated tree, that may be a remnant of this same community, and that there is a continuum of significance, from one to the other.

COMMENTS

Twenty (20) submissions were received by Council in response the exhibition. 14 submissions supported the draft amendment and 6 were against the draft amendment (of which 3 were form

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letters). Council staff conducted a further site inspection and review of Green web mapping following the receipt of the submissions.

Issues Raised In Submissions

Issues raised in submissions, responses and recommendations are summarised in **Attachment 5**.

Due to the nature of the draft amendment, the issues are in some cases quite technical, and therefore detailed responses are included in the attachment only.

Key issues in support of the Amendment

The key issues raised in support of the amendment include:

- Changing the Greenweb category from Category 5 – Landscape Remnant to Category 3 – Support for Core B would minimise development in the ‘triangle lands’, as the site is not suitable for development permitted under the R4 zoning
- Any area of Blue Gum High Forest (BGHF), especially this lush area with layers under the canopy, should be protected, rather than degraded.
- Category 3 would ensure benefits for both existing and future residents and workers from Lindfield centre.
- In reference to a report by the residents’ ecologist, BGHF on the site meets the criteria for Category 3:
 - It forms part of a larger remnant, forming biolinkages along the railway line to natural areas in Council reserves.
 - Council did not consider linkages outside the town centres, when creating the Town Centre Greenweb.
 - Any development on the site, would impact upon an area greater than 5 hectares.
- BGHF on the site meets the definition of Category 3 in the DCP and in the *Draft Study of Lands of High and Special Ecological Significance*.
- Category 5 will leave threatened ecological communities (TECs) open to “trading- off” (offsetting) by a developer.

Response

Were the site to be categorised as Category 3 – Support for Core B, development under the current zoning (R4 – High Density Residential) would still be permitted.

These differences would not prevent the development of the site in accordance with the zoning. The R4 zoning was put in place by the Department of Planning. The draft amendment to the DCP cannot consider, and has no impact on, the zoning under the KLEP.

Under Category 3 or 5, any applicant would need to consider the impacts of the development on these areas of vegetation. The main differences could potentially be in the configuration of the design, and the location, extent and type of rehabilitation/ planting required.

From a purely ecological point of view it would be ideal if all areas of threatened ecological communities could be given the highest level of protection and be regenerated. However, social and economic, as well as practical considerations must also be taken into account.

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The Greenweb process has been designed to guide both development and conservation. The strategic overview and categorisation is designed to avoid the current often ad hoc processes that result in the loss of some of the best areas of habitat, as well as guiding those areas where conservation effort and resources will have the best ecological outcomes.

In the case of the subject lands, much of the site is already covered in hard surfaces, mown or managed garden areas and the understorey has been lost. However, it is agreed that the remaining BGHF should be protected, and supplemented where appropriate and practical by regeneration and appropriate planting. Accordingly the controls for both Category 3 and Category 5 in Part 7 of the DCP require that development be designed to retain the native vegetation on the site and require the inclusion of locally native species, reflecting the ecological community, within landscaping. Compliance with the provisions of the DCP will help ensure that benefits such as carbon capture, cleaner air and natural beauty continue for current and future residents and workers.

As a result of further site assessment and Greenweb mapping review, it was determined that the majority of the vegetation in the 'triangle lands' does not meet the criteria for category 3, as outlined in the step by step process shown in **Attachment 2** and **Attachment 3**.

However there are three areas of vegetation along the railway corridor that have more structure or diversity than the original mapping showed and that do meet the criteria for Category 3. It is recommended that these areas be amended to Category 3 on the DCP Greenweb map (**Attachment 4**).

In the original Greenweb process, consideration was given to the most appropriate areas to link core remnants within the LGA as relevant to Town Centre areas, including connections across the primary road and rail corridors. The controls in Part 7.5 of the DCP in relation to biodiversity corridors, require development to be designed to incorporate rehabilitation and landscaping to restore connectivity.

Council is currently preparing a draft LGA wide Greenweb map as part of the background work for the Principal LEP. This process includes (but is not limited to) consultation with:

- adjoining Councils regarding lands of high biodiversity and corridors; and
- Railcorp in relation to its intention to duplicate the North Shore Rail line and to its Environmentally Sensitive Areas (no response from Rail Corp has been received to date).

Nevertheless, it is known that Railcorp is intending in the future to duplicate the rail tracks along this line. This would prevent opportunities over the long term to retain or re-establish suitable vegetation and habitat along these areas and therefore they are not appropriate as biodiversity corridors.

It should also be noted that irrespective of Greenweb, development within these areas will be required to consider relevant State and Commonwealth plans and legislation.

In regard to the size of the remnants, while it is agreed that the combination of all the Blue Gum High Forest (BGHF) remnants in this area may total more than 5 hectares, no single Greenweb patch is more than 5 hectares, and therefore do not meet the criteria for Category 3.

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There appears to be some confusion resulting from the description of categories 3 and 5 in the DCP. In particular the terms 'more isolated' and 'good community integrity' are not understood to relate well to the methodology.

It is recommended that the descriptions of Category 3 and Category 5 be amended as follows (proposed changes in bold).

DCP Section 7.4 Category 3 - Support for Core B : Controls

*This **category** comprises areas that are not of the quality of Support for Core A, but that nevertheless provide a range of support values to the core areas. They are made up **either** of larger patches of threatened ecological communities with lower **community** integrity than those in Support for Core A, or smaller patches **with** higher **community** integrity, that act as stepping stones or habitat islands that facilitate the movement of flora and fauna and genetic resources through the urban landscape.*

DCP Section 7.6 Category 5 - Landscape Remnant: Controls

*This category comprises lands in urban areas containing **less connected** fragments, **or** significant trees, which are part of a threatened ecological community **and which provide important community and aesthetic values**. These areas contribute to the ecological value of the LGA by acting as **stepping stones or habitat islands that facilitate the movement of flora and fauna and genetic resources across a range of topographical locations**.*

There are a multitude of avenues open to developers to trade off environmental impacts within a development. The voluntary Biobanking scheme provides a standard state-wide set of rules for offsetting. Under this scheme category under the Greenweb will not impact on the applicability, extent or cost of any Biobanking offset.

If Council approves a local biodiversity offset policy (draft in preparation), it is likely that will include consideration of Greenweb categories.

However, any applicant who seeks approval for a development that would adversely impact on an area of the Greenweb (in any category) will need to comply with the principles outlined within Part 7.7 of the DCP. These principles include the following:

*Principle 1: Avoid, Minimise and Mitigate:
Offsetting must only be considered once all efforts to avoid, minimise or mitigate any negative impacts have been exhausted.*

Key issues against the Amendment

The key issues raised against the amendment include:

- Re-categorisation to Category 3 would invalidate the objective and consistent ranking within the Town Centres. If this area is re-categorised a similar reassessment would need to be undertaken for all vegetation remnants in the town centres.
- Based on report by Masada's ecologist, re-categorisation to category 3 would be inconsistent with the professional assessment methodology and procedures.
- There are some errors in the extent of the Greenweb patches.

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Response

The Greenweb categories were developed through a conservation significance assessment process, which is outlined in the '*Lands of High and Special Ecological Significance – Draft Study*', that accompanied the report to the Ku-ring-gai Planning Panel for the adoption of the draft KLEP for exhibition.

The process outlines a set of criteria or rules that were applied consistently in assessing the mapped areas. It should be noted however, there are a number of criteria for each category. A table outlining the consideration of most of the vegetated areas within the triangle lands (other than along the rail corridor) is included at **Attachment 2**.

It is acknowledged that the mapping is at a broad strategic level, and that individual site investigations may, in some cases, result in Council agreeing that under the conservation significance assessment process outlined, the Greenweb lands within that site should be classified under a different category. The Introduction to Part 7 of the DCP acknowledges the limitations of the mapping, and puts the onus on the proponent to demonstrate that the Greenweb map is inaccurate.

A re-categorisation under these circumstances is not considered to invalidate the consistency of the Greenweb mapping and categorisation or require reassessment of any other areas covered under the KLEP. Neither would it undermine the strength of the controls for the any Greenweb category.

However, if a site were to be re-categorised contrary to the criteria adopted, it would set a precedent for a change to a higher or lower category for other lands within the Greenweb, for non-ecological reasons. This would indeed have the potential to undermine the strength and consistent application of the controls in the DCP, and therefore the protection and potential rehabilitation of these significant areas.

The additional site assessment by Council staff found that most of the vegetation on the site is consistent with the criteria for Category 5. However, some areas mapped as TECs within the Greenweb, are not part of the community. There are also small areas within the rail corridor a tree adjacent to and within the Masada site that are excluded from Greenweb. **Attachment 6** shows the site with the changes in extent.

Changes in extent would require an amendment to the KLEP. At the current time this would mean that the Ku-ring-gai Planning Panel would need to prepare a planning proposal to the Minister of Planning. Alternatively, the changes could be made at the time of merging the Principal LEP with the Ku-ring-gai LEP (Town Centres) 2010.

It is expected that site specific assessment as part of the DA process will result in the identification of other changes in the future.

It is recommended that Council create a process where these changes are tracked and included within the vegetation mapping, to facilitate revision of the Greenweb map, and the LEP and DCP from time to time.

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In this instance, the changes could potentially be made at the time of merging the Principal LEP with the Ku-ring-gai LEP (Town Centres) 2010.

In addition, as described above, some sites do meet the criteria for Category 3.

CONSULTATION

The draft amendment was exhibited for four weeks, from 20 August 2010 to 17 September, 2010 at Council Chambers. Information was also available at Lindfield Library. The draft amendment was notified in an advertisement in the North Shore Times on 20 August 2010. Letters were sent to owners and residents of the affected lands, and within the immediate vicinity of the affected lands. Information on the exhibition was also available on Council's website.

FINANCIAL CONSIDERATIONS

The cost of preparing this report is covered by the budget of Strategy and Environment.

CONSULTATION WITH OTHER COUNCIL DEPARTMENTS

Consultation with relevant sections of Council was undertaken as part of the consideration of the submissions.

SUMMARY

At its meeting of 8 June 2010, Council resolved to adopt the *Ku-ring-gai DCP (Town Centres) 2010*, with amendments. It also resolved:

'That an amendment to the DCP be prepared and publicly exhibited to re-categorise the Treatts Road precinct in Lindfield from Biodiversity Category 5 to Biodiversity Category 3, and a report be brought back to Council at the completion of the exhibition process.'

The draft amendment was exhibited for four weeks from 20 August 2010 to 17 September, 2010, and 20 submissions were received. Of these, 14 submissions supported the draft amendment and 6 were against the draft amendment.

Key concerns raised in the submissions included the potential loss of biodiversity and amenity from development with the land if classified as Category 5 – Landscape Remnant; inaccuracy of the mapping and assessment under the Greenweb methodology; lack of consistency of Category 5 with the description in the DCP; and the potential for the amendment to undermine the strength of the Greenweb controls.

A further assessment by Council staff has identified required changes to vegetation mapping extent and Greenweb categorisation (in line with adopted Greenweb methodology).

An amendment of the descriptions of Categories 3 and 5 in the DCP is also recommended to improve clarity.

RECOMMENDATION

- A. That Council amend the categories identified on the Greenweb map in the Ku-ring-gai Development Control Plan (Town Centres) 2010 as shown in Attachment 4.
- B. That is recommended that Council create a process where Council identified or agreed changes are tracked to facilitate revision of Greenweb map and the LEP and DCP from time to time.
- C. That the descriptions of Category 3 and Category 5 in the Ku-ring-gai Development Control Plan (Town Centres) 2010 be amended as outlined in the report.

Terri Southwell
Senior Urban Planner

Penny Colyer
Team Leader – Natural Areas

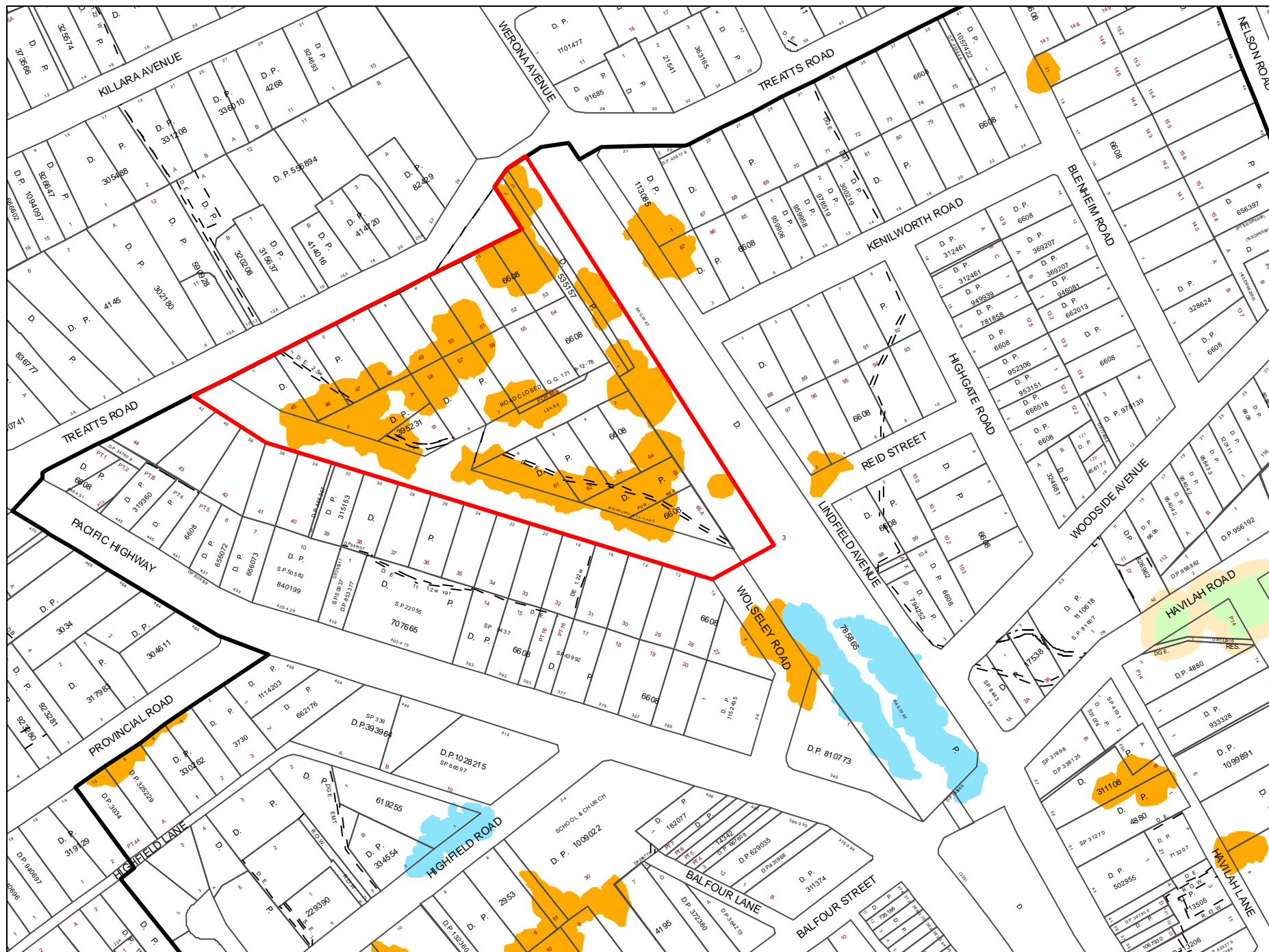
Antony Fabbro
Manager Urban & Heritage Planning

Andrew Watson
Director Strategy & Environment

- Attachments:**
- 1. Excerpt from Ku-ring-gai Development Control Plan (Town Centres) 2010, showing Greenweb Map in the vicinity of the subject lands - 2010/205428
 - 2. Steps in categorisation of Greenweb - 2010/204335
 - 3. Community integrity matrix - 2010/204784
 - 4. Proposed changes within excerpt from Ku-ring-gai Development Control Plan (Town Centres) 2010, showing Greenweb Map in the vicinity of the subject lands - 2010/206893
 - 5. Summary of submissions - 2010/205443
 - 6. Identified changes in extent of Greenweb - 2010/206903

GreenWeb Town Centres

- 1 Core
- 2 Support for core A
- 3 Support for core B
- 4 Vegetation Biodiversity corridor and consolidation
- 5 Landscape remnant
- Town Centre LEP Boundary
- Subject Land

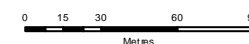


WARNING

Ku-ring-gai Council accepts no liability for the accuracy otherwise of this plan

Date : 29/10/2010

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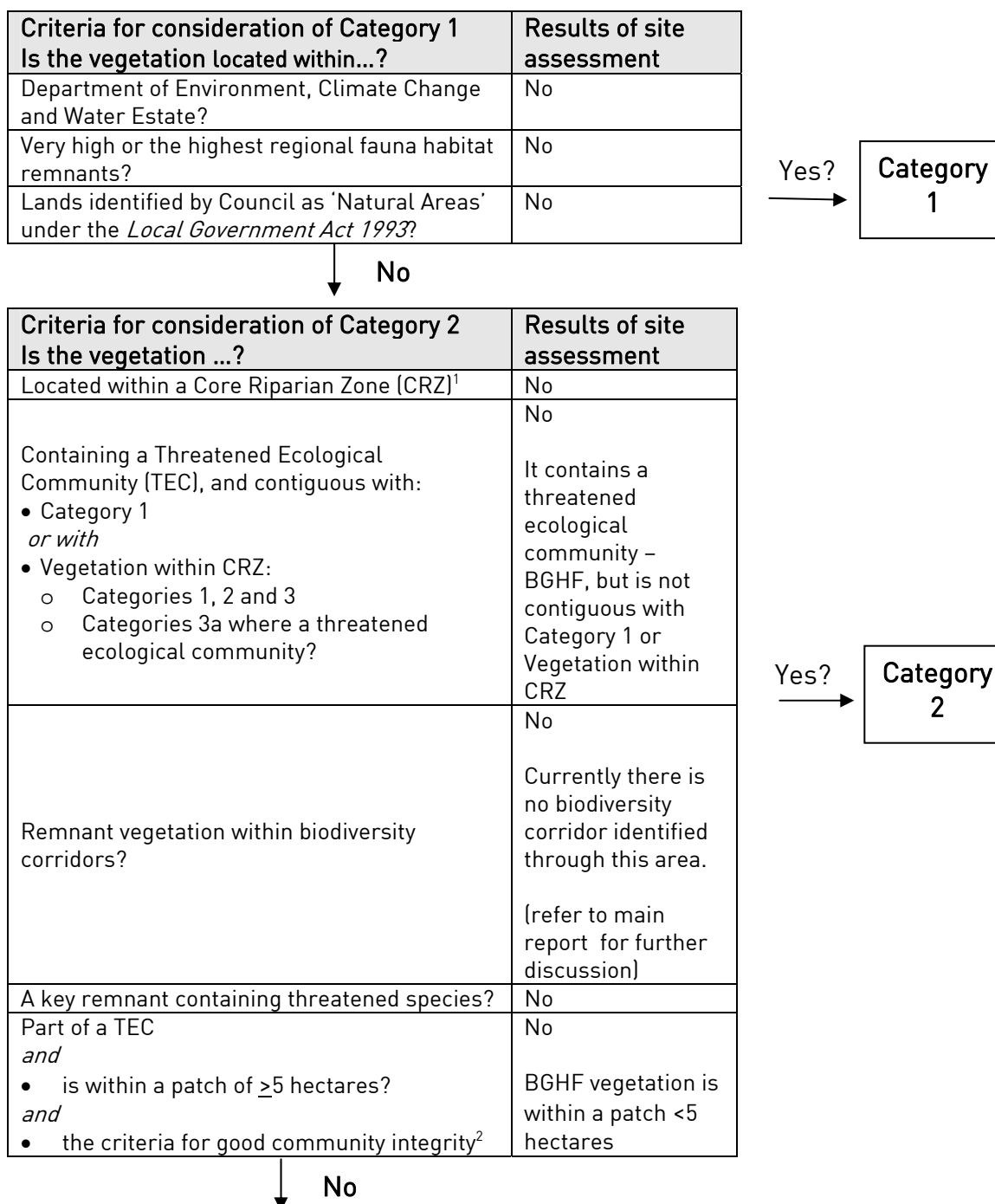


Ku-ring gai DCP (Town Centres) 2010

Wolseley Treatts triangle lands

STEPS IN CATEGORISATION OF GREENWEB

As a result of further site assessment and Greenweb mapping review, it was determined that the majority of the vegetation in the 'triangle lands' does not meet the criteria for category 3, but rather meets Category 5. The following outlines the step by step process that has resulted in this outcome.



¹ Core riparian zones as identified within *the Natural Resources Sensitivity – Riparian Lands Map* in the KLEP.

² See Attachment 4 for description of community integrity.

| Criteria for consideration of Category 3 Is the vegetation ...? | Results of site assessment |
|--|---|
| Part of a TEC <i>and</i> <ul style="list-style-type: none"> is within a patch of ≥ 5 hectares? <i>and</i> <ul style="list-style-type: none"> the criteria for average community integrity³ | No. BGHF vegetation is within a patch <5 hectares |
| Part of a TEC <i>and</i> <ul style="list-style-type: none"> meets the criteria for good community integrity²? | No. Most of the trees have little or no appropriate midstorey understorey, or regeneration and no patch has the required diversity of species. |

Yes?

Category
3

↓
No

| Criteria for consideration of Category 4 Is the vegetation located within...? | Results of site assessment |
|--|--|
| Identified biodiversity corridor area lacking native vegetation? | No Currently there is no biodiversity corridor identified through this area. (refer to main report for further discussion) |
| Category 1 or 2 consolidation area (within 10m)? | No |
| Within a CRZ - Category 3a <i>and</i> <ul style="list-style-type: none"> consists of remnant vegetation (non TEC) | No |

Yes?

Category
4

↓
No

| Criteria for consideration of Category 5 Is the vegetation ...? | Results of site assessment |
|--|---|
| Part of a TEC <i>and</i> <ul style="list-style-type: none"> dense urban vegetation (TXUD condition) | Yes, BGHF and the vegetation condition is TXUD. |
| Part of a TEC <i>and</i> <ul style="list-style-type: none"> Contain identified significant tree/s (eg. due to size, form, presence of hollows etc)? | No. |

Yes

Category
5

³ See Attachment 4 for description of community integrity.

COMMUNITY INTEGRITY MATRIX

Greenweb -Town centres

| Vegetation Condition | Vegetation recruitment, dominance and diversity | Community Integrity |
|--|---|---------------------|
| Good and moderate condition (A, B, TXN, TXND) | All | Good |
| Low (TXU, TXUD) | Successional / layer recruitment (within all layers) | Good |
| | <ul style="list-style-type: none"> • 2 or 3 layers present native dominated <i>or</i> <ul style="list-style-type: none"> • 3 layers – canopy and either mid or ground storey native dominated | Good |
| | <ul style="list-style-type: none"> • ≥ 4 tree species & ≥ 6 native midstorey & groundcover species recorded <i>or</i> <ul style="list-style-type: none"> • ≥ 9 tree species &/or ≥ 11 native midstorey & groundcover species recorded | Good |
| | Remaining areas of low condition | Average |
| Other (Cmi) | All | Average |

Legend

-  Subject lands
-  Town centres boundary
-  Cadastre

GreenWeb - Proposed

-  Category 3
-  Category 5



40 20 0 Meters



SUMMARY OF SUBMISSIONS
Draft Amendment 1 – Ku-ring-gai DCP (Town Centres) 2010

| ISSUE | COMMENT | RECOMMENDATION |
|--|---|--|
| Issued raised in support of the draft amendment | | |
| <p>Support the amendment from Category 5 to Category 3 to minimise the development allowed in the triangle of Wolseley & Treatts Rd. The site is not suitable for the development that is proposed under R4. Suggest reconsideration of the R4 zoning.</p> | <p>Were the site to be categorised as Category 3 – Support for Core B, development under the current zoning (R4) would still be permitted. With either categorisation, any applicant would still need to consider the impacts of the development on these areas of vegetation. The main differences could potentially be in the configuration of the design, and the location, extent and type of rehabilitation/planting required.</p> <p>These differences would not prevent the development of the site in accordance with the zoning. The R4 zoning was put in place by the Department of Planning. The draft amendment to the DCP cannot consider, and has no impact on, the zoning under the KLEP.</p> | <p>No change recommended</p> |
| <p>The BGHF in the 'Masada triangle' meets the criteria for Category 3, based on report by ecologist:</p> <ul style="list-style-type: none"> • It is 'part of a much larger remnant forming biolinkages in all directions' • The remnant also includes the rail corridor which <i>'includes a range of trees shrubs and groundcover species and is identified and managed by Rail Corp as a sensitive environmental area. Despite its narrow width a number of fauna species use the corridor'</i>. The rail | <p>As noted, following the receipt of submissions Council officers conducted a site inspection to review the vegetation mapping and classification. The results of the site inspection were considered against the Greenweb category criteria. It was determined that the majority of the vegetation in the 'triangle lands' does not meet the criteria for category 3, as outlined in the step by step process shown in Attachment x. The criteria would be applied to each area of mapped vegetation separately, but are amalgamated within Appendix 3 for simplicity.</p> <p>However there are three areas of vegetation along the railway corridor that have more structure or diversity than the original mapping showed and that do meet the criteria for Category 3. It is</p> | <p>It is recommended that three areas of vegetation along the railway corridor be amended to Category 3 on the DCP Greenweb map, as shown at Attachment 4.</p> |

| ISSUE | COMMENT | RECOMMENDATION |
|---|--|----------------|
| Issued raised in support of the draft amendment | | |
| <p>corridor provides connections to lands outside the town centres; <i>'a good north- south biolinkage connecting denser patches of remnant vegetation at the site, Selkirk Park and a larger park at Rosedale road in Gordon'</i>; east along Treatts Rd to Seven Little Australians Park; and west to the Pacific Hwy and Killara Golf Course. The rail corridor vegetation is identified and managed by RailCorp as a <i>'sensitive environmental area'</i>.</p> <ul style="list-style-type: none"> Any adverse impact would be on an area greater than 5 hectares. <p>If there was to be any doubt about proper categorisation, then it would be prudent to err upon a designation in Category 3 rather than category 5.</p> | <p>recommended that these areas be amended to Category 3 on the DCP Greenweb map (See Attachment 4).</p> <p>In the original Greenweb process, consideration was given to the most appropriate areas to link core remnants within the LGA as relevant to Town Centre areas, including connections across the primary road and rail corridors. The controls in Part 7.5 of the DCP in relation to biodiversity corridors, require development to be designed to incorporate rehabilitation and landscaping to restore connectivity.</p> <p>Council is currently preparing a draft LGA wide Greenweb map as part of the background work for the Principal LEP. This process includes (but is not limited to) consultation with:</p> <ul style="list-style-type: none"> Adjoining councils regarding lands of high biodiversity and corridors; and Railcorp in relation to its intention to duplicate the North Shore Rail line and to its Environmentally Sensitive Areas (no response from Rail Corp has been received to date). <p>Nevertheless, it is known that Railcorp is intending in the future to duplicate the rail tracks along this line. This would prevent opportunities over the long term to retain or re-establish suitable vegetation and habitat along these areas.</p> <p>It should also be noted that irrespective of Greenweb, development within these areas will be required to consider relevant state and commonwealth plans and legislation.</p> | |

| ISSUE | COMMENT | RECOMMENDATION |
|--|--|-----------------------|
| Issued raised in support of the draft amendment | | |
| | In regard to the size of the remnants, while it is agreed that the combination of all the Blue Gum High Forest (BGHF) remnants in this area may total more than 5 hectares, no single Greenweb patch is more than 5 hectares, and therefore do not meet the criteria for Category 3. | |
| This area is one of the few areas of BGHF sufficiently dense to be classed as dense urban vegetation in the Lindfield town centre. It is lush and contains many layers under the canopy – should be enhanced not degraded. | <p>While the Greenweb vegetation in the ‘triangle lands’ is classified as dense urban vegetation, due to the density of the canopy, there are few plants from the ecological community below the canopy. Below the canopy, the area is dominated by hard surfaces and lawns. There are a number of exotic trees and trees that do not form part of the relevant ecological community on the site. These trees are still protected under Clause 5.9 (Preservation of trees or vegetation) of the KLEP and will still need to be considered for their amenity and streetscape value in any future Development Application (DA).</p> <p>It is agreed however, that any future development should seek to enhance, rather than degrade the site. Accordingly the controls for Category 5 in Part 7.6 of the DCP require that development be designed to retain the native vegetation on the site and include landscaping with locally native species, reflecting the ecological community.</p> | No change recommended |
| Retention of vegetation will provide benefit and value to future development – aesthetically, reducing heat from hard surfaces, cleaning air and absorbing | As discussed above, the provisions in relation to Category 5 require development to be designed to retain the native vegetation. The main difference between category 3 and 5 in this regard is the priority in the configuration of the vegetation to be retained (where a case can | No change recommended |

| ISSUE | COMMENT | RECOMMENDATION |
|--|---|------------------------------|
| Issued raised in support of the draft amendment | | |
| <p>carbon, providing tranquillity and beauty. The reclassification of the Greenweb will aid in preserving the leafy green neighbourhood, the magnificent collection of blue gums, and tree lined streets for current and future residents. The park attracts residents and office workers. Category 5 would result in the removal of the valuable trees, devaluing the land – in dollar and amenity terms.</p> | <p>be made for some removal), and in areas / required plant numbers to be rehabilitated or planted.</p> <p>This Part is also supplemented by general biodiversity controls in Part 4.2 and objectives in regard to the setting of buildings within a treed landscape, for instance under 3C.2 Building setbacks.</p> <p>Compliance with the provisions of the DCP will ensure that these benefits continue for current and future residents and workers. It is also noted that no change is proposed to the use of the park, which retains its zoning for Public Recreation, namely RE1. It is not expected that a change in the category of these Greenweb areas from category 5 to category 3 would have any significant impact on amenity or property values.</p> | |
| <p>Support the amendment because it requires developers to consider the impact they may have on flora and fauna within the Greenweb - a positive step to conserving the existing flora and fauna communities and supporting ESD.</p> | <p>Developers are required to consider the impact they have on flora and fauna under a range of plans and legislation, for example under the <i>NSW Threatened Species Conservation Act 1995</i>, and, for the town centres, under the KLEP.</p> <p>Inclusion or exclusion of remnants within Greenweb mapping does not effect the requirement to consider ecological communities, populations, plants or animals, under state (<i>Threatened Species Conservation Act 1995</i>) or federal (<i>Environmental Protection and Biodiversity Conversation Act 1999</i>) legislation.</p> <p>The incorporation of the Greenweb map and provisions in the DCP will provide improved guidance to these considerations. This is true whether the site is classified as Category 3 or Category 5.</p> | <p>No change recommended</p> |

| ISSUE | COMMENT | RECOMMENDATION |
|---|--|---|
| Issued raised in support of the draft amendment | | |
| <p>The DCP state that Category 5 lands are <i>'...lands containing more isolated fragments, including significant trees, that are part of a threatened ecological community in urban areas'</i>. Residents' ecologist confirms that Masada Triangle is not an 'isolated fragment'.</p> <p>The DCP defines the Category 3 as areas that: <i>'.... provide a range of support values to the core areas. They are made up of larger patches of threatened ecological communities of a lower integrity than those in Support for Core A, and smaller patches of higher integrity that act as stepping stones or habitat islands that facilitate the movement of flora and fauna and genetic resources through the urban landscape.'</i> Therefore the site should be category 3.</p> <p>The definition of category 3 in the 'draft Lands of High and Special Ecological Value', namely: <i>'Category 3 - TECs with good community integrity - These patches will include areas of good community integrity within the urban matrix. It is recognised</i></p> | <p>As can be seen from the Greenweb map, Threatened Ecological Community (TEC) areas are separated by urban development. The methodology classifies Category 3 as either:</p> <ul style="list-style-type: none"> ▪ TEC patches greater than 5 hectares with 'average community integrity'; or ▪ TEC patches of less than 5 hectares that have 'good community integrity'. <p>In regard to the first type, none of these remnants form or contribute to a continuous patch of TEC greater than 5 hectares, and therefore do not meet this criterion.</p> <p>In relation to the second type of Category 3 patch, Council has re-assessed the triangle lands and has determined that the only areas that contain 'good community integrity' are within the rail corridor. 'Good community integrity' within this methodology relates to the presence of a variety of species or vegetation layers. Clearly, areas with tree canopy that have low species diversity, are dominated by exotics and lacking structure, have less recovery potential, than those that retain a diversity of species or vegetation layers.</p> <p>Reduced structure and diversity is often a result of past or current disturbances (eg. frequently mown turfed lawns, fertilised, or paved), as observed within the triangle lands. 'Good community integrity is outlined in Attachment 3.</p> <p>Remaining Greenweb areas within the triangle lands (ie. areas outside the rail corridor) have limited diversity and little or no</p> | <p>It is recommended that three areas of vegetation along the rail corridor be identified as category 3, as shown in Attachment 4.</p> <p>For improved clarity, it is recommended that the descriptions of category 3 and Category 5 in Part 7 of the DCP be amended as below (proposed changes in bold).</p> <p><u><i>DCP Section 7.4 Category 3 - Support for Core B: Controls</i></u></p> <p><i>This category comprises areas that are not of the quality of Support for Core A, but that nevertheless provide a range of support values to the core areas. They are made up either of larger patches of threatened ecological</i></p> |

| ISSUE | COMMENT | RECOMMENDATION |
|---|---|---|
| Issued raised in support of the draft amendment | | |
| <p><i>that these areas are unlikely to be ecologically functioning but that they play an important role as biodiversity reservoirs, provide stepping stone links and seedbank / pollination resources to support the recovery of remnant vegetation patches as well as providing habitat to fauna'</i></p> <p>fits this site perfectly.</p> | <p>appropriate understorey or mid-storey and therefore the patches are not 'good integrity', but 'average integrity' (see steps outlined in Attachment 2 and Attachment 3). Accordingly these TEC areas are not considered to be Category 3 lands, but are Category 5</p> <p>It is noted that there appears to be some confusion as a result of the description of categories 3 and 5 in the DCP. In particular the terms 'more isolated' and 'good community integrity' are not understood to relate well to the methodology.</p> <p>The term 'more isolated' is a relative term, intended to distinguish vegetation that is connected via the canopy to other vegetation within a large patch, or located adjacent to core areas or within a biodiversity or riparian corridor.</p> <p>Nevertheless, the use of the term appears to result in some confusion, therefore it is recommended that the description in the DCP be amended.</p> | <p><i>communities with lower community integrity than those in Support for Core A, or smaller patches with higher community integrity, that act as stepping stones or habitat islands that facilitate the movement of flora and fauna and genetic resources through the urban landscape.</i></p> <p><u><i>DCP Section 7.6 Category 5 - Landscape Remnant: Controls</i></u></p> <p><i>This category comprises lands in urban areas containing less connected fragments, or significant trees, which are part of a threatened ecological community and which provide important community and aesthetic values. These areas contribute to the ecological value of the</i></p> |

| ISSUE | COMMENT | RECOMMENDATION |
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| Issued raised in support of the draft amendment | | |
| | | <i>LGA by acting as stepping stones or habitat islands that facilitate the movement of flora and fauna and genetic resources across a range of topographical locations.</i> |
| Why are the specific criteria for each category not included or even referenced in Biodiversity Controls section of the DCP? | <p>The specific criteria for each category were included in the <i>Lands of High and Special Ecological Value – Draft Study</i>, which was included as part of the background information with the <i>Draft Ku-ring-gai LEP (Town Centres)</i>.</p> <p>As the DCP makes provision for an applicant to be able to challenge the mapping of an individual site, based on more detailed information than that used for the broader strategic Greenweb mapping, it is agreed that the criteria for each of the categories needs to be more readily available to the public.</p> <p>Further work has commenced on the process for the classification of the mapped vegetation in the LGA, outside the town centres boundaries. Some modification of the process is required as the circumstances of these areas are different, in some key respects, to those within the centres. This process will then guide the biodiversity mapping for incorporation within the Principal LEP and DCP. At this time it is expected that the criteria for the categorisation of the mapping will be more readily accessible, either through Council's website, or as part of revised Ku-ring-gai Biodiversity Strategy (currently under review).</p> | It is recommended that the criteria for the categorisation of the mapping be made available through Council's website, or within the updated Ku-ring-gai Biodiversity Strategy (currently under review). |

| ISSUE | COMMENT | RECOMMENDATION |
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| Issued raised in support of the draft amendment | | |
| <p>The Greenweb map does not show the complete picture. Conversations with Council staff have highlighted that their assessment only went to the boundary of the Town Centre as listed in the KLEP/DCP. As a result large areas, a lot of which form the linkages that we are talking about, have not been considered in the Council's assessment.</p> | <p>Council staff have not indicated at any time that the assessment of these areas was limited to the boundaries of the Town Centres. Indeed staff have stated on a number of occasions, that the assessment included consideration of areas outside the boundaries of the centres. While the vegetation mapping for the LGA was not completed at the time of the assessment, areas surrounding the centres had been mapped and considered as part of the assessment process. This is clear from the Greenweb maps, eg where:</p> <ul style="list-style-type: none"> • Small areas of Category 2 are identified within the centres, that do not appear to meet the size or location criteria, as the rest of the relevant patch is located outside the centre; • Where identified corridors meet the boundary of a centre (eg Turrumurra) rather than an identified large area of remnant vegetation. This is because the remnant vegetation which it links to is outside the town centre. | <p>No change recommended</p> |
| <p>Even if the patches of vegetation do not have significant understorey at the moment, is this not what we should be trying to protect/grow? We should be giving the highest level of protection and regenerating critically endangered vegetation here not using the small size of the patch as an excuse to reduce it even more.</p> | <p>From an ecological point of view it would be ideal if all areas of threatened ecological communities could be given the highest level of protection and be regenerated. However, social and economic, as well as practical considerations must also be taken into account.</p> <p>The Greenweb process has been designed to guide both development and conservation. The strategic overview and categorisation is designed to avoid the current often ad hoc processes that result in the loss of some of the best areas of habitat, as well as guiding those areas where conservation effort and resources will have the best ecological outcomes.</p> <p>In the case of the subject lands, much of the site area is already</p> | <p>No change recommended</p> |

| ISSUE | COMMENT | RECOMMENDATION |
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| Issued raised in support of the draft amendment | | |
| | covered in hard surfaces or mown turf, and the understorey has been lost. However, it is agreed that remaining BGHF should be protected, and supplemented where appropriate and practical by regeneration and appropriate planting. | |
| Changing the biodiversity classification of one area on a Greenweb map does not warrant a re-write of the KLEP or DCP, as it was not zoned correctly in the first place. | <p>Note that the Greenweb category is not a land use zone. The category of the vegetation in the 'triangle lands' as either Category 3 or 5, will not affect the zoning of the site. However, it is agreed that if the category of a particular area of land identified on the Greenweb map was incorrectly classified, its reclassification to a new category would not warrant a rewrite of the KLEP or the DCP.</p> <p>A potential re-write could result from a change in category that is not consistent with the methodology- that is for reasons other than ecological reasons.</p> | No change recommended |
| Category 5 will leave any area of TEC open to "trading- off" (offsetting) by a developer in order to derive maximum profits. Opposed to "trading- off" if it means the loss of critically endangered ecological communities and more of the tree canopy in Ku-ring-gai, including the Triangle lands. | <p>Should the applicant seek to offset the site through Biobanking, a standard, state wide set of rules applies. The category under the Greenweb will not impact on the applicability, extent or cost of any Biobanking offset.</p> <p>If Council approves a local biodiversity offset policy (draft in preparation), it is likely that will include consideration of Greenweb categories.</p> <p>However, any applicant who seeks approval for a development that would adversely impact on an area of the Greenweb (in any category) will need to comply with the principles outlined within Part 7.7 of the DCP. These principles include the following: <i>Principle 1: Avoid, Minimise and Mitigate:</i></p> | No change recommended |

| ISSUE | COMMENT | RECOMMENDATION |
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| Issued raised in support of the draft amendment | | |
| | <p><i>Offsetting must only be considered once all efforts to avoid, minimise or mitigate any negative impacts have been exhausted.</i></p> <p>The applicant would need to demonstrate that all efforts to avoid, minimise or mitigate any negative impacts have been exhausted – for impacts on vegetation in any Greenweb category.</p> | |
| <p>Category 3 is imperative to prevent the destruction of the high diversity of flora and fauna by development in this triangle.</p> | <p>The site does not contain a high diversity of flora and fauna. It is noted that one of the criteria that would support the listing of the site is 'good community integrity'. Species diversity is one aspect that is considered in the assessment of 'community integrity'. In terms of species diversity, a patch of vegetation would need to have either:</p> <ul style="list-style-type: none"> • 4 or more tree species and 6 or more native midstorey and groundcover species recorded, or • 9 or more tree species and/or 11 native midstorey and ground cover species recorded. <p>The vegetation patches in this locality do not meet this criterion. It is recognised that this does not include a specific assessment of fauna diversity. However, another criterion in the assessment of 'community integrity' is the dominance of the groundcover, shrub and canopy layers by native species. Vegetation patches with good structure (multi-layered) provide the greatest potential for a diversity of habitats for a range of fauna. Again, TECs in the 'triangle lands' do not meet this criterion.</p> | <p>No change recommended</p> |

| ISSUE | COMMENT | RECOMMENDATION |
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| Issued raised against the draft amendment | | |
| <p>Re-categorisation to Category 3 would invalidate the objective and consistent ranking within the Town Centres. If this area is re-categorised a similar reassessment would need to be undertaken for all vegetation remnants in the town centres.</p> | <p>The Greenweb categories were developed through a conservation significance assessment process, which is outlined in the '<i>Lands of High and Special Ecological Significance – Draft Study</i>', that supported the draft KLEP.</p> <p>The process is based on the fact that an intact area of a particular ecological community, that is part of a large undisturbed natural area, has a higher conservation value than an isolated tree, that may be a remnant of this same community, and that there is a continuum of value, from one to the other.</p> <p>The process outlines a set of criteria or rules that were applied consistently in assessing the mapped areas. It is acknowledged that whilst mapping included a large component of field validation, the conservation significance assessment provides a broad strategic level evaluation and classification. It is further recognised that in some cases individual site investigations may, result in Council agreeing that under the Greenweb methodology, alteration or re categorisation of Greenweb lands within that site may be warranted. Part 7 of the DCP acknowledges the limitations of the mapping, and puts the onus on the proponent to demonstrate that the Greenweb map is inaccurate.</p> <p>A re-categorisation under these circumstances would not invalidate the consistency of the Greenweb mapping and categorisation or require reassessment of any other areas covered under the KLEP. Neither would it undermine the strength of the controls for the any Greenweb category.</p> | <p>Changes as recommended above</p> |

| ISSUE | COMMENT | RECOMMENDATION |
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| Issued raised against the draft amendment | | |
| | <p>However, if a site were to be re-categorised contrary to the criteria adopted, it would set a precedent for a change to a higher or lower category for other lands within the Greenweb (eg. for non-ecological reasons). This would indeed have the potential to undermine the strength and consistent application of the controls in the DCP, and therefore the protection and potential rehabilitation of these significant areas.</p> | |
| We oppose the amendment. Once again this is in favour of the developer, not the residents facing the precinct. | The draft amendment proposes to raise the category of these lands from Category 5 –Landscape Remnant to Category 3 - Support for Core B, namely to a category representing a higher ecological value. This will not result in any benefit to the developer. | No change recommended |
| The amendment would restrict the expansion of this area, and compromise long term strategic planning and biodiversity management. | <p>Site configuration for future development <i>may</i> be different if the amendment were adopted. As stated elsewhere, the removal of areas of Category 3 would likely be more costly (eg in rehabilitation requirements), however, the draft amendment would not prevent the areas zoned R4 from being developed with residential flat buildings to 5 storeys.</p> <p>However, if the amendment were adopted without being consistent with the Greenweb methodology, this would have potential to compromise the achievement of the objectives for the Greenweb, and to weaken the controls in the DCP.</p> <p>Regardless of the Greenweb category of the subject lands, site specific investigations will need to be carried out for any DA, as</p> | No change recommended |

| ISSUE | COMMENT | RECOMMENDATION |
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| Issued raised against the draft amendment | | |
| | <p>the identification in the KLEP (and on the Greenweb) acts as a trigger to consider a range of matters related to biodiversity protection.</p> <p>The DCP specifically acknowledges the potential for variation from the mapped Greenweb category resultant from individual site investigations. It also states that the proponent would need to demonstrate that such refinements are required in accordance with Council's Greenweb methodology.</p> | |
| <p>Based on report by Masada's ecologist, the vegetation should be Category 5. The Wolseley-Treatts Rd area does not support any 'core' lands:</p> <ul style="list-style-type: none"> • Few non-canopy species, no understorey –not of 'higher integrity' • Area of BGHF significantly less than 5 hectares – many trees mapped as BGHF not part of community or planted • Does not act as 'stepping stones or habitat island in any meaningful way. • Therefore re-categorisation to category 3 would be inconsistent with the professional assessment methodology and procedures. | <p>Council officers conducted a further site inspection to review the vegetation mapping and classification. Staff found that:</p> <ul style="list-style-type: none"> • There are few non-canopy species within the 'triangle lands'. However, some additional non-canopy species were found along the rail corridor. • None of the vegetation patches in the locality are 5 hectares or greater; • Following additional site assessment, council has identified some areas mapped as TECs, within Greenweb that are not part of the community. There are also small areas within the rail corridor a tree adjacent to and within the Masada site that are excluded from Greenweb. Attachment 6 shows the site with the changes in extent. <p>Changes in extent would require an amendment to the KLEP. At the current time this would mean that the Kuring-gai Planning Panel would need to prepare a planning proposal to the Minister of Planning. Alternatively, the changes could be made at the time of merging the</p> | <p>It is recommended that Council create a process where these changes are tracked and included within the vegetation mapping, to facilitate revision of the Greenweb map and the LEP and DCP from time to time.</p> |

| ISSUE | COMMENT | RECOMMENDATION |
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| Issued raised against the draft amendment | | |
| | <p>Principal LEP with the Ku-ring-gai LEP (Town Centres) 2010.</p> <p>It is expected that site specific assessment as part of the DA process will result in the identification of other changes in the future.</p> <p>It is recommended that Council create a process where these changes are tracked and included within the vegetation mapping, to facilitate revision of the Greenweb map and the LEP and DCP from time to time.</p> <ul style="list-style-type: none"> • Remnants within the site would provide stepping stone habitat for more mobile and urban adaptable species. The recommended rewording of the description of Category 5 as outlined above recognises this. | |

Legend

-  Subject lands
-  Town centres boundary
-  Cadastre

GreenWeb - existing extent**GreenWeb - Proposed extent changes**

40 20 0 Meters

**Attachment 6. Identified Changes in extent of Greenweb**

PUBLIC EXHIBITION OF CONSERVATION AGREEMENTS FOR BROWNS FOREST AND THE KU-RING-GAI FLYING FOX RESERVE

EXECUTIVE SUMMARY

PURPOSE OF REPORT:

To inform Council of the exhibition of the Conservation Agreements for Browns Forest and the Ku-ring-gai Flying Fox Reserve and to provide a basis for submission to the Department of Environment Climate Change and Water (DECCW).

BACKGROUND:

On 6 October, 2010 DECCW exhibited a draft Conservation Agreement for Browns Forest and an amendment to existing Ku-ring-gai Flying Fox Reserve Conservation Agreement. Council developed both documents in consultation with Councillors, staff and committees with representatives from local resident groups, DECCW and Sydney Water.

COMMENTS:

The draft Conservation Agreements will consolidate Councils management of these lands and further ensure the conservation of the bushland and species they contain. The draft agreements should not increase any burdens upon Council in terms of finance or other resources as Council has been managing these reserves as conservation reserves for many years.

RECOMMENDATION:

That Council sends a letter in support to the Department of Environment Climate Change and Water on the draft Conservation Agreements.

PURPOSE OF REPORT

To inform Council of the exhibition of the Conservation Agreements for Browns Forest and the Ku-ring-gai Flying Fox Reserve and to provide a basis for submission to the Department of Environment Climate Change and Water (DECCW).

BACKGROUND

The draft Conservation Agreement for the Ku-ring-gai Flying Fox Reserve represents an amendment to the existing agreement signed by in 1991. The amendment only changes the area covered by the agreement to encompass the new parcel of land recently added to the reserve. Council approved altering the title of the new parcel of land so that it would apply to it by the existing Conservation Agreement. The acquisition of the land parcel added to the reserve was driven largely by the Ku-ring-gai Bat Conservation Society who also assisted with the process.

The Conservation Agreement for Browns Forest is a new agreement. This forms part of the conditions of the grant from *Department of Sustainability, Environment, Water, Population and Communities* (formerly DEWHA) for the purchase of 102 Rosedale Road, St Ives. Local resident environment groups including the Blue Gum High Forest Group also insisted that there was some assurance that the purchased land and Browns Forest was protected for conservation purposes. Creating a conservation agreement for Browns Forest was also a directive coming from the Rosedale Road Steering Committee that was formed to advise on the management of the recently purchased 102 Rosedale road property that is contiguous with Browns Forest and contains Blue Gum High Forest.

During September of 2008 Council commenced writing the first draft Conservation Agreement for Browns Forest and the amendments for the existing the Ku-ring-gai Flying Fox Reserve in consultation with the Department of Environment Climate Change and Water (DECCW). On 6 October 2010 the Department of Environment Climate Change and Water (DECCW) put two (2) draft conservation agreements on public exhibition (**Attached**) asking for public comment. The notices were advertised in the North Shore Times, the Hornsby Advocate and the Sydney Morning Herald. As a part of the preparation of both documents Council assisted DECCW with the exhibition by placing hard copies of the conservation agreements on display at Chambers and our website. Council also mailed copies of the public notices to residents directly adjacent to both the Ku-ring-gai Flying Fox Reserve in Gordon and Browns Forest in St Ives and posted copies of the notices in the Gordon and St Ives Libraries. Council staff provided DECCW with contacts of local resident/ environment groups so that they could send copies of the notices directly to these groups. Groups included STEP, the Blue Gum High Forest Group and the Ku-ring-gai Bat Conservation Society.

COMMENTS

The consequences for Council of the new Conservation Agreement for Brown's Forest are that Council is formally committed to manage the reserve for conservation of the Bluegum High Forest on site. This reserve is and has been managed for the conservation of the existing bushland by Council since at least the mid 1990s. The formal agreement seeks to make the management of this

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28 October 2010

reserve more consistent with that of the adjoining Dalrymple-Hay Nature Reserve. In real terms it will mean little if any changes to financial or resource commitment that Council is already committed to but it does place a greater onus on Council to continue its dedication of resources.

The amendment of the existing Conservation Agreement (signed in 1991) for the Ku-ring-gai Flying Fox Reserve only ensures that the small parcel land recently added to the reserve is covered by the existing Conservation Agreement. The amendment will have little if any impact upon resources and funding to this reserve which has been actively managed by Council, the Ku-ring-gai Bat Conservation Society and Bushcare Volunteers since 1985. This includes annual bush regeneration and weed control programs.

CONSULTATION

Council staff were involved in the development of both draft conservation agreements with DECCW. This was undertaken in consultation with local residents from environment groups including the Blue Gum High Forest Group and the Ku-ring-gai Bat Conservation Society as well as the Rosedale Road Steering Committee.

FINANCIAL CONSIDERATIONS

Signing and adoption of the conditions of the two (2) conservation agreements will not place extra financial burden on Council as they are consistent with current maintenance practices which are already covered in annual budgets. The Department of Environment Climate Change and Water has already committed to provide Council extra financial assistance to manage both sites in accordance with the agreements in the form of two small grants totalling \$16,468.

CONSULTATION WITH OTHER COUNCIL DEPARTMENTS

Council's Operations Department have been involved in the process as their field staff are already undertaking regular bushland maintenance works such as weed control and bush regeneration works in these reserve. Rangers from the Development & Regulation Department were consulted in relation to declaring Brown's Forest (including the new addition) a Wildlife Conservation Area.

SUMMARY

The draft Conservation Agreements are currently being exhibited by Department of Environment Climate Change and Water (DECCW) for two (2) Council reserves – Brown's Forest and the Ku-ring-gai Flying Fox Reserve [Amendment to existing agreement]. The Conservation Agreements will consolidate Councils management of these lands and further ensure the conservation of the bushland and species they contain. The draft agreements should not increase any burdens upon Council in terms of finance or other resources.

RECOMMENDATION

That Council sends a letter in support of the draft Conservation Agreements to the Department of Environment Climate Change and Water.

David Wilks
Biodiversity Officer

Peter Davies
**Manager Corporate Planning &
Sustainability**

Andrew Watson
**Director Strategy &
Environment**

Attachments: **Public notices for exhibition and Draft Conservation Agreements - Browns
Forest and Ku-ring-gai Flying Fox Reserve - 2010/190534**



06/10/10

BROWNS FOREST CONSERVATION AGREEMENT

Ku-ring-gai Council has approached the Department of Environment, Climate Change and Water to voluntarily place a Conservation Agreement over an area of land at Browns Forest to protect significant natural and cultural heritage conservation values in-perpetuity.

Pursuant to s69A-KA of the *National Parks and Wildlife Act 1974*, notice is given that a draft Conservation Agreement for Browns Forest, managed by Ku-ring-gai Council, has been prepared and is to be placed on public exhibition.

The draft Conservation Agreement can be found at [\[http://www.environment.nsw.gov.au/cpp/ConservationAgreementsOtherAgencies.htm\]](http://www.environment.nsw.gov.au/cpp/ConservationAgreementsOtherAgencies.htm) or can be inspected during office hours for a period of 30 calendar days from 6th October, 2010 at:

- National Parks and Wildlife Service (NPWS), Lane Cove Area Office, Lane Cove National Park, Lady Game Drive Chatswood
- Ku-ring-gai Council, 818 Pacific Highway, Gordon
- Department of Environment, Climate Change and Water (DECCW), Level 14, 59-61 Goulburn St, SYDNEY

Written submissions are invited on the draft Conservation Agreement and should be forwarded to the Manager, Conservations Programs Delivery Unit, Landscape & Ecosystems Conservation Branch, Department of Environment, Climate Change and Water, PO Box A290, SYDNEY SOUTH NSW 1232 by 20th November, 2010.

All submissions received by DECCW are a matter of public record and are available for public inspection upon request to DECCW. Comment on the draft Conservation Agreement may contain information that is defined as "personal information" under the NSW *Privacy and Personal Information Protection Act 1998* and will be processed in accordance with this legislation.

06/10/10

VARIATION OF KU-RING-GAI FLYING FOX RESERVE CONSERVATION AGREEMENT

Ku-ring-gai Council has approached the Department of Environment, Climate Change and Water to vary the Conservation Agreement over Ku-ring-gai Flying Fox Reserve to protect significant natural and cultural heritage conservation values in-perpetuity.

The draft Variation proposes to add an extra parcel of 0.56 ha of Council owned land into the area which is subject to the agreement.

Pursuant to s69A-KA of the *National Parks and Wildlife Act 1974*, notice is given that a draft Variation of the Conservation Agreement over Ku-ring-gai Flying Fox Reserve, managed by the Ku-ring-gai Council, has been prepared and is to be placed on public exhibition.

The draft Conservation Agreement can be found at [\[http://www.environment.nsw.gov.au/cpp/ConservationAgreementsOtherAgencies.html\]](http://www.environment.nsw.gov.au/cpp/ConservationAgreementsOtherAgencies.html) or can be inspected during office hours for a period of 30 calendar days from 6th October, 2010 at:

- National Parks and Wildlife Service (NPWS), Lane Cove Area Office, Lane Cove National Park, Lady Game Drive Chatswood
- Ku-ring-gai Council, 818 Pacific Highway, Gordon
- Department of Environment, Climate Change and Water (DECCW), Level 14, 59-61 Goulburn St, SYDNEY

Written submissions are invited on the draft Conservation Agreement and should be forwarded to the Manager, Conservations Programs Delivery Unit, Landscape & Ecosystems Conservation Branch, Department of Environment, Climate Change and Water, PO Box A290, SYDNEY SOUTH NSW 1232 by 20th November, 2010.

All submissions received by DECCW are a matter of public record and are available for public inspection upon request to DECCW. Comment on the draft Conservation Agreement may contain information that is defined as "personal information" under the NSW *Privacy and Personal Information Protection Act 1998* and will be processed in accordance with this legislation.

VARIATION OF CONSERVATION AGREEMENT

BETWEEN

**THE MINISTER FOR THE ENVIRONMENT OF
THE STATE OF NEW SOUTH WALES**

AND

Ku-ring-gai Council

**For the
Ku-ring-gai Flying Fox Reserve**

2010

**Andrew Watson
Acting General Manager, Ku-ring-gai Council**

Minister

VARIATION TO CONSERVATION AGREEMENT UNDER PART 4 DIVISION 12 OF THE NATIONAL PARKS AND WILDLIFE ACT 1974

THIS AGREEMENT made the _____ day of _____, Two thousand and _____, **BETWEEN** the Minister for the time being administering the *National Parks and Wildlife Act, 1974* ("**the Minister**" which expressions shall where the context admits, be deemed to include his successors in office) of the one part and Ku-ring-gai Council ("**the Owner**") of Ku-ring-gai Flying Fox Colony, Gordon of the other part.

BACKGROUND

- A An agreement dated 7 February 1991, Registered Dealing Number Z915953 was duly executed between the Minister and the Owner ("**the Principal Agreement**") relating to Lots 1 and 3 in DP578212; Lot 101 in DP 714935; Lots 154A, 156 and 158 in DP17131; Lots 1 and 2 in DP38541; Lot 10 in DP 23994; Lot A in DP 212698; Lot 35 in DP 16006; Lot 2 in DP 200605; Lot 2 in DP 204102; Lot 1 in DP 179532; Lot Part 7 Section 2 in DP 979271 (now known as Lot 7 in DP 1132073), Lot 103 in DP 17647; Lot 5 Section 1 in DP 979271 (now known as Lot 5 in DP 1099395), and the section of unmade road of the eastern end of Nelson Street north of Lot 35 in DP 16006 and Lot 7, Section 2, in DP 979271, Parish of Gordon, County of Cumberland ("**the Land**").
- B The Owner is the registered proprietor of the Land.
- C The Owner and the Minister agree that the Principal Agreement be varied to include Lot 34 (DP 1079802) in DP 1132073 (Lot part 7 Section 2).
- D Accordingly, the Owner and the Minister have agreed to vary the Principal Agreement in accordance with this agreement ("**Variation Agreement**").
- E This Variation Agreement will have effect from the day of execution and will continue until terminated by the parties in accordance with the *National Parks and Wildlife Act, 1974*.

VARIATION

- 1 The Minister and the Owner agree to vary the Principal Agreement as follows:
 - a) In the description of the lots comprising Ku-ring-gai Flying Fox Reserve on page one of the Principal Agreement, replace the words "Lot Part 7 Section 2 in DP 979271", with the words "Lot 7 in DP 1132073 (formerly known as Lot Part 7 Section 2 in DP 979271)".
 - b) In the description of the lots comprising Ku-ring-gai Flying Fox Reserve on page one of the Principal Agreement, replace the words Lot 5 Section 1 in DP 979271, with the words "Lot 5 in DP 1099395 (formerly known as Lot 5 Section 1 in DP 979271) and Lot 34 in DP 1132073."
 - c) In clause 2A of the Principal Agreement, replace the words "and Lot Part 7 Section 2 DP 979271", with the words "Lot 7 in DP 1132073 (formerly Lot 7 Section 2 DP 979271)".
 - d) In clause 2A of the Principal Agreement, replace the words Lot 5 Section 1 in DP 979271, with the words "Lot 5 in DP 1099395 (formerly known as Lot 5 Section 1 in DP 979271) and Lot 34 in DP 1132073."
 - e) In clause 2A, of the Principal Agreement, replace "14.589" with "15.025".
 - f) Replace the Diagram attached to the Principal Agreement entitled, "Diagram Part Lands Owned by Ku-ring-gai Municipal Council at Gordon Parish of Gordon: County of Cumberland," with the Diagram at page 4 of this Variation Agreement marked "Diagram A" and entitled "Ku-ring-gai Flying Fox Reserve Conservation Agreement Area".

IN WITNESS WHEREOF the parties hereto have executed this Agreement the day and year first above written.

SIGNED by)
The Honourable)
NAME OF MINISTER)
as such Minister)
for the Environment and for the)
purpose of rendering liable the)
Government of the State of New)
South Wales (but not so as to incur)
any personal liability) hereunder in)
the presence of:)

MINISTER

Date

Witness

Date

SIGNED by the OWNERS
KU-RING-GAI COUNCIL

Andrew Watson
Acting General Manager, Ku-ring-gai Council

15-01-10
Date

in the presence of

Witness signature

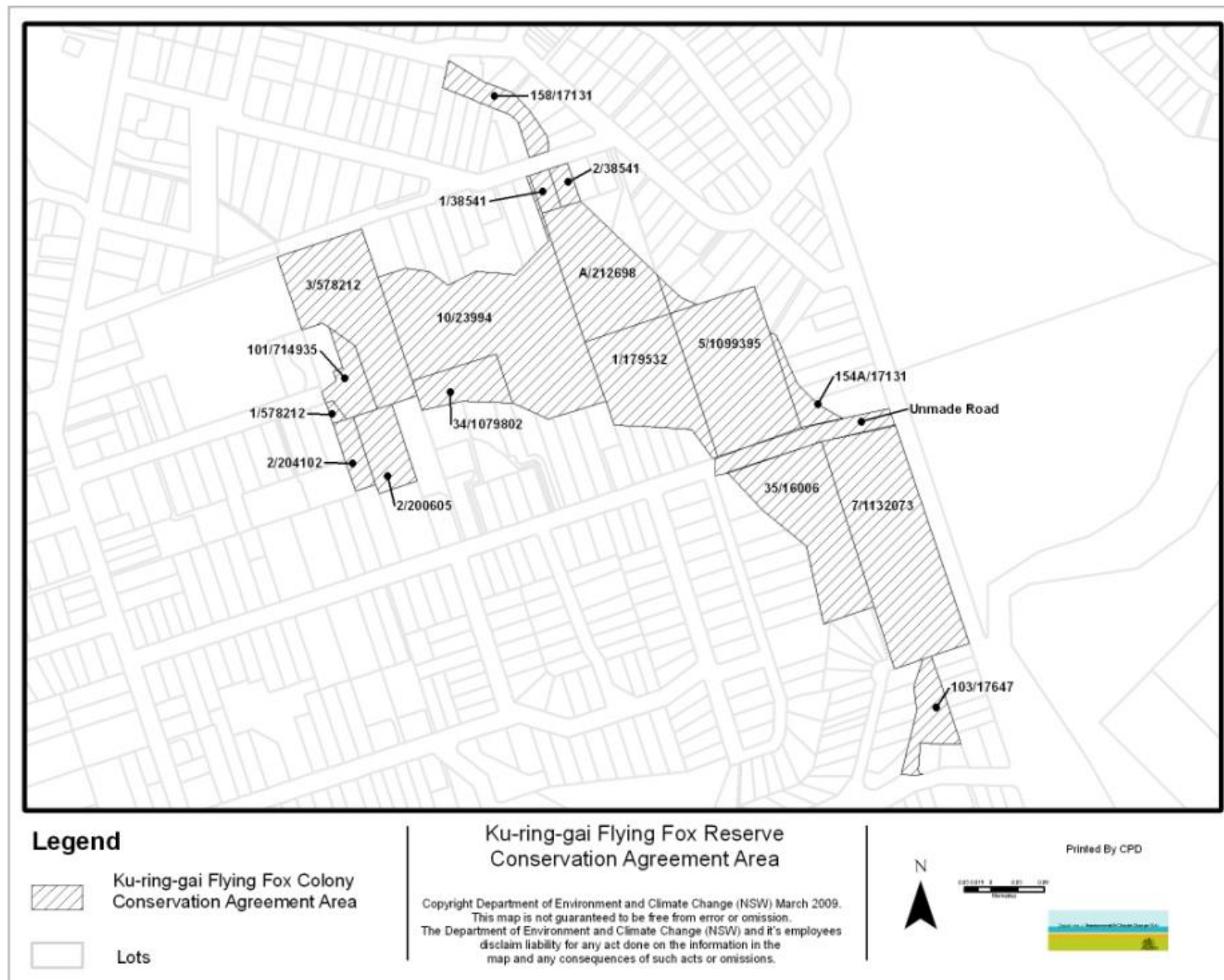
Council Chambers
318 Pacific Highway Gordon
Witness Name and address

15/1/2010
Date

Landowners Name and address for service of notices:

Ku-ring-gai Council
Locked Bag 1056, Pymble NSW 2073

DIAGRAM A.



CONSERVATION AGREEMENT

BETWEEN

**THE MINISTER ADMINISTERING
THE NEW SOUTH WALES NATIONAL PARKS AND
WILDLIFE ACT (1974)**

AND

Ku-ring-gai Council

FOR

Browns Forest

2009

**John McKee
General Manager
Ku-ring-gai Council**

Minister

CONSERVATION AGREEMENT UNDER PART 4 DIVISION 12 OF THE NATIONAL PARKS AND WILDLIFE ACT 1974

THIS AGREEMENT made the _____ day of _____, Two thousand and ten, **BETWEEN** the Minister for the time being administering the *National Parks and Wildlife Act, 1974* ("the Minister" which expressions shall where the context admits, be deemed to include successors in office) of the one part and **Ku-ring-gai Council** ("the Owner") of Browns Forest, Rosedale Road, St Ives of the other part.

WHEREAS:

- A The Owner is the registered proprietor of that parcel of land being Lots 6 and 12, Deposited Plan 17431, and Lot 32, Deposited Plan 16670, Parish of GORDON, County of CUMBERLAND ("**the Land**"). That part of the Land shown by hatching on Diagram A annexed to this Agreement is the conservation area ("**the conservation area**"), being the whole of Lots 6 and 12 and DP 17431 and part of Lot 32 DP 16670. The conservation area covered by this Agreement is **5.5885 hectares**
- B The Owner and the Minister recognise that the conservation area contains Tall Open Forest being Blue Gum High Forest. This is listed as a Critically Endangered Ecological Community on Schedule 1A the *NSW Threatened Species Conservation Act 1995* and as 'Blue Gum High Forest of the Sydney Basin Bioregion' listed as a Critically Endangered Ecological Community under the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*.
- C The Owner and the Minister recognise that the conservation area contains threatened species, endangered populations or potential habitat as listed in Appendix B.
- D The Owner and the Minister recognise that the conservation area is contiguous with Dalrymple-Hay Nature Reserve which together make up the largest and most intact remnant of Blue Gum High Forest in protected areas.
- E The Owner and the Minister recognise that the conservation area is used as a site for research.
- F The Owner and Minister recognise that the Conservation Agreement is a requirement under Clause 7.3.1 of the Private Protected Area Establishment Agreement between Ku-ring-gai Council and the Australian Government dated the 11 January 2008 for the provision of funding from the National Reserve System Program for the purchase of 102 Rosedale Road, St. Ives by Ku-ring-gai Council
- G Accordingly, the parties hereby enter into the following Conservation Agreement under Section 69B Part 4 Division 12 of the *National Parks and Wildlife Act 1974*.
- H The Owner and the Minister agree to take steps to protect and manage the conservation values of the conservation area as set out in Annexure B and C.

NOW THIS AGREEMENT WITNESSES:**1. INTERPRETATION**

1.1 In this Agreement unless the contrary intention appears:-

"**Aboriginal Object**" has the same meaning as in Section 5 of the Act;

"**Aboriginal Place**" has the same meaning as in Section 5 of the Act;

"the **Act**" means the *National Parks and Wildlife Act, 1974* and any regulations from time to time in force thereunder;

"**conservation area**" means that part of the Land shown by hatching on the diagram annexed to this Agreement as Annexure A;

"**conservation values**" includes, without limitation, any native fauna and their habitats, native plants and their habitats, cultural heritage, and geo-heritage.

"**controlled burning**" means the controlled application of fire under specified environmental and weather conditions to a predetermined area and at the time, intensity and rate of spread required to attain planned resource management objectives;

"**critical habitat**" has the same meaning as in Section 4 of the *Threatened Species Conservation Act 1995*;

"**cultural heritage**" refers to the historic, archaeological, social, cultural and contemporary values of the physical evidence and traditions of peoples, including Aboriginal peoples.

"**damage**" means incurring injury that impairs the values or usefulness of the conservation area

"**DECCW**" means the NSW Department of Environment, Climate Change and Water;

"**development**" has the same meaning as provided for in Section 69A of the Act;

"**Director-General**" has the same meaning as Section 5 of the Act;

"**fauna**" has the same meaning as in Section 5 of the Act;

"**geo-heritage**" means geological deposits and landforms that are considered to have conservation values.

"**indigenous fauna**" means all native fauna belonging naturally to the conservation area;

"**indigenous plants**" means all native plants belonging naturally to the conservation area;

"**Land**" means that parcel of land described in Recital A;

"**Management Scheme for the conservation area**" means management scheme prepared for the conservation area in consultation with the owner, annexed to this Agreement as Annexure C;

"**Minister**" means the Minister for the time being administering the Act and where not repugnant to the context includes the servants and agents of the Minister;

"**native fauna**" has the same meaning as "protected fauna" in Section 5 of the Act;

"**native plant**" has the same meaning as in Section 5 of the Act;

"**Owner**" has the meaning as in s69A of the Act and includes any successor in title to the owner within the meaning of s 69E of the Act,

"**pesticide**" has the same meaning as in Section 5 of the *Pesticides Act* 1999 which includes herbicides, insecticides, fungicides, baits and rodenticides;

"**reasonable**" in relation to carrying out an activity, means using the best methods available and carrying out the activity in such a way as to have minimal impact on the conservation values of the conservation area;

"**road**" allows the passage of vehicles and persons.

"**threatened species, populations and ecological communities**" and "**threatened species, population or ecological community**" have the same meaning as in the *Threatened Species Conservation Act* 1995;

"**track**" allows non-vehicular access only.

"**trail**" allows the passage of vehicles and persons and is of minimal construction, being of limited width and minimal surface improvement.

- 1.2 Words importing the singular number shall include the plural and masculine gender the feminine or neuter and vice versa.
- 1.3 Any reference to a person shall be deemed to include a corporate body and vice versa.
- 1.4 Any covenant or agreement on the part of two or more persons shall be deemed to bind them jointly and severally.

2 USE OF THE CONSERVATION AREA

The Owner covenants with the Minister as follows:-

General responsibilities

- 2.1 Except as otherwise permitted by this Agreement, the Owner must not intentionally carry out any act or omit to carry out any act, or cause or permit any act to be carried out or any act not to be carried out which act or omission may harm any native fauna, native plants, their habitats, cultural heritage, geo-heritage or other conservation values in the conservation area.

Development

- 2.2 Except as permitted in this Agreement the Owners shall not construct any new road, building or internal fencing or any development that could adversely affect the conservation values of the conservation area.
- 2.3 The Owner shall be permitted to:
 - 2.3.1 construct or cause the construction of a fence along the boundary of the conservation area; and
 - 2.3.2 maintain existing access tracks in the conservation area;
 - 2.3.3 maintain all existing fences within the conservation area.
 - 2.3.4 Construct or carry out other works as are necessary for conservation or management purposes within the conservation area in Consultation with DECCW

Subdivision

- 2.4 The Owner must not subdivide or permit the subdivision of the conservation area.

Threatened species, ecological communities, populations and their habitats and critical habitat

- 2.5 Consistent with the *Threatened Species Conservation Act 1995*, where threatened species, populations and ecological communities occur in the conservation area the Owner must manage the conservation area:
- 2.5.1 to protect and promote the recovery of threatened species, populations and ecological communities, and
 - 2.5.2 to protect the critical habitat of those threatened species, populations and ecological communities that are endangered, and
 - 2.5.3 to eliminate or manage certain processes that threaten the survival or evolutionary development of threatened species, populations and ecological communities, and
 - 2.5.4 to ensure that the impact of any action affecting threatened species, populations and ecological communities is properly assessed.

Fire

- 2.6 The Owner must not light a fire, or cause a fire to be lit on the conservation area unless it complies with the *Rural Fires Act 1997*, and:
- 2.6.1 the lighting of the fire is for the purposes of controlled burning and is carried out in accordance with any fire guidelines for controlled burning as provided for in Annexure C: Management Scheme for the conservation area; or
 - 2.6.2 the lighting of the fire is a necessary component of bush fire hazard reduction work carried out in accordance with a notice served on the Owner under the *Rural Fires Act 1997* or other applicable legislation; or
 - 2.6.3 life or property is in immediate threat by bush fire and the lighting of the fire is reasonably necessary to protect life or property; or
 - 2.6.4 the fire is a camp fire, subject to the compliance with the *Rural Fires Act 1997*, or
 - 2.6.5 the Director-General gives prior written consent to the lighting of the fire.

Cultural Heritage

- 2.7 In accordance with Part 6 of the *National Parks and Wildlife Act 1974*, the Owner must preserve and protect Aboriginal places and Aboriginal objects on the conservation area.

Control of non-indigenous plants and fauna

- 2.8 Except as permitted in this Agreement the Owner:
- 2.8.1 must use their best endeavours to control, and where possible remove all non-indigenous plants and non-indigenous fauna from the conservation area identified to have significant detrimental impacts on the conservation area; and
 - 2.8.2 must take such reasonable measures in relation to the control of non-indigenous plants and non-indigenous fauna as specified in the Management Scheme (Annexure C).

3. MANAGEMENT OF THE LAND

- 3.1 The Owner must manage the conservation area in accordance with this Agreement.
- 3.2 The Owner must inform the Director-General as soon as practicable after becoming aware of the deterioration of any of the natural values or cultural values of the conservation area, or of any threat to these values.
- 3.3 This Agreement includes Annexure B describing and mapping the conservation values of the conservation area. An aerial photograph shows the location of the conservation area, the conservation values and photo-points. Photographs have been taken at the photo-points, at the time of entering into the Conservation Agreement. This provides baseline information and data for ongoing compliance monitoring and adaptive management of the conservation area.
- 3.4 This Agreement includes Annexure C, setting out the Management Scheme for the conservation area including the management of conservation values and other matters referred to in Annexure B.
- 3.5 Detailed management guidelines and actions for the conservation of the conservation area, may be prepared, subject to the endorsement of the Owner and the Director-General, and the terms of this Agreement.

4. USE OF THE LAND BY SERVANTS, AGENTS, LESSEES OR LICENSEES

The Owner must incorporate the terms of this Agreement in any lease or licence issued over the conservation area, and at all times ensure that any servant, contractor, consultant, agent, lessee, licensee occupying the conservation area shall be aware of the relevant provisions of this Agreement.

5. CHANGE OF OWNERSHIP

The Owner must notify the Director-General in writing of any change of Ownership or control of the conservation area within 28 days after the change of ownership and control. The notice must include the name and address of the new owner.

6. RIGHT TO INSPECT

The Minister, the Director-General and their servants and agents may at any time upon first giving reasonable notice to the Owner, the Owner's agent, lessee or licensee, enter upon the conservation area to ensure compliance with this Agreement.

7. OBLIGATIONS OF THE MINISTER

The Minister covenants with the Owner as follows: -

- 7.1 The Owner will bear the costs of, and incidental to, the preparation of this Agreement including payment of the Owner's reasonable legal costs connected with the execution of the Agreement and any necessary stamp duty. The Minister will bear the costs of registration on title.
- 7.2 The Minister agrees to notify the Registrar General when this Conservation Agreement has been entered into, varied or terminated so that the Registrar General can carry out his or her responsibilities pursuant to section 69F of the Act

- 7.3 The Minister will arrange for the provision of technical advice and any other assistance to the Owner as the Minister deems necessary to assist with the implementation of this Agreement.
- 7.4 The Minister agrees to the extent of his or her statutory responsibilities that the signing of this Agreement shall not render the Owners ineligible for any compensation and assistance which may, under future legislation, become available to landowners who enter into a conservation agreement pursuant to the Act or any other Act.

8. NON-COMPLIANCE

In the event that the owner fails to comply with this Conservation Agreement, including, without limitation, damaging or causing damage to the conservation area, DECC may issue a written notice to the owner requiring the owner to remedy the non-compliance or damage within a specified time period. This clause does not affect any rights of the parties under section 69G of the Act.

9. DISPUTE RESOLUTION

If a party to the Conservation Agreement is dissatisfied with the conduct of the other party under this Conservation Agreement, that party must notify the other and if the dispute cannot be resolved by discussions between the parties it shall be referred to the Director-General who will establish a mechanism whereby the dispute can be resolved.

10. COMMENCEMENT

This Agreement shall have effect from the day of execution.

IN WITNESS WHEREOF the parties hereto have executed this Agreement the day and year first above written.

SIGNED by

The Minister administering)
the *National Parks and Wildlife Act, 1974*)
for the purpose of rendering liable the)
Government of the State of New)
South Wales (but not so as to incur)
any personal liability) hereunder in)
the presence of:)

Minister

Date

Witness

Witness Name and address

Date

**SIGNED by the OWNER
Kur-rin-gai Council**

EXECUTED BY THE GENERAL MANAGER of) Witness
Ku-ring-gai COUNCIL under delegated)
authority)
)
)

John McKee
General Manager

P.A. to General Manager Print name
Title

Signature

Date

Signature

Date

Witness address

818 Pacific Highway
Sydney NSW 2072

Landowners Name and address for service of notices:

Ku-ring-gai Council
Locked Bag 1056, Pymble NSW 2073

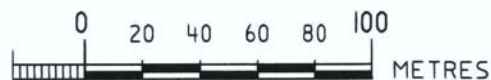
LGA: KU-RING-GAI
LOCALITY: ST.IVES

①

②

VALE

ROAD

MAGNETIC
MERIDIAN

SCALE 1:2500

CONSERVATION AREA
SHOWN BY HATCHING 5.223Ha.

| SCHEDULE OF SHORT LINES | | |
|-------------------------|---------|----------|
| No. | BEARING | DISTANCE |
| ① | 21° 52' | 12.56 |
| ② | 25° 54' | 9.45 |
| ③ | 88° 28' | 15.24 |
| ④ | 90° 01' | 24.385 |

LENGTHS ARE IN METRES
RATIO 1:2500

NOTATIONS

PLANS USED:
D.P. 17431,
D.P. 22206913

SURVEY METHOD:
GROUND TRAVERSE
ACCURACY ± 0.5 METRES

Ku-ring-gai Council

Minister

I, COPLAND C. LETHBRIDGE of P.O. BOX 330 FORESTVILLE 2087, a surveyor registered under the Surveying Act 2002, certify that the survey represented in this plan was made in accordance with the Clause 9 of the surveying regulation 2006 and is a survey to be lodged on public record as referred to in that clause.

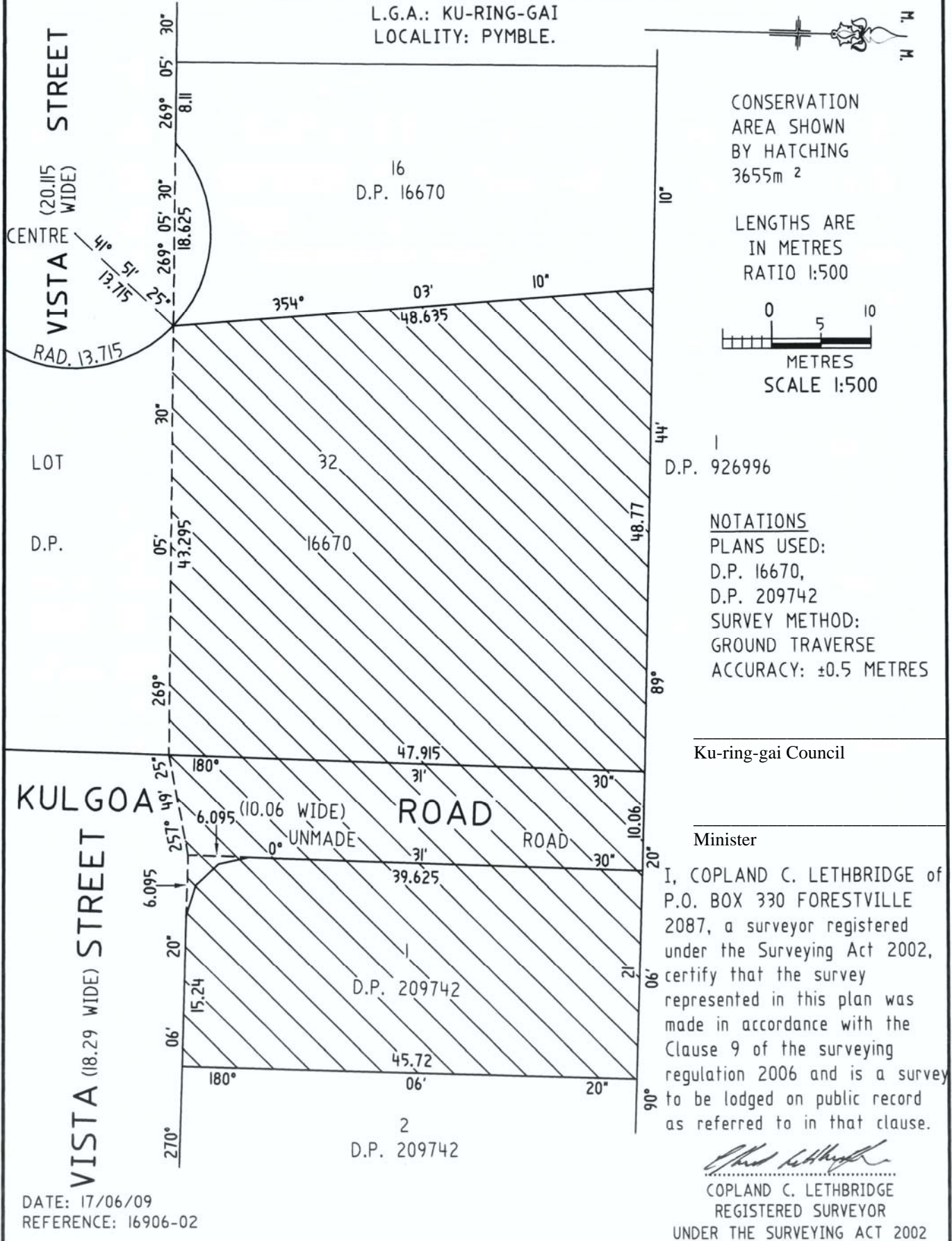
Copland C. Lethbridge
 COPLAND C. LETHBRIDGE
 REGISTERED SURVEYOR
 17 OCT 2001

DATE: 17/06/09
RE:

ANNEXURE A, DIAGRAM 1 - SHEET 2 OF 2

DIAGRAM OF CONSERVATION AREA BEING PART OF LOT 32 IN D.P. 16670
PART OF KULGOA ROAD AND VISTA STREET AND LOT 1 IN D.P. 209742.
PARISH OF GORDON COUNTY OF CUMBERLAND

L.G.A.: KU-RING-GAI
LOCALITY: PYMBLE.



ANNEXURE B CONSERVATION VALUES

1. CONSERVATION VALUES

The Owner and the Minister recognise that the conservation area contains the following conservation values. Conservation values are to be managed in accordance with Annexure C: Management Scheme for the conservation area.

- A The conservation area contains Tall Open Forest being Blue Gum High Forest. This community is listed as
- a Critically Endangered Ecological Community on Schedule 1A the *NSW Threatened Species Conservation Act 1995*.
 - a Critically Endangered Ecological Community (Blue Gum High Forest of the Sydney Basin Bioregion) under the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*.
- B The conservation area contains the following threatened species, endangered populations or potential habitat:

| Threatened species that occur or have potential habitat on site and their status under the NSW Threatened Species Conservation 1995 and the Federal EPBC Act 1999 | | | | |
|---|--------------------------------|----------------|------------------|-------------|
| Scientific Name | Common Name | TSC Act status | TSC Act Schedule | EPBC status |
| <i>Species recently recorded on site</i> | | | | |
| <i>Ninox strenua</i> | Powerful Owl | Vulnerable | 2 | |
| <i>Pteropus poliocephalus</i> | Grey-headed Flying-fox | Vulnerable | 2 | Vulnerable |
| <i>Miniopterus schreibersii oceanensis</i> | Eastern Bent-wing Bat | Vulnerable | 2 | |
| <i>Recently recorded species in Ku-ring-gai LGA with potential habitat on site</i> | | | | |
| <i>Ptilinopus regina</i> | Rose-crowned Fruit-dove | Vulnerable | 2 | |
| <i>Ptilinopus superbus</i> | Superb Fruit-Dove | Vulnerable | 2 | |
| <i>Xanthomyza phrygia</i> | Regent Honeyeater | Endangered | 1 | Endangered |
| <i>Lathamus discolor</i> | Swift Parrot | Endangered | 2 | Endangered |
| <i>Ninox connivens</i> | Barking Owl | Vulnerable | 2 | |
| <i>Dasyurus maculatus</i> | Spotted-tailed Quoll | Vulnerable | 2 | Endangered |
| <i>Isodon obesulus</i> | Southern Brown Bandicoot | Endangered | 1 | Endangered |
| <i>Saccolaimus flaviventris</i> | Yellow-bellied Sheath-tail Bat | Vulnerable | 2 | |
| <i>Mormopterus norfolkensis</i> | Eastern Freetail Bat | Vulnerable | 2 | |
| <i>Scoteanax rueppellii</i> | Greater Broad-nosed Bat | Vulnerable | 2 | |
| <i>Chalinolobus dwyeri</i> | Large Pied Bat | Vulnerable | 2 | Vulnerable |
| <i>Species with potential habitat on site</i> | | | | |
| <i>Stagonopleura guttata</i> | Diamond Firetail | Vulnerable | 2 | |
| <i>Dasyornis brachypterus</i> | Eastern Bristlebird | Endangered | 1 | Endangered |

- C The conservation area is contiguous with Dalrymple-Hay Nature Reserve which together make up the largest and most intact remnant of Blue Gum High Forest in protected areas.
- D The conservation area contains this iconic tall forest type which is typical of what once blanketed the upper northern shore of Sydney to which residents have strong sentimental and emotional attachment. The area was important during the early years of settlement for provision of timber and garden produce because of the tall hardwood trees and relatively rich clay soils. Browns Forest and Dalrymple-Hay NR are an important echo of the ecosystems and plant communities that once existed from North Sydney to Hornsby. It is a direct link to our past cultural and natural heritage. Browns Forest has local historical significance as it once belonged to the locally significant historical figure of Mr. Brown who donated the land for the conservation.
- E Browns Forest including 102 Rosedale Road, St Ives was declared by Ku-ring-gai Council as a Wildlife Protection Area under the *Companion Animals Act 1998* in December 2008.

AERIAL PHOTOGRAPH AND OTHER MAPPING



PHOTO-POINT PHOTOGRAPHS LOCATIONS

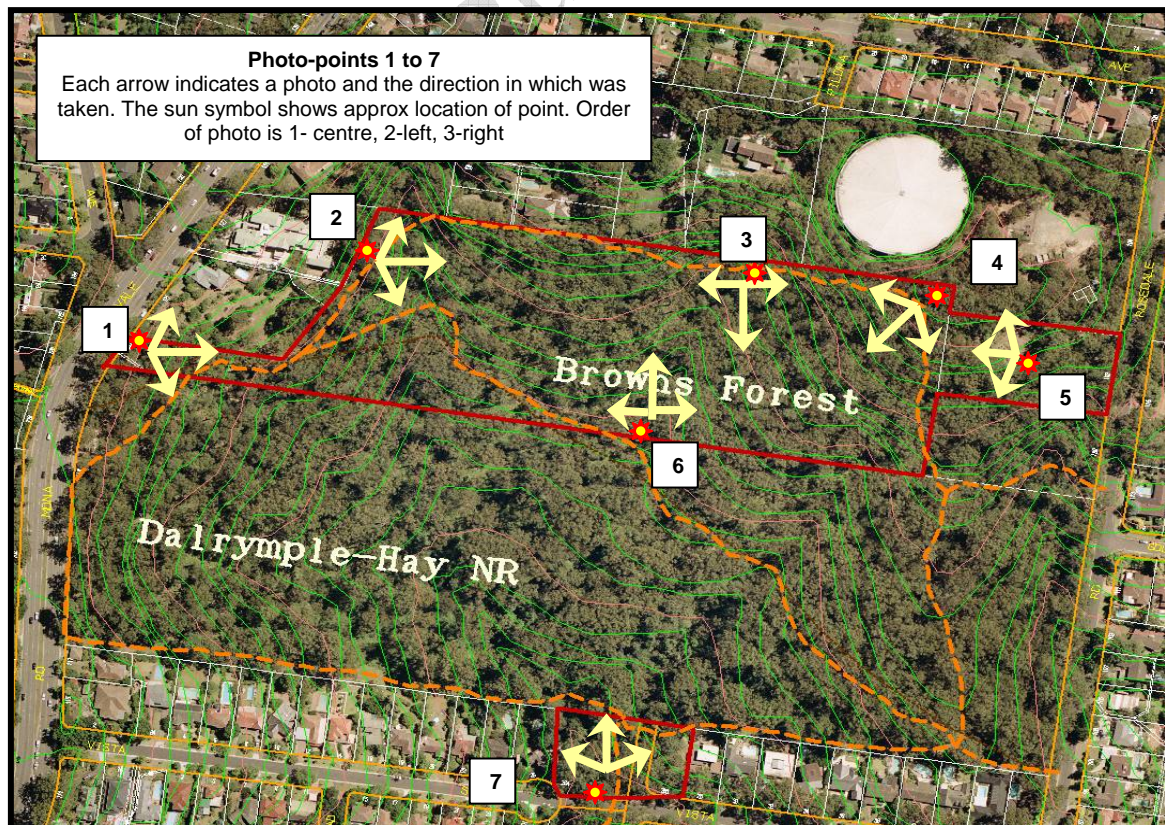












PHOTO-POINT PHOTOGRAPHS



| | | | |
|---------------------------------|---|--------|--|
| Photo point 1 Photo 1 | GPS Coordinate (MGA) 328912 6265609 Approx 3m from sandstone wall and next to footpath on nature strip and Large Blackbutt. | Centre |  |
| Photo point 1 Photo 2 | | Left |  |
| Photo point 1 Photo 3 | | Right |  |




| | | | |
|---------------------------------|---|--------|--|
| Photo point 2 Photo 1 | Photo point GPS coordinates (MGA) 329042 6265675 Approx centre of fence line of private property - 1m off fence | Centre |  |
| Photo point 2 Photo 2 | | Left |  |
| Photo point 2 Photo 3 | | Right |  |

| | | | |
|---------------------------------|---|--------|--|
| Photo point 3 Photo 1 | Photo point GPS coordinates (MGA) 329821 6265657 4m east of minor ephemeral creek bank. Against boundary fence to private land | Centre |  |
| Photo point 3 Photo 2 | | Left |  |
| Photo point 3 Photo 3 | | Right |  |

| | | | |
|---------------------------------|---|--|--|
| Photo point 4 Photo 1 | Photo point GPS coordinates (MGA) 329376 6265658 3m from corner of boundary fence near Sydney Water land in front of Large blackbutt | |  |
| Photo point 4 Photo 2 | | |  |
| Photo point 4 Photo 3 | | |  |

| | | | |
|---------------------------------|--|--|--|
| Photo point 5 Photo 1 | Photo point GPS coordinates (MGA) 329428 6265597 60-70m from entrance chain near clearing of old house. | |  |
| Photo point 5 Photo 2 | | |  |
| Photo point 5 Photo 3 | | |  |

| | | | |
|---------------------------------|--|--|--|
| Photo point 6 Photo 1 | Photo point GPS coordinates (MGA) 32329214 6265522 On track where creek crosses underneath beside interp sign. | |  |
| Photo point 6 Photo 2 | | |  |
| Photo point 6 Photo 3 | | |  |

| | | |
|---------------------------------|--|--|
| Photo point 7 Photo 1 | Photo point GPS coordinates (MGA) 329185 62625331 Weak signal (cloud and trees) +/- 7m Point near start of path approx 4m from curb |  |
| Photo point 7 Photo 2 | |  |
| Photo point 7 Photo 3 | |  |

ANNEXURE C

MANAGEMENT SCHEME FOR THE CONSERVATION AREA

The conservation values identified in Annexure B are to be managed in accordance with the principles and activities outlined below.

Management to be consistent with Council's Bushland Reserves Plan of Management or any specific management plan for this reserve and with current best practice bush regeneration practices. These must be consistent with this Agreement (clause 3.5). Advice may also be sought from the Department of Environment, Climate Change and Water and the consultative committee for the reserves if one exists

ITEM 1:

The following activities may be undertaken on, or in respect of, the conservation area in the manner specified as follows:

Weed control

- a) Carrying out weed control using the appropriate control methods
 - Use glyphosate based herbicide by direct application to cut surfaces (cut and paint or scrape and paint or spot spraying methods). A specific formulation of glyphosate registered for waterways is to be used when working close to watercourses.
 - Spraying of the glyphosate based herbicide for control of those weeds where surface application to leaves or stems is effective can be used. This should be limited to according to the directions on the label and ensuring that there is no off-target damage.
 - Other weed control methods may be undertaken with prior written permission of the Director-General. This includes other proven environmentally safe herbicides or methods that may be developed in the future
 - Remove weeds by hand ensuring that all plant parts which can reproduce are removed and that soils do not become prone to erosion.
 - Other weed control methods may be undertaken with prior written permission of the Director-General.
 - Ensure control programs are commenced when timing and extent of weed removal will minimise adverse effects on wildlife (weeds may provide protection or habitat for native fauna. Removal or treatment of weeds (eg. lantana) that provide important nesting or roosting sites for birds (eg wrens and barking owl) or other sensitive native fauna should not be undertaken during nesting / breeding periods. Where necessary removal of such stands should also be done incrementally as surrounding native vegetation becomes thick enough for habitat.
 - Monitor weed invasion and regrowth and treat where necessary.

Feral animal control

- b) Monitoring impacts to the conservation area by feral animals and undertaking of on-going control programs for feral animals if appropriate.
 - Methods for control can include shooting, trapping and use of poisonous baits with advice from local National Parks officers and the Livestock Health and Pest Authority. Where poisons are applied their use must comply with the Label or off Label permit conditions.
 - Participate in community feral animal control programs, and encourage neighbours to implement pest animal control programs. (Contact your local National Parks office to find out if community control programs are occurring in your area

Use by Domestic animal

- c) No domestic animals or pets (except for legitimate guide dogs) are allowed on the land in accordance with it's declaration as a Wildlife Protection Area by Ku-ring-gai Council under the *Companion Animals Act 1998* and to be consistent with the management of Dalrymple-Hay Nature Reserve.

Fire management

- d) Suppression of all wildfires occurring in the conservation area as quickly as possible with the aim of keeping fires to a small area.
- e) Undertaking of fire hazard reduction to protect the natural assets of the conservation area, in appropriate locations, with any required approvals and/or permits using:
 - raking and hand clearing
 - pile burning
 - fuel reduction burns.
- f) Using fire hazard reduction burns and controlled burning which take into account the following recommendations.
 - Fire should be excluded from Riparian vegetation.
 - In *Blue Gum High Forest* vegetation, the inter-fire period should consistent with those given in the **Bush Fire Environmental Assessment Code for New South Wales** (Rural Fire Service February 2006) and the guidelines contained in the **Threatened Species Hazard Reduction Lists for the Bush Fire Environmental Assessment Code** or equivalent replacements.
 - Only a portion of the total area of the reserve shall be burnt at any time to allow refugia for plants and animals in un-burnt portions and preserve the integrity of the ecological community over time.

Vehicle access

- g) Vehicle access to formed trails for management purposes as approved by DECCW, fire fighting or and any emergency requirements.
- h) The use of trail bikes, four wheel drive vehicles or any other vehicle in the conservation area off any formed road except for necessary maintenance or conservation works by Council or its contractors.

Use of timber

- i) Harvesting of timber is not allowed.

Threatened species

- j) Implementing where reasonable, any measures included in recovery plans for any threatened species or communities which or may be found in the conservation area.
- k) Implementing other specific management advice from DECCW for any threatened species or communities which are or may be found in the conservation area.

Restoration of indigenous vegetation

- l) Restoration of native vegetation using the preferred method of encouraging and retaining natural regeneration.
- m) Revegetation to establish indigenous plants to maintain the vegetation structure in keeping with the identified vegetation community, using species produced from material sourced locally and without fertilisers, where the ability to regenerate naturally within a reasonable time frame has been lost, or to prevent soil erosion.

Revegetation methods can include:

- planting
- brush mulching
- direct seeding.

Seed collection

- n) Collection of seed in keeping with *Guidelines for Collection of Seed, and other Plant Propagation material* (available from DECCW) or other recognised current best practice guidelines, and the following limitations and permissions:
- Licences are required for collection of material of protected plants listed under Section 131 (Schedule 13) of the *National Parks and Wildlife Act 1974* on National Park estates or with the permission of the owner of lands owned or in the care of other public bodies or private persons;
 - Where seed collection involves species listed on Schedule 1 or 2 of the *Threatened Species Conservation Act 1995*, a Section 91 licence or prior written permission from the Director-General should be obtained.

Thinning of indigenous vegetation

- o) Thinning of regenerating indigenous species which are altering the structure of the vegetation and/or reducing conservation values. For example *Pittosporum undulatum* or native vines which are preventing regeneration of canopy or understorey species or are changing species composition to a more mesic community type such as rainforest. Thinning should be planned in consultation with DECCW.

Provision of habitat

- p) Installation of habitat boxes for native fauna in strategic locations where suitable hollows for native fauna are limited or absent. Locations and number to be determined in consultation with DECCW. Nest boxes would be installed only if it is considered necessary for threatened or rare species need breeding / shelter sites or if there is a significant loss of nesting hollows. Nest boxes should be designed or monitored to discourage or remove feral species such as European honey bees and Indian myna birds.

Cultural heritage

- q) Recording and management of any newly identified Aboriginal objects, in consultation with DECCW (and the Aboriginal community where applicable.)

Visitation and research

- r) Visitation, research and community use at a level that does not adversely impact on the conservation values of the area or the amenity of the Owners. Research projects should be discussed with DECCW. Permission and conditions for research projects should be given in writing to recognised or suitably qualified research bodies or persons after formal application to Council. Applicants should obtain any licences or permissions required from State or Federal agencies.

Developments

- s) Carrying out developments as described above of the Agreement, and maintaining developments (including existing fire trails and infrastructure) with the following conditions
- The width of roads and trails a maximum of 4 metres wide roadway with 2 metres width for vegetation clearance on each side. Tracks will not be wider than 1.5 metres.
 - Clear a corridor not greater than 3 metres wide during construction or for maintenance for the installation of fences or other agreed rural structures.
 - Construct access trails /access roads OR in a location, and using recommendations for construction and maintenance to be determined by the Owner in consultation with the DECC.
 - Remove fallen timber and any other obstructions to maintain access.
 - Where clearing is necessary, undertake all works in a manner that minimises disturbance to soil and hydrological characteristics.
 - Remove old fences and close unwanted tracks within the conservation area and facilitate restoration of native vegetation by allowing natural regeneration.

Monitoring

- (s) Annexure B contains dated aerial photographs/maps showing the location of the conservation area, the conservation values and photo-points. Photographs have been taken at these photo-points at the time of entering the agreement. This provides baseline information and data for ongoing monitoring and adaptive management of the conservation area.
- (t) Photographs at the identified photo-points should be taken from time to time in consultation with Department of Environment, Climate Change and Water (DECCW) officers for the purposes of ongoing monitoring of the conservation values.
- (u) The Owner should from time to time, complete a monitoring report, including photo-point photos, noting changes occurring in the conservation area. This will form the basis for decisions about ongoing management actions.

ITEM 2:

The landholders shall not undertake, consent to or permit (unless specified in Item 1 of Annexure C or with prior written consent of the Director-General)

- a) the sowing or planting of trees, grasses or other plants in the conservation area
- b) the introduction of any non-indigenous plants or non-indigenous fauna into the conservation area
- c) the entry of domestic animals including pets and domestic livestock in the conservation area
- d) the use or application of fertiliser or pesticides in the conservation area
- e) the use of trail bikes, four wheel drive vehicles or any other vehicle in the conservation area off any formed road.
- f) any works in the conservation area, especially any revegetation work and developments, which have the potential to impact on any cultural features. (Seek advice from DECC if any are identified, prior to any work commencing)
- g) the removal of any biological or inorganic component of the conservation area
- h) any works which will adversely affect the natural flows and bodies of water.
- i) introduction of leaf mulch or woodchip or soil (phytophthora [dieback fungus], regeneration suppression, weed seed etc).

John McKee
General Manager
Ku-ring-gai Council

Minister

UNSTRUCTURED RECREATION STRATEGY REVIEWED AFTER PUBLIC EXHIBITION

EXECUTIVE SUMMARY

PURPOSE OF REPORT:

To seek Council's adoption of the amended draft Unstructured Recreation Strategy.

BACKGROUND:

Council resolved on 10 August 2010 to place the draft Unstructured Recreation Strategy on public exhibition prior to its final consideration by Council. As noted in the accompanying report, the draft strategy seeks to identify and prioritise management actions for Council in relation to various activities that occur in Council's bushland and other community land.

COMMENTS:

During the public exhibition period, 236 submissions were received (the majority in support of the direction of the strategy). In particular there was strong support from mountain bike users (211 comments) that responds to the growing demand for this sport and their desire to have appropriate facilities within the local area. This included comment from downhill mountain bike riders who wished to have the current facilities off Warrimoo Oval formalised in the strategy and have supporting environmental programs led by Council to ensure their tracks do not cause significant environmental problems.

RECOMMENDATION:

That Council adopt the amended draft Unstructured Recreation Strategy and proceed with the implementation of the actions as part of its capital and operational works programs.

PURPOSE OF REPORT

To seek Council's adoption of the amended draft Unstructured Recreation Strategy.

BACKGROUND

On 10 August 2010 Council considered a report on the draft Unstructured Recreation Strategy (GB 8). This followed the development of a draft strategy which was considered by the Open Space Reference committee on June 29, 2010. Council's resolution on this matter was (Minute Number 234):

- A. That Council place the draft Unstructured Recreation Strategy on public exhibition for a period of 28 days inviting comments, in accordance with the consultation plan as outlined in the report.*
- B. That a revised draft Unstructured Recreational Strategy be brought back to Council for further consideration by October 2010.*

Following this resolution, the draft strategy was exhibited 20 August to 17 September 2010. This was promoted through the local newspapers, Council's E news, e-mails to known user groups, letters to residents surrounding the proposed areas and flyers sent and delivered to cycling and climbing groups.

COMMENTS

Two minor changes were made to the draft strategy in response to the consultation process. These include recognising the existing downhill mountain bike tracks from Warrimoo Oval to the Kitchener to Phillip fire trail (**Attachment 2** page 34) and inclusion of a code of conduct for rock climbing and abseiling in natural areas (**Attachment 2** page 43). A copy of the amended draft strategy is provided in **Attachment 2**.

Detailed Responses

Council received two hundred and thirty four (234) electronic and two (2) written responses within the allocated time frame of twenty eight (28) days of public exhibition (**Attachment 1**). The responses were overwhelmingly supportive of the draft Unstructured Recreation Strategy (refer to **Attachment 2**).

The majority of the responses came in support of the recognition and need for additional mountain bike facilities. In total this represented 211 and covered the following issues:

- The need to provide a cycling facility for families and a demographic of males 25-45 who are largely not catered for due to a lack of cycling facilities available in the northern region.
- That the facilities must be sustainable in design so that there is less impact on natural environment.
- That the mountain biking will bring people to the area (that links to tourism and associated support for local businesses).
- That a properly designated area and facility will promote healthy lifestyle and recreation.

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- That many users were willing to volunteer their time to maintain tracks.
- That the tracks should be signed.

The draft strategy identifies land at the rear of Golden Jubilee as suitable for development of an off road cycling facility and would meet some of the existing demands. A concept for this is included as **Attachment 3** and **Attachment 2** page 35 and this was reviewed by user groups as part of the consultation process on the draft strategy. It is worth noting that one negative response was received in relation to the construction of a single track from Golden Jubilee to Clissold. This will be considered as part of the detailed design of the track that will occur as part of Stage 2 of the proposal (anticipated in 2011/12).

In response to the consultation process and discussions between key staff and users of the facility, the existing downhill mountain bike tracks from Warrimoo Oval have been added to the strategy. In addition the amended strategy also proposes to work with key users of the site to develop responsibilities for management (including maintenance of the track) and safety. Other actions in relation to this site include:

- The need to accurately map all tracks
- Closing unnecessary tracks
- Tracks shall be brought up to the desired safety standards as out lined by International Mountain Biking Association (IMBA)
- Adjustments to some jumps
- Provision of safer routes around jumps to cater for riders of various abilities (a key risk management strategy)
- To support the builders of the tracks as part of Council's environmental volunteering program (as currently occurs with the Turramurra off road cyclists)
- An uphill walking track is to be developed for return journey and spectators
- Signage on safety issues will be erected

Twenty five (25) comments were received in support of rock climbing and bouldering. The comments support the need to incorporate environmental protection within key sites that need to be promoted by signs and also registration of regular users.

CONSULTATION

Details of the consultation process is outlined in the Background section of this report and comments received are discussed in the Comments section and included as **Attachment 1**.

Letters were sent out to residents and key users as listed on pages 35 and 36 of the draft strategy (**Attachment 2**). They included the major environmental groups such as STEP Inc and the Ku-ring-gai Bushcare Association as well as key mountain bike and rock climbing user groups.

Minor changes to the strategy occurred in response to the consultation. The major change was the inclusion in the strategy of the existing mountain bike tracks at Warrimoo Oval and the need to develop a code of conduct for rock climbing.

Council staff are also working with adjacent Councils and land managers (Hornsby, Warringah, Pittwater and Manly Councils, and Garigal and Lane Cove National Parks) to co-ordinate programs and facilities. The outcomes of these meetings reinforce the need for east west and north south off routes to complement existing fire trails and proposed dedicated mountain bike tracks.

In addition to the above, the Department of Environment Climate Change and Water (DECCW) released a discussion paper on mountain biking in National Parks (September 10, 2010). The timing of the community meetings on this document complemented the consultation process for Council's draft Unstructured Recreation Strategy. Preliminary feedback from the DECCW consultation supports the many submissions on Council's draft strategy and the need for specific facilities in the northern region of Sydney.

FINANCIAL CONSIDERATIONS

The implementation of a many of the actions within the draft strategy will influence operational and capital works projects. This would include but not be limited to the following:

- Additional support to the Bushcare and similar community volunteering programs to provide technical support for groups to maintain their sites in accordance with best practice bushland management practices.
- Funding for signage at key sites.
- Construction of new trails. This is already included in the Operational Plan and Delivery Program for 2010/11 for an off road cycling facility at Golden Jubilee Oval. Supporting this external funding is being sought from the Sydney Metropolitan GreenSpace Program and the Department of premier government Community Building Partnerships project (notification of these grants will be February 2011).
- Ongoing maintenance cost to various tracks and trails. This is an existing activity undertaken by Council bushland maintenance team and also supported by the Environmental Levy and external grants.
- Ongoing regulation of illegal activities and complaints.

To provide new and ongoing support, the development of the program of works for Council's potential second special rate variation will also include a funding allocation for recreational trails in bushland (as has been funded in the current Environmental Levy). This would be used to complement future external grants and other external funding sources.

CONSULTATION WITH OTHER COUNCIL DEPARTMENTS

The consultation process included community groups, residents, the Open Space Reference Committee, staff from the following Departments: Strategy & Environment, Community and Operations.

SUMMARY

The draft Unstructured Recreation Strategy aims to address and provide opportunities for Council to manage various recreational activities that occur on community land and particularly within Council's bushland reserves. In doing so it seeks to establish the locations, use and management of various sites and activities such that they can occur sustainably.

In response to the consultation process of the draft strategy only minor changes to the strategy occurred. Notable in this was the strong response from mountain bike users (211 responses) that signifies the strong interest and demand for these facilities. The amended draft strategy has incorporated the existing downhill mountain bike track at Warrimoo Oval. These tracks have been in place for many years and by formally recognising them, Council will be better placed to work

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with users to ensure the tracks are safe and maintained in a way that minimises the impact on the bushland environment.

RECOMMENDATION

- A. That Council adopt the amended draft Unstructured Recreation Strategy as outlined in the report and included as Attachment 2.
- B. That Council notify all individuals, clubs and stakeholders that participated in the consultation process
- C. That Council proceed with the construction of Stage 1 of the mountain bike facility at Golden Jubilee Oval as contained in the adopted Operational Plan and Delivery Program for 2010/14.
- D. That key recommendations from the adopted strategy be incorporated within future staff works plans and considered in draft budgets of Council as appropriate.

Mary Lou Lewis
Environmental Levy Program Leader

Peter Davies
Manager Corporate Planning & Sustainability

Attachments: 1. Responses received in support of Unstructured Recreation Strategy - 2010/157574
2. Unstructured Recreation Strategy - 2010/174609
3. Concept design for Golden Jubilee & Clissold Road Mountain Bike Trails - 2010/095333

Unstructured Recreational Strategy Comments Received through Public Consultation

| Date Received | Comment | Mode | TRIM |
|------------------------|--|---------------------|-------------|
| Changes to text | | | |
| 18/08/2010 | Change the words south Turramurra environmental protection to STEP inc | email | 2010/157573 |
| 18/08/2010 | Include TORC in text of document as a regular user | email | 2010/164306 |
| 30/08/2010 | Include on document consideration of parking | personal discussion | |
| 07/09/2010 | Include enforcement and signage. Expand on interaction with neighbouring Council's. Forward Planning for over use. Educate dog owners and enforce inappropriate activities. | letter | 2010/170555 |
| 16/9/2010 | Page 10 Point 3,4,6 &7 - I believe these should be emphasised and prioritised Page 14-17 add desired outcome of mountain biking see <i>email for details</i> Additional shared use. Community engagement for trail building and maintenance | | 2010/178292 |
| 09/09/2010 | Against plan as there is a flaw in the consultation process. Single track behind his property will cause concern, with noise and possible fire risk | letter | 2010/172691 |

Supports Mountain Bike Activities

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|------------|---|---------------------|-------------|
| 18/08/2010 | Supports mountain bike facilities | email | 2010/163791 |
| 18/08/2010 | Supports mountain bike facilities | email | 2010/163793 |
| 18/08/2010 | Supports mountain bike facilities | Copy of above email | |
| 18/08/2010 | Supports mountain bike facilities | email | 2010/163795 |
| 18/08/2010 | Supports mountain bike facilities | email | 2010/163913 |
| 18/08/2010 | Supports mountain bike facilities | email | 2010/164025 |
| 18/08/2010 | Supports mountain bike facilities | email | 2010/164066 |
| 18/08/2010 | Supports mountain bike facilities | email | 2010/164299 |
| 18/08/2010 | Supports mountain bike facilities | email | 2010/164301 |
| 18/08/2010 | Supports mountain bike facilities | email | 2010/164302 |
| 18/08/2010 | Supports mountain bike facilities | email | 2010/164309 |
| 18/08/2010 | Supports mountain bike facilities | email | 2010/164312 |
| 18/08/2010 | Supports mountain bike facilities | Copy of above email | |
| 18/08/2010 | Supports mountain bike facilities | email | 2010/164313 |
| 18/08/2010 | Supports mountain bike facilities | email | 2010/164365 |
| 18/08/2010 | Supports mountain bike facilities | email | 2010/165276 |
| 18/08/2010 | Support community based activities | email | 2010/165288 |
| 30/08/2010 | Supports mountain bike facilities | email | 2010/157574 |
| 03/09/2010 | Senior environmental scientist supports off road cycling | email | 2010/166542 |
| 03/09/2010 | Supports mountain bike facilities | email | 2010/166547 |
| 03/09/2010 | Supports mountain bike facilities | email | 2010/166591 |
| 03/09/2010 | Supports mountain bike facilities | email | 2010/167548 |
| 03/09/2010 | Supports mountain bike facilities | email | 2010/168317 |
| 07/09/2010 | Supports mountain bike facilities | email | 2010/169200 |
| 07/09/2010 | Supports mountain bike facilities | email | 2010/169253 |
| 07/09/2010 | Support facility has statistics from Hornsby mountain bike | email | 2010/169265 |
| 07/09/2010 | Willing for further consultation (lives outside the area) | email | 2010/169270 |
| 09/09/2010 | Cyclery Northside , happy to assist and distribute information to his customers | email | 2010/173033 |
| 08/09/2010 | Supports mountain bike facilities | email | 2010/172371 |
| 08/09/2010 | Supports mountain bike facilities | email | 2010/172373 |

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|------------|--|---------------------|-------------|
| 08/09/2010 | Browns waterhole cycling supporter | email | 2010/172378 |
| 08/09/2010 | Supports mountain bike facilities | email | 2010/172379 |
| 08/09/2010 | Supports mountain bike facilities | email | 2010/172396 |
| 10/09/2010 | Supports mountain bike facilities | email | 2010/173127 |
| 10/09/2010 | Supports mountain bike facilities | email | 2010/173133 |
| 10/09/2010 | Supports mountain bike facilities | email | 2010/173137 |
| 10/09/2010 | Supports mountain bike facilities | email | 2010/173138 |
| 10/09/2010 | Would travel from far away to ride in the area | email | 2010/173142 |
| 10/09/2010 | Supports mountain bike facilities | email | 2010/173143 |
| 10/09/2010 | Supports mountain bike facilities | email | 2010/173187 |
| 10/09/2010 | Supports mountain bike facilities | email | 2010/173215 |
| 10/09/2010 | Supports mountain bike facilities | email | 2010/173217 |
| 10/09/2010 | Supports mountain bike facilities | email | 2010/173220 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172397 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172408 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172413 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172438 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172448 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172449 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172451 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172457 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172459 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172467 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172470 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172474 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172499 |
| 09/09/2010 | Supports mountain bike facilities | Copy of above email | |
| 09/09/2010 | Supports coexistence of bushland users | email | 2010/172540 |
| 09/09/2010 | Supports mountain bike facilities | Copy of above email | |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172558 |
| 09/09/2010 | UK experience in mountain bike trails | email | 2010/172649 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172736 |
| 09/09/2010 | Fair and equitable levies mentioned | email | 2010/172739 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172742 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172743 |
| 09/09/2010 | 10km cycling or longer | email | 2010/172747 |
| 09/09/2010 | Prefer to recreate within Council area | email | 2010/172749 |
| 09/09/2010 | Compares cycling facility to accessible rugby/ football facilities | email | 2010/172755 |
| 09/09/2010 | Preferred facility to be in West Pymble area | email | 2010/172762 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172773 |
| 09/09/2010 | Support 10km plus single track | email | 2010/172798 |
| 09/09/2010 | Supports x country single track and downhill | email | 2010/172800 |
| 09/09/2010 | Barker parent supports off road cycling on behalf of his son | email | 2010/172803 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172837 |
| 09/09/2010 | Support trail network continue to work with Hornsby | email | 2010/172848 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172849 |
| 09/09/2010 | Support off road cycling same as other sports are supported | email | 2010/172852 |
| 09/09/2010 | Support better outdoor facilities | email | 2010/172853 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172858 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172869 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172887 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172888 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172897 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172904 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172907 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/172920 |
| 09/09/2010 | Support the development of elite mountain bike sportsman | email | 2010/172945 |
| 09/09/2010 | Respectful rider supports x country and downhill cycling | email | 2010/173108 |

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|------------|---|-------|-------------|
| 09/09/2010 | Supports mountain bike facilities | email | 2010/173109 |
| 09/09/2010 | Would come from Gladesville once a week at least to ride | email | 2010/173116 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/173118 |
| 09/09/2010 | Support mountain bike | email | 2010/173120 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/173122 |
| 09/09/2010 | Supports mountain bike facilities | email | 2010/173126 |
| 10/09/2010 | Support mountain bike | email | 2010/173264 |
| 10/09/2010 | Dislikes travelling out of LGA for his favourite recreation activity | email | 2010/173267 |
| 10/09/2010 | 100% support mountain bike | email | 2010/173295 |
| 10/09/2010 | Supports mountain bike facilities | email | 2010/173384 |
| 10/09/2010 | Supports mountain bike facilities | email | 2010/173386 |
| 10/09/2010 | Supports mountain bike facilities | email | 2010/173546 |
| 10/09/2010 | Supports mountain bike facilities | email | 2010/173549 |
| 10/09/2010 | Supports mountain bike facilities | email | 2010/173550 |
| 10/09/2010 | Supports mountain bike facilities | email | 2010/173839 |
| 13/09/2010 | Supports mountain bike facilities | email | 2010/173911 |
| 13/09/2010 | Support of off road cycling | email | 2010/174120 |
| 13/09/2010 | From Cardiff cycling supporter | email | 2010/174126 |
| 13/09/2010 | Supports mountain bike facilities | email | 2010/174127 |
| 13/09/2010 | Supports mountain bike facilities | email | 2010/174130 |
| 13/09/2010 | Supports mountain bike facilities | email | 2010/174131 |
| 13/09/2010 | To provide facilities for future generations of mountain bikers | email | 2010/174134 |
| 13/09/2010 | Supports more recreation in bushland | email | 2010/174139 |
| 13/09/2010 | Supports mountain bike facilities | email | 2010/174150 |
| 13/09/2010 | Supports mountain bike facilities | email | 2010/174154 |
| 13/09/2010 | Supports mountain bike facilities | email | 2010/174155 |
| 13/09/2010 | Supports mountain bike facilities | email | 2010/174156 |
| 13/09/2010 | Keen to develop mountain bike sport for next generation | email | 2010/174332 |
| 13/09/2010 | Support use of trails in Wahroonga area | email | 2010/174338 |
| 13/09/2010 | Supports mountain bike facilities | email | 2010/174344 |
| 13/09/2010 | Supports mountain bike facilities | email | 2010/174352 |
| 13/09/2010 | Supports mountain bike facilities | email | 2010/174429 |
| 13/09/2010 | Supports mountain bike facilities | email | 2010/174431 |
| 13/09/2010 | Supports mountain bike facilities | email | 2010/174646 |
| 13/09/2010 | Supports mountain bike facilities | email | 2010/174657 |
| 13/09/2010 | Supports mountain bike facilities | email | 2010/174776 |
| 13/09/2010 | Supports mountain bike facilities | email | 2010/174964 |
| 13/09/2010 | Supports mountain bike facilities | email | 2010/175149 |
| 13/09/2010 | Supports mountain bike facilities | email | 2010/176135 |
| 13/09/2010 | Local cyclist who supports strategy | email | 2010/176276 |
| 13/09/2010 | Supports Maintenance groups on cycling tracks | email | 2010/176296 |
| 13/09/2010 | Supports mountain bike facilities | email | 2010/177385 |
| 16/9/2010 | Interested in more mountain bike facilities | email | 2010/177516 |
| 16/9/2010 | Supports more mountain bike facilities | email | 2010/177928 |
| 16/9/2010 | Support the proposed recreation strategy | email | 2010/178279 |
| 16/9/2010 | Mountain bike clubs will assist | email | 2010/178294 |
| 16/9/2010 | Supports mountain bike | email | 2010/178296 |
| 16/9/2010 | Supports mountain bike | email | 2010/178297 |
| 16/9/2010 | Supports mountain bike | email | 2010/178299 |
| 16/9/2010 | Supports mountain bike facilities | email | 2010/178643 |
| 16/9/2010 | Mountain bike club representative supports the mountain bike facilities | email | 2010/178660 |
| 20/09/2010 | Mountain bike supporter of new facilities | email | 2010/179708 |
| 21/09/2010 | Support mountain bike facilities | email | 2010/181017 |
| 16/9/2010 | Supports local mountain bike facilities with a fee similar to fishing licence where money goes back into the site | email | 2010/178270 |
| 16/9/2010 | Supports local mountain bike facility | email | 2010/178276 |

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|------------|---|-------|-------------|
| 13/09/2010 | Supports single track to enable safe multi use of trail network. downhill for younger thrill seekers. Well designed and maintained is essential. Happy to discuss | email | 2010/177384 |
| 13/09/2010 | Supports single and downhill tracks | email | 2010/174342 |
| 10/09/2010 | Supports mountain bike single track and downhill | email | 2010/173548 |
| 09/09/2010 | Supports downhill and single track | email | 2010/172766 |
| 09/09/2010 | Cross-country downhill support | email | 2010/172550 |

Specific Downhill Mountain bike riding

| | | | |
|------------|---|-------|-------------|
| 18/08/2010 | Support downhill facility at Warrimoo | email | 2010/164315 |
| 08/09/2010 | Downhill specialist support improved facilities | email | 2010/172394 |
| 10/09/2010 | would like to encourage tourist events like www.corc24hour.com.au | email | 2010/173140 |
| 09/09/2010 | Supports downhill | email | 2010/172768 |
| 09/09/2010 | Supports downhill at Warrimoo and other areas | email | 2010/172909 |
| 13/09/2010 | Support mountain bike Designate Warrimoo as downhill. Seeks world-class facility. Happy to maintain | email | 2010/177383 |
| 16/9/2010 | User and supporter of Warrimoo suggest safer 'B' lines around challenging areas needed. Work with users to enforce a code of conduct. Develop a committee of riders to work with Council for maintenance and safety | email | 2010/177931 |

Money being brought to the area through mountain bike activity

| | | | |
|------------|---|-------|-------------|
| 13/09/2010 | Support cycling infrastructure and economic benefit | email | 2010/175148 |
| 16/9/2010 | Money being brought into the area | email | 2010/178267 |
| 16/9/2010 | BMX 2nd in the state states facilities will promote skill development and a healthy sport and brings money to the community | email | 2010/177762 |

Maintenance, management and funding for mountain bikes

| | | | |
|------------|---|-------|-------------|
| 9/9/10 | Supports environmental management of well designed and well maintained trails. | email | 2010/172276 |
| 10/09/2010 | Support and thanks Council for considering mountain bike facility. Levy not necessary | email | 2010/173908 |
| 13/09/2010 | Supports getting people into the open area where managers can manage activities | email | 2010/174349 |

Demand for mountain bikes

| | | | |
|------------|--|-------|-------------|
| 09/09/2010 | Support desperate need for designated riding area | email | 2010/172850 |
| 13/09/2010 | Encourage responsible use of trails. More are required across Sydney basin | email | 2010/174000 |
| 09/09/2010 | Not many mountain bike facilities in the area | email | 2010/172933 |
| 10/09/2010 | More cycling facilities required | email | 2010/173552 |
| 15/9/2010 | Limited areas to ride in Sydney. More mountain bike facilities are needed | email | 2010/177391 |
| 10/09/2010 | Like to encourage women in mountain bike sport | email | |
| 13/09/2010 | Mt Colah resident thinks Council has responsibility to supply facility to growing need for the protection of the environment | email | 2010/174350 |
| 16/9/2010 | Supports mountain bike facilities to assist in management of growth of sport | email | 2010/178656 |
| 18/09/2010 | Serious action required to cater for growing cycling demand | email | 2010/179439 |

Family activity with mountain bikes

| | | | |
|------------|---|-------|-------------|
| 10/09/2010 | Supports cycling facilities for his children | email | 2010/173146 |
| 09/09/2010 | Safe family recreation | email | 2010/173112 |
| 13/09/2010 | Support single track use for his whole family | email | 2010/174341 |
| 09/09/2010 | Family all support mountain bike trails | email | 2010/172556 |
| 09/09/2010 | Safe family recreation | email | 2010/172763 |
| 09/09/2010 | Family ,safe and car free recreation | email | 2010/172765 |
| 09/09/2010 | Gladly support cycling as a family activity to pump money into the area | email | 2010/172923 |
| 13/09/2010 | Local resident supports cycling for the family | email | 2010/175150 |

| Environmental protection for mountain bike riding | | | |
|--|---|-------|-------------|
| 9/910 | Sustainable design for environmental protection also allow rider interest and skill development to occur through opportunities for design changes of trails | email | 2010/172266 |
| 09/09/2010 | Supports sustainable design | email | 2010/172552 |
| 13/09/2010 | Experience in sustainable mountain bike design for protection of environment | email | 2010/173999 |
| 09/09/2010 | Avid riders who respect the community and the environment | email | 2010/173102 |
| 10/09/2010 | Well managed and designated trails to protect the environment | email | 2010/173247 |
| Demographic supports mountain bike riding | | | |
| 13/09/2010 | Support activities in the natural environment for ages 7-50, Off-road cycling | email | 2010/174123 |
| 13/09/2010 | 40+ age group congratulates Council for supplying to the demand | email | 2010/174132 |
| Volunteer interested in mountain bike trails | | | |
| 10/09/2010 | Keen to assist in development and maintenance | email | 2010/173128 |
| 09/09/2010 | Support cycling and volunteer for maintenance and construction | email | 2010/172856 |
| 16/9/2010 | Support mountain bike and volunteers his labour | email | 2010/178653 |
| 13/09/2010 | Happy to support maintenance and community involvement re mountain bike | email | 2010/177387 |
| 13/09/2010 | Supports mountain bike standards to be met at Warrimoo. Willing volunteer | email | 2010/177389 |
| 15/9/2010 | Willing volunteer for mountain bike | email | 2010/177390 |
| 16/9/2010 | Willing volunteer for mountain bike. A healthy activities | email | 2010/177521 |
| 16/9/2010 | Support Mountain bike facilities at a low cost and maintained by volunteers a positive contribution to the community | email | 2010/178278 |
| 16/9/2010 | Willing to work with Council on education and bring tracks to mountain bike standards | email | 2010/178268 |
| 16/9/2010 | Supports Warrimoo and willing volunteer | email | 2010/178275 |
| Healthy living when mountain bike riding | | | |
| 08/09/2010 | Healthy fun | email | 2010/172380 |
| 08/09/2010 | Single track suitable as a tourist attraction while embodying appreciation of the natural environment | email | 2010/172383 |
| 09/09/2010 | Cycling for sustainability, a healthy, fit lifestyle, appreciation of our natural environment | email | 2010/172863 |
| 09/09/2010 | Mountain bike riding has social and health benefits | email | 2010/172553 |
| 09/09/2010 | Enjoy health benefits and nature at it's fullest | email | 2010/172741 |
| 10/09/2010 | Healthy living through fitness and outdoor recreation | email | 2010/173551 |
| 16/9/2010 | Importance of connecting with the land | email | 2010/178269 |
| 21/09/2010 | Mountain biking is a form of relaxation. Encourage and support new facilities | email | 2010/180708 |
| 13/09/2010 | Supports healthy and international off-road cycling as a sport | email | 2010/176560 |
| 13/09/2010 | Appreciates management of natural environment for our enjoyment | email | 2010/177216 |
| Rock climbing | | | |
| 10/09/2010 | Reduce vandalism and encourage environmental protection through rock climbing | email | 2010/173150 |
| 09/09/2010 | Supports recognition and management of rock climbing | email | 2010/172836 |
| 16/9/2010 | Supporter of cycling and rock climbing. Build to mountain bike standards volunteer | email | 2010/178277 |
| 09/09/2010 | Supports a level headed strategy re rock climbing | email | 2010/173104 |
| 18/08/2010 | Lindfield Rocks supporter | email | 2010/164566 |
| 9/910 | Wyong shire Council. Many changes recommended to climbing code of conduct | email | 2010/173025 |

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|--------------|---|-------|-------------|
| 13/09/2010 | Vice President (responsible for Access & Environment matters) Sydney Rock climbing Club Inc Keen to work with Council the corporation. Supports forward thinking of designated areas | email | 2010/175758 |
| 13/09/2010 | Dr Biology and Earth Science supports Rock climbing | email | 2010/176277 |
| 13/09/2010 | Tempe resident supports rec strategy for rock climbing and appreciates being contacted | email | 2010/174136 |
| 16/9/2010 | Recognition of rock climbing is essential for preservation of the environment | email | 2010/177720 |
| 16/9/2010 | Applaud Council's approach to rock climbing | email | 2010/178274 |
| 16/9/2010 | Supports rock climbing | email | 2010/178650 |
| 17/09/2010 | Penrith resident supports rock climbing | email | 2010/179360 |
| 13/09/2010 | Rock climber support of recognition of sport, unleashed dogs a problem | email | 2010/177386 |
| 10/09/2010 | Supports rock climbing | email | 2010/173555 |
| 13/09/2010 | Rock climbing | email | 2010/174129 |
| 13/09/2010 | Climbing 416 group. Sensible categorisation of rock climbing areas | email | 2010/177382 |
| 16/9/2010 | How to cater for climbers and bouldering users discover new and more challenging areas | email | 2010/177934 |
| 09/09/2010 | Support rock climbing | email | 2010/172859 |
| 09/09/2010 | Free labour should be utilised to keep rock climbing sites clean | email | 2010/172838 |
| 09/09/2010 | No regulations for climbing sites but support recognition of activity | email | 2010/172851 |
| 13/09/2010 | Willing to work together on rock climbing to improve the sport and protect the site | email | 2010/174153 |
| Other | | | |
| 13/09/2010 | Operations coordinator for Oxfam, supports strategy | email | 2010/176275 |
| 16/9/2010 | Bouldering enthusiast | email | 2010/177933 |

Amended Unstructured Recreational Strategy for the Ku-ring-gai community land

November 2010



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Definitions

| | |
|--|---|
| <i>Fire trails:</i> | primarily designed for access purposes by fire fighting and maintenance vehicles are subject to a rotating maintenance program. |
| <i>Maintained walking tracks:</i> | designed for bushland access on foot. These tracks have a rotating maintenance program undertaken by Ku-ring-gai Council. |
| <i>Informal walking tracks:</i> | which have developed through public use and have not been designed or constructed by Council staff. Usually referred to as desire lines. These tracks are not maintained and Council or other Government agencies may authorise their closure if proven not to be in a suitable place; there is a need to rehabilitate; presence of threatened species; active erosion occurs or due to retirement of a public asset. |
| <i>Designated escarpment:</i> | a rock outcrop specifically identified by Council where recreational activities such as rock climbing and abseiling are permitted and managed to ensure minimal impact on the surrounding environment. |
| <i>Single track:</i> | a mountain biking term used to describe a narrow trail that is only wide enough to be ridden in single file. Single track is regarded as the most popular or sought after type of mountain bike trail. |
| <i>Downhill:</i> | a mountain biking term referring to a course or style of riding characterised by steep descents and technical terrain which is usually negotiated at considerable speed. |
| <i>Shared Track :</i> | an access track that provides for more than one type of use, which includes vehicles, pedestrians, dog walkers, joggers and cyclists. Sometimes referred to as multi-use track. |

Background

Unstructured recreation is defined as those activities undertaken for leisure, often outside of an organised club or school structure and usually practised on a non-competitive basis.

The Unstructured Recreational Strategy applies to land either owned or managed by Council and dedicated and classified as community land under the Local Government Act 1993. Whilst the strategy focuses on land classified as bushland, a small number of activities have been identified as occurring within other community land classifications.

The strategy was developed to meet the following aims and to:

- address current and future unstructured recreational activities undertaken within community land, particularly within the Ku-ring-gai Bushland Reserve System;
- facilitate planning by addressing key infrastructure within the council area, which is not addressed by the Open Space Strategy;
- provide clear restrictions, permissible uses and guidelines for these activities, including the responsibilities of different user groups when utilising shared or multiple use facilities;
- provide guidance to bushland management and booking processes for relevant activities.

The strategy seeks to respond to predicted increases of recreational activity in bushland areas and to encompass selected activities including:

- bushwalking;
- dog walking;
- rock climbing, bouldering and abseiling;
- mountain biking and BMX riding;
- orienteering, rogaining;
- bird watching;
- running, jogging;
- horse riding;
- Scouts, Girl Guides;
- picnics, barbeques;
- disabled accessible recreation; and
- bush regeneration and bushcare activities.

Whilst not addressed in detail, the strategy is also applicable to other recreational activities that may be undertaken within Council's Bushland areas.

This document has been developed to supplement the Recreation in Natural Areas Policy (2001), and complements People, Parks and Bushland, Open Space Strategy for Ku-ring-gai (2005) and Ku-ring-gai Bushland Reserves Plan of Management (2009).

Council's Role

- To provide a range of facilities amenable to the pursuit of a variety of bushland recreational activities in a safe and environmentally sensitive manner.
- To provide facilities distributed throughout the Local Government Area to afford optimal amenity to residents.
- To develop facilities such as walking tracks and cycle networks in an integrated manner with neighbouring jurisdictions.

Introduction¹

Effective promotion of outdoor recreational activities benefits both individuals and the wider community by improving physical and mental health (with associated economic benefits), facilitating social networks, providing cultural development and bringing people closer to their natural environment.

The effective promotion of unstructured recreational pursuits in a natural environment assists children and adults in developing an appreciation, an understanding and a valuing of the environment. The early acquisition of such formative values increases the likelihood of such values being sustained through adulthood and throughout life. Active recreation has been proven to contribute substantially to an individual's quality of life and their ability to engage with the community within group activities.

The Ku-ring-gai bushland provides an ideal venue for local schools to develop their outdoor education programs in a stimulating and challenging environment. There is scope for the incorporation of sporting activities as orienteering, rock climbing or mountain biking, as well as offering a venue for practical classes in subjects such as Biology or Earth and Environmental Science.

Ku-ring-gai's Natural Areas²

Ku-ring-gai local government area has a generous supply of environmentally significant open space. Specifically, it comprises nearly 4 000 hectares of bushland, with 2 800 hectares within the three national parks and one nature reserve managed by the Department of Environment, Climate Change and Water, and 1 100 hectares in 120 Council managed reserves, including the Ku-ring-gai Wildflower Garden.

The largest bushland reserves under Council management are contiguous with either Ku-ring-gai Chase, Lane Cove or Garigal National Park, while some reserves share boundaries with bushland areas managed by neighbouring councils eg. Hornsby on the northern and western boundaries and Warringah to the east.

Not only does this afford many recreational users, bushwalkers and mountain bikers a greater degree of amenity, it also attracts users from beyond the Ku-ring-gai residential area. Residents and visitors can readily experience a range of animal habitats, non-invasively, for nature-based recreation activities within the Ku-ring-gai local government area.

This expansive continuity of bushland in northern Sydney also requires management and planning of recreational facilities be approached with some degree of integration between stakeholders.

Collectively, the bushland reserves in the local government area incorporate a diversity of natural areas, including forests and woodlands, creek lines, rivers and estuarine wetlands. The local vegetation includes five Critically Endangered or Endangered Ecological Communities; Blue Gum High Forest, Sydney Turpentine-Ironbark Forest, Duffys Forest, Estuarine Fringe Forest - Swamp Oak Floodplain Forest and Estuarine Salt Marsh, which are listed under the NSW Threatened Species Conservation Act 1995 and/or the Commonwealth Environmental Protection and Biodiversity Conservation Act 1999.

With the majority of Ku-ring-gai's bushland reserves distributed along steep, sandstone gullies, vulnerable to erosion, the impacts of recreational use and the associated development of recreational facilities must be satisfactorily assessed, addressed, planned for and managed.

Ku-ring-gai's population³

¹ Government of Western Australian Department of Sport and Recreation 2009. *Benefits of Physical Activity*.

University of Essex 2009. *Nature, Childhood, Health and Life Pathways*.

<http://www.essex.ac.uk/ces/occasionalpapers/Nature%20Childhood%20and%20Health%20iCES%20Occ%20Paper%202009-2%20FINAL.pdf>

² Ku-ring-gai Council 2005. *People, Parks and Bushland, Open Space Strategy for Ku-ring-gai*.

Ku-ring-gai's population in 2009 was 111 400, representing a rise of 2.57% on the previous year. The population is projected to increase significantly with the anticipated construction of nearly 10 000 new medium to high density dwellings by 2031 in St Ives, and along the "rail corridor" suburbs from Wahroonga to Roseville.

Sustained population growth both within Ku-ring-gai's municipal boundaries and in neighbouring municipal areas will ensure an ongoing demand for access to Ku-ring-gai's bushland areas for recreational pursuits.

A greater supply of high density dwellings is expected to attract couple families without children and lone occupants, groups who may be afforded the opportunity of more recreational time.

During the last census period, 2001 to 2006, Ku-ring-gai's population has experienced a significant growth in numbers of residents aged over 60 years with this trend projected to continue into the future, more recent participation rates in older demographic groups suggests that older people are remaining physically active. This is often reflected in the memberships of local bushwalking clubs which often comprise of significant proportions of retired individuals.

Despite a general aging of Ku-ring-gai's population, the typical Ku-ring-gai household is expected to remain a family with children, similarly a demographic group to which bushland recreation would hold high appeal.

Additionally, with substantial expansion of medium to high density residential development within the Ku-ring-gai Local Government Area and a tendency for new single dwelling housing to occupy a larger "footprint" on the residential block, bushland and parkland will more frequently become the "backyard" to a greater number of residents.

³ Hornsby Shire Council 2010. *Unstructured Recreation Strategy Volume 1*.

Ku-ring-gai Council 2008. *Ku-ring-gai Development and Demographic Forecasts*.

Ku-ring-gai Council 2009. *Ku-ring-gai Metropolitan Development Program*.

Standing Committee on Recreation and Sport 2005. *Participation in Exercise, Recreation and Sport – Annual Report*.

Planning Principles

Facilities should be designed to:

- ensure the development and management is conducted in accordance with sustainable principles;
- encourage a positive experience with the natural environment;
- minimise impacts on the environment and avoid impact on sensitive environments;
- ensure that the risk of using the facility is managed and minimised;
- link to other trails where possible to expand recreational opportunities;
- provide access to popular destinations;
- provide for a range of recreational opportunities;
- give people opportunity to experience a natural environment;
- meet and manage the recreational demand for trails, within the land use and environmental constraints;
- avoid conflict between user groups;
- consider ongoing maintenance costs;
- provide opportunities for skill development; and
- promote and encourage appropriate user behaviour.

Council Plans and Strategies

- Ku-ring-gai Bushland Reserves Plan of Management 2009 (and associated Operational Plan)
- People, Parks and Bushland: Open Space Strategy for Ku-ring-gai 2005
- Council's Policy for the Management of Community and Recreation Land and Facilities 2010
- Recreation in Natural Areas Policy 2001
- Recreational Trail Guidelines 2005
- Integrated Transport Strategy 2010 (Draft)
- Draft Ku-ring-gai Contributions Plan 2009 (Exhibition Draft - This is the version exhibited from 161209-010210)
- Biodiversity Strategy 2006
- Fire Strategy 2009

Activities Undertaken in Bushland Reserves

Guidelines and Restrictions

For general guidelines and restrictions for all activities refer to:

General Code of Conduct – Recreational Activities in Natural Areas (Draft) (Ku-ring-gai Council 2010).

Bush Walking

Current Usage

Ku-ring-gai bushland reserves offer a wealth of opportunities for active and passive recreation, focused around the use and access provided by various trails. There are currently approximately 48.5 km of fire or service trails and 61.8 km of formal constructed walking trails in bushland areas, as part of 25 planned routes. In addition, there are many hundreds of kilometres of informal routes linking established trails in bushland.

The following series of maps of all Ku-ring-gai's walking tracks and trails has been developed by STEP Inc. (South Turramurra Environmental Protection group) and is available from Ku-ring-gai Council or www.step.org.au/maps.htm.

Walking Tracks of Middle Harbour Valley & Northern Sydney Harbour Foreshore, Sheets 1 & 2, Bungaroo and Roseville Bridge;
Walking Tracks of Middle Harbour Valley & Northern Sydney Harbour Foreshore, Sheets 3 & 4, Northbridge and North Harbour;
Walking Tracks of Lane Cove Valley.
STEP inc

Council currently maintains and signposts formal walking tracks referred to in this document as maintained tracks and fire trails only.

Major walking trails include:

- The STEP Track in South Turramurra.
- Mueller Track and others within the Ku-ring-gai Wildflower Garden.
- Sheldon Forest track in Pymble.
- Two Creeks track in Middle Harbour.
- Sections of the Great North Walk (Sydney to Newcastle).
- Sections of the Harbour to Hawkesbury Walk (Manly to Berowra).

Established annual community events include the Great NOSH Footrace in June, Jabulani Challenge in July and Oxfam Trailwalker in August. These events attract large and significant numbers of walkers. Participants are restricted to a designated course over an established time frame on specific key dates.

Council provides the opportunity for the public to participate in scheduled walks through its Walks and Talks program, as well as activities at the Ku-ring-gai Wildflower Garden.

The Local Environmental Conservation group STEP, Sydney Bushwalkers, Warringah Bushwalking Club, Ku-ring-gai Bushwalking Activity and Social Group, Sydney Bushwalks, Newington Leisure Walkers (affiliated with Dept of Sport and Recreation), the Wanderers Bushwalking Group, the National Parks Association of NSW and various Scout, Cub and Girl Guide groups also undertake bushwalks in the Ku-ring-gai Local Government Area.

Prescribed Actions for Facilitation of Bush Walking Activities

| Action | Services and Projects | Proposed Time Frame | Department | Responsible Officer |
|---|---|---------------------|--------------------------|---|
| 1) Field validation/ review Council GIS mapping to increase accuracy. to maintained and informal tracks and trails | GIS Mapping Update | Not planned | Strategy and Environment | Environmental Levy Program Leader |
| | | | | Environment Officer |
| | | | Operations | Bushland Maintenance Supervisor |
| | | | Communications | Manager Communications |
| | | | Public | Club representatives |
| 2) Provision of new walking tracks as identified Fire trail and walking track 10 year plan (including tracks listed in Appendix 1) | Track construction | Not planned | Operations | Bushland Maintenance Supervisor |
| | | | Strategy and Environment | Manager Corporate Planning & Sustainability |
| 3) Development of an integrated fire trail/walking track network, including: 4) Categorise walking tracks - identifying gaps in established network - assessment of selected informal walking tracks to gauge current use and suitability to upgrade to a formal walking tracks - linking trails and tracks both within and external to Council boundaries - provide trail circuits as satellites off main long distance trails - providing optimal functionality for to all user groups. | Fire trail and walking track 10 year plan | 2010 /11 | Strategy and Environment | Team Leader Natural Areas |
| | | | | Environmental Levy Program Leader |
| | | | Operations | Bushland Maintenance Supervisor |
| 5) Development and distribution of Ku-ring-gai Walking Track maps. (both Maintained and informal tracks) Maps to include interpretive material, e.g. information on and illustrations/photos of flora, fauna, cultural heritage, urban parks with designated dog "off-leash" facilities etc. Another map for class 3 not maintained | - Maps - Signs - GIS Mapping Update | Not planned. | Strategy and Environment | Environmental Levy Program Leader |
| | | | | Environment Officer |
| | | | Operations | Bushland Maintenance Supervisor |
| | | | Communications | Manager Communications |
| | | | Public | Club representatives |
| | | | | |
| 6) Provision of improved orientation signage on shared trails and tracks, particularly at trail junctions and trailheads. | Signs | Not Planned | Operations | Bushland Maintenance Supervisor |
| | | | Strategy and Environment | Environmental Levy Program Leader |
| Promote awareness of obligations under Code of Conduct. Through booked activities and user group engagement. | - Promotion - booked activities | 2010/ongoing | Strategy and Environment | Sports & Recreation Planner |
| | | | | Environment Officer |

| | | | | |
|--|--|--|-----------|------------------|
| | | | Community | Property Manager |
|--|--|--|-----------|------------------|

Guidelines and Restrictions

Refer to: Code of Conduct - Bushwalking in Natural Areas (Draft) (Ku-ring-gai Council 2010).

References:

Ku-ring-gai Council 2005. *People, Parks and Bushland, Open Space Strategy for Ku-ring-gai*.

Ku-ring-gai Council 2009. *Ku-ring-gai Bushland Reserves Plan of Management*.

Dog Walking

Current Usage

Ku-ring-gai Council has experienced a consistent rise in the number of dog registrations in recent years, with approximately 11,600 in 2006/7 to over 16,000 in 2008/9.

Ku-ring-gai's bushland provides several attractive locations for residents to exercise their dogs, with fire trails and maintained walking tracks all used to varying extents.

Popular dog walking trails include the Grosvenor Road to Gwydir Avenue fire trails and the Upper Lane Cove River Valley fire trails accessed via the Canoon Road and Kissing Point Road trailheads and from Pennant Hills Park.

Nature reserves and wild life refuges, plus informal walking tracks are not permitted for dog walking of any kind. These include the Wild Flower Garden in St Ives, Browns Forest in St Ives and The Flying Fox Reserve on Gordon

Dogs are regularly walked both "on-leash" and "off-leash" on these and other trails, often contrary to Council requirements. A proportion of dog owners are likely to continue to exhibit a lack of compliance with regard to dogs being required to be "on-leash" in bushland areas, perceiving the practice to be both behaviourally and socially enriching for their dogs and the environment to be safe and traffic-free. Unauthorised off-leash walking of dogs has both adverse social (eg. impairing safety of, or enjoyment by, other trail users) and environmental impacts (eg. harassment or displacement of wildlife, impacts of faecal phosphate loads on native vegetation).

Recommendations for Continued Use

Development of an integrated trail network with convenient access points available from residential areas to fire trails. This may require assessment of some informal walking tracks to gauge current use and suitability to upgrade to a formal walking track.

Prescribed Actions for Facilitation of Dog Walking Activities

For the development of an integrated trail network, *see table overleaf ...*

| Action | Services and Projects | Proposed Time Frame | Department | Responsible Officer |
|---|--|---------------------|----------------------------|------------------------------------|
| 7) Installation and enforcement of regulatory signage at key track and trail heads indicating: - Dog owner obligations regarding necessity to keep dog on-leash, appropriate collection and disposal of dog faeces. - Penalties for non-compliance. - Education regarding necessity of compliance to dog rules (e.g. potential conflict with other trail users, impacts on wildlife, impact of phosphates on native vegetation, etc.) | Sign creation | 2010 ongoing | Strategy and Environment | Sports & Recreation Planner |
| | | | | Environmental Levy Program Leader |
| | Sign instillation | | Operations | Bushland Maintenance Supervisor |
| | Signs enforcement | | Development and Regulation | Building Trades Coordinator |
| Development and distribution of Ku-ring-gai Walking Track and Fire Trail maps (as outlined within Action 2) (to public and staff) showing urban parks with designated DOG "off-leash" facilities. | Maps | Not Planned | Strategy and Environment | Environment Officer |
| | | | | Sports & Recreation Planner |
| 8) Education and awareness campaigns focusing on " <i>Picking up after your Pet</i> ". | - Displays, - Signs, - Dog Day Out, - Banners | Ongoing | Strategy and Environment | Environment Officer |
| | | | Development and Regulation | Manager - Regulations & Compliance |
| | | | Communications | Manager Communications |
| Promote awareness of obligations under Code of Conduct. Through booked activities and user group engagement. | - Promotion, - Lease and licensing, booked activities | Ongoing | Strategy and Environment | Sports & Recreation Planner |
| | | | | Environment Officer |
| | | | Community | Property Manager |

Guidelines and Restrictions

Dogs are prohibited in the Council's Wildlife Protection Areas and Conservation Areas including Ku-ring-gai Flying-fox Reserve and Brown's Forest as well as the Ku-ring-gai Wildflower Garden.

Walking of dogs on-leash is permitted on formal walking tracks and fire trails.

Dogs must be kept under effective control by means of a leash, chain or similar.

Dog owners are responsible for the prompt removal and appropriate disposal of their dog's faeces deposited in public areas.

Owners are required to carry a plastic bag with them at all times, even if they have already cleaned up and disposed of dog's faeces.

Guidelines in place for bushwalking activities as outlined in Code of Conduct - Bushwalking in Natural Areas (Draft) (Ku-ring-gai Council 2010) are applicable.

Reference:

Companion Animals Act, 1998

Rock Climbing, Bouldering and Abseiling

Current Usage

Cliff Oval, Wahroonga and Lindfield Rocks (Soldiers Memorial Park), East Lindfield provide the principle sites utilised for rock climbing, bouldering and abseiling within the Ku-ring-gai local government area. These areas have been specifically categorised as Designated Escarpments for these activities.

Maps of the Cliff Oval and Lindfield Rocks climbing sites are contained in Appendix 1.

Less frequently used climbing sites include Darnley Oval at East Gordon, the disused quarry (Stone Mason's Forest) located just off Kalang Avenue in Killara, Blackbutt Creek behind Allen Park, West Lindfield and Seven Little Australians Park at Lindfield. Bolting activities have been undertaken at some of these sites.

With neighbouring jurisdictions either prohibiting adventure recreation activities (Ku-ring-gai Chase, Lane Cove and Garigal National Parks) or providing limited suitable sites (eg. Willoughby Council) for rock climbing, bouldering or abseiling, the designated sites within the Ku-ring-gai Local Government Area provide a valued public amenity for outdoor recreation.

The currently undesignated Ku-ring-gai sites have long been used by participants in these activities and, given their suitability and popularity, are likely to continue to attract usage well into the future.

Climbing and abseiling activities at Cliff Oval and Lindfield Rocks are currently pursued by clubs, schools and commercial groups. A significant proportion of those undertaking recreational climbing, bouldering or abseiling activities at these sites are private individuals and, as such, are not aligned with any commercial group.

Prescribed Actions for Facilitation of Rock Climbing, Bouldering and Abseiling Activities

| Action | Services and Projects | Proposed Time Frame | Department | Responsible Officer |
|--|--------------------------------------|---------------------|--------------------------|--|
| 9) Designation of "Designated Escarpments" (these are approved rock climbing / bouldering /abseiling sites: - Cliff Oval - Lindfield rocks | Outdoor recreation | 2010 | Strategy and Environment | Team Leader Natural Areas |
| | | | | Environmental Levy Program Leader |
| | | | Operations | Bushland Maintenance Supervisor |
| 10) Engage user groups to undertake appropriate booking arrangements and promote awareness of obligations under Code of Conduct. | - Promotion - booked activities | 2010/ ongoing | Community | Property Manager |
| | | | Strategy and Environment | Environmental Levy Program Leader |
| | | | | Consultation Co-ordinator |
| 11) Identification and assessment of non-designated climbing area to gauge suitability for future classification as Designated Escarpments. | Audit of climbing sites 10 year plan | 2011/2012 | Strategy and Environment | Sports & Recreation Planner |
| | | | | Team Leader Natural Areas and Operations and community |
| 12) Create and install interpretive signs for appropriate use of site including code of conducts created for rock climbing rogaining and boldering | | | Strategy and Environment | Environmental Levy Program Leader |
| | | | Operations | Bushland Maintenance Supervisor |

| | | | | |
|--|----------------------------------|-------------|---|-----------------------------------|
| 13] Promotion and enforcement of safe and environmentally sensitive use of climbing activities at Designated Escarpments, through production of user friendly pamphlets from Code of Conduct, sent to: - Local schools as part of Outdoor Recreation programs - university and other climbing groups / clubs - Scout and Guide groups - Climbing community through local outdoor stores and climbing gyms. | Community Consultation Promotion | Not planned | Strategy and Environment Add enforcement Add bookings | Consultation Coordinator remove |
| | | | | Sports & Recreation Planner |
| | | | | Environmental Levy Program Leader |
| | | 2012 | Community | Manager Communications |

Guidelines and Restrictions

Refer to *Code of Conduct - Rock Climbing & Abseiling in Natural Areas (Draft) (Ku-ring-gai Council 2010)*.

References:

Ku-ring-gai Council, 2008. *Risk Assessment of Climbing Activities at Cliff Oval*

NSW Department of Environment and Climate Change website

<http://www.environment.nsw.gov.au/parks/RegionSydney.htm>

Sun, Surf and Sandstone A Rockclimber's Guide to Sydney website

http://www.sydneyclimbing.com/index_frames.html

Mountain Biking /BMX

Current Usage

The most recent Australian Government figures show that in 2008 over half a million of NSW adults (20% more than the previous year), rode a bike for recreation, exercise or sport.

In 2009, Australians bought over 1 150 000 new bikes, compared with 937 000 cars, representing the tenth consecutive year in which bike sales have outnumbered those of cars. Of those bicycle sales, mountain bikes represent approximately 40% of the market, BMX bikes around 10% and hybrid bikes (suitable for off-road use) a further 25%.

Mountain Bike Australia's membership has expanded considerably in recent years, particularly in NSW which now accounts for the largest of registered members, (Mountain Bike Australia 2008).

Popular mountain biking trails within the local government area include the Grosvenor Road to Gwydir Avenue fire trails and the Upper Lane Cove River Valley fire trails accessed via the Canoon Road and Kissing Point Road trailheads and from Pennant Hills Park.

Currently there is extensive use of mountain bike tracks, informally constructed behind Warrimoo Oval at St Ives.

Informal bike tracks and illegally constructed jumps cause damage and erosion to bushland reserves and conflict with passive recreational use. Located mostly along urban edges and on fire trails, Council has identified specific periods of activity eg. often constructed during school holidays, with Council actively working toward the remediation of impacts caused by such activities. A balance must be found between protecting the bushland and providing a "positive" experience of bushland for people from a variety demographics, interest groups and backgrounds, and in particular the needs of youth.

Two single track loops are operating under a trial program at Grosvenor Street, Wahroonga and Mc Rae Place Turramurra. These two sites were identified in an audit undertaken by the TORC (Turramurra Off Road Cycling) community user group to determine suitable loop areas utilising existing informal tracks.

Ongoing consultation with representatives as outlined in the Bushland Reserves Plan of Management, 2009.

There is planned a proposed expansion of mountain bike facility at Golden Jubilee Oval, Wahroonga and other sites. Construction will be subject to funding.

Maps of current and proposed mountain bike trails are contained in Appendix 1:

- Golden Jubilee and Clissold Rd Mountain Biking Areas.
- Grosvenor Street Mountain Bike Trail.
- McRae Place Mountain Biking Trail.

Recommendations for Continued Use

A nominal levy or contribution could be placed on regular users or bike shop sales of new bikes to facilitate production and distribution of a northern suburbs regional mountain bike map, ie. customer receives map with purchase of new bike.

Under the state government's BikePlan initiative, dollar-for-dollar funding is available for local councils to develop cycle networks (with a provision that networks connect across council boundaries) and to improve signage for existing facilities. Presently this is focused on road and commuter cycling

The currently well used informal Warrimoo track will be reviewed as to appropriateness of construction, according to MTBA standards with a view to remediation to bring it up to an acceptable standard. Continued communication will be sought between Council staff and main users and user groups. This site has been an active downhill off-road cycling area for up to ten years with a history of Council staff having to remove jumps and man made devices. After consultation, recommendations have been made to bring the facility to a MTBA standards. The Warrimoo Trail will undergo these recommendations to be a designated down hill facility.

A detailed review of the *Ku-ring-gai Bicycle Plan 1995* is to be undertaken as per recommendations of the *Ku-ring-gai Council Integrated Transport Strategy Consultant brief 2009*.

Prescribed Actions for Facilitation of Mountain Biking Activities

Development of an integrated trail network as detailed in aforementioned *Prescribed Actions for Facilitation of Bush Walking Activities*.

| Action | Services and Projects | Proposed Time Frame | Department | Responsible Officer |
|---|---------------------------------|---------------------|--------------------------|-----------------------------------|
| 14) Create viable integrated networks for mountain biking activities by: - identifying gaps in current mountain biking trail network - investigating further designation of trails to connect existing designated trails in both Ku-ring-gai and neighbouring jurisdictions - investigate and designate if suitable an off-road down hill site - connecting designated mountain biking trails and facilities with established and proposed on-road/urban cycleways to establish safe access from train stations, town centres and other local government areas. | Mountain biking 10 year plan | 2010 | Strategy and Environment | Strategic Traffic Engineer |
| | | | Operations | Environmental Levy Program Leader |
| 15) Formal designation and associated development of mountain bike facilities including: - Golden Jubilee and Clissold Rd Mountain Biking Areas review single track - recall previous Grosvenor Street Mountain Bike Trail - McRae Place Mountain Biking Trail | Outdoor recreation | 2010 | Strategy and Environment | Bushland Maintenance Supervisor |
| | | | Operations | Environmental Levy Program Leader |

| | | | | |
|---|-----------------------------|--------------|----------------------------|------------------------------------|
| 16) Establish ongoing user maintenance of mountain bike facilities (eg. through the Community volunteer program to include a "Bikecare" program) | Maintenance | 2010 | Strategy and Environment | Environmental Levy Program Leader |
| | | | | Consultation Coordinator |
| | | | Operations | Bushland Maintenance Supervisor |
| 17) Provision of regulatory and interpretive signage at trailheads/mountain biking facilities including: - user obligations under <i>Code of Conduct</i> - information regarding, and contact details for, user maintenance program - map of cycling trails - absolution of Council liability The siting of such signage adjacent to gate/entry point that requires cyclists to dismount and/or adjacent to a tap would significantly increase the likelihood of cyclists stopping to read to signage. | Signage | 2010 | Strategy and Environment | Team Leader Natural Areas |
| | | | | Environmental Levy Program Leader |
| | | | Purchasing and Risks | Bill Bright |
| | | | Communications | Manager Communications |
| | | | Development and Regulation | Manager - Regulations & Compliance |
| | | | Operations | Bushland Maintenance Supervisor |
| 18) Provision of route and directional signage on established mountain bike routes, particularly at trail junctions. | signage | Not planned | Public | Clubs |
| | | | Operations | Bushland Maintenance Supervisor |
| | | | Strategy and Environment | Environmental Levy Program Leader |
| 19) Development and promotion of northern suburbs regional mountain biking map indicating trails and designated mountain biking facilities. | maps | Not planned | Strategy and Environment | Strategic Traffic Engineer |
| | | | | Environmental Levy Program Leader |
| | | | Communications | Manager Communications |
| 20) Continue stage one and stage two of development of proposed mountain bike facilities at Golden Jubilee Oval. (While Council funding has been committed for Stage 1 of the project, possibilities for funding from private schools or external grants for completion of facilities is to be explored.) | Construction | 2010/12 | Strategy and Environment | Sports & Recreation Planner |
| | | | | Environmental Levy Program Leader |
| | | | Operations | Manager Open Space Projects |
| 21) Promotion of safe and environmentally sensitive use of designated mountain bike facilities through production of user friendly pamphlets from Code of Conduct, sent to: - Mountain biking clubs / shops - Local schools - 'Outdoor Sport and Recreation programs' | Promotion | 2011 | Strategy and Environment | Sports & Recreation Planner |
| | | | | Environmental Levy Program Leader |
| | | | Communications | Manager Communications |
| 22) Engage user groups to undertake appropriate booking arrangements and promote awareness of obligations under Code of Conduct. | Promotion booked activities | 2010/ongoing | Communications | Property Manager |
| | | | Strategy and Environment | Consultation Coordinator |
| | | | | Environmental Levy Program |

| | | | | |
|--|-----------------------------|-------------|--------------------------|---|
| Undertake a periodic satisfaction survey to establish user satisfaction. Adjust the facilities to keep the interest and skill development alive. | Mountain bike ten year plan | Not planned | Strategy and Environment | Leader |
| | | | | Consultation Coordinator Environmental Levy Program Leader |

Guidelines and Restrictions

Refer to Code of Conduct – *Mountain Biking in Natural Areas (Draft)* (Ku-ring-gai Council 2010).

References:

Ku-ring-gai Council 1995. *Ku-ring-gai Bicycle Plan*.
Ku-ring-gai Council 2005. *People, Parks and Bushland, Open Space Strategy for Ku-ring-gai*.
Ku-ring-gai Council 2009. *Ku-ring-gai Bushland Reserves Plan of Management*.
Ku-ring-gai Council 2009. *Integrated Transport Strategy - Consultant Brief*.
Ku-ring-gai Council 2010. *Integrated Transport Strategy (Draft)*.
Ku-ring-gai Council 2010. *Updated Cycleways Map (Draft)*.
NSW Roads and Traffic Authority 2010. *NSW BikePlan*.
Mountain Bike Australia 2008. Website <http://www.mtba.asn.au>

Orienteering/Rogaining

Current Usage

The Sydney Summer Series, a mid-week series of orienteering events conducted throughout Sydney's northern suburbs from October to March each year, intermittently stages events incorporating Ku-ring-gai's bushland reserves. The series is organised by the Orienteering Association of NSW.

Bennelong Northside Orienteers hold annual events based around the St Ives Showground. Garingal Orienteers and Big Foot Orienteers are also involved in events in the Ku-ring-gai area.

Other user groups may make casual bookings throughout the year.

Prescribed Actions for Facilitation of Orienteering / Rogaining Activities

Development of an integrated trail network as detailed in aforementioned *Prescribed Actions for Facilitation of Bush Walking Activities*.

| Action | Services and Projects | Proposed Time Frame | Department | Responsible Officer |
|--|-----------------------------|---------------------|--------------------------|-----------------------------------|
| 23) Engage user groups to undertake appropriate booking arrangements and promote awareness of obligations under Code of Conduct. | Promotion booked activities | 2010/ ongoing | Strategy and Environment | Environmental Levy Program Leader |
| | | | | Consultation Coordinator |
| | | | Communications | Manager Communications |
| | | | Communications | Property Manager |

Guidelines and Restrictions

Refer to *Code of Conduct – Orienteering/Rogaining in Natural Areas (Draft) (Ku-ring-gai Council 2010)*.

Bird Watching

Current Usage

Currently there are no formal provisions for this activity with any involvement occurring on an opportunistic basis.

The Ku-ring-gai Wildflower Garden, bordering Ku-ring-gai Chase National Park, provides a variety of habitats including heath communities, tall forest, sandstone outcrops, ponds and watercourses suitable for a diversity of bird species.

The STEP (South Turramurra) and Darri (North Turramurra) Tracks also offer varied environments amenable to bird watching activities.

Recommendations for Continued Use

Self-guided facilities may be established in comparatively accessible areas that have been identified as being rich in species diversity.

The suitability of selected areas may be enhanced by planting of appropriate native vegetation providing cover or food. Site improvements could be carried out through Bushcare programs or the Bushland management program.

Interpretive signage should include species descriptions with illustrations indicating diagnostic features and a brief natural history, information regarding planting to attract birds to one's garden with reference to the Wildthings program.

Prescribed Actions for Facilitation of Bird Watching Activities

| Action | Services and Projects | Proposed Time Frame | Department | Responsible Officer |
|---|-----------------------------|---------------------|--------------------------|------------------------------------|
| 24) Identification of areas suitable for self-guided facilities. | Bird watching 10 year plan | Not planned | Strategy and Environment | Environment Officer |
| 25) Establish facilities including: - viewing area, platform or hide, with seating - interpretive signage including species information and photos, <i>Wildthings</i> program information. | Bird watching 10 year plan | Not planned | Strategy and Environment | Team Leader Natural Areas |
| | | | | Environment al Levy Program Leader |
| | | | Operations | Bushland Maintenance Supervisor |
| | | | | Manager Open Space Projects |
| 26) Promotion of facilities: - with potential user groups (eg. Birds Australia, educational institutions or bushwalking groups). - through incorporation into Council's <i>Walks and Talks</i> program. | Promotions | Not planned | Communications | Manager Communications |
| | | | Strategy and Environment | Environment Officer |
| 27) Engage user groups to undertake appropriate booking arrangements and promote awareness of obligations under General Code of Conduct. | Promotion booked activities | 2010/ongoing | Strategy and Environment | Environment al Levy Program Leader |
| | | | | Consultation Coordinator |
| | | | Communications | Manager Communications |
| | | | Communications | Property Manager |

Guidelines and Restrictions

Refer to *Code of Conduct - Bushwalking in Natural Areas (Draft) (Ku-ring-gai Council 2010)*.

Running/Jogging

Current Usage

Established annual community events include the Great NOSH Footrace in June, Jabulani Challenge in July and Oxfam Trailwalker in August. These events attract large and significant numbers of runners. Runners are restricted to a designated course over an established time frame on specific key dates.

North Shore Wanderers Hash House Harriers also hold informal trail runs during the summer months in the Hornsby-Ku-ring-gai area.

Various schools centre annual cross country events at the St Ives Showground. These events may incorporate limited use of the trails in surrounding bushland.

Other user groups may make casual bookings throughout the year.

Outside of established events, there is significant daily usage of fire trails and both formal and informal walking tracks by runners/joggers.

Recommendations for Continued Use

There is a marked overlap between facilities utilised by runners and bushwalkers, such that fire trails, formal and informal walking tracks are widely used by both groups. As such establishing provisions for one group quite effectively does so for the other.

Prescribed Actions for Facilitation of Running / Jogging Activities

Development of an integrated trail network as detailed in aforementioned *Prescribed Actions for Facilitation of Bush Walking Activities*.

| Action | Services and Projects | Proposed Time Frame | Department | Responsible Officer |
|--|-----------------------------|---------------------|--------------------------|-----------------------------------|
| 28) Conduct an audit of user groups to facilitate effective promotion and booking. | Promotion | Not planned | Strategy and Environment | Sports & Recreation Planner |
| | | | | Environmental Levy Program Leader |
| 29) Engage user groups to undertake appropriate booking arrangements and promote awareness of obligations under Code of Conduct. | Promotion booked activities | 2010/ ongoing | Strategy and Environment | Environmental Levy Program Leader |
| | | | | Sports & Recreation Planner |
| | | | Communications | Manager Communications |
| | | | Communications | Property Manager |

Guidelines and Restrictions

For both commercial events and casual runners and joggers, guidelines in place for bushwalking activities as outlined in *Code of Conduct - Bushwalking in Natural Areas (Draft) (Ku-ring-gai Council 2010)* are applicable.

Horse Riding

Current Usage

Restricted use on trails within St Ives Showground precinct.

Prescribed Actions for Facilitation of Horse Riding Activities

| Action | Services and Projects | Proposed Time Frame | Department | Responsible Officer |
|--|-----------------------------|---------------------|--------------------------|-----------------------------------|
| 30) Identification and designation of selected trail(s) suitable for horse riding. Existing designated areas include : -St Ives Showground including the Jim Watson Arena, Princess Anne Arena and the equestrian area. -Avondale (through bookings only) | Planning | Not Planned | Strategy and Environment | Team Leader Natural Areas |
| | | | | Sports & Recreation Planner |
| | | | Community | Property Manager |
| | | | Operations | Bushland Maintenance Supervisor |
| 31) Installation of appropriate on-site regulatory and interpretive signage. | Signs | Not Planned | Operations | Bushland Maintenance Supervisor |
| | | | | Building Trades Coordinator |
| 32) Engage user groups to undertake appropriate booking arrangements and promote awareness of obligations under Code of Conduct. | Promotion booked activities | 2010/ ongoing | Strategy and Environment | Environmental Levy Program Leader |
| | | | | Consultation Coordinator |
| | | | Communications | Manager Communications |
| | | | Communications | Property Manager |

Guidelines and Restrictions

Refer to *Code of Conduct – Horse Riding in Natural Areas (Draft) (Ku-ring-gai Council 2010)*.

Scouts and Girl Guides

Current Usage

There are 25 Scout/Guide Halls in the local government area, 23 of which are in current use.

Scout and Guide activities operate on a leasing and licensing system. Leases are specific to each site, individually negotiated with each user group.

Recommendations for Continued Use

Activities be limited to a prescribed area in vicinity of halls to minimise environmental damage, with noted provision regarding Endangered Ecological Communities.

Implement the construction of designated barbeque facilities at Scout and Guide Halls to facilitate the restriction on the use of open fires. The costs of construction and the maintenance of the facilities may be borne by user groups. Gas or electric barbeques would eliminate any requirement for firewood to be collected from surrounding bushland.

Prescribed Actions for Facilitation of Scouting and Guiding Activities

| Action | Services and Projects | Proposed Time Frame | Department | Responsible Officer |
|---|-----------------------|---------------------|--------------------------|---------------------------|
| 33) Implementation of requirements of Scout and Guide halls to be equipped with designated barbeque facilities. | Leasing | Not planned | Community | Property Manager |
| 34) Liasion with user groups to promote appropriate use and ensure minimisation of environmental impacts eg. limitations of activity to prescribed areas around halls, restrictions on firewood collection, etc. | Consult | Not Planned | Community | Property Manager |
| | | | Strategy and Environment | Team Leader Natural Areas |

Guidelines and Restrictions

Restrictions of use are stipulated within the relevant individual lease agreements.

Guidelines in place for bushwalking activities as outlined in *Code of Conduct - Bushwalking in Natural Areas (Draft) (Ku-ring-gai Council 2010)* are applicable.

Picnics, Barbeques, etc

Current Usage

Electric barbeques and other picnicking facilities are located at Ku-ring-gai Wildflower Gardens. Facilities are also provided at Echo Point, Bicentennial Park and St Ives Showground.

Established facilities in neighbouring jurisdictions include Bobbin Head and Apple Tree Bay in Ku-ring-gai Chase National Park, Lane Cove National Park, Garigal National Park, Crosslands Reserve.

Recommendations for Continued Use

Necessary infrastructure investment to establish new facilities may include parking, toilets, supply of potable water, gas or electric barbeques, rubbish disposal and recycling facilities and shelter areas. Prospective sites for new facilities should be selected on the basis of requiring minimal infrastructure development, whilst providing access to walking tracks and trails and, if possible to scenic vistas, eg. Golden Jubilee Oval and Cliff Oval.

Prescribed Actions for Facilitation of Picnics and Barbeques

| Action | Services and Projects | Proposed Time Frame | Department | Responsible Officer |
|--|-----------------------|---------------------|--------------------------|------------------------------|
| 35) Proposed suitable sites for picnic barbeques. Improve passive recreation opportunities | Planning Picnic area | Not planned | Strategy and Environment | Sports & Recreation Planner |
| | | | Operations | Parks Maintenance Supervisor |

Guidelines and Restrictions

Open fires are restricted to designated barbeque facilities. Further restrictions may apply subject to government fire bans.

Disabled Accessible Recreation

Current Usage

The Ku-ring-gai Wildflower Gardens and Little Blue Gum Creek at West Lindfield offer wheelchair accessible trails and facilities.

Prescribed Actions for Facilitation of Disabled Accessible Recreation

| Action | Services and Projects | Proposed Time Frame | Department | Responsible Officer |
|---|-----------------------------------|---------------------|--------------------------|-----------------------------------|
| 36) Investigate future accessible recreational facilities. | Planning | 2011 | Strategy and Environment | Team Leader Natural Areas |
| | | | | Environmental Levy Program Leader |
| | | | Community | CDO Aged & Disability Services |
| | | | Strategy and Environment | Sports & Recreation Planner |
| 37) Effective promotion of accessible recreational facilities to current and potential user groups. | Promotion s website and brochures | Not Planned | Strategy and Environment | Environmental Levy Program Leader |
| | | | Communications | Manager Communications |
| | | | Community | CDO Aged & Disability Services |
| 38) Provision of appropriate interpretive signage at identified sites. | Signage | 2011 | Strategy and Environment | Environmental Levy Program Leader |
| | | | Communications | Manager Communications |

Bushcare Activities

Current Usage

Bushcare activities in Ku-ring-gai currently involve over 700 participants participating in 80 bushcare groups across 83 sites. Council's Bushcare program facilitates the interests of residents who are able to undertake work on community land in bushland areas and community open space.

This program provides a variety of services including Street care, Park care and Bike care. Each care program includes development of a site management plan and is guided by staff who encourage generic and/or specific behaviour to minimise environmental impacts.

Guidelines and Restrictions

Public bush regeneration activities may only be co-ordinated by Council through the *Bushcare* program in collaboration with community groups. Public involvement in bush regeneration is restricted to the *Bushcare* program.

Prescribed Actions for Facilitation of Bushcare activities

| Action | Services and Projects | Proposed Time Frame | Department | Responsible Officer |
|---|-----------------------|---------------------|-----------------------------------|-------------------------------------|
| 39) Develop site management plan/s | Planning | 2010 ongoing | Strategy and Environment | Bushcare Trainer |
| | | | | Supervisor Bushcare Volunteers |
| | | | Operations | Bushland Maintenance Supervisor |
| 40) Develop community maintenance programs like streetcare, park care and bike care | Maintenance | ongoing | Strategy and Environment | Bushcare Trainer |
| | | | | Supervisor Bushcare Volunteers |
| 41) Provision of appropriate interpretive signage at identified sites. | | | | |
| 42) Promotion and guidelines | | Not Planned | Strategy and Environment Bookings | Nick van de Peer Michelle Mackla |

Reference:

Ku-ring-gai Bushland Reserves Plan of Management 2009

Prohibited activities

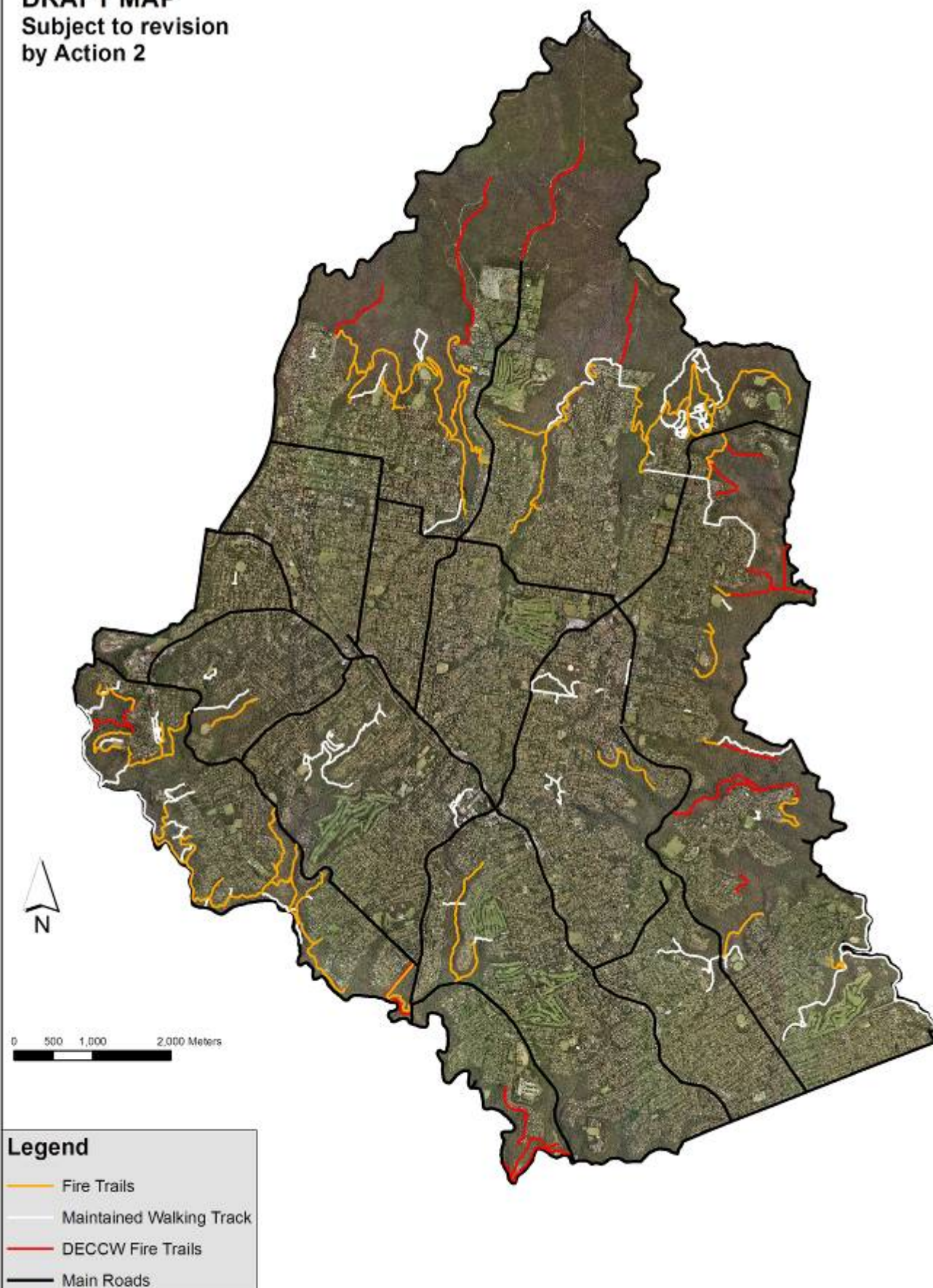
The following activities are prohibited in Council's bushland reserves:

- damage or removal of plants, animals, natural rock or timber;
- unauthorised driving of motorised recreational vehicles;
- open fires not restricted to designated barbeque facilities;
- discharging of firearms;
- overnight camping. (Limited camping is available within the St Ives Showground precinct with booking required through Council);
- any other activities deemed by Council to be detrimental to the environment;
- antisocial behaviour that may impact on other users or residents.

Appendix 1: Maps of Relevant Areas

- Bushland Tracks of Ku-ring-gai
- Cliff Oval rockclimbing site
- Lindfield rockclimbing site
- Golden Jubilee and Clissold Road Trails
- Grosvenor Street Track
- McRae Loop Track
- Warrimoo Oval

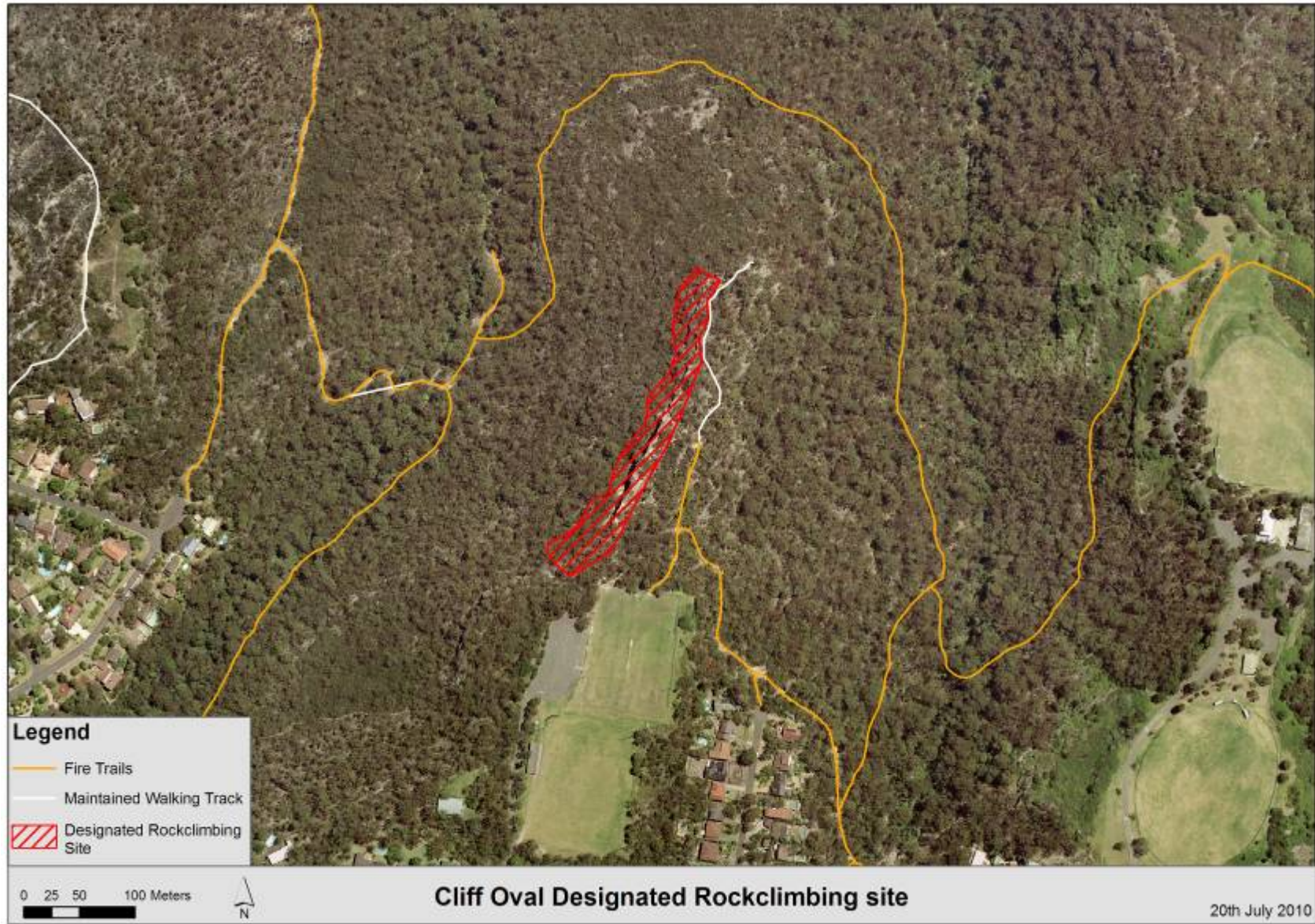
DRAFT MAP
Subject to revision
by Action 2



Bushland Tracks of Ku-ring-gai

20th July 2010

Cliff Oval Rock climbing Site



Lindfield Rock climbing Site

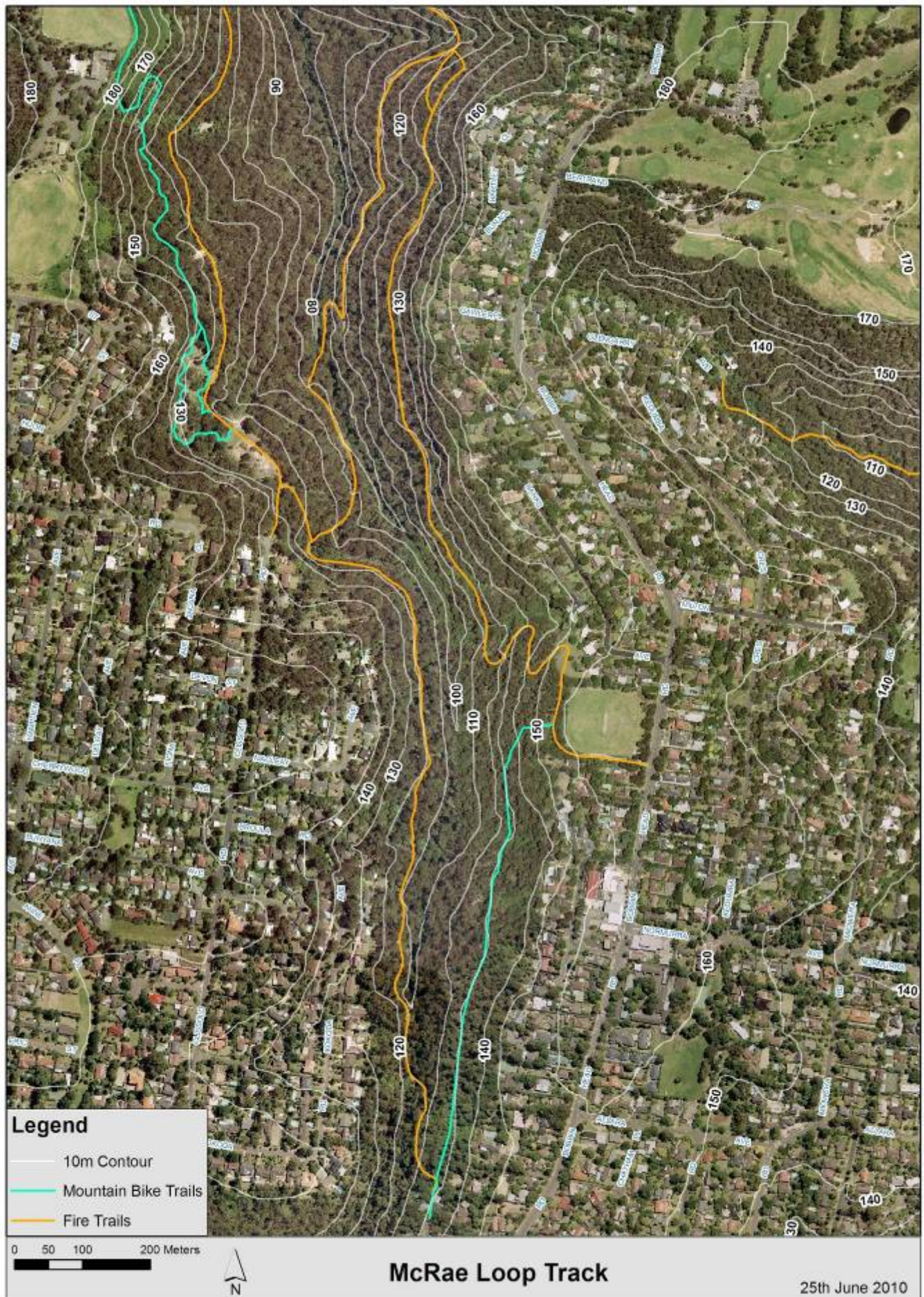




Grosvenor Street Track



McRae Loop Track





Appendix 2: LIST OF USER GROUPS

Bush walking

- The Local Environmental Conservation group STEP Inc
- Sydney Bushwalkers www.sbw.org.au
- Warringah Bushwalking Club
- Ku-ring-gai Bushwalking Activity and Social Group
- Sydney Bushwalks
- Newington Leisure Walkers (affiliated with Dept of Sport and Recreation)
- Wanderers Bushwalking Group
- National Parks Association of NSW
- Step Inc

Running and Jogging

- Oxfam (organiser of Jabulani Challenge and Trailwalker)
- Bennelong Northside Orienteers (organiser of Great NOSH Footrace)
- North Shore Wanderers Hash House Harriers www.nswhhh.info

Climbing – Local Climbing Clubs/Gyms/Associations

- Maash Sports and Fitness – 9868 1200 (Rock climbing Gym – Marsfield)
- Climb Fit – 9436 4600 (Climbing Gym – St Leonards)
- The Rock House (Climbing Gym – Brookvale)
- The Edge Indoor Climbing - 9899 8228 (Climbing Gym – Castle Hill)
- Rock Climbing Sydney – 8324 9971 (Climbing Gym – CBD)
- Sydney Indoor Climbing Gym – 9716 6949 (Summer Hill)
- Sydney Indoor Climbing Gym – 9519 3325 (St Peters)
- The Pitch Climbing Centre – 9729 0212 (Wetherill Park)
- Sydney University Mountaineering Club
- Scouts Association NSW
- The Crusader Union of Australia
- Local schools

Mountain Biking Clubs/Gyms/Associations

- Australian Mountain Biking Clinics – 0427 207 937 (Putney)
- Bicycle NSW – 9218 5400 – (CBD)
- NSW Cycling Federation – 9738 5850 (Bass Hill)
- Sydney University Sports & Aquatic Centre – 9351 4978
- Sydney University Women's Cycling & Triathlon – 9351 8111
- Health Motivated Boot Camp – boot camp Sydney – 8064 3649
- Mountain Bike Australia 2008. Website <http://www.mtba.asn.au>
- NSW ambulance
- Local schools

Orienteering

- Orienteering NSW – 8116 9848 Orienteering Association of NSW.
- Bennelong Northside Orienteers
- Garingal Orienteers
- Big Foot Orienteers
- Macquarie University Sports Clubs – 9850 7636
- Sydney University Women's Cycling & Triathlon – 9351 8111
- Sydney University Sports & Aquatic Centre – 9351 4978
- Wilderness Society - 9282 9553 - (Surrey Hills)

- Health Motivated Boot Camp – boot camp Sydney – 8064 3649

Appendix 3: GENERAL CODE OF CONDUCT – RECREATIONAL ACTIVITIES IN NATURAL AREAS

General Code of Conduct – Recreational Activities in Natural Areas

The purpose of the Code of Conduct is to:

- Conserve our natural resources
- Maintaining visitor safety
- Preserve the opportunity to undertake recreational activities in natural areas
- Promote the responsible use of natural areas

This code of conduct has been developed by Ku-ring-gai Council to ensure that *natural areas recognised as important sites of historical, Indigenous, cultural, recreational, scientific and natural assets are conserved and managed through sustainable practices of use.

***Natural Areas** – Council owned land(s) or land(s) under the care control and management of Ku-ring-gai Council

- ❖ By law, all plants, animals, historical, Indigenous, archaeological sites and geographic features are protected, so any damages or disturbances to these are illegal and prohibited.
- ❖ Brown's Forest is protected as a Wildlife Protection Area (*Companion Animal Act 1998*)
- ❖ Dogs & Cats are prohibited in Ku-ring-gai Flying Fox Reserve and Brown's Forest under Voluntary Conservation Agreements (*National Parks and Wildlife Services Act 1974*)

Your Responsibilities

- Avoid undertaking activities during wet weather with the exception of bushwalking
- Any damages to the site must be reported immediately to Ku-ring-gai Council
- Avoid blocking the footpaths
- Avoid sites that are inhabited by endangered species and or during breeding periods
- Be aware of nesting patterns and behavioural patterns of wildlife on site
- Carry out your chosen activity safely without endangering yourself and other users
- Keep noise levels to a reasonable level to avoid disturbing fauna, adjoining landowners and residents
- Resolve disputes in a civilised way
- Respect any arrangements and restrictions in place at a given time
- Share the area fairly with other users
- Wash all soil from personal equipment, footwear and vehicles before you enter or leave a site to avoid transporting seeds or soil borne pathogens such as Phytophthora.

Prohibited Activities

The following activities are strictly prohibited on land classified as *Natural Areas without the expressed written permission of Council.

- Causing undue damage & disturbance to fauna (including touching and feeding) and flora (including picking and trampling)
- Damaging or vandalising caves, cliffs and rock faces
- Damaging, removing or vandalising any indigenous sites discovered
- Damaging, removing or vandalising bush rocks
- Dumping or polluting creeks and rivers
- Dumping rubbish
- Leaving dog faeces / horse faeces
- Lighting fires
- Removing logs and collecting wood
- Using motorised vehicles (with the exception for emergencies and authorised use e.g. Council and fire lighting vehicles)
- Vandalising or damaging infrastructure
- Walking unregistered and or unleashed dogs

Council Requirements & Regulations

- ✚ Activities require booking. Please contact Ku-ring-gai Council for details.
- ✚ You must leave the site(s) tidy and clean and free of all rubbish at the end of your activity(s).
- ✚ Ku-ring-gai Council does not inspect or audit site(s) to ascertain whether they are safe or not, or whether there are any hidden dangers. It is up to you to use your own judgement and carry out your activity(s) safely.
- ✚ Ku-ring-gai Council accepts no responsibility for injuries, accidents and incidents resulting from any activity(s).
- ✚ Council reserves the right to request a bond (to ensure adequate protection, conservation and preservation of natural areas). Where Ku-ring-gai Council determines a bond is required for an activity(s); where it is determined that Council's guidelines were not adhered to, including maintaining the condition of the immediate site(s) area(s) you used for the entire period of your activity(s); and where applicable, compensation maybe sought to satisfactorily remediate, rehabilitate or restore any site(s).

Accidents and Hazards

Please observe the following:

- ✚ Council may occasionally prevent access to the areas due to fire, heavy rain, fallen rocks and trees and public events.
- ✚ Following an event (fire, heavy rain, fallen rocks etc), Council may close a track(s) to enable maintenance works to be carried out. Council will notify the public through on site signage and or Council's website (www.kmc.nsw.gov.au), where it is determined that the closure is significant.

Emergencies

- ✚ To report an emergency dial 000 (for mobiles, dial 112);

- ✚ To report any illegal/urgent incident(s) and or instance(s) of missing/overdue user(s), contact your local police station.
- ✚ To report unexpected trail closures (rock slide / tree fall etc), phone Ku-ring-gai Council on 9424 0000 (9am to 5pm Monday-Friday).

appendix 3: BUSHWALKING IN NATURAL AREAS

Code of Conduct - Bushwalking in Natural Areas

The purpose of the Code of Conduct is to:

- Conserve our natural resources
- Maintaining visitor safety
- Preserve the opportunity to undertake bushwalking in natural areas
- Promote the responsible use of natural areas

This code of conduct has been developed by Ku-ring-gai Council to ensure that *natural areas recognised as important sites of historical, Indigenous, cultural, recreational, scientific and natural assets are conserved and managed through sustainable practices of use.

***Natural Areas** – Council owned land(s) or land(s) under the care control and management of Ku-ring-gai Council

- ❖ By law, all plants, animals, historical, Indigenous, archaeological sites and geographic features are protected, so any damages or disturbances to these are illegal and prohibited.

Your Responsibilities

- Stick to the designated walking tracks

Council Requirements & Regulations

- ✚ You must leave the site(s) tidy and clean and free of all rubbish at the end of your activity(s).
- ✚ Ku-ring-gai Council does not inspect or audit site(s) to ascertain whether they are safe or not, or whether there are any hidden dangers. It is up to you to use your own judgement and carry out your activity(s) safely.
- ✚ Ku-ring-gai Council accepts no responsibility for injuries, accidents and incidents resulting from any activity(s).
- ✚ Council reserves the right to request a bond (to ensure adequate protection, conservation and preservation of natural areas). Where Ku-ring-gai Council determines a bond is required for an activity(s); where it is determined that Council's guidelines were not adhered to, including maintaining the condition of the immediate site(s) area(s) you used for the entire period of your activity(s); and where applicable, compensation maybe sought to satisfactorily remediate, rehabilitate or restore any site(s).

Code of Conduct –Horse Riding in Natural Areas

The purpose of the Code of Conduct is to:

- Conserve our natural resources
- Maintaining visitor safety

- Preserve the opportunity to undertake horse riding in natural areas
- Promote the responsible use of natural areas

This code of conduct has been developed by Ku-ring-gai Council to ensure that *natural areas recognised as important sites of historical, Indigenous, cultural, recreational, scientific and natural assets are conserved and managed through sustainable practices of use.

***Natural Areas** – Council owned land(s) or land(s) under the care control and management of Ku-ring-gai Council

- ❖ By law, all plants, animals, historical, Indigenous, archaeological sites and geographic features are protected, so any damages or disturbances to these are illegal and prohibited.

Your Responsibilities

- Horse riding only permitted in designated tracks

Council Requirements & Regulations

- ✚ Horse riding requires a permit to be issued by Council and is subject to compliance with conditions (as per Council's *natural areas recreation policy*). Please contact Ku-ring-gai Council for details.
- ✚ You must leave the site(s) tidy and clean and free of all rubbish at the end of your activity(s).
- ✚ Ku-ring-gai Council does not inspect or audit site(s) to ascertain whether they are safe or not, or whether there are any hidden dangers. It is up to you to use your own judgement and carry out your activity(s) safely.
- ✚ Ku-ring-gai Council accepts no responsibility for injuries, accidents and incidents resulting from any activity(s).
- ✚ Council reserves the right to request a bond (to ensure adequate protection, conservation and preservation of natural areas). Where Ku-ring-gai Council determines a bond is required for an activity(s); where it is determined that Council's guidelines were not adhered to, including maintaining the condition of the immediate site(s) area(s) you used for the entire period of your activity(s); and where applicable, compensation maybe sought to satisfactorily remediate, rehabilitate or restore any site(s).

Code of Conduct –Mountain Biking in Natural Areas

The purpose of the Code of Conduct is to:

- Conserve our natural resources
- Maintaining visitor safety
- Preserve the opportunity to undertake mountain biking activities in natural areas
- Promote the responsible use of natural areas

This code of conduct has been developed by Ku-ring-gai Council to ensure that *natural areas recognised as important sites of historical, Indigenous, cultural, recreational, scientific and natural assets are conserved and managed through sustainable practices of use.

***Natural Areas** – Council owned land(s) or land(s) under the care control and management of Ku-ring-gai Council

- ❖ By law, all plants, animals, historical, Indigenous, archaeological sites and geographic features are protected, so any damages or disturbances to these are illegal and prohibited.

Your Responsibilities

- Avoid riding in wet weather to prevent damages to existing tracks
- Mountain biking only permitted on designated trails
- Share the track. Tracks are used by the public and Council for a number of purposes (including walkers, service trail vehicles etc)
- Pedestrians must always be given the right of way
- Route markers and tapes can only be set in designated bike trails
- Wear a Helmet

Council Requirements & Regulations

- ✚ Mountain biking activities may require booking. Please contact Ku-ring-gai Council for details.
- ✚ You must leave the site(s) tidy and clean and free of all rubbish at the end of your activity(s).
- ✚ All temporary route markers must be removed at the end of activity(s)
- ✚ Ku-ring-gai Council does not inspect or audit site(s) to ascertain whether they are safe or not, or whether there are any hidden dangers. It is up to you to use your own judgement and carry out your activity(s) safely.
- ✚ Ku-ring-gai Council accepts no responsibility for injuries, accidents and incidents resulting from any activity(s).
- ✚ Council reserves the right to request a bond (to ensure adequate protection, conservation and preservation of natural areas). Where Ku-ring-gai Council determines a bond is required for an activity(s); where it is determined that Council's guidelines were not adhered to, including maintaining the condition of the immediate site(s) area(s) you used for the entire period of your activity(s); and where applicable, compensation maybe sought to satisfactorily remediate, rehabilitate or restore any site(s).

Prohibited Activities

The following activities are strictly prohibited on land classified as *Natural Areas without the expressed written permission of Council.

- Causing damages or disturbances to flora and fauna (e.g. spray painting or nailing signs to trees)
- Construction of mountain bike trails and trail technical features e.g. Jumps to damage or disturb flora and fauna

appendix 3: rock climbing & abseiling in natural areas

Code of Conduct – Rock Climbing & Abseiling in Natural Areas

The purpose of the Code of Conduct is to:

- Conserve our natural resources
- Maintaining visitor safety
- Preserve the opportunity to climb and abseil in natural areas
- Promote the responsible use of natural areas

This code of conduct has been developed by Ku-ring-gai Council to ensure that *natural areas in Cliff Oval and Lindfield Rocks, recognised as important sites of historical, Indigenous, cultural, recreational, scientific and natural assets are conserved and managed through sustainable practices of use.

***Natural Areas** – Council owned land(s) or land(s) under the care control and management of Ku-ring-gai Council

- ❖ By law, all plants, animals, historical, Indigenous, archaeological sites and geographic features are protected, so any damages or disturbances to these are illegal and prohibited.
- ❖ Cliff /Rock areas are natural landforms that have formed over a long period of time and are continuously being subjected to natural environmental processes of erosion and weathering. As unique landforms, there are significant historic, Indigenous, scientific and natural, values associated with such site(s).

Climbing and Abseiling Sites

Designated Climbing areas

- Cliff Oval
- Lindfield Rocks--
- Please contact Ku-ring-gai Council 9424 0000 before establishing a new area or climb

Council Requirements & Regulations

- ✚ Bookings must be made with Council for organised or commercial groups.
- ✚ You must leave the site(s) tidy and clean and free of all rubbish at the end of your activity(s).
- ✚ Council reserves the right to request a bond (to ensure adequate protection, conservation and preservation of natural areas). Where Ku-ring-gai Council determines a bond is required for an activity(s); where it is determined that Council's guidelines were not adhered to, including maintaining the condition of the immediate site(s) area(s) you used for the entire period of your activity(s); and where applicable, compensation maybe sought to satisfactorily remediate, rehabilitate or restore any site(s).
- ✚ The impacts and use of individuals and groups will be monitored.
- ✚ Ku-ring-gai Council has no regulations on how to Climb or Abseil.

- ✚ Do not use Ku-ring-gai Council structures to belay or abseil. They are not designed for this purpose and may pose a risk to users and the general public.
- ✚ Authorised Ku-ring-gai Council officers have the right to enforce Ku-ring-gai Council By-laws.
- ✚ Ku-ring-gai Council does not inspect or audit site(s) to ascertain whether they are safe or not, or whether there are any hidden dangers. It is up to you to use your own judgement and carry out your activity(s) safely.
- ✚ Ku-ring-gai Council accepts no responsibility for injuries, accidents and incidents resulting from any rock climbing and or abseiling activity(s).

"Clean Climbing and Abseiling" Practices

- ✚ Ku-ring-gai Council's philosophy is to encourage "Clean Climbing and Abseiling", the use of lead climbing techniques where aid climbing is to be used. Council does not support indiscriminate or excessive use of fixed equipment..
- ✚ Any damages to site must be reported immediately to Ku-ring-gai Council
- ✚ All ropes, slings and anchors and other equipment must be removed at the end of your activity

All Climbers Responsibilities

- Act responsibly and follow this Rock climbing/Abseiling Code of Conduct.
- It is your responsibility to exercise judgement and discretion at all times. You are responsible for your own safety, the safety of your group and that of bystanders (any other visitors to the reserves that maybe impacted by your activities).
- Do not consume alcohol before or during Rock climbing or Abseiling
- All users are expected to test and assess the conditions of the Cliff faces including any artificial additions before relying upon its stability.
- Accepting personal responsibility also includes your use of bolts and lower offs:
- Practise safe climbing methods in placing protection whilst leading, in belaying and in rope use.
- Do not change an existing climb
- Do not climb or abseil on cliffs where people regularly pass underneath
- Use ONLY approved rock climbing/abseiling equipment

Access

- Stick to established access tracks – please don't create new tracks
- Always utilise recognised tracks to approach and move between climbs. Where this is not possible or multiple tracks exist, take a moment to decide which track is the most appropriate and/or control group to have minimal impact (even if it means taking a longer way around).

- Do not disfigure the rock face and disturb vegetation to create better access and routes.
- Use ascent and descent tracks appropriately, considering site stability and erosion especially with larger group activities.
- Congregate in existing open areas

Disturbance

- Avoid disturbing soil at the top and base of cliff areas to prevent erosion
- Do not disturb vegetation as you will encourage erosion and promote the spread of pest plant species
- Minimise to the best of your ability disturbing fauna including feeding..
- Chipping or damaging of rock is illegal
- Climbing groups are not to use climbing equipment or techniques that damage the cliff face or any resident fauna
- Do not deface any rock or tree
- Do not engage in climbing or abseiling which requires extensive work to be done on a rock
- It's ok to place "lower offs" – especially to reduce erosion and increase safety.
- Minimise cleaning practices on cliff faces
- Use minimal chalk
- Do not climb or abseil during wet weather

Vegetation

- Do not remove existing vegetation from a Cliff
- Do not fix materials including canvas and carpet to tree roots

Anchor points

- ✓ Avoid the placement of new pitons and bolts for protection for anchor points
- ✓ Avoid using trees or other vegetation for belay and as anchor points. If there is no alternative, they must be protected by using temporary tape slings with padding to prevent cutting of the bark and rope protectors for webbing.
- ✓ Do not leave or add to fixed equipment on the cliff including bolts
- ✓ Don't place bolts next to cracks or other natural protection

- ✓ Minimal bolting is acceptable but not encouraged
- ✓ Bolting requirements -Consult with user groups for bolting guidelines.
- ✓ All fixed protection has been placed by climbers and abseilers.
- ✓ Beware of the dangers associated with using bolts and lower offs.
- ✓ Bolting must only be carried out by experienced persons and to accepted practices. Council must approve all new bolting.

Note: If you are seeking the services of commercial instructors/leaders, then it is your responsibility to check whether they possess **industry accepted competencies** to lead and instruct rock climbing and/or abseiling. These competencies are designed to ensure user safety and enjoyment.

Instructor's / Leader's Responsibilities (Additional to above)

- Commercial operators who wish to use site(s) within Council managed land(s) must lodge a booking application form with Council and seek approval. Operators must provide copies of certificates of competencies to Council to seek approval.
- Commercial operators will be charged a fee according to *Council's Adopted Fees and Charges 09/10*.
- Commercial operators must provide Council with a Certificate of Currency for a Public Liability Policy with a minimum cover of \$20 million.
- In using Cliff faces under the control of Ku-ring-gai Council, leaders and instructors must be able to satisfy themselves and the participants that they possess the skills and competencies to lead or instruct a group in these activities accounting for the specific sites and the skills/experience of the participants.
- The leader or instructor must make arrangements for a responsible person to be aware of the group, their location and expected time of return, to raise the alarm in cases of overdue return. The leader or instructor must inform Council of their intention to use the Cliff area where this is a condition of use.

Accidents and Hazards

Please observe the following:

- ✚ Council may occasionally prevent access to the areas due to fire, heavy rain, fallen rocks and trees and public events.
- ✚ Following an event (fire, heavy rain, fallen rocks etc), Council may close a track(s) to enable maintenance works to be carried out. Council will notify the public through on site signage and or Council's website (www.kmc.nsw.gov.au), where it is determined that the closure is significant.

Emergencies

- ✚ To report an emergency dial 000 (for mobiles, dial 112);
- ✚ To report any illegal/urgent incident(s) and or instance(s) of missing/overdue user(s), contact your local police station.

- ✚ To report unexpected trail closures (rock slide / tree fall etc), phone Ku-ring-gai Council on 9424 0000 (9am to 5pm Monday-Friday).

References

- 1 Government of Western Australia-Department of Sport and Recreation, 2009, **Western Australian Adventure Activity Standard: Abseiling Version 1.1**, Accessed on: 20-05-10, from:www.outdoorswa.org/files/WA%20Adventure%20Activity%20Standard%20-%20Abseiling%20Version%201.1.pdf
- 2 Queensland Outdoor Recreation Federation – Outdoor Queensland, 2009, **Advocate: Rock Climbing Code of Conduct**, Accessed on: 20-05-10, from: www.qorf.org.au/01_cms/details.asp?ID=98
- 3 Launceston Council (Tasmania), **Rock-climbing Code of Conduct: For Cataract Gorge and Punchbowl Reserves**, Accessed on: 20-05-10, from: www.launceston.tas.gov.au/upfiles/lcc/cont/parks_and_recreation/pdfs/gorge/rock_climbing_code_of_conduct.pdf
- 4 The Climbing Club of South Australia, **The Rock Climbers and Abseilers Code for Using N.P.W.S.A Reserves**, Accessed on: 20-05-10, from: www.climbingclubsouthaustralia.asn.au/sarea_public/The%20Rock%20Climbers%20&%20Abseilers%20Code%20of%20Conduct%20for%20Using%20NPWSA%20Reserves.pdf

appendix 3: ORIENTEERING/ROGAINING IN NATURAL AREAS

Code of Conduct - Orienteering/Rogaining in Natural Areas

The purpose of the Code of Conduct is to:

- Conserve our natural resources
- Maintaining visitor safety
- Preserve the opportunity to undertake orienteering and rogaining activities in natural areas
- Promote the responsible use of natural areas

This code of conduct has been developed by Ku-ring-gai Council to ensure that *natural areas recognised as important sites of historical, Indigenous, cultural, recreational, scientific and natural assets are conserved and managed through sustainable practices of use.

***Natural Areas** – Council owned land(s) or land(s) under the care control and management of Ku-ring-gai Council

- ❖ By law, all plants, animals, historical, Indigenous, archaeological sites and geographic features are protected, so any damages or disturbances to these are illegal and prohibited.
- ❖ As a general rule approval for orienteering/rogaining within Aboriginal areas, historic sites, and environmentally sensitive areas, will not be permitted by Council, other than in exceptional circumstances.

Council Approval Requirements

- ✓ The proposed course must be clearly outlined and submitted with the booking form to Council. Council approval is required prior to commencement of activity(s).
- ✓ Where an activity traverses both NSW National Parks and Wildlife Services (NPWS) and Ku-ring-gai Council Bushland; Council may request users to obtain permits directly from NPWS. Council must be provided with this approved permit(s), before undertaking any activity(s).

Council Requirements & Regulations

- ✚ You must leave the site(s) tidy and clean and free of all rubbish at the end of your activity(s).
- ✚ Ku-ring-gai Council does not inspect or audit site(s) to ascertain whether they are safe or not, or whether there are any hidden dangers. It is up to you to use your own judgement and carry out your orienteering and or rogaining activity(s) safely.
- ✚ Ku-ring-gai Council accepts no responsibility for injuries, accidents and incidents resulting from any orienteering and or rogaining activity(s).
- ✚ Council reserves the right to request a bond (to ensure adequate protection, conservation and preservation of natural areas). Where Ku-ring-gai Council determines a bond is required for an activity(s); where it is determined that Council's guidelines were not adhered to, including maintaining

the condition of the immediate site(s) area(s) you used for the entire period of your activity(s); and where applicable, compensation maybe sought to satisfactorily remediate, rehabilitate or restore any site(s).

Your Responsibilities

- All tapes to mark control sites or specific routes must be removed after event.
- Respect the rights of other users of an area when an orienteering event is in progress by sharing or, if practical, avoiding public areas and other facilities.
- Read and adhere to organiser's and Ku-ring-gai Council's guidelines.

Course& Event Planning Guidelines

1. Selected areas including assembly areas and finishing areas must be capable of sustaining the scale of the proposed event without excessive impacts on the physical environment.
2. When selecting the route to remote start points, avoid creating tracks through vegetation.
3. Plan courses with a view to reducing the disturbance to any wildlife. This maybe done by having all courses following a same general direction or by leaving parts of the area free of controls or obvious route choices.
4. If the course happens to be set outside existing trails, then written Council approval is required.
5. Events should be scheduled taking into account seasonal and area sensitivities e.g. breeding, climatic extremes, presence of endangered species.
6. After consultation with Council, some areas maybe declared "out of bounds" because of management, security, privacy, environmental or seasonal factors. If so, such areas must be clearly notified to participants and marked on each participants map.
7. If the area contains known sites of natural or cultural significance which could be disturbed, avoid placing controls on or near these sites or setting legs which would concentrate the movement of participants through them.
8. If required, nearby residents and private landowners must be notified in advance about the event if it is going to have a major impact on them.
9. All participants must be made aware of any special conditions associated with Council approvals.
10. Placement of makers or other fixtures must not disturb the soil, substrate, rock or vegetation in a park or disturb wildlife or interfere with park infrastructure, its use and operation.
11. If a public announcement system is going to be used, locate these to minimise the spread of noise outside the assembly area.

Prohibited Activities

The following activities are strictly prohibited on land classified as *Natural Areas without the expressed written permission of Council.

- Accessing areas of sensitive rock using spiked shoes
- Causing damages or disturbances to flora and fauna (e.g. spray painting or nailing signs to trees)

Accidents and Hazards

Please observe the following:

- ✚ Council may occasionally prevent access to the areas due to fire, heavy rain, fallen rocks and trees and public events.
- ✚ Following an event (fire, heavy rain, fallen rocks etc), Council may close a track(s) to enable maintenance works to be carried out. Council will notify the public through on site signage and or Council's website (www.kmc.nsw.gov.au), where it is determined that the closure is significant.

Emergencies

- ✚ To report an emergency dial 000 (for mobiles, dial 112);
- ✚ To report any illegal/urgent incident(s) and or instance(s) of missing/overdue orienteering and or rogaining participant(s), contact your local police station.
- ✚ To report unexpected trail closures (rock slide / tree fall etc), phone Ku-ring-gai Council on 9424 0000 (9am to 5pm Monday-Friday).

References

- 1 Orienteering Australia, Orienteering Australia: Environmental Code of Conduct, Accessed: 20 – 05-2010, from <http://www.orienteering.asn.au/environment/envcode/>

Note: The environmental code of conduct was developed jointly by Orienteering Australia and its member associations. There was an acknowledgement by the Council of the International Orienteering Federation about maintaining the environmental friendly nature of orienteering in 1996.

Ku-ring-gai Council

Concept Design for Golden Jubilee and Clissold Rd Mountain Bike Trails

**Prepared By:
WORLD TRAIL PTY LTD**

May 2010



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GLOSSARY OF TERMS

- **Berm** - A design feature used in changing the direction of a trail. Berms comprise of an angled bank that allows the rider to negotiate the turn faster than they would be able to on a flat corner. The trail is angled or cambered inwards. Berms can be constructed of rock or timber, but are most commonly earthen. They can be elevated above the ground surface or sunken into the ground. Berms aid in the sustainability of downhill mountain bike trails as they allow riders to negotiate corners without heavy braking.
- **Control point** – a term used in the design of mountain bike trails. A positive control point is a feature that the designer wishes to include in a trail – a scenic view, waterfall, rock formation or river crossing for example. A negative control point on the other hand is a feature that the designer wishes to avoid – a cliff, bog, mineshaft, private property, areas of high cultural significance, areas of high environmental significance or areas prone to regular flooding for example.
- **Single-track** – a trail so narrow that riders have to travel in single file. Trail widths of between 700-900mm are considered true single-tracks. Single-track is the preferred type of trail for most mountain bikers.
- **Switchback** – a switchback is a sharp 180° turn. Switchbacks are generally only used on climbs. A switchback should be built on a flat platform (with no camber) and be wide enough to allow a rider to easily negotiate the turn.
- **Trailhead** – The beginning or starting point for a trail network. A trailhead should typically include parking, trail information, rubbish bins, water and toilets.
- **Trail Junction** – Where two or more trails intersect, World Trail recommends the placement of a Trail Junction. Trail Junctions are a World Trail innovation. The main role of Trail Junctions is to regulate the flow of traffic in a safe and orderly fashion, similar to roundabouts on roads, but they take on a more important role in mountain bike trail networks, particularly in remote locations, as they are key nodes for the placement of maps and trail furniture. Trail Junctions can be named and should be placed in an iconic area of the trail network with spectacular views.

INTRODUCTION

Ku-ring-gai Council first contacted World Trail in relation to developing a mountain biking facility within the Ku-ring-gai municipality in 2007, but no progress was made at that time. In January 2010, Ku-ring-gai Council again contacted World Trail asking for a quotation to design mountain biking facilities at the Clissold Rd and Golden Jubilee Oval sites. Once the nature of the facility had been discussed and agreed upon, World Trail provided a detailed quotation and was subsequently engaged to undertake this project.

Fieldwork was undertaken from the 17th-19th of March 2010 by Mr. Glen Jacobs and Mr. Gerard McHugh of World Trail. An inception meeting and site familiarisation took place on site on the 17th March 2010. Ku-ring-gai Council was represented by Ms. Mary-lou Lewis and Mr. Roger Faulkner.

BACKGROUND

SITE LOCATION AND DESCRIPTION

The study site is actually comprised of two distinct sites, referred to as Clissold Rd and Golden Jubilee Oval. Both sites are located in the northern Sydney suburb of North Wahroonga, in the municipality of Ku-ring-gai, as shown in Figure 1 below.

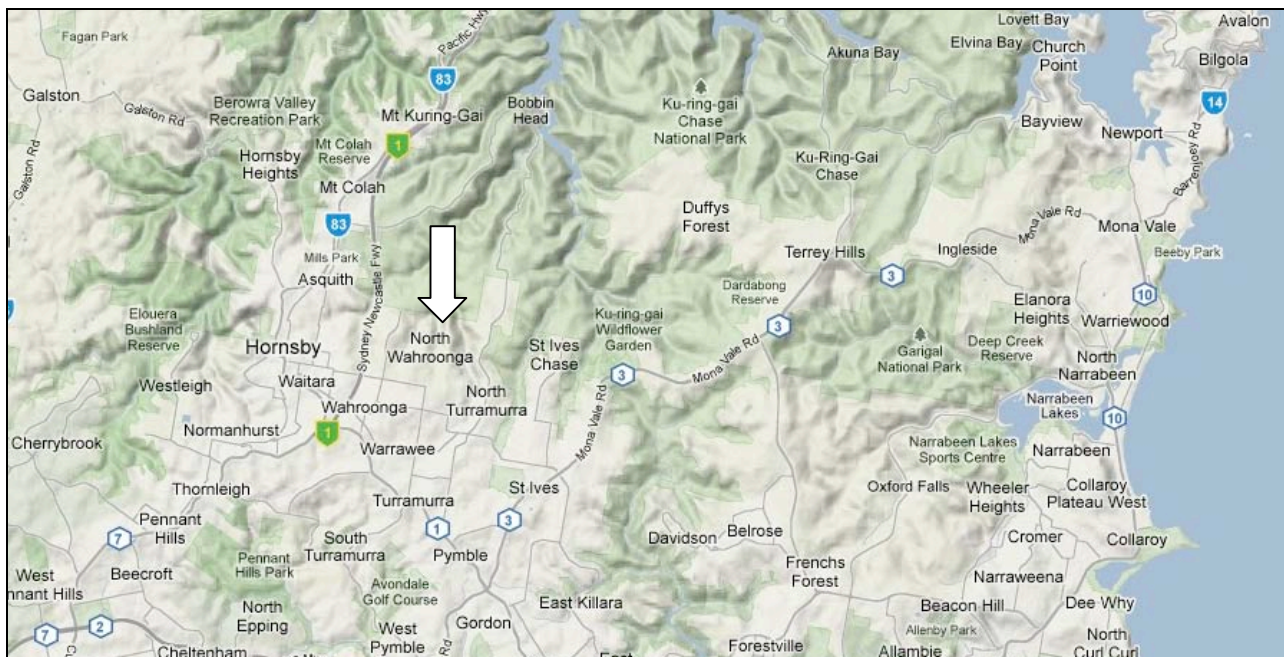


Figure 1. Site location

The first (and most important) of the two sites is Golden Jubilee Oval, located on Esk St. The most prominent features of this site are the two sporting fields located here – a football oval and a baseball diamond. These sporting fields are located on a flat plateau at the northern end of a ridge. To the north, east and west, the ground drops away sharply into deep, bushland valleys. The sporting fields are literally perched on the end of a promontory. Being a developed and popular sporting facility, this site has established car parking, sealed asphalt roads, toilets, water and extensive landscaping.

The northern end of the Golden Jubilee Oval site was previously used as a landfill. This use ceased approximately twenty years ago, and the site has been extensively rehabilitated and modified since then. Presumably the landfill's location at the end of the promontory facilitated easy dumping of rubbish by allowing for rubbish to be tipped over the edge – certainly this seems to be the case, as there is a large area of land just off the northern edge of the flat plateau that is devoid of large trees and heavily infested with exotic vegetation. The landscape in this area is comprised of flattened terraces and batters, suggesting that it has been capped with clean fill. Usage of this site today is entirely recreational. In addition to football and baseball, the area is very popular with walkers, dog walkers and remote controlled airplane enthusiasts. The land immediately adjacent to the old landfill is native bushland.

The second of the two sites is referred to as Clissold Rd. Clissold Rd is a residential street, running in a north-south direction. At its northern end, it runs downhill into bushland. It is blocked with a gate at this point, but a gravel fire road continues down into the bushland reserve.

The main feature of this site is the presence of an old sandstone quarry. It is not clear when the quarry ceased operation, but given its existing overgrown state, it would appear to have been more than ten years ago. A large cliff runs along the western side of this site and the land at its base is flat and broad, presumably an operational area used for quarry operations. The remnants of an asphalt road can be seen in this area. The vegetation is a mix of native and exotic species.

These two sites are located approximately 800m apart (in a straight line). The area between them is a bushland reserve, managed by Ku-ring-gai Council. A fire road connects the two sites. Travelling along the fire road, the distance between the two sites is about 1.4km. The position of the two sites relative to each other is shown in Figure 2.



Figure 2. Relative locations of sites

The following information about the Ku-ring-gai municipality comes from the Ku-ring-gai Council website, www.kmc.nsw.gov.au:

Characteristics

The Ku-ring-gai local government area covers approximately 84 square kilometres or 8,446 hectares. Ku-ring-gai contains nine (9) suburbs and is divided into five (5) wards.

The area displays a wide variation in landscape and wildlife with significant areas of urban bushland identified as having high conservation status.

Of the residential area, 95 per cent is occupied by low-density housing. This residential area is bounded by Garigal National Park in the east, Lane Cove River Park in the west and Ku-ring-gai Chase National Park in the north.

Only 5 per cent of land use in the Ku-ring-gai area is designated to business and other usage.

Ku-ring-gai is located approximately sixteen kilometres from Sydney and is on average 152 metres above sea level. The highest point occurs along the Pacific Highway in Wahroonga, near Lucinda Avenue, which is approximately the same height as the Lower Blue Mountains.

Geology

The area is part of the eastern rim of the Cumberland Basin, elevated during the Kosciusko uplift, and consists of Hawkesbury Sandstone and Wianamatta Group formations of the Triassic Period. Erosion has caused the deeply incised streambeds, resulting in soil and clay deposits frequently found to 9 metres in depth.

Physiography

The railway line is along a central ridge, which varies in width from 0.8 kilometres to 3.2 kilometres. This ridge falls away into smooth, steep slopes in the northern section and abrupt, rocky slopes and gullies in the east and west.

Natural Vegetation

Natural vegetation varies from Sydney Blue Gums and Blackbutt in the West Forest area of southwest Wahroonga and Turrumurra to Stringy Bark, Grey Iron Bark and Bloodwood types in the Dry Forest areas. Smaller species and shrubs abound.

Climate

Ku-ring-gai has a moderate climate with an average maximum temperature in the hottest month of 25.8° C and an average minimum in the coldest month of 7.7° C. The average rainfall is 1,118 millimetres per annum with the highest rainfall 1,194 millimetres at Wahroonga on the southern rim of the Hornsby Plateau.

In summary, the landscape in Ku-ring-gai offers a variety of aspects, landforms and vegetation types. Some areas have seen very little disturbance and have very high conservation significance, while other areas have been heavily modified or disturbed and have minimal conservation significance. The landscape is visually stunning and offers some amazing opportunities for all kinds of outdoor recreation including mountain biking. The sites at Golden Jubilee Oval and Clissold Rd, though both have been extensively disturbed and have some issues with exotic vegetation infestations, offer excellent scenery and topography and are well suited to the development of mountain biking facilities.

MOUNTAIN BIKING IN AUSTRALIA

The sport of mountain biking is widely acknowledged to have originated in Marin County, in the north of California, USA, in the 1970's, although bicycles were being ridden off-road in many countries prior to this.

Since it began, mountain biking has grown and evolved into a number of different disciplines and has moved from being a fringe sport to a mainstream activity. In 1996 cross-country mountain biking made its Olympic debut at Atlanta, a major milestone in gaining mainstream recognition.

The main disciplines of mountain biking are:

- Cross-country;
- Downhill;
- 4x;
- Jump trails or dirt jumps;
- Freeride.

A detailed description of these various disciplines is provided in Appendix 1 – Disciplines of Mountain Biking.

Following the growing trend seen elsewhere in the world, mountain biking is growing strongly here in Australia as well. With so much open space and a relatively conducive climate, Australia is well suited to the sport of mountain biking.

Unfortunately, obtaining reliable data on the participation of Australians in the sport of mountain biking is difficult. Due to its unstructured and geographically diffuse nature it is difficult to quantify exactly how popular mountain biking is in Australia. Unlike sports like football and cricket, which take place on purpose-built facilities with recognized clubs and competitions, mountain biking can be done at anytime, with any number of participants, in almost any location. This makes it extremely difficult to track how many people are doing it. While statistics on mountain bike competition aren't hard to find, competition is thought to be only the tip of the iceberg in terms of actual participation, as it is likely that a large proportion of the people that ride mountain bikes have little or no interest in competing, and, like other popular outdoor sports like surfing, the majority of mountain bikers probably don't belong to clubs.

No comprehensive studies have been done estimating mountain biking participation in Australia. However, looking at some of the statistics for cycling generally in Australia, it is possible to make some educated guesses about the popularity of mountain biking.

In 2005 the Australian Government's annual survey of sporting participation, 'Participation in Exercise, Recreation and Sport', ranked cycling (defined to include all types of cycling) fourth in terms of participation for all sports across Australia. The survey also found that participation in cycling had grown by 14% since the survey began in 2001. Unfortunately this study didn't break down cycling into the various disciplines (road, track, BMX, mountain biking etc).

Furthermore, the Cycling Promotion Fund states that:

'Bicycle sales in Australia have nearly doubled since 1998 as more and more Australians rediscover cycling as a great way to get fit, spend time with their families, explore their neighbourhood and get around. Over the last four years in excess of one million bicycles have been sold every year, exceeding the number of new cars sold.'

These figures show that the sport of cycling is extremely popular and is currently showing strong growth, but this still doesn't reveal much about mountain biking.

The number of mountain bikes being sold annually is a reasonable indicator of popularity. The Australian Bike Industry Report 2006 reports that 69% of bicycles sold in that year were mountain bikes (around 800,000 mountain bikes). However, it should be noted that many of these bikes, although classified as 'mountain bikes', are at the very low end of the market and are not designed for the rigours of real mountain biking and will possibly never be ridden off-road. Despite this, if even 10% of the 800,000 mountain bikes sold annually are ridden off-road, then about 80,000 bikes are being sold annually for the purpose of mountain biking.

In 2000 the Australian Bureau of Statistics released 'Leisure and Cultural Participation' a study of outdoor recreation in Tasmania, which found that 4.2% of respondents had been mountain biking in the twelve months prior to the study.

Traffic counters in the You Yangs Regional Park in Victoria record about 75,000 mountain bikers visiting that park annually. With some entry points to the park not monitored, it is thought that the true number of mountain bike visits is closer to 85,000 per year. This park is about forty-five minutes drive from Melbourne and hosts both downhill and cross-country races. It has purpose-built dedicated trails and parking facilities that were developed by Parks Victoria and the local mountain bike club. The mountain biking facilities are located in a part of the park that has low environmental values and was not used by any other user groups.

These figures strongly suggest that there is a large base of cyclists routinely participating in the sport of mountain biking. Given the growth in popularity of mountain biking to date and what appears to be a growing trend away from team-based traditional sports, this base will continue to grow.

As the sport of mountain biking becomes more popular, so too does the demand for dedicated, purpose-built mountain bike trails, especially in urban areas (where most mountain bikers live). Unfortunately, most land managers have been slow to embrace mountain biking, instead taking prohibitive approaches. This negative approach is unwarranted, as mountain biking has many benefits and very few costs to land managers and society generally. The benefits of mountain biking include:

- Mountain biking has a low environmental impact – on properly designed and constructed singletrack, the impact of mountain bikes on the surface of trails is very small (about the same as walking). The majority of the impacts arise during construction when vegetation is removed to create the trail, however this is true of all sporting facilities – all sporting facilities displace vegetation and fauna habitat. In fact, a soccer pitch displaces about the same amount of vegetation as about 12km of

mountain bike trail. Furthermore, mountain bike trails don't require any water, energy, pesticides or fertilizers to maintain;

- Mountain biking promotes health and fitness – cycling is an excellent, low impact form of cardiovascular exercise;
- Mountain biking promotes an appreciation for the outdoors and the natural environment;
- Mountain biking is inclusive of all age groups;
- Mountain biking can be undertaken at all times (even at night) and in any season;
- Mountain biking appeals to an increasing number of people that are not attracted to traditional, structured or team sports;
- Mountain biking is an accessible sport for people of all income levels;
- Mountain biking can be a significant tourism attraction – in some instances, mountain bike tourism has been instrumental in revitalising the economies of rural areas in Europe and North America.

Many land management agencies are beginning to see the merit in providing dedicated mountain biking facilities. This approach allows the land manager to actively and systematically decide where trails will be located and provides the ability to manage risks through sensible trail design.

MOUNTAIN BIKING TOURISM

The growth in mountain biking and the demand for purpose built mountain biking trails is fuelling a new niche market in tourism – mountain bike tourism. Just like snow, surfing and golf enthusiasts, mountain bikers are willing to travel and spend money to indulge their passion. Mountain biking has shifted from being just a localized recreational activity to a recognised tourism product, especially in North America and Europe.

Mountain biking has proven to be an important niche tourism product in many rural areas, as illustrated by the following examples from Europe and North America:

- Wales, UK – In Wales the Forestry Commission UK has constructed and manages five purpose-built mountain bike parks. These parks are all on public land and were constructed with the purpose of generating local economic benefits and employment. In 2004 the five parks generated a total visitation of approximately 146,000 people. Of this, 133,000 were visitors from outside the region and their expenditure is estimated at £3.3 million;
- The 7 Stanes, Scotland, UK – The seven stanes are seven different mountain bike trail centres constructed by the Forestry Commission Scotland since 2001. There are now over 400km of purpose built mountain bike trails, which collectively attract over 400,000 mountain bikers per annum, making the 7 Stanes Scotland's 11th most popular tourist attraction. The project cost over £3.6m (\$A7.8m) to construct, but has returned £9.3m (\$A20m) in expenditure in Southern Scotland and created over 200 full time jobs since 2002¹;
- Moab, Utah, USA – The iconic 'Slickrock Trail' had over 120,000 riders in 1998. The value of this trail alone was estimated at US\$8.5 million²;
- Fruita, Colorado, USA – The small town of Fruita, Colorado has over 50,000 mountain biking visitors per year with target customers spending US\$130-170 per day³;

The perception amongst the broader community is that mountain bikers are young people without significant financial means. This is far from the truth, although certainly many young people are interested in mountain biking. A number of surveys have been conducted at some of the world's most popular mountain biking destinations to try to quantify the economic contributions made by mountain biking tourists. A recent survey conducted in North America⁴ found that:

- Mountain bike travelers to British Columbia, Canada, are most likely to be male and aged 18-34;
- Mountain bike travelers to British Columbia are very affluent, with one-third of the US and almost half the Canadians having a household income in excess of \$100,000;
- US and Canadian mountain bikers are well educated, with over half having completed post secondary education.

¹ From a presentation titled '7stanes project, South of Scotland - Mountain biking for Rural Regeneration' given by Julie Cartner at the Tracks and Trails Conference in April 2008.

² 'Exploring the Market Potential for Yukon Mountain Bike Tourism' by Jane Koepke of the Cycling Association of Yukon, 2005.

³ 'Exploring the Market Potential for Yukon Mountain Bike Tourism' by Jane Koepke of the Cycling Association of Yukon, 2005.

⁴ 'Mountain Bike Tourism' by Jimmy Young and Martin Littlejohn of Tourism British Columbia, 2008.

These statistics show that mountain biking has become a significant tourism niche in many parts of the world and that mountain bikers have the financial means and the motivation to travel and spend to pursue their sport.

In Australia the same trend is emerging, albeit at a slower rate. Although there are now a number of well-known mountain bike destinations throughout Australia (Stromlo Forest Park in the ACT, Forrest in Victoria, Cairns in Queensland etc), none have really reached their true potential as mountain bike tourism destinations. Although many local trail networks are achieving good visitation rates, many of these visitors are likely to be local riders visiting multiple times. In most cases it is the lack of the broader tourism infrastructure, rather than the trails that is preventing these destinations from reaching their potential.

Mountain bike trails can be a tourism attraction in their own right. All the examples discussed above feature trails that have been purposefully designed and constructed as mountain bike trails. However, mountain bike tourism can also be driven by mountain bike events, as shown by several contrasting examples below:

- 2005 Mont 24-Hour Mountain Bike Race – This annual Canberra event is considered the premium 24-hour race in Australia. In 2005 the event achieved the following:
 - 2,445 people competed in the race (35% from ACT, 64% from interstate, 0.4% international);
 - 5,071 people (spectators and competitors) entered through the gates;
 - The total spend of competitors and spectators is estimated at \$2,084,920;
- 2006 Mountain Bike World Championships in Rotorua, New Zealand attracted 40,000 visitors;
- The Crankworx Mountain Bike Festival at Whistler continues to grow, with over 55,000 unique visitors attending the event in 2006, resulting in non-resident expenditures in excess of \$11.5 million⁵.

Mountain bike events attract two types of people – competitors and spectators. Depending on the nature of the event, they can be either spectator heavy or competitor heavy. The 2005 Mont 24-Hour Mountain Bike Race referred to above is competitor heavy. It does attract a number of elite competitors, but most of the competitors are mountain bike enthusiasts rather than elite athletes. It is an event that emphasises participation and enjoyment. The Mountain Bike World Championships on the other hand, are spectator heavy. Only the world's best mountain bikers are allowed to compete, but in doing so, attract thousands of spectators and supporters.

Both mountain biking trails and mountain biking events can be significant tourism attraction if done properly. Events can be a good way to put a location on a map, but trails remain the core tourism product, and they need to be good enough to ensure repeat visitation for recreational mountain biking after the event is finished. The best approach is to combine great trails with a unique event that will showcase the trails and ensure repeat visitation. An excellent example of this is Stromlo Forest Park in the ACT, where mountain bikers of all abilities can ride on the same trails that were used for the Mountain Bike World Championships in September 2009.

At the core of the mountain bike tourism product are the trails. They are the key resource that cannot be compromised. The trails *are* the experience. All the other services and

⁵ 'Mountain Bike Tourism' by Jimmy Young and Martin Littlejohn of Tourism British Columbia, 2008.

infrastructure are important in facilitating a good experience, but if the trails are no good and don't provide the expected experience, there will be no repeat visitation, no word of mouth advertising and no write-ups in mountain biking magazines or web pages. The trails are the key asset and need to be treated as such.

MOUNTAIN BIKING IN SYDNEY AND KU-RING-GAI

Mountain biking is a popular sport in and around Sydney. Sydney's hilly topography and close proximity to forests and parks theoretically provide many opportunities for mountain biking. Furthermore, the Sydney Olympics in 2000 was only the second Olympics that included mountain biking as an official sport (the first being Atlanta in 1996), a legacy that has helped to embed mountain biking within the broader sporting and outdoor culture in Sydney. Many of Australia's most successful cross-country and downhill mountain bike athletes have come from or lived in Sydney.

With few formalised and legal venues for mountain biking close to Sydney, there have been numerous reports recently in mountain bike publications and the mainstream media of an escalating conflict between mountain bikers and land managers. This conflict has been caused by mountain bikers riding on walking trails where cycling is prohibited or by mountain bikers clearing vegetation to create new trails, often in environmentally sensitive areas such as national parks. Authorities have responded by closing illegal trails, erecting signage and even issuing fines to some mountain bikers that continue to ride on or construct unauthorised trails. Despite some negative publicity, the positive outcome of this conflict is that several mountain biking groups have mobilised to begin lobbying local and state government for legal mountain bike trails and there have recently been a number of positive movements made.

Local councils are often less constrained than the managers of national parks, whose role as custodians of national parks often puts them at odds with recreational user groups. Certainly in the Sydney region this appears to be true, with both Ku-ring-gai Council and the neighbouring Hornsby Shire Council proactively seeking viable mountain biking facilities on council managed land.

There appears to be a large population of mountain bikers in the northern Sydney area. There are several large mountain bike clubs such as Turramurra Off Road Cyclists and the Manly Warringah Mountain Bike Club. There are two recreational/advocacy mountain biking groups, Northern Beaches MTB (which has a network of about 1600 members) and the Hornsby Shire Mountain Bike Alliance (which has around 400 members).

Despite the popularity of mountain biking in northern Sydney, there are very few legal facilities for mountain bikers. Manly Dam has a formal, legal loop, which is probably the best known mountain biking singletrack in the region. The trail is a loop comprised of singletrack, fire road and sealed road. It is regarded as suitable for intermediate level riders and takes about one hour to complete.

Ku-ring-gai Council has also been working with the local mountain bike community to develop a number of legal cross-country mountain biking singletracks in the area. Figure 3 on the next page shows a potential mountain biking route put forward by the mountain biking community. It is comprised of three singletrack loops connected by a linear fire track. The first (most westerly) loop is an existing trail that begins on Grosvenor Street. Moving further east, the second loop is in the vicinity of Lister Street. This loop does not exist yet and is unlikely to proceed due to threatened flora and fauna species in the area. The third loop is an existing trail and is located in the vicinity of McRae Place and

incorporates a small section of fire trail. Both the Grosvenor Street and McRae Place loops are in use at present.



Figure 3. Proposed mountain bike route put forward by mountain biking community

Prior to the commencement of fieldwork, Ku-ring-gai Council posted some information about this project on two mountain biking Internet forums – Northern Beaches MTB (www.nobmob.com) and Rotorburn (www.rotorburn.com). The intention of this posting was to inform the local mountain biking community that council was seeking to appoint trail design consultants to prepare a concept design for a mountain bike park to include dirt jumps, skills trails, XC trails and a pump track. It then went on to ask for feedback on the types of mountain bike trails being proposed. One hundred percent of the responses were positive and generally agreed with the type and nature of trails being proposed.

PROJECT OBJECTIVE

This project appears to be driven by two main factors:

1. Strong demands from mountain bikers for dedicated mountain biking facilities;
2. Illegal construction of mountain biking trails on council managed land, which can cause significant environmental degradation and expose council to significant liability.

In the long-term, Ku-ring-gai Council is hoping that, by meeting the demands of the mountain biking community and providing a dedicated mountain biking facility, illegal trail construction will cease. This proactive approach is to be commended and shows that council takes the recreational needs of its stakeholders very seriously.

In the short-term however, the overall objective of this project is to prepare an appropriate concept design for mountain biking trails at the two sites, which Ku-ring-gai Council can use to guide the future development of trails.

In achieving this objective, the sub-objectives to be undertaken are:

1. Visit and thoroughly investigate the two sites, identifying opportunities, appropriate features and terrain, constraints, positive and negative control points, soil types, environmental constraints, traffic movement patterns etc;
2. Liaise with Ku-ring-gai Council officers to determine their expectations and desires for the sites and, in particular, to ensure that the design concept will meet their expectations for risk, construction budget, size/length etc;
3. Prepare a thorough report, presenting the concepts clearly and concisely. The report should include:
 - a. Maps showing the approximate location of each trail;
 - b. A general description of each proposed trail such as length, width, expected difficulty rating etc;
 - c. Information about trail construction including construction techniques, likely construction costs, quantities of materials (in particular, soil quantities required⁶) and construction timelines;
 - d. A discussion of the potential for competitive use of the trails;
 - e. A discussion of the signage requirements of the trails.

⁶ Ku-ring-gai Council have access to clean fill from a commercial development within the municipality. The developer will pay council to accept this fill, so the more soil that can be used to construct these trails, the more funding will be available to council to undertake trail construction.

PROJECT METHODOLOGY

The following methodology was used to complete this project:

1. Commencement meeting and site familiarisation – at the commencement of fieldwork on 17th March 2010, World Trail met with Ku-ring-gai Council's project manager to discuss the objectives and scope of the project. Following this commencement meeting, a brief site familiarisation tour was undertaken;
2. Field investigations – World Trail conducted three days of independent field investigation, during which time the concepts for the trail network and the approximate location of each trail were identified and refined through an iterative process of development, ground-truthing and refining.
3. Report preparation – following completion of field investigations, the final step was the preparation of the report and all associated designs, maps and drawings.

FINDINGS AND RECOMMENDATIONS

GENERAL FINDINGS AND RECOMMENDATIONS

Before discussing individual trails, it is important to consider some of the general qualities of a successful mountain bike park or trail network. These qualities have been identified by World Trail through years of experience and observation of mountain bike trails and the way mountain bikers interact with the trails and the natural environment:

1. There must be trails available for all abilities, from absolute beginner to absolute elite. This helps to encourage progression in skill and at the same time ensures that the trails appeal to the greatest range of people possible;
2. There must be a trails catering to a variety of disciplines – cross-country, downhill, dirt jump, 4X etc;
3. Trails must be signposted effectively for easy navigation and a trail map should be produced;
4. The trail network should be designed to allow day-to-day recreational riding while also facilitating competitive mountain bike events. That is, trails should comply with existing national and international guidelines for competitive course design, even if competition is not a key driver. By designing a course that can accommodate competitive events, the door is kept open for any such opportunities in the future;
5. Using physical trail parameters such as width, surface and obstacles, each trail should be given a difficulty rating based on the International Mountain Bicycling Association's (IMBA) Trail Difficulty Rating System⁷. For example, an 'Easy' trail should be 91cm wide or wider and should have a smooth, firm surface (possibly using an imported crushed rock surface), whereas a 'More Difficult' trail should be 61cm wide or wider and should have a mostly stable surface. This difficulty rating should be clearly shown on signage at the entry to each trail. See Appendix 2 for a thorough explanation of the IMBA Trail Difficulty Rating System;
6. All trails should minimise the exposure of trail users to inappropriate and unexpected risks. The risks presented by each trail should match the recommended trail difficulty rating;
7. Generally speaking, mountain bike trails should allow travel in only one direction. This is a key risk management technique to minimise the likelihood of head-on collisions between mountain bikers. Where dual-direction travel is allowed, trails will generally be flat, low speed and designed to allow long sight lines;
8. All trails should be given a name. Naming trails is very important. The names should reflect the culture of mountain biking and should identify the trail. Names assist in giving the trail an identity and are invaluable in marketing the trail network. Names should be fun and might reflect local stories or culture;
9. The surface of the finished trails will vary. Most experienced riders prefer to ride on a natural compacted dirt surface, however World Trail generally recommends the use of crushed rock surfaces on trails for less experienced riders, although care needs to be taken in choosing the surfacing material to ensure that it is not 'loose' and 'skatey', as this can be very disconcerting to inexperienced riders.

⁷ World Trail designs and constructs trails to meet the IMBA published Trail Difficulty Rating System. This system allows trails to be categorised as Easiest, Easy, More Difficult, Very Difficult or Extremely Difficult, based on trail parameters such as width, gradient, surface etc. Further details about the IMBA Trail Difficulty Rating System are provided in Appendix 2 – IMBA Trail Difficulty Rating System.

World Trail was extremely excited by the prospects presented by this project. The sites themselves possess a number of qualities that will contribute significantly to the project's success:

- The close proximity to Sydney suggests that it will be well patronised by mountain bikers (this was also borne out by observations during field work – numerous mountain bikers were encountered riding in the area). This is further emphasised by the lack of formal mountain biking facilities elsewhere in the Sydney area;
- The topography of the sites provides opportunities for some interesting and exciting trails. There is enough vertical relief to allow for some fun, short descending trails. The old quarry site has a hidden, secretive feel where the proposed trail runs along the base of the cliff. Similarly one the trails proposed at Golden Jubilee runs along the base of the cliffs that form the escarpment. The cliff towering above provides shade and an interesting visual element;
- The two sites have been heavily modified and degraded through industrial uses (quarrying and landfill) and are heavily infested with exotic plant species. The native bushland adjacent to the two sites, however, is of good quality and provides a more typical Australian bushland setting. The uninterrupted views into the valley and the native bushland setting (especially along the fire road between the two sites) will give most riders the sensation of riding in the wilderness, rather than the edge of Australia's largest city and a once degraded site;
- Golden Jubilee Oval is an excellent site with outstanding facilities. The existence of sealed roads, car parking, toilets and water at the site is a major advantage. Already a popular spot for dog walking, baseball, football and remote controlled aeroplane flying, its popularity as a general recreational area will be bolstered by the addition of these proposed mountain bike facilities (although this may increase pressure on the relatively scant car parking).

Unfortunately, there are also a few disadvantages with the two sites:

- Minimal public transport servicing the direct area. There are a number of train stations within about 5km from the site, which provide an adequate public transport option for many potential users of the mountain bike park, especially those from outside the immediate region. Most users of the park will have bicycles, which can also be used for transport to the site, but unfortunately, the roads between the train stations and the sites are quite busy which may deter some people. Younger users of the park in particular, may find it difficult to get to without a vehicle;
- Relatively few car parking spaces. Although Golden Jubilee Oval does have a formalised entry road into the reserve, with a sealed asphalt surface and designated car parking spaces, there is probably only sufficient parking for about 20 vehicles. During fieldwork this car park was observed to fill up on a weekday when no organised competitive sporting events were on. World Trail believes that this must be an issue already on weekends when baseball or football games are on. Evidence of cars parking on grassy areas (tyre marks, compacted dirt areas beside roads) supports this belief. With the construction of a mountain bike park, many more users will be attracted to the reserve and this issue may need to be addressed;
- The site is fairly small, limiting the amount of trails that can be constructed. This is not necessarily a disadvantage per se, but does limit future opportunities for competitive events. It should be noted however, that the main driver for this project is to provide recreational facilities for local users. It is not about attracting large numbers of mountain bike tourists or providing a venue for a large scale mountain bike event like many of the popular enduro/marathon events held in more rural areas. When the site is looked at on the whole, including the bushland and fire road between the two sites, it is

reasonably large. However, the native bushland component of the site, although managed by Ku-ring-gai Council, is not within the scope of this project. Council has deliberately restricted the focus of this project to the two disturbed areas, so as to protect the environmental values of the surrounding bushland;

- There is an existing walking track to a rocky knob just north of the proposed Golden Jubilee site. This track is a short loop (1-2km), which takes walkers around the perimeter of a rocky knob that forms the end of the peninsula. The walk traverses along the top of a steep escarpment, with excellent views into the surrounding valleys. It is a beautiful walk through native Eucalypt woodlands, which appears to be quite popular (although unfortunately there was also some evidence of antisocial behaviour along the walk – rubbish, beer bottles, old furniture, etc). Given that the walk starts and finishes at the proposed mountain bike park at Golden Jubilee, it is highly likely that many users of the park will ride their mountain bikes along this track (it is quite likely that this is already occurring). This is not a problem in terms of sustainability as the track is situated mostly on large slabs of sandstone rock and is durable enough for mountain biking, but it may pose a significant liability to council, as riders on this track are exposed to potential falls from the edge of the escarpment. By constructing a bike park at the proposed location, council will be potentially attracting many more users to the area, a proportion of which are likely to use this walking track. Signage (prohibiting entry to mountain bikes) and possibly some type of barrier at the entry to the walking track would be essential. It is likely that some riders will ignore the signs, but it may give council some legal protection. Conversely, council could choose to actually formalise the track for usage by walkers and mountain bikers. This would require the installation of physical barriers in some places to restrict access to the edge of the escarpment and signage communicating that the track is shared usage and has some dangerous drops. Some trimming of vegetation may be required in order to provide long sight lines along the trail so that walkers and mountain bikers can see each other coming. The increased usage of the track would possibly put an end to the antisocial behaviour occurring there.
- The area has a large group of existing users. During fieldwork, World Trail observed four main user groups in this area – mountain bikers, walkers (including dog walkers), runners and remote controlled aeroplane enthusiasts (as fieldwork was not conducted on weekends, no organised football or baseball matches were observed). Of these groups, the largest in number by far, was walkers. Council will need to undertake close consultation with these users to ensure that they do not become opposed to the development of the area for mountain biking. In many cases, this is about educating these users about the sport of mountain biking, as they often have poor understanding of the sport. A key design guideline for the mountain bike trails is to ensure that they do not unduly impact or endanger these current user groups.

Figure 4 shows the proposed layout of the mountain bike park⁸. The various cross-country singletracks are shown in different colours, simply to differentiate them from each other. The coloured polygons show the approximate location of the dirt jumps, pump track and skills loops.

⁸ The term mountain bike park is used as the proposed facility includes typical cross-country mountain biking trails, but also less typical features like dirt jumps, skills loops and a pump track. Such elements are more youth oriented and lend themselves well to an idea of a mountain bike park.



Figure 4. Proposed layout

The Golden Jubilee site is the focal point for the mountain bike park, for the simple reason that it has all the amenities required for any visitor site (car parking, toilets etc). As such, it is designated as the main entry point into the mountain bike park, especially for users that arrive by vehicle (many local users that ride to the park will enter via the existing network of fire roads). The Clissold Rd site has no amenities, no formalised car parking and, being a residential street, should not be promoted as the entry point into the mountain bike park.

Figure 4 shows two large coloured polygons, one at the Golden Jubilee site and one at the Clissold Rd site. These are referred to as the High Energy Zone and the Skills Zone respectively.

The High Energy Zone concentrates all the gravity oriented elements of the park in to one area. It is comprised of dirt jumps, a freestyle jump area and a pump track.

The Skills Zone will feature a variety of features that are intended to improve skills in a low risk, low speed environment.

XC TRAIL 1



Figure 5. XC Trail 1

Length:

Approximately 1760m

Features:

XC Trail 1 is comprised of a 990m descent and a 770m climb. Being a loop trail, it starts and finishes at the main gate from the car park. It is intended to be ridden in an anti-clockwise direction, as shown in Figure 5 above.

Starting at the gate from the car park, XC Trail 1 begins with a 200m descent down to the large flat area proposed as the location of the High Energy Zone. This first 200m of XC Trail 1 is intended to be the main access route for all riders into the mountain bike park, not just those that will continue along on XC Trail 1. It must be fun and enjoyable, so that riders will choose to ride it, rather than riding down the main fire road from the gate, which is commonly used by walkers.

Once reaching this flat area, XC Trail 1 passes through the middle and then around the northern end of the High Energy Zone⁹ and then continues downhill for another 600-700m, via a series of long traverses along the terraced benches. At the end of each traverse, the trail turns 180° and heads back in the same direction along the lower bench. Each corner will be bermed and the straights between the corners will feature playful features like rollers and jumps and wall rides (using the batters). When the trail reaches the lowest extent of the old landfill site (which is marked by the edge of the Eucalypt canopy) it exits onto the fire road.

World Trail's vision for this descent is a wide (approximately 1-1.5m), fast, flowing, fun style of trail with lots of berms (i.e. banked corners), jumps (all rollable, table-top style jumps – no gaps) and pump sections, with minimal straight, flat sections. It is intended to be a hybrid of cross-country and 4X – that is, rideable on a cross-country bike, but incorporating trail elements more typically found on a 4X track, and therefore appealing to a wider audience than just pure cross-country riders. The descent uses mostly degraded land that is heavily infested with non-native vegetation. The landform in this area is comprised of long flat benches or terraces, which have been artificially constructed using imported soil, presumably as capping for the former landfill that once existed on this site. This trail will feature numerous jumps that more experienced riders can use to launch into the air, but that can also be rolled safely over for riders that don't wish to jump. In terms of difficulty it will be rated as 'Easy', although there could possibly be some optional lines that are rated as 'More Difficult'. Figure 6 shows the 'Berm Track' at Stromlo Forest Park in the ACT. This trail is similar to the concept proposed for the descending part of XC Trail 1 – a constantly twisting, undulating winding trail, with lots of small jumps and rollers and minimal pedalling.

Crossing the fire road, XC Trail 1 then begins to climb back up. This part of the climb takes riders through weedy Eucalypt woodland and past some large rocky outcrops at the bottom of a large cliff face. This section is littered with old derelict machinery, indicating it has also been used as a dumping spot for rubbish at some time in the past. The climb winds it's way via a series of switchbacks and flat benches back up to the High Energy Zone. From here, XC Trail 1 continues to climb back up to the car park, running very close beside the main fire road for about 100m until reaching the car park.

The climbing section of XC Trail 1 will be rated as 'Easy'. It will feature low gradients, ensuring it is sustainable and also achievable for all riders (keeping in mind that, given the 'hybrid' style of the descent, XC Trail 1 will have broad appeal to all types of riders, not just cross-country riders). It must be easy enough and enjoyable enough that all riders want to use the trail, instead of using the fire roads.

⁹ Where XC Trail 1 passes through the middle of the High Energy Zone, the walking track to the rocky knob will also be located. The High Energy Zone will be divided into two parts, with the middle part a neutral, non-activity area for access of walkers and cyclists.



Figure 6. The 'Berm Track' at Stromlo Forest Park

Difficulty:

Easy (possibly with some optional 'More Difficult' features)

Soil Required:

The main trail will be constructed as a partial bench trail¹⁰ using the in situ soil. However, extra soil will be required to construct berms and jumps/rollers on the descending section. Once these features are in place, the entire trail (both the descent and the ascent) should be capped with a suitable wearing course. The other cross-country trails are not recommended to be capped. This trail will receive particularly heavy usage and given the more gravity-orientated nature of this trail, should be capped with a durable wearing course to assist in its sustainability.

Base course

Features (berm/jump/roller) will occur, on average, every 25m along the descending section of the trail. Each feature will require approximately 2.5m^3 of soil. Given that there will be about 40 features, 100m^3 of soil will be required.

¹⁰ A partial bench trail is a trail where the soil that is removed is placed beside the cut to create a flat bench. A full bench trail is a trail where all the soil that is removed is taken off site. Full bench trails are generally more stable and more aesthetically appealing, but are expensive to build (due to the effort of transporting the soil off site) and they also require a very large batter cut, which can be unstable in some environments.

Wearing course

A 50mm (prior to compaction) thick layer of a suitable fine crushed rock should be applied to the entire trail as the wearing course. Stabilisation with some kind of chemical soil stabilizing agent (eg. Warajay, Dustac, Soilbond etc) is recommended. Given that the loop is 1760m long, at an average width of 1.25m, 110m³ of fine crushed rock will be required.

Estimated Construction Cost:

\$61,600.00 + GST + expenses + materials

Note: This cost estimate is based on the likely time required to construct a trail of this nature, using World Trail's standard construction rates. It is an estimate only and does not include GST, any expenses (i.e. equipment transportation, staff accommodation, etc) or material costs.

XC TRAIL 2

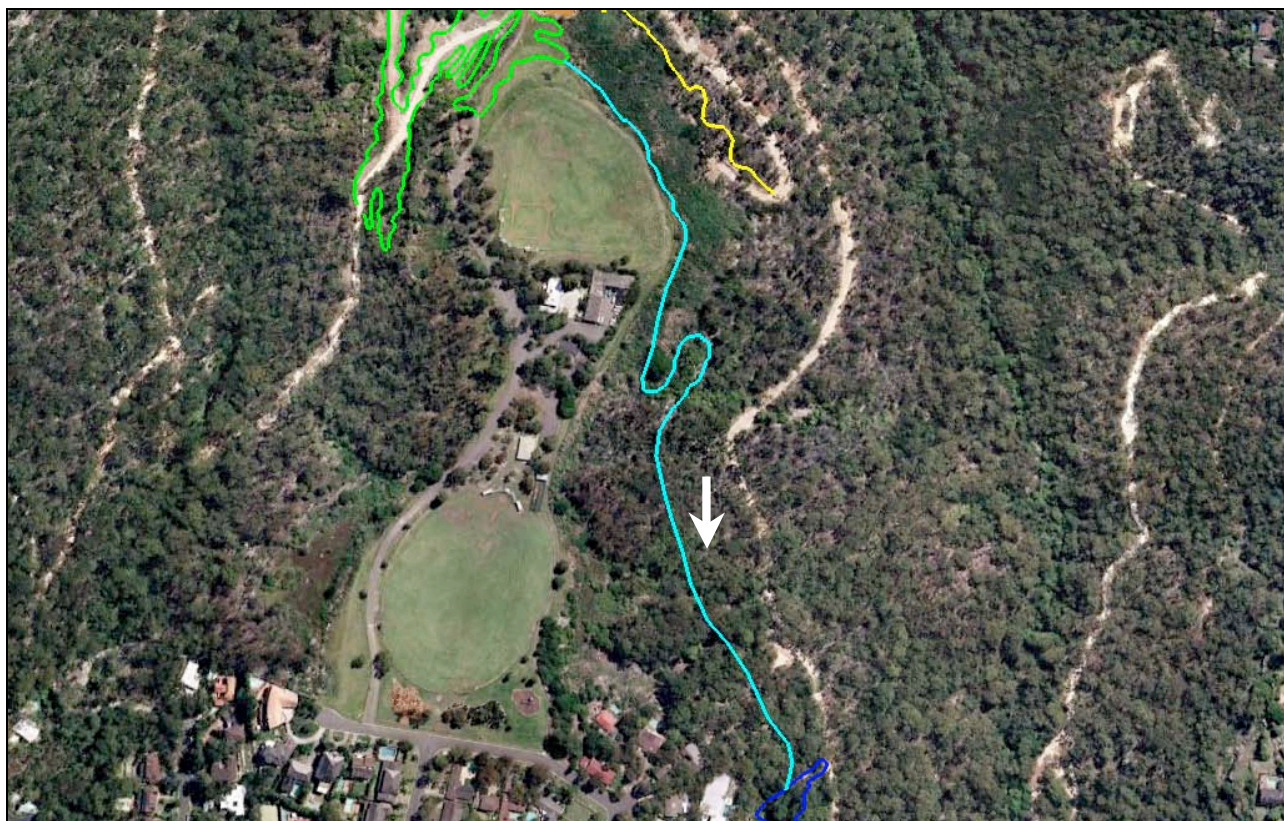


Figure 7. XC Trail 2

Length:

Approximately 850m

Features:

XC Trail 2 forms an integral cross-country link between the two main areas – Golden Jubilee and Clissold Rd – and, in doing so, also opens up the potential of the area for competitive events. By operating as a dedicated, one-way descending link between the two main areas, it removes high speed descending riders from the main fire road. This means that the fire road can be reserved for riders (and walkers of course) climbing uphill to Golden Jubilee, reducing the potential for head on collision between descending and climbing riders (or walkers).

Figure 7 shows the approximate location and alignment of XC Trail 2 (the pale blue line). XC Trail 2 starts on XC Trail 1, about 50m from the starting point at the gate at the car park. It then skirts around the eastern side of the baseball field, on the other side of the existing fence, rolling along the contour. Once past the baseball field it slowly begins to drop altitude, descending at sustainable and gentle gradients (less than 10%). The vegetation at the start of the trail is almost entirely introduced – indeed, the thickets of lantana along the edge of the baseball field were so dense they prevented thorough on-ground investigation of the proposed route and will add significant labour to the construction phase. The lower reaches of the trail are located in native Eucalypt forests

with large outcrops and cliffs of rock, which will require very careful alignment of the final trail route, so as to avoid any areas of high environmental significance.

This trail will be a fairly traditional cross-country trail. It should be less than 1m wide, generally following the contours closely, with frequent grade reversals and a gentle 5% outslope so as to ensure water is pushed off the trail at every opportunity. The large boulders and rocky outcrops in this area will be prominent features of the trail and opportunities should be taken to incorporate rocky features into the trail wherever possible. Trail gradient should be restricted to about 10% generally, but some short sections up to 15% would be acceptable (especially if they are located on rock). World Trail recommends using a small rubber-tracked excavator to construct the trail. It would be constructed as a partial bench trail. The trail would be constructed using in-situ soil (that is, no soil will be required to be imported for this trail) and will feature a natural dirt surface (that is, no crushed rock will be required as a wearing course for this trail). A crushed rock surface will add expense to this project and in World Trail's experience, is not necessary and doesn't match with the expectations and preferences of most experienced riders.

Difficulty:

More Difficult

Soil Required:

Nil – trail is constructed from in situ soil

Estimated Construction Cost:

\$21,250.00 + GST + expenses + materials

Note: This cost estimate is based on the likely time required to construct a trail of this nature, using World Trail's standard construction rates. It is an estimate only and does not include GST, any expenses (i.e. equipment transportation, staff accommodation, etc) or material costs.

XC TRAIL 3



Figure 8. XC Trail 3

Length:

Approximately 1050m

Features:

XC Trail 3 is a typical cross-country trail, being less than 1m wide, with challenging technical features and some climbing sections. This trail will be quite convoluted, constantly twisting and turning, so as to maximise the length of the trail and thus ensure the maximum benefit is made from this area.

Like XC Trail 1, XC Trail 3 is also a loop trail, again, designed to be ridden in an anti-clockwise direction, as shown in Figure 8 above. It links to, and follows for about 100m, the main fire road. Being a loop, the start and finish of the loop largely depend on where the rider is coming from, but it is believed that most riders will access this trail either from Clissold Rd (the southern end of the loop) or from XC Trail 2.

Starting at the northern most extent, XC Trail 3 climbs briefly up onto a large flat area beneath a cliff. This flat area appears to have been artificially constructed when the area was an operating quarry. The trail winds its way along this flat area, heading in a south/south-westerly direction, following along the base of the cliff and eventually exiting onto the fire road at the end of Clissold St. Turning left the trail heads back to the north, following the fire road for about 50 – 100m and skirting along the edge of the Skills Zone,

before turning off the fire road to the left and back onto singletrack. This singletrack winds its way along the contours, running parallel to the fire road, until reaching the start.

Much of the vegetation in this area appears to be introduced.

Difficulty:

More Difficult

Soil Required:

Nil – trail is constructed from in situ soil

Estimated Construction Cost:

\$26,250.00 + GST + expenses + materials

Note: This cost estimate is based on the likely time required to construct a trail of this nature, using World Trail's standard construction rates. It is an estimate only and does not include GST, any expenses (i.e. equipment transportation, staff accommodation, etc) or material costs.

XC TRAIL 4



Figure 9. XC Trail 4

Length:

Approximately 450m

Features:

Figure 9 above shows the location and alignment of XC Trail 4 (indicated by a yellow line). It is a climbing trail, intended to replace the long, straight uphill stretch on the fire road¹¹ leading up to the High Energy Zone. This stretch is very steep (likely around 20-30%) that is very difficult (and unenjoyable) to ride up. XC Trail 4, however, would roll along the contours, slowly and gently climbing up at a more sustainable gradient, making for a more achievable and enjoyable trail.

At the beginning of this trail, near the large switchback on the fire road, the vegetation is open Eucalypt forest, but about halfway along the trail, the vegetation changes to non-native vegetation, characterized by dense lantana thickets. These thickets of lantana were so dense that a thorough on ground investigation was not possible.

Difficulty:

More Difficult

¹¹ Note that the aerial imagery used in this report is several years old. In Figure 9 the fire road does not appear to connect through to the High Energy Zone. This is because these photographs were taken while the fire road was still under construction. It does, in fact, connect all the way through.

Soil Required:

Nil – trail is constructed from in situ soil

Estimated Construction Cost:

\$11,250.00 + GST + expenses + materials

Note: This cost estimate is based on the likely time required to construct a trail of this nature, using World Trail's standard construction rates. It is an estimate only and does not include GST, any expenses (i.e. equipment transportation, staff accommodation, etc) or material costs.

HIGH ENERGY ZONE

The High Energy Zone is located on the large flat area just to the north of the car park at Golden Jubilee. It is a major gravitational point for the mountain bike park. It is comprised of dirt jumps, a pump track and some freestyle jump mounds. The approximate locations of these elements are shown in Figure 10 below. Figure 11, Figure 12 and Figure 13 show varying perspective views of the various features.

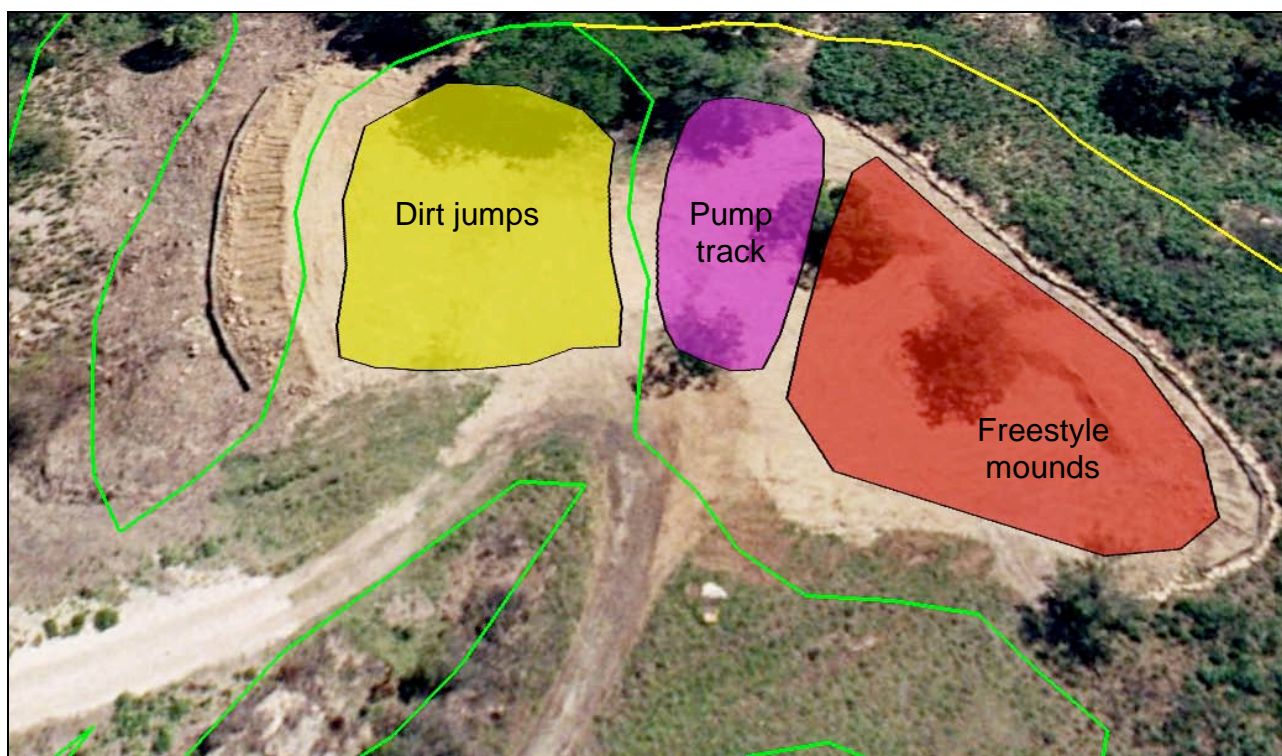


Figure 10. Layout of High Energy Zone

It is important that the High Energy Zone be thoroughly landscaped after the actual mountain biking features have been completed. This aspect is often overlooked and can really damage the perception of the sport to outsiders. Given the highly urban setting of this park, it is important that the mountain bike park is visually appealing and well maintained.

Fencing and crushed rock pathways should be incorporated into the design, so as to encourage appropriate traffic circulation throughout the area and to differentiate between activity zones and passive zones. Passive areas should include extensive mulching and planting with Australian native plants and seating for spectators.

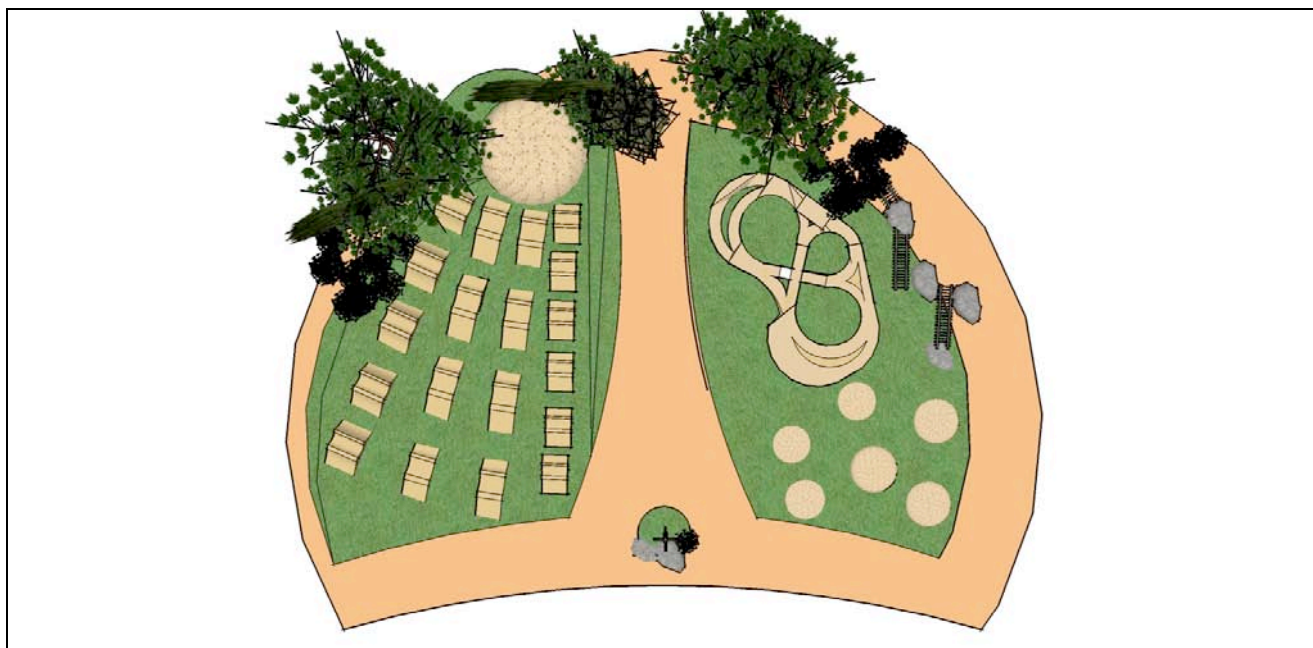


Figure 11. Top view of proposed layout of High Energy Zone



Figure 12. View of High Energy Zone from southeast

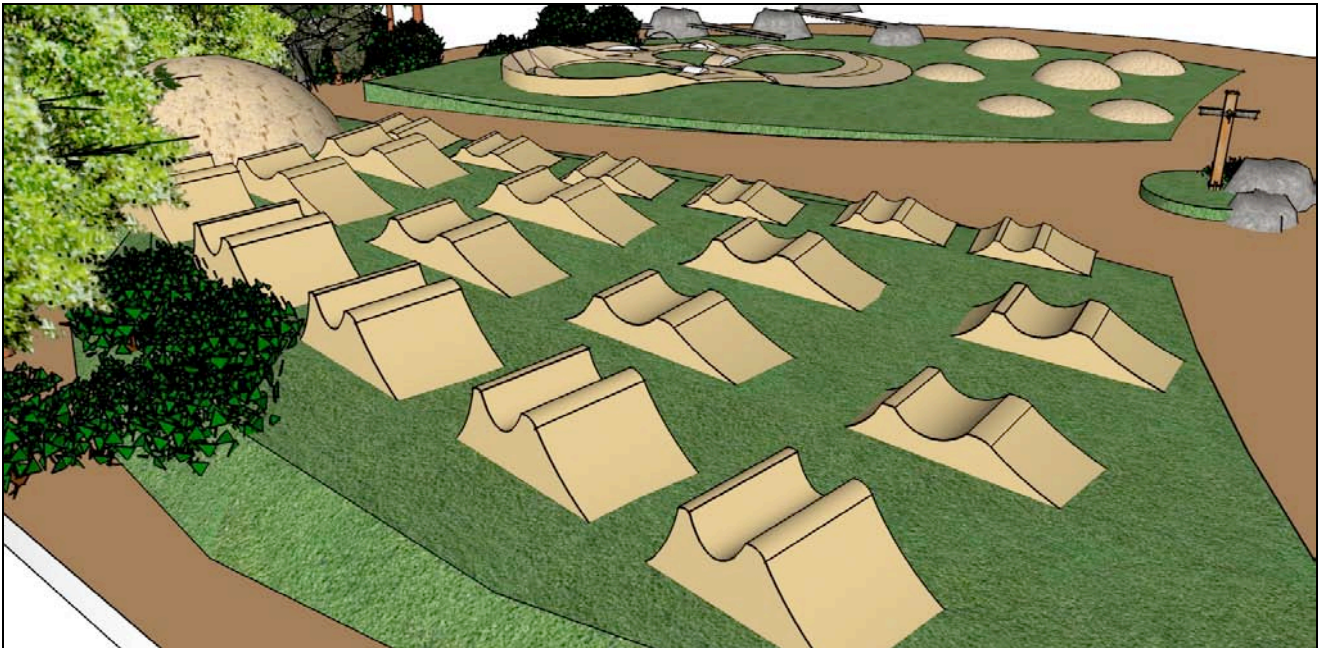


Figure 13. View of High Energy Zone from west

Dirt Jumps

Length / Size:

The area available for the dirt jumps is approximately 800m² (about 40m long north-south, and about 20m wide east-west).

Features:

Typically, dirt jumps are usually clustered into relatively small areas with a variety of different shaped and sized jumps where riders can hone their skills and perform different types of aerial manoeuvres. Dirt jumps are typically arranged in 'runs' of multiple jumps in a row. There may be multiple runs, each run corresponding to a different difficulty level. An elevated start mound is usually constructed to enable riders to get up sufficient speed easily. Riders will gather on top of the start mound waiting for their turn to use the track, so the start mound is an important social gathering spot.

The proposed dirt jump area at Golden Jubilee is comprised of four 'runs' of dirt jumps orientated parallel to each other, ridden from north to south. Each run is comprised of 4-6 jumps of the same difficulty level. A large earth mound provides riders with an elevated start platform so they can accelerate to the required speed before the first jump. After completing the final jump, riders should turn to their left and return to the start mound via the main pathway through the centre of the site. Each run has 4 – 6 jumps each. Each run is about 30-40m long and 2m wide.

There are several critical risk management principles that must be incorporated into the jumps. Firstly, easy runs feature lower and shorter jumps than hard runs. As riders progress from the easy runs to the harder runs, the jumps become higher and longer.

Secondly, all jumps should be 'tabletop' jumps rather than 'gap' jumps. A tabletop jump has defined takeoff and landing ramps, but a flat (or moderately flat) platform or tabletop between them. This allows riders to roll up the takeoff ramp, along the tabletop and down the landing ramp without having to jump. A gap jump also has defined takeoff and landing ramps, but it has a gap between them, which a rider must jump in order to negotiate the whole jump safely. This is referred to as a 'forced risk' as the rider is forced to jump. Such jumps are only suitable for highly skilled riders and World Trail does not recommend them. Figure 14 on the next page illustrates the difference between a tabletop jump and a gap jump, while Figure 15 shows typical jump profiles corresponding to different levels of ability.

Thirdly, although it may appear obvious that the larger jumps are more difficult, it should not be assumed that all riders will intuitively understand this. Signs will need to be erected identifying the difficulty rating of each jump run (i.e. Easy, More Difficult, Very Difficult and Extremely Difficult). Furthermore, World Trail recommends a large sign be erected at the main entry point to the dirt jumps, warning riders of the risks of jumping and encouraging the use of appropriate safety gear.

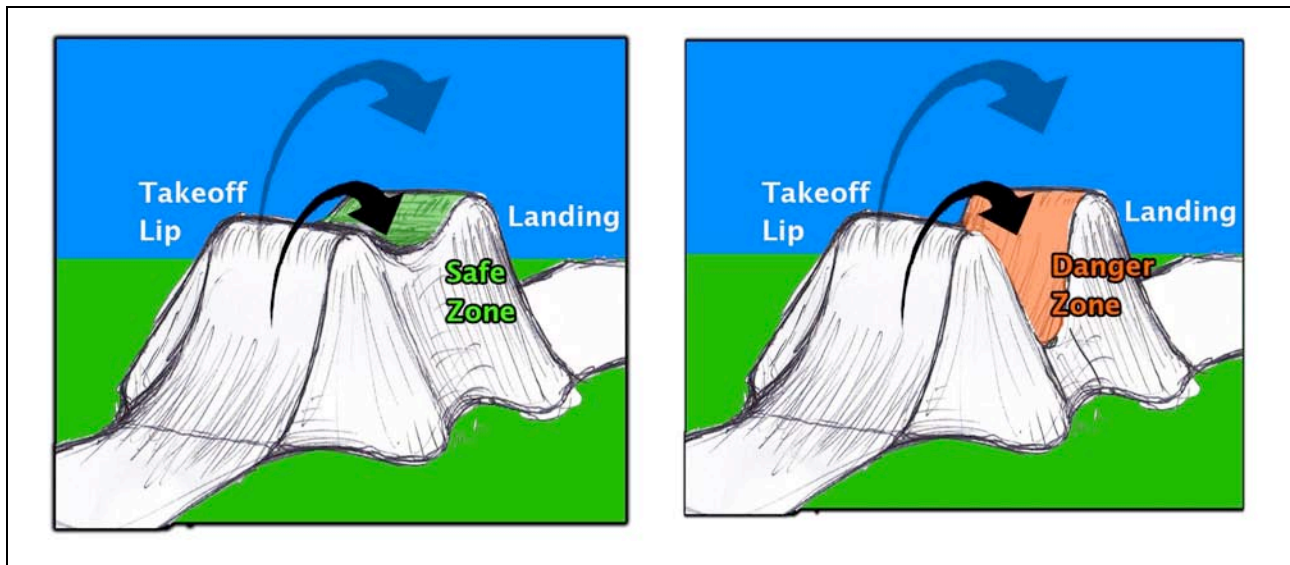


Figure 14. Tabletop jump (left) vs. gap jump (right)

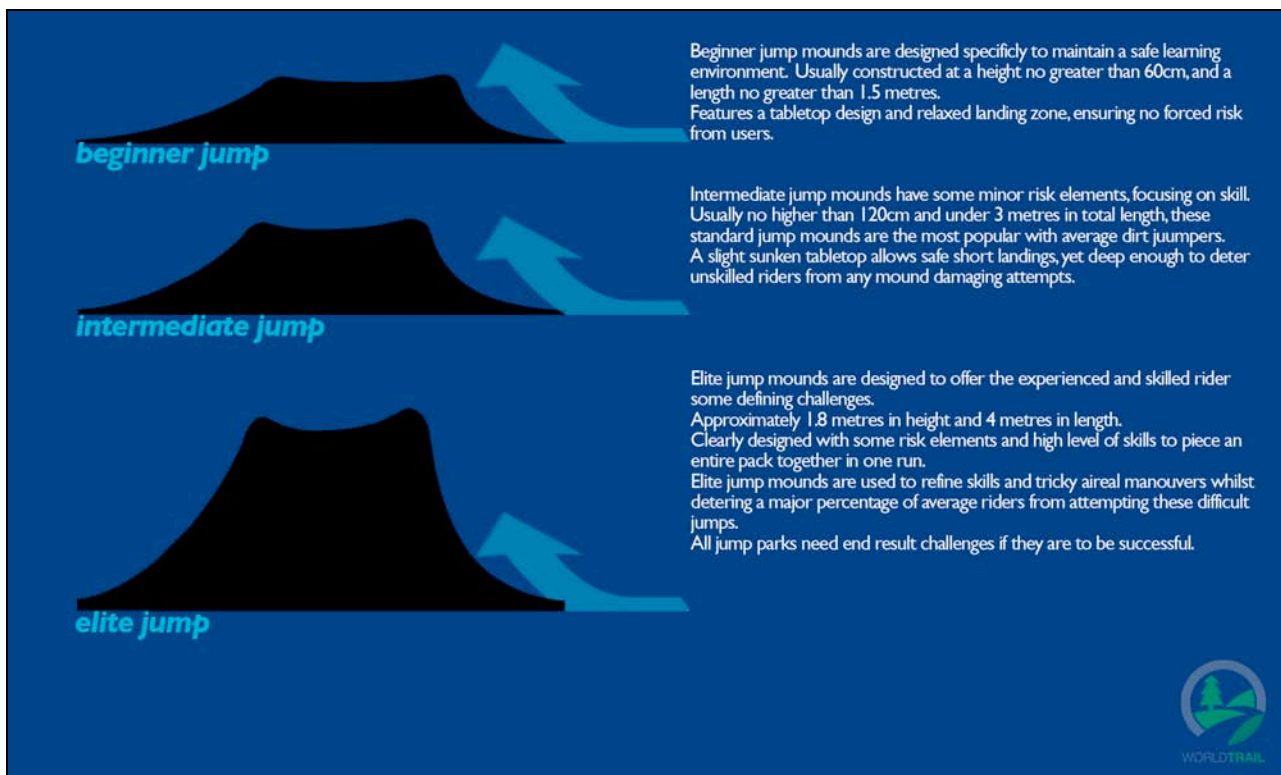


Figure 15. Typical dirt jump profiles.

Figure 16 shows a similar dirt jump park in Torquay, Victoria. This jump park has Easy, More Difficult and Very Difficult jump runs. These can be seen in the photo. Note the landscaping, fencing, pathways and signage – riders are forced to ride past the signs in order to get to the start mound. Figure 17 shows a dirt jump park in Townsville being constructed by World Trail.



Figure 16. Dirt jump park in Torquay, Victoria.



Figure 17. Dirt jump park being constructed in Townsville, QLD.

The proposed location for the High Energy Zone currently features several large non-indigenous trees standing approximately where the start mound is proposed to be located. Ku-ring-gai Council staff indicated that these trees would be removed, but World Trail recommends keeping them (provided that they don't pose any threat to surrounding ecological values) as they would provide excellent shading to the proposed start mound and much of the jump runs and add visual appeal to the area.

Difficulty:

1 x Easy run, 2 x More Difficult runs, 1 x Very Difficult run

Soil Required:*Base Course*

Firstly, the area needs to be re-profiled to provide the correct gradient – approximately 5%. The jump runs all start at the northern end, and run to the south. The site appears to be flat currently, so soil will need to be imported to build up the northern end of the area so as to produce a uniform, gently sloping plane at about 5%. So, assuming that the entire area is currently flat, the northern end needs to be brought up by 2m in order to achieve a uniform 5% gradient. This requires approximately 800m³ of soil.

Secondly, a start mound should be constructed. This mound needs to be about 10m in diameter and 2m high. This will require about 200m³ of soil.

Thirdly, the actual jumps will require a significant volume of soil:

- Each Easy jump requires 2m³ of soil. As there are 6 Easy jumps, 12m³ of soil is required;
- Each More Difficult jump requires 6m³ of soil. As there are 8 More Difficult jumps (two runs with four jumps in each), 48m³ of soil is required;
- Each Very Difficult jump requires 12m³ of soil. As there are 5 Very Difficult jumps, 60m³ of soil is required;
- The total volume of soil required for the base course of the jumps is 120m³.

The total amount of soil required is 1170m³ (800m³ to re-profile the area, 250m³ for the start mound and 120m³ for the actual jumps).

Wearing Course

A 100mm thick layer of a suitable fine crushed rock should be applied to each jump run and the start mound, as the wearing course. Stabilisation with some kind of chemical soil stabilizing agent is recommended. Given that the total length of the jump runs is 140m (4 runs at approximately 35m long), at an average width of 2m, approximately 30m³ of fine crushed rock will be required.

Estimated Construction Cost:

\$30,000 + GST + expenses + materials

Note: This cost estimate is based on the likely time required to construct a trail of this nature, using World Trail's standard construction rates. It is an estimate only and does not include GST, any expenses (i.e. equipment transportation, staff accommodation, etc) or material costs.

Pump Track

Length:
50m

Features:

A pump track is a continuous, looped track that is designed to be ridden without pedaling. To inexperienced mountain bikers this may seem impossible, but by ‘pumping’ the bike through a series of rollers and berms it is possible to generate speed. Some tracks contain jumps, but the best tracks use steep berms and smooth rollers to build speed and maintain momentum. Speed can also be generated from a ‘start mound’ that is located at the beginning of the track and is always the highest point of the track. Most pump tracks are roughly oval in shape and often feature crossovers on the same track – figure 8’s are also a popular design. Pump tracks are generally ridden by one rider at a time. Pump tracks are safe and fun for all levels of rider. Figure 18 shows an example of a pump track.



Figure 18. Example of a pump track

Difficulty:
Easy

Soil Required:*Base Course*

This site is currently flat, which is ideal for a pump track, so no soil is required to level this site.

The trail is comprised of rollers and berms. The ideal ratio for a roller is 1:10. That is, a roller should be 1 unit high and 10 units long (where the length would be measured from peak to peak, or trough to trough). As rollers should be 0.5m high, there should be 5m between each roller. As there are no flat spots on the entire track without rollers, there will be about 10 rollers in total. The trail is 1m wide. The volume of soil required per roller then is about 1.25m^3 , however this should be rounded up to 1.5m^3 to allow for compaction. Therefore, the total amount of soil required for the rollers is 15m^3 .

Another 10m^3 of soil will be required to construct berms.

In total, 25m^3 of soil will be required to build the pump track.

Wearing Course

A 50mm thick layer of a suitable fine crushed rock should be applied to the entire track as the wearing course. Stabilisation with some kind of chemical soil stabilizing agent is recommended. Given that the total length of the pump track loop is 50m, at an average width of 1m, 2.5m^3 of fine crushed rock will be required.

Estimated Construction Cost:

\$25,360 + GST + expenses + materials

Note: This cost estimate is based on the likely time required to construct a trail of this nature, using World Trail's standard construction rates. It is an estimate only and does not include GST, any expenses (i.e. equipment transportation, staff accommodation, etc) or material costs.

Freestyle Mounds

Features:

In addition to the main dirt jump runs, World Trail has incorporated a number of freestyle mounds into this concept design. The freestyle mounds are generally hemispherical in shape, and can be ridden in any direction. They can be jumped or just ridden and can be linked together into a series. They vary in size. There are six of these mounds in total. The area between and around the mounds is flat and smooth, to allow riders room to run out from their landings and to generate speed for the mounds.

The mounds will vary in size and shape, and won't all be perfect half spheres. Mounds will be stretched and contorted to suit the site contours and expected riding directions and conditions.

The maximum height of the mounds is around 2-3m high. On average, each mound will be 5-10m in diameter.

Difficulty:

Easy – Very Difficult

Soil Required:

Base Course

This site is currently flat, so no soil is required to level this site.

Each freestyle mound requires about 10m^3 of soil. As there are six of these mounds in total, 60m^3 of soil is required.

Wearing Course

A 100mm thick layer of a suitable fine crushed rock should be applied the surface of the freestyle mounds, as the wearing course. Stabilisation with some kind of chemical soil stabilizing agent is recommended. It is difficult to estimate the volume of wearing course material needed to cap the freestyle mounds, as it is unclear what dimensions the final mounds will have. However, using the overall area designated for the freestyle mounds as a guide (about 500m^2), about 50m^3 of fine crushed rock will be required for the wearing course of the freestyle mounds. This allows for the entire area to be surfaced.

Estimated Construction Cost:

\$16,800 + GST + expenses + materials

Note: This cost estimate is based on the likely time required to construct a trail of this nature, using World Trail's standard construction rates. It is an estimate only and does not include GST, any expenses (i.e. equipment transportation, staff accommodation, etc) or material costs.

SKILLS ZONE



Figure 19. Skills Zone Location

Length / Size:

Overall area is 90m long x 20m wide = 1800m²

Features:

The Skills Zone is located at the Clissold Rd site. More specifically, it is located directly adjacent to the fire road that links the two sites. XC Trail 3 runs along the edge of the Skills Zone, as shown in Figure 19 above.

This area has poor amenity – no car parks, no toilets, no water, no rubbish bins etc. Given this, it is not considered suitable as a high activity gravitation site, and high numbers of users staying at this site for long periods of time would likely lead to environmental damage and disturbance of neighbouring residents. World Trail believes that any features located in this site should be aimed towards cross-country mountain bikers rather than the more youth-orientated gravity and freestyle type disciplines. This mountain biking demographic is more mobile, generally happy to cover large distances.

The Skills Zone will feature a variety of timber, rock and soil obstacles linked together via a trail or series of trails. Obstacles include things like seesaws, elevated platforms, narrow balance beams, vertical wall rides, step-ups, step-downs, drop-offs, rock gardens, berms and rollers. These obstacles are generally designed to test balance, bike handling and nerve, in a safe and non-threatening environment. The features are high skill, low risk. All features would have a cleared fall zone around them, with a soft fall mulch to prevent hard landings. Typical obstacles in the Skills Zone will emphasise slow speed balance and bike handling skills rather than jumping or high speed manoeuvres. Typically, mountain biking

trails or facilities like this are referred to as skills parks or skills trails. Some skills trails even include instructional signage to teach specific mountain biking skills to beginners.

Figure 20, Figure 21 and Figure 22 show some typical features of skills parks.



Figure 20. Elevated platform with steps – Adelaide, SA



Figure 21. See-saw at Mt Buller Skills Park, Victoria



Figure 22. Skills park in North America

The Skills Zone at Clissold Rd is large enough to allow for a single skills trail about 350m long, or several shorter loops adding up to 350m (which would also allow for some separation based on difficulty ratings). World Trail would recommend a timber feature be placed approximately every 50m, which means there would be about 7 constructed timber features. The total combined length of these features would be around 50m. In addition to timber features, there would also be berms, rollers, some small tabletop style jumps, and possibly some rock features. There is an abundance of imported soil already on site, so this would be moved and shaped into useful shapes to make an interesting and fun trail with elements not typically seen on a skills trail. The IMBA Trail Difficulty Rating System provides some guidance on the allowable width and height of any 'technical trail features' for given difficulty ratings.

Difficulty:

Easy – More Difficult

Soil Required:

Nil

Estimated Construction Cost:

\$32,200.00 + GST + expenses (the cost of timber and other materials to build the structures has been included).

Note: This cost estimate is based on the likely time required to construct a trail of this nature, using World Trail's standard construction rates. It is an estimate only and does not include GST or any expenses (i.e. equipment transportation, staff accommodation, etc).

COST SUMMARY

World Trail has provided cost estimates to construct the various different trails and features. These estimates are provided so as to assist Ku-ring-gai Council plan and budget for the construction phase. They should not be considered as quotations. These estimates have been provided in the previous section, but are summarised in Table 1 below.

Table 1. Summary of estimated construction costs

| Trail | Estimated Construction Cost |
|-------------------------|---|
| XC Trail 1 | \$61,600.00 + GST + expenses + materials |
| XC Trail 2 | \$21,250.00 + GST + expenses |
| XC Trail 3 | \$26,250.00 + GST + expenses |
| XC Trail 4 | \$11,250.00 + GST + expenses |
| Dirt Jumps | \$30,000.00 + GST + expenses + materials |
| Pump Track | \$25,360.00 + GST + expenses + materials |
| Freestyle Mounds | \$16,800.00 + GST + expenses + materials |
| Skills Zone | \$32,200.00 + GST + expenses |
| TOTAL | \$224, 710.00 + GST + expenses + materials |

Expenses include accommodation and transportation costs that World Trail would incur to relocate to Sydney for the duration of the project. Expenses are typically around 5-10% of the overall project costs.

The materials required for this project are:

- Soil for base course;
- Fine crushed rock for the wearing course;
- Soil stabilising agent to be mixed with the fine crushed rock used for the wearing course;
- Timber, concrete, and fixing hardware for timber features.

As stated previously, Ku-ring-gai Council has the opportunity to obtain clean fill suitable as the base course from a nearby development. This should actually generate some funding, as the developer will pay council to dispose of this fill.

The type of crushed rock to be used as the wearing course should be determined once the project has commenced. World Trail generally recommends obtaining a number of different products produced and available locally and surfacing a small patch of trail (say 2-3m) with each product. This can then be monitored over time to observe how it weathers, the degree of grip it provides and how well it resists displacement by tyres, feet and water, before making an informed decision about which product to use. Different soil stabilising agents should also be tested.

COMPETITIVE USE OF TRAILS

Competitive mountain biking events can generate significant tourism revenue, but they also help to generate exposure and put destinations on the map, which leads to ongoing tourism visitation on a day-to-day basis. Although tourism and competitive events are not really seen as strong drivers for this project, the proposed mountain bike park is likely to be the focus of some level of competition at some point and the trails have been designed to accommodate that.

The proposed cross-country mountain biking trail network isn't large enough to accommodate any of the new enduro type races (6, 8, 12 and 24 hour races, 100km 'marathons' etc) that are currently popular. These usually have loops of 10-20km and the largest loop that can be formulated using the trails proposed here is about 5km:

- Starting at the High Energy Zone, following XC Trail 1 down to the bottom and then up to the car park;
- Turning right onto XC Trail 2 and following this all the way down to the Clissold Rd site;
- Turning right onto XC Trail 3 and following it around, past the Skills Zone (which could possibly be incorporated into a race course, depending on the features), and eventually back out onto the fire road;
- Along the fire road as far as XC Trail 4;
- Along XC Trail 4 back up to the High Energy Zone.

This route is shown in Figure 23. At only 5km long, it isn't quite long enough to run an Olympic format cross-country mountain biking race, but by incorporating some additional sections of fire road or even using the Golden Jubilee Oval area as the staging area, it might be possible to stretch the race out to a more suitable length.

Olympic format cross-country mountain bike racing is usually run on courses of 6-8km in length. Competitors compete in age and skill based categories. Each category has a different number of laps to complete, with the most advanced riders completing the most laps. These races usually last for around 1-2 hours. Courses should include technically difficult terrain, but should not be so difficult that novice competitors are unable to ride large sections of the course. Exact course specifications are available from Mountain Bike Australia (the governing body for mountain bike racing in Australia).

Another type of cross-country racing that would be suitable for the area is the 'dirt criterium'. Criteriums are a traditional type of road race, where competitors race in skill based categories on a very short course (typically less than 1km long) for a set time period. Dirt criteriums are the mountain biking version of this traditional road race genre, and are proving popular on a more localised smaller scale. Such races can be run easily and simply and lend themselves well to weekly club races with low levels of participation. These type of races are more focussed on participation and fun than sheer fitness and endurance and are a real celebration of the sport of mountain biking. Using the four cross-country trails proposed in this report, at least three different dirt criterium courses are possible:

- XC Trail 1;
- XC Trail 3;
- A loop comprised of XC Trail 2, XC Trail 3, fire road, XC Trail 4 and the top section of XC Trail 1.



Figure 23. Possible XC Race Loop

Finally, the use of the High Energy Zone for competitive events should not be discounted.

At the recent 2009 UCI Mountain Biking World Championships held at Stromlo Forest Park in the ACT, an unofficial pump track world championships race was held prior to the officially sanctioned events. The event was held at a private residence near Stromlo Forest Park and was well attended by many of the world's best mountain bike racers. In pump track racing, competitors race singly against the clock or in paired two person heats, with the two competitors starting half a lap apart and trying to catch each other. Again, this type of racing is not likely to be a high participation event, but may be a suitable for a localised club type race.

Dirt jump competitions are also growing in popularity and could easily be accommodated in the High Energy Zone.

IMPLEMENTATION OF TRAIL CONCEPTS

APPROVALS AND PERMITS

Before the proposed mountain bike trails can be constructed, all the necessary permits and approvals need to be obtained.

The routes shown in this report are considered the 'macro-design'. Until construction begins, it is not possible to identify the exact alignment (or micro-design) of a trail to the metre, as there are too many uncertainties and unknowns. For example, prior to construction, it may appear that the soil is deep and excavation will be easy, but once construction commences, it soon becomes apparent that there is a large slab of rock just beneath the surface. More commonly, dense vegetation obscures the ground such that the exact position of the trail simply can't be determined until some vegetation has been cleared. The 'micro-design' is determined on site, as construction proceeds, and responds to the conditions found on site at the time. Therefore, it is essential that any approvals or permits allow for the trail to be relocated within a 20m corridor (i.e. 10m either side of the proposed alignment). This allows the trail builder the flexibility to move the trail in response to the environmental conditions on-site. It also means that, should further investigations uncover any areas of significant environmental or heritage value that haven't been considered, that the trail alignment can be shifted within the 20m corridor to avoid the area of concern.

CONSTRUCTION OF TRAILS

The techniques used to construct mountain bike specific trails are extremely important to the overall success of a trail network. Construction methods need to be tailored to the specific environmental conditions present.

IMBA has developed a trail building guide titled 'IMBA's Guide to Building Sweet Single Track'. This publication illustrates and explains in detail the specific construction techniques used to construct sustainable mountain bike trails that incorporate measures to reduce risk to trail users. It is highly recommended that industry-standard IMBA trail building techniques be incorporated into all elements of trail construction for the proposed trails. These techniques aid sustainability and aim to reduce risk management issues. Appendix 3 discusses environmental sustainability in relation to trail construction in further detail.

In addition to the sustainable construction techniques discussed previously, World Trail recommends the following trail construction techniques:

1. Where possible, trails will be located in a side-slope location, to enable correct out-sloping and drainage and constructed using full-bench construction, with all spoil (vegetation and topsoil) broadcast down the hill away from the trail.
2. Where possible, trails would be constructed using a small rubber tracked excavator with moveable tracks. As the minimum width of the rubber tracks is 900mm, all trails will be constructed on a bench 1000mm wide as a minimum. Over time, as vegetation creeps back onto the edges of the trail and debris accumulates on the edges, the actual useable width of the trail becomes less than the bench width. Where it is not possible to use the excavator for safety or access reasons, trails will be constructed by hand;
3. No large trees will be felled in order to construct the proposed trails – trails to be routed around them. Some small trees and branches may require removal.
4. Trail builders working with the machine operator will clear fallen timber and vegetation ahead of the excavator and move it out of the construction corridor.

There are several construction scenarios that can be used to construct the trails:

- **Full Professional Construction**
Under this scenario, a professional trail design and construction company such as World Trail would undertake all construction work.
- **Professional Supervision Only**
Under this scenario a professional trail designer would be engaged to supervise a construction team supplied by Ku-ring-gai Council – either paid personnel or volunteers. Under this scenario, the actual progress of construction is likely to be much slower than that achieved under the full professional scenario. The wages of any Ku-ring-gai Council personnel and the costs of sourcing and managing volunteers should also be considered under this scenario.
- **Scenario 3 – No Professional Involvement**
Under this scenario, Ku-ring-gai Council would undertake the entire construction project on their own, sourcing their own labour (either their own in-house personnel or volunteers) and supervising all construction themselves.

- **Scenario 4 – Combination Approach**

A fourth scenario is to engage a professional trail design and construction company such as World Trail to undertake the most difficult technical aspects of construction and use volunteers or in-house personnel to construct the more generic sections of trail.

To ensure the proposed trail concepts are implemented to the highest professional standard, full professional construction is strongly recommended. All price estimates for construction have been based on this scenario.

TRAIL MAINTENANCE PROGRAM

If the proposed mountain bike park detailed throughout this report is constructed, a trail maintenance program will need to be introduced. Maintenance is essential to minimise risks associated with mountain bike trails.

World Trail products are designed to a professional, sustainable industry standard. Despite this, their continued usage into the future will require some maintenance. In addition, extreme conditions beyond the control of World Trail can occasionally damage trails, causing sections of trail to become unusable, requiring immediate maintenance. Such extreme conditions include:

1. Unforeseen water spring surges;
2. High impact on trail by illegal users;
3. Damage by stock or feral animals;
4. Extreme weather conditions, cyclone, flood etc.

Once a trail has been constructed, an inspection and maintenance program should be put in place to ensure that the trails remain safe and sustainable. There are two components to such a program:

1. A regular inspection regime. The aim of conducting inspections of the trails is to identify any changes to the trails that need to be fixed. Such changes could include a fallen tree across a trail, unauthorised modification of a trail (i.e. local users construct a new jump), defacement of signage, or compaction of a trail over time, leading to improper drainage.
2. Trail improvement works. These works can be scheduled to occur on a regular basis, or are simply undertaken on an as needs basis. Either way, the nature of any works to be done is dictated by the observations recorded during the inspections.

World Trail is experienced in all facets of trail maintenance. World Trail can assist in developing an effective and on-going trail maintenance program, including training council personnel or community members, preparing inspection recording sheets and leading any trail improvement works.

TRAIL SIGNAGE

Signage is an important part of any trail. It performs an important risk management function of informing trail users about potential risks they will encounter along the trail. Although there is no accepted Australian standard, the use of IMBA's Trail Difficulty Rating System is recommended, as it is the most widely used and understood system.

Effective signage aids navigation and can also be an important tool for educating users about specific risk issues, proper behaviour, designated uses and local flora/fauna.

All signage should be installed before opening the proposed trails.

Generally, there are two types of signs required:

- Trailhead signs – these are large format information signs erected at the trailhead that might include:
 - Maps;
 - Trail names, distances and classifications;
 - Trail etiquette (e.g. IMBA Rules of the Trail);
 - Safety information;
 - Environmental information;
 - Trail distances;
 - What to bring;
 - Emergency / mobile phone reception points;
- Waymarkers – these are small signs, usually just posts or totems, which are used to show the correct route at any spots of uncertainty. They usually just include an arrow and the name (or number) of the trail.

Figure 24 below shows a trailhead sign in place in Forrest in southwest Victoria.



Figure 24. Trailhead sign

APPENDICES

APPENDIX 1: DISCIPLINES OF MOUNTAIN BIKING






- **Cross-country** – Cross-country mountain biking is the oldest discipline within the sport and is analogous to cross-country running or skiing. It involves riding across all types of terrain and slopes. Participants may be seeking thrills, fitness or the opportunity to enjoy nature. Specialised cross-country mountain bikes are lightweight, with up to 27 gears and may have front and/or rear suspension. Cross-country trails are similar to walking trails – narrow singletrack corridors through the bush, only slightly wider than a set of handlebars, although they can be as wide as a vehicle trail. Trails may be loops or point-to-point rides. They can be surfaced or unsurfaced and may use materials such as rock and timber for obstacles or armouring. Although cross-country trails generally require a low level of construction, they can be time consuming or expensive to build due to long distances involved or lack of access for machinery and materials. Cross-country trails probably require the greatest amount of space, although it is possible to create a longer track by increasing the twists and turns of the trail.
- **Downhill** – Analogous to downhill skiing, downhill mountain biking is a speed-oriented sport, where participants start at the top of the hill and ride down. As downhill bikes are not designed for riding up hills, transport is required to get riders and their bikes back to the top of the hill. Downhill bikes have both front and rear suspension, are heavy and generally have fewer gears than cross-country bikes. As downhill often involves high speeds and crashes are more common, participants wear full-face helmets and extensive body armour to protect themselves. Downhill trails are generally more difficult than cross-country trails and may include drop-offs, jumps, narrow bridges, rough terrain and steep gradients. Due to the higher speeds of downhill and the heavy bikes, downhill trails often require heavy armouring with rock or timber to prevent erosion, which can be expensive. Careful design and close attention to gradients and corners may reduce the amount of armouring required, but won't eliminate it. Downhill trails are by definition point to point trails, require a fairly large amount of space and clearly require a downhill slope, with access top and bottom.
- **4x** – A relatively new discipline, 4x is best described as a fusion of downhill mountain biking and the sport of BMX. In competition, four riders compete against each other to be the first to the bottom. 4x bikes are usually small and light, with front suspension only and fewer gears than cross-country bikes. 4x tracks look similar to BMX tracks except they are linear rather than looped and usually slope downhill slightly. They feature large banked corners or berms and jumps in various shapes and combinations. Large amounts of fill are required to construct the jumps and berms. They are usually surfaced with fine gravel or granitic sand and have no rocks, logs or other natural obstacles. A large starting mound with a start gate is required at the beginning of the track. Limited space (approx 1000 sq/m) is required to build a 4x trail, making them suitable for many urban areas. Also, due to their compact nature they are quick (7-14 days) and cost effective to construct.

- **Jump trails or dirt jumps** – Also borrowing heavily from BMX, jump trails focus on jumps rather than speed or endurance. Users of jump trails tend to be young and consequently many jump trails are located in urban areas. Jump trails are usually entirely constructed from dirt, with large mounded jumps built up above the natural ground surface. The jumps often feature a gap between the take-off and landing points. Jump bikes are heavily built to withstand jumping, usually have front suspension only and may have fewer gears than cross-country bikes. As with 4x tracks, jump trails can be built with limited space (approx 1000 sq/m) and time (7-14 days) making them cost effective to construct.
- **Freeride** – Freeride is probably the newest and least understood discipline of mountain biking. It incorporates elements from all disciplines, but emphasises advanced level mountain biking, creative riding, extreme manoeuvres and high risks. Freeride bikes are similar to downhill bikes – heavy and strong with front and rear suspension. Riders also wear body armour and full-face helmets. Freeride trails are hard to define but can include natural features like boulders, logs and small cliffs, as well as constructed features made from timber and other materials. Due to its unstructured nature, freeride trails can be almost any sort of trail that requires high levels of skill and risk. With constructed features like timber bridges, seesaws and ramps and the use of jumps and drops, freeride trails don't necessarily require large areas like downhill and cross-country.

APPENDIX 2: IMBA TRAIL DIFFICULTY RATING SYSTEM

Table 2 below shows the various criteria that are used to calculate a trail difficulty rating, using the IMBA Trail Difficulty Rating System. It should be understood that this system is not a standard (like an Australian Standard) but should be treated as a guide. The final decision for rating trails belongs with the land manager.

Table 2. IMBA Trail Difficulty Rating System.

| | Easiest (white circle) | Easy (green circle) | More Difficult (blue square) | Very Difficult (black diamond) | Extremely Difficult (double black diamond) |
|---|---|--|--|--|--|
| Symbol |  |  |  |  |  |
| Trail Width | 183cm or more | 91cm or more | 61cm or more | 30cm or more | 15cm or more |
| Tread Surface | Hardened or surfaced | Firm and stable | Mostly stable with some variability | Widely variable | Widely variable and unpredictable |
| Average Trail Gradient | 5% or less | 5% or less | 10% or less | 15% or less | 20% or more |
| Maximum Trail Gradient | Max 10% | Max 15% | Max 15% or greater | Max 15% or greater | Max 15% or greater |
| Natural Obstacles and Technical Trail Features (TTF) | None | Unavoidable obstacles 5cm tall or less. Avoidable obstacles may be present. Unavoidable bridges 91cm or wider. | Unavoidable obstacles 20cm tall or less. Avoidable obstacles may be present. Unavoidable bridges 61cm or wider. TTF's 61cm high or less, width of deck is greater than half the height. | Unavoidable obstacles 38cm tall or less. Avoidable obstacles may be present. May include loose rocks Unavoidable bridges 61cm or wider. TTF's 122cm high or less, width of deck is less than half the height. Short sections may exceed criteria. | Unavoidable obstacles 38cm tall or greater. Avoidable obstacles may be present. May include loose rocks Unavoidable bridges 61cm or narrower. TTF's 122cm high or greater, width of deck is unpredictable. Many sections may exceed criteria. |

The diagrams on the following pages illustrate the IMBA Trail Difficulty Rating System graphically. These diagrams have been developed by World Trail to promote a better understanding of what the ratings actually mean.

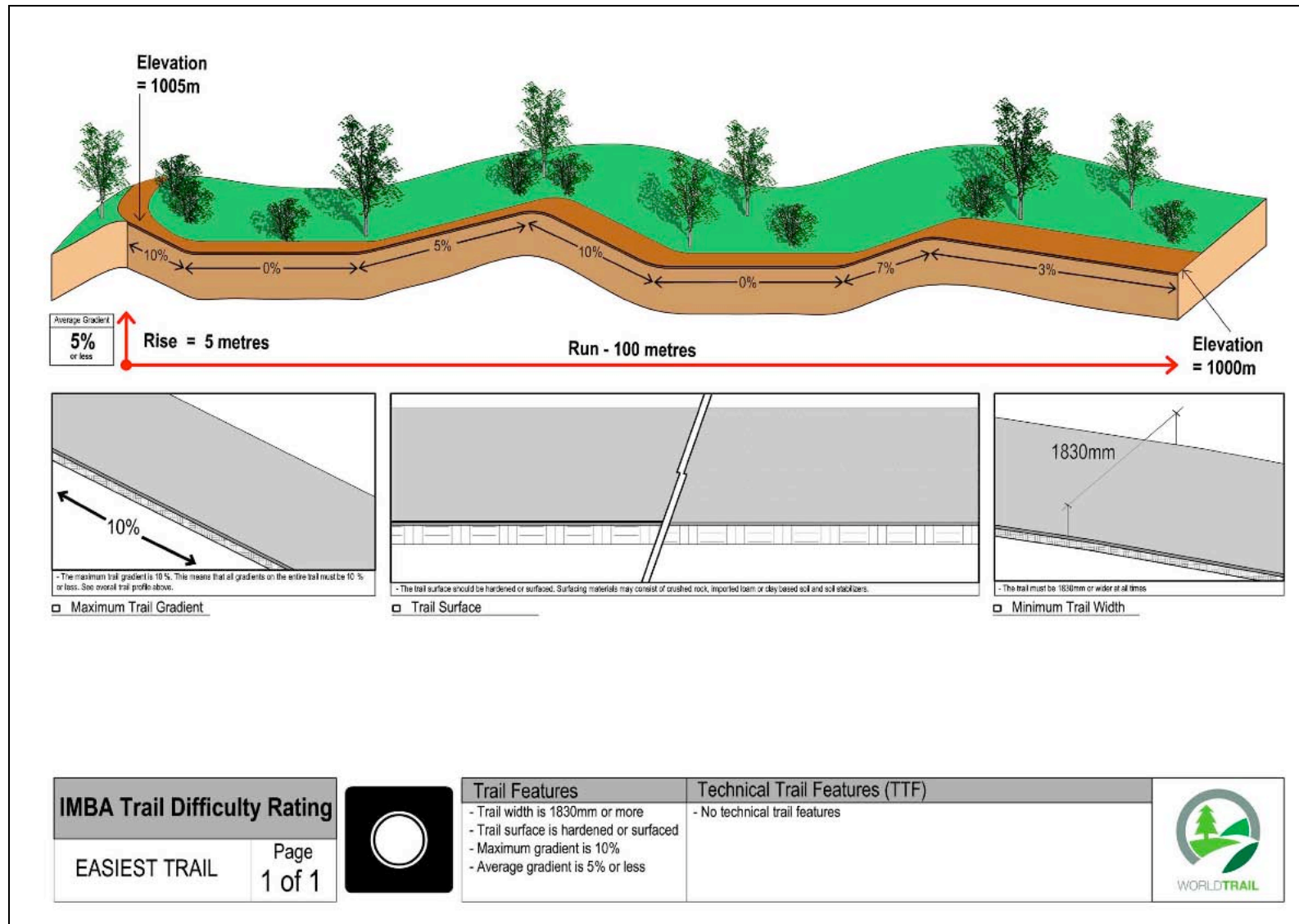


Figure 25. Graphic illustration of an 'Easiest' trail.

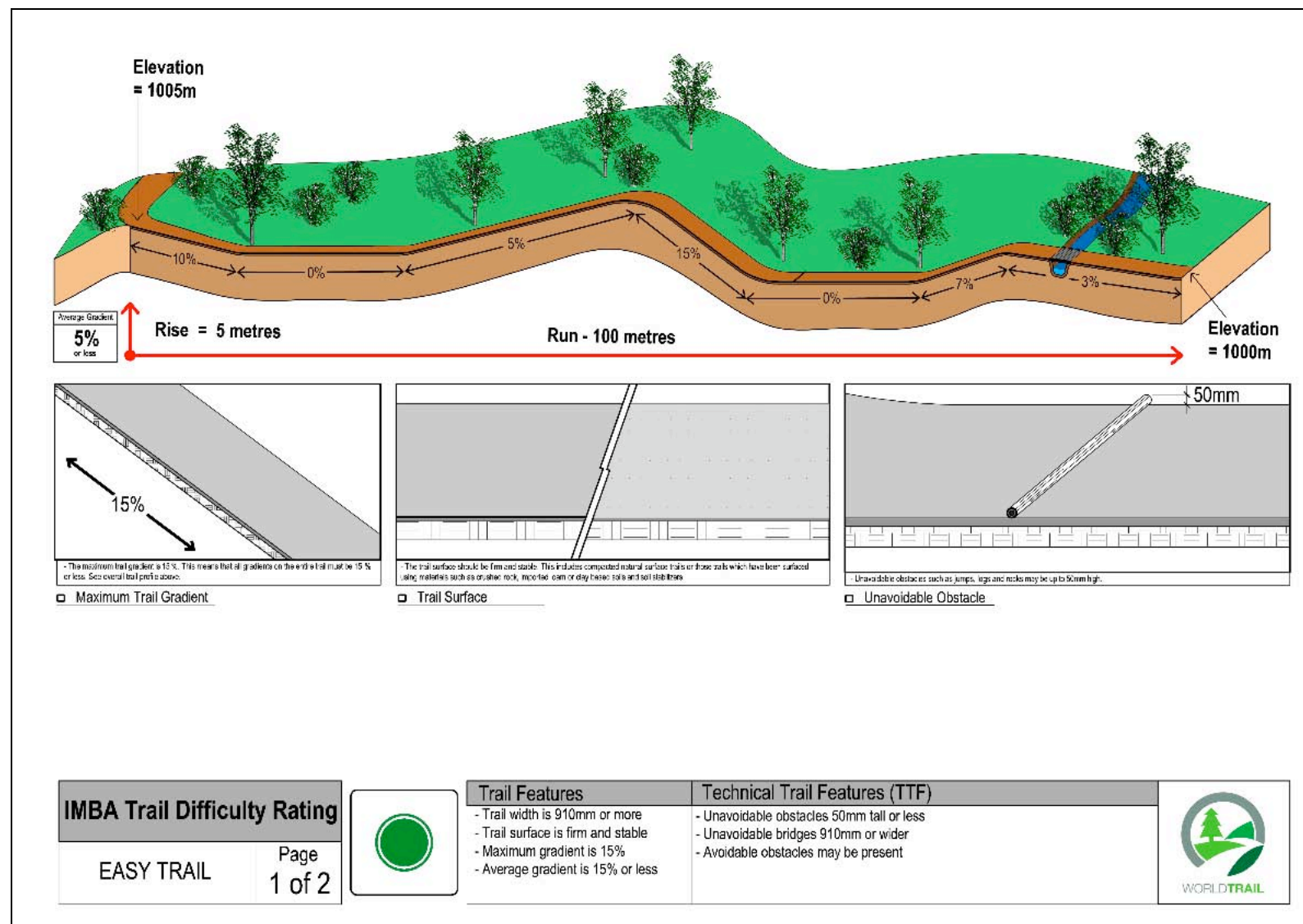


Figure 26. Graphic illustration of an 'Easy' trail - part 1.

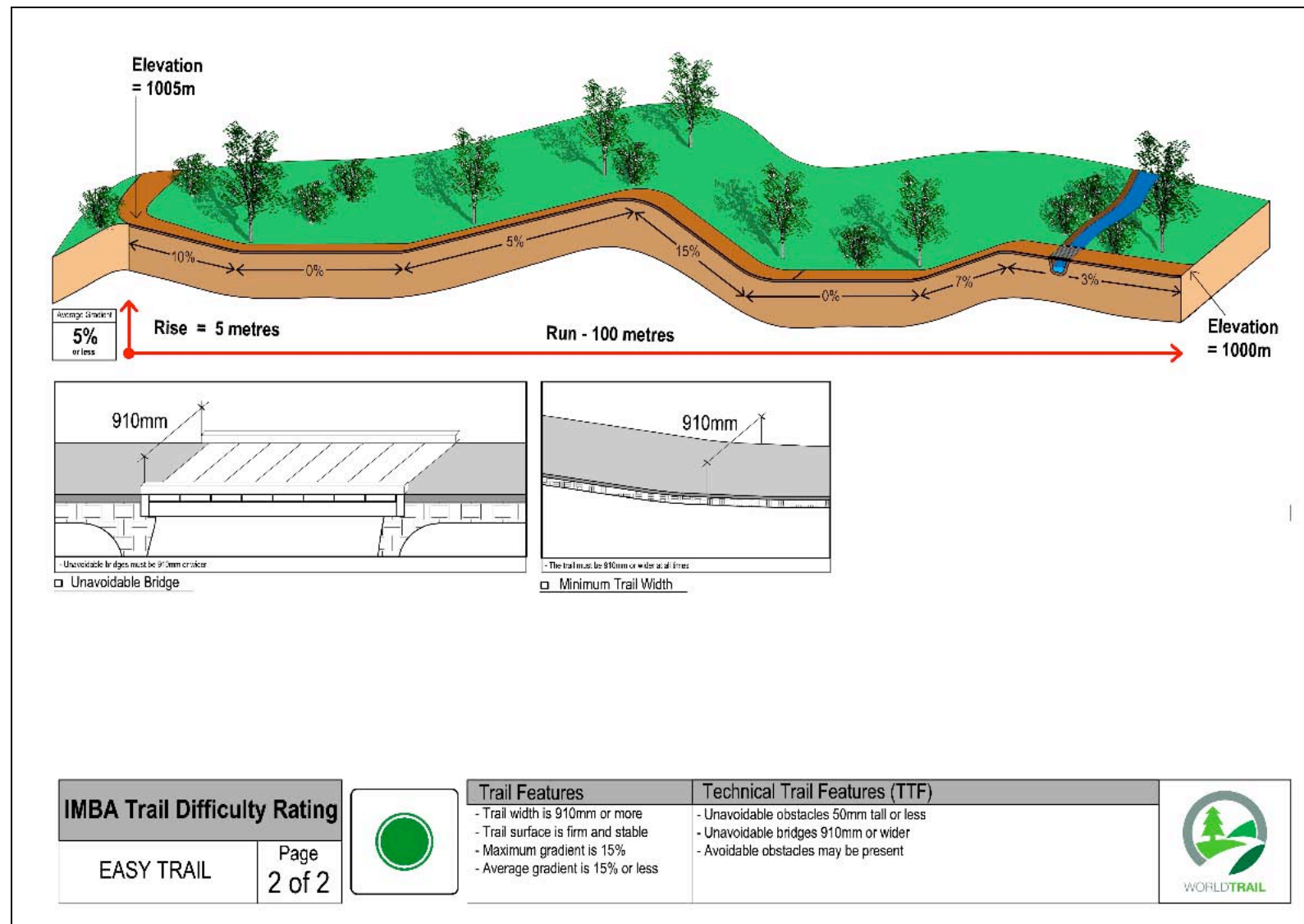


Figure 27. Graphic illustration of an 'Easy' trail - part 2.

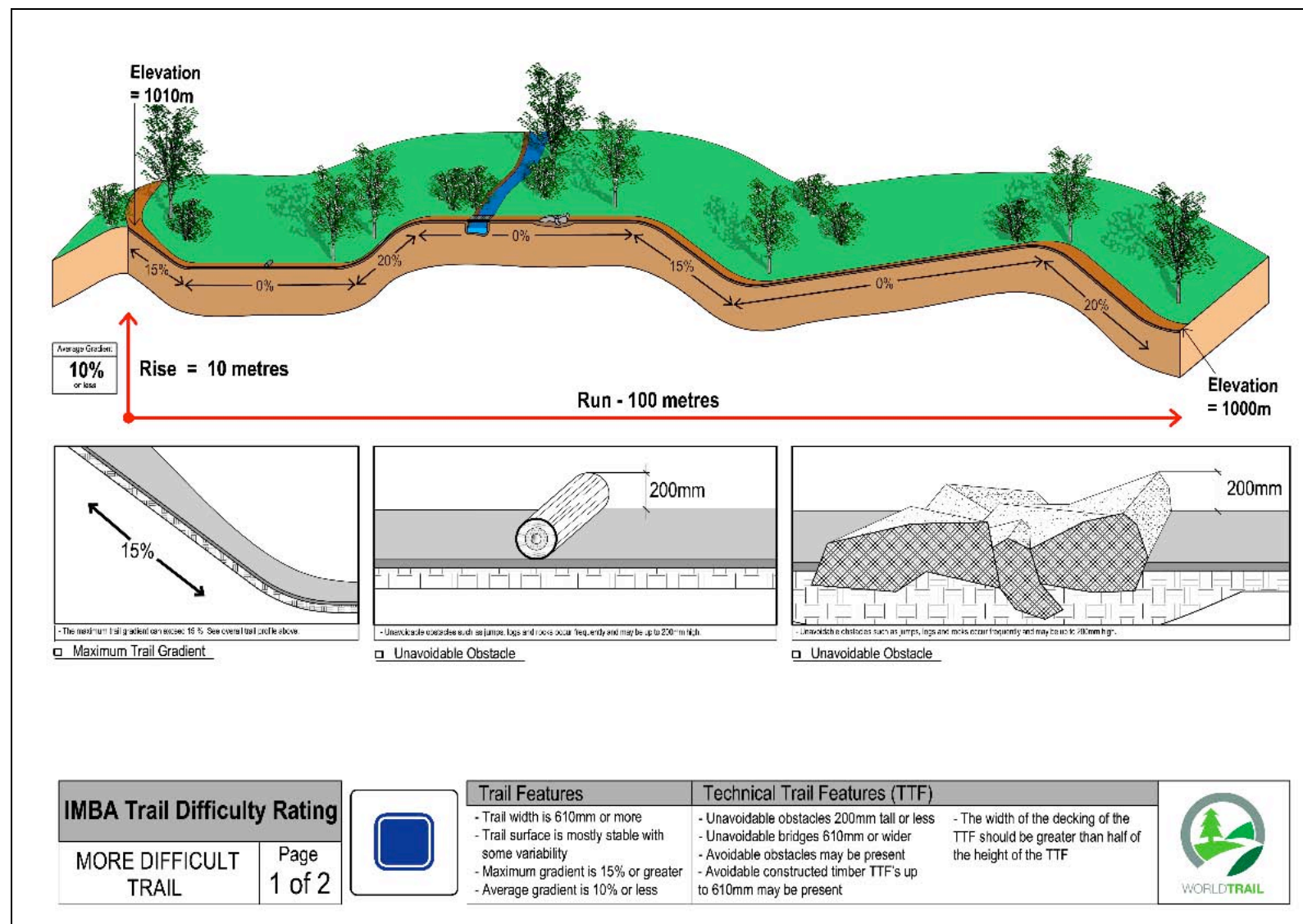


Figure 28. Graphic illustration of a 'More Difficult' trail - part 1.

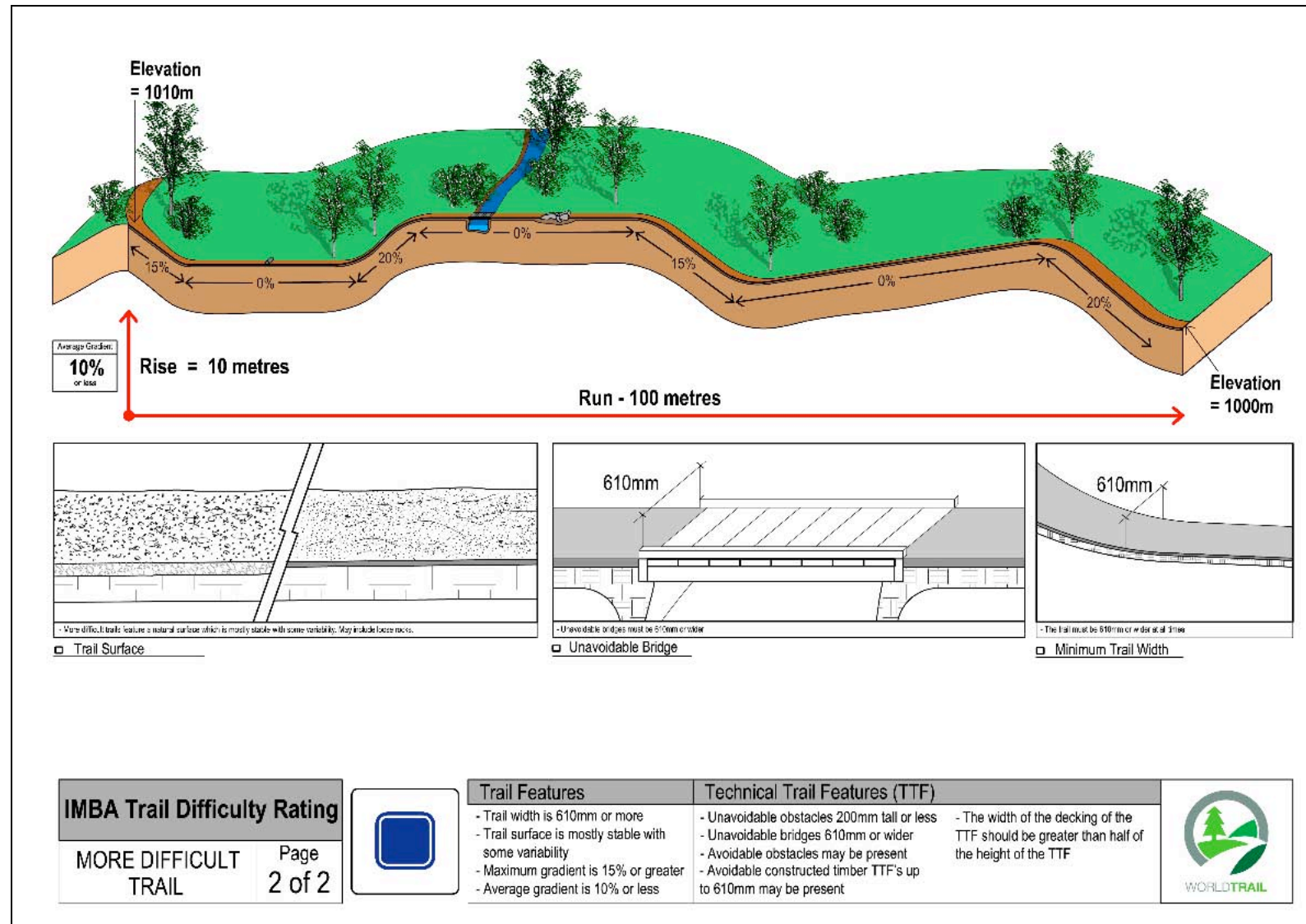


Figure 29. Graphic illustration of a 'More Difficult' trail - part 2.

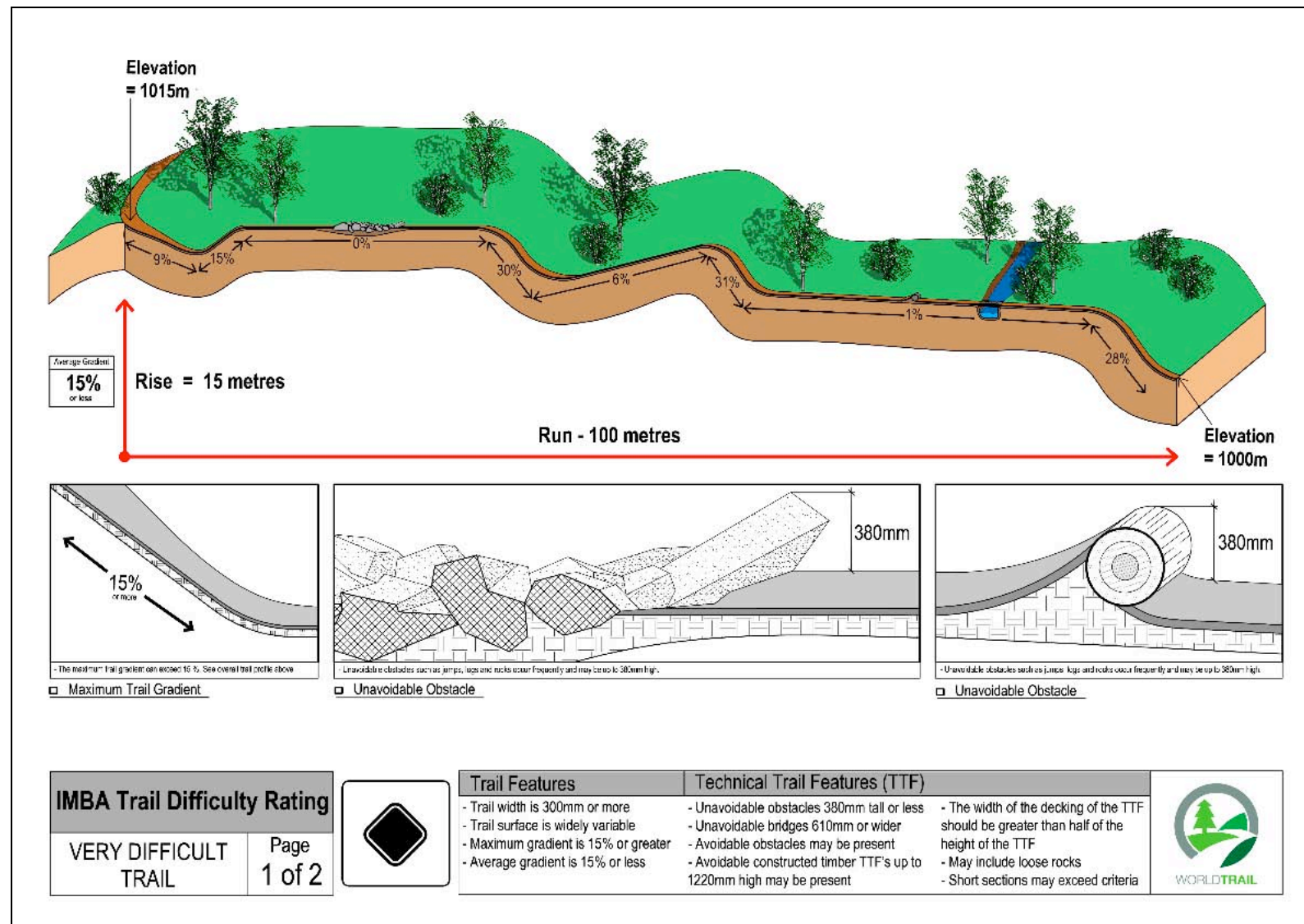


Figure 30. Graphic illustration of a 'Very Difficult' trail - part 1.

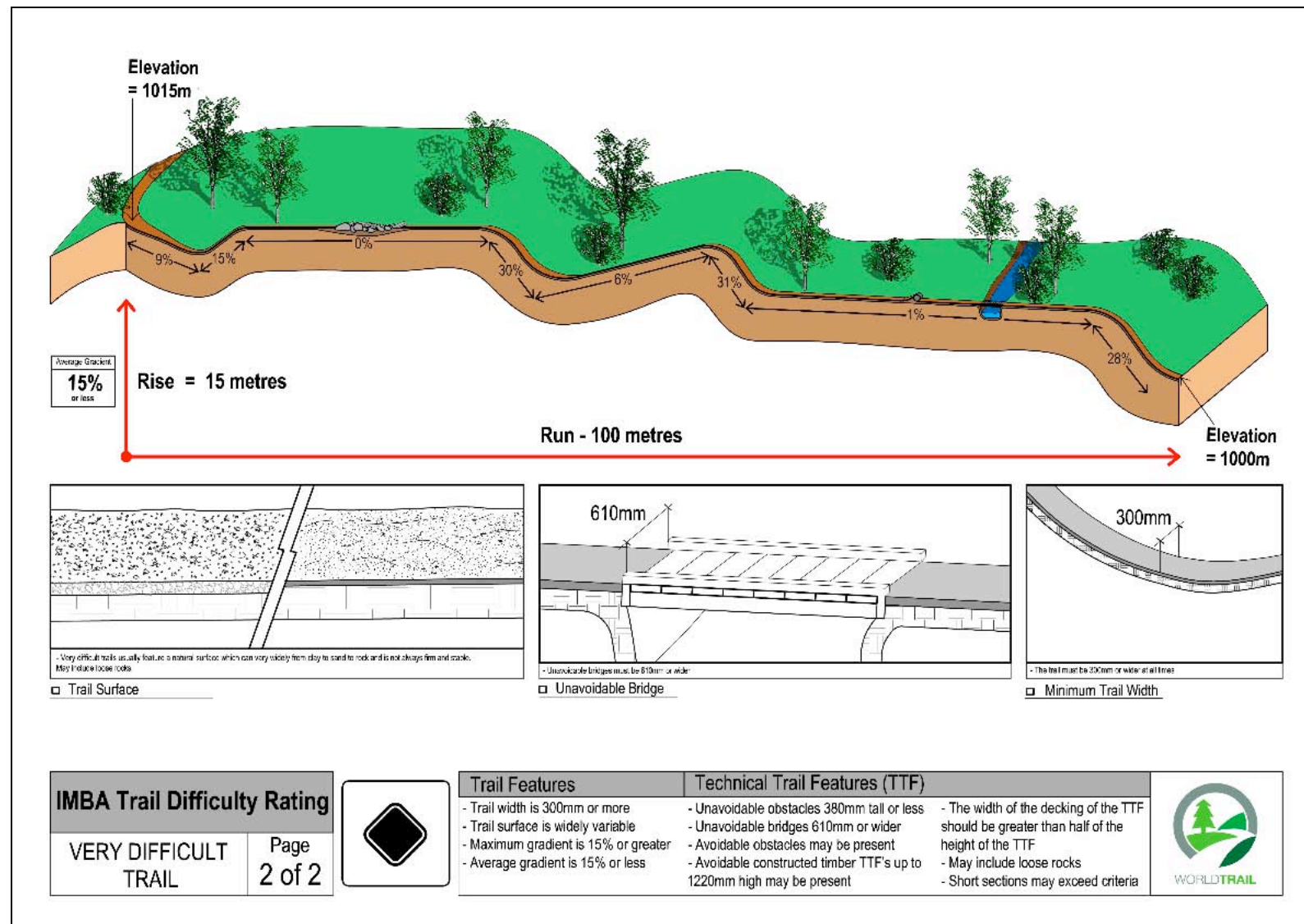


Figure 31. Graphic illustration of a 'Very Difficult' trail - part 2.

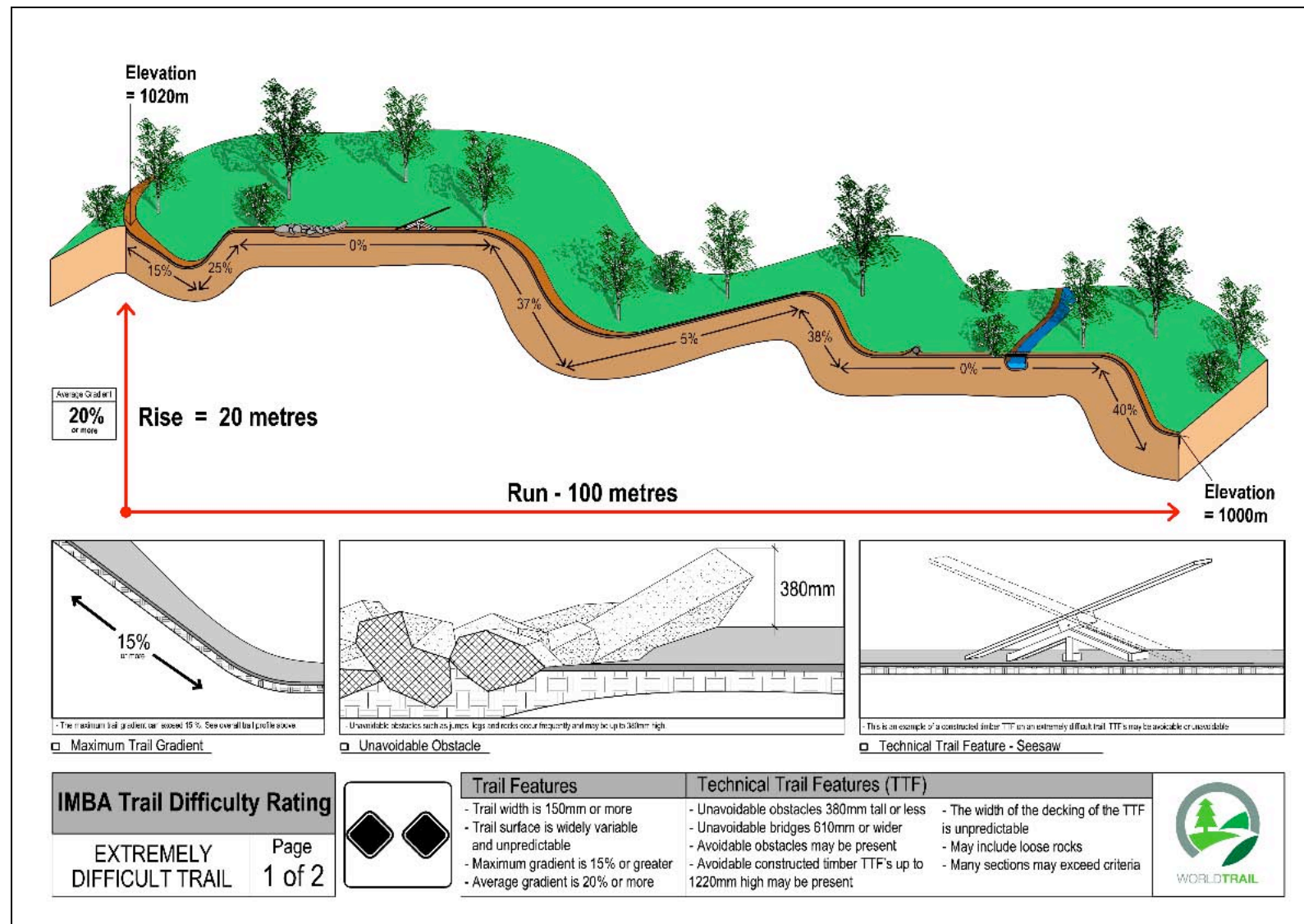


Figure 32. Graphic illustration of an 'Extremely Difficult' trail - part 1.

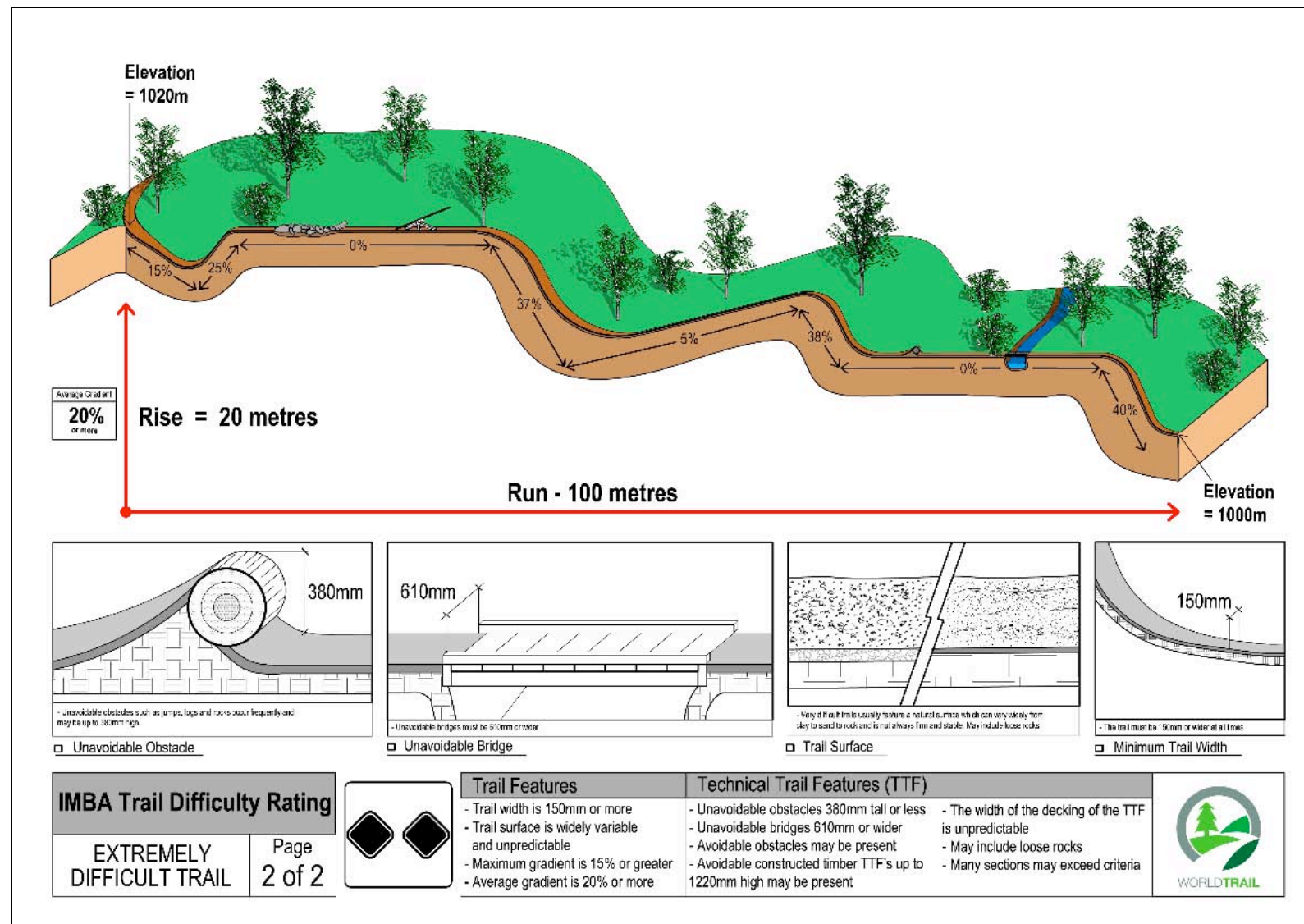


Figure 33. Graphic illustration of an 'Extremely Difficult' trail - part 2.

APPENDIX 3: ENVIRONMENTAL SUSTAINABILITY

In order to design and implement a successful mountain bike trail, one of the most important factors to consider is long-term sustainability. As many mountain bike specific trails are built in native forest and bushland it is highly important to acknowledge the environmental impact that may occur from the construction and usage of trails in potentially sensitive areas. Creating sustainable, mountain bike specific trails starts in the design phase and can have a major impact on the success of a trail network. When dealing with sustainability there are a number of design and construction techniques that aim to minimise the impact mountain bike trails have on a particular environment, including the rolling contours concept, the half rule and 10% average guideline and erosion prevention measures.

Rolling contours concept – When building mountain bike specific trails it is highly important to implement the “rolling contours” concept into the design. The rolling contours concept is defined by implementing a gentle, undulating trail grade along the natural contours of the hillside. The outslope of the trail will be slightly off camber towards the edges (no greater than 5%), this allows water to gently flow down the hillside away from the trail preventing “pools” of water being built up along the trail.

Trail gradient – the trail gradient is defined as how steep the trail rises or falls over a specific distance. In terms of trail gradient, there are two key guidelines to follow when building mountain bike specific trails, these are:

- The half rule;
- 10% average guideline.

The ‘Half Rule’ states that the trail’s grade shouldn’t exceed half of the grade of the hillside or slope that the trail traverses. If a grade does exceed half the side slope, it’s considered a fall-line trail. Instead of shedding across the trail, water will run down the trail, creating erosion issues and resulting in an unsustainable mountain biking trail.

The ‘10% Average Guideline’ was first coined by IMBA and has been extensively covered in their book, ‘IMBA’s Guide to Building Sweet Single-track’). IMBA states that, generally an average trail grade of ten percent or less is the most sustainable.

Erosion prevention measures – Erosion is a naturally occurring phenomenon that will occur on most mountain bike specific trails overtime if maintenance programs are not in place. However, there are a number of erosion prevention measures that can be implemented. The most important of these is simply ensuring the trail grade remains below 10%. Secondly, the installation of properly constructed ‘berms’ and ‘switchbacks’ in key areas significantly improves the sustainability of the trails, while also increasing the enjoyment of riding the trail.

Another trail building technique that is used to combat erosion is armouring. Armouring is the placement of rocks, bricks, boulders or any other suitable “paving” materials into the base of the trail and then covering with a surfacing material such as crusher dust. Using materials such as crusher dust and implementing innovative trail building techniques such as armouring can combat erosion.

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SUSTAINABILITY REFERENCE COMMITTEE - NOTES OF MEETINGS HELD 6 AND 27 SEPTEMBER 2010

EXECUTIVE SUMMARY

PURPOSE OF REPORT:

To bring to the attention of Council the proceedings of the Sustainability Reference Committee Meetings held on 6 and 27 September 2010.

BACKGROUND:

The Sustainability Reference Committee is a community based advisory body to Council established in 2009. Notes of the meetings are reported to Council for its consideration in accordance with its Charter.

COMMENTS:

The Committee discussed four items: the progress of the Community Education and Engagement program (an initiative funded by the NSW Environmental Trust); the progress of the tender for the integrated transport strategy; the formation of a bicycle sub-committee; and the community garden at Turramurra.

RECOMMENDATION:

That the notes of the Sustainability Reference Committee Meetings of 6 and 27 September 2010 be received and noted.

PURPOSE OF REPORT

To bring to the attention of Council the proceedings of the Sustainability Reference Committee meeting held on 6th and 27th September 2010.

BACKGROUND

In 2009, Ku-ring-gai Council appointed four (4) community reference committees under section 260 of the *Local Government (General) Regulation 2005*. One of the committees appointed was the Sustainability Reference Committee. The role of this Committee is to advise Council on issues relating to sustainability. The Committee consists of eighteen (18) community representatives.

This report provides the notes of two meetings. The meeting of 6 September 2010 was the scheduled meeting of the committee that had to be abandoned due the need to evacuate the Council building because of a fire alarm. The meeting was reconvened on the 27 September 2010.

COMMENTS

The meeting of the 6 September 2010 discussed the Community Education and Engagement program, as funded by the NSW Environmental Trust. The two elements of this program most relevant to Council include the development of the “tanks a million” program that seeks to reduce the water consumption in West Pymble and the reforming of an internal sustainability committee within Council.

The meeting of 27 September 2010 primarily discussed the progress of the integrated transport strategy and the formation of the bicycle sub-committee, as resolved by Council following the recommendation of this Committee. A brief update was also provided on the community garden at Turramurra where many committee members and councillors noted the demand for other gardens across the local government area (LGA).

CONSULTATION

The Committee is a community forum and no further consultation is required. Details of the Committee, presentation material, notes and reports can be obtained from Council’s website.

FINANCIAL CONSIDERATIONS

There are no financial implications associated with this report

CONSULTATION WITH OTHER COUNCIL DEPARTMENTS

This report was prepared by the Strategy and Environment Department.

SUMMARY

The Sustainability Reference Committee meetings of 6 and 27 September 2010 discussed four items: the progress of the Community Education and Engagement strategy including the recent initiatives of the internal sustainability committee (Ku-ring-gai Green Backs); the progress on the integrated transport strategy; the establishment of the bicycle sub-committee; and the progress of the community garden at Turramurra. The actions arising from the meetings as outlined in the notes will be implemented by staff and therefore it is recommended that the notes be received by Council for its information.

RECOMMENDATION

That the notes and attachments of the Sustainability Reference Committee meetings held 6 and 27 September 2010 be received and noted.

Peter Davies
Manager Corporate Planning & Sustainability

Andrew Watson
Director Strategy & Environment

Attachments: Notes of Meetings held 6 and 27 September 2010 and attachment - 2010/167863 and 2010/172082



Sustainability Reference Committee

6.00 to 8.00pm **Monday 6 September 2010**

Ante Room, Level 3, 818 Pacific Highway Gordon.

NOTES OF MEETING

Attendance

| | |
|---------------|--|
| Councillors | Cr Holland (Chair) Cr Malicki (Deputy Chair) Cr Cross (Mayor) Cr Keays Cr Anderson |
| Council Staff | Peter Davies, Manager Sustainability & Corporate Planning, Joseph Piccoli, Strategic Traffic Engineer Marnie Kikken, Project Officer Michael Dean, CEE Change Project Officer |
| Community | Cameron Carmody Peter Richardson Grant Dyer David Newhouse Jim Wells Neil Papadopoulos Drew McIntosh Colin Field |
| Observers | Carolyn New (Bike North) (Item 2) Helen Worrall, Community Garden Representative (Item 4) |
| Apologies | Elizabeth Gavey Fernand Callero |

Meeting opened: 6:10 pm by Cr Holland (Chair)

Item 1: West Pymble Precinct (water grants, Tanks a Million project, carbon neutral school as part of Small Grants, Sustainable Business North Shore project, Greenstyle Program/ CEE Change project)

Council's Project Officer gave an overview of the Community Education and Engagement program including the sustainability initiatives of the Ku-ring-gai Green Backs (KGB) – the revised internal Sustainability Reporting Team.

This was followed by a presentation by Council's CEE Change Project Officer on the direction of the 'Tanks a Million' project (**Attachment A**). This project has been informed by a resident survey in 2009 as well as the State Government's 'Who Cares about the Environment Survey'. Council's CEE Change Project Officer invited members of the Sustainability Reference Committee to be part of the external reference group to help assist in the development and review of the project.

Meeting closed: 7:00 pm due to fire evacuation

27 September 2010
Meeting opened 6:00

| | |
|---------------|--|
| Councillors | Cr Holland (Chair) Cr Szatow (Deputy Chair) Cr Cross (Mayor) Cr Anderson |
| Council Staff | Peter Davies, Manager Sustainability & Corporate Planning Joseph Piccoli, Strategic Traffic Engineer |
| Community | Colin Field Susan Israel Jim Wells David Newhouse |
| Observers | Tony Arnold and Carolyn New (Bike North) (Item 2 and 3) Helen Worrall, Community Garden Representative (Item 4) |
| Apologies | Cr Malicki |

Item 2: Bike Plan

Council's Strategic Traffic Engineer provided an update on the progress of the integrated transport strategy. In response to feedback from the tender for consultants to prepare a strategy for Council, it is likely that a revised bike plan will be undertaken next financial year. It is anticipated that this would be undertaken by a consultant and funding for this could be secured via a grant from the RTA.

The immediate cycle way program will focus on construction and marking of the cycle way along the designated route along Bobbin Head Road, North Turramurra. This will tie into the upgrade of the traffic lights at the intersection at Burns Road to enable cyclists to use an off road crossing.

Council's Strategic Traffic Engineer also mentioned that there may be a future upgrade to Boundary Road, Roseville which may impact on traffic flow at the intersection at Hill Street. At this stage it is anticipated that there will be a significant change in grade that will impact on traffic flow and access. This is likely to impact on the existing cycle route and staff are exploring options to ensure the protection of this route.

Tony Arnold mentioned that the North Shore Rail Trail has been removed as a priority route for funding in the recently released 2010 Bike Plan. This represents one of the major gaps in the cycling routes across Ku-ring-gai. As part of the future planning, Cr Cross suggested the need to explore who owns the land that may be identified in any future planning.

Cr Holland suggested the need for greater involvement of pedestrians as part of future sustainable transport planning. From a cycling perspective this would link to design of shared use paths. Cr Anderson indicated that a representative with access and mobility expertise would also provide value to the planning process.

Data collection / bicycle use was also raised as a gap in the planning process.

Item 3 Bicycle Advisory Committee

Council's Strategic Traffic Engineer provided background on the previous Bicycle Advisory Committee circa 2003. As part of the membership he suggested that a person from the RTA be included to provide relevant and timely advice to the committee along with representatives from cycling and pedestrian interests. Carolyn New suggested that the subcommittee meet every 2 months in the short term to establish some momentum to the committee. David Newhouse indicated the need to include mountain biking representatives given the interest of this from of cycling across Ku-ring-gai.

Action: Council's Strategic Traffic Engineer to make a revision to the previous charter to guide the formation of the sub-committee and circulate this separately prior to the next meeting

Agenda for next meeting - discuss the expenditure of various transport services for the period 2008-2011.

Item 4. Strategic directions for sustainability

Community garden

Helen Worrall provided a brief history of the community garden at Turramurra. An important element of the garden was to have it developed according to permaculture principles. At the moment there are 120 members using the 5,000m² of garden beds. The garden committee is also running various community education courses. Funding for the garden has been provided by Bendigo Bank and Council.

David Newhouse suggested the committee investigate other sites for community gardens. This was supported by Cr Anderson who also indicated that Permaculture North has previously identified other potential sites.

Action: Manager Corporate Planning & Sustainability to circulate the list of community gardens previously considered by Council.

Agenda for next meeting – sustainability direction - ideas forum to list and then identify

Other items – Colin Field mentioned the need for more community involvement in Council's program. He used the street tree planing program as an example.

Meeting closed 8:00pm

Attachments to agenda:

1. Adopted Report - Sustainability Reference Committee - Notes of Meeting held 26 July 2010.
2. Adopted Report - Sustainable Capital Works Program for 2010/11.

Next Meeting: Monday 29 November 2010

Attachments to meeting Notes (6th September 2010):

- A. Presentation by Michael Dean – Tanks a Million project (2010/172082)



CEE change

The logo features the text 'CEE' in a light green, cursive font, followed by a stylized graphic of three human figures in blue and green, and the word 'change' in a bold, dark blue, sans-serif font.

Community Education and Engagement Driving Change for Sustainability in Local Government



Components



- Delivery of a CEE pilot project
Tanks-a-million
- Internal and External Reference Groups
- Development of a 'Collaboration Network' within Council
Building on the Sustainability Reporting Team
- Development of CEE Strategy / Action Plan for sustainability
- Action research and dissemination of program outcomes
to the NSW local government sector



373 people
2009 Ku-ring-gai survey
rainwater tanks
177 Lofberg/Quarry Ck
80 Soldiers Memorial
79 in Barra Brui
37 in control group

2009 MoU with NSW
Office of Water funded a
face-to-face survey to
gauge resident awareness
of Ku-ring-gai's
stormwater re-use
projects along with
uptake, usage and
awareness of household
water activities with a
focus on rainwater tanks

ABS 2007
1.5 million = 19%
rainwater tanks
34% country+towns
21% in Quarry Ck
12% in NSW
11% in capital cities

rainwater tank uptake in the Lofberg Oval/Quarry Creek catchment is approximately double the rate for Sydney as a whole, indicating that most of the demographic with high commitment to pro-environmental behaviours already have tanks

373 people
2009 Ku-ring-gai survey
rainwater tanks

100% garden

30% pool

17% toilet

8% laundry

scope for improvement:
indoor use of rainwater
(the largest potential
saving of potable
household water use) is
relatively low

tanks a million

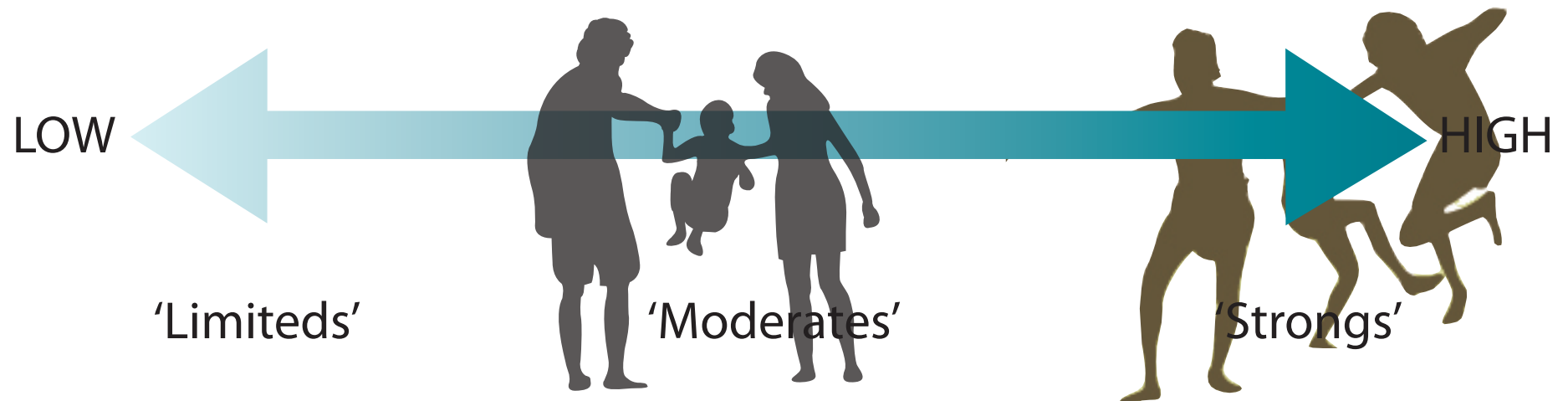
tanks a million is
framed to have broad
appeal, supporting
water+energy
efficiency behaviours
and community action

Ku·ring·gai
Council's
CEEchange
project

| Segment | %* | SEGMENT PROFILE | |
|------------|----|---|--|
| | | Behaviours | Other measures |
| Committeds | 17 | High on all three types of behaviour | High concern, moderate knowledge, dominantly pro-environmental views, highest expectation for all community sectors to do more |
| Middles | 18 | Intermediate between Committeds and Reluctants on all three types of behaviours | Moderate (with some variations) on concern, knowledge, level of pro-environmental views and expectation that various community sectors should do more to protect the environment |
| Privates | 33 | High on green purchasing and household behaviours but low on citizenship | |
| Reluctants | 27 | Low on green purchasing and citizenship but do some in- household behaviours | Low concern, low-moderate knowledge, borderline pro-environmental/mixed views, lowest expectation that all community sectors should do more |

demographic behaviours model from DECCW's
 'Who Cares about the environment ...' survey series

Degree of environmental interest, knowledge and behaviours

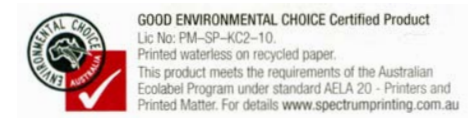


demographic behaviours model from DECCW's
'Who Cares about the environment ...' survey series

tanks a million

a rainwater tank, greywater recycling,
rain garden or other water-saving
system at your place for free?

flip the card



draft reply-paid mailer for tanks a million launch (front)

living in **West Pymble** or the catchment of **Quarry Creek** ?

Ku-ring-gai Council wants you & your friends, family, neighbours or group thinking and talking about saving water+energy

lead (or join) a *tanks a million* e-team: enjoy collaboration, expert help, and our top-up rebates will fund the winning scheme/s and more

interested? ... complete+return this card*

name _____

phone _____

email _____

*or register (and get more information) at www.kmc.nsw.gov.au/tanksamillion

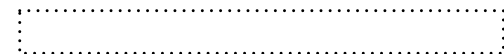
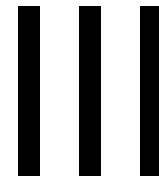
printed on 100% recycled paper

tanks a million

Delivery Address:

Locked Bag 1056
PYMBLE NSW 2083

No stamp required
if mailed in Australia



Ku-ring-gai Council

Attn: Strategy

Reply Paid 12345

PYMBLE NSW 2073

draft reply-paid mailer for tanks a million launch (back)

tanks

extra rebates
+indoor connection
access to skills
+direct assistance
education materials
information seminars

a million

survey
results:
how can
council
help?

tanks

focus groups
watermark

eco-sounds

stringybark creek
social networking

sustainable behaviour

a million

[cafe conversation]

[groups]

[book club +/-
tupperware party]

[music, trivia,
social events]

[informal learning]

[benefit calculator]

[collaboration tools]

[group leaders]

[capacity building]

tanks

a million

evaluation metrics

water saving

social/behavioural change

[model+data]

[participation]

[pre+post audit]

[post-survey]

[social network

+group leaders]

research partner

INCA

tanks

project reference groups
internal

external

community water action plan

a million

[intra-kmc
collaboration]

[from SRC
+community]
[guidance+liaison]
[report to SRC]

[identify actions
+projects
for further funding]

tanks a million



PROPOSAL TO RE-ESTABLISH ALCOHOL FREE ZONES

EXECUTIVE SUMMARY

PURPOSE OF REPORT:

To consider the re-establishment of Alcohol Free Zones in South Turrumurra Shopping Centre, South Turrumurra, Wade Lane car park, Gordon and St Ives Village Green, St Ives.

BACKGROUND:

The existing Alcohol Free Zones have expired and council is requested whether it wishes the areas to be re-established.

COMMENTS:

In accordance with Section 644 of the Local Government Act, Council can re-establish an Alcohol Free Zone subject to advertising and consultation process. This proposal is supported by the Police.

RECOMMENDATION:

That Council proceeds with the proposal to re-establish the Alcohol Free Zones in South Turrumurra Shopping Centre, South Turrumurra, Wade Lane car park, Gordon and St Ives Village Green, St Ives by notification and invitation for public comment in accordance with Section 644A of the Local Government Act 1993.

PURPOSE OF REPORT

To consider the re-establishment of Alcohol Free Zones in South Turrumurra Shopping Centre, South Turrumurra, Wade Lane car park, Gordon and St Ives Village Green, St Ives.

BACKGROUND

In 2007 at the request of local residents, Council re-established the Alcohol Free Zones in the South Turrumurra Shopping Centre, South Turrumurra, Wade Lane car park, Gordon and St Ives Village Green, St Ives under Section 644 of the Local Government Act.

Under the Act, Alcohol Free Zones may only be established for a period not exceeding four (4) years. Previously it was for a 3 year period which has now been extended to 4 years under the Act. The 3 year period has now expired.

COMMENTS

Ku-ring-gai Local Area Command (LAC) was contacted and they indicated that they are fully supportive of the renewal of the Alcohol Free Zones. Their intelligence office conducted a download of the crimes committed around these zones and found that there had been anti-social and alcohol related crime in these areas. They have stated that they fully support the re-establishment of the above mentioned Alcohol Free Zones for a further four (4) years, copy attached.

To renew the Alcohol Free Zones as required in the Section 644A of the Local Government Act and in accordance with the Ministerial Guideline on Alcohol Free Zones 2009, Council must publish by notice in a local newspaper indicating the following:

- Declare that it proposes to re-establish Alcohol Free Zones, indicating the location of the zone, and the proposed period;
- State the place at which, the date on which and the times during which the copy of the proposal may be inspected;
- Invite representations and objections from persons and groups within the area indicating that any representations or objections by them must be made within thirty (30) days after the date on which the notice is published.

Council must also give a copy of the proposal for Alcohol Free Zones to:

- The officer in charge of the police station within or nearest to the Alcohol Free Zone;
- Liquor licensees whose premises border on, adjoin or are adjacent to the proposed Alcohol Free Zone;
- Secretaries of registered clubs that border on, adjoin or is adjacent to the proposed Alcohol Free Zone.

Should Council adopt this report, advertising and notification to renew the zones, will be undertaken as outlined above. If no substantial objections are received, signs will be erected and the zones will remain valid for four (4) years from the date of declaration in accordance with the

Item 14

S03151
18 October 2010

provisions of the Local Government Act (Ministerial Guideline on Alcohol Free Zones) 2009. If substantial objections are received, a further report will be brought to Council.

CONSULTATION

Support has been received from the Police at the Ku-ring-gai Local Area Command.

FINANCIAL CONSIDERATIONS

Administrative costs for the public consultation process and the supply of signage will be met by existing budgets within Operations Department.

CONSULTATION WITH OTHER COUNCIL DEPARTMENTS

The Development and Regulation Department and the Community Services Department have been consulted and both support the proposal to renew the Alcohol Free Zones.

SUMMARY

The Alcohol Free Zones at South Turramurra Shopping Centre, South Turramurra, Wade Lane car park, Gordon and St Ives Village Green, St Ives are due to be renewed. The renewal of the zones has been supported by the Police. The Act requires advertising and notification to renew the zones, which will be undertaken should Council adopt this report. Should no substantial objections be received, signs will be erected and valid for four (4) years. Should substantial objections be received, a further report will be brought to Council.

RECOMMENDATION

- A. That Council proceeds with the proposal to renew the Alcohol Free Zones in South Turramurra Shopping Centre, South Turramurra, Wade Lane car park, Gordon and St Ives Village Green, St Ives by notification and invitation for public comment in accordance with Section 644A of the Local Government Act 1993.
- B. That should there be no substantial objections, the General Manager be authorised to implement the operation of the Alcohol Free Zones.
- C. That the Alcohol Free Zones be established for a period of four (4) years from the date of declaration in accordance with the provisions of the Local Government Act (Ministerial Guideline on Alcohol Free Zones) 2009.

Robert Happ
Technical Support Officer

Greg Piconi
Director Operations

Attachments:

- 1. Map of Proposed Alcohol Free Zone St Ives - 2010/138813**
- 2. Map of Proposed Alcohol Free Zone Gordon - 2010/138818**
- 3. Map of Proposed Alcohol Free Zone South Turramurra - 2010/138821**
- 4. Incidents in Alcohol Free Zones March to August 2010 - 2010/175697**
- 5. Correspondence from Police - 2010/194120**

PROPOSED ALCOHOL FREE ZONE

ST IVES



SCALE: 1:3000

DATE: 21-07-2010

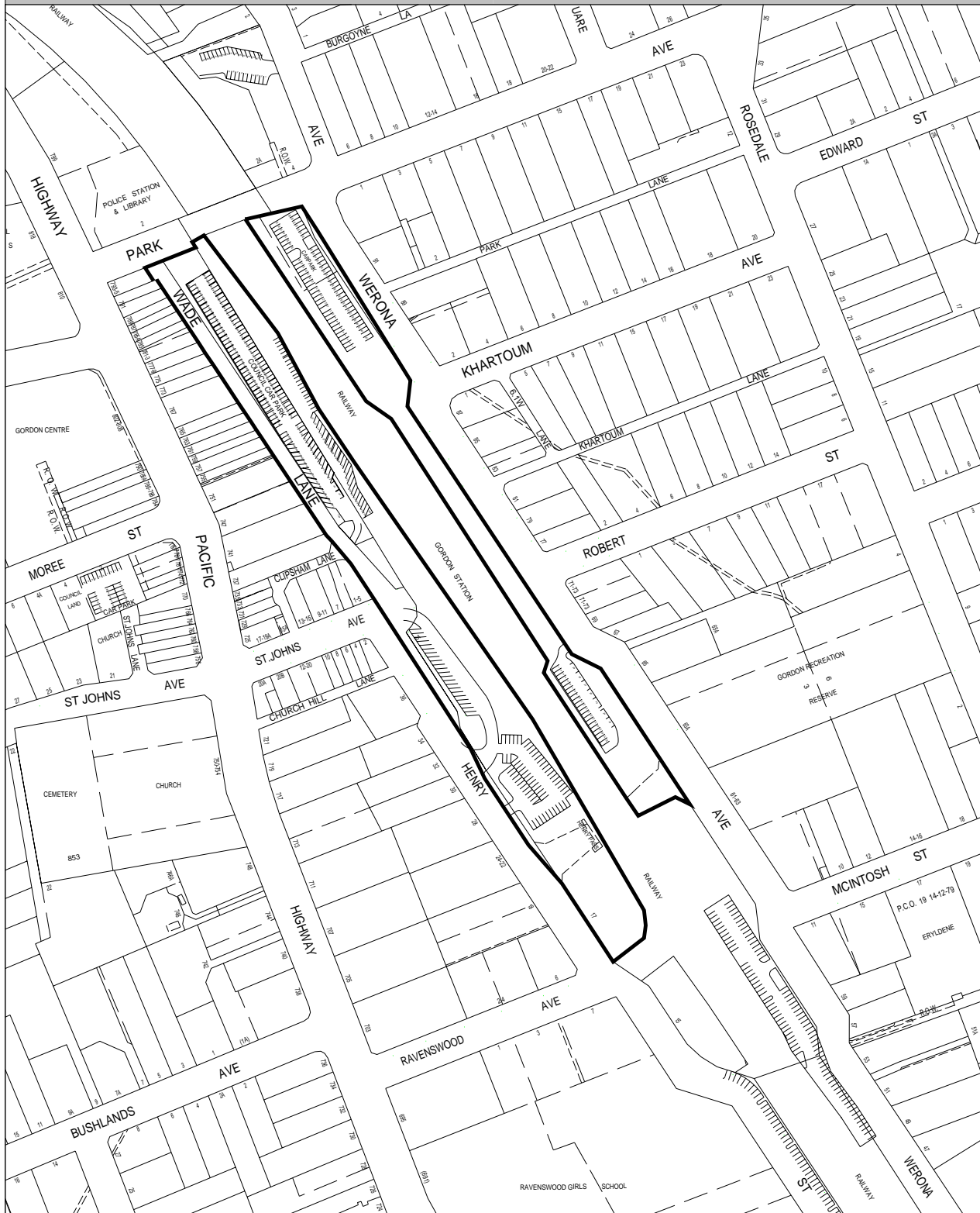


ALCOHOL FREE ZONE



PROPOSED ALCOHOL FREE ZONE

GORDON



SCALE: 1:3000

DATE: 21-07-2010

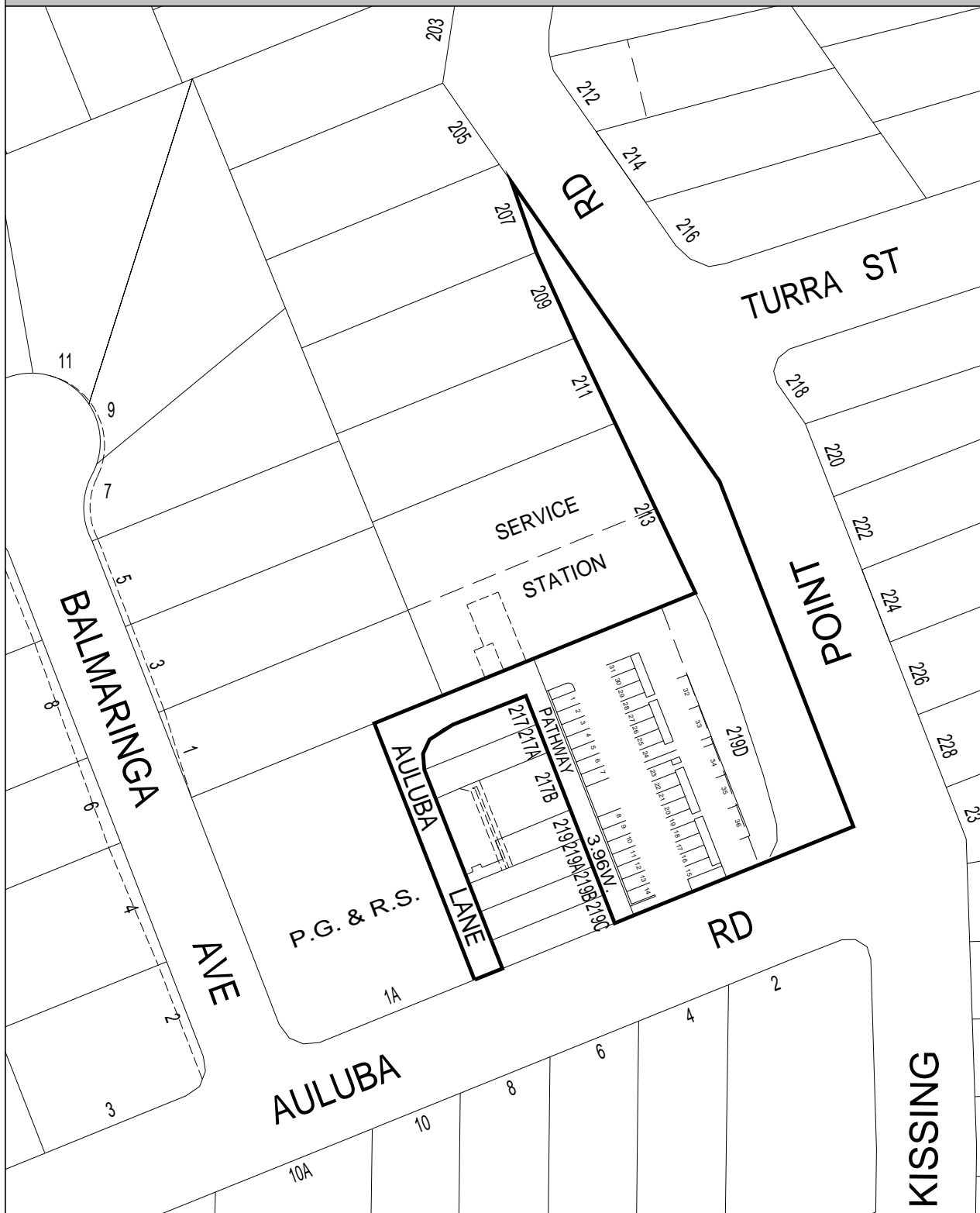


ALCOHOL FREE ZONE



PROPOSED ALCOHOL FREE ZONE

SOUTH TURRAMURRA



SCALE: 1:1000

DATE: 21-07-2010



ALCOHOL FREE ZONE



| <i>Incidents in AFZ March to August 2010</i> | |
|--|-----------|
| ASSAULT | 2 |
| DRUG DETECTION | 4 |
| FRAUD | 1 |
| MALICIOUS DAMAGE | 3 |
| STEALING | 3 |
| <i>GORDON Total</i> | <i>13</i> |
| MALICIOUS DAMAGE | 1 |
| <i>SOUTH TURRAMURRA Total</i> | <i>1</i> |
| ASSAULT | 1 |
| BREAK AND ENTER | 1 |
| MALICIOUS DAMAGE | 2 |
| STEALING | 1 |
| <i>ST IVES Total</i> | <i>5</i> |

12-10-'10 14:47 FROM-

T-058 P0002/0002 F-549

**NSW Police Force**
www.police.nsw.gov.au

Dear Mr Happ,

I refer to our previous conversations regarding the re establishment of the alcohol free zones for St Ives, Gordon and South Turramurra and the crime statistic supplied to you from my department.

As I have stated earlier due to crime statistics in those areas I would support the re establishment of the alcohol free zones in the proposed areas and believe that they would contribute greatly to the reduction of anti-social and alcohol related crime in those areas.

A/Sergeant
Licensing Co-ordinator
Ku-ring-gai LAC
12 Oct. 10

Ku-ring-gai LAC

Telephone 94769799 9211 3776 (Hearing/Speech impaired)
ABN 43 408 613 180

NSW POLICE FORCE RECRUITING NOW 1800 222 122**WWW.POLICE.NSW.GOV.AU/RECRUITMENT**

NOTICE OF RESCISSION

WILD AND EXOTIC ANIMALS PERFORMING

Notice of Rescission from Councillors Steven Holland, Elise Keays and Tony Hall dated 22 September 2010

We, the undersigned, rescind the Motion of 10 August 2010 (Minute No 248) relating to the overturning of the Council's ban on wild and exotic animals performing in travelling circuses.

RECOMMENDATION

That the above Notice of Rescission as printed be adopted.

Steven Holland
Councillor for Comenarra Ward

Tony Hall
Councillor for St Ives Ward

Elise Keays
Councillor for Gordon Ward

NOTICE OF MOTION

NEIGHBOURHOOD SAFER PLACES IN KU-RING-GAI BUSHFIRE PRONE AREAS

Notice of Motion from Councillor Tony Hall dated 6 October 2010

I fully support the call by Ku-ring-gai Mayor Cross to be prepared for the coming bushfire period but Councils too must share the responsibility for the safety of residents and their property, in such dangerous periods.

As a large Council area subject to bushfire threat every summer, Ku-ring-gai Council needs to identify, designate and maintain Neighbourhood Safer Places or NSPs in those areas subject of bushfire intrusion. I recall in the 1994 bushfires in St Ives as a Councillor then, I was asked to open Toolang Road Oval, St Ives for local residents' cars threatened by fire to their homes below the National Park along the bushfire rim, but the Council's staff refused to unlock the gates. Yet there are still no NSPs in North St Ives, along Warrimoo Avenue, for instance.

Since 2009 as a result of the tragic Victorian Bushfires, the NSW Rural Fire Service has implemented "places of last resort" or NSPs as described in the background information under separate cover, in many NSW Councils including Hornsby, Willoughby and Lane Cove Council areas. Ku-ring-gai has been added and a list of sites are included in the Councillors Additional Agenda Information but are not considered to be comprehensive enough.

Designated NSP areas must meet the NSW Rural Fire Service's radiant heat criteria especially in high risk areas on the outskirts of large metropolitan areas such as Sydney and I believe from past experience as already mentioned, Ku-ring-gai too should ensure all its affected bushfire prone areas have accessible NSPs.

I move:

"That Ku-ring-gai Council seek a review with the NSW Rural Fire Service's 'Neighbourhood Safer Places' program to assess whether any further accessible sites may be nominated from those already designated and reported back to Council."

RECOMMENDATION

That the above Notice of Motion, as amended, be adopted.

Cr Tony Hall
Councillor for St Ives Ward

Attachments: Background information circulated under separate cover:
Ku-ring-gai NSPs - 2010/189858

Ku-ring-gai NSPs

See the below table for the designated NSP locations in your local government area. These NSP locations have been subject to a validation process and have been deemed acceptable as a *place of last resort*.

Please note that the NSW Rural Fire Service has not yet received NSP locations for all local government areas of NSW. In addition, some recommended NSP locations will require further investigation to confirm that they are suitable as place of shelter to be used as a *place of last resort* during a bush fire emergency.

The NSW Rural Fire Service will continue to update the NSP locations as new data is received and validated. You should return to this site regularly for updates on the progress of the NSP program and to find a NSP close to you.

Remember to complete your [Bush Fire Survival Plan](#) to ensure that you and your family are prepared and know what to do in the event of a bush fire. If there is a suitable NSP nearby your home, you should note it in your Bush Fire Survival Plan. However, the NSP should only be considered as a place of last resort during a bush fire emergency.

See the below table for the designated NSP locations in your local government area.

| Title | Type | Location | LGA |
|--------------------------|------------|---------------------------------------|-------------|
| Claude Cameron Grove | Open Space | Westbrook Ave & Kintore St, Wahroonga | Ku-ring-gai |
| Turramurra Memorial Park | Open Space | Karuah Rd, Turramurra | Ku-ring-gai |
| Kent Oval | Open Space | 3 Kent Rd, North Turramurra | Ku-ring-gai |
| Hassell Park | Open Space | Palm St & Mona Vale Rd, St Ives | Ku-ring-gai |
| Bannockburn Oval | Open Space | Bannockburn Rd, Pymble | Ku-ring-gai |
| Regimental Park | Open Space | 20 Lorne Ave, Killara | Ku-ring-gai |
| Roseville Park | Open Space | 60A Clanville Rd, Roseville | Ku-ring-gai |
| Gillespie Field | Open Space | Bangalla St, Warrawee | Ku-ring-gai |

These NSP locations have been subject to a validation process and have been deemed acceptable as a *place of last resort*.

Please note that the NSW Rural Fire Service has not yet received NSP locations for all local government areas of NSW. In addition, some recommended NSP locations will require further investigation to confirm that they are suitable as place of shelter to be used as a *place of last resort* during a bush fire emergency.

The NSW Rural Fire Service will continue to update the NSP locations as new data is received and validated. You should return to this site regularly for updates on the progress of the NSP program and to find a NSP close to you.

Remember to complete your [Bush Fire Survival Plan](#) to ensure that you and your family are prepared and know what to do in the event of a bush fire. If there is a suitable NSP nearby your home, you should note it in your Bush Fire Survival Plan. However, the NSP should only be considered as a place of last resort during a bush fire emergency.

NOTICE OF MOTION

ALCOHOL FREE ZONES - LINDFIELD LIBRARY & QUEEN ELIZABETH OVAL SITES

Notice of Motion from Councillor Cheryl Szatow dated 13 October 2010

I move:

1. That Council resolve to declare the Lindfield Library site an alcohol free zone. The area to be the external area of KOPWA, the Library, KYDS, the tennis courts and their surrounds and the Seniors Community Centre.
2. That a report be submitted regarding the prohibition of alcohol at Queen Elizabeth Oval site in West Lindfield.
3. That the Police be informed of Council's resolution and seek their support for the policing of the proposed new Alcohol Free Zones with regard to No.1 above.

RECOMMENDATION

That the above Notice of Motion, as amended, be adopted.

Cheryl Szatow
Councillor for Gordon Ward

NOTICE OF MOTION

FORMATION OF BUDGET REVIEW WORKING GROUP

Notice of Motion from Councillor Rakesh Duncombe dated 22 October 2010

I move:

- A. That a Budget Review Working Group be established.
- B. That the composition of the Budget Review Working Group be a chair person, one Councillor from each Ward, General Manager, Directors and Manager Finance.
- C. That Council elect a Chairperson of the Group.
- D. That the first meeting of the Budget Review Working Group be conducted after 18 November 2010 but before close of 2010 Council's meeting cycle.
- E. That a charter for the Budget Review Working Group be developed and presented to the first meeting of the Group for adoption.
- F. That non-elected Councillors can attend meetings as observers or alternate.

RECOMMENDATION

That the above Notice of Motion, as amended, be adopted.

Rakesh Duncombe
Councillor for Roseville Ward

NOTICE OF MOTION

COUNCIL POLICY ON SPORTING PROJECTS REQUIRING COUNCIL FUNDING

Notice of Motion from Councillor Tony Hall dated 1 November 2010

Council is from time to time approached by organisations having specific interests in various sporting pursuits to provide new facilities and /or enhance the facilities currently in existence. While these facilities may be desirable, especially for the persons following that pursuit, the provision of scarce Council funds must be assessed vis a vis the competing demands of other interested groups, and Council obligations for the majority of its ratepayers, especially the aged who constitute a significant group with needs which are currently not met, but who are not as vocal and active in their request for funding.

As a consequence, all sporting projects requests for funding should meet commercial evaluation criteria, which are Return on Investment (ROI) AND Payback Period. This would mean that any sporting project proposed must demonstrate in its proposal a Business Plan which accurately estimates the Total Capital Cost in Present Value terms, Capital Cost per period (if extended payment is involved), Expected Council Funding required, Expected Gross Revenue per period, Expected Expenditures per period, and Surplus per period – with a consolidated evaluation of the recovery of all Capital Costs over a nominated period, which should not be greater than 15 years. The provision of non-cost Council land should be valued at current market prices for comparable surrounding land and/or its alternative use. Any deficit in the evaluation in both the Capital Cost and/or the Annual Surplus must be met by the proposing organisation.

As a concerned Councillor I seek to apply this policy proposal to the current Expressions of Interest (EOI) tender for the West Pymble Aquatic Centre construction, which closes on 9 November 2010, see attachments under separate cover.

I move:

"All proposals for new Sporting Facilities and/or enhancements requiring public tender must be assessed under Commercial Criteria as to Rate of Return and Payback Period of Capital provided by Council. If a proposal does not meet the required criteria, the proposers will be asked to provide the deficiency in Capital and/or running costs so as to provide the Council's criteria of Rate of Return and Payback Period. If this is not provided then the proposal may be rejected."

RECOMMENDATION

That the above Notice of Motion, as amended, be adopted.

Cr Tony Hall
Councillor for St Ives Ward

Attachments: **Background information circulated separately:**
1. SMH Article - 2010/206344
2. Council Resolution, Minute No 235 of 10 August 2010 - 2010/152569

CLIENT PROOF**Leonard Holt Robb****ph: (02) 9698 5266 fax: (02) 9699 2433**

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Ku-ring-gai Council**Expression of Interest****Construction of West Pymble Pool Indoor Aquatic Centre**

Ku-ring-gai Council invites Expressions of Interest (EOI) to construct West Pymble Pool, associated buildings and facilities. This EOI may lead to a selective tender. However, Council reserves the right not to accept any EOI.

Electronic copies of the EOI document may be purchased for \$55 by contacting Carolyn Love via email clove@kmc.nsw.gov.au.

Expressions of Interest close: Tuesday November 9 at 2.30pm

Expressions of Interest must be lodged as specified in the EOI documentation.

Please note that the canvassing of Councillors in relation to this matter will automatically disqualify the applicant from this process.

Further information: Manager Strategic Projects, Ian Dreghorn on 9424 0604 or ldreghorn@kmc.nsw.gov.au.

John McKee, General Manager

RESOLUTION OF ORDINARY MEETING OF COUNCIL

10 AUGUST 2010

235

West Pymble Pool Tender

File: S08277/3

To advise Council of the outcome of the recent public notification in accordance with Section 47 of the Local Government Act, 1993 and to advise Council of the tenders received for the management of West Pymble Pool.

Resolved:

(Moved: Councillors Szatow/Keays)

- A. That Council note the outcomes of the Section 47 notification for West Pymble Pool.
- B. That Council resolve to not accept any tender for the Management of West Pymble Pool.
- C. That Council seek written quotes to manage the existing pool on behalf of Council for the 2010-2011 swim season.
- D. That Council approve the calling of public tenders for the construction of West Pymble Pool.

*For the Resolution: The Mayor, Councillor I Cross, Councillors
Holland, Malicki, Keays, Szatow, Duncombe, Hall,
Hardwick & McDonald*

Against the Resolution: Councillor Anderson